# IR Programmer 

## Instruction Manual

V232 (December 2023)


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## 1. External Illustrations



1. Infrared sensors
2. LCD screen
3. " "" button
4. " $\downarrow$ " button
5. BACK button
6. " $\rightarrow$ " button
7. READ button
8. WRITE button
9. Programming port
10. Mini USB Port (for firmware update)
11. I-Chip port
12. I-Chip programming board connector
13. Connector to programming port
14. Connector to I-Chip programming board
(TX \& RX) $\rightarrow \quad$ Programming for both transmitter and receiver
(TX) $\quad \rightarrow \quad$ Programming for transmitter only
(RX) $\quad \rightarrow \quad$ Programming for receiver only

## 2. Power On/Off the Unit

1) Nothing is shown on the LCD screen when power is off.

Power off

2) Press the " $\rightarrow$ " button to power on the unit.

Power off


Power on

```
> E X
                                    EX2
                                    2 J X
                                    M IN I
```

3) Press the BACK button at type model main screen to power off the unit.

Power on

| $>$ EX |
| :--- |
| EX2 |
| 2 JX |
| MINI |

Power off

4) The unit will power off after 10 minutes of inactivity.
5) Change battery immediately when the LCD backlights flash repeatedly.

## 3. Model Selection

| $>$ EX |
| :--- |
| EX2 |
| 2JX |
| MINI |

>EC0/HANDY
EPH
EPV
2 JB

At type model main screen use the " $\uparrow$ " and " $\downarrow$ " buttons to scroll between models. Press " $\rightarrow$ " button to enter the selected type model (cursor shown next to the type model). To deselect the type model after entering press the BACK button until the type model main screen is shown again. Press the BACK button again to turn off the programmer.

## 4. Flex EX Models

### 4.1 Program I-Chip

When entering the Flex EX models the first selection shown on the screen is "Program I-Chip". Use the " $\uparrow$ " and " $\downarrow$ " buttons to scroll through various Flex EX settings or press " $\rightarrow$ " button to enter "Program I-Chip". Make sure the IChip is connected to the programmer.


1) Press " $\rightarrow$ " button to erase I-Chip information, press " $\rightarrow$ " button again to execute. "ERASE OK" is shown on the screen when completed.
2) Press READ button to store the I-Chip information into the programmer. If the screen shows "READ OK" the transfer is completed.
3) Press WRITE button to transfer the stored I-Chip information into a new I-Chip. If the screen shows "WRITE OK" the transfer is completed.
4) Exit Program I-Chip by pressing the BACK button until the cursor is shown next to "PROGRAM".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX settings.

### 4.2 Program Serial Number (TX \& RX)

1) Make sure the l-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter Serial Number setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change serial number as a whole or...
4) Press " $\rightarrow$ " button to go to the $1^{\text {st }}$ digit on the far left of the serial number.
5) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
6) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 5.
7) Press BACK button to go back to step 3 or 4 .
8) Exit Program Serial Number by pressing the BACK button until the cursor is shown next to "S/N".
9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX settings.

When finished, take out the I-Chip and insert it onto the I-Chip programming port located on the decoder module to transfer the new serial number from the l-Chip to the receiver. Make sure JP6 jumper is inserted when transferring I-Chip information into the receiver.

### 4.3 Program System Type (TX \& RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter System Type setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change system type as a whole or...
4) Press " $\rightarrow$ " button to go to the digit on the left.
5) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
6) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 5.
7) Press BACK button to go back to step 3 or 4 .
8) Exit Program System Type by pressing the BACK button until the cursor is shown next to "TYPE".
9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX settings.

When finished, take out the I-Chip and insert it onto the I-Chip programming port located on the decoder module to transfer the new system type from the I-Chip to the receiver. Make sure JP6 jumper is inserted when transferring l-Chip information into the receiver.

### 4.4 Program System Frequency Range (TX)

1) Make sure the l-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter System Frequency Range setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change frequency range.
4) Exit Program System Frequency Range by pressing the BACK button until the cursor is shown next to "FREQ".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX settings.

When changing the frequency range table in I-Chip, make sure the transmitting and receiving RF boards are also changed accordingly.

### 4.5 Program System Channel (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter System Channel setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change system channel as a whole or...
4) Press " $\rightarrow$ " button to go to the digit on the left.
5) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
6) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 5
7) Press BACK button to go back to step 3 or 4 .
8) Exit Program System Channel by pressing the BACK button until the cursor is shown next to "CHANNEL".
9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX settings.

### 4.6 Program RF Power (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter RF Power setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change RF power ( $0.01 \sim 10 \mathrm{~mW}$ ).
4) Exit Program RF Power by pressing the BACK button until the cursor is shown next to "RFpower".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX settings.

### 4.7 Program Transmitter Inactivity Timer (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter Transmitting Timer setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to select __M, __S or ON (constant ON).
4) When Minutes or Seconds is selected, press " $\rightarrow$ " button to go to the first digit on the left and press " $\uparrow$ " and " $\downarrow$ " button to select numeric value.
5) Press " $\rightarrow$ " button to go the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select numeric value.
6) Press " $\rightarrow$ " button again to go to the next column to select " $M$ " for minutes and " $S$ " for seconds. Press " $\uparrow$ " and " $\downarrow$ " button to select.
7) Press BACK button to go back to step 3 or 4 .
8) Exit Program Transmitter Timer by pressing the BACK button until the cursor is shown next to "TX TIMER".
9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX settings.

### 4.8 Program Password (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter Password setting.
3) Press " $\rightarrow$ " button to go to the $1^{\text {st }}$ digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 3 .
7) Exit Program Password by pressing the BACK button until the cursor is shown next to "PASS WORD".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX settings.

Only PB1 through PB4 are used when using the password function. Numeric value " 1 " represents PB1, "2" represents PB2, " 3 " represents PB3 and "4" represents PB4.

Setting "1111" $\rightarrow$ Password function disabled (manufacture preset)


### 4.9 Program Pushbutton Functions (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter Pushbutton Functions setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change pushbutton function as a whole or...
4) Press " $\rightarrow$ " button to go to the digit on the far left.
5) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
6) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 5.
7) Press BACK button to go back to step 3 or 4 .
8) Exit Program Pushbutton Functions by pressing the BACK button until the cursor is shown next to "PB FUNC".
9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX settings.

The transmitter pushbutton function table on Section 13 Part-A illustrates which numeric value corresponds to which pushbutton function.

### 4.10 Program Function Relay / K26 Relay (RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter Function Relay setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
4) Exit Program Function Relay by pressing the BACK button until the cursor is shown next to "FUNC RLY".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX settings.


When finished, take out the I-Chip and insert it onto the I-Chip programming port located on the decoder module to transfer the new setting from the l-Chip to the receiver. Make sure JP6 jumper is inserted when transferring l-Chip information into the receiver.

### 4.11 Program Brake Functions (RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter Brake Function setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
4) Exit Program Brake Functions by pressing the BACK button until the cursor is shown next to "BRAKE".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX settings.

| DEMAG 1 | When releasing pushbutton from $2^{\text {nd }}$ speed up to $1^{\text {st }}$ speed, the $1^{\text {st }}$ speed output relay will open for up to 1.0 second and then closes again. |
| :---: | :---: |
| DEMAG 2 | When pushbutton is pressed down to $2^{\text {nd }}$ speed directly from 0 speed, the $1^{\text {st }}$ speed output relay will maintain closure for up to 0.4 second before $2^{\text {nd }}$ speed output relay closes. When pushbutton is released from $2^{\text {nd }}$ speed up to 0 speed, the $1^{\text {st }}$ speed output relay will maintain closure for up to 0.5 second before going to 0 speed. |
| DEMAG 3 | When releasing pushbutton from $2^{\text {nd }}$ speed up to $1^{\text {st }}$ speed, both $1^{\text {st }}$ and $2^{\text {nd }}$ speed output relays are opened. Release pushbutton to 0 speed and then press down to $1^{\text {st }}$ speed to reengage the $1^{\text {st }}$ speed output relay. |
| P\&H | When releasing pushbutton from $2^{\text {nd }}$ speed up to 0 speed, the $1^{\text {st }}$ speed output relay will maintain closure for up to 0.1 second before going to 0 speed. |

When finished, take out the I-Chip and insert it onto the I-Chip programming port located on the decoder module to transfer the new Brake setting from the I-Chip to the receiver. Make sure JP6 jumper is inserted when transferring l-Chip information into the receiver.

## 5. Flex EX2 Models

### 5.1 Program IR

### 5.1.1 Transmitter

1) Rotate the power switch key to OFF ( 0 ) position.
2) With the STOP button elevated, press and hold PB1 and PB3 at the same time (READ not required).
3) Rotate the power switch key to ON (I) position.
4) Release PB1 and PB3 at the same time. The transmitter Status LED displays firmware version with red, green and
 orange blinks.
5) Press READ button to transfer transmitter info into the IR programmer. If the screen shows "READ OK" the transfer is completed.
6) Browse through list of settings by pressing " $\uparrow$ " and " $\downarrow$ " buttons.
7) Press WRITE button to transfer the new settings into the transmitter (transmitter Status LED constant orange). If the screen shows "WRITE OK" the transfer is completed (transmitter Status LED constant green for up to 2 seconds).
8) Exit Program IR by pressing the BACK button until the cursor is shown next to "PROGRAM".
9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other
 Flex EX2 settings.

### 5.1.2 Receiver

1) Power on the receiver with MAIN relays deactivated (standby mode).
2) Press READ button to transfer receiver info into the IR programmer. If the screen shows "READ OK" the transfer is completed.
3) Browse through list of settings by pressing " $\uparrow$ " and " $\downarrow$ " buttons.
4) Press WRITE button to transfer the new settings into the receiver (receiver Status LED constant orange). If the screen shows "WRITE OK" the transfer is completed (receiver Status LED blinks green - standby mode).
5) Exit Program IR by pressing the BACK button
 until the cursor is shown next to "PROGRAM".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

### 5.2 Program Serial Number (TX \& RX)

1) Press " $\rightarrow$ " button to enter Serial Number setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change serial number as a whole or...
3) Press " $\rightarrow$ " button to go to the $1^{\text {st }}$ digit on the far left of the serial number.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program Serial Number by pressing the BACK button until the cursor is shown next to " $\mathrm{S} / \mathrm{N}$ ".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

### 5.3 Program System Type (TX \& RX)

1) Press " $\rightarrow$ " button to enter System Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change system type as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program System Type by pressing the BACK button until the cursor is shown next to "TYPE".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

### 5.4 Program T-Type Functions (TX \& RX)

1) Press " $\rightarrow$ " button to enter T-Type Functions setting.
2) Press " " " and " $\downarrow$ " button to change type number.
3) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select "LOCK" for all Select buttons interlocked and "UNLOCK" for all Select buttons non-interlocked.
4) Exit Program T-Type Functions by pressing the BACK button until the cursor is shown next to "T-TYPE".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

### 5.5 Program System Frequency Range (TX \& RX)

1) Press " $\rightarrow$ " button to enter Frequency Range setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change frequency range.
3) Exit Program System Frequency Range by pressing the BACK button until the cursor is shown next to "FREQ".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

### 5.6 Program System Channel (TX \& RX)

1) Press " $\rightarrow$ " button to enter System Channel setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select channel number setting (assigned channel scheme) or UNASSIGN (unassigned channel scheme).
3) To program channel number, press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the digit on the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program System Channel by pressing the BACK button until the cursor is shown next to "CHANNEL".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

### 5.7 Program RF Power (TX)

1) Press " $\rightarrow$ " button to enter RF Power setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change RF power ( $0.01 \mathrm{~mW} \sim 25 \mathrm{~mW}$ ).
3) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to enable or disable RF power adjustment via transmitter dipswitch.
4) Exit Program RF Power by pressing the BACK button until the cursor is shown next to "RFpower".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

### 5.8 Program Pushbutton Functions (TX)

1) Press " $\rightarrow$ " button to enter Pushbutton Functions setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change pushbutton function as a whole or..
3) Press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program Pushbutton Functions by pressing the BACK button until the cursor is shown next to "PB FUNC".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

The transmitter pushbutton function table on Section 13 Part-B illustrates which numeric value corresponds to which pushbutton function.

### 5.9 Program Left Rotary Switch Functions (TX)

1) Press " $\rightarrow$ " button to enter Left Rotary Switch Functions setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select $A / O f f / B, A / B / A+B, A / A+B / B$ or $A / B / C$ rotary switch sequence.
3) Exit Program Rotary Switch Functions by pressing the BACK button until the cursor is shown next to "SW-L FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

### 5.10 Program Right Rotary Switch Functions (TX)

1) Press " $\rightarrow$ " button to enter Left Rotary Switch Functions setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select $A / O f f / B, A / B / A+B, A / A+B / B$ or $A / B / C$ rotary switch sequence.
3) Exit Program Rotary Switch Functions by pressing the BACK button until the cursor is shown next to "SW-R FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

### 5.11 Program Transmitter Inactivity Timer (TX)

1) Press " $\rightarrow$ " button to enter Transmitting Timer setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select "_M" for minutes/seconds or "ON" for constant on.
3) When "ON" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select "+START" or "+ANY".
4) When "_M" is selected, press " $\rightarrow$ " button to go to the digit on the left and press " $\uparrow$ " and " $\downarrow$ " button to select value. Press " $\rightarrow$ " button again to go to the next digit and press " $\uparrow$ " and " $\downarrow$ " button to select value.
5) Press " $\rightarrow$ " button again to select " $M$ " for minutes or " $S$ " for seconds. Press " $\uparrow$ " and " $\downarrow$ " button to select.
6) Press " $\rightarrow$ " button again to select "+START" or " + ANY" selection. Press " $\uparrow$ " and " $\downarrow$ " button to select.
7) Exit Program Transmitter Timer by pressing the BACK button until the cursor is shown next to "TX TIMER".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

Transmitter inactivity timer is for setting receiver main relays cutoff time when the transmitter is not in operation for a certain period of time. When set to 5 minutes (05M), the receiver main relays are deactivated at 5.0 minutes after last transmitter operation.

Select "ON" means the receiver main relays are activated at all time unless the STOP button is pressed down, transmitter power off, or receiver power turned off (inactivity timer disabled).

Select "+START" means after 5 minutes of transmitter inactivity you must execute the START command to continue operation. Select "+ANY" means after 5 minutes of transmitter inactivity, press any pushbutton to continue operation.

### 5.12 Program LED1 Feedback Function (TX)

1) Press " $\rightarrow$ " button to enter LED1 Feedback Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select Off, Input number or Output number.
3) When "Input" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select input number that the external source is connected to (IN1~IN4).
4) When "Output" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select which output relay to feedback to LED1 (K1 ~ K24).
5) Select "Off" if no feedback is required.
6) Exit Program LED1 Feedback Function by pressing the BACK button until the cursor is shown next to "LED1".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

### 5.13 Program LED2 Feedback Function (TX)

1) Press " $\rightarrow$ " button to enter LED2 Feedback Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select Off, Input number or Output number.
3) When "Input" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select input number that the external source is connected to (IN1 ~ IN4).
4) When "Output" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select which output relay to feedback to LED2 (K1 ~ K24).
5) Select "Off" if no feedback is required.
6) Exit Program LED2 Feedback Function by pressing the BACK button until the cursor is shown next to "LED2".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

### 5.14 Program LED3 Feedback Function (TX)

1) Press " $\rightarrow$ " button to enter LED3 Feedback Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select Off, Input number or Output number.
3) When "Input" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select input number that the external source is connected to (IN1~IN4).
4) When "Output" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select which output relay to feedback to LED3 (K1 ~ K24).
5) Select "Off" if no feedback is required.
6) Exit Program LED3 Feedback Function by pressing the BACK button until the cursor is shown next to "LED3".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

### 5.15 Program LED4 Feedback Function (TX)

1) Press " $\rightarrow$ " button to enter LED4 Feedback Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select Off, Input number or Output number.
3) When "Input" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select input number that the external source is connected to (IN1~ IN4).
4) When "Output" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select which output relay to feedback to LED4 (K1~K24).
5) Select "Off" if no feedback is required.
6) Exit Program LED4 Feedback Function by pressing the BACK button until the cursor is shown next to "LED4".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

### 5.16 Program Infrared START Function (TX)

1) Press " $\rightarrow$ " button to enter Infrared Start Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select Off or IRS.

Select "OFF" to disable infrared START function.
Select "IRS" to enable infrared START function.
3) Exit Program Infrared START Function by pressing the BACK button until the cursor is shown next to "IR Mode".
4) Press " $\downarrow$ " button to go to the next Infrared START setting.

### 5.17 Program Infrared START ID Code (TX)

1) Press " $\rightarrow$ " button to enter Infrared START ID code setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to set the 3 -digit ID code as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press "BACK" button to go back to step 2.

Make sure the infrared module on crane is set to same ID code as the transmitter.
Select "000" disables the ID code function hence any types of infrared modules can be used.
7) Exit Program Infrared START ID Code by pressing the BACK button until the cursor is shown next to "IR ID".
8) Press " $\downarrow$ " button to go to the next Infrared START setting.

### 5.18 Program IRS Time Out (TX)

1) Press " $\rightarrow$ " button to enter IRS Time Out setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select IRS Off or IRS On.

Select "IRS On" if infrared START is required after every transmitter timeout.
Select "IRS Off" if infrared START is not required after every transmitter timeout.
3) Exit Program IRS Time Out by pressing the BACK button until the cursor is shown next to "IRS FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

### 5.19 Program DEADMAN PB Function (TX)

1) Press " $\rightarrow$ " button to enter DEADMAN PB Function setting.
2) Press " $\rightarrow$ " and then " $\uparrow$ " and " $\downarrow$ " button to select which button or switch to be used as DEADMAN function (OFF, START, PB1... PB12).
3) Press BACK and then " $\downarrow$ " button to select which button or buttons require pressing the DEADMAN button in order to work.
4) Press " $\rightarrow$ " to enter for PB1~PB7 setting. Press " $\rightarrow$ " button again to select which button to program. Press " $\uparrow$ " or " $\downarrow$ " button to assign. Shaded background means the assigned button works only when the DEADMAN button is pressed down.
5) Press BACK button and then " $\downarrow$ " buttons to program PB8~PB12. Press $" \rightarrow$ " button to enter. Repeat step 4 above to assign.
6) Exit DEADMAN PB Function by pressing the BACK button until the cursor is shown next to "DEADMAN".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

### 5.20 Program PB Reset Function (TX)

1) Press " $\rightarrow$ " button to enter PB Reset Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select OFF, 1S... 60S (seconds).
3) Exit PB Reset Function by pressing the BACK button until the cursor is shown next to "PB RESET".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

Require pressing the motion pushbutton twice in order to activate the designated output.
Example: When set to 60 S ( 60 seconds), pressing the motion pushbutton twice is required after transmitter is inactive for 60 seconds. Pressing it once will not activate the designated output.

### 5.21 Program All PB Interlocked (TX)

1) Press " $\rightarrow$ " button to enter All PB Interlocked setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select YES or NO.
3) Exit All PB Interlocked by pressing the BACK button until the cursor is shown next to "ALL PB INTERLOCKED".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

### 5.22 Program PB Delay Function (TX)

1) Press " $\rightarrow$ " button to enter PB Delay Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between OUT, TIME and PB number.

OUT Setting: Select output relay delay time.

1) Press " $\rightarrow$ " button to enter output relay delay setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select from 0.1 second to 1.5 seconds.

Example: When set to 1.0 second, the output relay activates 1.0 second after PB1 is pressed.
TIME Setting: Select the time interval requiring the output relay delay.

1) Press " $\rightarrow$ " button to enter timer setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select from 0 second to 5.0 seconds.

Example: When set to 2 seconds, no output relay delay when pressing PB2 two seconds after releasing PB1.

PB Setting: Select which pushbutton pair requires output relay delay.

1) Press " $\rightarrow$ " button to go to the 2-digit value on the far left for PB1 and PB2.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select or deselect. Shaded background means PB1 and PB2 are selected with the output relay delay function.
3) Press " $\rightarrow$ " button to go to the next 2-digit value for PB3 and PB4 and repeat step 2 above.
4) Press " $\rightarrow$ " button to go to the next 2-digit value for PB5 and PB6 and repeat step 2 above.
5) Press " $\rightarrow$ " button to go to the next 2-digit value for PB7 and PB8 and repeat step 2 above.
6) Exit PB Delay Function by pressing the BACK button until the cursor is shown next to "PB DELAY".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

### 5.23 Program Channel Scanning (RX)

1) Press " $\rightarrow$ " button to enter Channel Scanning setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select number of channels to scan (01~12).
3) Exit Program Channel Scanning by pressing the BACK button until the cursor is shown next to "CH SCAN".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

Note: Make sure the Channel dipswitch in receiver position 7 and 8 is set to "11" in order for this to work (refer to manual section 4.2.2.11).

### 5.24 Program Function Relay 1 / K25 Relay (RX)

1) Press " $\rightarrow$ " button to enter Function Relay 1 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Relay 1 by pressing the BACK button until the cursor is shown next to "FUNC RLY1".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

| --- | According to receiver dipswitch setting. |
| :---: | :---: |
| LV | Function relay closes when receiver voltage is low. |
| ID | Function relay works simultaneously with all motion commands. |
| NORMAL | START function + AUX with normal momentary output. Works the $2^{\text {nd }}$ time rotate to the START position. |
| NORMAL 2 | START function + AUX with normal momentary output. Works the $1^{\text {st }}$ time rotate to the START position. |
| TOGGLE | START function + AUX with toggled/latching output. |
| TOG\&E | START function + AUX with toggled/latching output. The relay opens when STOP button is pressed down and transmitter power off. |
| S/P | FUNCTION relay closes when START command is executed and opens only when transmitter power is turned off. |
| EXT | FUNCTION relay works simultaneously with the receiver MAIN relays. |
| TDM A + B | FUNCTION relay closes when selector switch is rotated to the $A+B$ position and opens when rotate to A or B positions (tandem monitoring output). |
| HORN | FUNCTION relay closes for up to 3 seconds when START command is initiated at transmitter power on and then becomes normal momentary outputs thereafter. |
| G SENSOR | FUNCTION relay closes when Zero-G sensor is triggered (receiver MAIN relays deactivated) and opens when receiver MAIN relays are reactivated. |
| TANDEM C | FUNCTION relay closes when tandem receiver C is selected or activated. |
| RESET | FUNCTION relay closes when rotate to START position and opens when let go. Works during initial transmitter startup and inactivity timer START reset. |
| SW8 ABC | FUNCTION relay closes at C position (for pushbutton and rotary select ABC function) |
| SW12 ABC | FUNCTION relay closes at C position (for pushbutton and rotary select ABC function). |

### 5.25 Program Function Relay 2 / K26 Relay (RX)

1) Press " $\rightarrow$ " button to enter Function Relay 2 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Relay 2 by pressing the BACK button until the cursor is shown next to "FUNC RLY2".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

| --- | According to receiver dipswitch setting. |
| :---: | :---: |
| LV | Function relay closes when receiver voltage is low. |
| ID | Function relay works simultaneously with all motion commands. |
| NORMAL | START function + AUX with normal momentary output. Works the $2^{\text {nd }}$ time rotate to the START position. |
| NORMAL 2 | START function + AUX with normal momentary output. Works the $1^{\text {st }}$ time rotate to the START position. |
| TOGGLE | START function + AUX with toggled/latching output. |
| TOG\&E | START function + AUX with toggled/latching output. The relay opens when STOP button is pressed down and transmitter power off. |
| S/P | FUNCTION relay closes when START command is executed and opens only when transmitter power is turned off. |
| EXT | FUNCTION relay works simultaneously with the receiver MAIN relays. |
| TDM A + B | FUNCTION relay closes when selector switch is rotated to the $A+B$ position and opens when rotate to A or B positions (tandem monitoring output). |
| HORN | FUNCTION relay closes for up to 3 seconds when START command is initiated at transmitter power on and then becomes normal momentary outputs thereafter. |
| G SENSOR | FUNCTION relay closes when Zero-G sensor is triggered (receiver MAIN relays deactivated) and opens when receiver MAIN relays are reactivated. |
| TANDEM C | FUNCTION relay closes when tandem receiver C is selected or activated. |
| RESET | FUNCTION relay closes when rotate to START position and opens when let go. Works during initial transmitter startup and inactivity timer START reset. |
| SW8 ABC | FUNCTION relay closes at C position (for pushbutton and rotary select ABC function). |
| SW12 ABC | FUNCTION relay closes at C position (for pushbutton and rotary select ABC function) |

### 5.26 Program Function Relay 3 / K30 Relay (RX)

1) Press " $\rightarrow$ " button to enter Function Relay 3 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Relay 3 by pressing the BACK button until the cursor is shown next to "FUNC RLY3".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.


### 5.27 Program Brake Functions (RX)

1) Press " $\rightarrow$ " button to enter Brake Functions setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Brake Functions by pressing the BACK button until the cursor is shown next to "BRAKE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

| DEMAG 1 | When releasing pushbutton from $2^{\text {nd }}$ speed up to $1^{\text {st }}$ speed, the $1^{\text {st }}$ speed output relay will open for up to 1.0 second and then closes again. |
| :---: | :---: |
| DEMAG 2 | When pushbutton is pressed down to $2^{\text {nd }}$ speed directly from 0 speed, the $1^{\text {st }}$ speed output relay will maintain closure for up to 0.4 second before $2^{\text {nd }}$ speed output relay closes. When pushbutton is released from $2^{\text {nd }}$ speed up to 0 speed, the $1^{\text {st }}$ speed output relay will maintain closure for up to 0.5 second before going to 0 speed. |
| DEMAG 3 | When releasing pushbutton from $2^{\text {nd }}$ speed up to $1^{\text {st }}$ speed, both $1^{\text {st }}$ and $2^{\text {nd }}$ speed output relays are opened. Release pushbutton to 0 speed and then press down to $1^{\text {st }}$ speed to reengage the $1^{\text {st }}$ speed output relay. |
| P\&H | When releasing pushbutton from $2^{\text {nd }}$ speed up to 0 speed, the $1^{\text {st }}$ speed output relay will maintain closure for up to 0.1 second before going to 0 speed. |

### 5.28 Program MRX Micro Receiver PB type (MRX)

1) Press " $\rightarrow$ " button 2 times to enter MRX Receiver PB Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select. PB1~4 setting means the receiver corresponds to PB1~PB4 on the transmitter. PB5~8 means the receiver corresponds to PB5~PB8 on the transmitter. PB9~12 means the receiver corresponds to PB9~PB12 on the transmitter. Inline means the PB number is counted from top to bottom instead of right to left.
3) Exit Program MRX Receiver PB Type by pressing the BACK button until the cursor is shown next to "MICRO RX".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

### 5.29 Program Function Relay 1 (K10 and CN5) (MRX)

1) Press " $\rightarrow$ " button to enter Function Relay 1 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Relay 1 by pressing the BACK button until the cursor is shown next to "FUNC RLY1".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EX2 settings.

| ---- | $:$ | According to receiver dipswitch setting. |
| :---: | :--- | :--- |
| LV | $:$ | Function relay closes when receiver voltage is low. |
| ID | $:$ | Function relay works simultaneously with all motion commands. |

## 6. Flex 2JX Models

### 6.1 Program I-Chip

When entering the 2 JX model the first selection shown on the screen is "Program I-Chip" or "Program IR". Use the " $\uparrow$ " and " $\downarrow$ " buttons to scroll through various Flex 2JX settings or press " $\rightarrow$ " button to enter "Program IChip" or "Program IR". Then press " $\uparrow$ " and " $\downarrow$ " button to select.


## Program I-Chip:

1) Make sure the I-Chip is connected to the programmer.
2) Press READ button to store the I-Chip information into the programmer. If the screen shows "READ OK" the transfer is completed.
3) Press WRITE button to transfer the stored IChip information into the I-Chip. If the screen shows "WRITE OK" the transfer is completed.
4) Press " $\rightarrow$ " button to format the I-Chip, press $" \rightarrow$ " button again to execute. If the screen shows "FORMAT OK" the format is completed.
5) Exit I-Chip programming by pressing the BACK
 button until the cursor is shown next to "Program".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

## Program IR (infrared):

1) Make sure the transmitter is turned on.
2) Press READ button to store the transmitter info into the programmer. If the screen shows "READ OK" the transfer is completed.
3) Press WRITE button to transfer the stored info into the transmitter. If the screen shows "WRITE OK" the transfer is completed. The transmitter will restart automatically after 2 seconds.
4) Exit Program IR by pressing the BACK button until
 the cursor is shown next to "Program".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

Note: When performing infrared programming, make sure the distance between the programmer and the transmitter is within 10 cm .

### 6.2 Program Serial Number (TX \& RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter Serial Number setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change serial number as a whole or...
4) Press " $\rightarrow$ " button to go to the $1^{\text {st }}$ digit on the far left of the serial number.
5) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
6) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 5.
7) Press BACK button to go back to step 3 or 4 .
8) Exit Program Serial Number by pressing the BACK button until the cursor is shown next to " $\mathrm{S} / \mathrm{N}$ ".
9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

When finished, make sure to transfer the newly selected serial number to the receiver.

### 6.3 Program System Type (TX \& RX)

System Type is associated with functions such as tandem operation, random access operation, multi-receiver operation, etc... Please do not alter the factory settings unless authorized to do so.

### 6.4 Program System Frequency Range (TX \& RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter System Frequency Range setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change frequency range.
4) Exit Program System Frequency Range by pressing the BACK button until the cursor is shown next to "FREQ".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

When changing the frequency range table in I-Chip, make sure the transmitting and receiving RF boards are also changed accordingly.

### 6.5 Program System Channel (TX \& RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter System Channel setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change system channel as a whole or...
4) Press " $\rightarrow$ " button to go to the digit on the left.
5) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
6) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 5
7) Press BACK button to go back to step 3 or 4 .
8) Exit Program System Channel by pressing the BACK button until the cursor is shown next to "CHANNEL".
9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

When transmitter channel is changed, make sure the receiver channel is also set to the newly selected channel.

### 6.6 Program Transmitter Inactivity Timer (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter Transmitting Timer setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to select between "__M__S" and "ON". "__M represents Minutes and Seconds and "ON" represents constant ON.
4) When "__M__S" is selected, press " $\rightarrow$ " button to go to the $1^{\text {st }}$ digit on the far left and press " $\uparrow$ " and " $\downarrow$ " button to change numeric value (number $0 \sim 6)$. Then press " $\rightarrow$ " button to go to the next digit and press " $\uparrow$ " and " $\downarrow$ " button to change numeric value (number 0~9). The first 2 digits are the Minutes value (M). Repeat the same process for the Seconds value (S).
5) Press " $\rightarrow$ " button to select START button or ANY button activation after transmitter timeout or after transmitter inactivity.
6) Press " $\uparrow$ " and " $\downarrow$ " button to select.
7) Press BACK button to go back to step 3 or 4 .
8) Exit Program Transmitter Timer by pressing the BACK button until the cursor is shown next to "TX TIMER".
9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

Transmitter inactivity timer is for setting receiver main relays cutoff time when the transmitter is not in operation for a certain period of time. When set to 5 minutes (05M00S), the receiver main relays are deactivated at 5.0 minutes after last transmitter operation.

Select "ON" means the receiver main relays are activated at all time unless the e-stop button is pressed down, receiver power turned off, or when the transmitter power is switched off (inactivity time disabled).
Select "+START" means after 5 minutes of transmitter inactivity you must press the green START button to continue operation. Select "+ANY" means after 5 minutes of transmitter inactivity operate the joysticks or buttons (not switches) to continue operation.

### 6.7 Program Transmitter RF Power (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter RF Power setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change RF power ( $0.1 \mathrm{~mW} \sim 10 \mathrm{~mW}$ ).
4) Exit Program RF Power by pressing the BACK button until the cursor is shown next to "RFpower".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

### 6.8 Program Infrared (IR) Modes (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter Infrared Mode setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.

Select "OFF" to disable infrared function.
Select "IRS" to enable infrared START function.
Select "IRL" to enable infrared range limiting function.
4) Exit Program IR Mode by pressing the BACK button until the cursor is shown next to "IR Mode".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

### 6.9 Program Infrared (IR) Identification Number (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter Infrared ID setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change IR_ID as a whole or...
4) Press " $\rightarrow$ " button to go to the digit on the far left.
5) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
6) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 5.
7) Press BACK button to go back to step 3 or 4 .
8) Exit Program Infrared ID by pressing the BACK button until the cursor is shown next to "IR_ID".
9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

Make sure the infrared module on crane is set to same ID code as the transmitter.
Select "000" disables the ID code function hence any types of infrared modules can be used.

### 6.10 Program IRS Time Out Function (TX)

1) Make sure the l-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter IRS Time Out setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between IRS On and IRS Off.
4) Press " $\rightarrow$ " button to go to the digit on the far left.
5) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
6) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 5
7) Press BACK button to go back to step 3 or 4.
8) Exit Program IRS Time Out Function by pressing the BACK button until the cursor is shown next to "IRS FUNC".
9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

Select "IRS ON" if infrared START is required after every transmitter timeout.
Select "IRS OFF" if infrared START is not required after every transmitter timeout.

### 6.11 Program Tilt Function (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter Tilt setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between Off, 1.0S and 0.5S.
4) Exit Program Tilt Function by pressing the BACK button until the cursor is shown next to "TILT".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J X$ settings.

When TILT function is set to 0.5 s (more sensitive) or 1.0 s (less sensitive), the receiver mains are disconnected (opened) when the transmitter is tilted for more than 35~40 degrees. Select OFF disables the TILT function.

### 6.12 Program LX Joystick Function (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter LX Joystick setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between None, Analog, Pot (potentiometer), 1-step, 2-step, 3-step, 4-step and 5-step.
4) Exit Program LX Function by pressing the BACK button until the cursor is shown next to "LX FUNC".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

Set each joystick's number of steps and output type (analog-stepless or digital-stepped) according to the hardware installed.

### 6.13 Program LY Joystick Function (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter LY Joystick setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between None, Analog, Pot (potentiometer), 1-step, 2-step, 3-step, 4-step and 5-step.
4) Exit Program LY Function by pressing the BACK button until the cursor is shown next to "LY FUNC".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

Set each joystick's number of steps and output type (analog-stepless or digital-stepped) according to the hardware installed.

### 6.14 Program RX Joystick Function (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter RX Joystick setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between None, Analog, Pot (potentiometer), 1-step, 2-step, 3-step, 4-step and 5-step.
4) Exit Program RX Function by pressing the BACK button until the cursor is shown next to "RX FUNC".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

Set each joystick's number of steps and output type (analog-stepless or digital-stepped) according to the hardware installed.

### 6.15 Program RY Joystick Function (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter RY Joystick setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between None, Analog, Pot (potentiometer), 1-step, 2-step, 3-step, 4-step and 5-step.
4) Exit Program RY Function by pressing the BACK button until the cursor is shown next to "RY FUNC".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

Set each joystick's number of steps and output type (analog-stepless or digital-stepped) according to the hardware installed.

### 6.16 Program SW1 Function (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter SW1 setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between settings.
4) Exit Program SW1 Function by pressing the BACK button until the cursor is shown next to "SW1FUNC".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

Button: Select "NORMAL" for momentary output relay contact and "TOGGLE" for transmitter toggled output relay contact. Select " $A \rightarrow B$ " or " $0 \rightarrow A \rightarrow B$ " or " $A \rightarrow B \rightarrow A B$ " or " $0 \rightarrow A \rightarrow B \rightarrow A B$ " for Select $A / B$, off/A/B, $A / B / A B$ or off/A/B/AB output relay contacts. Select " $A \rightarrow B \rightarrow C$ " or " $0 \rightarrow A \rightarrow B \rightarrow C$ " adds the $3^{\text {rd }}$ output for Select $A / B / C$ output relay contacts (see section 6.25~6.26).
Rocker Switch: Select "NORMAL" for 2-stage On-On or 3-stage On-Off-On output relay contacts. Select "SW A $\rightarrow A B \rightarrow B$ " for Select $A / A+B / B$ output relay contacts. Select " $A \rightarrow B \rightarrow C$ " or " $0 \rightarrow \mathrm{~A} \rightarrow \mathrm{~B} \rightarrow \mathrm{C}$ " adds the $3^{\text {rd }}$ output for Select $\mathrm{A} / \mathrm{B} / \mathrm{C}$ output relay contacts (see section 6.25~6.26).
Important: If SW1 is set to one of the above settings then the SW1 output relay function in receiver must set to "NORMAL" or "ABUS" (Reversed Logic A/A+B/B).

### 6.17 Program SW2 Function (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter SW2 setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between settings.
4) Exit Program SW2 Function by pressing the BACK button until the cursor is shown next to "SW2FUNC".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

Button: Select "NORMAL" for momentary output relay contact and "TOGGLE" for transmitter toggled output relay contact. Select " $A \rightarrow B$ " or " $0 \rightarrow A \rightarrow B$ " or " $A \rightarrow B \rightarrow A B$ " or " $0 \rightarrow A \rightarrow B \rightarrow A B$ " for Select $A / B$, off/A/B, $A / B / A B$ or off/A/B/AB output relay contacts. Select " $A \rightarrow B \rightarrow C$ " or " $0 \rightarrow A \rightarrow B \rightarrow C$ " adds the $3^{\text {rd }}$ output for Select $A / B / C$ output relay contacts (see section 6.25~6.26).
Rocker Switch: Select "NORMAL" for 2-stage On-On or 3-stage On-Off-On output relay contacts. Select " $S W A \rightarrow A B \rightarrow B$ " for Select $A / A+B / B$ output relay contacts. Select " $A \rightarrow B \rightarrow C$ " or " $0 \rightarrow \mathrm{~A} \rightarrow \mathrm{~B} \rightarrow \mathrm{C}$ " adds the $3^{\text {rd }}$ output for Select $\mathrm{A} / \mathrm{B} / \mathrm{C}$ output relay contacts (see section 6.25~6.26).
Important: If SW2 is set to one of the above settings then the SW1 output relay function in receiver must set to "NORMAL" or "ABUS" (Reversed Logic A/A+B/B).

### 6.18 Program SW3 Function (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter SW3 setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between settings.
4) Exit Program SW3 Function by pressing the BACK button until the cursor is shown next to "SW3FUNC".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

Rotary Switch: Select "NORMAL" for 2-stage On-On or 3-stage On-Off-On output relay contacts. Select "SW $A \rightarrow A B \rightarrow B$ " for Select $A / A+B / B$ output relay contacts. Select " $A \rightarrow B \rightarrow C$ " or $" 0 \rightarrow A \rightarrow B \rightarrow C$ " adds the $3^{\text {rd }}$ output for Select $A / B / C$ output relay contacts (see section 6.25~6.26).
Important: If SW3 is set to one of the above settings then the SW3 output relay function in receiver must set to "NORMAL" or "ABUS" (Reversed Logic A/A $+\mathrm{B} / \mathrm{B}$ ).

### 6.19 Program SW4 Function (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter SW4 setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between settings.
4) Exit Program SW4 Function by pressing the BACK button until the cursor is shown next to "SW4FUNC".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

Button: Select "NORMAL" for momentary output relay contact and "TOGGLE" for transmitter toggled output relay contact. Select " $A \rightarrow B$ " or " $0 \rightarrow A \rightarrow B$ " or " $A \rightarrow B \rightarrow A B$ " or " $0 \rightarrow A \rightarrow B \rightarrow A B$ " for Select $A / B$, off/A/B, $A / B / A B$ or off/A/B/AB output relay contacts. Select " $A \rightarrow B \rightarrow C$ " or " $0 \rightarrow A \rightarrow B \rightarrow C$ " adds the $3^{\text {rd }}$ output for Select $A / B / C$ output relay contacts (see section 6.25~6.26).
Rocker Switch: Select "NORMAL" for 2-stage On-On or 3-stage On-Off-On output relay contacts. Select "SW A $\rightarrow A B \rightarrow B$ " for Select A/A $+B / B$ output relay contacts. Select " $A \rightarrow B \rightarrow C$ " or " $0 \rightarrow A \rightarrow B \rightarrow C$ " adds the $3^{\text {rd }}$ output for Select $A / B / C$ output relay contacts (see section 6.25~6.26).
Important: If SW4 is set to one of the above settings then the SW1 output relay function in receiver must set to "NORMAL" or "ABUS" (Reversed Logic A/A+B/B).

### 6.20 Program SW5 Function (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter SW5 setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between settings.
4) Exit Program SW5 Function by pressing the BACK button until the cursor is shown next to "SW5FUNC".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

Button: Select "NORMAL" for momentary output relay contact and "TOGGLE" for transmitter toggled output relay contact. Select " $A \rightarrow B$ " or " $0 \rightarrow A \rightarrow B$ " or " $A \rightarrow B \rightarrow A B$ " or " $0 \rightarrow A \rightarrow B \rightarrow A B$ " for Select $A / B$, off $/ A / B, A / B / A B$ or off/A/B/AB output relay contacts. Select " $A \rightarrow B \rightarrow C$ " or " $0 \rightarrow A \rightarrow B \rightarrow C$ " adds the $3^{\text {rd }}$ output for Select $A / B / C$ output relay contacts (see section $6.25 \sim 6.26$ ).
Rocker Switch: Select "NORMAL" for 2-stage On-On or 3-stage On-Off-On output relay contacts. Select "SW A $\rightarrow A B \rightarrow B$ " for Select A/A $+B / B$ output relay contacts. Select " $A \rightarrow B \rightarrow C$ " or " $0 \rightarrow A \rightarrow B \rightarrow C$ " adds the $3^{\text {rd }}$ output for Select $A / B / C$ output relay contacts (see section 6.25~6.26).
Important: If SW5 is set to one of the above settings then the SW1 output relay function in receiver must set to "NORMAL" or "ABUS" (Reversed Logic A/A+B/B).

### 6.21 Program SW6 Function (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter SW6 setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between settings.
4) Exit Program SW6 Function by pressing the BACK button until the cursor is shown next to "SW6FUNC".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

Button: Select "NORMAL" for normal momentary relay output and "TOGGLE" for transmitter toggled relay output.

### 6.22 Program SW7 Function (TX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter SW7 setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between settings.
4) Exit Program SW7 Function by pressing the BACK button until the cursor is shown next to "SW7FUNC".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

Button: Select "NORMAL" for normal momentary relay output and "TOGGLE" for transmitter toggled relay output.

### 6.23 Program Channel Scanning Function (RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter Channel Scanning setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between settings.
4) Exit Program Channel Scanning Function by pressing the BACK button until the cursor is shown next to "CH SCAN".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J X$ settings.

Select " 01 " the receiver only scans the channel set on the receiver.
Select " 02 " the receiver scans the channel set on the receiver plus the next channel up (scans channel N and channel $\mathrm{N}+1$ ).
Select " 03 " the receiver scans the channel set on the receiver plus the next two channels up (scans channel N , channel $\mathrm{N}+1$ and channel $\mathrm{N}+2$ ).

Select "04" the receiver scans the channel set on the receiver plus the next three channels up (scans channel $N$, channel $N+1$, channel $N+2$ and channel $N+3$ ).
Select "ALL" the receiver scans all 62 channels.

### 6.24 Program MAIN Relay Function (RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter MAIN Relay setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between Test and Normal.
4) Exit Program MAIN Relay Function by pressing the BACK button until the cursor is shown next to "MAIN RLY".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

Select "NORMAL" for normal operation (receiver mains and all other outputs enabled).
Select "TEST" for system testing (receiver mains disabled and all other outputs enabled).

### 6.25 Program Function Relay 1 (RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter Function Relay 1 setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between settings.
4) Exit Program Function Relay 1 by pressing the BACK button until the cursor is shown next to "FUNC RLY1".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

Select "LV" for receiver low voltage external warning output.
Select "ID" for receiver ID output (works simultaneously with all joystick motions and interlocking momentary contacts).

Select "NORMAL" the output relay becomes momentary contact when START button is pressed.
Select "TOGGLE" the output relay becomes toggled contact when START button is pressed.
Select "TOGGLE\&E" the output relay becomes toggled contact affected by the e-stop command (output relay opens when e-stop button is pressed).
Select "EXT" the output relay works simultaneously with the receiver mains.
Select "S/P" the output relay closes when the green START button is pressed and opens only when transmitter power is switched off, not e-stop pressed.
Select "TDM A+B" the output relay closes when the 3-stage tandem rotary key switch on the SW3 slot is rotated to A+B position for dual crane A+B tandem operation.
Select "SW1 1+2... SW5 1+2" the output relay closes when a 3-stage rocker switch, a 3stage rotary switch or a 3-stage $A / B / A+B$ button on SW1 ~ SW5 slot is rotated to $A+B$ position for dual hoist/trolley $A+B$ tandem operation. Only 1 switch or button can be assigned to each Function relay.
Select "HORN" the output relay closes for up to 3 seconds when the green START button is pressed after every transmitter power on and then becomes a momentary contact thereafter.

Select "SW1~5 ABC" adds the $3^{\text {rd }}$ outputs relay for button or switch $A \rightarrow B \rightarrow C$ selection (see section 6.16~6.20).

### 6.26 Program Function Relay 2 (RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter Function Relay 2 setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between settings.
4) Exit Program Function Relay 2 by pressing the BACK button until the cursor is shown next to "FUNC RLY2".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

Select "LV" for receiver low voltage external warning output.
Select "ID" for receiver ID output (works simultaneously with all joystick motions and interlocking momentary contacts).

Select "NORMAL" the output relay becomes momentary contact when START button is pressed.
Select "TOGGLE" the output relay becomes toggled contact when START button is pressed.
Select "TOGGLE\&E" the output relay becomes toggled contact affected by the e-stop command (output relay opens when e-stop button is pressed).

Select "EXT" the output relay works simultaneously with the receiver mains.
Select "S/P" the output relay closes when the green START button is pressed and opens only when transmitter power is switched off, not e-stop pressed.
Select "TDM A+B" the output relay closes when the 3-stage tandem rotary key switch on the SW3 slot is rotated to A+B position for dual crane A+B tandem operation.
Select "SW1 1+2... SW5 1+2" the output relay closes when a 3-stage rocker switch, a 3stage rotary switch or a 3-stage $A / B / A+B$ button on SW1 ~ SW5 slot is rotated to $A+B$ position for dual hoist/trolley $A+B$ tandem operation. Only 1 switch or button can be assigned to each Function relay.
Select "HORN" the output relay closes for up to 3 seconds when the green START button is pressed after every transmitter power on and then becomes a momentary contact thereafter.

Select "SW1~5 ABC" adds the $3^{\text {rd }}$ outputs relay for button or switch $A \rightarrow B \rightarrow C$ selection (see section 6.16~6.20).

### 6.27 Program LX Output Relay (RX)

Below chart and settings are various types of shared (F/R) and separate ( $F$ or $R$ ) acceleration relay closure at $1^{\text {st }}, 2^{\text {nd }}, 3^{\text {rd }}, 4^{\text {th }}$ and $5^{\text {th }}$ steps.

| Output Relay <br> Type | $\begin{aligned} & \hline \mathbf{L Y} \\ & \mathbf{L X} \\ & \text { RY } \\ & \text { RX } \\ & \hline \end{aligned}$ | $\begin{gathered} \hline \text { K2 } \\ \text { K9 } \\ \text { K16 } \\ \text { K23 } \end{gathered}$ | $\begin{gathered} \text { K3 } \\ \text { K10 } \\ \text { K17 } \\ \text { K24 } \end{gathered}$ | K4 <br> K11 <br> K18 <br> K25 | $\begin{gathered} \text { K5 } \\ \text { K12 } \\ \text { K19 } \\ \text { K26 } \end{gathered}$ | $\begin{gathered} \hline \text { K6 } \\ \text { K13 } \\ \text { K20 } \\ \text { K27 } \end{gathered}$ | $\begin{gathered} \hline \text { K7 } \\ \text { K14 } \\ \text { K21 } \\ \text { K28 } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01 | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step <br> at $4^{\text {th }}$ Step <br> at $5^{\text {th }}$ Step | $\begin{aligned} & \text { F1 } \\ & \text { F1 } \\ & \text { F1 } \\ & \text { F1 } \\ & \text { F1 } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { or R1 } \\ & \text { or R1 } \\ & \text { or R1 } \\ & \text { or R1 } \\ & \text { or R1 } \\ & \hline \end{aligned}$ | F/R2 <br> F/R2 <br> F/R2 <br> F/R2 | $\begin{aligned} & \mathrm{F} / \mathrm{R} 3 \\ & \mathrm{~F} / \mathrm{R} 3 \\ & \mathrm{~F} / \mathrm{R} 3 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{F} / \mathrm{R} 4 \\ & \mathrm{~F} / \mathrm{R} 4 \end{aligned}$ | F/R5 |
| 02 | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step <br> at $4^{\text {th }}$ Step <br> at $5^{\text {th }}$ Step | $\begin{aligned} & \hline \text { F1 } \\ & \text { F1 } \\ & \text { F1 } \\ & \text { F1 } \\ & \text { F1 } \end{aligned}$ | or R1 <br> or R1 <br> or R1 <br> or R1 <br> or R1 | F/R2 | F/R3 | F/R4 | F/R5 |
| 03 | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step <br> at $4^{\text {th }}$ Step | $\begin{aligned} & \hline F \\ & F \\ & F \\ & F \end{aligned}$ | or R <br> or R <br> or R <br> or R | $\begin{aligned} & \hline \text { F/R1 } \\ & \text { F/R1 } \\ & \text { F/R1 } \\ & \text { F/R1 } \end{aligned}$ | $\begin{aligned} & \text { F/R2 } \\ & \text { F/R2 } \\ & \text { F/R2 } \end{aligned}$ | $\begin{aligned} & \text { F/R3 } \\ & \text { F/R3 } \end{aligned}$ | F/R4 |
| 04 | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step at $3^{\text {rd }}$ Step at $4^{\text {th }}$ Step | $\begin{aligned} & \mathrm{F} \\ & \mathrm{~F} \\ & \mathrm{~F} \\ & \mathrm{~F} \end{aligned}$ | or R <br> or R <br> or R <br> or R | F/R1 | F/R2 | F/R3 | F/R4 |
| 05 | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step at $3^{\text {rd }}$ Step | $\begin{aligned} & \text { F1 } \\ & \text { F1 } \\ & \text { F1 } \end{aligned}$ | $\begin{aligned} & \text { or R1 } \\ & \text { or R1 } \\ & \text { or R1 } \end{aligned}$ | $\begin{aligned} & \text { F2 } \\ & \text { F2 } \end{aligned}$ | or R2 <br> or R2 | F3 | or R3 |
| 06 | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | F1 | or R1 | F2 | or R2 | F3 | or R3 |

LY $\rightarrow$ Left Joystick $Y$ axis $\quad$ LX $\rightarrow$ Left Joystick $X$ axis $\quad \mathbf{R Y} \rightarrow$ Right Joystick $Y$ axis $\quad \mathbf{R Y} \rightarrow$ Right Joystick $X$ axis
F $\rightarrow$ Forward $\quad$ F1 $\rightarrow$ Forward $1^{\text {st }}$ step $\quad$ F2 $\rightarrow$ Forward $2^{\text {nd }}$ step $\quad$ F3 $\rightarrow$ Forward $3^{\text {rd }}$ step $\quad$ F4 $\rightarrow$ Forward $4^{\text {th }}$ step
F5 $\rightarrow$ Forward $5^{\text {th }}$ step $\quad$ R $\rightarrow$ Reverse $\quad$ R1 $\rightarrow$ Reverse $1^{\text {st }}$ step $\quad$ R2 $\rightarrow$ Reverse $2^{\text {nd }}$ step $\quad$ R3 $\rightarrow$ Reverse $3^{\text {rd }}$ step
R4 $\rightarrow$ Reverse $4^{\text {th }}$ step $\quad$ R5 $\rightarrow$ Reverse $5^{\text {th }}$ step $\quad$ F/R1 $\rightarrow$ Forward/Reverse shared $1^{\text {st }}$ step
F/R2 $\rightarrow$ Forward/Reverse shared $2^{\text {nd }}$ step $\quad$ F/R3 $\rightarrow$ Forward/Reverse shared $3^{\text {rd }}$ step
F/R4 $\rightarrow$ Forward/Reverse shared $4^{\text {th }}$ step $\quad$ F/R5 $\rightarrow$ Forward/Reverse shared $5^{\text {th }}$ step

K8 $\rightarrow$ 0-step relays can be set to NO (normal open) or NC (normal close) contact.

