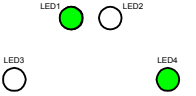
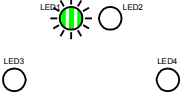
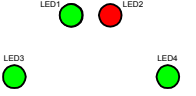
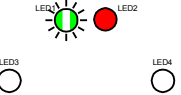
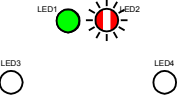
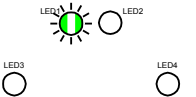
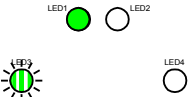


# RTD Core Field Programming Application Note

Issue 1.06.00

## POWER-UP LED SEQUENCE

At power-up the RTD executes a standard power-up LED sequence. For firmware versions 1.06 and higher the sequence starts with Steps 1 and 2 in the following table, for firmware versions lower than 1.06 the sequence starts at Step 3. The pattern in Step 4 indicates if the RTD is in Factory or Non-Factory Configuration.

Step	Action	
1	LED1 and LED4 On for 1 Second <i>(firmware v1.06 and higher)</i>	
2	LED1 FAST flash for 3 seconds <i>(firmware v1.06 and higher)</i>	
3	ALL LEDS ON for 1 Second	
4	LED1/LED2 Slow Flash and LED2/LED1 ON for 4 seconds Depending on configuration	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>FACTORY CONFIGURATION</p> </div> <div style="text-align: center;">  <p>NON-FACTORY CONFIGURATION</p> </div> </div>
4	LED 1 Slow flash until P1P2 communications established	
5	NORMAL OPERATION LED 1 ON LED3 Fast, irregular flashing	

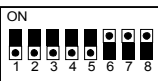



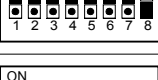
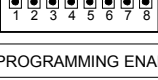
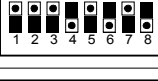


## ENTERING FIELD PROGRAMMING MODE

To enter field programming mode a sequence of switch positions must be entered in order. To begin the RTD should be powered down and switches 1.6, 1.7 and 1.8 switched to the ON position.

After powering up, wait for all 4 LEDs to flash