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter LX Output Relay setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to select output relay type (see above chart type 01~06) and K8 relay type (NC-Normal Open or NO-Normal Close).
4) Press " $\rightarrow$ " button to enter and press " $\uparrow$ " and " $\downarrow$ " button to scroll and select
5) Press BACK button to go back to step 3.
6) Exit Program LX Output Relay by pressing the BACK button until the cursor is shown next to "LX RLY".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

### 6.28 Program LY Output Relay (RX)

Below chart and settings are various types of shared (F/R) and separate ( $F$ or $R$ ) acceleration relay closure at $1^{\text {st }}, 2^{\text {nd }}, 3^{\text {rd }}, 4^{\text {th }}$ and $5^{\text {th }}$ steps.

| Output Relay <br> Type | $\begin{aligned} & \hline \mathbf{L Y} \\ & \mathbf{L X} \\ & \text { RY } \\ & \text { RX } \\ & \hline \end{aligned}$ | $\begin{gathered} \hline \text { K2 } \\ \text { K9 } \\ \text { K16 } \\ \text { K23 } \end{gathered}$ | $\begin{gathered} \text { K3 } \\ \text { K10 } \\ \text { K17 } \\ \text { K24 } \end{gathered}$ | K4 <br> K11 <br> K18 <br> K25 | $\begin{gathered} \text { K5 } \\ \text { K12 } \\ \text { K19 } \\ \text { K26 } \end{gathered}$ | $\begin{gathered} \hline \text { K6 } \\ \text { K13 } \\ \text { K20 } \\ \text { K27 } \end{gathered}$ | $\begin{gathered} \hline \text { K7 } \\ \text { K14 } \\ \text { K21 } \\ \text { K28 } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01 | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step <br> at $4^{\text {th }}$ Step <br> at $5^{\text {th }}$ Step | $\begin{aligned} & \text { F1 } \\ & \text { F1 } \\ & \text { F1 } \\ & \text { F1 } \\ & \text { F1 } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { or R1 } \\ & \text { or R1 } \\ & \text { or R1 } \\ & \text { or R1 } \\ & \text { or R1 } \\ & \hline \end{aligned}$ | F/R2 <br> F/R2 <br> F/R2 <br> F/R2 | $\begin{aligned} & \mathrm{F} / \mathrm{R} 3 \\ & \mathrm{~F} / \mathrm{R} 3 \\ & \mathrm{~F} / \mathrm{R} 3 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{F} / \mathrm{R} 4 \\ & \mathrm{~F} / \mathrm{R} 4 \end{aligned}$ | F/R5 |
| 02 | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step <br> at $4^{\text {th }}$ Step <br> at $5^{\text {th }}$ Step | $\begin{aligned} & \hline \text { F1 } \\ & \text { F1 } \\ & \text { F1 } \\ & \text { F1 } \\ & \text { F1 } \end{aligned}$ | or R1 <br> or R1 <br> or R1 <br> or R1 <br> or R1 | F/R2 | F/R3 | F/R4 | F/R5 |
| 03 | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step <br> at $4^{\text {th }}$ Step | $\begin{aligned} & \hline F \\ & F \\ & F \\ & F \end{aligned}$ | or R <br> or R <br> or R <br> or R | $\begin{aligned} & \hline \text { F/R1 } \\ & \text { F/R1 } \\ & \text { F/R1 } \\ & \text { F/R1 } \end{aligned}$ | $\begin{aligned} & \text { F/R2 } \\ & \text { F/R2 } \\ & \text { F/R2 } \end{aligned}$ | $\begin{aligned} & \text { F/R3 } \\ & \text { F/R3 } \end{aligned}$ | F/R4 |
| 04 | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step at $3^{\text {rd }}$ Step at $4^{\text {th }}$ Step | $\begin{aligned} & \mathrm{F} \\ & \mathrm{~F} \\ & \mathrm{~F} \\ & \mathrm{~F} \end{aligned}$ | or R <br> or R <br> or R <br> or R | F/R1 | F/R2 | F/R3 | F/R4 |
| 05 | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step at $3^{\text {rd }}$ Step | $\begin{aligned} & \text { F1 } \\ & \text { F1 } \\ & \text { F1 } \end{aligned}$ | $\begin{aligned} & \text { or R1 } \\ & \text { or R1 } \\ & \text { or R1 } \end{aligned}$ | $\begin{aligned} & \text { F2 } \\ & \text { F2 } \end{aligned}$ | or R2 <br> or R2 | F3 | or R3 |
| 06 | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | F1 | or R1 | F2 | or R2 | F3 | or R3 |

LY $\rightarrow$ Left Joystick $Y$ axis $\quad$ LX $\rightarrow$ Left Joystick $X$ axis $\quad \mathbf{R Y} \rightarrow$ Right Joystick $Y$ axis $\quad \mathbf{R Y} \rightarrow$ Right Joystick $X$ axis
F $\rightarrow$ Forward $\quad$ F1 $\rightarrow$ Forward $1^{\text {st }}$ step $\quad$ F2 $\rightarrow$ Forward $2^{\text {nd }}$ step $\quad$ F3 $\rightarrow$ Forward $3^{\text {rd }}$ step $\quad$ F4 $\rightarrow$ Forward $4^{\text {th }}$ step
F5 $\rightarrow$ Forward $5^{\text {th }}$ step $\quad$ R $\rightarrow$ Reverse $\quad$ R1 $\rightarrow$ Reverse $1^{\text {st }}$ step $\quad$ R2 $\rightarrow$ Reverse $2^{\text {nd }}$ step $\quad$ R3 $\rightarrow$ Reverse $3^{\text {rd }}$ step
R4 $\rightarrow$ Reverse $4^{\text {th }}$ step $\quad$ R5 $\rightarrow$ Reverse $5^{\text {th }}$ step $\quad$ F/R1 $\rightarrow$ Forward/Reverse shared $1^{\text {st }}$ step
F/R2 $\rightarrow$ Forward/Reverse shared $2^{\text {nd }}$ step $\quad$ F/R3 $\rightarrow$ Forward/Reverse shared $3^{\text {rd }}$ step
F/R4 $\rightarrow$ Forward/Reverse shared $4^{\text {th }}$ step $\quad$ F/R5 $\rightarrow$ Forward/Reverse shared $5^{\text {th }}$ step

K1 $\rightarrow$ 0-step relays can be set to NO (normal open) or NC (normal close) contact.

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter LY Output Relay setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to select output relay type (see above chart type 01~06) and K1 relay type (NC-Normal Open or NO-Normal Close).
4) Press " $\rightarrow$ " button to enter and press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
5) Press BACK button to go back to step 3.
6) Exit Program LY Output Relay by pressing the BACK button until the cursor is shown next to "LY RLY".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

### 6.29 Program RX Output Relay (RX)

Below chart and settings are various types of shared (F/R) and separate ( $F$ or $R$ ) acceleration relay closure at $1^{\text {st }}, 2^{\text {nd }}, 3^{\text {rd }}, 4^{\text {th }}$ and $5^{\text {th }}$ steps.

| Output Relay Type | $\begin{aligned} & \hline \text { LY } \\ & \text { LX } \\ & \text { RY } \\ & \text { RX } \end{aligned}$ | $\begin{gathered} \hline \text { K2 } \\ \text { K9 } \\ \text { K16 } \\ \text { K23 } \end{gathered}$ | $\begin{gathered} \hline \text { K3 } \\ \text { K10 } \\ \text { K17 } \\ \text { K24 } \end{gathered}$ | $\begin{gathered} \hline \text { K4 } \\ \text { K11 } \\ \text { K18 } \\ \text { K25 } \end{gathered}$ | $\begin{gathered} \text { K5 } \\ \text { K12 } \\ \text { K19 } \\ \text { K26 } \end{gathered}$ | $\begin{gathered} \hline \text { K6 } \\ \text { K13 } \\ \text { K20 } \\ \text { K27 } \end{gathered}$ | $\begin{gathered} \hline \text { K7 } \\ \text { K14 } \\ \text { K21 } \\ \text { K28 } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01 | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step at $3^{\text {rd }}$ Step at $4^{\text {th }}$ Step at $5^{\text {th }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \\ & \hline \end{aligned}$ | or R1 <br> or R1 <br> or R1 <br> or R1 <br> or R1 | F/R2 <br> F/R2 <br> F/R2 <br> F/R2 | $\begin{aligned} & \mathrm{F} / \mathrm{R} 3 \\ & \mathrm{~F} / \mathrm{R} 3 \\ & \mathrm{~F} / \mathrm{R} 3 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{F} / \mathrm{R} 4 \\ & \mathrm{~F} / \mathrm{R} 4 \end{aligned}$ | F/R5 |
| 02 | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step at $3{ }^{\text {rd }}$ Step at $4^{\text {th }}$ Step at $5^{\text {th }}$ Step | $\begin{aligned} & \hline \text { F1 } \\ & \text { F1 } \\ & \text { F1 } \\ & \text { F1 } \\ & \text { F1 } \end{aligned}$ | or R1 <br> or R1 <br> or R1 <br> or R1 <br> or R1 | F/R2 | F/R3 | F/R4 | F/R5 |
| 03 | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step at $3^{\text {rd }}$ Step at $4^{\text {th }}$ Step | $\begin{aligned} & \hline F \\ & F \\ & F \\ & F \end{aligned}$ | or R or R or R or R | F/R1 <br> F/R1 <br> F/R1 <br> F/R1 | $\begin{aligned} & \text { F/R2 } \\ & \text { F/R2 } \\ & \text { F/R2 } \end{aligned}$ | $\begin{aligned} & \text { F/R3 } \\ & \text { F/R3 } \end{aligned}$ | F/R4 |
| 04 | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step at $3{ }^{\text {rd }}$ Step at $4^{\text {th }}$ Step | $\begin{aligned} & \mathrm{F} \\ & \mathrm{~F} \\ & \mathrm{~F} \\ & \mathrm{~F} \end{aligned}$ | or R <br> or R <br> or R <br> or R | F/R1 | F/R2 | F/R3 | F/R4 |
| 05 | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step at $3^{\text {rd }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { or R1 } \\ & \text { or R1 } \\ & \text { or R1 } \end{aligned}$ | $\begin{aligned} & \text { F2 } \\ & \text { F2 } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { or R2 } \\ & \text { or R2 } \end{aligned}$ | F3 | or R3 |
| 06 | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step at $3^{\text {rd }}$ Step | F1 | or R1 | F2 | or R2 | F3 | or R3 |

LY $\rightarrow$ Left Joystick $Y$ axis $\quad$ LX $\rightarrow$ Left Joystick $X$ axis $\quad \mathbf{R Y} \rightarrow$ Right Joystick $Y$ axis $\quad \mathbf{R Y} \rightarrow$ Right Joystick $X$ axis
F $\rightarrow$ Forward $\quad$ F1 $\rightarrow$ Forward $1^{\text {st }}$ step $\quad$ F2 $\rightarrow$ Forward $2^{\text {nd }}$ step $\quad$ F3 $\rightarrow$ Forward $3^{\text {rd }}$ step $\quad$ F4 $\rightarrow$ Forward $4^{\text {th }}$ step
F5 $\rightarrow$ Forward $5^{\text {th }}$ step $\quad \mathbf{R} \rightarrow$ Reverse $\quad$ R1 $\rightarrow$ Reverse $1^{\text {st }}$ step $\quad$ R2 $\rightarrow$ Reverse $2^{\text {nd }}$ step $\quad$ R3 $\rightarrow$ Reverse $3^{\text {rd }}$ step
R4 $\rightarrow$ Reverse $4^{\text {th }}$ step $\quad$ R5 $\rightarrow$ Reverse $5^{\text {th }}$ step $\quad$ F/R1 $\rightarrow$ Forward/Reverse shared $1^{\text {st }}$ step
F/R2 $\rightarrow$ Forward/Reverse shared $2^{\text {nd }}$ step $\quad$ F/R3 $\rightarrow$ Forward/Reverse shared $3^{\text {rd }}$ step
F/R4 $\rightarrow$ Forward/Reverse shared $4^{\text {th }}$ step $\quad$ F/R5 $\rightarrow$ Forward/Reverse shared $5^{\text {th }}$ step
K22 $\rightarrow$ 0-step relays can be set to NO (normal open) or NC (normal close) contact.

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter RX Output Relay setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to select output relay type (see above chart type 01~06) and K22 relay type (NC-Normal Open or NO-Normal Close).
4) Press " $\rightarrow$ " button to enter and press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
5) Press BACK button to go back to step 3.
6) Exit Program RX Output Relay by pressing the BACK button until the cursor is shown next to "RX RLY".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

### 6.30 Program RY Output Relay (RX)

Below chart and settings are various types of shared (F/R) and separate ( $F$ or $R$ ) acceleration relay closure at $1^{\text {st }}, 2^{\text {nd }}, 3^{\text {rd }}, 4^{\text {th }}$ and $5^{\text {th }}$ steps.

|  | $\begin{aligned} & \hline \text { LY } \\ & \text { LX } \\ & \text { RY } \\ & \text { RX } \end{aligned}$ | $\begin{gathered} \text { K2 } \\ \text { K9 } \\ \text { K16 } \\ \text { K23 } \end{gathered}$ | $\begin{gathered} \hline \text { K3 } \\ \text { K10 } \\ \text { K17 } \\ \text { K24 } \end{gathered}$ | $\begin{gathered} \hline \text { K4 } \\ \text { K11 } \\ \text { K18 } \\ \text { K25 } \end{gathered}$ | $\begin{gathered} \hline \text { K5 } \\ \text { K12 } \\ \text { K19 } \\ \text { K26 } \end{gathered}$ | $\begin{gathered} \text { K6 } \\ \text { K13 } \\ \text { K20 } \\ \text { K27 } \end{gathered}$ | $\begin{gathered} \hline \text { K7 } \\ \text { K14 } \\ \text { K21 } \\ \text { K28 } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01 | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step at $3^{\text {rd }}$ Step at $4^{\text {th }}$ Step at $5^{\text {th }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \\ & \hline \end{aligned}$ | or R1 <br> or R1 <br> or R1 <br> or R1 <br> or R1 | F/R2 <br> F/R2 <br> F/R2 <br> F/R2 | $\begin{aligned} & \mathrm{F} / \mathrm{R} 3 \\ & \mathrm{~F} / \mathrm{R} 3 \\ & \mathrm{~F} / \mathrm{R} 3 \end{aligned}$ | $\begin{aligned} & \mathrm{F} / \mathrm{R} 4 \\ & \mathrm{~F} / \mathrm{R} 4 \end{aligned}$ | F/R5 |
| 02 | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step <br> at $4^{\text {th }}$ Step <br> at $5^{\text {th }}$ Step | $\begin{aligned} & \hline \text { F1 } \\ & \text { F1 } \\ & \text { F1 } \\ & \text { F1 } \\ & \text { F1 } \end{aligned}$ | or R1 <br> or R1 <br> or R1 <br> or R1 <br> or R1 | F/R2 | F/R3 | F/R4 | F/R5 |
| 03 | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step <br> at $4^{\text {th }}$ Step | $\begin{aligned} & \hline F \\ & F \\ & F \\ & F \end{aligned}$ | or R or R or R or R | $\begin{aligned} & \mathrm{F} / \mathrm{R} 1 \\ & \mathrm{~F} / \mathrm{R} 1 \\ & \mathrm{~F} / \mathrm{R} 1 \\ & \mathrm{~F} / \mathrm{R} 1 \end{aligned}$ | $\begin{aligned} & \text { F/R2 } \\ & \text { F/R2 } \\ & \text { F/R2 } \end{aligned}$ | $\begin{aligned} & \text { F/R3 } \\ & \text { F/R3 } \end{aligned}$ | F/R4 |
| 04 | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step at $3^{\text {rd }}$ Step at $4^{\text {th }}$ Step | $\begin{aligned} & \mathrm{F} \\ & \mathrm{~F} \\ & \mathrm{~F} \\ & \mathrm{~F} \end{aligned}$ | or R <br> or R <br> or R <br> or R | F/R1 | F/R2 | F/R3 | F/R4 |
| 05 | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step at $3^{\text {rd }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { or R1 } \\ & \text { or R1 } \\ & \text { or R1 } \end{aligned}$ | $\begin{aligned} & \text { F2 } \\ & \text { F2 } \end{aligned}$ | $\begin{aligned} & \text { or R2 } \\ & \text { or R2 } \end{aligned}$ | F3 | or R3 |
| 06 | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step at $3^{\text {rd }}$ Step | F1 | or R1 | F2 | or R2 | F3 | or R3 |

LY $\rightarrow$ Left Joystick $Y$ axis $\quad$ LX $\rightarrow$ Left Joystick $X$ axis $\quad \mathbf{R Y} \rightarrow$ Right Joystick $Y$ axis $\quad \mathbf{R Y} \rightarrow$ Right Joystick $X$ axis
F $\rightarrow$ Forward $\quad$ F1 $\rightarrow$ Forward $1^{\text {st }}$ step $\quad$ F2 $\rightarrow$ Forward $2^{\text {nd }}$ step $\quad$ F3 $\rightarrow$ Forward $3^{\text {rd }}$ step $\quad$ F4 $\rightarrow$ Forward $4^{\text {th }}$ step
F5 $\rightarrow$ Forward $5^{\text {th }}$ step $\quad \mathbf{R} \rightarrow$ Reverse $\quad$ R1 $\rightarrow$ Reverse $1^{\text {st }}$ step $\quad$ R2 $\rightarrow$ Reverse $2^{\text {nd }}$ step $\quad$ R3 $\rightarrow$ Reverse $3^{\text {rd }}$ step
R4 $\rightarrow$ Reverse $4^{\text {th }}$ step $\quad$ R5 $\rightarrow$ Reverse $5^{\text {th }}$ step $\quad$ F/R1 $\rightarrow$ Forward/Reverse shared $1^{\text {st }}$ step
F/R2 $\rightarrow$ Forward/Reverse shared $2^{\text {nd }}$ step $\quad$ F/R3 $\rightarrow$ Forward/Reverse shared $3^{\text {rd }}$ step
F/R4 $\rightarrow$ Forward/Reverse shared $4^{\text {th }}$ step $\quad$ F/R5 $\rightarrow$ Forward/Reverse shared $5^{\text {th }}$ step
K15 $\rightarrow$ 0-step relays can be set to NO (normal open) or NC (normal close) contact.

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter RY Output Relay setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to select output relay type (see above chart type 01~06) and K8 relay type (NC-Normal Open or NO-Normal Close).
4) Press " $\rightarrow$ " button to enter and press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
5) Press BACK button to go back to step 3.
6) Exit Program RY Output Relay by pressing the BACK button until the cursor is shown next to "RY RLY".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J X$ settings.

### 6.31 Program LX Delay (RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter LX Delay setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to select delay for ACC (forward motion) and DEC (reverse motion).
4) Press " $\rightarrow$ " button to enter and press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
5) Press BACK button to go back to step 3.
6) Exit Program LX Delay by pressing the BACK button until the cursor is shown next to "LX DELAY".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J X$ settings.

### 6.32 Program LY Delay (RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter LY Delay setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to select delay for ACC (forward motion) and DEC (reverse motion).
4) Press " $\rightarrow$ " button to enter and press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
5) Press BACK button to go back to step 3.
6) Exit Program LY Delay by pressing the BACK button until the cursor is shown next to "LY DELAY".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J X$ settings.

### 6.33 Program RX Delay (RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter RX Delay setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to select delay for ACC (forward motion) and DEC (reverse motion).
4) Press " $\rightarrow$ " button to enter and press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
5) Press BACK button to go back to step 3.
6) Exit Program RX Delay by pressing the BACK button until the cursor is shown next to "RX DELAY".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JX settings.

### 6.34 Program RY Delay (RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter RY Delay setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to select delay for ACC (forward motion) and DEC (reverse motion).
4) Press " $\rightarrow$ " button to enter and press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
5) Press BACK button to go back to step 3.
6) Exit Program RY Delay by pressing the BACK button until the cursor is shown next to "RY DELAY".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J X$ settings.

### 6.35 Program LX Output (RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter LX Output setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll between OFF, Voltage, Current and PFM output setting. Press " $\rightarrow$ " button to enter.

When Voltage is selected on step 3 above: press " $\uparrow$ " and " $\downarrow$ " button to scroll between Maximum, Neutral and Minimum value. Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to change voltage value. Press " $\rightarrow$ " button to go to the next column to the right and press " $\uparrow$ " and " $\downarrow$ " button to change voltage value, and so on. Press the BACK button to go back to the Maximum, Neutral and Minimum selection.

When Current is selected on step 3 above: press " $\uparrow$ " and " " button to scroll between Maximum, Neutral and Minimum value. Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to change value. Press the BACK button to go back to the Maximum, Neutral and Minimum selection.

When PFM is selected on step 3 above: press " $\uparrow$ " and " $\downarrow$ " button to select between $02 \mathrm{~K}, 08 \mathrm{~K}$ and 32 K value. Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button scroll between Maximum, Neutral and Minimum value. Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to set \% range. Press the BACK button to go back to the Maximum, Neutral and Minimum selection.
4) Exit Program LX Output by pressing the BACK button until the cursor is shown next to "LX OUT".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J X$ settings.

### 6.36 Program LY Output (RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter LY Output setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll between OFF, Voltage, Current and PFM output setting. Press " $\rightarrow$ " button to enter.

When Voltage is selected on step 3 above: press " $\uparrow$ " and " $\downarrow$ " button to scroll between Maximum, Neutral and Minimum value. Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to change voltage value. Press " $\rightarrow$ " button to go to the next column to the right and press " $\uparrow$ " and " $\downarrow$ " button to change voltage value, and so on. Press the BACK button to go back to the Maximum, Neutral and Minimum selection.

When Current is selected on step 3 above: press " $\uparrow$ " and " $\downarrow$ " button to scroll between Maximum, Neutral and Minimum value. Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to change value. Press the BACK button to go back to the Maximum, Neutral and Minimum selection.

When PFM is selected on step 3 above: press " $\uparrow$ " and " $\downarrow$ " button to select between $02 \mathrm{~K}, 08 \mathrm{~K}$ and 32 K value. Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button scroll between Maximum, Neutral and Minimum value. Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to set \% range. Press the BACK button to go back to the Maximum, Neutral and Minimum selection.
4) Exit Program LY Output by pressing the BACK button until the cursor is shown next to "LY OUT".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J X$ settings.

### 6.37 Program RX Output (RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter RX Output setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll between OFF, Voltage, Current and PFM output setting. Press " $\rightarrow$ " button to enter.

When Voltage is selected on step 3 above: press " $\uparrow$ " and " $\downarrow$ " button to scroll between Maximum, Neutral and Minimum value. Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to change voltage value. Press " $\rightarrow$ " button to go to the next column to the right and press " $\uparrow$ " and " $\downarrow$ " button to change voltage value, and so on. Press the BACK button to go back to the Maximum, Neutral and Minimum selection.

When Current is selected on step 3 above: press " $\uparrow$ " and " " button to scroll between Maximum, Neutral and Minimum value. Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to change value. Press the BACK button to go back to the Maximum, Neutral and Minimum selection.

When PFM is selected on step 3 above: press " $\uparrow$ " and " $\downarrow$ " button to select between $02 \mathrm{~K}, 08 \mathrm{~K}$ and 32 K value. Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button scroll between Maximum, Neutral and Minimum value. Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to set \% range. Press the BACK button to go back to the Maximum, Neutral and Minimum selection.
4) Exit Program RX Output by pressing the BACK button until the cursor is shown next to "RX OUT".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J X$ settings.

### 6.38 Program RY Output (RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter RY Output setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll between OFF, Voltage, Current and PFM output setting. Press " $\rightarrow$ " button to enter.

When Voltage is selected on step 3 above: press " $\uparrow$ " and " $\downarrow$ " button to scroll between Maximum, Neutral and Minimum value. Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to change voltage value. Press " $\rightarrow$ " button to go to the next column to the right and press " $\uparrow$ " and " $\downarrow$ " button to change voltage value, and so on. Press the BACK button to go back to the Maximum, Neutral and Minimum selection.

When Current is selected on step 3 above: press " $\uparrow$ " and " $\downarrow$ " button to scroll between Maximum, Neutral and Minimum value. Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to change value. Press the BACK button to go back to the Maximum, Neutral and Minimum selection.

When PFM is selected on step 3 above: press " $\uparrow$ " and " $\downarrow$ " button to select between $02 \mathrm{~K}, 08 \mathrm{~K}$ and 32 K value. Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button scroll between Maximum, Neutral and Minimum value. Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to set \% range. Press the BACK button to go back to the Maximum, Neutral and Minimum selection.
4) Exit Program RY Output by pressing the BACK button until the cursor is shown next to "RY OUT".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J X$ settings.

### 6.39 Program SW1 Output Relay (RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter SW1 Output Relay setting.
3) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select "LOCK" or "UNLOCK".
4) Press BACK button to go back to step 3 .
5) Press " $\downarrow$ " button and then " $\rightarrow$ " button select SW1 Output Relay function.
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
7) Exit Program SW1 Output Relay by pressing the BACK button until the cursor is shown next to "SW1 RLY".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J X$ settings.

## UNLOCK Settings (SW1 and SW2 output relays not interlocked):

Select "NORMAL" the output relay becomes momentary contact.
Select "NORMAL+S" the output relay becomes momentary contact. Must press the green START button together to work.
Select receiver "TOGGLE" the output relay becomes toggled contact.
Select receiver "TOGGLE\&E" the output relay becomes toggled contact affected by the e-stop command (output relay opens when e-stop button is pressed).
Select "PITCH" SW1 button becomes the "Pitch" function in Pitch \& Catch Operation.
Select "PITCH\&E" SW1 button becomes the "Pitch" function in Pitch \& Catch Operation. When Pitch command is initiated, the receiver mains are disconnected.
Select "STOP" SW1 button becomes an auxiliary e-stop function. Press to disconnect the receiver mains and press START button to reconnect the receiver mains.

Important note 1: When one of the above is selected make sure the same SW1 button function on transmitter is set to "NORMAL".

Important note 2: When select Pitch \& Catch function make sure you set the spare transmitter to the next channel up and the receiver channel scanning to " 02 ".
Select ABUS (reversed logic A/B switching) all contacts are reversed when all pushbuttons, rocker switches and rotary switches are set to $A / A+B / B$ function.

## LOCK Settings (SW1 and SW2 output relays interlocked):

Select "NORMAL" both output relays become interlocking momentary contacts.
Select receiver "TOG/TOG" both output relays become interlocking toggled contacts.
Select receiver "TOG/TOG\&E" both output relays become interlocking toggled contacts affected by the e-stop command (output relay opens when e-stop button is pressed).

Select "ON/OFF" both output relays become interlocking On and Off contacts.
Select "ON/OFF+S" both output relays become interlocking On and Off contacts. Must press the green START button along with the On or Off button to work.

Select "ON/OFF\&E" both output relays become interlocking On and Off contacts affected by the e-stop command (output relay opens when e-stop button is pressed).
Select "MAGNET" the two output relays become interlocking Magnet ON and OFF contacts.
Important note: When one of the above is selected make sure the same SW1 and SW2 button function on transmitter are both set to "NORMAL".

### 6.40 Program SW2 Output Relay (RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter SW2 Output Relay setting.
3) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select "LOCK" or "UNLOCK".
4) Press BACK button to go back to step 3 .
5) Press " $\downarrow$ " button and then " $\rightarrow$ " button select SW2 Output Relay function.
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
7) Exit Program SW2 Output Relay by pressing the BACK button until the cursor is shown next to "SW2 RLY".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J X$ settings.

## UNLOCK Settings (SW2 and SW1 output relays not interlocked):

Select "NORMAL" the output relay becomes momentary contact.
Select "NORMAL+S" the output relay becomes momentary contact. Must press the green START button together to work.
Select receiver "TOGGLE" the output relay becomes toggled contact.
Select receiver "TOGGLE\&E" the output relay becomes toggled contact affected by the e-stop command (output relay opens when e-stop button is pressed).
Select "PITCH" SW2 button becomes the "Pitch" function in Pitch \& Catch Operation.
Select "PITCH\&E" SW2 button becomes the "Pitch" function in Pitch \& Catch Operation. When Pitch command is initiated, the receiver mains are disconnected.
Select "STOP" SW2 button becomes an auxiliary e-stop function. Press to disconnect the receiver mains and press START button to reconnect the receiver mains.

Important note 1: When one of the above is selected make sure the same SW2 button function on transmitter is set to "NORMAL".
Important note 2: When select Pitch \& Catch function make sure you set the spare transmitter to the next channel up and the receiver channel scanning to " 02 ".
Select ABUS (reversed logic A/B switching) all contacts are reversed when all pushbuttons, rocker switches and rotary switches are set to $A / A+B / B$ function.

## LOCK Settings (SW2 and SW1 output relays interlocked):

Select "NORMAL" both output relays become interlocking momentary contacts.
Select receiver "TOG/TOG" both output relays become interlocking toggled contacts.
Select receiver "TOG/TOG\&E" both output relays become interlocking toggled contacts affected by the e-stop command (output relay opens when e-stop button is pressed).

Select "ON/OFF" both output relays become interlocking On and Off contacts.
Select "ON/OFF+S" both output relays become interlocking On and Off contacts. Must press the green START button along with the On or Off button to work.

Select "ON/OFF\&E" both output relays become interlocking On and Off contacts affected by the e-stop command (output relay opens when e-stop button is pressed).
Select "MAGNET" the two output relays become interlocking Magnet ON and OFF contacts.
Important note: When one of the above is selected make sure the same SW2 and SW1 button function on transmitter are both set to "NORMAL".

### 6.41 Program SW3 Output Relay (RX)

1) Make sure the l-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter SW3 Output Relay setting.
3) Press " $\rightarrow$ " button again to enter settings.
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
5) Exit Program SW3 Output Relay by pressing the BACK button until the cursor is shown next to "SW3 RLY".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J X$ settings.

Select "NORMAL" the output relay becomes momentary contact.
Select "NORMAL+S" the output relay becomes momentary contact. Must press the green START button together to work.
Select receiver "TOGGLE" the output relay becomes toggled contact.
Select receiver "TOGGLE\&E" the output relay becomes toggled contact affected by the e-stop command (output relay opens when e-stop button is pressed).
Select "PITCH" SW3 button becomes the "Pitch" function in Pitch \& Catch Operation.
Select "PITCH\&E" SW3 button becomes the "Pitch" function in Pitch \& Catch Operation. When Pitch command is initiated, the receiver mains are disconnected.
Select "STOP" SW3 button becomes an auxiliary e-stop function. Press to disconnect the receiver mains and press START button to reconnect the receiver mains.

Important note 1: When one of the above is selected make sure the same SW3 button function on transmitter is set to "NORMAL".

Important note 2: When select Pitch \& Catch function make sure you set the spare transmitter to the next channel up and the receiver channel scanning to " 02 ".

Select ABUS (reversed logic A/B switching) all contacts are reversed when all pushbuttons, rocker switches and rotary switches are set to $A / A+B / B$ function.

### 6.42 Program SW4 Output Relay (RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter SW4 Output Relay setting.
3) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select "LOCK" or "UNLOCK".
4) Press BACK button to go back to step 3 .
5) Press " $\downarrow$ " button and then " $\rightarrow$ " button select SW4 Output Relay function.
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
7) Exit Program SW4 Output Relay by pressing the BACK button until the cursor is shown next to "SW4 RLY".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J X$ settings.

## UNLOCK Settings (SW4 and SW5 output relays not interlocked):

Select "NORMAL" the output relay becomes momentary contact.
Select "NORMAL+S" the output relay becomes momentary contact. Must press the green START button together to work.
Select receiver "TOGGLE" the output relay becomes toggled contact.
Select receiver "TOGGLE\&E" the output relay becomes toggled contact affected by the e-stop command (output relay opens when e-stop button is pressed).
Select "PITCH" SW4 button becomes the "Pitch" function in Pitch \& Catch Operation.
Select "PITCH\&E" SW4 button becomes the "Pitch" function in Pitch \& Catch Operation. When Pitch command is initiated, the receiver mains are disconnected.
Select "STOP" SW4 button becomes an auxiliary e-stop function. Press to disconnect the receiver mains and press START button to reconnect the receiver mains.

Important note 1: When one of the above is selected make sure the same SW4 button function on transmitter is set to "NORMAL".
Important note 2: When select Pitch \& Catch function make sure you set the spare transmitter to the next channel up and the receiver channel scanning to " 02 ".
Select ABUS (reversed logic A/B switching) all contacts are reversed when all pushbuttons, rocker switches and rotary switches are set to $A / A+B / B$ function.

## LOCK Settings (SW4 and SW5 output relays interlocked):

Select "NORMAL" both output relays become interlocking momentary contacts.
Select receiver "TOG/TOG" both output relays become interlocking toggled contacts.
Select receiver "TOG/TOG\&E" both output relays become interlocking toggled contacts affected by the e-stop command (output relay opens when e-stop button is pressed).

Select "ON/OFF" both output relays become interlocking On and Off contacts.
Select "ON/OFF+S" both output relays become interlocking On and Off contacts. Must press the green START button along with the On or Off button to work.

Select "ON/OFF\&E" both output relays become interlocking On and Off contacts affected by the e-stop command (output relay opens when e-stop button is pressed).
Select "MAGNET" the two output relays become interlocking Magnet ON and OFF contacts.
Important note: When one of the above is selected make sure the same SW4 and SW5 button function on transmitter are both set to "NORMAL".

### 6.43 Program SW5 Output Relay (RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter SW5 Output Relay setting.
3) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select "LOCK" or "UNLOCK".
4) Press BACK button to go back to step 3 .
5) Press " $\downarrow$ " button and then " $\rightarrow$ " button select SW5 Output Relay function.
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
7) Exit Program SW5 Output Relay by pressing the BACK button until the cursor is shown next to "SW5 RLY".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J X$ settings.

## UNLOCK Settings (SW5 and SW4 output relays not interlocked):

Select "NORMAL" the output relay becomes momentary contact.
Select "NORMAL+S" the output relay becomes momentary contact. Must press the green START button together to work.
Select receiver "TOGGLE" the output relay becomes toggled contact.
Select receiver "TOGGLE\&E" the output relay becomes toggled contact affected by the e-stop command (output relay opens when e-stop button is pressed).
Select "PITCH" SW5 button becomes the "Pitch" function in Pitch \& Catch Operation.
Select "PITCH\&E" SW5 button becomes the "Pitch" function in Pitch \& Catch Operation. When Pitch command is initiated, the receiver mains are disconnected.
Select "STOP" SW5 button becomes an auxiliary e-stop function. Press to disconnect the receiver mains and press START button to reconnect the receiver mains.

Important note 1: When one of the above is selected make sure the same SW5 button function on transmitter is set to "NORMAL".
Important note 2: When select Pitch \& Catch function make sure you set the spare transmitter to the next channel up and the receiver channel scanning to " 02 ".
Select ABUS (reversed logic A/B switching) all contacts are reversed when all pushbuttons, rocker switches and rotary switches are set to $A / A+B / B$ function.

## LOCK Settings (SW5 and SW4 output relays interlocked):

Select "NORMAL" both output relays become interlocking momentary contacts.
Select receiver "TOG/TOG" both output relays become interlocking toggled contacts.
Select receiver "TOG/TOG\&E" both output relays become interlocking toggled contacts affected by the e-stop command (output relay opens when e-stop button is pressed).

Select "ON/OFF" both output relays become interlocking On and Off contacts.
Select "ON/OFF+S" both output relays become interlocking On and Off contacts. Must press the green START button along with the On or Off button to work.

Select "ON/OFF\&E" both output relays become interlocking On and Off contacts affected by the e-stop command (output relay opens when e-stop button is pressed).
Select "MAGNET" the two output relays become interlocking Magnet ON and OFF contacts.
Important note: When one of the above is selected make sure the same SW5 and SW4 button function on transmitter are both set to "NORMAL".

### 6.44 Program SW6 Output Relay (RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter SW6 Output Relay setting.
3) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select "LOCK" or "UNLOCK".
4) Press BACK button to go back to step 3 .
5) Press " $\downarrow$ " button and then " $\rightarrow$ " button select SW6 Output Relay function.
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
7) Exit Program SW6 Output Relay by pressing the BACK button until the cursor is shown next to "SW6 RLY".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J X$ settings.

## UNLOCK Settings (SW6 and SW7 output relays not interlocked):

Select "NORMAL" the output relay becomes momentary contact.
Select "NORMAL+S" the output relay becomes momentary contact. Must press the green START button together to work.
Select receiver "TOGGLE" the output relay becomes toggled contact.
Select receiver "TOGGLE\&E" the output relay becomes toggled contact affected by the e-stop command (output relay opens when e-stop button is pressed).
Select "PITCH" SW6 button becomes the "Pitch" function in Pitch \& Catch Operation.
Select "PITCH\&E" SW6 button becomes the "Pitch" function in Pitch \& Catch Operation. When Pitch command is initiated, the receiver mains are disconnected.
Select "STOP" SW6 button becomes an auxiliary e-stop function. Press to disconnect the receiver mains and press START button to reconnect the receiver mains.

Important note 1: When one of the above is selected make sure the same SW6 button function on transmitter is set to "NORMAL".

Important note 2: When select Pitch \& Catch function make sure you set the spare transmitter to the next channel up and the receiver channel scanning to " 02 ".

LOCK Settings (SW6 and SW7 output relays interlocked):
Select "NORMAL" both output relays become interlocking momentary contacts.
Select receiver "TOG/TOG" both output relays become interlocking toggled contacts.
Select receiver "TOG/TOG\&E" both output relays become interlocking toggled contacts affected by the e-stop command (output relay opens when e-stop button is pressed).
Select "ON/OFF" both output relays become interlocking On and Off contacts.
Select "ON/OFF+S" both output relays become interlocking On and Off contacts. Must press the green START button along with the On or Off button to work.
Select "ON/OFF\&E" both output relays become interlocking On and Off contacts affected by the e-stop command (output relay opens when e-stop button is pressed).
Select "MAGNET" the two output relays become interlocking Magnet ON and OFF contacts.
Important note: When one of the above is selected make sure the same SW6 and SW7 button function on transmitter are both set to "NORMAL".

### 6.45 Program SW7 Output Relay (RX)

1) Make sure the I-Chip is connected to the programmer.
2) Press " $\rightarrow$ " button to enter SW7 Output Relay setting.
3) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select "LOCK" or "UNLOCK".
4) Press BACK button to go back to step 3 .
5) Press " $\downarrow$ " button and then " $\rightarrow$ " button select SW7 Output Relay function.
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
7) Exit Program SW7 Output Relay by pressing the BACK button until the cursor is shown next to "SW7 RLY".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J X$ settings.

## UNLOCK Settings (SW7 and SW6 output relays not interlocked):

Select "NORMAL" the output relay becomes momentary contact.
Select "NORMAL+S" the output relay becomes momentary contact. Must press the green START button together to work.
Select receiver "TOGGLE" the output relay becomes toggled contact.
Select receiver "TOGGLE\&E" the output relay becomes toggled contact affected by the e-stop command (output relay opens when e-stop button is pressed).
Select "PITCH" SW7 button becomes the "Pitch" function in Pitch \& Catch Operation.
Select "PITCH\&E" SW7 button becomes the "Pitch" function in Pitch \& Catch Operation. When Pitch command is initiated, the receiver mains are disconnected.
Select "STOP" SW7 button becomes an auxiliary e-stop function. Press to disconnect the receiver mains and press START button to reconnect the receiver mains.

Important note 1: When one of the above is selected make sure the same SW7 button function on transmitter is set to "NORMAL".

Important note 2: When select Pitch \& Catch function make sure you set the spare transmitter to the next channel up and the receiver channel scanning to " 02 ".

LOCK Settings (SW7 and SW6 output relays interlocked):
Select "NORMAL" both output relays become interlocking momentary contacts.
Select receiver "TOG/TOG" both output relays become interlocking toggled contacts.
Select receiver "TOG/TOG\&E" both output relays become interlocking toggled contacts affected by the e-stop command (output relay opens when e-stop button is pressed).
Select "ON/OFF" both output relays become interlocking On and Off contacts.
Select "ON/OFF+S" both output relays become interlocking On and Off contacts. Must press the green START button along with the On or Off button to work.
Select "ON/OFF\&E" both output relays become interlocking On and Off contacts affected by the e-stop command (output relay opens when e-stop button is pressed).
Select "MAGNET" the two output relays become interlocking Magnet ON and OFF contacts.
Important note: When one of the above is selected make sure the same SW7 and SW6 button function on transmitter are both set to "NORMAL".

## 7. Flex MINI Models

### 7.1 Program Direct

1) Make sure the programming cable is connected to the system.
2) Press " $\rightarrow$ " button to enter Direct setting.
3) Press READ button to store transmitter or receiver information into the programmer. If the screen shows "READ OK" the transfer is completed.
4) Press WRITE button to transfer the stored transmitter or receiver information into a new transmitter or receiver. If the screen shows "WRITE OK" the transfer is completed.
5) Exit Program Direct by pressing the BACK button until the cursor is shown next to "Program".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini settings.

### 7.2 Program Serial Number (TX \& RX)

1) Make sure the programming cable is connected to the system.
2) Press " $\rightarrow$ " button to enter Serial Number setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change serial number as a whole or...
4) Press " $\rightarrow$ " button to go to the $1^{\text {st }}$ digit on the far left of the serial number.
5) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
6) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 5.
7) Press BACK button to go back to step 3 or 4 .
8) Exit Program Serial Number by pressing the BACK button until the cursor is shown next to " $\mathrm{S} / \mathrm{N}:$ :"
9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini settings.

### 7.3 Program Keypad Type (TX \& RX)

1) Make sure the programming cable is connected to the system.
2) Press " $\rightarrow$ " button to enter Keypad Type setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change system type as a whole or...
4) Press " $\rightarrow$ " button to go to the digit on the left.
5) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
6) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 5.
7) Press BACK button to go back to step 3 or 4 .
8) Exit Program Keypad Type by pressing the BACK button until the cursor is shown next to "KEYPAD:".
9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini settings.


Type 1


Type 2


Type 3

### 7.4 Program System Frequency Range (TX \& RX)

1) Make sure the programming cable is connected to the system.
2) Press " $\rightarrow$ " button to enter System Frequency Range setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change frequency range.
4) Exit Program System Frequency Range by pressing the BACK button until the cursor is shown next to "FREQ:".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini settings.

### 7.5 Program System Channel (TX \& RX)

1) Make sure the programming cable is connected to the system.
2) Press " $\rightarrow$ " button to enter System Channel setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change system channel as a whole or...
4) Press " $\rightarrow$ " button to go to the digit on the left.
5) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
6) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 5
7) Press BACK button to go back to step 3 or 4 .
8) Exit Program System Channel by pressing the BACK button until the cursor is shown next to "CHANNEL".
9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini settings.

### 7.6 Program RF Power (TX)

1) Make sure the programming cable is connected to the system.
2) Press " $\rightarrow$ " button to enter RF Power setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change RF power ( $0.01 \mathrm{~mW} \sim 10 \mathrm{~mW}$ ).
4) Exit Program RF Power by pressing the BACK button until the cursor is shown next to "RFpower".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini settings.

### 7.7 Program Transmitter Inactivity/Sleep Timer (TX)

1) Make sure the programming cable is connected to the system.
2) Press " $\rightarrow$ " button to enter TX Timer setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to select ON (sleep timer disabled) or 01M (minute).
4) Press " $\rightarrow$ " button to go to the digit on the far left (tens).
5) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
6) Press " $\rightarrow$ " button to go to the next digit to the right (units) and repeat step 5.
7) Exit Program Transmitter Inactivity/Sleep Timer by pressing the BACK button until the cursor is shown next to "TX TIMER".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini settings.

### 7.8 Program Output Relay 1 \& 2 (PB1 \& PB2) (RX)

1) Make sure the programming cable is connected to the system.
2) Press " $\rightarrow$ " button to enter Program Output Relay $1 \& 2$.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value as a whole or...
4) Press " $\rightarrow$ " button to go to the digit on the far left.
5) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
6) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 5.
7) Press BACK button to go back to step 3 or 4.
8) Exit Program Output Relay $1 \& 2$ by pressing the BACK button until the cursor is shown next to "RELAY $1 \& 2$ ".
9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini settings.

### 7.9 Program Output Relay 3 \& 4 (PB3 \& PB4) (RX)

1) Make sure the programming cable is connected to the system.
2) Press " $\rightarrow$ " button to enter Program Output Relay 3 \& 4 .
3) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value as a whole or...
4) Press " $\rightarrow$ " button to go to the digit on the far left.
5) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
6) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 5
7) Press BACK button to go back to step 3 or 4.
8) Exit Program Output Relay 3 \& 4 by pressing the BACK button until the cursor is shown next to "RELAY 3 \& 4".
9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini settings.

001 : On \& Off pushbutton pair (for keypad type 01, 02 and 03).
002 : Magnet On \& Off pushbutton pair (for keypad type 01, 02 and 03).
003 : On + Start \& Off + Start pushbutton pair (for keypad type 03 only).

### 7.10 Program Output Relay 5 \& 6 (PB5 \& PB6) (RX)

1) Make sure the programming cable is connected to the system.
2) Press " $\rightarrow$ " button to enter Program Output Relay $5 \& 6$.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value as a whole or...
4) Press " $\rightarrow$ " button to go to the digit on the far left.
5) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
6) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 5
7) Press BACK button to go back to step 3 or 4 .
8) Exit Program Output Relay 5 \& 6 by pressing the BACK button until the cursor is shown next to "RELAY 5 \& 6".
9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini settings.

001 : On \& Off pushbutton pair (for keypad type 01, 02 and 03).
002 : Magnet On \& Off pushbutton pair (for keypad type 01, 02 and 03).
003 : On + Start \& Off + Start pushbutton pair (for keypad type 03 only).

### 7.11 Program Output Relay 7 \& 8 (PB7 \& PB8) (RX)

1) Make sure the programming cable is connected to the system.
2) Press " $\rightarrow$ " button to enter Program Output Relay 7 \& 8 .
3) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value as a whole or...
4) Press " $\rightarrow$ " button to go to the digit on the far left.
5) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
6) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 5
7) Press BACK button to go back to step 3 or 4.
8) Exit Program Output Relay 7 \& 8 by pressing the BACK button until the cursor is shown next to "RELAY $7 \& 8$ ".
9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini settings.

| 001 | $:$ | On \& Off pushbutton pair (for keypad type 01, 02 and 03). |
| :--- | :--- | :--- |
| 002 | $:$ | Magnet On \& Off pushbutton pair (for keypad type 01, 02 and 03). |
| 003 | $:$ | On + Start \& Off + Start pushbutton pair (for keypad type 03 only). |

## 8. Flex MINI-M Models

### 8.1 Program IR

### 8.1.1 Transmitter

1) Set dipswitch position 7~9 to "100"

2) Reinsert batteries and press any pushbutton to display the transmitter firmware version with red, green and orange blinks.
3) Press READ button to transfer transmitter info into the IR programmer. If the screen shows "READ OK" the transfer is completed.
4) Browse through list of settings by pressing " $\uparrow$ " and " $\downarrow$ " buttons.
5) Press WRITE button to transfer the new settings into the transmitter (transmitter Status LED constant orange). If the screen shows "WRITE OK" the transfer is completed (transmitter Status LED constant green for up to 2 seconds).
6) Exit Program IR by pressing the BACK button until the cursor is shown next to "Program".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini-M settings.

### 8.1.2 Receiver

1) Power on the receiver with MAIN outputs deactivated (standby mode).
2) Press READ button to transfer receiver info into the IR programmer. If the screen shows "READ OK" the transfer is completed.
3) Browse through list of settings by pressing " $\uparrow$ " and " $\downarrow$ " buttons.
4) Press WRITE button to transfer the new settings into the receiver (receiver Status LED constant orange). If the screen shows "WRITE OK" the transfer is completed (receiver Status LED blinks green - standby mode).
5) Exit Program IR by pressing the BACK button until the cursor is shown next to "Program".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini-M settings.


### 8.2 Program Serial Number (TX \& RX)

1) Press " $\rightarrow$ " button to enter Serial Number setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change serial number as a whole or...
3) Press " $\rightarrow$ " button to go to the $1^{\text {st }}$ digit on the far left of the serial number.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program Serial Number by pressing the BACK button until the cursor is shown next to " $\mathrm{S} / \mathrm{N}$ :".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini-M settings.

### 8.3 Program System Type (TX \& RX)

1) Press " $\rightarrow$ " button to enter System Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change system type as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program System Type by pressing the BACK button until the cursor is shown next to "TYPE:".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini-M settings.

### 8.4 Program Keypad Type (TX \& RX)

1) Press " $\rightarrow$ " button to enter Keypad Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change system type as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 5.
6) Press BACK button to go back to step 3 or 4 .
7) Exit Program Keypad Type by pressing the BACK button until the cursor is shown next to "KEYPAD:".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini-M settings.


Type 1


Type 2


Type 3

### 8.5 Program System Frequency Range (TX \& RX)

1) Press " $\rightarrow$ " button to enter Frequency Range setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change frequency range.
3) Exit Program System Frequency Range by pressing the BACK button until the cursor is shown next to "FREQ:".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini-M settings.

### 8.6 Program System Channel (TX \& RX)

1) Press " $\rightarrow$ " button to enter System Channel setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change system channel as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program System Channel by pressing the BACK button until the cursor is shown next to "CHANNEL".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini-M settings.

### 8.7 Program RF Power (TX)

1) Press " $\rightarrow$ " button to enter RF Power setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change RF power ( $0.01 \mathrm{~mW} \sim 10 \mathrm{~mW}$ ).
3) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to enable or disable RF power adjustment via transmitter dipswitch.
4) Exit Program RF Power by pressing the BACK button until the cursor is shown next to "RFpower".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini-M settings.

### 8.8 Program Pushbutton Functions (TX)

1) Press " $\rightarrow$ " button to enter Pushbutton Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change pushbutton function as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3.
7) Exit Program Pushbutton Functions by pressing the BACK button until the cursor is shown next to "PB FUNC".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex MINI-M settings.

The transmitter pushbutton function table on Section 13 Part-C illustrates which numeric value corresponds to which pushbutton function.

### 8.9 Program Transmitter Inactivity Timer (TX)

1) Press " $\rightarrow$ " button to enter Transmitting Timer setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select "_M" for minutes/seconds or "ON" for constant on.
3) When "ON" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select "+START" or "+ANY".
4) When " $M$ " is selected, press " $\rightarrow$ " button to go to the digit on the left and press " $\uparrow$ " and " $\downarrow$ " button to select value. Press " $\rightarrow$ " button again to go to the next digit and press " $\uparrow$ " and " $\downarrow$ " button to select value.
5) Press " $\rightarrow$ " button again to select " $M$ " for minutes or " $S$ " for seconds. Press " $\uparrow$ " and " $\downarrow$ " button to select.
6) Press " $\rightarrow$ " button again to select "+START" or "+ANY" selection. Press " $\uparrow$ " and " $\downarrow$ " button to select.
7) Exit Program Transmitter Timer by pressing the BACK button until the cursor is shown next to "TX TIMER".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini-M settings.

Transmitter inactivity timer is for setting receiver main outputs cutoff time when the transmitter is not in operation for a certain period of time. When set to 5 minutes (05M), the receiver main relays are deactivated at 5.0 minutes after last transmitter operation.

Select "ON" means the receiver MAIN outputs are activated at all time unless the STOP or ON/OFF pushbutton is pressed down or receiver power turned off (inactivity timer disabled).
Select "+START" means after 5 minutes of transmitter inactivity you must press the green START pushbutton to continue operation. Select "+ANY" means after 5 minutes of transmitter inactivity press any pushbutton to continue operation.

### 8.10 Program Channel Scanning (RX)

1) Press " $\rightarrow$ " button to enter Channel Scanning setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select number of channels to scan (01~12).
3) Exit Program Channel Scanning by pressing the BACK button until the cursor is shown next to "CH SCAN".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini-M settings.

### 8.11 Program Function Output-1 (OUT-9) (RX)

1) Press " $\rightarrow$ " button to enter Function Output-1 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Output-1 by pressing the BACK button until the cursor is shown next to "FUNC RLY1".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini-M settings.

| --- | $:$ | According to receiver dipswitch setting. |
| :---: | :---: | :--- |
| LV | $:$ | Function output activates receiver voltage is low. |
| ID | $:$ | Function output works simultaneously with all motion commands. <br> SORMAL |
| START function + AUX with normal momentary output. Works the 2 |  |  |

### 8.12 Program Function Output-2 (OUT-10) (RX)

1) Press " $\rightarrow$ " button to enter Function Output-2 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Output-2 by pressing the BACK button until the cursor is shown next to "FUNC RLY2".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini-M settings.


### 8.13 Program Function Output-3 (CN6) (RX)

1) Press " $\rightarrow$ " button to enter Function Output-3 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Output-3 by pressing the BACK button until the cursor is shown next to "FUNC RLY3".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex Mini-M settings.

|  | According to receiver dipswitch setting. |
| :---: | :---: |
| LV | Function output activates receiver voltage is low. |
| ID | Function output works simultaneously with all motion commands. |
| NORMAL | START function + AUX with normal momentary output. Works the $2^{\text {nd }}$ time the START pushbutton is pressed (keypad Type-3 only). |
| TOGGLE | START function + AUX with toggled/latching output (keypad Type-3 only). |
| TOG\&E | START function + AUX with toggled/latching output affected by the STOP command (Function output deactivates when STOP button is pressed down) (keypad Type-3 only). |
| EXT | Function output works simultaneously with the receiver MAIN outputs. |
| HORN | Function output activates for up to 3 seconds when START command is initiated at transmitter power on and then becomes a normal momentary output thereafter (keypad Type-3 only). |
| RESET | Function output activates when START command is initiated and deactivates when let go. Works during initial transmitter startup and inactivity timer START reset (keypad Type-3 only). |

## 9. Flex ECO \& HANDY Models

### 9.1 Program IR

### 9.1.1 Transmitter

1) Pressed down the STOP button (transmitter power off).
2) Press and hold PB1 and PB3 at the same time for the ECO model and set dipswitch position \#7 and \#8 to "01" for the HANDY model (READ not required).

3) Reset the STOP button by rotating it clockwise or counter-clockwise, it will pop up.
4) Release PB1 and PB3 at the same time. The transmitter Status LED displays firmware version with red, green and orange blinks.
5) Press READ button to transfer transmitter info into the IR programmer. If the screen shows "READ OK" the transfer is completed.
6) Browse through list of settings by pressing " $\uparrow$ " and " $\downarrow$ " buttons.
7) Press WRITE button to transfer the new settings into the transmitter (transmitter Status LED constant orange). If the screen shows "WRITE OK" the
 transfer is completed (transmitter Status LED constant green for up to 2 seconds).
8) Exit Program IR by pressing the BACK button until the cursor is shown next to "Program".
9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex ECO/HANDY settings.

### 9.1.2 Receiver

1) Power on the receiver with MAIN relays deactivated (standby mode).
2) Press READ button to transfer receiver info
 into the IR programmer. If the screen shows "READ OK" the transfer is completed.
3) Browse through list of settings by pressing " $\uparrow$ " and " $\downarrow$ " buttons.
4) Press WRITE button to transfer the new settings into the receiver (receiver Status LED constant orange). If the screen shows "WRITE OK" the transfer is completed (receiver Status LED blinks green - standby mode).
5) Exit Program IR by pressing the BACK button until the cursor is shown next to "Program".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex ECO/HANDY settings.


### 9.2 Program Serial Number (TX \& RX)

1) Press " $\rightarrow$ " button to enter Serial Number setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change serial number as a whole or...
3) Press " $\rightarrow$ " button to go to the $1^{\text {st }}$ digit on the far left of the serial number.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program Serial Number by pressing the BACK button until the cursor is shown next to " $\mathrm{S} / \mathrm{N}$ :".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex ECO/HANDY settings.

### 9.3 Program System Type (TX \& RX)

1) Press " $\rightarrow$ " button to enter System Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change system type as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program System Type by pressing the BACK button until the cursor is shown next to "TYPE:".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex ECO/HANDY settings.

### 9.4 Program T-Type Function (TX \& RX)

1) Press " $\rightarrow$ " button to enter T-Type Function setting.
2) Press " " " and " $\downarrow$ " button to change type number.
3) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select "LOCK" for all Select buttons interlocked and "UNLOCK" for all Select buttons non-interlocked.
4) Exit Program T-Type Function by pressing the BACK button until the cursor is shown next to "T-TYPE:".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex ECO/HANDY settings.

### 9.5 Program System Frequency Range (TX \& RX)

1) Press " $\rightarrow$ " button to enter Frequency Range setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change frequency range.
3) Exit Program System Frequency Range by pressing the BACK button until the cursor is shown next to "FREQ:".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex ECO/HANDY settings.

### 9.6 Program System Channel (TX \& RX)

1) Press " $\rightarrow$ " button to enter System Channel setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change system channel as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program System Channel by pressing the BACK button until the cursor is shown next to "CHANNEL".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex ECO/HANDY settings.

### 9.7 Program RF Power (TX)

1) Press " $\rightarrow$ " button to enter RF Power setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change RF power ( $0.01 \mathrm{~mW} \sim 10 \mathrm{~mW}$ ).
3) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to enable or disable RF power adjustment via transmitter dipswitch.
4) Exit Program RF Power by pressing the BACK button until the cursor is shown next to "RFpower".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex ECO/HANDY settings.

### 9.8 Program Pushbutton Functions (TX)

1) Press " $\rightarrow$ " button to enter Pushbutton Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change pushbutton function as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program Pushbutton Functions by pressing the BACK button until the cursor is shown next to "PB FUNC".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex ECO/HANDY settings.

The transmitter pushbutton function table on Section 13 Part-C illustrates which numeric value corresponds to which pushbutton function.

### 9.9 Program Transmitter Inactivity Timer (TX)

1) Press " $\rightarrow$ " button to enter Transmitting Timer setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select " $\_$" " for minutes/seconds or "ON" for constant on.
3) When "ON" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select "+START" or "+ANY".
4) When "_M" is selected, press " $\rightarrow$ " button to go to the digit on the left and press " $\uparrow$ " and " $\downarrow$ " button to select value. Press " $\rightarrow$ " button again to go to the next digit and press " $\uparrow$ " and " $\downarrow$ " button to select value.
5 ) Press " $\rightarrow$ " button again to select " $M$ " for minutes or " $S$ " for seconds. Press " $\uparrow$ " and " $\downarrow$ " button to select.
5) Press " $\rightarrow$ " button again to select " + START" or " + ANY" selection. Press " $\uparrow$ " and " $\downarrow$ " button to select.
6) Exit Program Transmitter Timer by pressing the BACK button until the cursor is shown next to "TX TIMER".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex ECO/HANDY settings.

Transmitter inactivity timer is for setting receiver main relays cutoff time when the transmitter is not in operation for a certain period of time. When set to 5 minutes (05M), the receiver main relays are deactivated at 5.0 minutes after last transmitter operation.

Select "ON" means the receiver main relays are activated at all time unless the STOP button is pressed down or receiver power turned off (inactivity timer disabled).

Select "+START" means after 5 minutes of transmitter inactivity you must press the green START button to continue operation. Select "+ANY" means after 5 minutes of transmitter inactivity press any pushbutton to continue operation.

### 9.10 Program Channel Scanning (RX)

1) Press " $\rightarrow$ " button to enter Channel Scanning setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select number of channels to scan (01~12).
3) Exit Program Channel Scanning by pressing the BACK button until the cursor is shown next to "CH SCAN".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex ECO/HANDY settings.

Note: Make sure the Channel dipswitch in receiver position 7 and 8 is set to " 11 " in order for this to work (refer to manual section 4.2.2.11).

### 9.11 Program Function Relay 1 / K25 Relay (RX)

1) Press " $\rightarrow$ " button to enter Function Relay 1 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Relay 1 by pressing the BACK button until the cursor is shown next to "FUNC RLY1".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex ECO/HANDY settings.

| L--- | $:$ | According to receiver dipswitch setting. |
| :---: | :--- | :--- | :--- |
| LV | $:$ | Function relay closes when receiver voltage is low. |

### 9.12 Program Function Relay 2 / K26 Relay (RX)

1) Press " $\rightarrow$ " button to enter Function Relay 2 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Relay 2 by pressing the BACK button until the cursor is shown next to "FUNC RLY2".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex ECO/HANDY settings.


### 9.13 Program Function Relay 3 / K30 Relay (RX)

1) Press " $\rightarrow$ " button to enter Function Relay 3 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Relay 3 by pressing the BACK button until the cursor is shown next to "FUNC RLY3".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex ECO/HANDY settings.

| ---- | According to receiver dipswitch setting. |
| :---: | :---: |
| LV | Function relay closes when receiver voltage is low. |
| ID | Function relay works simultaneously with all motion commands. |
| NORMAL | START function + AUX with normal momentary output. Works the $2^{\text {nd }}$ time the START pushbutton is pressed. |
| TOGGLE | START function + AUX with toggled/latching output. |
| TOG\&E | START function + AUX with toggled/latching output. The relay opens when STOP button is pressed down and transmitter power off. |
| S/P | FUNCTION relay closes when START command is executed and opens only when transmitter power is turned off. |
| EXT | FUNCTION relay works simultaneously with the receiver MAIN relays. |
| TDM A+B | FUNCTION relay closes when selector switch is rotated to the $A+B$ position and opens when rotate to A or B positions (tandem monitoring output). |
| HORN | FUNCTION relay closes for up to 3 seconds when Start command is initiated at transmitter power on and then becomes normal momentary outputs thereafter. |
| TANDEM C | FUNCTION relay closes when tandem receiver C is selected or activated. |
| RESET | FUNCTION relay closes when Start command is initiated and opens when let go. Works during initial transmitter startup and inactivity timer START reset. |

### 9.14 Program Brake Functions (RX)

1) Press " $\rightarrow$ " button to enter Brake Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Brake Functions by pressing the BACK button until the cursor is shown next to "BRAKE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex ECO/HANDY settings. DEMAG 1 : When releasing pushbutton from $2^{\text {nd }}$ speed up to $1^{\text {st }}$ speed, the $1^{\text {st }}$ speed output relay will open for up to 1.0 second and then closes again. DEMAG 2 : When pushbutton is pressed down to $2^{\text {nd }}$ speed directly from 0 speed, the $1^{\text {st }}$ speed output relay will maintain closure for up to 0.4 second before $2^{\text {nd }}$ speed output relay closes. When pushbutton is released from $2^{\text {nd }}$ speed up to 0 speed, the $1^{\text {st }}$ speed output relay will maintain closure for up to 0.5 second before going to 0 speed.
DEMAG 3 : When releasing pushbutton from $2^{\text {nd }}$ speed up to $1^{\text {st }}$ speed, both $1^{\text {st }}$ and $2^{\text {nd }}$ speed output relays are opened. Release pushbutton to 0 speed and then press down to $1^{\text {st }}$ speed to reengage the $1^{\text {st }}$ speed output relay.
$\mathbf{P \& H} \quad: \quad$ When releasing pushbutton from $2^{\text {nd }}$ speed up to 0 speed, the $1^{\text {st }}$ speed output relay will maintain closure for up to 0.1 second before going to 0 speed.

### 9.15 Program MRX Micro Receiver PB type (MRX)

1) Press " $\rightarrow$ " button 2 times to enter PB Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select. PB1~4 setting means the receiver corresponds to PB1~PB4 on the transmitter. PB5~8 means the receiver corresponds to PB5~PB8 on the transmitter. PB9~12 means the receiver corresponds to PB9~PB12 on the transmitter. Inline means the PB number is counted from top to bottom instead of right to left.
3) Exit Program Micro Receiver PB Type by pressing the BACK button until the cursor is shown next to "MICRO RX".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex ECO/HANDY settings.

### 9.16 Program Function Relay 1 (K10 and CN5) (MRX)

1) Press " $\rightarrow$ " button to enter Function Relay 1 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Relay 1 by pressing the BACK button until the cursor is shown next to "FUNC RLY1".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex ECO/HANDY settings.

| ---- |  | According to receiver dipswitch setting. |
| :---: | :---: | :---: |
| LV |  | Function relay closes when receiver voltage is low. |
| ID |  | Function relay works simultaneously with all motion commands. |
| NORMAL | : | START function + AUX with normal momentary output. Works the $2^{\text {nd }}$ time the START pushbutton is pressed. |
| TOGGLE | : | START function + AUX with toggled/latching output. |
| TOG\&E | : | START function + AUX with toggled/latching output. The relay opens when STOP button is pressed down and transmitter power off. |
| S/P | : | FUNCTION relay closes when START command is executed and opens only when transmitter power is turned off. |
| EXT | : | FUNCTION relay works simultaneously with the receiver MAIN relays. |
| HORN | : | FUNCTION relay closes for up to 3 seconds when Start command is initiated at transmitter power on and then becomes normal momentary outputs thereafter. |
| RESET | : | FUNCTION relay closes when Start command is initiated and opens when let go. Works during initial transmitter startup and inactivity timer START reset. |

## 10. Flex EPH Models

### 10.1 Program IR

### 10.1.1 Transmitter

1) Rotate the power switch key to OFF ( 0 ) position.
2) With the STOP button elevated, press and hold PB1 and PB3 at the same time (READ not required).
3) Rotate the power switch key to ON (I) position.
4) Release PB1 and PB3 at the same time. The transmitter Status LED displays firmware version with red, green and orange blinks.

5) Press READ button to transfer transmitter info into the IR programmer. If the screen shows "READ OK" the transfer is completed.
6) Browse through list of settings by pressing " $\uparrow$ " and " $\downarrow$ " buttons.
7) Press WRITE button to transfer the new settings into the transmitter (transmitter Status LED constant orange). If the screen shows "WRITE OK" the transfer is completed (transmitter Status LED constant green for up to 2 seconds).
8) Exit Program IR by pressing the BACK button until the cursor is shown next to "PROGRAM".

9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.1.2 Receiver

1) Power on the receiver with MAIN relays deactivated (standby mode).
2) Press READ button to transfer receiver info into the IR programmer. If the screen shows "READ OK" the transfer is completed.
3) Browse through list of settings by pressing " $\uparrow$ " and " $\downarrow$ " buttons.
4) Press WRITE button to transfer the new settings into the receiver (receiver Status LED constant orange). If the screen shows "WRITE OK" the transfer is completed (receiver Status LED blinks green - standby mode).
5) Exit Program IR by pressing the BACK button until the cursor is shown next to "PROGRAM".
6 ) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

Note: When performing infrared programming, make sure the distance between the IR programmer and the transmitter or receiver is within 10 cm .

### 10.2 Program Serial Number (TX \& RX)

1) Press " $\rightarrow$ " button to enter Serial Number setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change serial number as a whole or...
3) Press " $\rightarrow$ " button to go to the $1^{\text {st }}$ digit on the far left of the serial number.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program Serial Number by pressing the BACK button until the cursor is shown next to " $\mathrm{S} / \mathrm{N}$ ".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.3 Program System Type (TX \& RX)

1) Press " $\rightarrow$ " button to enter System Type setting.
2) Press " "" and " $\downarrow$ " button to change system type as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program System Type by pressing the BACK button until the cursor is shown next to "TYPE".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.4 Program System Frequency Range (TX \& RX)

1) Press " $\rightarrow$ " button to enter Frequency Range setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change frequency range.
3) Exit Program System Frequency Range by pressing the BACK button until the cursor is shown next to "FREQ".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.5 Program System Channel (TX \& RX)

1) Press " $\rightarrow$ " button to enter System Channel setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select channel number setting (assigned channel scheme) or UNASSIGN (unassigned channel scheme).
3) To program channel number, press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the digit on the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program System Channel by pressing the BACK button until the cursor is shown next to "CHANNEL".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.6 Program RF Power (TX)

1) Press " $\rightarrow$ " button to enter RF Power setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change RF power ( $0.01 \mathrm{~mW} \sim 25 \mathrm{~mW}$ ).
3) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to enable or disable RF power adjustment via transmitter dipswitch.
4) Exit Program RF Power by pressing the BACK button until the cursor is shown next to "RFpower".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.7 Program Rotary Switch Functions (TX)

1) Press " $\rightarrow$ " button to enter Rotary Switch Functions setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select $A / O f f / B, A / B / A+B, A / A+B / B$ or $A / B / C$ rotary switch sequence.
3) Exit Program Rotary Switch Functions by pressing the BACK button until the cursor is shown next to "SW FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.8 Program PB Speed Function (TX)

1) Press " $\rightarrow$ " button to enter PB Speed Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select $25 \%, 50 \%, 75 \%$ and $100 \%$.
3) Exit Program PB Speed Functions by pressing the BACK button until the cursor is shown next to "PB SPEED".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.9 Program Transmitter Inactivity Timer (TX)

1) Press " $\rightarrow$ " button to enter Transmitting Timer setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select " $\_$" " for minutes/seconds or "ON" for constant on.
3) When "ON" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select "+START" or "+ANY".
4) When "_M" is selected, press " $\rightarrow$ " button to go to the digit on the left and press " $\uparrow$ " and " $\downarrow$ " button to select value. Press " $\rightarrow$ " button again to go to the next digit and press " $\uparrow$ " and " $\downarrow$ " button to select value.
5) Press " $\rightarrow$ " button again to select " $M$ " for minutes or " $S$ " for seconds. Press " $\uparrow$ " and " $\downarrow$ " button to select.
6) Press " $\rightarrow$ " button again to select " + START" or " + ANY" selection. Press " $\uparrow$ " and " $\downarrow$ " button to select.
7) Exit Program Transmitter Timer by pressing the BACK button until the cursor is shown next to "TX TIMER".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

Transmitter inactivity timer is for setting receiver main relays cutoff time when the transmitter is not in operation for a certain period of time. When set to 5 minutes (05M), the receiver main relays are deactivated at 5.0 minutes after last transmitter operation.

Select "ON" means the receiver main relays are activated at all time unless the STOP button is pressed down, transmitter power off, or receiver power turned off (inactivity timer disabled).
Select "+START" means after 5 minutes of transmitter inactivity you must execute the START command to continue operation. Select "+ANY" means after 5 minutes of transmitter inactivity, press any pushbutton to continue operation.

### 10.10 Program Infrared START Function (TX)

1) Press " $\rightarrow$ " button to enter Infrared Start Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select Off or IRS.

Select "OFF" to disable infrared START function.
Select "IRS" to enable infrared START function.
3) Exit Program Infrared START Function by pressing the BACK button until the cursor is shown next to "IR Mode".
4) Press " $\downarrow$ " button to go to the next Infrared START setting.

### 10.11 Program Infrared START ID Code (TX)

1) Press " $\rightarrow$ " button to enter Infrared START ID code setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to set the 3-digit ID code as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2.

Make sure the infrared module on crane is set to same ID code as the transmitter.
Select "000" disables the ID code function hence any types of infrared modules can be used.
7) Exit Program Infrared START ID Code by pressing the BACK button until the cursor is shown next to "IR ID".
8) Press " $\downarrow$ " button to go to the next Infrared START setting.

### 10.12 Program IRS Time Out (TX)

1) Press " $\rightarrow$ " button to enter IRS Time Out setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select IRS Off or IRS On.

Select "IRS On" if infrared START is required after every transmitter timeout.
Select "IRS Off" if infrared START is not required after every transmitter timeout.
3) Exit Program IRS Time Out by pressing the BACK button until the cursor is shown next to "IRS FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.13 Program Channel Scanning (RX)

1) Press " $\rightarrow$ " button to enter Channel Scanning setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select number of channels to scan (01~12).
3) Exit Program Channel Scanning by pressing the BACK button until the cursor is shown next to "CH SCAN".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.14 Program Function Output-1 (OUT-5) (RX)

1) Press " $\rightarrow$ " button to enter Function Output-1 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Output-1 by pressing the BACK button until the cursor is shown next to "FUNC RLY1".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

| ---- | According to receiver dipswitch setting. |
| :---: | :---: |
| LV | Function relay closes when receiver voltage is low. |
| ID | Refer to section 10.17 Program ID Output |
| NORMAL | START function + AUX with normal momentary output. Works the $2^{\text {nd }}$ time rotate to the START position. |
| TOGGLE | START function + AUX with toggled/latching output. |
| TOG\&E | START function + AUX with toggled/latching output. The relay opens when STOP button is pressed down and transmitter power off. |
| S/P | FUNCTION relay closes when START command is executed and opens only when transmitter power is turned off. |
| EXT | FUNCTION relay works simultaneously with the receiver MAIN relays. |
| TDM A+B | FUNCTION relay closes when selector switch is rotated to the $\mathrm{A}+\mathrm{B}$ position and opens when rotate to A or B positions (tandem monitoring output). |
| HORN | FUNCTION relay closes for up to 3 seconds when START command is initiated at transmitter power on and then becomes normal momentary outputs thereafter. |
| G SENSOR | FUNCTION relay closes when Zero-G sensor is triggered (receiver MAIN relays deactivated) and opens when receiver MAIN relays are reactivated. |
| RESET | FUNCTION relay closes when rotate to START position and opens when let go. Works during initial transmitter startup and inactivity timer START reset. |
| SW8 ABC | FUNCTION relay closes at C position (for pushbutton and rotary select ABC function). |
| SW12 ABC | FUNCTION relay closes at $C$ position (for pushbutton and rotary select $A B C$ function). |

### 10.15 Program Function Output-2 (OUT-6) (RX)

1) Press " $\rightarrow$ " button to enter Function Output-2 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Output-2 by pressing the BACK button until the cursor is shown next to "FUNC RLY2".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

| ---- | According to receiver dipswitch setting. |
| :---: | :---: |
| LV | Function relay closes when receiver voltage is low. |
| ID | Refer to section 10.18 Program ID Output |
| NORMAL | START function + AUX with normal momentary output. Works the $2^{\text {nd }}$ time rotate to the START position. |
| TOGGLE | START function + AUX with toggled/latching output. |
| TOG\&E | START function + AUX with toggled/latching output. The relay opens when STOP button is pressed down and transmitter power off. |
| S/P | FUNCTION relay closes when START command is executed and opens only when transmitter power is turned off. |
| EXT | FUNCTION relay works simultaneously with the receiver MAIN relays. |
| TDM A+B | FUNCTION relay closes when selector switch is rotated to the $\mathrm{A}+\mathrm{B}$ position and opens when rotate to A or B positions (tandem monitoring output). |
| HORN | FUNCTION relay closes for up to 3 seconds when START command is initiated at transmitter power on and then becomes normal momentary outputs thereafter. |
| G SENSOR | FUNCTION relay closes when Zero-G sensor is triggered (receiver MAIN relays deactivated) and opens when receiver MAIN relays are reactivated. |
| RESET | FUNCTION relay closes when rotate to START position and opens when let go. Works during initial transmitter startup and inactivity timer START reset. |
| SW8 ABC | FUNCTION relay closes at C position (for pushbutton and rotary select ABC function). |
| SW12 ABC | FUNCTION relay closes at $C$ position (for pushbutton and rotary select $A B C$ function). |

### 10.16 Program Function Output-3 (CN8) (RX)

1) Press " $\rightarrow$ " button to enter Function Output-3 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Output-3 by pressing the BACK button until the cursor is shown next to "FUNC RLY3".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

| ---- | According to receiver dipswitch setting. |
| :---: | :---: |
| LV | Function relay closes when receiver voltage is low. |
| NORMAL | START function + AUX with normal momentary output. Works the $2^{\text {nd }}$ time rotate to the START position. |
| TOGGLE | START function + AUX with toggled/latching output. |
| TOG\&E | START function + AUX with toggled/latching output. The relay opens when STOP button is pressed down and transmitter power off. |
| S/P | FUNCTION relay closes when START command is executed and opens only when transmitter power is turned off. |
| EXT | FUNCTION relay works simultaneously with the receiver MAIN relays. |
| TDM A+B | FUNCTION relay closes when selector switch is rotated to the $\mathrm{A}+\mathrm{B}$ position and opens when rotate to A or B positions (tandem monitoring output). |
| HORN | FUNCTION relay closes for up to 3 seconds when START command is initiated at transmitter power on and then becomes normal momentary outputs thereafter. |
| G SENSOR | FUNCTION relay closes when Zero-G sensor is triggered (receiver MAIN relays deactivated) and opens when receiver MAIN relays are reactivated. |
| RESET | FUNCTION relay closes when rotate to START position and opens when let go. Works during initial transmitter startup and inactivity timer START reset. |
| SW8 ABC | FUNCTION relay closes at C position (for pushbutton and rotary select ABC function). |
| SW12 ABC | FUNCTION relay closes at C position (for pushbutton and rotary select $A B C$ function). |

### 10.17 Program ID1 Function Output (RX)

Set ID1 output type when Function Output-1 is set to "ID".

1) Press " $\rightarrow$ " button to enter ID1 Output setting.
2) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select DIGITAL, CURRENT or PWM output.

DIGITAL: High signal (button pressed down) and low signal (button released).
CURRENT: 0~1,000mA programmable.
PWM: 0~100\% programmable.
3) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT or PWM setting.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Press BACK button to go back to step 4.
6) Exit Program ID1 Output by pressing the BACK button until the cursor is shown next to "ID1 OUT".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.18 Program ID2 Function Output (RX)

Set ID2 output type when Function Output-2 is set to "ID".

1) Press " $\rightarrow$ " button to enter ID2 Output setting.
2) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select DIGITAL, CURRENT or PWM output.

DIGITAL: High signal (button pressed down) and low signal (button released).
CURRENT: 0~1,000mA programmable.
PWM: 0~100\% programmable.
3) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT or PWM setting.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Press BACK button to go back to step 4.
6) Exit Program ID2 Output by pressing the BACK button until the cursor is shown next to "ID2 OUT".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.19 Program ID1 Ramp (RX)

1) Press " $\rightarrow$ " button to enter ID1 Ramp setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
4) Press BACK button to go back to step 2.
5) Exit Program ID1 Ramp by pressing the BACK button until the cursor is shown next to "ID1 RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.20 Program ID2 Ramp (RX)

1) Press " $\rightarrow$ " button to enter ID2 Ramp setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
4) Press BACK button to go back to step 2.
5) Exit Program ID2 Ramp by pressing the BACK button until the cursor is shown next to "ID2 RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.21 Program PB1 \& PB2 Outputs (RX)

1) Press " $\rightarrow$ " button to enter PB1 \& PB2 Outputs setting.
2) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select Digital or Analog outputs.
3) Press BACK button to go back to step 1.

## Analog Outputs

1) Press " $\downarrow$ " button and then " $\rightarrow$ " button to select LOCK (PB interlocked) or UNLOCK (PB non-interlocked).
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Proceed to section 10.27 and 10.28 for other analog output settings.

## Digital Outputs

1) Press " $\downarrow$ " button and then " $\rightarrow$ " button to select PB digital outputs.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value ( 0 or 1 ) for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Exit Program PB1 \& PB2 Outputs by pressing the BACK button until the cursor is shown next to "PB1\&PB2".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

## None Interlocked Settings

| Function \# | Function Descriptions |
| :---: | :---: |
| 10000000 | Left button normal / Right button normal relay outputs. |
| 10000010 | Left button normal / Right button toggled relay outputs. |
| 10000110 | Left button normal / Right button toggled (EMS)* relay outputs. |
| 10001000 | Left button normal / Right button normal (START)** relay outputs. |
| 10001100 | Left button normal / Right button Pitch \& Catch. |
| 10010000 | Left button toggled / Right button normal relay outputs. |
| 10010010 | Left button toggled / Right button toggled relay outputs. |
| 10010110 | Left button toggled / Right button toggled (EMS)* relay outputs. |
| 10011000 | Left button toggled / Right button normal (START)** relay outputs. |
| 10011100 | Left button toggled / Right button Pitch \& Catch. |
| 10110000 | Left button toggled (EMS)* / Right button normal relay outputs. |
| 10110010 | Left button toggled (EMS)* / Right button toggled relay outputs. |
| 10110110 | Left button toggled (EMS)* / Right button toggled (EMS)* relay outputs. |
| 10111000 | Left button toggled (EMS)* / Right button normal (START)** relay outputs. |
| 10111100 | Left button toggled (EMS)* / Right button Pitch \& Catch. |
| 11000000 | Left button normal (START)** / Right button normal relay outputs. |
| 11000010 | Left button normal (START)** / Right button toggled relay outputs. |
| 11000110 | Left button normal (START)** / Right button toggled (EMS)* relay outputs. |
| 11001000 | Left button normal (START)** / Right button normal (START)** relay outputs. |


| 11001100 | Left button normal (START)** / Right button Pitch \& Catch. |
| :---: | :---: |
| 11100000 | Left button Pitch \& Catch / Right button normal relay outputs |
| 11100010 | Left button Pitch \& Catch / Right button toggled relay outputs. |
| 11100110 | Left button Pitch \& Catch / Right button toggled (EMS)* relay outputs. |
| 11101000 | Left button Pitch \& Catch / Right button normal (START)** relay outputs. |

* (EMS): All outputs opened when STOP button is pressed down.
** (START): For added safety, must first rotate and hold the power switch key at the START position and then press the intended pushbutton to activate the output relay.

Interlocked Settings

| Function \# | Function Descriptions |
| :---: | :---: |
| 00000000 | Both left and right buttons with normal relay outputs. |
| 00001100 | Both left and right buttons with ON \& OFF relay outputs. |
| 00010010 | Both left and right buttons with ON \& OFF (START)** relay outputs. |
| 00001110 | Both left and right buttons with MAGNET ON \& OFF relay outputs. |
| 00010000 | Both left and right buttons with ON \& OFF (EMS)* relay outputs. |
| 00010100 | Both left and right buttons with toggled relay outputs. |
| 00010110 | Both left and right buttons with toggled (EMS)* relay outputs. |

* (EMS): All outputs opened when STOP button is pressed down.
** (START): For added safety, must first rotate and hold the power switch key at the START position and then press the intended pushbutton to activate the output relay.


### 10.22 Program PB3 \& PB4 Outputs (RX)

1) Press " $\rightarrow$ " button to enter PB3 \& PB4 Outputs setting.
2) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select Digital or Analog outputs.
3) Press BACK button to go back to step 1.

## Analog Outputs

1) Press " $\downarrow$ " button and then " $\rightarrow$ " button to select LOCK (PB interlocked) or UNLOCK (PB non-interlocked).
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Proceed to section 10.29 and 10.30 for other analog output settings.

## Digital Outputs

1) Press " $\downarrow$ " button and then " $\rightarrow$ " button to select PB digital outputs.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value ( 0 or 1 ) for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Exit Program PB3 \& PB4 Outputs by pressing the BACK button until the cursor is shown next to "PB3\&PB4".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

## None Interlocked Settings

| Function \# | Function Descriptions |
| :---: | :---: |
| 10000000 | Left button normal / Right button normal relay outputs. |
| 10000010 | Left button normal / Right button toggled relay outputs. |
| 10000110 | Left button normal / Right button toggled (EMS)* relay outputs. |
| 10001000 | Left button normal / Right button normal (START)** relay outputs. |
| 10001100 | Left button normal / Right button Pitch \& Catch. |
| 10010000 | Left button toggled / Right button normal relay outputs. |
| 10010010 | Left button toggled / Right button toggled relay outputs. |
| 10010110 | Left button toggled / Right button toggled (EMS)* relay outputs. |
| 10011000 | Left button toggled / Right button normal (START)** relay outputs. |
| 10011100 | Left button toggled / Right button Pitch \& Catch. |
| 10110000 | Left button toggled (EMS)* / Right button normal relay outputs. |
| 10110010 | Left button toggled (EMS)* / Right button toggled relay outputs. |
| 10110110 | Left button toggled (EMS)* / Right button toggled (EMS)* relay outputs. |
| 10111000 | Left button toggled (EMS)* / Right button normal (START)** relay outputs. |
| 10111100 | Left button toggled (EMS)* / Right button Pitch \& Catch. |
| 11000000 | Left button normal (START)** / Right button normal relay outputs. |
| 11000010 | Left button normal (START)** / Right button toggled relay outputs. |
| 11000110 | Left button normal (START)** Right button toggled (EMS)* relay outputs. |
| 11001000 | Left button normal (START)** / Right button normal (START)** relay outputs. |


| 11001100 | Left button normal (START)** / Right button Pitch \& Catch. |
| :---: | :---: |
| 11100000 | Left button Pitch \& Catch / Right button normal relay outputs |
| 11100010 | Left button Pitch \& Catch / Right button toggled relay outputs. |
| 11100110 | Left button Pitch \& Catch / Right button toggled (EMS)* relay outputs. |
| 11101000 | Left button Pitch \& Catch / Right button normal (START)** relay outputs. |

* (EMS): All outputs opened when STOP button is pressed down.
** (START): For added safety, must first rotate and hold the power switch key at the START position and then press the intended pushbutton to activate the output relay.

Interlocked Settings

| Function \# | Function Descriptions |
| :---: | :---: |
| 00000000 | Both left and right buttons with normal relay outputs. |
| 00001100 | Both left and right buttons with ON \& OFF relay outputs. |
| 00010010 | Both left and right buttons with ON \& OFF (START)** relay outputs. |
| 00001110 | Both left and right buttons with MAGNET ON \& OFF relay outputs. |
| 00010000 | Both left and right buttons with ON \& OFF (EMS)* relay outputs. |
| 00010100 | Both left and right buttons with toggled relay outputs. |
| 00010110 | Both left and right buttons with toggled (EMS)* relay outputs. |

* (EMS): All outputs opened when STOP button is pressed down.
** (START): For added safety, must first rotate and hold the power switch key at the START position and then press the intended pushbutton to activate the output relay.


### 10.23 Program PB5 \& PB6 Outputs (RX)

1) Press " $\rightarrow$ " button to enter PB5 \& PB6 Outputs setting.
2) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select Digital or Analog outputs.
3) Press BACK button to go back to step 1.

## Analog Outputs

1) Press " $\downarrow$ " button and then " $\rightarrow$ " button to select LOCK (PB interlocked) or UNLOCK (PB non-interlocked).
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Proceed to section 10.31 and 10.32 for other analog output settings.

## Digital Outputs

1) Press " $\downarrow$ " button and then " $\rightarrow$ " button to select PB digital outputs.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value ( 0 or 1 ) for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Exit Program PB5 \& PB6 Outputs by pressing the BACK button until the cursor is shown next to "PB5\&PB6".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

## None Interlocked Settings

| Function \# | Function Descriptions |
| :---: | :---: |
| 10000000 | Left button normal / Right button normal relay outputs. |
| 10000010 | Left button normal / Right button toggled relay outputs. |
| 10000110 | Left button normal / Right button toggled (EMS)* relay outputs. |
| 10001000 | Left button normal / Right button normal (START)** relay outputs. |
| 10001100 | Left button normal / Right button Pitch \& Catch. |
| 10010000 | Left button toggled / Right button normal relay outputs. |
| 10010010 | Left button toggled / Right button toggled relay outputs. |
| 10010110 | Left button toggled / Right button toggled (EMS)* relay outputs. |
| 10011000 | Left button toggled / Right button normal (START)** relay outputs. |
| 10011100 | Left button toggled / Right button Pitch \& Catch. |
| 10110000 | Left button toggled (EMS)* / Right button normal relay outputs. |
| 10110010 | Left button toggled (EMS)* / Right button toggled relay outputs. |
| 10110110 | Left button toggled (EMS)* / Right button toggled (EMS)* relay outputs. |
| 10111000 | Left button toggled (EMS)* / Right button normal (START)** relay outputs. |
| 10111100 | Left button toggled (EMS)* / Right button Pitch \& Catch. |
| 11000000 | Left button normal (START)** / Right button normal relay outputs. |
| 11000010 | Left button normal (START)** / Right button toggled relay outputs. |
| 11000110 | Left button normal (START)** / Right button toggled (EMS)* relay outputs. |
| 11001000 | Left button normal (START)** / Right button normal (START)** relay outputs. |


| 11001100 | Left button normal (START)** / Right button Pitch \& Catch. |
| :---: | :---: |
| 11100000 | Left button Pitch \& Catch / Right button normal relay outputs |
| 11100010 | Left button Pitch \& Catch / Right button toggled relay outputs. |
| 11100110 | Left button Pitch \& Catch / Right button toggled (EMS)* relay outputs. |
| 11101000 | Left button Pitch \& Catch / Right button normal (START)** relay outputs. |

* (EMS): All outputs opened when STOP button is pressed down.
** (START): For added safety, must first rotate and hold the power switch key at the START position and then press the intended pushbutton to activate the output relay.

Interlocked Settings

| Function \# | Function Descriptions |
| :---: | :---: |
| 00000000 | Both left and right buttons with normal relay outputs. |
| 00001100 | Both left and right buttons with ON \& OFF relay outputs. |
| 00010010 | Both left and right buttons with ON \& OFF (START)** relay outputs. |
| 00001110 | Both left and right buttons with MAGNET ON \& OFF relay outputs. |
| 00010000 | Both left and right buttons with ON \& OFF (EMS)* relay outputs. |
| 00010100 | Both left and right buttons with toggled relay outputs. |
| 00010110 | Both left and right buttons with toggled (EMS)* relay outputs. |

* (EMS): All outputs opened when STOP button is pressed down.
** (START): For added safety, must first rotate and hold the power switch key at the START position and then press the intended pushbutton to activate the output relay.


### 10.24 Program PB7 \& PB8 Outputs (RX)

1) Press " $\rightarrow$ " button to enter PB7 \& PB8 Outputs setting.
2) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select Digital or Analog outputs.
3) Press BACK button to go back to step 1.

## Analog Outputs

1) Press " $\downarrow$ " button and then " $\rightarrow$ " button to select LOCK (PB interlocked) or UNLOCK (PB non-interlocked).
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Proceed to section 10.33 and 10.34 for other analog output settings.

## Digital Outputs

1) Press " $\downarrow$ " button and then " $\rightarrow$ " button to select PB digital outputs.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value ( 0 or 1 ) for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Exit Program PB7 \& PB8 Outputs by pressing the BACK button until the cursor is shown next to "PB7\&PB8".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

## None Interlocked Settings

| Function \# | Function Descriptions |
| :---: | :---: |
| 10000000 | Left button normal / Right button normal relay outputs. |
| 10000010 | Left button normal / Right button toggled relay outputs. |
| 10000110 | Left button normal / Right button toggled (EMS)* relay outputs. |
| 10001000 | Left button normal / Right button normal (START)** relay outputs. |
| 10001100 | Left button normal / Right button Pitch \& Catch. |
| 10010000 | Left button toggled / Right button normal relay outputs. |
| 10010010 | Left button toggled / Right button toggled relay outputs. |
| 10010110 | Left button toggled / Right button toggled (EMS)* relay outputs. |
| 10011000 | Left button toggled / Right button normal (START)** relay outputs. |
| 10011100 | Left button toggled / Right button Pitch \& Catch. |
| 10110000 | Left button toggled (EMS)* / Right button normal relay outputs. |
| 10110010 | Left button toggled (EMS)* / Right button toggled relay outputs. |
| 10110110 | Left button toggled (EMS)* / Right button toggled (EMS)* relay outputs. |
| 10111000 | Left button toggled (EMS)* / Right button normal (START)** relay outputs. |
| 10111100 | Left button toggled (EMS)* / Right button Pitch \& Catch. |
| 11000000 | Left button normal (START)** / Right button normal relay outputs. |
| 11000010 | Left button normal (START)** / Right button toggled relay outputs. |
| 11000110 | Left button normal (START)** / Right button toggled (EMS)* relay outputs. |
| 11001000 | Left button normal (START)** / Right button normal (START)** relay outputs. |


| 11001100 | Left button normal (START)** / Right button Pitch \& Catch. |
| :---: | :---: |
| 11100000 | Left button Pitch \& Catch / Right button normal relay outputs |
| 11100010 | Left button Pitch \& Catch / Right button toggled relay outputs. |
| 11100110 | Left button Pitch \& Catch / Right button toggled (EMS)* relay outputs. |
| 11101000 | Left button Pitch \& Catch / Right button normal (START)** relay outputs. |

* (EMS): All outputs opened when STOP button is pressed down.
** (START): For added safety, must first rotate and hold the power switch key at the START position and then press the intended pushbutton to activate the output relay.

Interlocked Settings

| Function \# | Function Descriptions |
| :---: | :---: |
| 00000000 | Both left and right buttons with normal relay outputs. |
| 00001100 | Both left and right buttons with ON \& OFF relay outputs. |
| 00010010 | Both left and right buttons with ON \& OFF (START)** relay outputs. |
| 00001110 | Both left and right buttons with MAGNET ON \& OFF relay outputs. |
| 00010000 | Both left and right buttons with ON \& OFF (EMS)* relay outputs. |
| 00010100 | Both left and right buttons with toggled relay outputs. |
| 00010110 | Both left and right buttons with toggled (EMS)* relay outputs. |

* (EMS): All outputs opened when STOP button is pressed down.
** (START): For added safety, must first rotate and hold the power switch key at the START position and then press the intended pushbutton to activate the output relay.


### 10.25 Program PB9 \& PB10 Outputs (RX)

1) Press " $\rightarrow$ " button to enter PB9 \& PB10 Outputs setting.
2) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select Digital or Analog outputs.
3) Press BACK button to go back to step 1.

## Analog Outputs

1) Press " $\downarrow$ " button and then " $\rightarrow$ " button to select LOCK (PB interlocked) or UNLOCK (PB non-interlocked).
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Proceed to section 10.35 and 10.36 for other analog output settings.

## Digital Outputs

1) Press " $\downarrow$ " button and then " $\rightarrow$ " button to select PB digital outputs.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value ( 0 or 1 ) for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Exit Program PB9 \& PB10 Outputs by pressing the BACK button until the cursor is shown next to "PB9\&PB10".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

## None Interlocked Settings

| Function \# | Function Descriptions |
| :---: | :---: |
| 10000000 | Left button normal / Right button normal relay outputs. |
| 10000010 | Left button normal / Right button toggled relay outputs. |
| 10000110 | Left button normal / Right button toggled (EMS)* relay outputs. |
| 10001000 | Left button normal / Right button normal (START)** relay outputs. |
| 10001100 | Left button normal / Right button Pitch \& Catch. |
| 10010000 | Left button toggled / Right button normal relay outputs. |
| 10010010 | Left button toggled / Right button toggled relay outputs. |
| 10010110 | Left button toggled / Right button toggled (EMS)* relay outputs. |
| 10011000 | Left button toggled / Right button normal (START)** relay outputs. |
| 10011100 | Left button toggled / Right button Pitch \& Catch. |
| 10110000 | Left button toggled (EMS)* / Right button normal relay outputs. |
| 10110010 | Left button toggled (EMS)* / Right button toggled relay outputs. |
| 10110110 | Left button toggled (EMS)* / Right button toggled (EMS)* relay outputs. |
| 10111000 | Left button toggled (EMS)* / Right button normal (START)** relay outputs. |
| 10111100 | Left button toggled (EMS)* / Right button Pitch \& Catch. |
| 11000000 | Left button normal (START)** / Right button normal relay outputs. |
| 11000010 | Left button normal (START)** / Right button toggled relay outputs. |
| 11000110 | Left button normal (START)** Right button toggled (EMS)* relay outputs. |
| 11001000 | Left button normal (START)** / Right button normal (START)** relay outputs. |


| 11001100 | Left button normal (START)** / Right button Pitch \& Catch. |
| :---: | :---: |
| 11100000 | Left button Pitch \& Catch / Right button normal relay outputs |
| 11100010 | Left button Pitch \& Catch / Right button toggled relay outputs. |
| 11100110 | Left button Pitch \& Catch / Right button toggled (EMS)* relay outputs. |
| 11101000 | Left button Pitch \& Catch / Right button normal (START)** relay outputs. |

* (EMS): All outputs opened when STOP button is pressed down.
** (START): For added safety, must first rotate and hold the power switch key at the START position and then press the intended pushbutton to activate the output relay.

Interlocked Settings

| Function \# | Function Descriptions |
| :---: | :---: |
| 00000000 | Both left and right buttons with normal relay outputs. |
| 00001100 | Both left and right buttons with ON \& OFF relay outputs. |
| 00010010 | Both left and right buttons with ON \& OFF (START)** relay outputs. |
| 00001110 | Both left and right buttons with MAGNET ON \& OFF relay outputs. |
| 00010000 | Both left and right buttons with ON \& OFF (EMS)* relay outputs. |
| 00010100 | Both left and right buttons with toggled relay outputs. |
| 00010110 | Both left and right buttons with toggled (EMS)* relay outputs. |

* (EMS): All outputs opened when STOP button is pressed down.
** (START): For added safety, must first rotate and hold the power switch key at the START position and then press the intended pushbutton to activate the output relay.


### 10.26 Program PB11 \& PB12 Outputs (RX)

1) Press " $\rightarrow$ " button to enter PB11 \& PB12 Outputs setting.
2) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select Digital or Analog outputs.
3) Press BACK button to go back to step 1.

## Analog Outputs

1) Press " $\downarrow$ " button and then " $\rightarrow$ " button to select LOCK (PB interlocked) or UNLOCK (PB non-interlocked).
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Proceed to section 10.37 and 10.38 for other analog output settings.

## Digital Outputs

1) Press " $\downarrow$ " button and then " $\rightarrow$ " button to select PB digital outputs.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value ( 0 or 1 ) for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Exit Program PB11 \& PB12 Outputs by pressing the BACK button until the cursor is shown next to "PB11\&PB12".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

## None Interlocked Settings

| Function \# | Function Descriptions |
| :---: | :---: |
| 10000000 | Left button normal / Right button normal relay outputs. |
| 10000010 | Left button normal / Right button toggled relay outputs. |
| 10000110 | Left button normal / Right button toggled (EMS)* relay outputs. |
| 10001000 | Left button normal / Right button normal (START)** relay outputs. |
| 10001100 | Left button normal / Right button Pitch \& Catch. |
| 10010000 | Left button toggled / Right button normal relay outputs. |
| 10010010 | Left button toggled / Right button toggled relay outputs. |
| 10010110 | Left button toggled / Right button toggled (EMS)* relay outputs. |
| 10011000 | Left button toggled / Right button normal (START)** relay outputs. |
| 10011100 | Left button toggled / Right button Pitch \& Catch. |
| 10110000 | Left button toggled (EMS)* / Right button normal relay outputs. |
| 10110010 | Left button toggled (EMS)* / Right button toggled relay outputs. |
| 10110110 | Left button toggled (EMS)* / Right button toggled (EMS)* relay outputs. |
| 10111000 | Left button toggled (EMS)* / Right button normal (START)** relay outputs. |
| 10111100 | Left button toggled (EMS)* / Right button Pitch \& Catch. |
| 11000000 | Left button normal (START)** / Right button normal relay outputs. |
| 11000010 | Left button normal (START)** / Right button toggled relay outputs. |
| 11000110 | Left button normal (START)** / Right button toggled (EMS)* relay outputs. |
| 11001000 | Left button normal (START)** / Right button normal (START)** relay outputs. |


| 11001100 | Left button normal (START)** / Right button Pitch \& Catch. |
| :---: | :---: |
| 11100000 | Left button Pitch \& Catch / Right button normal relay outputs |
| 11100010 | Left button Pitch \& Catch / Right button toggled relay outputs. |
| 11100110 | Left button Pitch \& Catch / Right button toggled (EMS)* relay outputs. |
| 11101000 | Left button Pitch \& Catch / Right button normal (START)** relay outputs. |

* (EMS): All outputs opened when STOP button is pressed down.
** (START): For added safety, must first rotate and hold the power switch key at the START position and then press the intended pushbutton to activate the output relay.

Interlocked Settings

| Function \# | Function Descriptions |
| :---: | :---: |
| 00000000 | Both left and right buttons with normal relay outputs. |
| 00001100 | Both left and right buttons with ON \& OFF relay outputs. |
| 00010010 | Both left and right buttons with ON \& OFF (START)** relay outputs. |
| 00001110 | Both left and right buttons with MAGNET ON \& OFF relay outputs. |
| 00010000 | Both left and right buttons with ON \& OFF (EMS)* relay outputs. |
| 00010100 | Both left and right buttons with toggled relay outputs. |
| 00010110 | Both left and right buttons with toggled (EMS)* relay outputs. |

* (EMS): All outputs opened when STOP button is pressed down.
** (START): For added safety, must first rotate and hold the power switch key at the START position and then press the intended pushbutton to activate the output relay.


### 10.27 Program PB1 Analog Output (RX)

1) This section only appears on the display screen when Program PB1 \& PB2 Outputs on section 10.21 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB1 Analog Output setting when available.
3) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select CURRENT or PWM output.

CURRENT: 0~2,500mA programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB1 Analog Output by pressing the BACK button until the cursor is shown next to "PB1 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

PWM: 0~100\% programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for PWM setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB1 Analog Output by pressing the BACK button until the cursor is shown next to "PB1 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.28 Program PB2 Analog Output (RX)

1) This section only appears on the display screen when Program PB1 \& PB2 Outputs on section 10.21 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB2 Analog Output setting when available.
3) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select CURRENT or PWM output.

CURRENT: 0~2,500mA programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB2 Analog Output by pressing the BACK button until the cursor is shown next to "PB2 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

PWM: 0~100\% programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for PWM setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB2 Analog Output by pressing the BACK button until the cursor is shown next to "PB2 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.29 Program PB3 Analog Output (RX)

1) This section only appears on the display screen when Program PB3 \& PB4 Outputs on section 10.22 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB3 Analog Output setting when available.
3) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select CURRENT or PWM output.

CURRENT: 0~2,500mA programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB3 Analog Output by pressing the BACK button until the cursor is shown next to "PB3 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

PWM: 0~100\% programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for PWM setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB3 Analog Output by pressing the BACK button until the cursor is shown next to "PB3 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.30 Program PB4 Analog Output (RX)

1) This section only appears on the display screen when Program PB3 \& PB4 Outputs on section 10.22 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB4 Analog Output setting when available.
3) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select CURRENT or PWM output.

CURRENT: 0~2,500mA programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB4 Analog Output by pressing the BACK button until the cursor is shown next to "PB4 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

PWM: 0~100\% programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for PWM setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB4 Analog Output by pressing the BACK button until the cursor is shown next to "PB4 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.31 Program PB5 Analog Output (RX)

1) This section only appears on the display screen when Program PB5 \& PB6 Outputs on section 10.23 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB5 Analog Output setting when available.
3) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select CURRENT or PWM output.

CURRENT: 0~2,500mA programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB5 Analog Output by pressing the BACK button until the cursor is shown next to "PB5 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

PWM: 0~100\% programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for PWM setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB5 Analog Output by pressing the BACK button until the cursor is shown next to "PB5 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.32 Program PB6 Analog Output (RX)

1) This section only appears on the display screen when Program PB5 \& PB6 Outputs on section 10.23 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB6 Analog Output setting when available.
3) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select CURRENT or PWM output.

CURRENT: 0~2,500mA programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB6 Analog Output by pressing the BACK button until the cursor is shown next to "PB6 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

PWM: 0~100\% programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for PWM setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB6 Analog Output by pressing the BACK button until the cursor is shown next to "PB6 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.33 Program PB7 Analog Output (RX)

1) This section only appears on the display screen when Program PB7 \& PB8 Outputs on section 10.24 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB7 Analog Output setting when available.
3) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select CURRENT or PWM output.

CURRENT: 0~2,500mA programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB7 Analog Output by pressing the BACK button until the cursor is shown next to "PB7 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

PWM: 0~100\% programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for PWM setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB7 Analog Output by pressing the BACK button until the cursor is shown next to "PB7 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.34 Program PB8 Analog Output (RX)

1) This section only appears on the display screen when Program PB7 \& PB8 Outputs on section 10.24 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB8 Analog Output setting when available.
3) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select CURRENT or PWM output.

CURRENT: 0~2,500mA programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB8 Analog Output by pressing the BACK button until the cursor is shown next to "PB8 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

PWM: 0~100\% programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for PWM setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB8 Analog Output by pressing the BACK button until the cursor is shown next to "PB8 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.35 Program PB9 Analog Output (RX)

1) This section only appears on the display screen when Program PB9 \& PB10 Outputs on section 10.25 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB9 Analog Output setting when available.
3) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select CURRENT or PWM output.

CURRENT: 0~2,500mA programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB9 Analog Output by pressing the BACK button until the cursor is shown next to "PB9 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

PWM: 0~100\% programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for PWM setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB9 Analog Output by pressing the BACK button until the cursor is shown next to "PB9 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.36 Program PB10 Analog Output (RX)

1) This section only appears on the display screen when Program PB9 \& PB10 Outputs on section 10.25 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB10 Analog Output setting when available.
3) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select CURRENT or PWM output.

CURRENT: 0~2,500mA programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB10 Analog Output by pressing the BACK button until the cursor is shown next to "PB10 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

PWM: 0~100\% programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for PWM setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB10 Analog Output by pressing the BACK button until the cursor is shown next to "PB10 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.37 Program PB11 Analog Output (RX)

1) This section only appears on the display screen when Program PB11 \& PB12 Outputs on section 10.26 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB11 Analog Output setting when available.
3) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select CURRENT or PWM output.

CURRENT: 0~2,500mA programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB11 Analog Output by pressing the BACK button until the cursor is shown next to "PB11 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

PWM: 0~100\% programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for PWM setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB11 Analog Output by pressing the BACK button until the cursor is shown next to "PB11 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.38 Program PB12 Analog Output (RX)

1) This section only appears on the display screen when Program PB11 \& PB12 Outputs on section 10.26 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB12 Analog Output setting when available.
3) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select CURRENT or PWM output.

CURRENT: 0~2,500mA programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB12 Analog Output by pressing the BACK button until the cursor is shown next to "PB12 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

PWM: 0~100\% programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for PWM setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program PB12 Analog Output by pressing the BACK button until the cursor is shown next to "PB12 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.39 Program PB1 Ramp (RX)

1) This section only appears on the display screen when Program PB1 \& PB2 Outputs on section 10.21 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB1 Ramp setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
5) Exit Program PB1 Ramp by pressing the BACK button until the cursor is shown next to "PB1 RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.40 Program PB2 Ramp (RX)

1) This section only appears on the display screen when Program PB1 \& PB2 Outputs on section 10.21 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB2 Ramp setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
5) Exit Program PB2 Ramp by pressing the BACK button until the cursor is shown next to "PB2 RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.41 Program PB3 Ramp (RX)

1) This section only appears on the display screen when Program PB3 \& PB4 Outputs on section 10.22 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB3 Ramp setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
5) Exit Program PB3 Ramp by pressing the BACK button until the cursor is shown next to "PB3 RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.42 Program PB4 Ramp (RX)

1) This section only appears on the display screen when Program PB3 \& PB4 Outputs on section 10.22 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB4 Ramp setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
5) Exit Program PB4 Ramp by pressing the BACK button until the cursor is shown next to "PB4 RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.43 Program PB5 Ramp (RX)

1) This section only appears on the display screen when Program PB5 \& PB6 Outputs on section 10.23 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB5 Ramp setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
5) Exit Program PB5 Ramp by pressing the BACK button until the cursor is shown next to "PB5 RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.44 Program PB6 Ramp (RX)

1) This section only appears on the display screen when Program PB5 \& PB6 Outputs on section 10.23 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB6 Ramp setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
5) Exit Program PB6 Ramp by pressing the BACK button until the cursor is shown next to "PB6 RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.45 Program PB7 Ramp (RX)

1) This section only appears on the display screen when Program PB7 \& PB8 Outputs on section 10.24 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB7 Ramp setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
5) Exit Program PB7 Ramp by pressing the BACK button until the cursor is shown next to "PB7 RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.46 Program PB8 Ramp (RX)

1) This section only appears on the display screen when Program PB7 \& PB8 Outputs on section 10.24 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB8 Ramp setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
5) Exit Program PB8 Ramp by pressing the BACK button until the cursor is shown next to "PB8 RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.47 Program PB9 Ramp (RX)

1) This section only appears on the display screen when Program PB9 \& PB10 Outputs on section 10.25 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB9 Ramp setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
5) Exit Program PB9 Ramp by pressing the BACK button until the cursor is shown next to "PB9 RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.48 Program PB10 Ramp (RX)

1) This section only appears on the display screen when Program PB9 \& PB10 Outputs on section 10.25 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB10 Ramp setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
5) Exit Program PB10 Ramp by pressing the BACK button until the cursor is shown next to "PB10 RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.49 Program PB11 Ramp (RX)

1) This section only appears on the display screen when Program PB11 \& PB12 Outputs on section 10.26 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB11 Ramp setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
5) Exit Program PB11 Ramp by pressing the BACK button until the cursor is shown next to "PB11 RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.50 Program PB12 Ramp (RX)

1) This section only appears on the display screen when Program PB11 \& PB12 Outputs on section 10.26 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter PB12 Ramp setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
5) Exit Program PB12 Ramp by pressing the BACK button until the cursor is shown next to "PB12 RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.51 Program Output Frequency (RX)

1) Press " $\rightarrow$ " button to enter Output Frequency setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select from various frequencies.
3) Exit Program Output Frequency by pressing the BACK button until the cursor is shown next to "OUT FREQ".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.52 Program Jumper Functions (RX)

1) Press " $\rightarrow$ " button to enter Jumper Functions setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select from various jumper settings.
3) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select OPEN or SHORT.
4) Exit Program Jumper Functions by pressing the BACK button until the cursor is shown next to "JUMPER".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

### 10.53 Program Antenna Function (RX)

1) Press " $\rightarrow$ " button to enter Antenna setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select "INT" for internal antenna connection and "EXT" for external antenna connection.
3) Exit Program Antenna Function by pressing the BACK button until the cursor is shown next to "ANTENNA".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPH settings.

Note: Make sure the external antenna is connected when set to EXT.

## 11. Flex EPV Models

### 11.1 Program IR

### 11.1.1 Transmitter

1) Rotate the power switch key to OFF ( 0 ) position.
2) With the STOP button elevated, press and hold PB1 and PB3 at the same time (READ not required).
3) Rotate the power switch key to ON (I) position.
4) Release PB1 and PB3 at the same time. The transmitter Status LED displays firmware version with red, green and
 orange blinks.
5) Press READ button to transfer transmitter info into the IR programmer. If the screen shows "READ OK" the transfer is completed.
6) Browse through list of settings by pressing " $\uparrow$ " and " $\downarrow$ " buttons.
7) Press WRITE button to transfer the new settings into the transmitter (transmitter Status LED constant orange). If the screen shows "WRITE OK" the transfer is completed (transmitter Status LED constant green for up to 2 seconds).
8) Exit Program IR by pressing the BACK button until the cursor is shown next to "PROGRAM".
9) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.


### 11.1.2 Receiver

1) Power on the receiver with MAIN relays deactivated (standby mode).
2) Press READ button to transfer receiver info into the IR programmer. If the screen shows "READ OK" the transfer is completed.
3) Browse through list of settings by pressing " $\uparrow$ " and " $\downarrow$ " buttons.
4) Press WRITE button to transfer the new settings into the receiver (receiver Status LED constant orange). If the screen shows "WRITE OK" the transfer is completed (receiver Status LED blinks green standby mode).
5) Exit Program IR by pressing the BACK button until the cursor is shown next to "PROGRAM".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.
[^0]
### 11.2 Program Serial Number (TX \& RX)

1) Press " $\rightarrow$ " button to enter Serial Number setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change serial number as a whole or...
3) Press " $\rightarrow$ " button to go to the $1^{\text {st }}$ digit on the far left of the serial number.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program Serial Number by pressing the BACK button until the cursor is shown next to " $\mathrm{S} / \mathrm{N}$ ".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.3 Program System Type (TX \& RX)

1) Press " $\rightarrow$ " button to enter System Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change system type as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program System Type by pressing the BACK button until the cursor is shown next to "TYPE".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.4 Program System Frequency Range (TX \& RX)

1) Press " $\rightarrow$ " button to enter Frequency Range setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change frequency range.
3) Exit Program System Frequency Range by pressing the BACK button until the cursor is shown next to "FREQ".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.5 Program System Channel (TX \& RX)

1) Press " $\rightarrow$ " button to enter System Channel setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select channel number setting (assigned channel scheme) or UNASSIGN (unassigned channel scheme).
3) To program channel number, press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the digit on the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program System Channel by pressing the BACK button until the cursor is shown next to "CHANNEL".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.6 Program RF Power (TX)

1) Press " $\rightarrow$ " button to enter RF Power setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change RF power ( $0.01 \mathrm{~mW} \sim 25 \mathrm{~mW}$ ).
3) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to enable or disable RF power adjustment via transmitter dipswitch.
4) Exit Program RF Power by pressing the BACK button until the cursor is shown next to "RFpower".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.7 Program Pushbutton Functions (TX)

1) Press " $\rightarrow$ " button to enter Pushbutton Functions setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change pushbutton function as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program Pushbutton Functions by pressing the BACK button until the cursor is shown next to "PB FUNC".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

The transmitter pushbutton function table on Section 13 Part-B illustrates which numeric value corresponds to which pushbutton function.

### 11.8 Program Rotary Switch Functions (TX)

1) Press " $\rightarrow$ " button to enter Rotary Switch Functions setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select $A / O f f / B, A / B / A+B, A / A+B / B$ or $A / B / C$ rotary switch sequence.
3) Exit Program Rotary Switch Functions by pressing the BACK button until the cursor is shown next to "SW FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.9 Program Transmitter Inactivity Timer (TX)

1) Press " $\rightarrow$ " button to enter Transmitting Timer setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select " $\_$" " for minutes/seconds or "ON" for constant on.
3) When "ON" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select "+START" or "+ANY".
4) When "_M" is selected, press " $\rightarrow$ " button to go to the digit on the left and press " $\uparrow$ " and " $\downarrow$ " button to select value. Press " $\rightarrow$ " button again to go to the next digit and press " $\uparrow$ " and " $\downarrow$ " button to select value.
5) Press " $\rightarrow$ " button again to select " M " for minutes or " S " for seconds. Press " $\uparrow$ " and " $\downarrow$ " button to select.
6) Press " $\rightarrow$ " button again to select "+START" or " + ANY" selection. Press " $\uparrow$ " and " $\downarrow$ " button to select.
7) Exit Program Transmitter Timer by pressing the BACK button until the cursor is shown next to "TX TIMER".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

Transmitter inactivity timer is for setting receiver main relays cutoff time when the transmitter is not in operation for a certain period of time. When set to 5 minutes (05M), the receiver main relays are deactivated at 5.0 minutes after last transmitter operation.

Select "ON" means the receiver main relays are activated at all time unless the STOP button is pressed down, transmitter power off, or receiver power turned off (inactivity timer disabled).

Select "+START" means after 5 minutes of transmitter inactivity you must execute the START command to continue operation. Select "+ANY" means after 5 minutes of transmitter inactivity, press any pushbutton to continue operation.

### 11.10 Program LED1 Feedback Function (TX)

1) Press " $\rightarrow$ " button to enter LED1 Feedback Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select Off, Input number or Output number.
3) When "Input" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select input number that the external source is connected to (IN1~IN4).
4) When "Output" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select which output relay to feedback to LED1 (CN1 ~ CN6 / K1 ~K6).
5) Select "Off" if no feedback is required.
6) Exit Program LED1 Feedback Function by pressing the BACK button until the cursor is shown next to "LED1".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.11 Program LED2 Feedback Function (TX)

1) Press " $\rightarrow$ " button to enter LED2 Feedback Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select Off, Input number or Output number.
3) When "Input" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select input number that the external source is connected to (IN1~ IN4).
4) When "Output" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select which output relay to feedback to LED2 (CN1 ~ CN6 / K1 ~K6).
5) Select "Off" if no feedback is required.
6) Exit Program LED2 Feedback Function by pressing the BACK button until the cursor is shown next to "LED2".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.12 Program LED3 Feedback Function (TX)

1) Press " $\rightarrow$ " button to enter LED3 Feedback Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select Off, Input number or Output number.
3) When "Input" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select input number that the external source is connected to (IN1~IN4).
4) When "Output" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select which output relay to feedback to LED3 (CN1 ~ CN6 / K1 ~K6).
5) Select "Off" if no feedback is required.
6) Exit Program LED3 Feedback Function by pressing the BACK button until the cursor is shown next to "LED3".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.13 Program LED4 Feedback Function (TX)

1) Press " $\rightarrow$ " button to enter LED4 Feedback Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select Off, Input number or Output number.
3) When "Input" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select input number that the external source is connected to (IN1~IN4).
4) When "Output" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select which output relay to feedback to LED4 (CN1 ~ CN6 / K1~K6).
5) Select "Off" if no feedback is required.
6) Exit Program LED4 Feedback Function by pressing the BACK button until the cursor is shown next to "LED4".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.14 Program Infrared START Function (TX)

1) Press " $\rightarrow$ " button to enter Infrared Start Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select Off or IRS.

Select "OFF" to disable infrared START function.
Select "IRS" to enable infrared START function.
3) Exit Program Infrared START Function by pressing the BACK button until the cursor is shown next to "IR Mode".
4) Press " $\downarrow$ " button to go to the next Infrared START setting.

### 11.15 Program Infrared START ID Code (TX)

1) Press " $\rightarrow$ " button to enter Infrared START ID code setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to set the 3-digit ID code as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press "BACK" button to go back to step 2.

Make sure the infrared module on crane is set to same ID code as the transmitter.
Select "000" disables the ID code function hence any types of infrared modules can be used.
7) Exit Program Infrared START ID Code by pressing the BACK button until the cursor is shown next to "IR ID".
8) Press " $\downarrow$ " button to go to the next Infrared START setting.

### 11.16 Program IRS Time Out (TX)

1) Press " $\rightarrow$ " button to enter IRS Time Out setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select IRS Off or IRS On.

Select "IRS On" if infrared START is required after every transmitter timeout.
Select "IRS Off" if infrared START is not required after every transmitter timeout.
3) Exit Program IRS Time Out by pressing the BACK button until the cursor is shown next to "IRS FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.17 Program PB1 Type (TX)

1) Press " $\rightarrow$ " button to enter PB1 Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select 1-Step, 2-Step, 3-Step or Stepless pushbutton.
3) Exit Program PB1 Type by pressing the BACK button until the cursor is shown next to "PB1 TYPE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.18 Program PB2 Type (TX)

1) Press " $\rightarrow$ " button to enter PB2 Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select 1-Step, 2-Step, 3-Step or Stepless pushbutton.
3) Exit Program PB2 Type by pressing the BACK button until the cursor is shown next to "PB2 TYPE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.19 Program PB3 Type (TX)

1) Press " $\rightarrow$ " button to enter PB3 Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select 1-Step, 2-Step, 3-Step or Stepless pushbutton.
3) Exit Program PB3 Type by pressing the BACK button until the cursor is shown next to "PB3 TYPE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.20 Program PB4 Type (TX)

1) Press " $\rightarrow$ " button to enter PB4 Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select 1-Step, 2-Step, 3-Step or Stepless pushbutton.
3) Exit Program PB4 Type by pressing the BACK button until the cursor is shown next to "PB4 TYPE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.21 Program PB5 Type (TX)

1) Press " $\rightarrow$ " button to enter PB5 Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select 1-Step, 2-Step, 3-Step or Stepless pushbutton.
3) Exit Program PB5 Type by pressing the BACK button until the cursor is shown next to "PB5 TYPE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.22 Program PB6 Type (TX)

1) Press " $\rightarrow$ " button to enter PB6 Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select 1-Step, 2-Step, 3-Step or Stepless pushbutton.
3) Exit Program PB6 Type by pressing the BACK button until the cursor is shown next to "PB6 TYPE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.23 Program PB7 Type (TX)

1) Press " $\rightarrow$ " button to enter PB7 Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select 1-Step, 2-Step, 3-Step or Stepless pushbutton.
3) Exit Program PB7 Type by pressing the BACK button until the cursor is shown next to "PB7 TYPE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.24 Program PB8 Type (TX)

1) Press " $\rightarrow$ " button to enter PB8 Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select 1-Step, 2-Step, 3-Step or Stepless pushbutton.
3) Exit Program PB8 Type by pressing the BACK button until the cursor is shown next to "PB8 TYPE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.25 Program PB9 Type (TX)

1) Press " $\rightarrow$ " button to enter PB9 Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select 1-Step, 2-Step, 3-Step or Stepless pushbutton.
3) Exit Program PB9 Type by pressing the BACK button until the cursor is shown next to "PB9 TYPE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.26 Program PB10 Type (TX)

1) Press " $\rightarrow$ " button to enter PB10 Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select 1-Step, 2-Step, 3-Step or Stepless pushbutton.
3) Exit Program PB10 Type by pressing the BACK button until the cursor is shown next to "PB10 TYPE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.27 Program PB11 Type (TX)

1) Press " $\rightarrow$ " button to enter PB11 Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select 1-Step, 2-Step, 3-Step or Stepless pushbutton.
3) Exit Program PB11 Type by pressing the BACK button until the cursor is shown next to "PB11 TYPE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.28 Program PB12 Type (TX)

1) Press " $\rightarrow$ " button to enter PB12 Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select 1-Step, 2-Step, 3-Step or Stepless pushbutton.
3) Exit Program PB12 Type by pressing the BACK button until the cursor is shown next to "PB12 TYPE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.29 Program Channel Scanning (RX)

1) Press " $\rightarrow$ " button to enter Channel Scanning setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select number of channels to scan (01~12).
3) Exit Program Channel Scanning by pressing the BACK button until the cursor is shown next to "CH SCAN".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.30 Program Function Relay 1 / K25 Relay (RX)

1) Press " $\rightarrow$ " button to enter Function Relay 1 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Relay 1 by pressing the BACK button until the cursor is shown next to "FUNC RLY1".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.


### 11.31 Program Function Relay 2 / K26 Relay (RX)

1) Press " $\rightarrow$ " button to enter Function Relay 2 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Relay 2 by pressing the BACK button until the cursor is shown next to "FUNC RLY2".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

| --- | $:$ | According to receiver dipswitch setting. |
| :---: | :--- | :--- |
| LV | $:$ | Function relay closes when receiver voltage is low. |
| ID | $:$ | Function relay works simultaneously with all motion commands. |
| NORMAL | $:$ | START function + AUX with normal momentary output. Works the $2^{\text {nd }}$ time <br> rotate to the START position. |
| NORMAL $2:$ | START function + AUX with normal momentary output. Works the $1^{\text {st }}$ time rotate <br> to the START position. |  |


| TOGGLE | $:$ | START function + AUX with toggled/latching output. |
| :---: | :--- | :--- |
| TOG\&E | $:$ |  |
| START function + AUX with toggled/latching output. The relay opens when |  |  |
| STOP button is pressed down and transmitter power off. |  |  |

### 11.32 Program Function Relay 3 / K30 Relay (RX)

1) Press " $\rightarrow$ " button to enter Function Relay 3 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Relay 3 by pressing the BACK button until the cursor is shown next to "FUNC RLY3".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

| L--- | $:$ | According to receiver dipswitch setting. |
| :---: | :--- | :--- |
| LV | $:$ | Function relay closes when receiver voltage is low. |


| RESET | $:$ | FUNCTION relay closes when rotate to START position and opens when let |
| :---: | :--- | :--- |
|  |  | go. Works during initial transmitter startup and inactivity timer START reset. |
| SW8 ABC | $:$ | FUNCTION relay closes at $C$ position (for pushbutton and rotary select ABC function). |
| SW12 ABC | $:$ | FUNCTION relay closes at $C$ position (for pushbuton and rotary select ABC function). |

### 11.33 Program Brake Functions (RX)

1) Press " $\rightarrow$ " button to enter Brake Functions setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Brake Functions by pressing the BACK button until the cursor is shown next to "BRAKE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

DEMAG 1 : When releasing pushbutton from $2^{\text {nd }}$ speed up to $1^{\text {st }}$ speed, the $1^{\text {st }}$ speed output relay will open for up to 1.0 second and then closes again.
DEMAG 2 : When pushbutton is pressed down to $2^{\text {nd }}$ speed directly from 0 speed, the $1^{\text {st }}$ speed output relay will maintain closure for up to 0.4 second before $2^{\text {nd }}$ speed output relay closes. When pushbutton is released from $2^{\text {nd }}$ speed up to 0 speed, the $1^{\text {st }}$ speed output relay will maintain closure for up to 0.5 second before going to 0 speed.
DEMAG 3 : When releasing pushbutton from $2^{\text {nd }}$ speed up to $1^{\text {st }}$ speed, both $1^{\text {st }}$ and $2^{\text {nd }}$ speed output relays are opened. Release pushbutton to 0 speed and then press down to $1^{\text {st }}$ speed to reengage the $1^{\text {st }}$ speed output relay.

P\&H $\quad: \quad$ When releasing pushbutton from $2^{\text {nd }}$ speed up to 0 speed, the $1^{\text {st }}$ speed output relay will maintain closure for up to 0.1 second before going to 0 speed.

### 11.34 Program PB1 \& PB2 Relay Outputs (RX)

1) Press " $\rightarrow$ " button to enter PB1 \& PB2 Relay Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value " 0 " or " 1 ".
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2.
7) Exit Program PB1 \& PB2 Relay Outputs by pressing the BACK button until the cursor is shown next to "PB1\&2 RELAY".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

None Interlocked Settings for 1 \& 2 Steps Relay Outputs

| Function \# | Function Descriptions (left button / right button) | \# of Relays Used |
| :---: | :---: | :---: |
| 10000000 | Normal / Normal | 2 |
| 10000010 | Normal / Toggled | 2 |
| 10000110 | Normal / Toggled (EMS)** | 2 |
| 10001000 | Normal / Normal + Start* | 2 |
| 10001100 | Normal / Pitch \& Catch | 2 |
| 10010000 | Toggled / Normal | 2 |
| 10010010 | Toggled / Toggled | 2 |
| 10010110 | Toggled / Toggled (EMS)** | 2 |
| 10011000 | Toggled / Normal + Start* | 2 |
| 10011100 | Toggled / Pitch \& Catch | 2 |
| 10110000 | Toggled (EMS**) / Normal | 2 |
| 10110010 | Toggled (EMS)** Toggled | 2 |
| 10110110 | Toggled (EMS)** / Toggled (EMS)** | 2 |
| 10111000 | Toggled (EMS)** / Normal + Start* | 2 |
| 10111100 | Toggled (EMS)** $/$ Pitch \& Catch | 2 |
| 11000000 | Normal + Start* / Normal | 2 |
| 11000010 | Normal + Start* / Toggled | 2 |
| 11000110 | Normal + Start* / Toggled (EMS)** | 2 |
| 11001000 | Normal + Start* / Normal + Start* | 2 |
| 11001100 | Normal + Start* / Pitch \& Catch | 2 |
| 11100000 | Pitch \& Catch / Normal | 2 |
| 11100010 | Pitch \& Catch / Toggled | 2 |
| 11100110 | Pitch \& Catch / Toggled (EMS)** | 2 |
| 11101000 | Pitch \& Catch / Normal + Start* | 2 |
| 11111110 | 4 output relays Closed/Closed relay action at $2^{\text {nd }}$ speed (separate $2^{\text {nd }}$ speed output relays) | 4 |

[^1]Interlocked Settings for 1 \& 2 Steps Relay Outputs

| Function \# | Function Descriptions (left button / right button) | \# of Relays Used |
| :---: | :---: | :---: |
| 00000000 | Single speed only | 2 |
| 00000010 | 4 output relays Closed/Closed relay action at $2^{\text {nd }}$ speed (separate $2^{\text {nd }}$ speed output relays) | 4 |
| 00000100 | 3 output relays Closed/Closed relay action at $2^{\text {nd }}$ speed (shared $2^{\text {nd }}$ speed output relay) | 3 |
| 00000110 | 4 output relays Opened/Closed relay action at $2^{\text {nd }}$ speed (separate $2^{\text {nd }}$ speed output relays) | 4 |
| 00001000 | Forward (or Reverse) + Fast output relays engaged at $2^{\text {nd }}$ speed | 4 |
| 00001010 | Forward (or Reverse) + Slow + Fast output relays engaged at $2^{\text {nd }}$ speed | 4 |
| 00001100 | OFF / ON | 2 |
| 00010010 | On + Start/Off + Start - For added safety, you must first rotate and hold the power switch key at START position and then press the On or Off pushbutton to activate the output relay. | 2 |
| 00001110 | Magnet Lift On \& Off | 2 |
| 00010000 | OFF / ON (EMS)** | 2 |
| 00010100 | Toggled / Toggled | 2 |
| 00010110 | Toggled / Toggled (EMS)** | 2 |
| 00011110 | Toggled / Normal (EMS)** | 2 |
| 00100000 | Single speed + External warning* | 2 |
| 00100010 | 4 output relays Closed/Closed relay action + External warning* | 4 |
| 00100100 | 3 output relays Closed/Closed relay action + External warning* | 3 |
| 00100110 | 4 output relays Opened/Closed relay action + External warning* | 4 |
| 01000010 | 4 output relays Closed/Closed relay action + Brake | 4 |
| 01000100 | 3 output relays Closed/Closed relay action + Brake | 3 |
| 01000110 | 4 output relays Opened/Closed relay action + Brake | 4 |
| 01100010 | 4 output relays Closed/Closed relay action + Brake + External warning* | 4 |
| 01100100 | 3 output relays Closed/Closed relay action + Brake + External warning* | 3 |
| 01100110 | 4 output relays Opened/Closed relay action + Brake + External warning* | 4 |

* External warning function requires installing an external warning device such as horn and lights to the K26 Function output relay.
** EMS: Relay opens when STOP button is pressed down.


## Interlocked Settings for 3 Steps Relay Outputs

| Output Relay <br> Function \# | CN1 ~ CN6 | K1 | K2 | K3 | K4 | K5 | K6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 00000001 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \end{aligned}$ | or R1 <br> or R1 <br> or R1 | $\begin{aligned} & \text { F/R2 } \\ & \text { F/R2 } \end{aligned}$ | F/R3 | Not <br> Used | Not <br> Used |
| $\begin{aligned} & 00000011 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \end{aligned}$ | or R1 <br> or R1 <br> or R1 | F/R2 | F/R3 | $\begin{aligned} & \text { Not } \\ & \text { Used } \end{aligned}$ | Not <br> Used |
| $\begin{aligned} & 00000101 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step at $3^{\text {rd }}$ Step | $\begin{aligned} & F \\ & F \\ & F \end{aligned}$ | or R or R or R | $\begin{aligned} & \text { F/R1 } \\ & \text { F/R1 } \\ & \text { F/R1 } \end{aligned}$ | $\begin{aligned} & \text { F/R2 } \\ & \text { F/R2 } \end{aligned}$ | F/R3 | Not Used |
| $\begin{aligned} & 00000111 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{gathered} \mathrm{F} \\ \mathrm{~F} \\ \mathrm{~F} \end{gathered}$ | or R or R or R | F/R1 | F/R2 | F/R3 | Not <br> Used |
| $\begin{aligned} & 00001001 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \end{aligned}$ | or R1 <br> or R1 <br> or R1 | $\begin{aligned} & \text { F2 } \\ & \text { F2 } \end{aligned}$ | or R2 <br> or R2 | F3 | or R3 |
| $\begin{aligned} & 00001011 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | F1 | or R1 | F2 | or R2 | F3 | or R3 |

F $\rightarrow$ Forward $\quad$ F1 $\rightarrow$ Forward $1^{\text {st }}$ step $\quad$ F2 $\rightarrow$ Forward $2^{\text {nd }}$ step $\quad$ F3 $\rightarrow$ Forward $3^{\text {rd }}$ step
$\mathbf{R} \rightarrow$ Reverse $\quad \mathbf{R 1} \rightarrow$ Reverse $1^{\text {st }}$ step $\quad \mathbf{R 2} \rightarrow$ Reverse $2^{\text {nd }}$ step $\quad \mathbf{R} \mathbf{3} \rightarrow$ Reverse $3^{\text {rd }}$ step
F/R1 $\rightarrow$ Forward/Reverse shared $1^{\text {st }}$ step $\quad$ F/R2 $\rightarrow$ Forward/Reverse shared $2^{\text {nd }}$ step
F/R3 $\rightarrow$ Forward/Reverse shared $3^{\text {rd }}$ step

### 11.35 Program PB3 \& PB4 Relay Outputs (RX)

1) Press " $\rightarrow$ " button to enter PB3 \& PB4 Relay Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value " 0 " or " 1 ".
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2.
7) Exit Program PB3 \& PB4 Relay Outputs by pressing the BACK button until the cursor is shown next to "PB3\&4 RELAY".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

None Interlocked Settings for 1 \& 2 Steps Relay Outputs

| Function \# | Function Descriptions (left button / right button) | \# of Relays Used |
| :---: | :---: | :---: |
| 10000000 | Normal / Normal | 2 |
| 10000010 | Normal / Toggled | 2 |
| 10000110 | Normal / Toggled (EMS)** | 2 |
| 10001000 | Normal / Normal + Start* | 2 |
| 10001100 | Normal / Pitch \& Catch | 2 |
| 10010000 | Toggled / Normal | 2 |
| 10010010 | Toggled / Toggled | 2 |
| 10010110 | Toggled / Toggled (EMS)** | 2 |
| 10011000 | Toggled / Normal + Start* | 2 |
| 10011100 | Toggled / Pitch \& Catch | 2 |
| 10110000 | Toggled (EMS**) / Normal | 2 |
| 10110010 | Toggled (EMS)** Toggled | 2 |
| 10110110 | Toggled (EMS)** / Toggled (EMS)** | 2 |
| 10111000 | Toggled (EMS)** / Normal + Start* | 2 |
| 10111100 | Toggled (EMS)** $/$ Pitch \& Catch | 2 |
| 11000000 | Normal + Start* / Normal | 2 |
| 11000010 | Normal + Start* / Toggled | 2 |
| 11000110 | Normal + Start* / Toggled (EMS)** | 2 |
| 11001000 | Normal + Start* / Normal + Start* | 2 |
| 11001100 | Normal + Start* / Pitch \& Catch | 2 |
| 11100000 | Pitch \& Catch / Normal | 2 |
| 11100010 | Pitch \& Catch / Toggled | 2 |
| 11100110 | Pitch \& Catch / Toggled (EMS)** | 2 |
| 11101000 | Pitch \& Catch / Normal + Start* | 2 |
| 11111110 | 4 output relays Closed/Closed relay action at $2^{\text {nd }}$ speed (separate $2^{\text {nd }}$ speed output relays) | 4 |

[^2]Interlocked Settings for 1 \& 2 Steps Relay Outputs

| Function \# | Function Descriptions (left button / right button) | \# of Relays Used |
| :---: | :---: | :---: |
| 00000000 | Single speed only | 2 |
| 00000010 | 4 output relays Closed/Closed relay action at $2^{\text {nd }}$ speed (separate $2^{\text {nd }}$ speed output relays) | 4 |
| 00000100 | 3 output relays Closed/Closed relay action at $2^{\text {nd }}$ speed (shared $2^{\text {nd }}$ speed output relay) | 3 |
| 00000110 | 4 output relays Opened/Closed relay action at $2^{\text {nd }}$ speed (separate $2^{\text {nd }}$ speed output relays) | 4 |
| 00001000 | Forward (or Reverse) + Fast output relays engaged at $2^{\text {nd }}$ speed | 4 |
| 00001010 | Forward (or Reverse) + Slow + Fast output relays engaged at $2^{\text {nd }}$ speed | 4 |
| 00001100 | OFF / ON | 2 |
| 00010010 | On + Start/Off + Start - For added safety, you must first rotate and hold the power switch key at START position and then press the On or Off pushbutton to activate the output relay. | 2 |
| 00001110 | Magnet Lift On \& Off | 2 |
| 00010000 | OFF / ON (EMS)** | 2 |
| 00010100 | Toggled / Toggled | 2 |
| 00010110 | Toggled / Toggled (EMS)** | 2 |
| 00011110 | Toggled / Normal (EMS)** | 2 |
| 00100000 | Single speed + External warning* | 2 |
| 00100010 | 4 output relays Closed/Closed relay action + External warning* | 4 |
| 00100100 | 3 output relays Closed/Closed relay action + External warning* | 3 |
| 00100110 | 4 output relays Opened/Closed relay action + External warning* | 4 |
| 01000010 | 4 output relays Closed/Closed relay action + Brake | 4 |
| 01000100 | 3 output relays Closed/Closed relay action + Brake | 3 |
| 01000110 | 4 output relays Opened/Closed relay action + Brake | 4 |
| 01100010 | 4 output relays Closed/Closed relay action + Brake + External warning* | 4 |
| 01100100 | 3 output relays Closed/Closed relay action + Brake + External warning* | 3 |
| 01100110 | 4 output relays Opened/Closed relay action + Brake + External warning* | 4 |

* External warning function requires installing an external warning device such as horn and lights to the K26 Function output relay.
** EMS: Relay opens when STOP button is pressed down.


## Interlocked Settings for 3 Steps Relay Outputs

| Output Relay <br> Function \# | CN1 ~ CN6 | K1 | K2 | K3 | K4 | K5 | K6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 00000001 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \end{aligned}$ | or R1 <br> or R1 <br> or R1 | $\begin{aligned} & \text { F/R2 } \\ & \text { F/R2 } \end{aligned}$ | F/R3 | Not <br> Used | Not <br> Used |
| $\begin{aligned} & 00000011 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \end{aligned}$ | or R1 <br> or R1 <br> or R1 | F/R2 | F/R3 | $\begin{aligned} & \text { Not } \\ & \text { Used } \end{aligned}$ | Not <br> Used |
| $\begin{aligned} & 00000101 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step at $3^{\text {rd }}$ Step | $\begin{aligned} & F \\ & F \\ & F \end{aligned}$ | or R or R or R | $\begin{aligned} & \text { F/R1 } \\ & \text { F/R1 } \\ & \text { F/R1 } \end{aligned}$ | $\begin{aligned} & \text { F/R2 } \\ & \text { F/R2 } \end{aligned}$ | F/R3 | Not Used |
| $\begin{aligned} & 00000111 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{gathered} \mathrm{F} \\ \mathrm{~F} \\ \mathrm{~F} \end{gathered}$ | or R or R or R | F/R1 | F/R2 | F/R3 | Not <br> Used |
| $\begin{aligned} & 00001001 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \end{aligned}$ | or R1 <br> or R1 <br> or R1 | $\begin{aligned} & \text { F2 } \\ & \text { F2 } \end{aligned}$ | or R2 <br> or R2 | F3 | or R3 |
| $\begin{aligned} & 00001011 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | F1 | or R1 | F2 | or R2 | F3 | or R3 |

F $\rightarrow$ Forward $\quad$ F1 $\rightarrow$ Forward $1^{\text {st }}$ step $\quad$ F2 $\rightarrow$ Forward $2^{\text {nd }}$ step $\quad$ F3 $\rightarrow$ Forward $3^{\text {rd }}$ step
$\mathbf{R} \rightarrow$ Reverse $\quad \mathbf{R 1} \rightarrow$ Reverse $1^{\text {st }}$ step $\quad \mathbf{R 2} \rightarrow$ Reverse $2^{\text {nd }}$ step $\quad \mathbf{R} \mathbf{3} \rightarrow$ Reverse $3^{\text {rd }}$ step
F/R1 $\rightarrow$ Forward/Reverse shared $1^{\text {st }}$ step $\quad$ F/R2 $\rightarrow$ Forward/Reverse shared $2^{\text {nd }}$ step
F/R3 $\rightarrow$ Forward/Reverse shared $3^{\text {rd }}$ step

### 11.36 Program PB5 \& PB6 Relay Outputs (RX)

1) Press " $\rightarrow$ " button to enter PB5 \& PB6 Relay Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value " 0 " or " 1 ".
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2.
7) Exit Program PB5 \& PB6 Relay Outputs by pressing the BACK button until the cursor is shown next to "PB5\&6 RELAY".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

None Interlocked Settings for 1 \& 2 Steps Relay Outputs

| Function \# | Function Descriptions (left button / right button) | \# of Relays Used |
| :---: | :---: | :---: |
| 10000000 | Normal / Normal | 2 |
| 10000010 | Normal / Toggled | 2 |
| 10000110 | Normal / Toggled (EMS)** | 2 |
| 10001000 | Normal / Normal + Start* | 2 |
| 10001100 | Normal / Pitch \& Catch | 2 |
| 10010000 | Toggled / Normal | 2 |
| 10010010 | Toggled / Toggled | 2 |
| 10010110 | Toggled / Toggled (EMS)** | 2 |
| 10011000 | Toggled / Normal + Start* | 2 |
| 10011100 | Toggled / Pitch \& Catch | 2 |
| 10110000 | Toggled (EMS**) / Normal | 2 |
| 10110010 | Toggled (EMS)** Toggled | 2 |
| 10110110 | Toggled (EMS)** / Toggled (EMS)** | 2 |
| 10111000 | Toggled (EMS)** / Normal + Start* | 2 |
| 10111100 | Toggled (EMS)** $/$ Pitch \& Catch | 2 |
| 11000000 | Normal + Start* / Normal | 2 |
| 11000010 | Normal + Start* / Toggled | 2 |
| 11000110 | Normal + Start* / Toggled (EMS)** | 2 |
| 11001000 | Normal + Start* / Normal + Start* | 2 |
| 11001100 | Normal + Start* / Pitch \& Catch | 2 |
| 11100000 | Pitch \& Catch / Normal | 2 |
| 11100010 | Pitch \& Catch / Toggled | 2 |
| 11100110 | Pitch \& Catch / Toggled (EMS)** | 2 |
| 11101000 | Pitch \& Catch / Normal + Start* | 2 |
| 11111110 | 4 output relays Closed/Closed relay action at $2^{\text {nd }}$ speed (separate $2^{\text {nd }}$ speed output relays) | 4 |

[^3]Interlocked Settings for 1 \& 2 Steps Relay Outputs

| Function \# | Function Descriptions (left button / right button) | \# of Relays Used |
| :---: | :---: | :---: |
| 00000000 | Single speed only | 2 |
| 00000010 | 4 output relays Closed/Closed relay action at $2^{\text {nd }}$ speed (separate $2^{\text {nd }}$ speed output relays) | 4 |
| 00000100 | 3 output relays Closed/Closed relay action at $2^{\text {nd }}$ speed (shared $2^{\text {nd }}$ speed output relay) | 3 |
| 00000110 | 4 output relays Opened/Closed relay action at $2^{\text {nd }}$ speed (separate $2^{\text {nd }}$ speed output relays) | 4 |
| 00001000 | Forward (or Reverse) + Fast output relays engaged at $2^{\text {nd }}$ speed | 4 |
| 00001010 | Forward (or Reverse) + Slow + Fast output relays engaged at $2^{\text {nd }}$ speed | 4 |
| 00001100 | OFF / ON | 2 |
| 00010010 | On + Start/Off + Start - For added safety, you must first rotate and hold the power switch key at START position and then press the On or Off pushbutton to activate the output relay. | 2 |
| 00001110 | Magnet Lift On \& Off | 2 |
| 00010000 | OFF / ON (EMS)** | 2 |
| 00010100 | Toggled / Toggled | 2 |
| 00010110 | Toggled / Toggled (EMS)** | 2 |
| 00011110 | Toggled / Normal (EMS)** | 2 |
| 00100000 | Single speed + External warning* | 2 |
| 00100010 | 4 output relays Closed/Closed relay action + External warning* | 4 |
| 00100100 | 3 output relays Closed/Closed relay action + External warning* | 3 |
| 00100110 | 4 output relays Opened/Closed relay action + External warning* | 4 |
| 01000010 | 4 output relays Closed/Closed relay action + Brake | 4 |
| 01000100 | 3 output relays Closed/Closed relay action + Brake | 3 |
| 01000110 | 4 output relays Opened/Closed relay action + Brake | 4 |
| 01100010 | 4 output relays Closed/Closed relay action + Brake + External warning* | 4 |
| 01100100 | 3 output relays Closed/Closed relay action + Brake + External warning* | 3 |
| 01100110 | 4 output relays Opened/Closed relay action + Brake + External warning* | 4 |

* External warning function requires installing an external warning device such as horn and lights to the K26 Function output relay.
** EMS: Relay opens when STOP button is pressed down.


## Interlocked Settings for 3 Steps Relay Outputs

| Output Relay <br> Function \# | CN1 ~ CN6 | K1 | K2 | K3 | K4 | K5 | K6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 00000001 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \end{aligned}$ | or R1 <br> or R1 <br> or R1 | $\begin{aligned} & \text { F/R2 } \\ & \text { F/R2 } \end{aligned}$ | F/R3 | Not <br> Used | Not <br> Used |
| $\begin{aligned} & 00000011 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \end{aligned}$ | or R1 <br> or R1 <br> or R1 | F/R2 | F/R3 | $\begin{aligned} & \text { Not } \\ & \text { Used } \end{aligned}$ | Not <br> Used |
| $\begin{aligned} & 00000101 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step at $3^{\text {rd }}$ Step | $\begin{aligned} & F \\ & F \\ & F \end{aligned}$ | or R or R or R | $\begin{aligned} & \text { F/R1 } \\ & \text { F/R1 } \\ & \text { F/R1 } \end{aligned}$ | $\begin{aligned} & \text { F/R2 } \\ & \text { F/R2 } \end{aligned}$ | F/R3 | Not Used |
| $\begin{aligned} & 00000111 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{gathered} \mathrm{F} \\ \mathrm{~F} \\ \mathrm{~F} \end{gathered}$ | or R or R or R | F/R1 | F/R2 | F/R3 | Not <br> Used |
| $\begin{aligned} & 00001001 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \end{aligned}$ | or R1 <br> or R1 <br> or R1 | $\begin{aligned} & \text { F2 } \\ & \text { F2 } \end{aligned}$ | or R2 <br> or R2 | F3 | or R3 |
| $\begin{aligned} & 00001011 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | F1 | or R1 | F2 | or R2 | F3 | or R3 |

F $\rightarrow$ Forward $\quad$ F1 $\rightarrow$ Forward $1^{\text {st }}$ step $\quad$ F2 $\rightarrow$ Forward $2^{\text {nd }}$ step $\quad$ F3 $\rightarrow$ Forward $3^{\text {rd }}$ step
$\mathbf{R} \rightarrow$ Reverse $\quad \mathbf{R 1} \rightarrow$ Reverse $1^{\text {st }}$ step $\quad \mathbf{R 2} \rightarrow$ Reverse $2^{\text {nd }}$ step $\quad \mathbf{R} \mathbf{3} \rightarrow$ Reverse $3^{\text {rd }}$ step
F/R1 $\rightarrow$ Forward/Reverse shared $1^{\text {st }}$ step $\quad$ F/R2 $\rightarrow$ Forward/Reverse shared $2^{\text {nd }}$ step
F/R3 $\rightarrow$ Forward/Reverse shared $3^{\text {rd }}$ step

### 11.37 Program PB7 \& PB8 Relay Outputs (RX)

1) Press " $\rightarrow$ " button to enter PB7 \& PB8 Relay Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value " 0 " or " 1 ".
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2.
7) Exit Program PB7 \& PB8 Relay Outputs by pressing the BACK button until the cursor is shown next to "PB7\&8 RELAY".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

None Interlocked Settings for 1 \& 2 Steps Relay Outputs

| Function \# | Function Descriptions (left button / right button) | \# of Relays Used |
| :---: | :---: | :---: |
| 10000000 | Normal / Normal | 2 |
| 10000010 | Normal / Toggled | 2 |
| 10000110 | Normal / Toggled (EMS)** | 2 |
| 10001000 | Normal / Normal + Start* | 2 |
| 10001100 | Normal / Pitch \& Catch | 2 |
| 10010000 | Toggled / Normal | 2 |
| 10010010 | Toggled / Toggled | 2 |
| 10010110 | Toggled / Toggled (EMS)** | 2 |
| 10011000 | Toggled / Normal + Start* | 2 |
| 10011100 | Toggled / Pitch \& Catch | 2 |
| 10110000 | Toggled (EMS**) / Normal | 2 |
| 10110010 | Toggled (EMS)** Toggled | 2 |
| 10110110 | Toggled (EMS)** / Toggled (EMS)** | 2 |
| 10111000 | Toggled (EMS)** / Normal + Start* | 2 |
| 10111100 | Toggled (EMS)** Pitch \& Catch | 2 |
| 11000000 | Normal + Start* / Normal | 2 |
| 11000010 | Normal + Start* / Toggled | 2 |
| 11000110 | Normal + Start* / Toggled (EMS)** | 2 |
| 11001000 | Normal + Start* / Normal + Start* | 2 |
| 11001100 | Normal + Start* / Pitch \& Catch | 2 |
| 11100000 | Pitch \& Catch / Normal | 2 |
| 11100010 | Pitch \& Catch / Toggled | 2 |
| 11100110 | Pitch \& Catch / Toggled (EMS)** | 2 |
| 11101000 | Pitch \& Catch / Normal + Start* | 2 |
| 11111110 | 4 output relays Closed/Closed relay action at $2^{\text {nd }}$ speed (separate $2^{\text {nd }}$ speed output relays) | 4 |

[^4]Interlocked Settings for 1 \& 2 Steps Relay Outputs

| Function \# | Function Descriptions (left button / right button) | \# of Relays Used |
| :---: | :---: | :---: |
| 00000000 | Single speed only | 2 |
| 00000010 | 4 output relays Closed/Closed relay action at $2^{\text {nd }}$ speed (separate $2^{\text {nd }}$ speed output relays) | 4 |
| 00000100 | 3 output relays Closed/Closed relay action at $2^{\text {nd }}$ speed (shared $2^{\text {nd }}$ speed output relay) | 3 |
| 00000110 | 4 output relays Opened/Closed relay action at $2^{\text {nd }}$ speed (separate $2^{\text {nd }}$ speed output relays) | 4 |
| 00001000 | Forward (or Reverse) + Fast output relays engaged at $2^{\text {nd }}$ speed | 4 |
| 00001010 | Forward (or Reverse) + Slow + Fast output relays engaged at $2^{\text {nd }}$ speed | 4 |
| 00001100 | OFF / ON | 2 |
| 00010010 | On + Start/Off + Start - For added safety, you must first rotate and hold the power switch key at START position and then press the On or Off pushbutton to activate the output relay. | 2 |
| 00001110 | Magnet Lift On \& Off | 2 |
| 00010000 | OFF / ON (EMS)** | 2 |
| 00010100 | Toggled / Toggled | 2 |
| 00010110 | Toggled / Toggled (EMS)** | 2 |
| 00011110 | Toggled / Normal (EMS)** | 2 |
| 00100000 | Single speed + External warning* | 2 |
| 00100010 | 4 output relays Closed/Closed relay action + External warning* | 4 |
| 00100100 | 3 output relays Closed/Closed relay action + External warning* | 3 |
| 00100110 | 4 output relays Opened/Closed relay action + External warning* | 4 |
| 01000010 | 4 output relays Closed/Closed relay action + Brake | 4 |
| 01000100 | 3 output relays Closed/Closed relay action + Brake | 3 |
| 01000110 | 4 output relays Opened/Closed relay action + Brake | 4 |
| 01100010 | 4 output relays Closed/Closed relay action + Brake + External warning* | 4 |
| 01100100 | 3 output relays Closed/Closed relay action + Brake + External warning* | 3 |
| 01100110 | 4 output relays Opened/Closed relay action + Brake + External warning* | 4 |

* External warning function requires installing an external warning device such as horn and lights to the K26 Function output relay.
** EMS: Relay opens when STOP button is pressed down.


## Interlocked Settings for 3 Steps Relay Outputs

| Output Relay <br> Function \# | CN1 ~ CN6 | K1 | K2 | K3 | K4 | K5 | K6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 00000001 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \end{aligned}$ | or R1 <br> or R1 <br> or R1 | $\begin{aligned} & \text { F/R2 } \\ & \text { F/R2 } \end{aligned}$ | F/R3 | Not <br> Used | Not <br> Used |
| $\begin{aligned} & 00000011 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \end{aligned}$ | or R1 <br> or R1 <br> or R1 | F/R2 | F/R3 | $\begin{aligned} & \text { Not } \\ & \text { Used } \end{aligned}$ | Not <br> Used |
| $\begin{aligned} & 00000101 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step at $3^{\text {rd }}$ Step | $\begin{aligned} & F \\ & F \\ & F \end{aligned}$ | or R or R or R | $\begin{aligned} & \text { F/R1 } \\ & \text { F/R1 } \\ & \text { F/R1 } \end{aligned}$ | $\begin{aligned} & \text { F/R2 } \\ & \text { F/R2 } \end{aligned}$ | F/R3 | Not Used |
| $\begin{aligned} & 00000111 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{gathered} \mathrm{F} \\ \mathrm{~F} \\ \mathrm{~F} \end{gathered}$ | or R or R or R | F/R1 | F/R2 | F/R3 | Not <br> Used |
| $\begin{aligned} & 00001001 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \end{aligned}$ | or R1 <br> or R1 <br> or R1 | $\begin{aligned} & \text { F2 } \\ & \text { F2 } \end{aligned}$ | or R2 <br> or R2 | F3 | or R3 |
| $\begin{aligned} & 00001011 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | F1 | or R1 | F2 | or R2 | F3 | or R3 |

F $\rightarrow$ Forward $\quad$ F1 $\rightarrow$ Forward $1^{\text {st }}$ step $\quad$ F2 $\rightarrow$ Forward $2^{\text {nd }}$ step $\quad$ F3 $\rightarrow$ Forward $3^{\text {rd }}$ step
$\mathbf{R} \rightarrow$ Reverse $\quad \mathbf{R 1} \rightarrow$ Reverse $1^{\text {st }}$ step $\quad \mathbf{R 2} \rightarrow$ Reverse $2^{\text {nd }}$ step $\quad \mathbf{R} \mathbf{3} \rightarrow$ Reverse $3^{\text {rd }}$ step
F/R1 $\rightarrow$ Forward/Reverse shared $1^{\text {st }}$ step $\quad$ F/R2 $\rightarrow$ Forward/Reverse shared $2^{\text {nd }}$ step
F/R3 $\rightarrow$ Forward/Reverse shared $3^{\text {rd }}$ step

### 11.38 Program PB9 \& PB10 Relay Outputs (RX)

1) Press " $\rightarrow$ " button to enter PB9 \& PB10 Relay Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value " 0 " or " 1 ".
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2.
7) Exit Program PB9 \& PB10 Relay Outputs by pressing the BACK button until the cursor is shown next to "PB9\&10 RELAY".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

None Interlocked Settings for 1 \& 2 Steps Relay Outputs

| Function \# | Function Descriptions (left button / right button) | \# of Relays Used |
| :---: | :---: | :---: |
| 10000000 | Normal / Normal | 2 |
| 10000010 | Normal / Toggled | 2 |
| 10000110 | Normal / Toggled (EMS)** | 2 |
| 10001000 | Normal / Normal + Start* | 2 |
| 10001100 | Normal / Pitch \& Catch | 2 |
| 10010000 | Toggled / Normal | 2 |
| 10010010 | Toggled / Toggled | 2 |
| 10010110 | Toggled / Toggled (EMS)** | 2 |
| 10011000 | Toggled / Normal + Start* | 2 |
| 10011100 | Toggled / Pitch \& Catch | 2 |
| 10110000 | Toggled (EMS**) / Normal | 2 |
| 10110010 | Toggled (EMS)** Toggled | 2 |
| 10110110 | Toggled (EMS)** / Toggled (EMS)** | 2 |
| 10111000 | Toggled (EMS)** / Normal + Start* | 2 |
| 10111100 | Toggled (EMS)** Pitch \& Catch | 2 |
| 11000000 | Normal + Start* / Normal | 2 |
| 11000010 | Normal + Start* / Toggled | 2 |
| 11000110 | Normal + Start* / Toggled (EMS)** | 2 |
| 11001000 | Normal + Start* / Normal + Start* | 2 |
| 11001100 | Normal + Start* / Pitch \& Catch | 2 |
| 11100000 | Pitch \& Catch / Normal | 2 |
| 11100010 | Pitch \& Catch / Toggled | 2 |
| 11100110 | Pitch \& Catch / Toggled (EMS)** | 2 |
| 11101000 | Pitch \& Catch / Normal + Start* | 2 |
| 11111110 | 4 output relays Closed/Closed relay action at $2^{\text {nd }}$ speed (separate $2^{\text {nd }}$ speed output relays) | 4 |

[^5]Interlocked Settings for 1 \& 2 Steps Relay Outputs

| Function \# | Function Descriptions (left button / right button) | \# of Relays Used |
| :---: | :---: | :---: |
| 00000000 | Single speed only | 2 |
| 00000010 | 4 output relays Closed/Closed relay action at $2^{\text {nd }}$ speed (separate $2^{\text {nd }}$ speed output relays) | 4 |
| 00000100 | 3 output relays Closed/Closed relay action at $2^{\text {nd }}$ speed (shared $2^{\text {nd }}$ speed output relay) | 3 |
| 00000110 | 4 output relays Opened/Closed relay action at $2^{\text {nd }}$ speed (separate $2^{\text {nd }}$ speed output relays) | 4 |
| 00001000 | Forward (or Reverse) + Fast output relays engaged at $2^{\text {nd }}$ speed | 4 |
| 00001010 | Forward (or Reverse) + Slow + Fast output relays engaged at $2^{\text {nd }}$ speed | 4 |
| 00001100 | OFF / ON | 2 |
| 00010010 | On + Start/Off + Start - For added safety, you must first rotate and hold the power switch key at START position and then press the On or Off pushbutton to activate the output relay. | 2 |
| 00001110 | Magnet Lift On \& Off | 2 |
| 00010000 | OFF / ON (EMS)** | 2 |
| 00010100 | Toggled / Toggled | 2 |
| 00010110 | Toggled / Toggled (EMS)** | 2 |
| 00011110 | Toggled / Normal (EMS)** | 2 |
| 00100000 | Single speed + External warning* | 2 |
| 00100010 | 4 output relays Closed/Closed relay action + External warning* | 4 |
| 00100100 | 3 output relays Closed/Closed relay action + External warning* | 3 |
| 00100110 | 4 output relays Opened/Closed relay action + External warning* | 4 |
| 01000010 | 4 output relays Closed/Closed relay action + Brake | 4 |
| 01000100 | 3 output relays Closed/Closed relay action + Brake | 3 |
| 01000110 | 4 output relays Opened/Closed relay action + Brake | 4 |
| 01100010 | 4 output relays Closed/Closed relay action + Brake + External warning* | 4 |
| 01100100 | 3 output relays Closed/Closed relay action + Brake + External warning* | 3 |
| 01100110 | 4 output relays Opened/Closed relay action + Brake + External warning* | 4 |

* External warning function requires installing an external warning device such as horn and lights to the K26 Function output relay.
** EMS: Relay opens when STOP button is pressed down.


## Interlocked Settings for 3 Steps Relay Outputs

| Output Relay <br> Function \# | CN1 ~ CN6 | K1 | K2 | K3 | K4 | K5 | K6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 00000001 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \end{aligned}$ | or R1 <br> or R1 <br> or R1 | $\begin{aligned} & \text { F/R2 } \\ & \text { F/R2 } \end{aligned}$ | F/R3 | Not <br> Used | Not <br> Used |
| $\begin{aligned} & 00000011 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \end{aligned}$ | or R1 <br> or R1 <br> or R1 | F/R2 | F/R3 | $\begin{aligned} & \text { Not } \\ & \text { Used } \end{aligned}$ | Not <br> Used |
| $\begin{aligned} & 00000101 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step at $3^{\text {rd }}$ Step | $\begin{aligned} & F \\ & F \\ & F \end{aligned}$ | or R or R or R | $\begin{aligned} & \text { F/R1 } \\ & \text { F/R1 } \\ & \text { F/R1 } \end{aligned}$ | $\begin{aligned} & \text { F/R2 } \\ & \text { F/R2 } \end{aligned}$ | F/R3 | Not Used |
| $\begin{aligned} & 00000111 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{gathered} \mathrm{F} \\ \mathrm{~F} \\ \mathrm{~F} \end{gathered}$ | or R or R or R | F/R1 | F/R2 | F/R3 | Not <br> Used |
| $\begin{aligned} & 00001001 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \end{aligned}$ | or R1 <br> or R1 <br> or R1 | $\begin{aligned} & \text { F2 } \\ & \text { F2 } \end{aligned}$ | or R2 <br> or R2 | F3 | or R3 |
| $\begin{aligned} & 00001011 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | F1 | or R1 | F2 | or R2 | F3 | or R3 |

F $\rightarrow$ Forward $\quad$ F1 $\rightarrow$ Forward $1^{\text {st }}$ step $\quad$ F2 $\rightarrow$ Forward $2^{\text {nd }}$ step $\quad$ F3 $\rightarrow$ Forward $3^{\text {rd }}$ step
$\mathbf{R} \rightarrow$ Reverse $\quad \mathbf{R 1} \rightarrow$ Reverse $1^{\text {st }}$ step $\quad \mathbf{R 2} \rightarrow$ Reverse $2^{\text {nd }}$ step $\quad \mathbf{R} \mathbf{3} \rightarrow$ Reverse $3^{\text {rd }}$ step
F/R1 $\rightarrow$ Forward/Reverse shared $1^{\text {st }}$ step $\quad$ F/R2 $\rightarrow$ Forward/Reverse shared $2^{\text {nd }}$ step
F/R3 $\rightarrow$ Forward/Reverse shared $3^{\text {rd }}$ step

### 11.39 Program PB11 \& PB12 Relay Outputs (RX)

1) Press " $\rightarrow$ " button to enter PB11 \& PB12 Relay Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value " 0 " or " 1 ".
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2.
7) Exit Program PB11 \& PB12 Relay Outputs by pressing the BACK button until the cursor is shown next to "PB11\&12 RELAY".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

None Interlocked Settings for 1 \& 2 Steps Relay Outputs

| Function \# | Function Descriptions (left button / right button) | \# of Relays Used |
| :---: | :---: | :---: |
| 10000000 | Normal / Normal | 2 |
| 10000010 | Normal / Toggled | 2 |
| 10000110 | Normal / Toggled (EMS)** | 2 |
| 10001000 | Normal / Normal + Start* | 2 |
| 10001100 | Normal / Pitch \& Catch | 2 |
| 10010000 | Toggled / Normal | 2 |
| 10010010 | Toggled / Toggled | 2 |
| 10010110 | Toggled / Toggled (EMS)** | 2 |
| 10011000 | Toggled / Normal + Start* | 2 |
| 10011100 | Toggled / Pitch \& Catch | 2 |
| 10110000 | Toggled (EMS**) / Normal | 2 |
| 10110010 | Toggled (EMS)** Toggled | 2 |
| 10110110 | Toggled (EMS)** / Toggled (EMS)** | 2 |
| 10111000 | Toggled (EMS)** Normal + Start* | 2 |
| 10111100 | Toggled (EMS)** Pitch \& Catch | 2 |
| 11000000 | Normal + Start* ${ }^{\text {/ }}$ Normal | 2 |
| 11000010 | Normal + Start* / Toggled | 2 |
| 11000110 | Normal + Start* / Toggled (EMS)** | 2 |
| 11001000 | Normal + Start* / Normal + Start* | 2 |
| 11001100 | Normal + Start* / Pitch \& Catch | 2 |
| 11100000 | Pitch \& Catch / Normal | 2 |
| 11100010 | Pitch \& Catch / Toggled | 2 |
| 11100110 | Pitch \& Catch / Toggled (EMS)** | 2 |
| 11101000 | Pitch \& Catch / Normal + Start* | 2 |
| 11111110 | 4 output relays Closed/Closed relay action at $2^{\text {nd }}$ speed (separate $2^{\text {nd }}$ speed output relays) | 4 |

[^6]Interlocked Settings for 1 \& 2 Steps Relay Outputs

| Function \# | Function Descriptions (left button / right button) | \# of Relays Used |
| :---: | :---: | :---: |
| 00000000 | Single speed only | 2 |
| 00000010 | 4 output relays Closed/Closed relay action at $2^{\text {nd }}$ speed (separate $2^{\text {nd }}$ speed output relays) | 4 |
| 00000100 | 3 output relays Closed/Closed relay action at $2^{\text {nd }}$ speed (shared $2^{\text {nd }}$ speed output relay) | 3 |
| 00000110 | 4 output relays Opened/Closed relay action at $2^{\text {nd }}$ speed (separate $2^{\text {nd }}$ speed output relays) | 4 |
| 00001000 | Forward (or Reverse) + Fast output relays engaged at $2^{\text {nd }}$ speed | 4 |
| 00001010 | Forward (or Reverse) + Slow + Fast output relays engaged at $2^{\text {nd }}$ speed | 4 |
| 00001100 | OFF / ON | 2 |
| 00010010 | On + Start/Off + Start - For added safety, you must first rotate and hold the power switch key at START position and then press the On or Off pushbutton to activate the output relay. | 2 |
| 00001110 | Magnet Lift On \& Off | 2 |
| 00010000 | OFF / ON (EMS)** | 2 |
| 00010100 | Toggled / Toggled | 2 |
| 00010110 | Toggled / Toggled (EMS)** | 2 |
| 00011110 | Toggled / Normal (EMS)** | 2 |
| 00100000 | Single speed + External warning* | 2 |
| 00100010 | 4 output relays Closed/Closed relay action + External warning* | 4 |
| 00100100 | 3 output relays Closed/Closed relay action + External warning* | 3 |
| 00100110 | 4 output relays Opened/Closed relay action + External warning* | 4 |
| 01000010 | 4 output relays Closed/Closed relay action + Brake | 4 |
| 01000100 | 3 output relays Closed/Closed relay action + Brake | 3 |
| 01000110 | 4 output relays Opened/Closed relay action + Brake | 4 |
| 01100010 | 4 output relays Closed/Closed relay action + Brake + External warning* | 4 |
| 01100100 | 3 output relays Closed/Closed relay action + Brake + External warning* | 3 |
| 01100110 | 4 output relays Opened/Closed relay action + Brake + External warning* | 4 |

* External warning function requires installing an external warning device such as horn and lights to the K26 Function output relay.
** EMS: Relay opens when STOP button is pressed down.


## Interlocked Settings for 3 Steps Relay Outputs

| Output Relay <br> Function \# | CN1 ~ CN6 | K1 | K2 | K3 | K4 | K5 | K6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 00000001 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \end{aligned}$ | or R1 <br> or R1 <br> or R1 | $\begin{aligned} & \text { F/R2 } \\ & \text { F/R2 } \end{aligned}$ | F/R3 | Not <br> Used | Not <br> Used |
| $\begin{aligned} & 00000011 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \end{aligned}$ | or R1 <br> or R1 <br> or R1 | F/R2 | F/R3 | $\begin{aligned} & \text { Not } \\ & \text { Used } \end{aligned}$ | Not <br> Used |
| $\begin{aligned} & 00000101 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step at $2^{\text {nd }}$ Step at $3^{\text {rd }}$ Step | $\begin{aligned} & F \\ & F \\ & F \end{aligned}$ | or R or R or R | $\begin{aligned} & \text { F/R1 } \\ & \text { F/R1 } \\ & \text { F/R1 } \end{aligned}$ | $\begin{aligned} & \text { F/R2 } \\ & \text { F/R2 } \end{aligned}$ | F/R3 | Not Used |
| $\begin{aligned} & 00000111 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{gathered} \mathrm{F} \\ \mathrm{~F} \\ \mathrm{~F} \end{gathered}$ | or R or R or R | F/R1 | F/R2 | F/R3 | Not <br> Used |
| $\begin{aligned} & 00001001 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | $\begin{aligned} & \mathrm{F} 1 \\ & \mathrm{~F} 1 \\ & \mathrm{~F} 1 \end{aligned}$ | or R1 <br> or R1 <br> or R1 | $\begin{aligned} & \text { F2 } \\ & \text { F2 } \end{aligned}$ | or R2 <br> or R2 | F3 | or R3 |
| $\begin{aligned} & 00001011 \\ & \text { (requires 3-step } \\ & \text { relay module) } \end{aligned}$ | at $1^{\text {st }}$ Step <br> at $2^{\text {nd }}$ Step <br> at $3^{\text {rd }}$ Step | F1 | or R1 | F2 | or R2 | F3 | or R3 |

F $\rightarrow$ Forward $\quad$ F1 $\rightarrow$ Forward $1^{\text {st }}$ step $\quad$ F2 $\rightarrow$ Forward $2^{\text {nd }}$ step $\quad$ F3 $\rightarrow$ Forward $3^{\text {rd }}$ step
$\mathbf{R} \rightarrow$ Reverse $\quad \mathbf{R 1} \rightarrow$ Reverse $1^{\text {st }}$ step $\quad \mathbf{R 2} \rightarrow$ Reverse $2^{\text {nd }}$ step $\quad \mathbf{R} \mathbf{3} \rightarrow$ Reverse $3^{\text {rd }}$ step
F/R1 $\rightarrow$ Forward/Reverse shared $1^{\text {st }}$ step $\quad$ F/R2 $\rightarrow$ Forward/Reverse shared $2^{\text {nd }}$ step
F/R3 $\rightarrow$ Forward/Reverse shared $3^{\text {rd }}$ step

### 11.40 Program PB1 \& PB2 Analog Outputs (RX)

1) Press " $\rightarrow$ " button to enter PB1 \& PB2 Analog Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select OFF, VOLTAGE and CURRENT outputs.

VOLTAGE (0~10V):

1) Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to select Maximum, Neutral and Minimum voltage value, press " $\rightarrow$ " button again to enter.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left.
3) Press " $\rightarrow$ " button to go the next digit to the right and repeat step 2.
4) Press BACK button to go back to step 1.
5) Exit Program PB1 \& PB2 Analog Outputs by pressing the BACK button until the cursor is shown next to "PB1\&2 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

## CURRENT ( $0 \sim 20 \mathrm{~mA}$ ):

1) Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to select Maximum, Neutral and Minimum current value, press " $\rightarrow$ " button again to enter.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value.
3) Press BACK button to go back to step 1.
4) Exit Program PB1 \& PB2 Analog Outputs by pressing the BACK button until the cursor is shown next to "PB1\&2 ANALOG".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.41 Program PB3 \& PB4 Analog Outputs (RX)

1) Press " $\rightarrow$ " button to enter PB3 \& PB4 Analog Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select OFF, VOLTAGE and CURRENT outputs.

## VOLTAGE (0~10V):

1) Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to select Maximum, Neutral and Minimum voltage value, press " $\rightarrow$ " button again to enter.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left.
3) Press " $\rightarrow$ " button to go the next digit to the right and repeat step 2 .
4) Press BACK button to go back to step 1.
5) Exit Program PB3 \& PB4 Analog Outputs by pressing the BACK button until the cursor is shown next to "PB3\&4 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

## CURRENT ( $0 \sim 20 \mathrm{~mA}$ ):

1) Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to select Maximum, Neutral and Minimum current value, press " $\rightarrow$ " button again to enter.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value.
3) Press BACK button to go back to step 1.
4) Exit Program PB3 \& PB4 Analog Outputs by pressing the BACK button until the cursor is shown next to "PB3\&4 ANALOG".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.42 Program PB5 \& PB6 Analog Outputs (RX)

1) Press " $\rightarrow$ " button to enter PB5 \& PB6 Analog Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select OFF, VOLTAGE and CURRENT outputs.

## VOLTAGE (0~10V):

1) Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to select Maximum, Neutral and Minimum voltage value, press " $\rightarrow$ " button again to enter.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left.
3) Press " $\rightarrow$ " button to go the next digit to the right and repeat step 2.
4) Press BACK button to go back to step 1.
5) Exit Program PB5 \& PB6 Analog Outputs by pressing the BACK button until the cursor is shown next to "PB5\&6 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

CURRENT ( $0 \sim 20 \mathrm{~mA}$ ):

1) Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to select Maximum, Neutral and Minimum current value, press " $\rightarrow$ " button again to enter.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value.
3) Press BACK button to go back to step 1.
4) Exit Program PB5 \& PB6 Analog Outputs by pressing the BACK button until the cursor is shown next to "PB5\&6 ANALOG".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.43 Program PB7 \& PB8 Analog Outputs (RX)

1) Press " $\rightarrow$ " button to enter PB7 \& PB8 Analog Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select OFF, VOLTAGE and CURRENT outputs.

## VOLTAGE (0~10V):

1) Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to select Maximum, Neutral and Minimum voltage value, press " $\rightarrow$ " button again to enter.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left.
3) Press " $\rightarrow$ " button to go the next digit to the right and repeat step 2 .
4) Press BACK button to go back to step 1.
5) Exit Program PB7 \& PB8 Analog Outputs by pressing the BACK button until the cursor is shown next to "PB7\&8 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

## CURRENT ( $0 \sim 20 \mathrm{~mA}$ ):

1) Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to select Maximum, Neutral and Minimum current value, press " $\rightarrow$ " button again to enter.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value.
3) Press BACK button to go back to step 1.
4) Exit Program PB7 \& PB8 Analog Outputs by pressing the BACK button until the cursor is shown next to "PB7\&8 ANALOG".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.44 Program PB9 \& PB10 Analog Outputs (RX)

1) Press " $\rightarrow$ " button to enter PB9 \& PB10 Analog Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select OFF, VOLTAGE and CURRENT outputs.

VOLTAGE (0~10V):

1) Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to select Maximum, Neutral and Minimum voltage value, press " $\rightarrow$ " button again to enter.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left.
3) Press " $\rightarrow$ " button to go the next digit to the right and repeat step 2.
4) Press BACK button to go back to step 1.
5) Exit Program PB9 \& PB10 Analog Outputs by pressing the BACK button until the cursor is shown next to "PB9\&10 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

## CURRENT ( $0 \sim 20 \mathrm{~mA}$ ):

1) Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to select Maximum, Neutral and Minimum current value, press " $\rightarrow$ " button again to enter.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value.
3) Press BACK button to go back to step 1.
4) Exit Program PB9 \& PB10 Analog Outputs by pressing the BACK button until the cursor is shown next to "PB9\&10 ANALOG".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.45 Program PB11 \& PB12 Analog Outputs (RX)

1) Press " $\rightarrow$ " button to enter PB11 \& PB12 Analog Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select OFF, VOLTAGE and CURRENT outputs.

## VOLTAGE (0~10V):

1) Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to select Maximum, Neutral and Minimum voltage value, press " $\rightarrow$ " button again to enter.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left.
3) Press " $\rightarrow$ " button to go the next digit to the right and repeat step 2 .
4) Press BACK button to go back to step 1.
5) Exit Program PB11 \& PB12 Analog Outputs by pressing the BACK button until the cursor is shown next to "PB11\&12 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

## CURRENT ( $0 \sim 20 \mathrm{~mA}$ ):

1) Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to select Maximum, Neutral and Minimum current value, press " $\rightarrow$ " button again to enter.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value.
3) Press BACK button to go back to step 1.
4) Exit Program PB11 \& PB12 Analog Outputs by pressing the BACK button until the cursor is shown next to "PB11\&12 ANALOG".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

### 11.46 Program Jumper Functions (RX)

1) Press " $\rightarrow$ " button to enter Jumper Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select from various jumper settings.
3) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select OPEN or SHORT.
4) Exit Program Jumper Functions by pressing the BACK button until the cursor is shown next to "JUMPER".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

## 12. Flex 2JB-ERX Models

### 12.1 Program IR

### 12.1.1 Transmitter

1) Only WRITE requires entering the IR programming mode.
2) Reset the STOP button (Status LED turned green for up to 2.0 seconds, transmitter power on).
3) Press and hold both PB5 and PB6 at the same time for up to 3.0 seconds (Status LED blinks orange). Let go of both PB5 and PB6 when LED-A and LED-B turned red.
4) Entered programming mode with Status LED displays 1x orange blink for firmware version, remote pairing and IR programming.
5) Press and hold both PB5 and PB6 at the same time for up to 3.0 seconds (LED-A and LED-B turned red). Let go
 of both PB5 and PB6 when Status LED turned orange.
6) The Status LED now displays the transmitter firmware version with red, green and orange blinks.
7) Proceed to infrared transmitter programming using the IR programmer Unit.
8) Enter PROGRAM IR and then press READ button to transfer transmitter info into the IR programmer. If the screen shows "READ OK" the transfer is completed.
9) Browse through list of settings by pressing " $\uparrow$ " and " $\downarrow$ " buttons.
10)Press WRITE button to transfer the new settings into the transmitter (transmitter Status LED constant orange). If the screen shows "WRITE OK" the transfer is completed (transmitter Status LED constant green for up to 2 seconds).
11)Exit infrared programming mode by pressing down the STOP button (transmitter power off).

Note: READ command (transfer transmitter information to the IR programmer) does not require entering the IR programming mode, only when performing the WRITE command (transfer IR information to the transmitter) requires entering the IR programming mode.


### 12.1.2 Receiver

1) Power on the receiver with MAIN relays deactivated (standby mode).
2) Press READ button to transfer receiver info into the IR programmer. If the screen shows" READ OK" the transfer is completed.
3) Browse through list of settings by pressing " $\uparrow$ "and " $\downarrow$ " buttons.
4) Press WRITE button to transfer the new settings into the receiver (receiver Status LED constant orange). If the screen shows "WRITE
 OK" the transfer is completed (receiver Status LED blinks green - standby mode).

Note: When performing infrared programming, make sure the distance between the $I R$ programmer and the transmitter or receiver are within 10 cm .

### 12.2 Program Serial Number (TX \& RX)

1) Press " $\rightarrow$ " button to enter Serial Number setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change serial number as a whole or...
3) Press " $\rightarrow$ " button to go to the $1^{\text {st }}$ digit on the far left of the serial number.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program Serial Number by pressing the BACK button until the cursor is shown next to " $\mathrm{S} / \mathrm{N}$ ".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-ERX settings.

### 12.3 Program System Type (TX \& RX)

1) Press " $\rightarrow$ " button to enter System Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change system type as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program System Type by pressing the BACK button until the cursor is shown next to "TYPE".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-ERX settings.

### 12.4 Program System Frequency Range (TX \& RX)

1) Press " $\rightarrow$ " button to enter Frequency Range setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change frequency range.
3) Exit Program System Frequency Range by pressing the BACK button until the cursor is shown next to "FREQ".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-ERX settings.

### 12.5 Program System Channel (TX \& RX)

1) Press " $\rightarrow$ " button to enter System Channel setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select channel number setting (assigned channel scheme) or UNASSIGN (unassigned channel scheme).
3) To program channel number, press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the digit on the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program System Channel by pressing the BACK button until the cursor is shown next to "CHANNEL".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-ERX settings.

### 12.6 Program Transmitter Inactivity Timer (TX)

1) Press " $\rightarrow$ " button to enter Transmitting Timer setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select " $\_$" " for minutes/seconds or "ON" for constant on.
3) When "ON" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select "+START" or "+ANY".
4) When " $M$ " is selected, press " $\rightarrow$ " button to go to the digit on the left and press " $\uparrow$ " and " $\downarrow$ " button to select value. Press " $\rightarrow$ " button again to go to the next digit and press " $\uparrow$ " and " $\downarrow$ " button to select value.
5) Press " $\rightarrow$ " button again to select " $M$ " for minutes or " $S$ " for seconds. Press " $\uparrow$ " and " $\downarrow$ " button to select.
6) Press " $\rightarrow$ " button again to select "+START" or " + ANY" selection. Press " $\uparrow$ " and " $\downarrow$ " button to select.
7) Exit Program Transmitter Timer by pressing the BACK button until the cursor is shown next to "TX TIMER".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-ERX settings.

Transmitter inactivity timer is for setting receiver main relays cutoff time when the transmitter is not in operation for a certain period of time. When set to 5 minutes (05M), the receiver main relays are deactivated at 5.0 minutes after last transmitter operation.

Select "ON" means the receiver main relays are activated at all time unless the STOP button is pressed down, transmitter power off, or receiver power turned off (inactivity timer disabled).

Select "+START" means after 5 minutes of transmitter inactivity you must execute the START command to continue operation. Select "+ANY" means after 5 minutes of transmitter inactivity, press any pushbutton to continue operation.

### 12.7 Program Transmitter Button Functions (TX)

1) Press " $\rightarrow$ " button to enter Transmitter Button Functions setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program Transmitter Button Functions by pressing the BACK button until the cursor is shown next to "PB FUNC".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JB-ERX settings.


## Toggled Button with LED Indication

| Function <br> Number | Display Type | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :--- | :--- | :--- |
| $\mathbf{0 0 1}$ | 1 Red | LED-A | Normal | Normal | Normal | Normal | Normal | Normal |
| $\mathbf{0 0 2}$ | 2 Reds | Normal | LED-A | Normal | Normal | Normal | Normal | Normal |
| $\mathbf{0 0 3}$ | 3 Reds | Normal | Normal | LED-A | Normal | Normal | Normal | Normal |
| $\mathbf{0 0 4}$ | 4 Reds | Normal | Normal | Normal | LED-A | Normal | Normal | Normal |
| $\mathbf{0 0 5}$ | 5 Reds | Normal | Normal | Normal | Normal | LED-A | Normal | Normal |
| $\mathbf{0 0 6}$ | 6 Reds | Normal | Normal | Normal | Normal | Normal | LED-A | Normal |
| $\mathbf{0 0 7}$ | 7 Reds | Normal | Normal | Normal | Normal | Normal | Normal | LED-A |
| $\mathbf{0 0 8}$ | 8 Reds | LED-B | Normal | Normal | Normal | Normal | Normal | Normal |
| $\mathbf{0 0 9}$ | 9 Reds | Normal | LED-B | Normal | Normal | Normal | Normal | Normal |
| $\mathbf{0 1 0}$ | 1 Green | Normal | Normal | LED-B | Normal | Normal | Normal | Normal |
| $\mathbf{0 1 1}$ | 1 Green 1 Red | Normal | Normal | Normal | LED-B | Normal | Normal | Normal |
| $\mathbf{0 1 2}$ | 1 Green 2 Reds | Normal | Normal | Normal | Normal | LED-B | Normal | Normal |
| $\mathbf{0 1 3}$ | 1 Green 3 Reds | Normal | Normal | Normal | Normal | Normal | LED-B | Normal |
| $\mathbf{0 1 4}$ | 1 Green 4 Reds | Normal | Normal | Normal | Normal | Normal | Normal | LED-B |


| $\mathbf{0 1 5}$ | 1 Green 5 Reds | LED-A | LED-B | Normal | Normal | Normal | Normal | Normal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 1 6}$ | 1 Green 6 Reds | Normal | LED-A | LED-B | Normal | Normal | Normal | Normal |
| $\mathbf{0 1 7}$ | 1 Green 7 Reds | Normal | Normal | LED-A | LED-B | Normal | Normal | Normal |
| $\mathbf{0 1 8}$ | 1 Green 8 Reds | Normal | Normal | Normal | LED-A | LED-B | Normal | Normal |
| $\mathbf{0 1 9}$ | 1 Green 9 Reds | Normal | Normal | Normal | Normal | LED-A | LED-B | Normal |
| $\mathbf{0 2 0}$ | 2 Greens | Normal | Normal | Normal | Normal | Normal | LED-A | LED-B |
| $\mathbf{0 2 1}$ | 2 Greens 1 Red | LED-A | Normal | LED-B | Normal | Normal | Normal | Normal |
| $\mathbf{0 2 2}$ | 2 Greens 2 Reds | Normal | LED-A | Normal | LED-B | Normal | Normal | Normal |
| $\mathbf{0 2 3}$ | 2 Greens 3 Reds | Normal | Normal | LED-A | Normal | LED-B | Normal | Normal |
| $\mathbf{0 2 4}$ | 2 Greens 4 Reds | Normal | Normal | Normal | LED-A | Normal | LED-B | Normal |
| $\mathbf{0 2 5}$ | 2 Greens 5 Reds | Normal | Normal | Normal | Normal | LED-A | Normal | LED-B |

* Normal $\rightarrow$ Normal button function without LED indication.
* LED-A \& LED-B $\rightarrow$ Transmitter toggled button with LED indication.


## Transmitter A/B Button Select with LED Indication

Type-A select sequence: $A \rightarrow B \rightarrow A \rightarrow B \ldots$
Type-B select sequence: Off $\rightarrow A \rightarrow B \rightarrow$ Off $\rightarrow A \rightarrow B \ldots$
Type-C select sequence: $A \rightarrow B \rightarrow A+B \rightarrow A \rightarrow B \rightarrow A+B$ or $A \rightarrow B \rightarrow C \rightarrow A \rightarrow B \rightarrow C \ldots$
Type-D select sequence: Off $\rightarrow A \rightarrow B \rightarrow A+B \rightarrow$ Off $\rightarrow A \rightarrow B \rightarrow A+B \ldots$
Type-E select sequence: $A+B \rightarrow A \rightarrow B \rightarrow A+B \rightarrow A \rightarrow B \ldots$

| Function <br> Number | Display Type | PB1 | PB2 | PB3 | PB4 | PB7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 5 0}$ | 5 Greens | Type-A | Normal | Norma | Norma | Norma |
| $\mathbf{0 5 1}$ | 5 Greens 1 Red | Type-B | Normal | Norma | Norma | Norma |
| $\mathbf{0 5 2}$ | 5 Greens 2 Reds | Type-C | Normal | Norma | Norma | Norma |
| $\mathbf{0 5 3}$ | 5 Greens 3 Reds | Type-D | Normal | Norma | Norma | Norma |
| $\mathbf{0 5 4}$ | 5 Greens 4 Reds | Type-E | Normal | Norma | Norma | Norma |
| $\mathbf{0 5 5}$ | 5 Greens 5 Reds | Normal | Type-A | Norma | Norma | Norma |
| $\mathbf{0 5 6}$ | 5 Greens 6 Reds | Normal | Type-B | Norma | Norma | Norma |
| $\mathbf{0 5 7}$ | 5 Greens 7 Reds | Normal | Type-C | Norma | Norma | Norma |
| $\mathbf{0 5 8}$ | 5 Greens 8 Reds | Normal | Type-D | Norma | Norma | Norma |
| $\mathbf{0 5 9}$ | 5 Greens 9 Reds | Normal | Type-E | Norma | Norma | Norma |
| $\mathbf{0 6 0}$ | 6 Greens | Normal | Normal | Type-A | Norma | Norma |
| $\mathbf{0 6 1}$ | 6 Greens 1 Red | Normal | Normal | Type-B | Norma | Norma |
| $\mathbf{0 6 2}$ | 6 Greens 2 Reds | Normal | Normal | Type-C | Norma | Norma |


| $\mathbf{0 6 3}$ | 6 Greens 3 Reds | Normal | Normal | Type-D | Norma | Norma |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 6 4}$ | 6 Greens 4 Reds | Normal | Normal | Type-E | Norma | Norma |
| $\mathbf{0 6 5}$ | 6 Greens 5 Reds | Normal | Normal | Norma | Type-A | Norma |
| $\mathbf{0 6 6}$ | 6 Greens 6 Reds | Normal | Normal | Norma | Type-B | Norma |
| $\mathbf{0 6 7}$ | 6 Greens 7 Reds | Normal | Normal | Norma | Type-C | Norma |
| $\mathbf{0 6 8}$ | 6 Greens 8 Reds | Normal | Normal | Norma | Type-D | Norma |
| $\mathbf{0 6 9}$ | 6 Greens 9 Reds | Normal | Normal | Norma | Type-E | Norma |
| $\mathbf{0 7 0}$ | 7 Greens | Normal | Normal | Norma | Norma | Type-A |
| $\mathbf{0 7 1}$ | 7 Greens 1 Red | Normal | Normal | Norma | Norma | Type-B |
| $\mathbf{0 7 2}$ | 7 Greens 2 Reds | Normal | Normal | Norma | Norma | Type-C |
| $\mathbf{0 7 3}$ | 7 Greens 3 Reds | Normal | Normal | Norma | Norma | Type-D |
| $\mathbf{0 7 4}$ | 7 Greens 4 Reds | Normal | Normal | Norma | Norma | Type-E |

* Normal $\rightarrow$ Normal button function without LED indication.
* Type A~E $\rightarrow$ Type of A/B select sequence with LED indication.


### 12.8 Program RF Power (TX)

1) Press " $\rightarrow$ " button to enter RF Power setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change RF power ( $0.01 \mathrm{~mW} \sim 25 \mathrm{~mW}$ ).
3) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to enable or disable RF power adjustment via transmitter dipswitch.
4) Exit Program RF Power by pressing the BACK button until the cursor is shown next to "RFpower".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-ERX settings.

### 12.9 Program Infrared START Function (TX)

1) Press " $\rightarrow$ " button to enter Infrared Start Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select Off or IRS.

Select "OFF" to disable infrared START function.
Select "IRS" to enable infrared START function.
3) Exit Program Infrared START Function by pressing the BACK button until the cursor is shown next to "IR Mode".
4) Press " $\downarrow$ " button to go to the next Infrared START setting.

### 12.10 Program Infrared START ID Code (TX)

1) Press " $\rightarrow$ " button to enter Infrared START ID code setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to set the 3 -digit ID code as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press "BACK" button to go back to step 2.

Make sure the infrared module on crane is set to same ID code as the transmitter.
Select "000" disables the ID code function hence any types of infrared modules can be used.
7) Exit Program Infrared START ID Code by pressing the BACK button until the cursor is shown next to "IR ID".
8) Press " $\downarrow$ " button to go to the next Infrared START setting.

### 12.11 Program IRS Time Out (TX)

1) Press " $\rightarrow$ " button to enter IRS Time Out setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select IRS Off or IRS On.

Select "IRS On" if infrared START is required after every transmitter timeout.
Select "IRS Off" if infrared START is not required after every transmitter timeout.
3) Exit Program IRS Time Out by pressing the BACK button until the cursor is shown next to "IRS FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-ERX settings.

### 12.12 Program LED1 Feedback Function (TX)

1) Press " $\rightarrow$ " button to enter LED1 Feedback Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select Off, Input number or Output number.
3) When "Input" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select input number that the external source is connected to (IN1~IN4).
4) When "Output" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select which output relay to feedback to LED1 (K1~K24).
5) Select "Off" if no feedback is required.
6) Exit Program LED1 Feedback Function by pressing the BACK button until the cursor is shown next to "LED1".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-ERX settings.

### 12.13 Program LED2 Feedback Function (TX)

1) Press " $\rightarrow$ " button to enter LED2 Feedback Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select Off, Input number or Output number.
3) When "Input" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select input number that the external source is connected to (IN1~IN4).
4) When "Output" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select which output relay to feedback to LED2 (K1 ~ K24).
5) Select "Off" if no feedback is required.
6) Exit Program LED2 Feedback Function by pressing the BACK button until the cursor is shown next to "LED2".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-ERX settings.

### 12.14 Program Left Joystick or Lever Type (TX)

1) Press " $\rightarrow$ " button to enter left joystick or lever type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select joystick " $L X$ LY" for left joystick $X$ and $Y$ axis or "L1 L2" for lever-1 and lever-2 (counting from the far left).
3) Exit Program Left Joystick or Lever Type by pressing the BACK button until the cursor is shown next to "LJ TYPE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-ERX settings.

### 12.15 Program Right Joystick or Lever Type (TX)

1) Press " $\rightarrow$ " button to enter right joystick or lever type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select joystick "RX RY" for right joystick $X$ and $Y$ axis or " L 3 L 4 " for lever-3 and lever-4 (counting from the far left).
3) Exit Program Right Joystick or Lever Type by pressing the BACK button until the cursor is shown next to "RJ TYPE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-E R X$ settings.

### 12.16 Program LX/L1 Joystick/Lever Output (TX)

1) Press " $\rightarrow$ " button to enter LX/L1 Joystick/Lever Output setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between None, 1-step and 2-step.
3) Exit Program LX/L1 Joystick/lever Output by pressing the BACK button until the cursor is shown next to "LX/L1 OUT".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-ERX settings.

Set each joystick/lever's number of steps according to the hardware installed.

### 12.17 Program LY/L2 Joystick/Lever Output (TX)

1) Press " $\rightarrow$ " button to enter LY/L2 Joystick/Lever Output setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between None, 1-step and 2-step.
3) Exit Program LY/L2 Joystick/lever Output by pressing the BACK button until the cursor is shown next to "LY/L2 OUT".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-ERX settings.

Set each joystick/lever's number of steps according to the hardware installed.

### 12.18 Program RX/L3 Joystick/Lever Output (TX)

1) Press " $\rightarrow$ " button to enter RX/L3 Joystick/Lever Output setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between None, 1-step and 2-step.
3) Exit Program RX/L3 Joystick/lever Output by pressing the BACK button until the cursor is shown next to "RX/L3 OUT".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-ERX settings.

Set each joystick/lever's number of steps according to the hardware installed.

### 12.19 Program RY/L4 Joystick/Lever Output (TX)

1) Press " $\rightarrow$ " button to enter RY/L4 Joystick/Lever Output setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between None, 1-step and 2-step.
3) Exit Program RY/L4 Joystick/lever Output by pressing the BACK button until the cursor is shown next to "RY/L4 OUT".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-ERX settings.
[^7]
### 12.20 Program SW1/PB1 Function (TX)

1) Press " $\rightarrow$ " button to enter SW1/PB1 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between Normal, SW A/A+B/B, SW A/B/A+B and SW A/B/C select sequence.
3) Exit SW1/PB1 Function by pressing the BACK button until the cursor is shown next to "SW1 FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-ERX settings.

### 12.21 Program SW2/PB2 Function (TX)

1) Press " $\rightarrow$ " button to enter SW2/PB2 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between Normal, SW A/A+B/B, SW A/B/A+B and SW A/B/C select sequence.
3) Exit SW2/PB2 Function by pressing the BACK button until the cursor is shown next to "SW2 FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JB-ERX settings.

### 12.22 Program SW3/PB3 Function (TX)

1) Press " $\rightarrow$ " button to enter SW3/PB3 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between Normal, SW A/A+B/B, SW A/B/A+B and SW A/B/C select sequence.
3) Exit SW3/PB3 Function by pressing the BACK button until the cursor is shown next to "SW3 FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-E R X$ settings.

### 12.23 Program SW4/PB4 Function (TX)

1) Press " $\rightarrow$ " button to enter SW4/PB4 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between Normal, SW A/A+B/B, SW A/B/A+B and SW A/B/C select sequence.
3) Exit SW4/PB4 Function by pressing the BACK button until the cursor is shown next to "SW4 FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-ERX settings.

### 12.24 Program SW7/PB7 Function (TX)

1) Press " $\rightarrow$ " button to enter SW7/PB7 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between Normal, SW A/A+B/B, SW A/B/A+B and SW A/B/C select sequence.
3) Exit SW7/PB7 Function by pressing the BACK button until the cursor is shown next to "SW7 FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JB-ERX settings.

### 12.25 Program EX2 Output Function (TX)

LX/L1, LY/L2 and RY/L3 outputs correspond to EX2 receiver's PB1~PB6 outputs.

1) Press " $\rightarrow$ " button to enter EX2 Output Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select Yes or No.
3) Exit Program EX2 Output Function by pressing the BACK button until the cursor is shown next to "EX2 OUT".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-ERX settings.

### 12.26 Program Channel Scanning (RX)

1) Press " $\rightarrow$ " button to enter Channel Scanning setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select number of channels to scan (01~12).
3) Exit Program Channel Scanning by pressing the BACK button until the cursor is shown next to "CH SCAN".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-E R X$ settings.

### 12.27 Program Function Relay 1 / K25 Relay (RX)

1) Press " $\rightarrow$ " button to enter Function Relay 1 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Relay 1 by pressing the BACK button until the cursor is shown next to "FUNC RLY1".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JB-ERX settings.

|  | According to receiver dipswitch setting. |
| :---: | :---: |
| LV | Function relay closes when receiver voltage is low. |
| ID | Function relay works simultaneously with all motion commands. |
| NORMAL | START function + AUX with normal momentary output. Works the $2^{\text {nd }}$ time the START button is pressed. |
| NORMAL2 | START function + AUX with normal momentary output. Works the $1^{\text {st }}$ time the START button is pressed. |
| TOGGLE | START function + AUX with toggled output. |
| TOG\&E | START function + AUX with toggled output. The relay opens when STOP button is pressed down. |
| EXT | Function relay works simultaneously with the receiver MAIN relays. |
| TDM A+B | Function relay closes when selector switch is rotated to the $\mathrm{A}+\mathrm{B}$ position and opens when rotate to A or B positions (tandem monitoring output). |
| HORN | Function relay closes for up to 3 seconds when START button is pressed at transmitter power on and then becomes a normal momentary output thereafter. |
| G SENSOR | Function relay closes when Zero-G sensor is triggered (receiver MAIN relays deactivated) and opens when receiver MAIN relays are reactivated. |
| TANDEM C | FUNCTION relay closes when tandem receiver C is selected or activated. |
| RESET | Function relay closes when the START button is pressed and opens when let go. Works during initial transmitter startup and inactivity timer START reset. |
| SW1 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW2 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW3 ABC | Function relay closes at C position (for button or toggle switch programmed to Select A/B/C function). |
| SW4 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW7 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |

### 12.28 Program Function Relay 2 / K26 Relay (RX)

1) Press " $\rightarrow$ " button to enter Function Relay 2 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Relay 2 by pressing the BACK button until the cursor is shown next to "FUNC RLY2".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-E R X$ settings.

|  | According to receiver dipswitch setting. |
| :---: | :---: |
| LV | Function relay closes when receiver voltage is low. |
| ID | Function relay works simultaneously with all motion commands. |
| NORMAL | START function + AUX with normal momentary output. Works the $2^{\text {nd }}$ time the START button is pressed. |
| NORMAL2 | START function + AUX with normal momentary output. Works the $1^{\text {st }}$ time the START button is pressed. |
| TOGGLE | START function + AUX with toggled output. |
| TOG\&E | START function + AUX with toggled output. The relay opens when STOP button is pressed down. |
| EXT | Function relay works simultaneously with the receiver MAIN relays. |
| TDM A+B | Function relay closes when selector switch is rotated to the $\mathrm{A}+\mathrm{B}$ position and opens when rotate to A or B positions (tandem monitoring output). |
| HORN | Function relay closes for up to 3 seconds when START button is pressed at transmitter power on and then becomes a normal momentary output thereafter. |
| G SENSOR | Function relay closes when Zero-G sensor is triggered (receiver MAIN relays deactivated) and opens when receiver MAIN relays are reactivated. |
| TANDEM C | FUNCTION relay closes when tandem receiver C is selected or activated. |
| RESET | Function relay closes when the START button is pressed and opens when let go. Works during initial transmitter startup and inactivity timer START reset. |
| SW1 ABC | Function relay closes at C position (for button or toggle switch programmed to Select A/B/C function). |
| SW2 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW3 ABC | Function relay closes at C position (for button or toggle switch programmed to Select A/B/C function). |
| SW4 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW7 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |

### 12.29 Program Function Relay 3 / K30 Relay (RX)

1) Press " $\rightarrow$ " button to enter Function Relay 3 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Relay 3 by pressing the BACK button until the cursor is shown next to "FUNC RLY3".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-E R X$ settings.

|  | Ac |
| :---: | :---: |
| LV | Function relay closes when receiver voltage is low. |
| ID | Function relay works simultaneously with all motion commands. |
| NORMAL | START function + AUX with normal momentary output. Works the $2^{\text {nd }}$ time the START button is pressed. |
| NORMAL2 | START function + AUX with normal momentary output. Works the $1^{\text {st }}$ time the START button is pressed. |
| TOGGLE | START function + AUX with toggled output. |
| TOG\&E | START function + AUX with toggled output. The relay opens when STOP button is pressed down. |
| EXT | Function relay works simultaneously with the receiver MAIN relays. |
| TDM A+B | Function relay closes when selector switch is rotated to the $\mathrm{A}+\mathrm{B}$ position and opens when rotate to A or B positions (tandem monitoring output). |
| HORN | Function relay closes for up to 3 seconds when START button is pressed at transmitter power on and then becomes a normal momentary output thereafter. |
| G SENSOR | Function relay closes when Zero-G sensor is triggered (receiver MAIN relays deactivated) and opens when receiver MAIN relays are reactivated. |
| TANDEM C | FUNCTION relay closes when tandem receiver C is selected or activated. |
| RESET | Function relay closes when the START button is pressed and opens when let go. Works during initial transmitter startup and inactivity timer START reset. |
| SW1 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW2 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW3 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW4 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW7 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |

### 12.30 Program Brake Functions (RX)

1) Press " $\rightarrow$ " button to enter Brake Functions setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Brake Functions by pressing the BACK button until the cursor is shown next to "BRAKE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-E R X$ settings.

DEMAG-1 : When moving the joystick from $2^{\text {nd }}$ speed to $1^{\text {st }}$ speed, the $1^{\text {st }}$ speed output relay opens for up to 1.0 second and then closes again.
DEMAG-2 : When moving the joystick to $2^{\text {nd }}$ speed directly from 0 speed (neutral position), the $1^{\text {st }}$ speed output relay will maintain closure for up to 0.4 second before $2^{\text {nd }}$ speed output relay closes. When joystick is released from $2^{\text {nd }}$ speed to 0 speed, the $1^{\text {st }}$ speed output relay will maintain closure for up to 0.5 second before going to 0 speed.
DEMAG-3 : When moving the joystick from $2^{\text {nd }}$ speed to $1^{\text {st }}$ speed, both $1^{\text {st }}$ and $2^{\text {nd }}$ speed output relays are opened. Release joystick to 0 speed then back to $1^{\text {st }}$ speed to re-engage $1^{\text {st }}$ speed output relay.
P\&H : When releasing the joystick from $2^{\text {nd }}$ speed to 0 speed, the $1^{\text {st }}$ speed output relay will maintain closure for up to 0.1 second before going to 0 speed.

## 13. Flex 2JB-VRX Models

### 13.1 Program IR

### 13.1.1 Transmitter

1) Only WRITE requires entering the IR programming mode.
2) Reset the STOP button (Status LED turned green for up to 2.0 seconds, transmitter power on).
3) Press and hold both PB5 and PB6 at the same time for up to 3.0 seconds (Status LED blinks orange). Let go of both PB5 and PB6 when LED-A and LED-B turned red.
4) Entered programming mode with Status LED displays 1x orange blink for firmware version, remote pairing and IR programming.
5) Press and hold both PB5 and PB6 at the same time for
 up to 3.0 seconds (LED-A and LED-B turned red). Let go of both PB5 and PB6 when Status LED turned orange.
6) The Status LED now displays the transmitter firmware version with red, green and orange blinks.
7) Proceed to infrared transmitter programming using the IR programmer Unit.
8) Enter PROGRAM IR and then press READ button to transfer transmitter info into the IR programmer. If the screen shows "READ OK" the transfer is completed.
9) Browse through list of settings by pressing " $\uparrow$ " and " $\downarrow$ " buttons.
10)Press WRITE button to transfer the new settings into the transmitter (transmitter Status LED constant orange). If the screen shows "WRITE OK" the transfer is completed (transmitter Status LED constant green for up to 2 seconds).
11)Exit infrared programming mode by pressing down the STOP button (transmitter power off).

Note: READ command (transfer transmitter information to the IR programmer) does not require entering the IR programming mode, only when performing the WRITE command (transfer IR information to the transmitter) requires entering the IR programming mode.


### 13.1.2 Receiver

1) Power on the receiver with MAIN relays deactivated (standby mode).
2) Press READ button to transfer receiver info into the IR programmer. If the screen shows" READ OK" the transfer is completed.
3) Browse through list of settings by pressing " $\uparrow$ "and " $\downarrow$ " buttons.
4) Press WRITE button to transfer the new settings into the receiver (receiver Status LED constant orange). If the screen shows "WRITE
 OK" the transfer is completed (receiver Status LED blinks green - standby mode).

Note: When performing infrared programming, make sure the distance between the $I R$ programmer and the transmitter or receiver are within 10 cm .

### 13.2 Program Serial Number (TX \& RX)

1) Press " $\rightarrow$ " button to enter Serial Number setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change serial number as a whole or...
3) Press " $\rightarrow$ " button to go to the $1^{\text {st }}$ digit on the far left of the serial number.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program Serial Number by pressing the BACK button until the cursor is shown next to " $\mathrm{S} / \mathrm{N}$ ".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{VRX}$ settings.

### 13.3 Program System Type (TX \& RX)

1) Press " $\rightarrow$ " button to enter System Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change system type as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program System Type by pressing the BACK button until the cursor is shown next to "TYPE".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-V R X$ settings.

### 13.4 Program System Frequency Range (TX \& RX)

1) Press " $\rightarrow$ " button to enter Frequency Range setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change frequency range.
3) Exit Program System Frequency Range by pressing the BACK button until the cursor is shown next to "FREQ".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-VRX settings.

### 13.5 Program System Channel (TX \& RX)

1) Press " $\rightarrow$ " button to enter System Channel setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select channel number setting (assigned channel scheme) or UNASSIGN (unassigned channel scheme).
3) To program channel number, press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the digit on the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program System Channel by pressing the BACK button until the cursor is shown next to "CHANNEL".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-V R X$ settings.

### 13.6 Program Transmitter Inactivity Timer (TX)

1) Press " $\rightarrow$ " button to enter Transmitting Timer setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select " $\_$" " for minutes/seconds or "ON" for constant on.
3) When "ON" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select "+START" or "+ANY".
4) When "_M" is selected, press " $\rightarrow$ " button to go to the digit on the left and press " $\uparrow$ " and " $\downarrow$ " button to select value. Press " $\rightarrow$ " button again to go to the next digit and press " $\uparrow$ " and " $\downarrow$ " button to select value.
5) Press " $\rightarrow$ " button again to select " $M$ " for minutes or " $S$ " for seconds. Press " $\uparrow$ " and " $\downarrow$ " button to select.
6) Press " $\rightarrow$ " button again to select " + START" or " + ANY" selection. Press " $\uparrow$ " and " $\downarrow$ " button to select.
7) Exit Program Transmitter Timer by pressing the BACK button until the cursor is shown next to "TX TIMER".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-VRX settings.

Transmitter inactivity timer is for setting receiver main relays cutoff time when the transmitter is not in operation for a certain period of time. When set to 5 minutes (05M), the receiver main relays are deactivated at 5.0 minutes after last transmitter operation.

Select "ON" means the receiver main relays are activated at all time unless the STOP button is pressed down, transmitter power off, or receiver power turned off (inactivity timer disabled).

Select "+START" means after 5 minutes of transmitter inactivity you must execute the START command to continue operation. Select "+ANY" means after 5 minutes of transmitter inactivity, press any pushbutton to continue operation.

### 13.7 Program Transmitter Button Functions (TX)

1) Press " $\rightarrow$ " button to enter Transmitter Button Functions setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program Transmitter Button Functions by pressing the BACK button unit the cursor is shown next to "PB FUNC".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JB-VRX settings.


## Toggled Button with LED Indication

| Function <br> Number | Display Type | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 0 1}$ | 1 Red | LED-A | Normal | Normal | Normal | Normal | Normal | Normal |
| $\mathbf{0 0 2}$ | 2 Reds | Normal | LED-A | Normal | Normal | Normal | Normal | Normal |
| $\mathbf{0 0 3}$ | 3 Reds | Normal | Normal | LED-A | Normal | Normal | Normal | Normal |
| $\mathbf{0 0 4}$ | 4 Reds | Normal | Normal | Normal | LED-A | Normal | Normal | Normal |
| $\mathbf{0 0 5}$ | 5 Reds | Normal | Normal | Normal | Normal | LED-A | Normal | Normal |
| $\mathbf{0 0 6}$ | 6 Reds | Normal | Normal | Normal | Normal | Normal | LED-A | Normal |
| $\mathbf{0 0 7}$ | 7 Reds | Normal | Normal | Normal | Normal | Normal | Normal | LED-A |
| $\mathbf{0 0 8}$ | 8 Reds | LED-B | Normal | Normal | Normal | Normal | Normal | Normal |
| $\mathbf{0 0 9}$ | 9 Reds | Normal | LED-B | Normal | Normal | Normal | Normal | Normal |
| $\mathbf{0 1 0}$ | 1 Green | Normal | Normal | LED-B | Normal | Normal | Normal | Normal |
| $\mathbf{0 1 1}$ | 1 Green 1 Red | Normal | Normal | Normal | LED-B | Normal | Normal | Normal |
| $\mathbf{0 1 2}$ | 1 Green 2 Reds | Normal | Normal | Normal | Normal | LED-B | Normal | Normal |
| $\mathbf{0 1 3}$ | 1 Green 3 Reds | Normal | Normal | Normal | Normal | Normal | LED-B | Normal |
| $\mathbf{1}$ Green 4 Reds | Normal | Normal | Normal | Normal | Normal | Normal | LED-B |  |


| $\mathbf{0 1 5}$ | 1 Green 5 Reds | LED-A | LED-B | Normal | Normal | Normal | Normal | Normal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 1 6}$ | 1 Green 6 Reds | Normal | LED-A | LED-B | Normal | Normal | Normal | Normal |
| $\mathbf{0 1 7}$ | 1 Green 7 Reds | Normal | Normal | LED-A | LED-B | Normal | Normal | Normal |
| $\mathbf{0 1 8}$ | 1 Green 8 Reds | Normal | Normal | Normal | LED-A | LED-B | Normal | Normal |
| $\mathbf{0 1 9}$ | 1 Green 9 Reds | Normal | Normal | Normal | Normal | LED-A | LED-B | Normal |
| $\mathbf{0 2 0}$ | 2 Greens | Normal | Normal | Normal | Normal | Normal | LED-A | LED-B |
| $\mathbf{0 2 1}$ | 2 Greens 1 Red | LED-A | Normal | LED-B | Normal | Normal | Normal | Normal |
| $\mathbf{0 2 2}$ | 2 Greens 2 Reds | Normal | LED-A | Normal | LED-B | Normal | Normal | Normal |
| $\mathbf{0 2 3}$ | 2 Greens 3 Reds | Normal | Normal | LED-A | Normal | LED-B | Normal | Normal |
| $\mathbf{0 2 4}$ | 2 Greens 4 Reds | Normal | Normal | Normal | LED-A | Normal | LED-B | Normal |
| $\mathbf{0 2 5}$ | 2 Greens 5 Reds | Normal | Normal | Normal | Normal | LED-A | Normal | LED-B |

* Normal $\rightarrow$ Normal button function without LED indication.
* LED-A \& LED-B $\rightarrow$ Transmitter toggled button with LED indication.


## A/B Button Select with LED Indication

Type-A select sequence: $A \rightarrow B \rightarrow A \rightarrow B \ldots$
Type- $B$ select sequence: Off $\rightarrow A \rightarrow B \rightarrow$ Off $\rightarrow A \rightarrow B \ldots$
Type-C select sequence: $A \rightarrow B \rightarrow A+B \rightarrow A \rightarrow B \rightarrow A+B$ or $A \rightarrow B \rightarrow C \rightarrow A \rightarrow B \rightarrow C \ldots$
Type-D select sequence: Off $\rightarrow A \rightarrow B \rightarrow A+B \rightarrow$ Off $\rightarrow A \rightarrow B \rightarrow A+B \ldots$
Type-E select sequence: $A+B \rightarrow A \rightarrow B \rightarrow A+B \rightarrow A \rightarrow B \ldots$

| Function <br> Number | Display Type | PB1 | PB2 | PB3 | PB4 | PB7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 5 0}$ | 5 Greens | Type-A | Normal | Norma | Norma | Norma |
| $\mathbf{0 5 1}$ | 5 Greens 1 Red | Type-B | Normal | Norma | Norma | Norma |
| $\mathbf{0 5 2}$ | 5 Greens 2 Reds | Type-C | Normal | Norma | Norma | Norma |
| $\mathbf{0 5 3}$ | 5 Greens 3 Reds | Type-D | Normal | Norma | Norma | Norma |
| $\mathbf{0 5 4}$ | 5 Greens 4 Reds | Type-E | Normal | Norma | Norma | Norma |
| $\mathbf{0 5 5}$ | 5 Greens 5 Reds | Normal | Type-A | Norma | Norma | Norma |
| $\mathbf{0 5 6}$ | 5 Greens 6 Reds | Normal | Type-B | Norma | Norma | Norma |
| $\mathbf{0 5 7}$ | 5 Greens 7 Reds | Normal | Type-C | Norma | Norma | Norma |
| $\mathbf{0 5 8}$ | 5 Greens 8 Reds | Normal | Type-D | Norma | Norma | Norma |
| $\mathbf{0 5 9}$ | 5 Greens 9 Reds | Normal | Type-E | Norma | Norma | Norma |
| $\mathbf{0 6 0}$ | 6 Greens | Normal | Normal | Type-A | Norma | Norma |
| $\mathbf{0 6 1}$ | 6 Greens 1 Red | Normal | Normal | Type-B | Norma | Norma |
| $\mathbf{0 6 2}$ | 6 Greens 2 Reds | Normal | Normal | Type-C | Norma | Norma |


| $\mathbf{0 6 3}$ | 6 Greens 3 Reds | Normal | Normal | Type-D | Norma | Norma |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 6 4}$ | 6 Greens 4 Reds | Normal | Normal | Type-E | Norma | Norma |
| $\mathbf{0 6 5}$ | 6 Greens 5 Reds | Normal | Normal | Norma | Type-A | Norma |
| $\mathbf{0 6 6}$ | 6 Greens 6 Reds | Normal | Normal | Norma | Type-B | Norma |
| $\mathbf{0 6 7}$ | 6 Greens 7 Reds | Normal | Normal | Norma | Type-C | Norma |
| $\mathbf{0 6 8}$ | 6 Greens 8 Reds | Normal | Normal | Norma | Type-D | Norma |
| $\mathbf{0 6 9}$ | 6 Greens 9 Reds | Normal | Normal | Norma | Type-E | Norma |
| $\mathbf{0 7 0}$ | 7 Greens | Normal | Normal | Norma | Norma | Type-A |
| $\mathbf{0 7 1}$ | 7 Greens 1 Red | Normal | Normal | Norma | Norma | Type-B |
| $\mathbf{0 7 2}$ | 7 Greens 2 Reds | Normal | Normal | Norma | Norma | Type-C |
| $\mathbf{0 7 3}$ | 7 Greens 3 Reds | Normal | Normal | Norma | Norma | Type-D |
| $\mathbf{0 7 4}$ | 7 Greens 4 Reds | Normal | Normal | Norma | Norma | Type-E |

* Normal $\rightarrow$ Normal button function without LED indication.
* Type A~E $\rightarrow$ Type of A/B select sequence with LED indication.


### 13.8 Program RF Power (TX)

1) Press " $\rightarrow$ " button to enter RF Power setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change RF power ( $0.01 \mathrm{~mW} \sim 25 \mathrm{~mW}$ ).
3) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to enable or disable RF power adjustment via transmitter dipswitch.
4) Exit Program RF Power by pressing the BACK button until the cursor is shown next to "RFpower".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-VRX settings.

### 13.9 Program Infrared START Function (TX)

1) Press " $\rightarrow$ " button to enter Infrared Start Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select Off or IRS.

Select "OFF" to disable infrared START function.
Select "IRS" to enable infrared START function.
3) Exit Program Infrared START Function by pressing the BACK button until the cursor is shown next to "IR Mode".
4) Press " $\downarrow$ " button to go to the next Infrared START setting.

### 13.10 Program Infrared START ID Code (TX)

1) Press " $\rightarrow$ " button to enter Infrared START ID code setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to set the 3 -digit ID code as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press "BACK" button to go back to step 2.

Make sure the infrared module on crane is set to same ID code as the transmitter.
Select "000" disables the ID code function hence any types of infrared modules can be used.
7) Exit Program Infrared START ID Code by pressing the BACK button until the cursor is shown next to "IR ID".
8) Press " $\downarrow$ " button to go to the next Infrared START setting.

### 13.11 Program IRS Time Out (TX)

1) Press " $\rightarrow$ " button to enter IRS Time Out setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select IRS Off or IRS On.

Select "IRS On" if infrared START is required after every transmitter timeout.
Select "IRS Off" if infrared START is not required after every transmitter timeout.
3) Exit Program IRS Time Out by pressing the BACK button until the cursor is shown next to "IRS FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-VRX settings.

### 13.12 Program LED1 Feedback Function (TX)

1) Press " $\rightarrow$ " button to enter LED1 Feedback Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select Off, Input number or Output number.
3) When "Input" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select input number that the external source is connected to (IN1~IN4).
4) When "Output" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select which output relay to feedback to LED1 (CN1 ~ CN6 / K1~K6).
5) Select "Off" if no feedback is required.
6) Exit Program LED1 Feedback Function by pressing the BACK button until the cursor is shown next to "LED1".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-V R X$ settings.

### 13.13 Program LED2 Feedback Function (TX)

1) Press " $\rightarrow$ " button to enter LED2 Feedback Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select Off, Input number or Output number.
3) When "Input" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select input number that the external source is connected to (IN1~IN4).
4) When "Output" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select which output relay to feedback to LED2 (CN1 ~ CN6 / K1 ~ K6).
5) Select "Off" if no feedback is required.
6) Exit Program LED2 Feedback Function by pressing the BACK button until the cursor is shown next to "LED2".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-V R X$ settings.

### 13.14 Program Left Joystick or Lever Type (TX)

1) Press " $\rightarrow$ " button to enter left joystick or lever type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select joystick " $L X$ LY" for left joystick $X$ and $Y$ axis or "L1 L2" for lever-1 and lever-2 (counting from the far left).
3) Exit Program Left Joystick or Lever Type by pressing the BACK button until the cursor is shown next to "LJ TYPE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-VRX settings.

### 13.15 Program Right Joystick or Lever Type (TX)

1) Press " $\rightarrow$ " button to enter right joystick or lever type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select joystick "RX RY" for right joystick $X$ and $Y$ axis or " L 3 L 4 " for lever-3 and lever-4 (counting from the far left).
3) Exit Program Right Joystick or Lever Type by pressing the BACK button until the cursor is shown next to "RJ TYPE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{VRX}$ settings.

### 13.16 Program LX/L1 Joystick/Lever Output (TX)

1) Press " $\rightarrow$ " button to enter LX/L1 Joystick/Lever Output setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between None, 1-step, 2-step 3-step, 4-step, 5-step and Analog.
3) Exit Program LX/L1 Joystick/lever Output by pressing the BACK button until the cursor is shown next to "LX/L1 OUT".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-V R X$ settings.

Set each joystick/lever's number of steps according to the hardware installed.

### 13.17 Program LY/L2 Joystick/Lever Output (TX)

1) Press " $\rightarrow$ " button to enter LY/L2 Joystick/Lever Output setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between None, 1-step, 2-step 3-step, 4-step, 5-step and Analog.
3) Exit Program LY/L2 Joystick/lever Output by pressing the BACK button until the cursor is shown next to "LY/L2 OUT".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{VRX}$ settings.

Set each joystick/lever's number of steps according to the hardware installed.

### 13.18 Program RX/L3 Joystick/Lever Output (TX)

1) Press " $\rightarrow$ " button to enter RX/L3 Joystick/Lever Output setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between None, 1-step, 2-step 3-step, 4-step, 5-step and Analog.
3) Exit Program RX/L3 Joystick/lever Output by pressing the BACK button until the cursor is shown next to "RX/L3 OUT".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{VRX}$ settings.

Set each joystick/lever's number of steps according to the hardware installed.

### 13.19 Program RY/L4 Joystick/Lever Output (TX)

1) Press " $\rightarrow$ " button to enter RY/L4 Joystick/Lever Output setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between None, 1-step, 2-step 3-step, 4-step, 5-step and Analog.
3) Exit Program RY/L4 Joystick/lever Output by pressing the BACK button until the cursor is shown next to "RY/L4 OUT".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-V R X$ settings.

Set each joystick/lever's number of steps according to the hardware installed.

### 13.20 Program SW1/PB1 Function (TX)

1) Press " $\rightarrow$ " button to enter SW1/PB1 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between Normal, SW A/A+B/B, SW A/B/A+B and SW A/B/C select sequence.
3) Exit SW1/PB1 Function by pressing the BACK button until the cursor is shown next to "SW1 FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-V R X$ settings.

### 13.21 Program SW2/PB2 Function (TX)

1) Press " $\rightarrow$ " button to enter SW2/PB2 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between Normal, SW A/A+B/B, SW A/B/A+B and SW A/B/C select sequence.
3) Exit SW2/PB2 Function by pressing the BACK button until the cursor is shown next to "SW2 FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-VRX settings.

### 13.22 Program SW3/PB3 Function (TX)

1) Press " $\rightarrow$ " button to enter SW3/PB3 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between Normal, SW A/A+B/B, SW A/B/A+B and SW A/B/C select sequence.
3) Exit SW3/PB3 Function by pressing the BACK button until the cursor is shown next to "SW3 FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{VRX}$ settings.

### 13.23 Program SW4/PB4 Function (TX)

1) Press " $\rightarrow$ " button to enter SW4/PB4 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between Normal, SW A/A+B/B, SW A/B/A+B and SW A/B/C select sequence.
3) Exit SW4/PB4 Function by pressing the BACK button until the cursor is shown next to "SW4 FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{VRX}$ settings.

### 13.24 Program SW7/PB7 Function (TX)

1) Press " $\rightarrow$ " button to enter SW7/PB7 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between Normal, SW A/A+B/B, SW A/B/A+B and SW A/B/C select sequence.
3) Exit SW7/PB7 Function by pressing the BACK button until the cursor is shown next to "SW7 FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-V R X$ settings.

### 13.25 Program Channel Scanning (RX)

1) Press " $\rightarrow$ " button to enter Channel Scanning setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select number of channels to scan (01~12).
3) Exit Program Channel Scanning by pressing the BACK button until the cursor is shown next to "CH SCAN".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-V R X$ settings.

### 13.26 Program Function Relay 1 / K25 Relay (RX)

1) Press " $\rightarrow$ " button to enter Function Relay 1 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Relay 1 by pressing the BACK button until the cursor is shown next to "FUNC RLY1".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-V R X$ settings.

|  | According to receiver dipswitch setting. |
| :---: | :---: |
| LV | Function relay closes when receiver voltage is low. |
| ID | Function relay works simultaneously with all motion commands. |
| NORMAL | START function + AUX with normal momentary output. Works the $2^{\text {nd }}$ time the START button is pressed. |
| NORMAL2 | START function + AUX with normal momentary output. Works the $1^{\text {st }}$ time the START button is pressed. |
| TOGGLE | START function + AUX with toggled output. |
| TOG\&E | START function + AUX with toggled output. The relay opens when STOP button is pressed down. |
| EXT | Function relay works simultaneously with the receiver MAIN relays. |
| TDM A+B | Function relay closes when selector switch is rotated to the $A+B$ position and opens when rotate to A or B positions (tandem monitoring output). |
| HORN | Function relay closes for up to 3 seconds when START button is pressed at transmitter power on and then becomes a normal momentary output thereafter. |
| G SENSOR | Function relay closes when Zero-G sensor is triggered (receiver MAIN relays deactivated) and opens when receiver MAIN relays are reactivated. |
| TANDEM C | FUNCTION relay closes when tandem receiver C is selected or activated. |
| RESET | Function relay closes when the START button is pressed and opens when let go. Works during initial transmitter startup and inactivity timer START reset. |
| SW1 ABC | Function relay closes at C position (for button or toggle switch programmed to Select A/B/C function). |
| SW2 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW3 ABC | Function relay closes at C position (for button or toggle switch programmed to Select A/B/C function). |
| SW4 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW7 ABC | Function relay closes at C position (for button or toggle switch programmed to Select A/B/C function). |

### 13.27 Program Function Relay 2 / K26 Relay (RX)

1) Press " $\rightarrow$ " button to enter Function Relay 2 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Relay 2 by pressing the BACK button until the cursor is shown next to "FUNC RLY2".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-V R X$ settings.

|  | Ac |
| :---: | :---: |
| LV | Function relay closes when receiver voltage is low. |
| ID | Function relay works simultaneously with all motion commands. |
| NORMAL | START function + AUX with normal momentary output. Works the $2^{\text {nd }}$ time the START button is pressed. |
| NORMAL2 | START function + AUX with normal momentary output. Works the $1^{\text {st }}$ time the START button is pressed. |
| TOGGLE | START function + AUX with toggled output. |
| TOG\&E | START function + AUX with toggled output. The relay opens when STOP button is pressed down. |
| EXT | Function relay works simultaneously with the receiver MAIN relays. |
| TDM A+B | Function relay closes when selector switch is rotated to the $\mathrm{A}+\mathrm{B}$ position and opens when rotate to A or B positions (tandem monitoring output). |
| HORN | Function relay closes for up to 3 seconds when START button is pressed at transmitter power on and then becomes a normal momentary output thereafter. |
| G SENSOR | Function relay closes when Zero-G sensor is triggered (receiver MAIN relays deactivated) and opens when receiver MAIN relays are reactivated. |
| TANDEM C | FUNCTION relay closes when tandem receiver C is selected or activated. |
| RESET | Function relay closes when the START button is pressed and opens when let go. Works during initial transmitter startup and inactivity timer START reset. |
| SW1 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW2 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW3 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW4 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW7 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |

### 13.28 Program Function Relay 3 / K30 Relay (RX)

1) Press " $\rightarrow$ " button to enter Function Relay 3 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Relay 3 by pressing the BACK button until the cursor is shown next to "FUNC RLY3".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-V R X$ settings.

|  | Ac |
| :---: | :---: |
| LV | Function relay closes when receiver voltage is low. |
| ID | Function relay works simultaneously with all motion commands. |
| NORMAL | START function + AUX with normal momentary output. Works the $2^{\text {nd }}$ time the START button is pressed. |
| NORMAL2 | START function + AUX with normal momentary output. Works the $1^{\text {st }}$ time the START button is pressed. |
| TOGGLE | START function + AUX with toggled output. |
| TOG\&E | START function + AUX with toggled output. The relay opens when STOP button is pressed down. |
| EXT | Function relay works simultaneously with the receiver MAIN relays. |
| TDM A+B | Function relay closes when selector switch is rotated to the $\mathrm{A}+\mathrm{B}$ position and opens when rotate to A or B positions (tandem monitoring output). |
| HORN | Function relay closes for up to 3 seconds when START button is pressed at transmitter power on and then becomes a normal momentary output thereafter. |
| G SENSOR | Function relay closes when Zero-G sensor is triggered (receiver MAIN relays deactivated) and opens when receiver MAIN relays are reactivated. |
| TANDEM C | FUNCTION relay closes when tandem receiver C is selected or activated. |
| RESET | Function relay closes when the START button is pressed and opens when let go. Works during initial transmitter startup and inactivity timer START reset. |
| SW1 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW2 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW3 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW4 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW7 ABC | Function relay closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |

### 13.29 Program LX or L1 Relay Outputs (RX)

1) Press " $\rightarrow$ " button to enter LX1 or L1 Relay Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value " 0 " or " 1 ".
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2.
7) Exit Program LX or L1 Relay Outputs by pressing the BACK button until the cursor is shown next to "LX or L1 RELAY".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other 2JB-VRX settings.

| Output <br> Relay | CN1 $\sim$ CN6 | K1 | K2 | K3 | K4 | K5 | K6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Function |  |  |  |  |  |  |  |

$\begin{array}{llll}\text { F } \rightarrow \text { Forward } & \text { F1 } \rightarrow \text { Forward } 1^{\text {st }} \text { step } & \text { F2 } \rightarrow \text { Forward } 2^{\text {nd }} \text { step } & \text { F3 } \rightarrow \text { Forward } 3^{\text {rd }} \text { step } \\ \mathbf{R} \rightarrow \text { Reverse } & \mathbf{R 1} \rightarrow \text { Reverse } 1^{\text {st }} \text { step } & \mathbf{R 2} \rightarrow \text { Reverse } 2^{\text {nd }} \text { step } & \text { R3 } \rightarrow \text { Reverse } 3^{\text {rd }} \text { step }\end{array}$
F/R1 $\rightarrow$ Forward and Reverse shared $1^{\text {st }}$ step $\quad$ F/R2 $\rightarrow$ Forward and Reverse shared $2^{\text {nd }}$ step
F/R3 $\rightarrow$ Forward and Reverse shared $3^{\text {rd }}$ step $\quad$ F/R4 $\rightarrow$ Forward and Reverse shared $4^{\text {th }}$ step
F/R5 $\rightarrow$ Forward and Reverse shared $5^{\text {th }}$ step

### 13.30 Program LY or L2 Relay Outputs (RX)

1) Press " $\rightarrow$ " button to enter LY or L2 Relay Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value " 0 " or " 1 ".
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2.
7) Exit Program LY or L2 Relay Outputs by pressing the BACK button until the cursor is shown next to "LY or L2 RELAY".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other 2JB-VRX settings.

| Output <br> Relay | CN1 $\sim$ CN6 | K1 | K2 | K3 | K4 | K5 | K6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Function |  |  |  |  |  |  |  |

$\begin{array}{llll}\text { F } \rightarrow \text { Forward } & \text { F1 } \rightarrow \text { Forward } 1^{\text {st }} \text { step } & \text { F2 } \rightarrow \text { Forward } 2^{\text {nd }} \text { step } & \text { F3 } \rightarrow \text { Forward } 3^{\text {rd }} \text { step } \\ \mathbf{R} \rightarrow \text { Reverse } & \mathbf{R 1} \rightarrow \text { Reverse } 1^{\text {st }} \text { step } & \mathbf{R 2} \rightarrow \text { Reverse } 2^{\text {nd }} \text { step } & \text { R3 } \rightarrow \text { Reverse } 3^{\text {rd }} \text { step }\end{array}$
F/R1 $\rightarrow$ Forward and Reverse shared $1^{\text {st }}$ step $\quad$ F/R2 $\rightarrow$ Forward and Reverse shared $2^{\text {nd }}$ step
F/R3 $\rightarrow$ Forward and Reverse shared $3^{\text {rd }}$ step F/R4 $\rightarrow$ Forward and Reverse shared $4^{\text {th }}$ step
F/R5 $\rightarrow$ Forward and Reverse shared $5^{\text {th }}$ step

### 13.31 Program RX or L3 Relay Outputs (RX)

1) Press " $\rightarrow$ " button to enter RX or L3 Relay Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value " 0 " or " 1 ".
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2.
7) Exit Program RX or L3 Relay Outputs by pressing the BACK button until the cursor is shown next to "RX or L3 RELAY".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other $2 \mathrm{JB}-\mathrm{VRX}$ settings.

| Output <br> Relay | CN1 $\sim$ CN6 | K1 | K2 | K3 | K4 | K5 | K6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Function |  |  |  |  |  |  |  |

$\begin{array}{llll}\text { F } \rightarrow \text { Forward } & \text { F1 } \rightarrow \text { Forward } 1^{\text {st }} \text { step } & \text { F2 } \rightarrow \text { Forward } 2^{\text {nd }} \text { step } & \text { F3 } \rightarrow \text { Forward } 3^{\text {rd }} \text { step } \\ \mathbf{R} \rightarrow \text { Reverse } & \mathbf{R 1} \rightarrow \text { Reverse } 1^{\text {st }} \text { step } & \mathbf{R 2} \rightarrow \text { Reverse } 2^{\text {nd }} \text { step } & \text { R3 } \rightarrow \text { Reverse } 3^{\text {rd }} \text { step }\end{array}$
F/R1 $\rightarrow$ Forward and Reverse shared $1^{\text {st }}$ step $\quad$ F/R2 $\rightarrow$ Forward and Reverse shared $2^{\text {nd }}$ step
F/R3 $\rightarrow$ Forward and Reverse shared $3^{\text {rd }}$ step $\quad$ F/R4 $\rightarrow$ Forward and Reverse shared $4^{\text {th }}$ step
F/R5 $\rightarrow$ Forward and Reverse shared $5^{\text {th }}$ step

### 13.32 Program RY or L4 Relay Outputs (RX)

1) Press " $\rightarrow$ " button to enter RY or L4 Relay Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value " 0 " or " 1 ".
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2.
7) Exit Program RY or L4 Relay Outputs by pressing the BACK button until the cursor is shown next to "RY or L4 RELAY".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other 2JB-VRX settings.

| Output <br> Relay | CN1 $\sim$ CN6 | K1 | K2 | K3 | K4 | K5 | K6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Function |  |  |  |  |  |  |  |

$\begin{array}{llll}\text { F } \rightarrow \text { Forward } & \text { F1 } \rightarrow \text { Forward } 1^{\text {st }} \text { step } & \text { F2 } \rightarrow \text { Forward } 2^{\text {nd }} \text { step } & \text { F3 } \rightarrow \text { Forward } 3^{\text {rd }} \text { step } \\ \mathbf{R} \rightarrow \text { Reverse } & \mathbf{R 1} \rightarrow \text { Reverse } 1^{\text {st }} \text { step } & \mathbf{R 2} \rightarrow \text { Reverse } 2^{\text {nd }} \text { step } & \text { R3 } \rightarrow \text { Reverse } 3^{\text {rd }} \text { step }\end{array}$
F/R1 $\rightarrow$ Forward and Reverse shared $1^{\text {st }}$ step $\quad$ F/R2 $\rightarrow$ Forward and Reverse shared $2^{\text {nd }}$ step
F/R3 $\rightarrow$ Forward and Reverse shared $3^{\text {rd }}$ step $\quad$ F/R4 $\rightarrow$ Forward and Reverse shared $4^{\text {th }}$ step
F/R5 $\rightarrow$ Forward and Reverse shared $5^{\text {th }}$ step

### 13.33 Program SW1 \& SW2 Relay Outputs (RX)

1) Press " $\rightarrow$ " button to enter SW1 \& SW2 Relay Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value " 0 " or " 1 ".
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2.
7) Exit Program SW1 \& SW2 Relay Outputs by pressing the BACK button until the cursor is shown next to "SW1\&2 RELAY".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-V R X$ settings.


## Interlocking Button Outputs

| Function \# | Function Descriptions (left button / right button) | \# of Relays <br> Used |
| :---: | :---: | :---: |
| 00000000 | Normal momentary output <br> (all contacts open when both buttons are pressed simultaneously <br> or one after another) | 2 |
| 00011000 | Normal momentary output <br> $\left(1^{\text {st }}\right.$ button pressed maintain contact when both buttons are <br> pressed one after another) | 2 |
| 00001100 | OFF / ON | 2 |
| 00010010 | On + Start/Off + Start - For added safety, you must first press and <br> hold the green START button and then the On or Off button to <br> activate the output relay. | 2 |
| 00001110 | Magnet Lift On \& Off | 2 |
| 00010000 | OFF / ON (EMS) |  |
| 00010100 | Toggled / Toggled | 2 |
| 00010110 | Toggled / Toggled (EMS) | 2 |
| 00011110 | Toggled / Normal (EMS)** | 2 |

[^8]

## Non-Interlocking Button Outputs

| Function \# | Function Descriptions (left button / right button) | \# of Relays Used |
| :---: | :---: | :---: |
| 10000000 | Normal / Normal | 2 |
| 10000010 | Normal / Toggled | 2 |
| 10000110 | Normal / Toggled (EMS)** | 2 |
| 10001000 | Normal / Normal + Start* | 2 |
| 10001100 | Normal / Pitch \& Catch | 2 |
| 10010000 | Toggled / Normal | 2 |
| 10010010 | Toggled / Toggled | 2 |
| 10010110 | Toggled / Toggled (EMS)** | 2 |
| 10011000 | Toggled / Normal + Start* | 2 |
| 10011100 | Toggled / Pitch \& Catch | 2 |
| 10110000 | Toggled (EMS**) / Normal | 2 |
| 10110010 | Toggled (EMS)** Toggled | 2 |
| 10110110 | Toggled (EMS)** / Toggled (EMS)** | 2 |
| 10111000 | Toggled (EMS)** / Normal + Start* | 2 |
| 10111100 | Toggled (EMS)* / Pitch \& Catch | 2 |
| 11000000 | Normal + Start* / Normal | 2 |
| 11000010 | Normal + Start* Toggled | 2 |
| 11000110 | Normal + Start* / Toggled (EMS)** | 2 |
| 11001000 | Normal + Start* / Normal + Start* | 2 |
| 11001100 | Normal + Start* / Pitch \& Catch | 2 |
| 11100000 | Pitch \& Catch / Normal | 2 |
| 11100010 | Pitch \& Catch / Toggled | 2 |
| 11100110 | Pitch \& Catch / Toggled (EMS)** | 2 |
| 11101000 | Pitch \& Catch / Normal + Start* | 2 |

* Normal + Start: For added safety, you must first press and hold the green START button and then the
intended button to activate the output relay.
** EMS: Relay opens when STOP button is pressed down.


### 13.34 Program SW3 \& SW4 Relay Outputs (RX)

1) Press " $\rightarrow$ " button to enter SW3 \& SW4 Relay Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value " 0 " or " 1 ".
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2.
7) Exit Program SW3 \& SW4 Relay Outputs by pressing the BACK button until the cursor is shown next to "SW3\&4 RELAY".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-V R X$ settings.


## Interlocking Button Outputs

| Function \# | Function Descriptions (left button / right button) | \# of Relays <br> Used |
| :---: | :---: | :---: |
| 00000000 | Normal momentary output <br> (all contacts open when both buttons are pressed simultaneously <br> or one after another) | 2 |
| 00011000 | Normal momentary output <br> (1st button pressed maintain contact when both buttons are <br> pressed one after another) | 2 |
| 00001100 | OFF / ON | 2 |
| 00010010 | On + Start/Off + Start - For added safety, you must first press and <br> hold the green START button and then the On or Off button to <br> activate the output relay. | 2 |
| 00001110 | Magnet Lift On \& Off | 2 |
| 00010000 | OFF / ON (EMS)** | 2 |
| 00010100 | Toggled / Toggled | 2 |
| 00010110 | Toggled / Toggled (EMS)** | 2 |
| 00011110 | Toggled / Normal (EMS)** | 2 |

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## Non-Interlocking Button Outputs

| Function \# | Function Descriptions (left button / right button) | \# of Relays Used |
| :---: | :---: | :---: |
| 10000000 | Normal / Normal | 2 |
| 10000010 | Normal / Toggled | 2 |
| 10000110 | Normal / Toggled (EMS)** | 2 |
| 10001000 | Normal / Normal + Start* | 2 |
| 10001100 | Normal / Pitch \& Catch | 2 |
| 10010000 | Toggled / Normal | 2 |
| 10010010 | Toggled / Toggled | 2 |
| 10010110 | Toggled / Toggled (EMS)** | 2 |
| 10011000 | Toggled / Normal + Start* | 2 |
| 10011100 | Toggled / Pitch \& Catch | 2 |
| 10110000 | Toggled (EMS**) / Normal | 2 |
| 10110010 | Toggled (EMS)** Toggled | 2 |
| 10110110 | Toggled (EMS)** / Toggled (EMS)** | 2 |
| 10111000 | Toggled (EMS)** / Normal + Start* | 2 |
| 10111100 | Toggled (EMS)* / Pitch \& Catch | 2 |
| 11000000 | Normal + Start* / Normal | 2 |
| 11000010 | Normal + Start* Toggled | 2 |
| 11000110 | Normal + Start* / Toggled (EMS)** | 2 |
| 11001000 | Normal + Start* / Normal + Start* | 2 |
| 11001100 | Normal + Start* / Pitch \& Catch | 2 |
| 11100000 | Pitch \& Catch / Normal | 2 |
| 11100010 | Pitch \& Catch / Toggled | 2 |
| 11100110 | Pitch \& Catch / Toggled (EMS)** | 2 |
| 11101000 | Pitch \& Catch / Normal + Start* | 2 |

* Normal + Start: For added safety, you must first press and hold the green START button and then the
intended button to activate the output relay.
** EMS: Relay opens when STOP button is pressed down.


### 13.35 Program SW5 \& SW6 Relay Outputs (RX)

1) Press " $\rightarrow$ " button to enter SW5 \& SW6 Relay Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value " 0 " or " 1 ".
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2.
7) Exit Program SW5 \& SW6 Relay Outputs by pressing the BACK button until the cursor is shown next to "SW5\&6 RELAY".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-V R X$ settings.


## Interlocking Button Outputs

| Function \# | Function Descriptions (left button / right button) | \# of Relays <br> Used |
| :---: | :---: | :---: |
| 00000000 | Normal momentary output <br> (all contacts open when both buttons are pressed simultaneously <br> or one after another) | 2 |
| 00011000 | Normal momentary output <br> (1st button pressed maintain contact when both buttons are <br> pressed one after another) | 2 |
| 00001100 | OFF / ON | 2 |
| 00010010 | On + Start/Off + Start - For added safety, you must first press and <br> hold the green START button and then the On or Off button to <br> activate the output relay. | 2 |
| 00001110 | Magnet Lift On \& Off | 2 |
| 00010000 | OFF / ON (EMS)** | 2 |
| 00010100 | Toggled / Toggled | 2 |
| 00010110 | Toggled / Toggled (EMS)** | 2 |
| 00011110 | Toggled / Normal (EMS)** | 2 |

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## Non-Interlocking Button Outputs

| Function \# | Function Descriptions (left button / right button) | \# of Relays Used |
| :---: | :---: | :---: |
| 10000000 | Normal / Normal | 2 |
| 10000010 | Normal / Toggled | 2 |
| 10000110 | Normal / Toggled (EMS)** | 2 |
| 10001000 | Normal / Normal + Start* | 2 |
| 10001100 | Normal / Pitch \& Catch | 2 |
| 10010000 | Toggled / Normal | 2 |
| 10010010 | Toggled / Toggled | 2 |
| 10010110 | Toggled / Toggled (EMS)** | 2 |
| 10011000 | Toggled / Normal + Start* | 2 |
| 10011100 | Toggled / Pitch \& Catch | 2 |
| 10110000 | Toggled (EMS**) / Normal | 2 |
| 10110010 | Toggled (EMS)** Toggled | 2 |
| 10110110 | Toggled (EMS)** / Toggled (EMS)** | 2 |
| 10111000 | Toggled (EMS)** / Normal + Start* | 2 |
| 10111100 | Toggled (EMS)* / Pitch \& Catch | 2 |
| 11000000 | Normal + Start* / Normal | 2 |
| 11000010 | Normal + Start* Toggled | 2 |
| 11000110 | Normal + Start* / Toggled (EMS)** | 2 |
| 11001000 | Normal + Start* / Normal + Start* | 2 |
| 11001100 | Normal + Start* / Pitch \& Catch | 2 |
| 11100000 | Pitch \& Catch / Normal | 2 |
| 11100010 | Pitch \& Catch / Toggled | 2 |
| 11100110 | Pitch \& Catch / Toggled (EMS)** | 2 |
| 11101000 | Pitch \& Catch / Normal + Start* | 2 |

* Normal + Start: For added safety, you must first press and hold the green START button and then the
intended button to activate the output relay.
** EMS: Relay opens when STOP button is pressed down.


### 13.36 Program SW7 Relay Outputs (RX)

1) Press " $\rightarrow$ " button to enter SW7 Relay Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value " 0 " or " 1 ".
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2.
7) Exit Program SW7 Relay Outputs by pressing the BACK button until the cursor is shown next to "SW7 RELAY".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-VRX settings.

## PB7 Button Outputs

| Function \# | Function Descriptions | \# of Relays <br> Used |
| :--- | :---: | :---: |
| 10000000 | Normal | 1 |
| 10010000 | Toggled | 1 |
| 10110000 | Toggled (EMS)** | 1 |
| 11000000 | Normal + Start* | 1 |
| 11100000 | Pitch \& Catch | 1 |

* Normal + Start: For added safety, you must first press and hold the green START button and then the intended button to activate the output relay.
** EMS: Relay opens when STOP button is pressed down.


### 13.37 Program LX or L1 Analog Outputs (RX)

1) Press " $\rightarrow$ " button to enter LX or L1 Analog Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select OFF, VOLTAGE and CURRENT outputs.

## VOLTAGE (0~10V):

1) Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to select Maximum, Neutral and Minimum voltage value, press " $\rightarrow$ " button again to enter.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left.
3) Press " $\rightarrow$ " button to go the next digit to the right and repeat step 2.
4) Press BACK button to go back to step 1.
5) Exit Program LX or L1 Analog Outputs by pressing the BACK button until the cursor is shown next to "LX or L1 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-V R X$ settings.

## CURRENT ( $0 \sim 20 \mathrm{~mA}$ ):

1) Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to select Maximum, Neutral and Minimum current value, press " $\rightarrow$ " button again to enter.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value.
3) Press BACK button to go back to step 1.
4) Exit Program LX or L1 Analog Outputs by pressing the BACK button until the cursor is shown next to "LX or L1 ANALOG".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-VRX settings.

### 13.38 Program LY or L2 Analog Outputs (RX)

1) Press " $\rightarrow$ " button to enter LY or L2 Analog Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select OFF, VOLTAGE and CURRENT outputs.

## VOLTAGE (0~10V):

1) Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to select Maximum, Neutral and Minimum voltage value, press " $\rightarrow$ " button again to enter.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left.
3) Press " $\rightarrow$ " button to go the next digit to the right and repeat step 2 .
4) Press BACK button to go back to step 1.
5) Exit Program LY or L2 Analog Outputs by pressing the BACK button until the cursor is shown next to "LY or L2 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-VRX settings.

## CURRENT ( $0 \sim 20 \mathrm{~mA}$ ):

1) Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to select Maximum, Neutral and Minimum current value, press " $\rightarrow$ " button again to enter.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value.
3) Press BACK button to go back to step 1.
4) Exit Program LY or L2 Analog Outputs by pressing the BACK button until the cursor is shown next to "LY or L2 ANALOG".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-VRX settings.

### 13.39 Program RX or L3 Analog Outputs (RX)

1) Press " $\rightarrow$ " button to enter RX or L3 Analog Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select OFF, VOLTAGE and CURRENT outputs.

## VOLTAGE (0~10V):

1) Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to select Maximum, Neutral and Minimum voltage value, press " $\rightarrow$ " button again to enter.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left.
3) Press " $\rightarrow$ " button to go the next digit to the right and repeat step 2 .
4) Press BACK button to go back to step 1.
5) Exit Program RX or L3 Analog Outputs by pressing the BACK button until the cursor is shown next to "RX or L3 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-VRX settings.

CURRENT ( $0 \sim 20 \mathrm{~mA}$ ):

1) Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to select Maximum, Neutral and Minimum current value, press " $\rightarrow$ " button again to enter.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value.
3) Press BACK button to go back to step 1.
4) Exit Program RX or L3 Analog Outputs by pressing the BACK button until the cursor is shown next to "RX or L3 ANALOG".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-VRX settings.

### 13.40 Program RY or L4 Analog Outputs (RX)

1) Press " $\rightarrow$ " button to enter RY or L4 Analog Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select OFF, VOLTAGE and CURRENT outputs.

## VOLTAGE (0~10V):

1) Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to select Maximum, Neutral and Minimum voltage value, press " $\rightarrow$ " button again to enter.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left.
3) Press " $\rightarrow$ " button to go the next digit to the right and repeat step 2 .
4) Press BACK button to go back to step 1.
5) Exit Program RY or L4 Analog Outputs by pressing the BACK button until the cursor is shown next to "RY or L4 ANALOG".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-VRX settings.

## CURRENT ( $0 \sim 20 \mathrm{~mA}$ ):

1) Press " $\rightarrow$ " button to enter and then " $\uparrow$ " and " $\downarrow$ " button to select Maximum, Neutral and Minimum current value, press " $\rightarrow$ " button again to enter.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select numeric value.
3) Press BACK button to go back to step 1.
4) Exit Program RY or L4 Analog Outputs by pressing the BACK button until the cursor is shown next to "RY or L4 ANALOG".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-V R X$ settings.

### 13.41 Program Jumper Functions (RX)

1) Press " $\rightarrow$ " button to enter Jumper Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select from various jumper settings.
3) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select OPEN or SHORT.
4) Exit Program Jumper Functions by pressing the BACK button until the cursor is shown next to "JUMPER".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex EPV settings.

## 14. Flex 2JB-HRX Models

### 14.1 Program IR

### 14.1.1 Transmitter

1) Only WRITE requires entering the IR programming mode.
2) Reset the STOP button (Status LED turned green for up to 2.0 seconds, transmitter power on).
3) Press and hold both PB5 and PB6 at the same time for up to 3.0 seconds (Status LED blinks orange). Let go of both PB5 and PB6 when LED-A and LED-B turned red.
4) Entered programming mode with Status LED displays 1x orange blink for firmware version, remote pairing and IR programming.
5) Press and hold both PB5 and PB6 at the same time for
 up to 3.0 seconds (LED-A and LED-B turned red). Let go of both PB5 and PB6 when Status LED turned orange.
6) The Status LED now displays the transmitter firmware version with red, green and orange blinks.
7) Proceed to infrared transmitter programming using the IR programmer Unit.
8) Enter PROGRAM IR and then press READ button to transfer transmitter info into the IR programmer. If the screen shows "READ OK" the transfer is completed.
9) Browse through list of settings by pressing " $\uparrow$ " and " $\downarrow$ " buttons.
10)Press WRITE button to transfer the new settings into the transmitter (transmitter Status LED constant orange). If the screen shows "WRITE OK" the transfer is completed (transmitter Status LED constant green for up to 2 seconds).
11)Exit infrared programming mode by pressing down the STOP button (transmitter power off).

Note: READ command (transfer transmitter information to the IR programmer) does not require entering the IR programming mode, only when performing the WRITE command (transfer IR information to the transmitter) requires entering the IR programming mode.


### 14.1.2 Receiver

1) Power on the receiver with MAIN relays deactivated (standby mode).
2) Press READ button to transfer receiver info into the IR programmer. If the screen shows "READ OK" the transfer is completed.
3) Browse through list of settings by pressing " $\uparrow$ "and " $\downarrow$ " buttons.
4) Press WRITE button to transfer the new settings into the receiver (receiver Status
 LED constant orange). If the screen shows "WRITE OK" the transfer is completed (receiver Status LED blinks green - standby mode).

Note: When performing infrared programming, make sure the distance between the IR programmer and the transmitter or receiver are within 10 cm .

### 14.2 Program Serial Number (TX \& RX)

1) Press " $\rightarrow$ " button to enter Serial Number setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change serial number as a whole or...
3) Press " $\rightarrow$ " button to go to the $1^{\text {st }}$ digit on the far left of the serial number.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program Serial Number by pressing the BACK button until the cursor is shown next to " $\mathrm{S} / \mathrm{N}$ ".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.3 Program System Type (TX \& RX)

1) Press " $\rightarrow$ " button to enter System Type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change system type as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program System Type by pressing the BACK button until the cursor is shown next to "TYPE".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{HRX}$ settings.

### 14.4 Program System Frequency Range (TX \& RX)

1) Press " $\rightarrow$ " button to enter Frequency Range setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change frequency range.
3) Exit Program System Frequency Range by pressing the BACK button until the cursor is shown next to "FREQ".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.5 Program System Channel (TX \& RX)

1) Press " $\rightarrow$ " button to enter System Channel setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select channel number setting (assigned channel scheme) or UNASSIGN (unassigned channel scheme).
3) To program channel number, press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the digit on the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program System Channel by pressing the BACK button until the cursor is shown next to "CHANNEL".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-H R X$ settings.

### 14.6 Program Transmitter Inactivity Timer (TX)

1) Press " $\rightarrow$ " button to enter Transmitting Timer setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select " $\_$" " for minutes/seconds or "ON" for constant on.
3) When "ON" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select "+START" or "+ANY".
4) When "_M" is selected, press " $\rightarrow$ " button to go to the digit on the left and press " $\uparrow$ " and " $\downarrow$ " button to select value. Press " $\rightarrow$ " button again to go to the next digit and press " $\uparrow$ " and " $\downarrow$ " button to select value.
5) Press " $\rightarrow$ " button again to select " $M$ " for minutes or " $S$ " for seconds. Press " $\uparrow$ " and " $\downarrow$ " button to select.
6) Press " $\rightarrow$ " button again to select " + START" or " + ANY" selection. Press " $\uparrow$ " and " $\downarrow$ " button to select.
7) Exit Program Transmitter Timer by pressing the BACK button until the cursor is shown next to "TX TIMER".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

Transmitter inactivity timer is for setting receiver main relays cutoff time when the transmitter is not in operation for a certain period of time. When set to 5 minutes (05M), the receiver main relays are deactivated at 5.0 minutes after last transmitter operation.

Select "ON" means the receiver main relays are activated at all time unless the STOP button is pressed down, transmitter power off, or receiver power turned off (inactivity timer disabled).

Select "+START" means after 5 minutes of transmitter inactivity you must execute the START command to continue operation. Select "+ANY" means after 5 minutes of transmitter inactivity, press any pushbutton to continue operation.

### 14.7 Program Transmitter Button Functions (TX)

1) Press " $\rightarrow$ " button to enter Transmitter Button Functions setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2 or 3 .
7) Exit Program Transmitter Button Functions by pressing the BACK button unit the cursor is shown next to "PB FUNC".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{HRX}$ settings.


## Toggled Button with LED Indication

| Function <br> Number | Display Type | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :--- | :--- |
| $\mathbf{0 0 1}$ | 1 Red | LED-A | Normal | Normal | Normal | Normal | Normal | Normal |
| $\mathbf{0 0 2}$ | 2 Reds | Normal | LED-A | Normal | Normal | Normal | Normal | Normal |
| $\mathbf{0 0 3}$ | 3 Reds | Normal | Normal | LED-A | Normal | Normal | Normal | Normal |
| $\mathbf{0 0 4}$ | 4 Reds | Normal | Normal | Normal | LED-A | Normal | Normal | Normal |
| $\mathbf{0 0 5}$ | 5 Reds | Normal | Normal | Normal | Normal | LED-A | Normal | Normal |
| $\mathbf{0 0 6}$ | 6 Reds | Normal | Normal | Normal | Normal | Normal | LED-A | Normal |
| $\mathbf{0 0 7}$ | 7 Reds | Normal | Normal | Normal | Normal | Normal | Normal | LED-A |
| $\mathbf{0 0 8}$ | 8 Reds | LED-B | Normal | Normal | Normal | Normal | Normal | Normal |
| $\mathbf{0 0 9}$ | 9 Reds | Normal | LED-B | Normal | Normal | Normal | Normal | Normal |
| $\mathbf{0 1 0}$ | 1 Green | Normal | Normal | LED-B | Normal | Normal | Normal | Normal |
| $\mathbf{0 1 1}$ | 1 Green 1 Red | Normal | Normal | Normal | LED-B | Normal | Normal | Normal |
| $\mathbf{0 1 2}$ | 1 Green 2 Reds | Normal | Normal | Normal | Normal | LED-B | Normal | Normal |
| $\mathbf{0 1 3}$ | 1 Green 3 Reds | Normal | Normal | Normal | Normal | Normal | LED-B | Normal |
| $\mathbf{0 1 4}$ | 1 Green 4 Reds | Normal | Normal | Normal | Normal | Normal | Normal | LED-B |


| $\mathbf{0 1 5}$ | 1 Green 5 Reds | LED-A | LED-B | Normal | Normal | Normal | Normal | Normal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 1 6}$ | 1 Green 6 Reds | Normal | LED-A | LED-B | Normal | Normal | Normal | Normal |
| $\mathbf{0 1 7}$ | 1 Green 7 Reds | Normal | Normal | LED-A | LED-B | Normal | Normal | Normal |
| $\mathbf{0 1 8}$ | 1 Green 8 Reds | Normal | Normal | Normal | LED-A | LED-B | Normal | Normal |
| $\mathbf{0 1 9}$ | 1 Green 9 Reds | Normal | Normal | Normal | Normal | LED-A | LED-B | Normal |
| $\mathbf{0 2 0}$ | 2 Greens | Normal | Normal | Normal | Normal | Normal | LED-A | LED-B |
| $\mathbf{0 2 1}$ | 2 Greens 1 Red | LED-A | Normal | LED-B | Normal | Normal | Normal | Normal |
| $\mathbf{0 2 2}$ | 2 Greens 2 Reds | Normal | LED-A | Normal | LED-B | Normal | Normal | Normal |
| $\mathbf{0 2 3}$ | 2 Greens 3 Reds | Normal | Normal | LED-A | Normal | LED-B | Normal | Normal |
| $\mathbf{0 2 4}$ | 2 Greens 4 Reds | Normal | Normal | Normal | LED-A | Normal | LED-B | Normal |
| $\mathbf{0 2 5}$ | 2 Greens 5 Reds | Normal | Normal | Normal | Normal | LED-A | Normal | LED-B |

* Normal $\rightarrow$ Normal button function without LED indication.
* LED-A \& LED-B $\rightarrow$ Transmitter toggled button with LED indication.


## A/B Button Select with LED Indication

Type-A select sequence: $A \rightarrow B \rightarrow A \rightarrow B \ldots$
Type- $B$ select sequence: Off $\rightarrow A \rightarrow B \rightarrow$ Off $\rightarrow A \rightarrow B \ldots$
Type-C select sequence: $A \rightarrow B \rightarrow A+B \rightarrow A \rightarrow B \rightarrow A+B$ or $A \rightarrow B \rightarrow C \rightarrow A \rightarrow B \rightarrow C \ldots$
Type-D select sequence: Off $\rightarrow A \rightarrow B \rightarrow A+B \rightarrow$ Off $\rightarrow A \rightarrow B \rightarrow A+B \ldots$
Type-E select sequence: $A+B \rightarrow A \rightarrow B \rightarrow A+B \rightarrow A \rightarrow B \ldots$

| Function <br> Number | Display Type | PB1 | PB2 | PB3 | PB4 | PB7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 5 0}$ | 5 Greens | Type-A | Normal | Norma | Norma | Norma |
| $\mathbf{0 5 1}$ | 5 Greens 1 Red | Type-B | Normal | Norma | Norma | Norma |
| $\mathbf{0 5 2}$ | 5 Greens 2 Reds | Type-C | Normal | Norma | Norma | Norma |
| $\mathbf{0 5 3}$ | 5 Greens 3 Reds | Type-D | Normal | Norma | Norma | Norma |
| $\mathbf{0 5 4}$ | 5 Greens 4 Reds | Type-E | Normal | Norma | Norma | Norma |
| $\mathbf{0 5 5}$ | 5 Greens 5 Reds | Normal | Type-A | Norma | Norma | Norma |
| $\mathbf{0 5 6}$ | 5 Greens 6 Reds | Normal | Type-B | Norma | Norma | Norma |
| $\mathbf{0 5 7}$ | 5 Greens 7 Reds | Normal | Type-C | Norma | Norma | Norma |
| $\mathbf{0 5 8}$ | 5 Greens 8 Reds | Normal | Type-D | Norma | Norma | Norma |
| $\mathbf{0 5 9}$ | 5 Greens 9 Reds | Normal | Type-E | Norma | Norma | Norma |
| $\mathbf{0 6 0}$ | 6 Greens | Normal | Normal | Type-A | Norma | Norma |
| $\mathbf{0 6 1}$ | 6 Greens 1 Red | Normal | Normal | Type-B | Norma | Norma |
| $\mathbf{0 6 2}$ | 6 Greens 2 Reds | Normal | Normal | Type-C | Norma | Norma |


| $\mathbf{0 6 3}$ | 6 Greens 3 Reds | Normal | Normal | Type-D | Norma | Norma |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathbf{0 6 4}$ | 6 Greens 4 Reds | Normal | Normal | Type-E | Norma | Norma |
| $\mathbf{0 6 5}$ | 6 Greens 5 Reds | Normal | Normal | Norma | Type-A | Norma |
| $\mathbf{0 6 6}$ | 6 Greens 6 Reds | Normal | Normal | Norma | Type-B | Norma |
| $\mathbf{0 6 7}$ | 6 Greens 7 Reds | Normal | Normal | Norma | Type-C | Norma |
| $\mathbf{0 6 8}$ | 6 Greens 8 Reds | Normal | Normal | Norma | Type-D | Norma |
| $\mathbf{0 6 9}$ | 6 Greens 9 Reds | Normal | Normal | Norma | Type-E | Norma |
| $\mathbf{0 7 0}$ | 7 Greens | Normal | Normal | Norma | Norma | Type-A |
| $\mathbf{0 7 1}$ | 7 Greens 1 Red | Normal | Normal | Norma | Norma | Type-B |
| $\mathbf{0 7 2}$ | 7 Greens 2 Reds | Normal | Normal | Norma | Norma | Type-C |
| $\mathbf{0 7 3}$ | 7 Greens 3 Reds | Normal | Normal | Norma | Norma | Type-D |
| $\mathbf{0 7 4}$ | 7 Greens 4 Reds | Normal | Normal | Norma | Norma | Type-E |

* Normal $\rightarrow$ Normal button function without LED indication.
* Type A~E $\rightarrow$ Type of A/B select sequence with LED indication.


### 14.8 Program RF Power (TX)

1) Press " $\rightarrow$ " button to enter RF Power setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change RF power ( $0.01 \mathrm{~mW} \sim 25 \mathrm{~mW}$ ).
3) Press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to enable or disable RF power adjustment via transmitter dipswitch.
4) Exit Program RF Power by pressing the BACK button until the cursor is shown next to "RFpower".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.9 Program Infrared START Function (TX)

1) Press " $\rightarrow$ " button to enter Infrared Start Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select Off or IRS.

Select "OFF" to disable infrared START function.
Select "IRS" to enable infrared START function.
3) Exit Program Infrared START Function by pressing the BACK button until the cursor is shown next to "IR Mode".
4) Press " $\downarrow$ " button to go to the next Infrared START setting.

### 14.10 Program Infrared START ID Code (TX)

1) Press " $\rightarrow$ " button to enter Infrared START ID code setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to set the 3 -digit ID code as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value.
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press "BACK" button to go back to step 2.

Make sure the infrared module on crane is set to same ID code as the transmitter.
Select "000" disables the ID code function hence any types of infrared modules can be used.
7) Exit Program Infrared START ID Code by pressing the BACK button until the cursor is shown next to "IR ID".
8) Press " $\downarrow$ " button to go to the next Infrared START setting.

### 14.11 Program IRS Time Out (TX)

1) Press " $\rightarrow$ " button to enter IRS Time Out setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select IRS Off or IRS On.

Select "IRS On" if infrared START is required after every transmitter timeout.
Select "IRS Off" if infrared START is not required after every transmitter timeout.
3) Exit Program IRS Time Out by pressing the BACK button until the cursor is shown next to "IRS FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{HRX}$ settings.

### 14.12 Program LED1 Feedback Function (TX)

1) Press " $\rightarrow$ " button to enter LED1 Feedback Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select Off, Input number or Output number.
3) When "Input" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select input number that the external source is connected to (IN1~IN4).
4) When "Output" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select which digital output to feedback to LED1 (OUT1 ~ OUT22).
5) Select "Off" if no feedback is required.
6) Exit Program LED1 Feedback Function by pressing the BACK button until the cursor is shown next to "LED1".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{HRX}$ settings.

### 14.13 Program LED2 Feedback Function (TX)

1) Press " $\rightarrow$ " button to enter LED2 Feedback Function setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select Off, Input number or Output number.
3) When "Input" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select input number that the external source is connected to (IN1~IN4).
4) When "Output" is selected, press " $\rightarrow$ " button and then " $\uparrow$ " and " $\downarrow$ " button to select which digital output to feedback to LED2 (OUT1 ~ OUT22).
5) Select "Off" if no feedback is required.
6) Exit Program LED2 Feedback Function by pressing the BACK button until the cursor is shown next to "LED2".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB- HRX settings.

### 14.14 Program Left Joystick or Lever Type (TX)

1) Press " $\rightarrow$ " button to enter left joystick or lever type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select joystick " $L X$ LY" for left joystick $X$ and $Y$ axis or "L1 L2" for lever-1 and lever-2 (counting from the far left).
3) Exit Program Left Joystick or Lever Type by pressing the BACK button until the cursor is shown next to "LJ TYPE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.15 Program Right Joystick or Lever Type (TX)

1) Press " $\rightarrow$ " button to enter right joystick or lever type setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select joystick "RX RY" for right joystick $X$ and $Y$ axis or " L 3 L 4 " for lever-3 and lever-4 (counting from the far left).
3) Exit Program Right Joystick or Lever Type by pressing the BACK button until the cursor is shown next to "RJ TYPE".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.16 Program LX/L1 Joystick/Lever Output (TX)

1) Press " $\rightarrow$ " button to enter LX/L1 Joystick/Lever Output setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between None, 1-step, 2-step 3-step, 4-step, 5-step and Analog.
3) Exit Program LX/L1 Joystick/lever Output by pressing the BACK button until the cursor is shown next to "LX/L1 OUT".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

Set each joystick/lever's number of steps according to the hardware installed.

### 14.17 Program LY/L2 Joystick/Lever Output (TX)

1) Press " $\rightarrow$ " button to enter LY/L2 Joystick/Lever Output setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between None, 1-step, 2-step 3-step, 4-step, 5-step and Analog.
3) Exit Program LY/L2 Joystick/lever Output by pressing the BACK button until the cursor is shown next to "LY/L2 OUT".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{HRX}$ settings.

Set each joystick/lever's number of steps according to the hardware installed.

### 14.18 Program RX/L3 Joystick/Lever Output (TX)

1) Press " $\rightarrow$ " button to enter RX/L3 Joystick/Lever Output setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between None, 1-step, 2-step 3-step, 4-step, 5-step and Analog.
3) Exit Program RX/L3 Joystick/lever Output by pressing the BACK button until the cursor is shown next to "RX/L3 OUT".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{HRX}$ settings.

Set each joystick/lever's number of steps according to the hardware installed.

### 14.19 Program RY/L4 Joystick/Lever Output (TX)

1) Press " $\rightarrow$ " button to enter RY/L4 Joystick/Lever Output setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between None, 1-step, 2-step 3-step, 4-step, 5-step and Analog.
3) Exit Program RY/L4 Joystick/lever Output by pressing the BACK button until the cursor is shown next to "RY/L4 OUT".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-H R X$ settings.

Set each joystick/lever's number of steps according to the hardware installed.

### 14.20 Program SW1/PB1 Function (TX)

1) Press " $\rightarrow$ " button to enter SW1/PB1 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between Normal, Speed Ratio ( $100 \% / 66 \% / 33 \%$ ), SW A/A+B/B, SW A/B/A+B and SW A/B/C select sequence.
3) Exit SW1/PB1 Function by pressing the BACK button until the cursor is shown next to "SW1 FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-H R X$ settings.

### 14.21 Program SW2/PB2 Function (TX)

1) Press " $\rightarrow$ " button to enter SW2/PB2 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between Normal, Speed Ratio ( $100 \% / 66 \% / 33 \%$ ), SW $A / A+B / B$, SW $A / B / A+B$ and $S W A / B / C$ select sequence.
3) Exit SW2/PB2 Function by pressing the BACK button until the cursor is shown next to "SW2 FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.22 Program SW3/PB3 Function (TX)

1) Press " $\rightarrow$ " button to enter SW3/PB3 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between Normal, Speed Ratio ( $100 \% / 66 \% / 33 \%$ ), SW A/A+B/B, SW A/B/A+B and SW A/B/C select sequence.
3) Exit SW3/PB3 Function by pressing the BACK button until the cursor is shown next to "SW3 FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{HRX}$ settings.

### 14.23 Program SW4/PB4 Function (TX)

1) Press " $\rightarrow$ " button to enter SW4/PB4 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between Normal, Speed Ratio ( $100 \% / 66 \% / 33 \%$ ), SW A/A+B/B, SW A/B/A+B and SW A/B/C select sequence.
3) Exit SW4/PB4 Function by pressing the BACK button until the cursor is shown next to "SW4 FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.24 Program SW7/PB7 Function (TX)

1) Press " $\rightarrow$ " button to enter SW7/PB7 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select between Normal, Speed Ratio ( $100 \% / 66 \% / 33 \%$ ), SW A/A+B/B, SW A/B/A+B and SW A/B/C select sequence.
3) Exit SW7/PB7 Function by pressing the BACK button until the cursor is shown next to "SW7 FUNC".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{HRX}$ settings.

### 14.25 Program Channel Scanning (RX)

1) Press " $\rightarrow$ " button to enter Channel Scanning setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to select number of channels to scan (01~12).
3) Exit Program Channel Scanning by pressing the BACK button until the cursor is shown next to "CH SCAN".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.26 Program Function Relay 1 / OUT5 (RX)

1) Press " $\rightarrow$ " button to enter Function Relay 1 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Relay 1 by pressing the BACK button until the cursor is shown next to "FUNC RLY1".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-H R X$ settings.

| JOY ID | Joystick and lever ID output setting (refer to section 14.33~14.36). |
| :---: | :---: |
| LV | Function output closes when receiver voltage is low. |
| ID | Function output works simultaneously with all motion commands. |
| NORMAL | START function + AUX with normal momentary output. Works the $2^{\text {nd }}$ time the START button is pressed. |
| NORMAL2 | START function + AUX with normal momentary output. Works the $1^{\text {st }}$ time the START button is pressed. |
| TOGGLE | START function + AUX with toggled output. |
| TOG\&E | START function + AUX with toggled output. The output opens when STOP button is pressed down. |
| EXT | Function output works simultaneously with the receiver MAIN outputs. |
| TDM A+B | Function output closes when selector switch is rotated to the $A+B$ position and opens when rotate to A or B positions (tandem monitoring output). |
| HORN | Function output closes for up to 3 seconds when START button is pressed at transmitter power on and then becomes a normal momentary output thereafter. |
| G SENSOR | Function output closes when Zero-G sensor is triggered (receiver MAIN outputs deactivated) and opens when receiver MAIN outputs are reactivated |
| RESET | Function output closes when the START button is pressed and opens when let go. Works during initial transmitter startup and inactivity timer START reset. |
| SW1 ABC | Function output closes at C position (for button or toggle switch programmed to Select A/B/C function). |
| SW2 ABC | Function output closes at C position (for button or rocker switch programmed to Select $A / B / C$ function). |
| SW3 ABC | Function output closes at C position (for button or rocker switch programmed to Select $A / B / C$ function). |
| SW4 ABC | Function output closes at C position (for button or rocker switch programmed to Select A/B/C function). |
| SW7 ABC | Function output closes at C position (for button or rocker switch programmed to Select $A / B / C$ function). |

### 14.27 Program Function Relay 2 / OUT6 (RX)

1) Press " $\rightarrow$ " button to enter Function Relay 2 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Relay 2 by pressing the BACK button until the cursor is shown next to "FUNC RLY2".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{HRX}$ settings.

| JOY ID | Joystick and lever ID output setting (refer to section 14.33~14.36). |
| :---: | :---: |
| LV | Function output closes when receiver voltage is low. |
| ID | Function output works simultaneously with all motion commands. |
| NORMAL | START function + AUX with normal momentary output. Works the $2^{\text {nd }}$ time the START button is pressed. |
| NORMAL2 | START function + AUX with normal momentary output. Works the $1^{\text {st }}$ time the START button is pressed. |
| TOGGLE | START function + AUX with toggled output. |
| TOG\&E | START function + AUX with toggled output. The output opens when STOP button is pressed down. |
| EXT | Function output works simultaneously with the receiver MAIN outputs. |
| TDM A+B | Function output closes when selector switch is rotated to the $A+B$ position and opens when rotate to A or B positions (tandem monitoring output). |
| HORN | Function output closes for up to 3 seconds when START button is pressed at transmitter power on and then becomes a normal momentary output thereafter. |
| G SENSOR | Function output closes when Zero-G sensor is triggered (receiver MAIN outputs deactivated) and opens when receiver MAIN outputs are reactivated. |
| RESET | Function output closes when the START button is pressed and opens when let go. Works during initial transmitter startup and inactivity timer START reset. |
| SW1 ABC | Function output closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW2 ABC | Function output closes at C position (for button or rocker switch programmed to Select A/B/C function). |
| SW3 ABC | Function output closes at C position (for button or rocker switch programmed to Select $A / B / C$ function). |
| SW4 ABC | Function output closes at $C$ position (for button or rocker switch programmed to Select A/B/C function). |
| SW7 ABC | Function output closes at C position (for button or rocker switch programmed to Select $A / B / C$ function). |

### 14.28 Program Function Relay 3 / CN8 (RX)

1) Press " $\rightarrow$ " button to enter Function Relay 3 setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select.
3) Exit Program Function Relay 3 by pressing the BACK button until the cursor is shown next to "FUNC RLY3".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-H R X$ settings.

| JOY ID | Joystick and lever ID output setting (refer to section 14.33~14.36) |
| :---: | :---: |
| LV | Function output closes when receiver voltage is low. |
| ID | Function output works simultaneously with all motion commands. |
| NORMAL | START function + AUX with normal momentary output. Works the $2^{\text {nd }}$ time the START button is pressed. |
| NORMAL2 | START function + AUX with normal momentary output. Works the $1^{\text {st }}$ time the START button is pressed. |
| TOGGLE | START function + AUX with toggled output. |
| TOG\&E | START function + AUX with toggled output. The output opens when STOP button is pressed down. |
| EXT | Function output works simultaneously with the receiver MAIN outputs. |
| TDM A+B | Function output closes when selector switch is rotated to the $\mathrm{A}+\mathrm{B}$ position and opens when rotate to A or B positions (tandem monitoring output). |
| HORN | Function output closes for up to 3 seconds when START button is pressed at transmitter power on and then becomes a normal momentary output thereafter. |
| G SENSOR | Function output closes when Zero-G sensor is triggered (receiver MAIN outputs deactivated) and opens when receiver MAIN outputs are reactivated. |
| RESET | Function output closes when the START button is pressed and opens when let go. Works during initial transmitter startup and inactivity timer START reset. |
| SW1 ABC | Function output closes at C position (for button or toggle switch programmed to Select $A / B / C$ function). |
| SW2 ABC | Function output closes at $C$ position (for button or rocker switch programmed to Select $A / B / C$ function). |
| SW3 ABC | Function output closes at $C$ position (for button or rocker switch programmed to Select $A / B / C$ function). |
| SW4 ABC | Function output closes at $C$ position (for button or rocker switch programmed to Select $A / B / C$ function). |
| SW7 ABC | Function output closes at $C$ position (for button or rocker switch programmed to Select $A / B / C$ function). |

### 14.29 Program ID1 Function Output (RX)

Set ID1 output type when Function Output-1 is set to "ID".

1) Press " $\rightarrow$ " button to enter ID1 Output setting.
2) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select DIGITAL, CURRENT or PWM output.

DIGITAL: High signal (button pressed down) and low signal (button released).
CURRENT: 0~1,000mA programmable.
PWM: 0~100\% programmable.
3) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT or PWM setting.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Press BACK button to go back to step 4.
6) Exit Program ID1 Output by pressing the BACK button until the cursor is shown next to "ID1 OUT".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.30 Program ID2 Function Output (RX)

Set ID2 output type when Function Output-2 is set to "ID".

1) Press " $\rightarrow$ " button to enter ID2 Output setting.
2) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select DIGITAL, CURRENT or PWM output.

DIGITAL: High signal (button pressed down) and low signal (button released).
CURRENT: 0~1,000mA programmable.
PWM: 0~100\% programmable.
3) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT or PWM setting.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Press BACK button to go back to step 4.
6) Exit Program ID2 Output by pressing the BACK button until the cursor is shown next to "ID2 OUT".
7) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex2JB-HRX settings.

### 14.31 Program ID1 Ramp (RX)

1) Press " $\rightarrow$ " button to enter ID1 Ramp setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
4) Press BACK button to go back to step 2.
5) Exit Program ID1 Ramp by pressing the BACK button until the cursor is shown next to "ID1 RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.32 Program ID2 Ramp (RX)

1) Press " $\rightarrow$ " button to enter ID2 Ramp setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
3) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
4) Press BACK button to go back to step 2.
5) Exit Program ID2 Ramp by pressing the BACK button until the cursor is shown next to "ID2 RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{HRX}$ settings.

### 14.33 Program LX/L1 ID Output (RX)

1) Press " $\rightarrow$ " button to enter LX/L1 ID Output setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select Yes or No.
3) Exit Program LX/L1 ID Output by pressing the BACK button until the cursor is shown next to "LX/L1 ID".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{HRX}$ settings.

### 14.34 Program LY/L2 ID Output (RX)

1) Press " $\rightarrow$ " button to enter LY/L2 ID Output setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select Yes or No.
3) Exit Program LY/L2 ID Output by pressing the BACK button until the cursor is shown next to "LY/L2 ID".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.35 Program RX/L3 ID Output (RX)

1) Press " $\rightarrow$ " button to enter RX/L3 ID Output setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select Yes or No.
3) Exit Program RX/L3 ID Output by pressing the BACK button until the cursor is shown next to "RX/L3 ID".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{HRX}$ settings.

### 14.36 Program RY/L4 ID Output (RX)

1) Press " $\rightarrow$ " button to enter RY/L4 ID Output setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select Yes or No.
3) Exit Program RY/L4 ID Output by pressing the BACK button until the cursor is shown next to "RY/L4 ID".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.37 Program SW1 \& SW2 Digital Outputs (RX)

1) Press " $\rightarrow$ " button to enter SW1 \& SW2 Digital Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or.
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value " 0 " or " 1 ".
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2.
7) Exit Program SW1 \& SW2 Digital Outputs by pressing the BACK button until the cursor is shown next to "SW1\&2 DIGITAL".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-H R X$ settings.

Interlocking Button Outputs


| Function \# | Function Descriptions (left button / right button) |
| :---: | :---: |
| 00000000 | Normal momentary output <br> (all contacts open when both buttons are pressed simultaneously or <br> one after another) |
| 00011000 | Normal momentary output <br> (1st button pressed maintain contact when both buttons are pressed <br> one after another) |
| 00001100 | OFF / ON |
| 00010010 | On + Start/Off + Start - For added safety, you must first press and hold <br> the green START button and then the On or Off button to activate the output. |
| 00001110 | Magnet Lift On \& Off |
| 00010000 | OFF / ON (EMS)** |
| 00010100 | Toggled / Toggled |
| 00010110 | Toggled / Toggled (EMS)** |
| 00011110 | Toggled / Normal (EMS)** |

[^11]

## Non-Interlocking Button Outputs

| Function \# | Function Descriptions (left button / right button) |
| :---: | :---: |
| 10000000 | Normal / Normal |
| 10000010 | Normal / Toggled |
| 10000110 | Normal / Toggled (EMS)** |
| 10001000 | Normal / Normal + Start* |
| 10001100 | Normal / Pitch \& Catch |
| 10010000 | Toggled / Normal |
| 10010010 | Toggled / Toggled |
| 10010110 | Toggled / Toggled (EMS)** |
| 10011000 | Toggled / Normal + Start* |
| 10011100 | Toggled / Pitch \& Catch |
| 10110000 | Toggled (EMS**) / Normal |
| 10110010 | Toggled (EMS)** / Toggled |
| 10110110 | Toggled (EMS)** / Toggled (EMS)** |
| 10111000 | Toggled (EMS)** / Normal + Start* |
| 10111100 | Toggled (EMS)** Pitch \& Catch |
| 11000000 | Normal + Start* ${ }^{\text {/ Normal }}$ |
| 11000010 | Normal + Start* / Toggled |
| 11000110 | Normal + Start* / Toggled (EMS)** |
| 11001000 | Normal + Start* / Normal + Start* |
| 11001100 | Normal + Start* Pitch \& Catch |
| 11100000 | Pitch \& Catch / Normal |
| 11100010 | Pitch \& Catch / Toggled |
| 11100110 | Pitch \& Catch / Toggled (EMS)** |
| 11101000 | Pitch \& Catch / Normal + Start* |

[^12]
### 14.38 Program SW3 \& SW4 Digital Outputs (RX)

1) Press " $\rightarrow$ " button to enter SW3 \& SW4 Digital Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value " 0 " or " 1 ".
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2.
7) Exit Program SW3 \& SW4 Digital Outputs by pressing the BACK button until the cursor is shown next to "SW3\&4 DIGITAL".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{HRX}$ settings.


## Interlocking Button Outputs

| Function \# | Function Descriptions (left button / right button) |
| :---: | :---: |
| 00000000 | Normal momentary output <br> (all contacts open when both buttons are pressed simultaneously or <br> one after another) |
| 00011000 | Normal momentary output <br> (1st button pressed maintain contact when both buttons are pressed <br> one after another) |
| 00001100 | OFF / ON |
| 00010010 | On + Start/Off + Start - For added safety, you must first press and hold |
| the green START button and then the On or Off button to activate the output. |  |

[^13]

## Non-Interlocking Button Outputs

| Function \# | Function Descriptions (left button / right button) |
| :---: | :---: |
| 10000000 | Normal / Normal |
| 10000010 | Normal / Toggled |
| 10000110 | Normal / Toggled (EMS)** |
| 10001000 | Normal / Normal + Start* |
| 10001100 | Normal / Pitch \& Catch |
| 10010000 | Toggled / Normal |
| 10010010 | Toggled / Toggled |
| 10010110 | Toggled / Toggled (EMS)** |
| 10011000 | Toggled / Normal + Start* |
| 10011100 | Toggled / Pitch \& Catch |
| 10110000 | Toggled (EMS**) / Normal |
| 10110010 | Toggled (EMS)** / Toggled |
| 10110110 | Toggled (EMS)** / Toggled (EMS)** |
| 10111000 | Toggled (EMS)** / Normal + Start* |
| 10111100 | Toggled (EMS)** Pitch \& Catch |
| 11000000 | Normal + Start* ${ }^{\text {/ Normal }}$ |
| 11000010 | Normal + Start* / Toggled |
| 11000110 | Normal + Start* / Toggled (EMS)** |
| 11001000 | Normal + Start* / Normal + Start* |
| 11001100 | Normal + Start* Pitch \& Catch |
| 11100000 | Pitch \& Catch / Normal |
| 11100010 | Pitch \& Catch / Toggled |
| 11100110 | Pitch \& Catch / Toggled (EMS)** |
| 11101000 | Pitch \& Catch / Normal + Start* |

[^14]
### 14.39 Program SW5 \& SW6 Digital Outputs (RX)

1) Press " $\rightarrow$ " button to enter SW5 \& SW6 Digital Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value " 0 " or " 1 ".
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2.
7) Exit Program SW5 \& SW6 Digital Outputs by pressing the BACK button until the cursor is shown next to "SW5\&6 DIGITAL".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{HRX}$ settings.


## Interlocking Button Outputs

| Function \# | Function Descriptions (left button / right button) |
| :---: | :---: |
| 00000000 | Normal momentary output <br> (all contacts open when both buttons are pressed simultaneously or <br> one after another) |
| 00011000 | Normal momentary output <br> (1st button pressed maintain contact when both buttons are pressed <br> one after another) |
| 00001100 | OFF / ON |
| 00010010 | On + Start/Off + Start - For added safety, you must first press and hold |
| the green START button and then the On or Off button to activate the output. |  |

[^15]

## Non-Interlocking Button Outputs

| Function \# | Function Descriptions (left button / right button) |
| :---: | :---: |
| 10000000 | Normal / Normal |
| 10000010 | Normal / Toggled |
| 10000110 | Normal / Toggled (EMS)** |
| 10001000 | Normal / Normal + Start* |
| 10001100 | Normal / Pitch \& Catch |
| 10010000 | Toggled / Normal |
| 10010010 | Toggled / Toggled |
| 10010110 | Toggled / Toggled (EMS)** |
| 10011000 | Toggled / Normal + Start* |
| 10011100 | Toggled / Pitch \& Catch |
| 10110000 | Toggled (EMS**) / Normal |
| 10110010 | Toggled (EMS)** / Toggled |
| 10110110 | Toggled (EMS)** / Toggled (EMS)** |
| 10111000 | Toggled (EMS)** / Normal + Start* |
| 10111100 | Toggled (EMS)** Pitch \& Catch |
| 11000000 | Normal + Start* ${ }^{\text {/ Normal }}$ |
| 11000010 | Normal + Start* / Toggled |
| 11000110 | Normal + Start* / Toggled (EMS)** |
| 11001000 | Normal + Start* / Normal + Start* |
| 11001100 | Normal + Start* Pitch \& Catch |
| 11100000 | Pitch \& Catch / Normal |
| 11100010 | Pitch \& Catch / Toggled |
| 11100110 | Pitch \& Catch / Toggled (EMS)** |
| 11101000 | Pitch \& Catch / Normal + Start* |

[^16]
### 14.40 Program SW7 Digital Outputs (RX)

1) Press " $\rightarrow$ " button to enter SW7 Digital Outputs setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to change function number as a whole or...
3) Press " $\rightarrow$ " button to go to the digit on the far left.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change numeric value " 0 " or " 1 ".
5) Press " $\rightarrow$ " button to go to the next digit to the right and repeat step 4.
6) Press BACK button to go back to step 2.
7) Exit Program SW7 Digital Outputs by pressing the BACK button until the cursor is shown next to "SW7 DIGITAL".
8) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{HRX}$ settings.

PB7 Button Outputs

| Function \# | Function Descriptions |
| :---: | :---: |
| 10000000 | Normal |
| 10010000 | Toggled |
| 10110000 | Toggled (EMS)** |
| 11000000 | Normal + Start |
| 11100000 | Pitch \& Catch |

* Normal + Start: For added safety, you must first press and hold the green START button and then the intended button to activate the output.
** EMS: Output opens when STOP button is pressed down.


### 14.41 Program LX+/L1+ Analog Output (RX)

1) Press " $\rightarrow$ " button to enter LX+/L1+ Analog Output setting.
2) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select CURRENT or PWM output.

CURRENT: 0~2,500mA programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program LX+/L1+ Analog Output by pressing the BACK button until the cursor is shown next to "LX+/L1+ AN".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JB-HRX settings.

PWM: 0~100\% programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for PWM setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program LX+/L1+ Analog Output by pressing the BACK button until the cursor is shown next to " $\mathrm{LX}+/ \mathrm{L} 1+\mathrm{AN}$ ".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.42 Program LX-/L1-Analog Output (RX)

1) Press " $\rightarrow$ " button to enter LX-/L1- Analog Output setting.
2) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select CURRENT or PWM output.

CURRENT: 0~2,500mA programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program LX-/L1- Analog Output by pressing the BACK button until the cursor is shown next to "LX-/L1-AN".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

PWM: 0~100\% programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for PWM setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program LX-/L1- Analog Output by pressing the BACK button until the cursor is shown next to "LX-/L1-AN".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2 JB-HRX settings.

### 14.43 Program LY+/L2+ Analog Output (RX)

1) Press " $\rightarrow$ " button to enter LY+/L2+ Analog Output setting.
2) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select CURRENT or PWM output.

CURRENT: 0~2,500mA programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program LY+/L2+ Analog Output by pressing the BACK button until the cursor is shown next to " $\mathrm{LY}+/ \mathrm{L} 2+\mathrm{AN}$ ".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

PWM: 0~100\% programmable.

1) Press BACK button and then " "" button to select output values for PWM setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program LY+/L2+ Analog Output by pressing the BACK button until the cursor is shown next to " $\mathrm{LY}+/ \mathrm{L} 2+\mathrm{AN}$ ".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.44 Program LY-/L2- Analog Output (RX)

1) Press " $\rightarrow$ " button to enter LY-/L2- Analog Output setting.
2) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select CURRENT or PWM output.

CURRENT: 0~2,500mA programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program LY-/L2- Analog Output by pressing the BACK button until the cursor is shown next to "LY-/L2- AN".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

PWM: 0~100\% programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for PWM setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program LY-/L2- Analog Output by pressing the BACK button until the cursor is shown next to "LY-/L2- AN".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.45 Program RX+/L3+ Analog Output (RX)

1) Press " $\rightarrow$ " button to enter $R X+/ L 3+$ Analog Output setting.
2) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select CURRENT or PWM output.

CURRENT: 0~2,500mA programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program RX+/L3+ Analog Output by pressing the BACK button until the cursor is shown next to " $R X+/ L 3+A N$ ".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-H R X$ settings.

PWM: 0~100\% programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for PWM setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program RX+/L3+ Analog Output by pressing the BACK button until the cursor is shown next to " $R X+/ L 3+A N$ ".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.46 Program RX-/L3- Analog Output (RX)

1) Press " $\rightarrow$ " button to enter RX-/L3- Analog Output setting.
2) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select CURRENT or PWM output.

CURRENT: 0~2,500mA programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program RX-/L3- Analog Output by pressing the BACK button until the cursor is shown next to "RX-/L3- AN".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

PWM: 0~100\% programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for PWM setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program RX-/L3- Analog Output by pressing the BACK button until the cursor is shown next to "RX-/L3- AN".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.47 Program RY+/L4+ Analog Output (RX)

1) Press " $\rightarrow$ " button to enter RY+/L4+ Analog Output setting.
2) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select CURRENT or PWM output.

CURRENT: 0~2,500mA programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program RY+/L4+ Analog Output by pressing the BACK button until the cursor is shown next to "RY+/L4+ AN".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{HRX}$ settings.

PWM: 0~100\% programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for PWM setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program RY+/L4+ Analog Output by pressing the BACK button until the cursor is shown next to "RY+/L4+ AN".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.48 Program RY-/L4- Analog Output (RX)

1) Press " $\rightarrow$ " button to enter RY-/L4- Analog Output setting.
2) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select CURRENT or PWM output.

CURRENT: 0~2,500mA programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for CURRENT setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program RY-/L4- Analog Output by pressing the BACK button until the cursor is shown next to "RY-/L4- AN".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

PWM: 0~100\% programmable.

1) Press BACK button and then " $\downarrow$ " button to select output values for PWM setting.
2) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
3) Press BACK button and then " $\downarrow$ " button to select output values for the second row.
4) Press " $\rightarrow$ " button to enter setting and " $\uparrow$ " and " $\downarrow$ " button to select numeric value for the first digit to the far left. Press " $\rightarrow$ " button to go to the next digit to the right and press " $\uparrow$ " and " $\downarrow$ " button to select, and so on.
5) Exit Program RY-/L4- Analog Output by pressing the BACK button until the cursor is shown next to "RY-/L4- AN".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.49 Program LX+/L1+ Ramp (RX)

1) This section only appears on the display screen when Program LX+/L1+ Analog Outputs on section 14.37 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter LX+/L1+ Ramp setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
5) Exit Program LX+/L1+ Ramp by pressing the BACK button until the cursor is shown next to "LX+/L1+ RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{HRX}$ settings.

### 14.50 Program LX-/L1- Ramp (RX)

1) This section only appears on the display screen when Program LX-/L1Analog Outputs on section 14.38 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter LX-/L1- Ramp setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
5) Exit Program LX-/L1- Ramp by pressing the BACK button until the cursor is shown next to "LX-/L1-RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{HRX}$ settings.

### 14.51 Program LY+/L2+ Ramp (RX)

1) This section only appears on the display screen when Program LY+/L2+ Analog Outputs on section 14.39 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter LY+/L2+ Ramp setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
5) Exit Program LY+/L2+ Ramp by pressing the BACK button until the cursor is shown next to "LY+/L2+ RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.52 Program LY-/L2- Ramp (RX)

1) This section only appears on the display screen when Program LY-/L2Analog Outputs on section 14.40 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter LY-/L2- Ramp setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
5) Exit Program LY-/L2- Ramp by pressing the BACK button until the cursor is shown next to "LY-/L2- RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.53 Program RX+/L3+ Ramp (RX)

1) This section only appears on the display screen when Program RX+/L3+ Outputs on section 14.41 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter RX+/L3+ Ramp setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
5) Exit Program RX+/L3+ Ramp by pressing the BACK button until the cursor is shown next to "RX+/L3+ RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.54 Program RX-/L3- Ramp (RX)

1) This section only appears on the display screen when Program RX-/L3Analog Outputs on section 14.42 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter RX-/L3- Ramp setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
5) Exit Program RX-/L3- Ramp by pressing the BACK button until the cursor is shown next to "RX-/L3- RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{HRX}$ settings.

### 14.55 Program RY+/L4+ Ramp (RX)

1) This section only appears on the display screen when Program RY+/L4+ Analog Outputs on section 14.43 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter RY+/L4+ Ramp setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
5) Exit Program RY+/L4+ Ramp by pressing the BACK button until the cursor is shown next to "RY+/L4+ RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.56 Program RY-/L4- Ramp (RX)

1) This section only appears on the display screen when Program RY-/L4Analog Outputs on section 14.44 are set to Analog outputs.
2) Press " $\rightarrow$ " button to enter RY-/L4- Ramp setting.
3) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select ACC for acceleration and DEC for deceleration and press " $\rightarrow$ " button to enter.
4) Press " $\uparrow$ " and " $\downarrow$ " button to change value from 0 to 5 seconds (S).
5) Exit Program RY-/L4- Ramp by pressing the BACK button until the cursor is shown next to "RY-/L4- RAMP".
6) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.57 Program Output Frequency (RX)

1) Press " $\rightarrow$ " button to enter Output Frequency setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select from various frequencies.
3) Exit Program Output Frequency by pressing the BACK button until the cursor is shown next to "OUT FREQ".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 \mathrm{JB}-\mathrm{HRX}$ settings.

### 14.58 Program Jumper Functions (RX)

1) Press " $\rightarrow$ " button to enter Jumper Functions setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select from various jumper settings.
3) Press " $\rightarrow$ " button again then " $\uparrow$ " and " $\downarrow$ " button to scroll and select OPEN or SHORT.
4) Exit Program Jumper Functions by pressing the BACK button until the cursor is shown next to "JUMPER".
5) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex 2JB-HRX settings.

### 14.59 Program Antenna Function (RX)

1) Press " $\rightarrow$ " button to enter Antenna setting.
2) Press " $\uparrow$ " and " $\downarrow$ " button to scroll and select "INT" for internal antenna connection and "EXT" for external antenna connection.
3) Exit Program Antenna Function by pressing the BACK button until the cursor is shown next to "ANTENNA".
4) Press " $\uparrow$ " and " $\downarrow$ " button to scroll through other Flex $2 J B-H R X$ settings.
[^17]
## 15. Transmitter Access Card (Flex EX2/ECO/EPV/EPH Models)

1) Rotate the power switch key to OFF ( 0 ) position.
2) With the STOP button elevated, press and hold PB1, PB2, PB3 and PB4 at the same time.
3) Rotate the power switch key to ON (I) position.
4) Let go PB1, PB2, PB3 and PB4 at the same time, the Status LED displays orange fast blinks (entered TAC mode).
5) Placed the access card over the RFID marking located on the backside of the transmitter.
6) Status LED with 1 second green means the access card is being programmed into the transmitter.
7) Status LED with 1 second orange means the access card is already programmed into the transmitter.
8) Status LED with 1 second red means unable to store any more access cards. Each transmitter can only store up to 16 access cards.

9) When all access cards are stored into the transmitter use the IR programmer to extract all access cards info by pointing the infrared sensor towards the transmitter Status LED location within a distance of no more than 10 cm .

10) Press " $\rightarrow$ " button to enter TAC setting
11) Press READ button to transfer all access cards info into the IR programmer for further programming. If the screen shows "READ OK" the transfer is completed.
12) After entering the TAC setting the first screen you see is either "EMPTY" (no access cards) or "_ CARDS" (number of access cards stored), "DEL_ALL" (delete all) and LAST USED (last TAC card in operation).
13) Select "DEL_ALL" by pressing " $\rightarrow$ " button one time if you want to delete all access cards from the system. Press " $\rightarrow$ " button again to delete.
14) Press " $\uparrow$ " and " $\downarrow$ " button if you want to program the access cards.
15) "CARD 1 " shown on the screen is always the last access card scanned into the transmitter.
16) Press " $\uparrow$ " and " $\downarrow$ " button to select which access card to program and then press " $\rightarrow$ " button to enter.
17) A mix of alphabets and numbers shown on the second line below the access card number is the access card ID number.
18) The next line ( S 1234567 ) is the transmitter function. " $S$ " is for START (access card required after transmitter power on), "1" for PB1, "2" for PB2, " 3 " for PB3, etc... The third line (89101112) is for PB8 through PB12.
19) Press " $\rightarrow$ " button to go to the first digit from the left and press " $\uparrow$ " and " $\downarrow$ " button to assign or un-assign. Assigned is represented by black color background with white "S" or number 1~12.
20) When "S" (START) is assigned on one of the access cards, the same "S" START function on all other access cards is also assigned automatically. The pushbutton functions can be individually assigned.
21) Press " $\rightarrow$ " button to go to the next column to the right and redo step 19.
22) Program other access cards by pressing the BACK button until the cursor is shown next to "CARD \# and redo step 16.
23) When all access cards are programmed, use the IR programmer to transfer all access card info back to the transmitter by pointing the infrared sensor towards the transmitter Status LED location within a distance of no more than 10 cm and press the WRITE button. In order for the transmitter to receive TAC info back from the IR programmer it must be in the TAC mode as well (refer to step 1 through 4). If the screen shows "WRITE OK" the transfer is completed.
24) Exit Program TAC by pressing the BACK button until the cursor is shown next to "TAC".

## 16. Transmitter Access Card

(Flex 2JB Models)

1) Rotate the power switch key to OFF ( 0 ) position.
2) With the STOP button elevated, press and hold PB1, PB2, PB3 and PB4 at the same time.
3) Rotate the power switch key to ON (I) position.
4) Let go PB1, PB2, PB3 and PB4 at the same time, the Status LED displays orange fast blinks (entered TAC mode).
5) Placed the access card over the RFID marking located on the backside of the transmitter.
6) Status LED with 1 second green means the access card is being programmed into the transmitter.
7) Status LED with 1 second orange means the access card is already programmed into the transmitter.
8) Status LED with 1 second red means unable to store any more access cards. Each transmitter can only store up to 16 access cards.

9) When all access cards are stored into the transmitter use the IR programmer to extract all access cards info by pointing the infrared sensor towards the transmitter Status LED location within a distance of no more than 10 cm .

10) Press " $\rightarrow$ " button to enter TAC setting
11) Press READ button to transfer all access cards info into the IR programmer for further programming. If the screen shows "READ OK" the transfer is completed.
12) After entering the TAC setting the first screen you see is either "EMPTY" (no access cards) or "_ CARDS" (number of access cards stored), "DEL_ALL" (delete all) and LAST USED (last TAC card in operation).
13) Select "DEL_ALL" by pressing " $\rightarrow$ " button one time if you want to delete all access cards from the system. Press " $\rightarrow$ " button again to delete.
14) Press " $\uparrow$ " and " $\downarrow$ " button if you want to program the access cards.
15) "CARD 1 " shown on the screen is always the last access card scanned into the transmitter.
16) Press " $\uparrow$ " and " $\downarrow$ " button to select which access card to program and then press " $\rightarrow$ " button to enter.
17) A mix of alphabets and numbers shown on the second line below the access card number is the access card ID number.
18) The next line ( S 1234567 ) is the transmitter function. " $S$ " is for START (access card required after transmitter power on), "1" for PB1, "2" for PB2, " 3 " for PB3, etc... The third line (89101112) is for PB8 through PB12.
19) Press " $\rightarrow$ " button to go to the first digit from the left and press " $\uparrow$ " and " $\downarrow$ " button to assign or un-assign. Assigned is represented by black color background with white "S" or number 1~12.
20) When "S" (START) is assigned on one of the access cards, the same " $S$ " START function on all other access cards is also assigned automatically. The pushbutton functions can be individually assigned.
21) Press " $\rightarrow$ " button to go to the next column to the right and redo step 19.
22) Program other access cards by pressing the BACK button until the cursor is shown next to "CARD \# and redo step 16.
23) When all access cards are programmed, use the IR programmer to transfer all access card info back to the transmitter by pointing the infrared sensor towards the transmitter Status LED location within a distance of no more than 10 cm and press the WRITE button. In order for the transmitter to receive TAC info back from the IR programmer it must be in the TAC mode as well (refer to step 1 through 4). If the screen shows "WRITE OK" the transfer is completed.
24) Exit Program TAC by pressing the BACK button until the cursor is shown next to "TAC".

## 17. Firmware Update

### 17.1 Install Software

Install the provided software



( Application Setup | Java Runtime Environment |
| :--- |
| Installation |
| No Java Runtime Environment could be found on your computer. |
| Click Install to start the installation of JRE 1.5.0. |



### 17.2 Firmware Update

17.2.1 Set dipswitch position \#1 to "1" or "up" position

17.2.2 Plug in the USB cable (not provided)

17.2.3 Please try the following if device cannot be found when plug in the USB onto the computer


| A Device Manager | -回 $x$ |
| :---: | :---: |
| File Action View Help |  |
|  |  |
|  | A |
| Launches the Update Driver Software Wizard for the selected device. |  |



### 17.2.4 Open Flip 3.4.7


17.2.5 Select a target device


### 17.2.6 Select ATxmega256A3U


17.2.7 Select a communication medium

17.2.8 Select USB


### 17.2.9 Open USB


17.2.10 Load HEX file

17.2.11 Select HEX file (downloaded from ARC website)


### 17.2.12 Program target device memory


17.2.13 Download and Complete

17.2.14 Unplug the USB cable and set dipswitch position \#1 back to "0"or "down" position

## 18. Pushbutton Function Table

## A. Flex EX Models

## A. Transmitter Toggle Functions (Standard)

| NO | Dip Set | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 001 | 00000001 |  |  |  | 4 |  |  |  |  |  |  |  |  |
| 002 | 00000010 |  |  | 3 | 4 |  |  |  |  |  |  |  |  |
| 003 | 00000011 |  | 2 | 3 | 4 |  |  |  |  |  |  |  |  |
| 004 | 00000100 | 1 | 2 | 3 | 4 |  |  |  |  |  |  |  |  |
| 005 | 00000101 |  |  |  |  |  |  |  | 4 |  |  |  |  |
| 006 | 00000110 |  |  |  |  |  |  | 3 | 4 |  |  |  |  |
| 007 | 00000111 |  |  |  |  |  | 2 | 3 | 4 |  |  |  |  |
| 008 | 00001000 |  |  |  |  | 1 | 2 | 3 | 4 |  |  |  |  |
| 009 | 00001001 |  |  |  |  |  |  |  |  |  | 4 |  |  |
| 010 | 00001010 |  |  |  |  |  |  |  |  | 3 | 4 |  |  |
| 011 | 00001011 |  |  |  |  |  |  |  | 2 | 3 | 4 |  |  |
| 012 | 00001100 |  |  |  |  |  |  | 1 | 2 | 3 | 4 |  |  |
| 013 | 00001101 |  |  |  |  |  |  |  |  |  |  |  | 4 |
| 014 | 00001110 |  |  |  |  |  |  |  |  |  |  | 3 | 4 |
| 015 | 00001111 |  |  |  |  |  |  |  |  |  | 2 | 3 | 4 |
| 016 | 00010000 |  |  |  |  |  |  |  |  | 1 | 2 | 3 | 4 |

B. Transmitter Toggle Functions (Inline)

| NO | Dip Set | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 01 | 00000001 |  |  |  | 4 |  |  |  |  |  |  |  |  |
| 017 | 00010001 |  |  | 3 | 4 |  |  |  |  |  |  |  |  |
| 018 | 00010010 |  | 2 | 3 | 4 |  |  |  |  |  |  |  |  |
| 019 | 00010011 | 1 | 2 | 3 | 4 |  |  |  |  |  |  |  |  |
| 005 | 00000101 |  |  |  |  |  |  |  | 4 |  |  |  |  |
| 020 | 00010100 |  |  |  |  |  |  | 3 | 4 |  |  |  |  |
| 021 | 00010101 |  |  |  |  |  | 2 | 3 | 4 |  |  |  |  |
| 022 | 00010110 |  |  |  |  | 1 | 2 | 3 | 4 |  |  |  |  |
| 005 | 00000101 |  |  |  |  |  |  |  |  |  | 4 |  |  |
| 020 | 00010100 |  |  |  |  |  |  |  |  | 3 | 4 |  |  |
| 021 | 00010101 |  |  |  |  |  |  |  | 2 | 3 | 4 |  |  |
| 022 | 00010110 |  |  |  |  |  |  | 1 | 2 | 3 | 4 |  |  |
| 009 | 00001001 |  |  |  |  |  |  |  |  |  |  | 4 |  |
| 023 | 00010111 |  |  |  |  |  |  |  |  |  | 3 | 4 |  |
| 024 | 00011000 |  |  |  |  |  |  |  |  | 2 | 3 | 4 |  |
| 025 | 00011001 |  |  |  |  |  |  |  | 1 | 2 | 3 | 4 |  |
| 013 | 00001101 |  |  |  |  |  |  |  |  |  |  |  | 4 |
| 026 | 00011010 |  |  |  |  |  |  |  |  |  |  | 3 | 4 |
| 027 | 00011011 |  |  |  |  |  |  |  |  |  | 2 | 3 | 4 |
| 028 | 00011100 |  |  |  |  |  |  |  |  | 1 | 2 | 3 | 4 |

## C. A/B Pushbutton Select Functions (Standard)

Type-A sequence:
Type-B sequence:
Type-C sequence:
Type-D sequence:

$$
\mathrm{A} \rightarrow \mathrm{~B} \rightarrow \mathrm{~A} \rightarrow \mathrm{~B}
$$

Off $\rightarrow A \rightarrow B \rightarrow$ Off $\rightarrow A \rightarrow B \ldots$
$A \rightarrow B \rightarrow A+B \rightarrow A \rightarrow B \rightarrow A+B \ldots$
Off $\rightarrow A \rightarrow B \rightarrow A+B \rightarrow$ Off $\rightarrow A \rightarrow B \rightarrow A+B \ldots$

| NO | Dip Set | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 029 | 00011101 |  |  | A/1.2 |  |  |  |  |  |  |  |  |  |
| 030 | 00011110 |  |  | B/1.2 |  |  |  |  |  |  |  |  |  |
| 031 | 00011111 |  |  | C/1.2 |  |  |  |  |  |  |  |  |  |
| 032 | 00100000 |  |  | D/1.2 |  |  |  |  |  |  |  |  |  |
| 033 | 00100001 |  |  |  | A/3.4 |  |  |  |  |  |  |  |  |
| 034 | 00100010 |  |  |  | B/3.4 |  |  |  |  |  |  |  |  |
| 035 | 00100011 |  |  |  | C/3.4 |  |  |  |  |  |  |  |  |
| 036 | 00100100 |  |  |  | D/3.4 |  |  |  |  |  |  |  |  |
| 037 | 00100101 |  |  | A/1.2 | A/3.4 |  |  |  |  |  |  |  |  |
| 038 | 00100110 |  |  | A/1.2 | B/3.4 |  |  |  |  |  |  |  |  |
| 039 | 00100111 |  |  | A/1.2 | C/3.4 |  |  |  |  |  |  |  |  |
| 040 | 00101000 |  |  | A/1.2 | D/3.4 |  |  |  |  |  |  |  |  |
| 041 | 00101001 |  |  | B/1.2 | B/3.4 |  |  |  |  |  |  |  |  |
| 042 | 00101010 |  |  | B/1.2 | C/3.4 |  |  |  |  |  |  |  |  |
| 043 | 00101011 |  |  | B/1.2 | D/3.4 |  |  |  |  |  |  |  |  |
| 044 | 00101100 |  |  | C/1.2 | C/3.4 |  |  |  |  |  |  |  |  |
| 045 | 00101101 |  |  | C/1.2 | D/3.4 |  |  |  |  |  |  |  |  |
| 046 | 00101110 |  |  | D/1.2 | D/3.4 |  |  |  |  |  |  |  |  |
| 047 | 00101111 |  |  |  |  |  |  | A/1.2 |  |  |  |  |  |
| 048 | 00110000 |  |  |  |  |  |  | B/1.2 |  |  |  |  |  |
| 049 | 00110001 |  |  |  |  |  |  | C/1.2 |  |  |  |  |  |
| 050 | 00110010 |  |  |  |  |  |  | D/1.2 |  |  |  |  |  |


| NO | Dip Set | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 051 | 00110011 |  |  |  |  |  |  |  | A/3.4 |  |  |  |  |
| 052 | 00110100 |  |  |  |  |  |  |  | B/3.4 |  |  |  |  |
| 053 | 00110101 |  |  |  |  |  |  |  | C/3.4 |  |  |  |  |
| 054 | 00110110 |  |  |  |  |  |  |  | D/3.4 |  |  |  |  |
| 055 | 00110111 |  |  |  |  |  |  | A/1.2 | A/3.4 |  |  |  |  |
| 056 | 00111000 |  |  |  |  |  |  | A/1.2 | B/3.4 |  |  |  |  |
| 057 | 00111001 |  |  |  |  |  |  | A/1.2 | C/3.4 |  |  |  |  |
| 058 | 00111010 |  |  |  |  |  |  | A/1.2 | D/3.4 |  |  |  |  |
| 059 | 00111011 |  |  |  |  |  |  | B/1.2 | B/3.4 |  |  |  |  |
| 060 | 00111100 |  |  |  |  |  |  | B/1.2 | C/3.4 |  |  |  |  |
| 061 | 00111101 |  |  |  |  |  |  | B/1.2 | D/3.4 |  |  |  |  |
| 062 | 00111110 |  |  |  |  |  |  | C/1.2 | C/3.4 |  |  |  |  |
| 063 | 00111111 |  |  |  |  |  |  | C/1.2 | D/3.4 |  |  |  |  |
| 064 | 01000000 |  |  |  |  |  |  | D/1.2 | D/3.4 |  |  |  |  |
| 065 | 01000001 |  |  |  |  |  |  |  |  | A/1.2 |  |  |  |
| 066 | 01000010 |  |  |  |  |  |  |  |  | B/1.2 |  |  |  |
| 067 | 01000011 |  |  |  |  |  |  |  |  | C/1.2 |  |  |  |
| 068 | 01000100 |  |  |  |  |  |  |  |  | D/1.2 |  |  |  |
| 069 | 01000101 |  |  |  |  |  |  |  |  |  | A/3.4 |  |  |
| 070 | 01000110 |  |  |  |  |  |  |  |  |  | B/3.4 |  |  |
| 071 | 01000111 |  |  |  |  |  |  |  |  |  | C/3.4 |  |  |
| 072 | 01001000 |  |  |  |  |  |  |  |  |  | D/3.4 |  |  |
| 073 | 01001001 |  |  |  |  |  |  |  |  | A/1.2 | A/3.4 |  |  |
| 074 | 01001010 |  |  |  |  |  |  |  |  | A/1.2 | B/3.4 |  |  |
| 075 | 01001011 |  |  |  |  |  |  |  |  | A/1.2 | C/3.4 |  |  |


| NO | Dip Set | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 076 | 01001100 |  |  |  |  |  |  |  |  | A/1.2 | D/3.4 |  |  |
| 077 | 01001101 |  |  |  |  |  |  |  |  | B/1.2 | B/3.4 |  |  |
| 078 | 01001110 |  |  |  |  |  |  |  |  | B/1.2 | C/3.4 |  |  |
| 079 | 01001111 |  |  |  |  |  |  |  |  | B/1.2 | D/3.4 |  |  |
| 080 | 01010000 |  |  |  |  |  |  |  |  | C/1.2 | C/3.4 |  |  |
| 081 | 01010001 |  |  |  |  |  |  |  |  | C/1.2 | D/3.4 |  |  |
| 082 | 01010010 |  |  |  |  |  |  |  |  | D/1.2 | D/3.4 |  |  |
| 083 | 01010011 |  |  |  |  |  |  |  |  |  |  | A/1.2 |  |
| 084 | 01010100 |  |  |  |  |  |  |  |  |  |  | B/1.2 |  |
| 085 | 01010101 |  |  |  |  |  |  |  |  |  |  | C/1.2 |  |
| 086 | 01010110 |  |  |  |  |  |  |  |  |  |  | D/1.2 |  |
| 087 | 01010111 |  |  |  |  |  |  |  |  |  |  |  | A/3.4 |
| 088 | 01011000 |  |  |  |  |  |  |  |  |  |  |  | B/3.4 |
| 089 | 01011001 |  |  |  |  |  |  |  |  |  |  |  | C/3.4 |
| 090 | 01011010 |  |  |  |  |  |  |  |  |  |  |  | D/3.4 |
| 091 | 01011011 |  |  |  |  |  |  |  |  |  |  | A/1.2 | A/3.4 |
| 092 | 01011100 |  |  |  |  |  |  |  |  |  |  | A/1.2 | B/3.4 |
| 093 | 01011101 |  |  |  |  |  |  |  |  |  |  | A/1.2 | C/3.4 |
| 094 | 01011110 |  |  |  |  |  |  |  |  |  |  | A/1.2 | D/3.4 |
| 095 | 01011111 |  |  |  |  |  |  |  |  |  |  | B/1.2 | B/3.4 |
| 096 | 01100000 |  |  |  |  |  |  |  |  |  |  | B/1.2 | C/3.4 |
| 097 | 01100001 |  |  |  |  |  |  |  |  |  |  | B/1.2 | D/3.4 |
| 098 | 01100010 |  |  |  |  |  |  |  |  |  |  | C/1.2 | C/3.4 |
| 099 | 01100011 |  |  |  |  |  |  |  |  |  |  | C/1.2 | D/3.4 |
| 100 | 01100100 |  |  |  |  |  |  |  |  |  |  | D/1.2 | D/3.4 |

D. A/B Pushbutton Select Functions (Inline)

Type-A sequence:
Type-B sequence:
Type-C sequence:
Type-D sequence:

$$
\mathrm{A} \rightarrow \mathrm{~B} \rightarrow \mathrm{~A} \rightarrow \mathrm{~B}
$$

Off $\rightarrow A \rightarrow B \rightarrow$ Off $\rightarrow A \rightarrow B \ldots$
$A \rightarrow B \rightarrow A+B \rightarrow A \rightarrow B \rightarrow A+B \ldots$
Off $\rightarrow A \rightarrow B \rightarrow A+B \rightarrow$ Off $\rightarrow A \rightarrow B \rightarrow A+B \ldots$

| NO | Dip Set | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 101 | 01100101 |  |  | A/1.2 |  |  |  |  |  |  |  |  |  |
| 102 | 01100110 |  |  | B/1.2 |  |  |  |  |  |  |  |  |  |
| 103 | 01100111 |  |  | C/1.2 |  |  |  |  |  |  |  |  |  |
| 104 | 01101000 |  |  | D/1.2 |  |  |  |  |  |  |  |  |  |
| 033 | 00100001 |  |  |  | A/3.4 |  |  |  |  |  |  |  |  |
| 034 | 00100010 |  |  |  | B/3.4 |  |  |  |  |  |  |  |  |
| 035 | 00100011 |  |  |  | C/3.4 |  |  |  |  |  |  |  |  |
| 036 | 00100100 |  |  |  | D/3.4 |  |  |  |  |  |  |  |  |
| 105 | 01101001 |  |  | A/1.2 | A/3.4 |  |  |  |  |  |  |  |  |
| 106 | 01101010 |  |  | A/1.2 | B/3.4 |  |  |  |  |  |  |  |  |
| 107 | 01101011 |  |  | A/1.2 | C/3.4 |  |  |  |  |  |  |  |  |
| 108 | 01101100 |  |  | A/1.2 | D/3.4 |  |  |  |  |  |  |  |  |
| 109 | 01101101 |  |  | B/1.2 | B/3.4 |  |  |  |  |  |  |  |  |
| 110 | 01101110 |  |  | B/1.2 | C/3.4 |  |  |  |  |  |  |  |  |
| 111 | 01101111 |  |  | B/1.2 | D/3.4 |  |  |  |  |  |  |  |  |
| 112 | 01110000 |  |  | C/1.2 | C/3.4 |  |  |  |  |  |  |  |  |
| 113 | 01110001 |  |  | C/1.2 | D/3.4 |  |  |  |  |  |  |  |  |
| 114 | 01110010 |  |  | D/1.2 | D/3.4 |  |  |  |  |  |  |  |  |
| 115 | 01110011 |  |  |  |  |  |  | A/1.2 |  |  |  |  |  |
| 116 | 01110100 |  |  |  |  |  |  | B/1.2 |  |  |  |  |  |
| 117 | 01110101 |  |  |  |  |  |  | C/1.2 |  |  |  |  |  |
| 118 | 01110110 |  |  |  |  |  |  | D/1.2 |  |  |  |  |  |


| NO | Dip Set | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 051 | 00110011 |  |  |  |  |  |  |  | A/3.4 |  |  |  |  |
| 052 | 00110100 |  |  |  |  |  |  |  | B/3.4 |  |  |  |  |
| 053 | 00110101 |  |  |  |  |  |  |  | C/3.4 |  |  |  |  |
| 054 | 00110110 |  |  |  |  |  |  |  | D/3.4 |  |  |  |  |
| 119 | 01110111 |  |  |  |  |  |  | A/1.2 | A/3.4 |  |  |  |  |
| 120 | 01111000 |  |  |  |  |  |  | A/1.2 | B/3.4 |  |  |  |  |
| 121 | 01111001 |  |  |  |  |  |  | A/1.2 | C/3.4 |  |  |  |  |
| 122 | 01111010 |  |  |  |  |  |  | A/1.2 | D/3.4 |  |  |  |  |
| 123 | 01111011 |  |  |  |  |  |  | B/1.2 | B/3.4 |  |  |  |  |
| 124 | 01111100 |  |  |  |  |  |  | B/1.2 | C/3.4 |  |  |  |  |
| 125 | 01111101 |  |  |  |  |  |  | B/1.2 | D/3.4 |  |  |  |  |
| 126 | 01111110 |  |  |  |  |  |  | C/1.2 | C/3.4 |  |  |  |  |
| 127 | 01111111 |  |  |  |  |  |  | C/1.2 | D/3.4 |  |  |  |  |
| 128 | 10000000 |  |  |  |  |  |  | D/1.2 | D/3.4 |  |  |  |  |
| 115 | 01110011 |  |  |  |  |  |  |  |  | A/1.2 |  |  |  |
| 116 | 01110100 |  |  |  |  |  |  |  |  | B/1.2 |  |  |  |
| 117 | 01110101 |  |  |  |  |  |  |  |  | C/1.2 |  |  |  |
| 118 | 01110110 |  |  |  |  |  |  |  |  | D/1.2 |  |  |  |
| 051 | 00110011 |  |  |  |  |  |  |  |  |  | A/3.4 |  |  |
| 052 | 00110100 |  |  |  |  |  |  |  |  |  | B/3.4 |  |  |
| 053 | 00110101 |  |  |  |  |  |  |  |  |  | C/3.4 |  |  |
| 054 | 00110110 |  |  |  |  |  |  |  |  |  | D/3.4 |  |  |
| 119 | 01110111 |  |  |  |  |  |  |  |  | A/1.2 | A/3.4 |  |  |
| 120 | 01111000 |  |  |  |  |  |  |  |  | A/1.2 | B/3.4 |  |  |
| 121 | 01111001 |  |  |  |  |  |  |  |  | A/1.2 | C/3.4 |  |  |


| NO | Dip Set | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 122 | 01111010 |  |  |  |  |  |  |  |  | A/1.2 | D/3.4 |  |  |
| 123 | 01111011 |  |  |  |  |  |  |  |  | B/1.2 | B/3.4 |  |  |
| 124 | 01111100 |  |  |  |  |  |  |  |  | B/1.2 | C/3.4 |  |  |
| 125 | 01111101 |  |  |  |  |  |  |  |  | B/1.2 | D/3.4 |  |  |
| 126 | 01111110 |  |  |  |  |  |  |  |  | C/1.2 | C/3.4 |  |  |
| 127 | 01111111 |  |  |  |  |  |  |  |  | C/1.2 | D/3.4 |  |  |
| 128 | 10000000 |  |  |  |  |  |  |  |  | D/1.2 | D/3.4 |  |  |
| 129 | 10000001 |  |  |  |  |  |  |  |  |  | A/1.2 |  |  |
| 130 | 10000010 |  |  |  |  |  |  |  |  |  | B/1.2 |  |  |
| 131 | 10000011 |  |  |  |  |  |  |  |  |  | C/1.2 |  |  |
| 132 | 10000100 |  |  |  |  |  |  |  |  |  | D/1.2 |  |  |
| 069 | 01000101 |  |  |  |  |  |  |  |  |  |  | A/3.4 |  |
| 070 | 01000110 |  |  |  |  |  |  |  |  |  |  | B/3.4 |  |
| 071 | 01000111 |  |  |  |  |  |  |  |  |  |  | C/3.4 |  |
| 072 | 01001000 |  |  |  |  |  |  |  |  |  |  | D/3.4 |  |
| 133 | 10000101 |  |  |  |  |  |  |  |  |  | A/1.2 | A/3.4 |  |
| 134 | 10000110 |  |  |  |  |  |  |  |  |  | A/1.2 | B/3.4 |  |
| 135 | 10000111 |  |  |  |  |  |  |  |  |  | A/1.2 | C/3.4 |  |
| 136 | 10001000 |  |  |  |  |  |  |  |  |  | A/1.2 | D/3.4 |  |
| 137 | 10001001 |  |  |  |  |  |  |  |  |  | B/1.2 | B/3.4 |  |
| 138 | 10001010 |  |  |  |  |  |  |  |  |  | B/1.2 | C/3.4 |  |
| 139 | 10001011 |  |  |  |  |  |  |  |  |  | B/1.2 | D/3.4 |  |
| 140 | 10001100 |  |  |  |  |  |  |  |  |  | C/1.2 | C/3.4 |  |
| 141 | 10001101 |  |  |  |  |  |  |  |  |  | C/1.2 | D/3.4 |  |
| 142 | 10001110 |  |  |  |  |  |  |  |  |  | D/1.2 | D/3.4 |  |


| NO | Dip Set | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 143 | 10001111 |  |  |  |  |  |  |  |  |  |  | A/1.2 |  |
| 144 | 10010000 |  |  |  |  |  |  |  |  |  |  | B/1.2 |  |
| 145 | 10010001 |  |  |  |  |  |  |  |  |  |  | C/1.2 |  |
| 146 | 10010010 |  |  |  |  |  |  |  |  |  |  | D/1.2 |  |
| 087 | 01010111 |  |  |  |  |  |  |  |  |  |  |  | A/3.4 |
| 088 | 01011000 |  |  |  |  |  |  |  |  |  |  |  | B/3.4 |
| 089 | 01011001 |  |  |  |  |  |  |  |  |  |  |  | C/3.4 |
| 090 | 01011010 |  |  |  |  |  |  |  |  |  |  |  | D/3.4 |
| 147 | 10010011 |  |  |  |  |  |  |  |  |  |  | A/1.2 | A/3.4 |
| 148 | 10010100 |  |  |  |  |  |  |  |  |  |  | A/1.2 | B/3.4 |
| 149 | 10010101 |  |  |  |  |  |  |  |  |  |  | A/1.2 | C/3.4 |
| 150 | 10010110 |  |  |  |  |  |  |  |  |  |  | A/1.2 | D/3.4 |
| 151 | 10010111 |  |  |  |  |  |  |  |  |  |  | B/1.2 | B/3.4 |
| 152 | 10011000 |  |  |  |  |  |  |  |  |  |  | B/1.2 | C/3.4 |
| 153 | 10011001 |  |  |  |  |  |  |  |  |  |  | B/1.2 | D/3.4 |
| 154 | 10011010 |  |  |  |  |  |  |  |  |  |  | C/1.2 | C/3.4 |
| 155 | 10011011 |  |  |  |  |  |  |  |  |  |  | C/1.2 | D/3.4 |
| 156 | 10011100 |  |  |  |  |  |  |  |  |  |  | D/1.2 | D/3.4 |

E. Transmitter Toggle + A/B Pushbutton Select Functions (Standard)

| NO | Dip Set | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 157 | 10011101 |  |  | 1 | A/3.4 |  |  |  |  |  |  |  |  |
| 158 | 10011110 |  |  | 1 | B/3.4 |  |  |  |  |  |  |  |  |
| 159 | 10011111 |  |  | 1 | C/3.4 |  |  |  |  |  |  |  |  |
| 160 | 10100000 |  |  | 1 | D/3.4 |  |  |  |  |  |  |  |  |
| 161 | 10100001 |  | 1 | 2 | A/3.4 |  |  |  |  |  |  |  |  |
| 162 | 10100010 |  | 1 | 2 | B/3.4 |  |  |  |  |  |  |  |  |
| 163 | 10100011 |  | 1 | 2 | C/3.4 |  |  |  |  |  |  |  |  |
| 164 | 10100100 |  | 1 | 2 | D/3.4 |  |  |  |  |  |  |  |  |
| 165 | 10100101 |  |  | A/1.2 | 4 |  |  |  |  |  |  |  |  |
| 166 | 10100110 |  |  | B/1.2 | 4 |  |  |  |  |  |  |  |  |
| 167 | 10100111 |  |  | C/1.2 | 4 |  |  |  |  |  |  |  |  |
| 168 | 10101000 |  |  | D/1.2 | 4 |  |  |  |  |  |  |  |  |
| 169 | 10101001 |  | 3 | A/1.2 | 4 |  |  |  |  |  |  |  |  |
| 170 | 10101010 |  | 3 | B/1.2 | 4 |  |  |  |  |  |  |  |  |
| 171 | 10101011 |  | 3 | C/1.2 | 4 |  |  |  |  |  |  |  |  |
| 172 | 10101100 |  | 3 | D/1.2 | 4 |  |  |  |  |  |  |  |  |
| 173 | 10101101 |  |  |  |  |  |  | 1 | A/3.4 |  |  |  |  |
| 174 | 10101110 |  |  |  |  |  |  | 1 | B/3.4 |  |  |  |  |
| 175 | 10101111 |  |  |  |  |  |  | 1 | C/3.4 |  |  |  |  |
| 176 | 10110000 |  |  |  |  |  |  | 1 | D/3.4 |  |  |  |  |
| 177 | 10110001 |  |  |  |  |  | 1 | 2 | A/3.4 |  |  |  |  |
| 178 | 10110010 |  |  |  |  |  | 1 | 2 | B/3.4 |  |  |  |  |
| 179 | 10110011 |  |  |  |  |  | 1 | 2 | C/3.4 |  |  |  |  |
| 180 | 10110100 |  |  |  |  |  | 1 | 2 | D/3.4 |  |  |  |  |
| 181 | 10110101 |  |  |  |  |  |  | A/1.2 | 4 |  |  |  |  |


| NO | Dip Set | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 182 | 10110110 |  |  |  |  |  |  | B/1.2 | 4 |  |  |  |  |
| 183 | 10110111 |  |  |  |  |  |  | C/1.2 | 4 |  |  |  |  |
| 184 | 10111000 |  |  |  |  |  |  | D/1.2 | 4 |  |  |  |  |
| 185 | 10111001 |  |  |  |  |  | 3 | A/1.2 | 4 |  |  |  |  |
| 186 | 10111010 |  |  |  |  |  | 3 | B/1.2 | 4 |  |  |  |  |
| 187 | 10111011 |  |  |  |  |  | 3 | C/1.2 | 4 |  |  |  |  |
| 188 | 10111100 |  |  |  |  |  | 3 | D/1.2 | 4 |  |  |  |  |
| 189 | 10111101 |  |  |  |  |  |  |  |  | 1 | A/3.4 |  |  |
| 190 | 10111110 |  |  |  |  |  |  |  |  | 1 | B/3.4 |  |  |
| 191 | 10111111 |  |  |  |  |  |  |  |  | 1 | C/3.4 |  |  |
| 192 | 11000000 |  |  |  |  |  |  |  |  | 1 | D/3.4 |  |  |
| 193 | 11000001 |  |  |  |  |  |  |  | 1 | 2 | A/3.4 |  |  |
| 194 | 11000010 |  |  |  |  |  |  |  | 1 | 2 | B/3.4 |  |  |
| 195 | 11000011 |  |  |  |  |  |  |  | 1 | 2 | C/3.4 |  |  |
| 196 | 11000100 |  |  |  |  |  |  |  | 1 | 2 | D/3.4 |  |  |
| 197 | 11000101 |  |  |  |  |  |  |  |  | A/1.2 | 4 |  |  |
| 198 | 11000110 |  |  |  |  |  |  |  |  | B/1.2 | 4 |  |  |
| 199 | 11000111 |  |  |  |  |  |  |  |  | C/1.2 | 4 |  |  |
| 200 | 11001000 |  |  |  |  |  |  |  |  | D/1.2 | 4 |  |  |
| 201 | 11001001 |  |  |  |  |  |  |  | 3 | A/1.2 | 4 |  |  |
| 202 | 11001010 |  |  |  |  |  |  |  | 3 | B/1.2 | 4 |  |  |
| 203 | 11001011 |  |  |  |  |  |  |  | 3 | C/1.2 | 4 |  |  |
| 204 | 11001100 |  |  |  |  |  |  |  | 3 | D/1.2 | 4 |  |  |
| 205 | 11001101 |  |  |  |  |  |  |  |  |  |  | 1 | A/3.4 |
| 206 | 11001110 |  |  |  |  |  |  |  |  |  |  | 1 | B/3.4 |


| NO | Dip Set | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 207 | 1100111 |  |  |  |  |  |  |  |  |  |  | 1 | C/3.4 |
| 208 | 11010000 |  |  |  |  |  |  |  |  |  |  | 1 | D/3.4 |
| 209 | 11010001 |  |  |  |  |  |  |  |  |  | 1 | 2 | A/3.4 |
| 210 | 11010010 |  |  |  |  |  |  |  |  |  | 1 | 2 | B/3.4 |
| 211 | 11010011 |  |  |  |  |  |  |  |  |  | 1 | 2 | C/3.4 |
| 212 | 11010100 |  |  |  |  |  |  |  |  |  | 1 | 2 | D/3.4 |
| 213 | 11010101 |  |  |  |  |  |  |  |  |  |  | A/1.2 | 4 |
| 214 | 11010110 |  |  |  |  |  |  |  |  |  |  | B/1.2 | 4 |
| 215 | 11010111 |  |  |  |  |  |  |  |  |  |  | C/1.2 | 4 |
| 216 | 11011000 |  |  |  |  |  |  |  |  |  |  | D/1.2 | 4 |
| 217 | 11011001 |  |  |  |  |  |  |  |  |  | 3 | A/1.2 | 4 |
| 218 | 11011010 |  |  |  |  |  |  |  |  |  | 3 | B/1.2 | 4 |
| 219 | 11011011 |  |  |  |  |  |  |  |  |  | 3 | C/1.2 | 4 |
| 220 | 1101100 |  |  |  |  |  |  |  |  |  | 3 | D/1.2 | 4 |

F. Transmitter Toggle + A/B Pushbutton Select Functions (Inline)

| NO | Dip Set | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 221 | 11011101 |  |  | 1 | A/3.4 |  |  |  |  |  |  |  |  |
| 222 | 11011110 |  |  | 1 | B/3.4 |  |  |  |  |  |  |  |  |
| 223 | 11011111 |  |  | 1 | C/3.4 |  |  |  |  |  |  |  |  |
| 224 | 11100000 |  |  | 1 | D/3.4 |  |  |  |  |  |  |  |  |
| 225 | 11100001 |  | 1 | 2 | A/3.4 |  |  |  |  |  |  |  |  |
| 226 | 11100010 |  | 1 | 2 | B/3.4 |  |  |  |  |  |  |  |  |
| 227 | 11100011 |  | 1 | 2 | C/3.4 |  |  |  |  |  |  |  |  |
| 228 | 11100100 |  | 1 | 2 | D/3.4 |  |  |  |  |  |  |  |  |
| 229 | 11100101 |  |  |  |  |  |  | 1 | A/3.4 |  |  |  |  |
| 230 | 11100110 |  |  |  |  |  |  | 1 | B/3.4 |  |  |  |  |
| 231 | 11100111 |  |  |  |  |  |  | 1 | C/3.4 |  |  |  |  |
| 232 | 11101000 |  |  |  |  |  |  | 1 | D/3.4 |  |  |  |  |
| 233 | 11101001 |  |  |  |  |  | 1 | 2 | A/3.4 |  |  |  |  |
| 234 | 11101010 |  |  |  |  |  | 1 | 2 | B/3.4 |  |  |  |  |
| 235 | 11101011 |  |  |  |  |  | 1 | 2 | C/3.4 |  |  |  |  |
| 236 | 11101100 |  |  |  |  |  | 1 | 2 | D/3.4 |  |  |  |  |
| 229 | 11101101 |  |  |  |  |  |  |  |  | 1 | A/3.4 |  |  |
| 230 | 11101110 |  |  |  |  |  |  |  |  | 1 | B/3.4 |  |  |
| 231 | 11101111 |  |  |  |  |  |  |  |  | 1 | C/3.4 |  |  |
| 232 | 11110000 |  |  |  |  |  |  |  |  | 1 | D/3.4 |  |  |
| 233 | 11110001 |  |  |  |  |  |  |  | 1 | 2 | A/3.4 |  |  |
| 234 | 11110010 |  |  |  |  |  |  |  | 1 | 2 | B/3.4 |  |  |
| 235 | 11110011 |  |  |  |  |  |  |  | 1 | 2 | C/3.4 |  |  |
| 236 | 11110100 |  |  |  |  |  |  |  | 1 | 2 | D/3.4 |  |  |
| 237 | 11110101 |  |  |  |  |  |  |  |  |  | 1 | A/3.4 |  |


| NO | Dip Set | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 238 | 11110110 |  |  |  |  |  |  |  |  |  | 1 | B/3.4 |  |
| 239 | 11110111 |  |  |  |  |  |  |  |  |  | 1 | C/3.4 |  |
| 240 | 1111000 |  |  |  |  |  |  |  |  |  | 1 | D/3.4 |  |
| 241 | 1111001 |  |  |  |  |  |  |  |  | 1 | 2 | A/3.4 |  |
| 242 | 1111010 |  |  |  |  |  |  |  |  | 1 | 2 | B/3.4 |  |
| 243 | 1111011 |  |  |  |  |  |  |  |  | 1 | 2 | C/3.4 |  |
| 244 | 1111100 |  |  |  |  |  |  |  |  | 1 | 2 | D/3.4 |  |
| 245 | 11110101 |  |  |  |  |  |  |  |  |  |  | 1 | A/3.4 |
| 246 | 11110110 |  |  |  |  |  |  |  |  |  |  | 1 | B/3.4 |
| 247 | 11110111 |  |  |  |  |  |  |  |  |  |  | 1 | C/3.4 |
| 248 | 11111000 |  |  |  |  |  |  |  |  |  |  | 1 | D/3.4 |
| 249 | 1111001 |  |  |  |  |  |  |  |  |  | 1 | 2 | A/3.4 |
| 250 | 11111010 |  |  |  |  |  |  |  |  |  | 1 | 2 | B/3.4 |
| 251 | 1111011 |  |  |  |  |  |  |  |  |  | 1 | 2 | C/3.4 |
| 252 | 1111100 |  |  |  |  |  |  |  |  |  | 1 | 2 | D/3.4 |

## B. Flex EX2 \& EPV Models

A. Transmitter Toggle Functions (Standard)

| NO | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 001 |  |  |  | 4 |  |  |  |  |  |  |  |  |
| 002 |  |  | 3 | 4 |  |  |  |  |  |  |  |  |
| 003 |  | 2 | 3 | 4 |  |  |  |  |  |  |  |  |
| 004 | 1 | 2 | 3 | 4 |  |  |  |  |  |  |  |  |
| 005 |  |  |  |  |  |  |  | 4 |  |  |  |  |
| 006 |  |  |  |  |  |  | 3 | 4 |  |  |  |  |
| 007 |  |  |  |  |  | 2 | 3 | 4 |  |  |  |  |
| 008 |  |  |  |  | 1 | 2 | 3 | 4 |  |  |  |  |
| 009 |  |  |  |  |  |  |  |  |  | 4 |  |  |
| 010 |  |  |  |  |  |  |  |  | 3 | 4 |  |  |
| 011 |  |  |  |  |  |  |  | 2 | 3 | 4 |  |  |
| 012 |  |  |  |  |  |  | 1 | 2 | 3 | 4 |  |  |
| 013 |  |  |  |  |  |  |  |  |  |  |  | 4 |
| 014 |  |  |  |  |  |  |  |  |  |  | 3 | 4 |
| 015 |  |  |  |  |  |  |  |  |  | 2 | 3 | 4 |
| 016 |  |  |  |  |  |  |  |  | 1 | 2 | 3 | 4 |

B. Transmitter Toggle Functions (Inline)

| NO | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 001 |  |  |  | 4 |  |  |  |  |  |  |  |  |
| 017 |  |  | 3 | 4 |  |  |  |  |  |  |  |  |
| 018 |  | 2 | 3 | 4 |  |  |  |  |  |  |  |  |
| 019 | 1 | 2 | 3 | 4 |  |  |  |  |  |  |  |  |
| 005 |  |  |  |  |  |  |  | 4 |  |  |  |  |
| 020 |  |  |  |  |  |  | 3 | 4 |  |  |  |  |
| 021 |  |  |  |  |  | 2 | 3 | 4 |  |  |  |  |
| 022 |  |  |  |  | 1 | 2 | 3 | 4 |  |  |  |  |
| 005 |  |  |  |  |  |  |  |  |  | 4 |  |  |
| 020 |  |  |  |  |  |  |  |  | 3 | 4 |  |  |
| 021 |  |  |  |  |  |  |  | 2 | 3 | 4 |  |  |
| 022 |  |  |  |  |  |  | 1 | 2 | 3 | 4 |  |  |
| 009 |  |  |  |  |  |  |  |  |  |  | 4 |  |
| 023 |  |  |  |  |  |  |  |  |  | 3 | 4 |  |
| 024 |  |  |  |  |  |  |  |  | 2 | 3 | 4 |  |
| 025 |  |  |  |  |  |  |  | 1 | 2 | 3 | 4 |  |
| 013 |  |  |  |  |  |  |  |  |  |  |  | 4 |
| 026 |  |  |  |  |  |  |  |  |  |  | 3 | 4 |
| 027 |  |  |  |  |  |  |  |  |  | 2 | 3 | 4 |
| 028 |  |  |  |  |  |  |  |  | 1 | 2 | 3 | 4 |

## C. A/B Pushbutton Select Functions (Standard)

Type-A sequence:

$$
\mathrm{A} \rightarrow \mathrm{~B} \rightarrow \mathrm{~A} \rightarrow \mathrm{~B}
$$

Type-B sequence:

$$
\text { Off } \rightarrow \mathrm{A} \rightarrow \mathrm{~B} \rightarrow \text { Off } \rightarrow \mathrm{A} \rightarrow \mathrm{~B} \ldots
$$

Type-C sequence:

$$
\mathrm{A} \rightarrow \mathrm{~B} \rightarrow \mathrm{~A}+\mathrm{B} \rightarrow \mathrm{~A} \rightarrow \mathrm{~B} \rightarrow \mathrm{~A}+\mathrm{B} \ldots
$$

Type-D sequence:
Off $\rightarrow A \rightarrow B \rightarrow A+B \rightarrow$ Off $\rightarrow A \rightarrow B \rightarrow A+B \ldots$
Type-E sequence: $\quad A \rightarrow B \rightarrow C \rightarrow A \rightarrow B \rightarrow C \ldots$

| NO | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 029 |  |  | A/1.2 |  |  |  |  |  |  |  |  |  |
| 030 |  |  | B/1.2 |  |  |  |  |  |  |  |  |  |
| 031 |  |  | C/1.2 |  |  |  |  |  |  |  |  |  |
| 032 |  |  | D/1.2 |  |  |  |  |  |  |  |  |  |
| 033 |  |  |  | A/3.4 |  |  |  |  |  |  |  |  |
| 034 |  |  |  | B/3.4 |  |  |  |  |  |  |  |  |
| 035 |  |  |  | C/3.4 |  |  |  |  |  |  |  |  |
| 036 |  |  |  | D/3.4 |  |  |  |  |  |  |  |  |
| 037 |  |  | A/1.2 | A/3.4 |  |  |  |  |  |  |  |  |
| 038 |  |  | A/1.2 | B/3.4 |  |  |  |  |  |  |  |  |
| 039 |  |  | A/1.2 | C/3.4 |  |  |  |  |  |  |  |  |
| 040 |  |  | A/1.2 | D/3.4 |  |  |  |  |  |  |  |  |
| 041 |  |  | B/1.2 | B/3.4 |  |  |  |  |  |  |  |  |
| 042 |  |  | B/1.2 | C/3.4 |  |  |  |  |  |  |  |  |
| 043 |  |  | B/1.2 | D/3.4 |  |  |  |  |  |  |  |  |
| 044 |  |  | C/1.2 | C/3.4 |  |  |  |  |  |  |  |  |
| 045 |  |  | C/1.2 | D/3.4 |  |  |  |  |  |  |  |  |
| 046 |  |  | D/1.2 | D/3.4 |  |  |  |  |  |  |  |  |
| 047 |  |  |  |  |  |  | A/1.2 |  |  |  |  |  |
| 048 |  |  |  |  |  |  | B/1.2 |  |  |  |  |  |
| 049 |  |  |  |  |  |  | C/1.2 |  |  |  |  |  |
| 050 |  |  |  |  |  |  | D/1.2 |  |  |  |  |  |


| NO | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 051 |  |  |  |  |  |  |  | A/3.4 |  |  |  |  |
| 052 |  |  |  |  |  |  |  | B/3.4 |  |  |  |  |
| 053 |  |  |  |  |  |  |  | C/3.4 |  |  |  |  |
| 054 |  |  |  |  |  |  |  | D/3.4 |  |  |  |  |
| 055 |  |  |  |  |  |  | A/1.2 | A/3.4 |  |  |  |  |
| 056 |  |  |  |  |  |  | A/1.2 | B/3.4 |  |  |  |  |
| 057 |  |  |  |  |  |  | A/1.2 | C/3.4 |  |  |  |  |
| 058 |  |  |  |  |  |  | A/1.2 | D/3.4 |  |  |  |  |
| 059 |  |  |  |  |  |  | B/1.2 | B/3.4 |  |  |  |  |
| 060 |  |  |  |  |  |  | B/1.2 | C/3.4 |  |  |  |  |
| 061 |  |  |  |  |  |  | B/1.2 | D/3.4 |  |  |  |  |
| 062 |  |  |  |  |  |  | C/1.2 | C/3.4 |  |  |  |  |
| 063 |  |  |  |  |  |  | C/1.2 | D/3.4 |  |  |  |  |
| 064 |  |  |  |  |  |  | D/1.2 | D/3.4 |  |  |  |  |
| 065 |  |  |  |  |  |  |  |  | A/1.2 |  |  |  |
| 066 |  |  |  |  |  |  |  |  | B/1.2 |  |  |  |
| 067 |  |  |  |  |  |  |  |  | C/1.2 |  |  |  |
| 068 |  |  |  |  |  |  |  |  | D/1.2 |  |  |  |
| 069 |  |  |  |  |  |  |  |  |  | A/3.4 |  |  |
| 070 |  |  |  |  |  |  |  |  |  | B/3.4 |  |  |
| 071 |  |  |  |  |  |  |  |  |  | C/3.4 |  |  |
| 072 |  |  |  |  |  |  |  |  |  | D/3.4 |  |  |
| 073 |  |  |  |  |  |  |  |  | A/1.2 | A/3.4 |  |  |
| 074 |  |  |  |  |  |  |  |  | A/1.2 | B/3.4 |  |  |
| 075 |  |  |  |  |  |  |  |  | A/1.2 | C/3.4 |  |  |


| NO | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 076 |  |  |  |  |  |  |  |  | A/1.2 | D/3.4 |  |  |
| 077 |  |  |  |  |  |  |  |  | B/1.2 | B/3.4 |  |  |
| 078 |  |  |  |  |  |  |  |  | B/1.2 | C/3.4 |  |  |
| 079 |  |  |  |  |  |  |  |  | B/1.2 | D/3.4 |  |  |
| 080 |  |  |  |  |  |  |  |  | C/1.2 | C/3.4 |  |  |
| 081 |  |  |  |  |  |  |  |  | C/1.2 | D/3.4 |  |  |
| 082 |  |  |  |  |  |  |  |  | D/1.2 | D/3.4 |  |  |
| 083 |  |  |  |  |  |  |  |  |  |  | A/1.2 |  |
| 084 |  |  |  |  |  |  |  |  |  |  | B/1.2 |  |
| 085 |  |  |  |  |  |  |  |  |  |  | C/1.2 |  |
| 086 |  |  |  |  |  |  |  |  |  |  | D/1.2 |  |
| 087 |  |  |  |  |  |  |  |  |  |  |  | A/3.4 |
| 088 |  |  |  |  |  |  |  |  |  |  |  | B/3.4 |
| 089 |  |  |  |  |  |  |  |  |  |  |  | C/3.4 |
| 090 |  |  |  |  |  |  |  |  |  |  |  | D/3.4 |
| 091 |  |  |  |  |  |  |  |  |  |  | A/1.2 | A/3.4 |
| 092 |  |  |  |  |  |  |  |  |  |  | A/1.2 | B/3.4 |
| 093 |  |  |  |  |  |  |  |  |  |  | A/1.2 | C/3.4 |
| 094 |  |  |  |  |  |  |  |  |  |  | A/1.2 | D/3.4 |
| 095 |  |  |  |  |  |  |  |  |  |  | B/1.2 | B/3.4 |
| 096 |  |  |  |  |  |  |  |  |  |  | B/1.2 | C/3.4 |
| 097 |  |  |  |  |  |  |  |  |  |  | B/1.2 | D/3.4 |
| 098 |  |  |  |  |  |  |  |  |  |  | C/1.2 | C/3.4 |
| 099 |  |  |  |  |  |  |  |  |  |  | C/1.2 | D/3.4 |
| 100 |  |  |  |  |  |  |  |  |  |  | D/1.2 | D/3.4 |
| 609 |  |  |  |  |  |  |  | E/123 |  |  |  |  |

$\square$
D. A/B Pushbutton Select Functions (Inline)

Type-A sequence:

$$
\mathrm{A} \rightarrow \mathrm{~B} \rightarrow \mathrm{~A} \rightarrow \mathrm{~B} .
$$

Type-B sequence:
Type-C sequence:
Off $\rightarrow \mathrm{A} \rightarrow \mathrm{B} \rightarrow \mathrm{Off} \rightarrow \mathrm{A} \rightarrow \mathrm{B} \ldots$

Type-D sequence:

$$
\mathrm{A} \rightarrow \mathrm{~B} \rightarrow \mathrm{~A}+\mathrm{B} \rightarrow \mathrm{~A} \rightarrow \mathrm{~B} \rightarrow \mathrm{~A}+\mathrm{B} \ldots
$$

保

| NO | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 101 |  |  | A/1.2 |  |  |  |  |  |  |  |  |  |
| 102 |  |  | B/1.2 |  |  |  |  |  |  |  |  |  |
| 103 |  |  | C/1.2 |  |  |  |  |  |  |  |  |  |
| 104 |  |  | D/1.2 |  |  |  |  |  |  |  |  |  |
| 033 |  |  |  | A/3.4 |  |  |  |  |  |  |  |  |
| 034 |  |  |  | B/3.4 |  |  |  |  |  |  |  |  |
| 035 |  |  |  | C/3.4 |  |  |  |  |  |  |  |  |
| 036 |  |  |  | D/3.4 |  |  |  |  |  |  |  |  |
| 105 |  |  | A/1.2 | A/3.4 |  |  |  |  |  |  |  |  |
| 106 |  |  | A/1.2 | B/3.4 |  |  |  |  |  |  |  |  |
| 107 |  |  | A/1.2 | C/3.4 |  |  |  |  |  |  |  |  |
| 108 |  |  | A/1.2 | D/3.4 |  |  |  |  |  |  |  |  |
| 109 |  |  | B/1.2 | B/3.4 |  |  |  |  |  |  |  |  |
| 110 |  |  | B/1.2 | C/3.4 |  |  |  |  |  |  |  |  |
| 111 |  |  | B/1.2 | D/3.4 |  |  |  |  |  |  |  |  |
| 112 |  |  | C/1.2 | C/3.4 |  |  |  |  |  |  |  |  |
| 113 |  |  | C/1.2 | D/3.4 |  |  |  |  |  |  |  |  |
| 114 |  |  | D/1.2 | D/3.4 |  |  |  |  |  |  |  |  |
| 115 |  |  |  |  |  |  | A/1.2 |  |  |  |  |  |
| 116 |  |  |  |  |  |  | B/1.2 |  |  |  |  |  |
| 117 |  |  |  |  |  |  | C/1.2 |  |  |  |  |  |
| 118 |  |  |  |  |  |  | D/1.2 |  |  |  |  |  |


| NO | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 051 |  |  |  |  |  |  |  | A/3.4 |  |  |  |  |
| 052 |  |  |  |  |  |  |  | B/3.4 |  |  |  |  |
| 053 |  |  |  |  |  |  |  | C/3.4 |  |  |  |  |
| 054 |  |  |  |  |  |  |  | D/3.4 |  |  |  |  |
| 119 |  |  |  |  |  |  | A/1.2 | A/3.4 |  |  |  |  |
| 120 |  |  |  |  |  |  | A/1.2 | B/3.4 |  |  |  |  |
| 121 |  |  |  |  |  |  | A/1.2 | C/3.4 |  |  |  |  |
| 122 |  |  |  |  |  |  | A/1.2 | D/3.4 |  |  |  |  |
| 123 |  |  |  |  |  |  | B/1.2 | B/3.4 |  |  |  |  |
| 124 |  |  |  |  |  |  | B/1.2 | C/3.4 |  |  |  |  |
| 125 |  |  |  |  |  |  | B/1.2 | D/3.4 |  |  |  |  |
| 126 |  |  |  |  |  |  | C/1.2 | C/3.4 |  |  |  |  |
| 127 |  |  |  |  |  |  | C/1.2 | D/3.4 |  |  |  |  |
| 128 |  |  |  |  |  |  | D/1.2 | D/3.4 |  |  |  |  |
| 115 |  |  |  |  |  |  |  |  | A/1.2 |  |  |  |
| 116 |  |  |  |  |  |  |  |  | B/1.2 |  |  |  |
| 117 |  |  |  |  |  |  |  |  | C/1.2 |  |  |  |
| 118 |  |  |  |  |  |  |  |  | D/1.2 |  |  |  |
| 051 |  |  |  |  |  |  |  |  |  | A/3.4 |  |  |
| 052 |  |  |  |  |  |  |  |  |  | B/3.4 |  |  |
| 053 |  |  |  |  |  |  |  |  |  | C/3.4 |  |  |
| 054 |  |  |  |  |  |  |  |  |  | D/3.4 |  |  |
| 119 |  |  |  |  |  |  |  |  | A/1.2 | A/3.4 |  |  |
| 120 |  |  |  |  |  |  |  |  | A/1.2 | B/3.4 |  |  |
| 121 |  |  |  |  |  |  |  |  | A/1.2 | C/3.4 |  |  |


| NO | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 122 |  |  |  |  |  |  |  |  | A/1.2 | D/3.4 |  |  |
| 123 |  |  |  |  |  |  |  |  | B/1.2 | B/3.4 |  |  |
| 124 |  |  |  |  |  |  |  |  | B/1.2 | C/3.4 |  |  |
| 125 |  |  |  |  |  |  |  |  | B/1.2 | D/3.4 |  |  |
| 126 |  |  |  |  |  |  |  |  | C/1.2 | C/3.4 |  |  |
| 127 |  |  |  |  |  |  |  |  | C/1.2 | D/3.4 |  |  |
| 128 |  |  |  |  |  |  |  |  | D/1.2 | D/3.4 |  |  |
| 129 |  |  |  |  |  |  |  |  |  | A/1.2 |  |  |
| 130 |  |  |  |  |  |  |  |  |  | B/1.2 |  |  |
| 131 |  |  |  |  |  |  |  |  |  | C/1.2 |  |  |
| 132 |  |  |  |  |  |  |  |  |  | D/1.2 |  |  |
| 069 |  |  |  |  |  |  |  |  |  |  | A/3.4 |  |
| 070 |  |  |  |  |  |  |  |  |  |  | B/3.4 |  |
| 071 |  |  |  |  |  |  |  |  |  |  | C/3.4 |  |
| 072 |  |  |  |  |  |  |  |  |  |  | D/3.4 |  |
| 133 |  |  |  |  |  |  |  |  |  | A/1.2 | A/3.4 |  |
| 134 |  |  |  |  |  |  |  |  |  | A/1.2 | B/3.4 |  |
| 135 |  |  |  |  |  |  |  |  |  | A/1.2 | C/3.4 |  |
| 136 |  |  |  |  |  |  |  |  |  | A/1.2 | D/3.4 |  |
| 137 |  |  |  |  |  |  |  |  |  | B/1.2 | B/3.4 |  |
| 138 |  |  |  |  |  |  |  |  |  | B/1.2 | C/3.4 |  |
| 139 |  |  |  |  |  |  |  |  |  | B/1.2 | D/3.4 |  |
| 140 |  |  |  |  |  |  |  |  |  | C/1.2 | C/3.4 |  |
| 141 |  |  |  |  |  |  |  |  |  | C/1.2 | D/3.4 |  |
| 142 |  |  |  |  |  |  |  |  |  | D/1.2 | D/3.4 |  |


| NO | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 143 |  |  |  |  |  |  |  |  |  |  | A/1.2 |  |
| 144 |  |  |  |  |  |  |  |  |  |  | B/1.2 |  |
| 145 |  |  |  |  |  |  |  |  |  |  | C/1.2 |  |
| 146 |  |  |  |  |  |  |  |  |  |  | D/1.2 |  |
| 087 |  |  |  |  |  |  |  |  |  |  |  | A/3.4 |
| 088 |  |  |  |  |  |  |  |  |  |  |  | B/3.4 |
| 089 |  |  |  |  |  |  |  |  |  |  |  | C/3.4 |
| 090 |  |  |  |  |  |  |  |  |  |  |  | D/3.4 |
| 147 |  |  |  |  |  |  |  |  |  |  | A/1.2 | A/3.4 |
| 148 |  |  |  |  |  |  |  |  |  |  | A/1.2 | B/3.4 |
| 149 |  |  |  |  |  |  |  |  |  |  | A/1.2 | C/3.4 |
| 150 |  |  |  |  |  |  |  |  |  |  | A/1.2 | D/3.4 |
| 151 |  |  |  |  |  |  |  |  |  |  | B/1.2 | B/3.4 |
| 152 |  |  |  |  |  |  |  |  |  |  | B/1.2 | C/3.4 |
| 153 |  |  |  |  |  |  |  |  |  |  | B/1.2 | D/3.4 |
| 154 |  |  |  |  |  |  |  |  |  |  | C/1.2 | C/3.4 |
| 155 |  |  |  |  |  |  |  |  |  |  | C/1.2 | D/3.4 |
| 156 |  |  |  |  |  |  |  |  |  |  | D/1.2 | D/3.4 |

## E. Transmitter Toggle + A/B Pushbutton Select Functions (Standard)

| NO | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 157 |  |  | 1 | A/3.4 |  |  |  |  |  |  |  |  |
| 158 |  |  | 1 | B/3.4 |  |  |  |  |  |  |  |  |
| 159 |  |  | 1 | C/3.4 |  |  |  |  |  |  |  |  |
| 160 |  |  | 1 | D/3.4 |  |  |  |  |  |  |  |  |
| 161 |  | 1 | 2 | A/3.4 |  |  |  |  |  |  |  |  |
| 162 |  | 1 | 2 | B/3.4 |  |  |  |  |  |  |  |  |
| 163 |  | 1 | 2 | C/3.4 |  |  |  |  |  |  |  |  |
| 164 |  | 1 | 2 | D/3.4 |  |  |  |  |  |  |  |  |
| 165 |  |  | A/1.2 | 4 |  |  |  |  |  |  |  |  |
| 166 |  |  | B/1.2 | 4 |  |  |  |  |  |  |  |  |
| 167 |  |  | C/1.2 | 4 |  |  |  |  |  |  |  |  |
| 168 |  |  | D/1.2 | 4 |  |  |  |  |  |  |  |  |
| 169 |  | 3 | A/1.2 | 4 |  |  |  |  |  |  |  |  |
| 170 |  | 3 | B/1.2 | 4 |  |  |  |  |  |  |  |  |
| 171 |  | 3 | C/1.2 | 4 |  |  |  |  |  |  |  |  |
| 172 |  | 3 | D/1.2 | 4 |  |  |  |  |  |  |  |  |
| 173 |  |  |  |  |  |  | 1 | A/3.4 |  |  |  |  |
| 174 |  |  |  |  |  |  | 1 | B/3.4 |  |  |  |  |
| 175 |  |  |  |  |  |  | 1 | C/3.4 |  |  |  |  |
| 176 |  |  |  |  |  |  | 1 | D/3.4 |  |  |  |  |
| 177 |  |  |  |  |  | 1 | 2 | A/3.4 |  |  |  |  |
| 178 |  |  |  |  |  | 1 | 2 | B/3.4 |  |  |  |  |
| 179 |  |  |  |  |  | 1 | 2 | C/3.4 |  |  |  |  |
| 180 |  |  |  |  |  | 1 | 2 | D/3.4 |  |  |  |  |
| 181 |  |  |  |  |  |  | A/1.2 | 4 |  |  |  |  |


| NO | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 182 |  |  |  |  |  |  | B/1.2 | 4 |  |  |  |  |
| 183 |  |  |  |  |  |  | C/1.2 | 4 |  |  |  |  |
| 184 |  |  |  |  |  |  | D/1.2 | 4 |  |  |  |  |
| 185 |  |  |  |  |  | 3 | A/1.2 | 4 |  |  |  |  |
| 186 |  |  |  |  |  | 3 | B/1.2 | 4 |  |  |  |  |
| 187 |  |  |  |  |  | 3 | C/1.2 | 4 |  |  |  |  |
| 188 |  |  |  |  |  | 3 | D/1.2 | 4 |  |  |  |  |
| 189 |  |  |  |  |  |  |  |  | 1 | A/3.4 |  |  |
| 190 |  |  |  |  |  |  |  |  | 1 | B/3.4 |  |  |
| 191 |  |  |  |  |  |  |  |  | 1 | C/3.4 |  |  |
| 192 |  |  |  |  |  |  |  |  | 1 | D/3.4 |  |  |
| 193 |  |  |  |  |  |  |  | 1 | 2 | A/3.4 |  |  |
| 194 |  |  |  |  |  |  |  | 1 | 2 | B/3.4 |  |  |
| 195 |  |  |  |  |  |  |  | 1 | 2 | C/3.4 |  |  |
| 196 |  |  |  |  |  |  |  | 1 | 2 | D/3.4 |  |  |
| 197 |  |  |  |  |  |  |  |  | A/1.2 | 4 |  |  |
| 198 |  |  |  |  |  |  |  |  | B/1.2 | 4 |  |  |
| 199 |  |  |  |  |  |  |  |  | C/1.2 | 4 |  |  |
| 200 |  |  |  |  |  |  |  |  | D/1.2 | 4 |  |  |
| 201 |  |  |  |  |  |  |  | 3 | A/1.2 | 4 |  |  |
| 202 |  |  |  |  |  |  |  | 3 | B/1.2 | 4 |  |  |
| 203 |  |  |  |  |  |  |  | 3 | C/1.2 | 4 |  |  |
| 204 |  |  |  |  |  |  |  | 3 | D/1.2 | 4 |  |  |
| 205 |  |  |  |  |  |  |  |  |  |  | 1 | A/3.4 |
| 206 |  |  |  |  |  |  |  |  |  |  | 1 | B/3.4 |


| NO | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 207 |  |  |  |  |  |  |  |  |  |  | 1 | C/3.4 |
| 208 |  |  |  |  |  |  |  |  |  |  | 1 | D/3.4 |
| 209 |  |  |  |  |  |  |  |  |  | 1 | 2 | A/3.4 |
| 210 |  |  |  |  |  |  |  |  |  | 1 | 2 | B/3.4 |
| 211 |  |  |  |  |  |  |  |  |  | 1 | 2 | C/3.4 |
| 212 |  |  |  |  |  |  |  |  |  | 1 | 2 | D/3.4 |
| 213 |  |  |  |  |  |  |  |  |  |  | A/1.2 | 4 |
| 214 |  |  |  |  |  |  |  |  |  |  | B/1.2 | 4 |
| 215 |  |  |  |  |  |  |  |  |  |  | C/1.2 | 4 |
| 216 |  |  |  |  |  |  |  |  |  |  | D/1.2 | 4 |
| 217 |  |  |  |  |  |  |  |  |  | 3 | A/1.2 | 4 |
| 218 |  |  |  |  |  |  |  |  |  | 3 | B/1.2 | 4 |
| 219 |  |  |  |  |  |  |  |  |  | 3 | C/1.2 | 4 |
| 220 |  |  |  |  |  |  |  |  |  | 3 | D/1.2 | 4 |

F. Transmitter Toggle + A/B Pushbutton Select Functions (Inline)

| NO | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 221 |  |  | 1 | A/3.4 |  |  |  |  |  |  |  |  |
| 222 |  |  | 1 | B/3.4 |  |  |  |  |  |  |  |  |
| 223 |  |  | 1 | C/3.4 |  |  |  |  |  |  |  |  |
| 224 |  |  | 1 | D/3.4 |  |  |  |  |  |  |  |  |
| 225 |  | 1 | 2 | A/3.4 |  |  |  |  |  |  |  |  |
| 226 |  | 1 | 2 | B/3.4 |  |  |  |  |  |  |  |  |
| 227 |  | 1 | 2 | C/3.4 |  |  |  |  |  |  |  |  |
| 228 |  | 1 | 2 | D/3.4 |  |  |  |  |  |  |  |  |
| 229 |  |  |  |  |  |  | 1 | A/3.4 |  |  |  |  |
| 230 |  |  |  |  |  |  | 1 | B/3.4 |  |  |  |  |
| 231 |  |  |  |  |  |  | 1 | C/3.4 |  |  |  |  |
| 232 |  |  |  |  |  |  | 1 | D/3.4 |  |  |  |  |
| 233 |  |  |  |  |  | 1 | 2 | A/3.4 |  |  |  |  |
| 234 |  |  |  |  |  | 1 | 2 | B/3.4 |  |  |  |  |
| 235 |  |  |  |  |  | 1 | 2 | C/3.4 |  |  |  |  |
| 236 |  |  |  |  |  | 1 | 2 | D/3.4 |  |  |  |  |
| 229 |  |  |  |  |  |  |  |  | 1 | A/3.4 |  |  |
| 230 |  |  |  |  |  |  |  |  | 1 | B/3.4 |  |  |
| 231 |  |  |  |  |  |  |  |  | 1 | C/3.4 |  |  |
| 232 |  |  |  |  |  |  |  |  | 1 | D/3.4 |  |  |
| 233 |  |  |  |  |  |  |  | 1 | 2 | A/3.4 |  |  |
| 234 |  |  |  |  |  |  |  | 1 | 2 | B/3.4 |  |  |
| 235 |  |  |  |  |  |  |  | 1 | 2 | C/3.4 |  |  |
| 236 |  |  |  |  |  |  |  | 1 | 2 | D/3.4 |  |  |
| 237 |  |  |  |  |  |  |  |  |  | 1 | A/3.4 |  |


| NO | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 238 |  |  |  |  |  |  |  |  |  | 1 | B/3.4 |  |
| 239 |  |  |  |  |  |  |  |  |  | 1 | C/3.4 |  |
| 240 |  |  |  |  |  |  |  |  |  | 1 | D/3.4 |  |
| 241 |  |  |  |  |  |  |  |  | 1 | 2 | A/3.4 |  |
| 242 |  |  |  |  |  |  |  |  | 1 | 2 | B/3.4 |  |
| 243 |  |  |  |  |  |  |  |  | 1 | 2 | C/3.4 |  |
| 244 |  |  |  |  |  |  |  |  | 1 | 2 | D/3.4 |  |
| 245 |  |  |  |  |  |  |  |  |  |  | 1 | A/3.4 |
| 246 |  |  |  |  |  |  |  |  |  |  | 1 | B/3.4 |
| 247 |  |  |  |  |  |  |  |  |  |  | 1 | C/3.4 |
| 248 |  |  |  |  |  |  |  |  |  |  | 1 | D/3.4 |
| 249 |  |  |  |  |  |  |  |  |  | 1 | 2 | A/3.4 |
| 250 |  |  |  |  |  |  |  |  |  | 1 | 2 | B/3.4 |
| 251 |  |  |  |  |  |  |  |  |  | 1 | 2 | C/3.4 |
| 252 |  |  |  |  |  |  |  |  |  | 1 | 2 | D/3.4 |

## C. Flex ECO Models

A. Transmitter Toggle Functions (Standard)

| NO | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 001 | 1 |  |  |  |  |  |  |  |  |  |  |  |
| 002 |  | 2 |  |  |  |  |  |  |  |  |  |  |
| 003 |  |  | 1 |  |  |  |  |  |  |  |  |  |
| 004 |  |  |  | 2 |  |  |  |  |  |  |  |  |
| 005 |  |  |  |  | 1 |  |  |  |  |  |  |  |
| 006 |  |  |  |  |  | 2 |  |  |  |  |  |  |
| 007 |  |  |  |  |  |  | 1 |  |  |  |  |  |
| 008 |  |  |  |  |  |  |  | 2 |  |  |  |  |
| 009 |  |  |  |  |  |  |  |  | 1 |  |  |  |
| 010 |  |  |  |  |  |  |  |  |  | 2 |  |  |
| 011 |  |  |  |  |  |  |  |  |  |  | 1 |  |
| 012 |  |  |  |  |  |  |  |  |  |  |  |  |
| 013 | 1 | 2 |  |  |  |  |  |  |  |  |  |  |
| 014 |  |  | 1 | 2 |  |  |  |  |  |  |  |  |
| 015 |  |  |  |  | 1 | 2 |  |  |  |  |  |  |
| 016 |  |  |  |  |  |  | 1 | 2 |  |  |  |  |
| 017 |  |  |  |  |  |  |  |  | 1 | 2 |  |  |
| 018 |  |  |  |  |  |  |  |  |  |  | 1 | 2 |
| 0 |  |  |  |  |  |  |  |  |  |  |  |  |

B. Transmitter Toggle Functions (Inline)

| NO | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 019 | 1 |  | 2 |  |  |  |  |  |  |  |  |  |
| 020 |  |  |  |  | 1 |  | 2 |  |  |  |  |  |
| 021 |  |  |  |  |  |  |  |  | 1 |  | 2 |  |
| 022 |  | 1 |  | 2 |  |  |  |  |  |  |  |  |
| 023 |  |  |  |  |  | 1 |  | 2 |  |  |  |  |
| 024 |  |  |  |  |  |  |  |  |  | 1 |  | 2 |

## C. A/B Pushbutton Select Functions (Standard)

Type-A sequence:
Type-B sequence:
Type-C sequence:

$$
\mathrm{A} \rightarrow \mathrm{~B} \rightarrow \mathrm{~A} \rightarrow \mathrm{~B}
$$

Off $\rightarrow \mathrm{A} \rightarrow \mathrm{B} \rightarrow$ Off $\rightarrow \mathrm{A} \rightarrow \mathrm{B} \ldots$
$A \rightarrow B \rightarrow A+B \rightarrow A \rightarrow B \rightarrow A+B \ldots$
Off $\rightarrow A \rightarrow B \rightarrow A+B \rightarrow$ Off $\rightarrow A \rightarrow B \rightarrow A+B \ldots$

| NO | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 025 |  |  | A/1.2 |  |  |  |  |  |  |  |  |  |
| 026 |  |  | B/1.2 |  |  |  |  |  |  |  |  |  |
| 027 |  |  | C/1.2 |  |  |  |  |  |  |  |  |  |
| 028 |  |  | D/1.2 |  |  |  |  |  |  |  |  |  |
| 029 |  |  |  | A/1.2 |  |  |  |  |  |  |  |  |
| 030 |  |  |  | B/1.2 |  |  |  |  |  |  |  |  |
| 031 |  |  |  | C/1.2 |  |  |  |  |  |  |  |  |
| 032 |  |  |  | D/1.2 |  |  |  |  |  |  |  |  |
| 033 |  |  |  |  |  |  | A/1.2 |  |  |  |  |  |
| 034 |  |  |  |  |  |  | B/1.2 |  |  |  |  |  |
| 035 |  |  |  |  |  |  | C/1.2 |  |  |  |  |  |
| 036 |  |  |  |  |  |  | D/1.2 |  |  |  |  |  |
| 037 |  |  |  |  |  |  |  | A/1.2 |  |  |  |  |
| 038 |  |  |  |  |  |  |  | B/1.2 |  |  |  |  |
| 039 |  |  |  |  |  |  |  | C/1.2 |  |  |  |  |
| 040 |  |  |  |  |  |  |  | D/1.2 |  |  |  |  |
| 041 |  |  |  |  |  |  |  |  |  |  | A/1.2 |  |
| 042 |  |  |  |  |  |  |  |  |  |  | B/1.2 |  |
| 043 |  |  |  |  |  |  |  |  |  |  | C/1.2 |  |
| 044 |  |  |  |  |  |  |  |  |  |  | D/1.2 |  |
| 045 |  |  |  |  |  |  |  |  |  |  |  | A/1.2 |
| 046 |  |  |  |  |  |  |  |  |  |  |  | B/1.2 |


| NO | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 051 |  |  |  |  |  |  |  |  |  |  |  | C/1.2 |
| 052 |  |  |  |  |  |  |  |  |  |  |  | D/1.2 |

## D. A/B Pushbutton Select Functions (Inline)

Type-A sequence:
$A \rightarrow B \rightarrow A \rightarrow B$
Type-B sequence: $\quad$ Off $\rightarrow A \rightarrow B \rightarrow$ Off $\rightarrow A \rightarrow B .$.
Type-C sequence: $\quad A \rightarrow B \rightarrow A+B \rightarrow A \rightarrow B \rightarrow A+B \ldots$
Type-D sequence: $\quad$ Off $\rightarrow A \rightarrow B \rightarrow A+B \rightarrow$ Off $\rightarrow A \rightarrow B \rightarrow A+B \ldots$

| NO | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 049 |  |  | A/1.2 |  |  |  |  |  |  |  |  |  |
| 050 |  |  | B/1.2 |  |  |  |  |  |  |  |  |  |
| 051 |  |  | C/1.2 |  |  |  |  |  |  |  |  |  |
| 052 |  |  | D/1.2 |  |  |  |  |  |  |  |  |  |
| 029 |  |  |  | A/1.2 |  |  |  |  |  |  |  |  |
| 030 |  |  |  | B/1.2 |  |  |  |  |  |  |  |  |
| 031 |  |  |  | C/1.2 |  |  |  |  |  |  |  |  |
| 032 |  |  |  | D/1.2 |  |  |  |  |  |  |  |  |
| 053 |  |  |  |  |  |  | A/1.2 |  |  |  |  |  |
| 054 |  |  |  |  |  |  | B/1.2 |  |  |  |  |  |
| 055 |  |  |  |  |  |  | C/1.2 |  |  |  |  |  |
| 056 |  |  |  |  |  |  | D/1.2 |  |  |  |  |  |
| 037 |  |  |  |  |  |  |  | A/1.2 |  |  |  |  |
| 038 |  |  |  |  |  |  |  | B/1.2 |  |  |  |  |
| 039 |  |  |  |  |  |  |  | C/1.2 |  |  |  |  |
| 040 |  |  |  |  |  |  |  | D/1.2 |  |  |  |  |
| 057 |  |  |  |  |  |  |  |  |  |  | A/1.2 |  |
| 058 |  |  |  |  |  |  |  |  |  |  | B/1.2 |  |


| NO | PB1 | PB2 | PB3 | PB4 | PB5 | PB6 | PB7 | PB8 | PB9 | PB10 | PB11 | PB12 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 059 |  |  |  |  |  |  |  |  |  |  | C/1.2 |  |
| 060 |  |  |  |  |  |  |  |  |  |  | D/1.2 |  |
| 045 |  |  |  |  |  |  |  |  |  |  |  | A/1.2 |
| 046 |  |  |  |  |  |  |  |  |  |  |  | B/1.2 |
| 047 |  |  |  |  |  |  |  |  |  |  |  | C/1.2 |
| 048 |  |  |  |  |  |  |  |  |  |  |  | D/1.2 |


[^0]:    Note: When performing infrared programming, make sure the distance between the IR programmer and the transmitter or receiver is within 10 cm .

[^1]:    * Normal + Start: For added safety, must first rotate and hold the power switch key at the START position and then press the intended pushbutton to activate the output relay
    ** EMS: Relay opens when STOP button is pressed down.

[^2]:    * Normal + Start: For added safety, must first rotate and hold the power switch key at the START position and then press the intended pushbutton to activate the output relay
    ** EMS: Relay opens when STOP button is pressed down.

[^3]:    * Normal + Start: For added safety, must first rotate and hold the power switch key at the START position and then press the intended pushbutton to activate the output relay
    ** EMS: Relay opens when STOP button is pressed down.

[^4]:    * Normal + Start: For added safety, must first rotate and hold the power switch key at the START position and then press the intended pushbutton to activate the output relay
    ** EMS: Relay opens when STOP button is pressed down.

[^5]:    * Normal + Start: For added safety, must first rotate and hold the power switch key at the START position and then press the intended pushbutton to activate the output relay
    ** EMS: Relay opens when STOP button is pressed down.

[^6]:    * Normal + Start: For added safety, must first rotate and hold the power switch key at the START position and then press the intended pushbutton to activate the output relay
    ** EMS: Relay opens when STOP button is pressed down.

[^7]:    Set each joystick/lever's number of steps according to the hardware installed.

[^8]:    * EMS: Relay opens when STOP button is pressed down.

[^9]:    * EMS: Relay opens when STOP button is pressed down.

[^10]:    * EMS: Relay opens when STOP button is pressed down.

[^11]:    * EMS: Output opens when STOP button is pressed down.

[^12]:    * Normal + Start: For added safety, you must first press and hold the green START button and then the intended button to activate the output.
    ** EMS: Output opens when STOP button is pressed down.

[^13]:    * EMS: Output opens when STOP button is pressed down.

[^14]:    * Normal + Start: For added safety, you must first press and hold the green START button and then the intended button to activate the output.
    ** EMS: Output opens when STOP button is pressed down.

[^15]:    * EMS: Output opens when STOP button is pressed down.

[^16]:    * Normal + Start: For added safety, you must first press and hold the green START button and then the intended button to activate the output.
    ** EMS: Output opens when STOP button is pressed down.

[^17]:    Note: Make sure the external antenna is connected when set to EXT.

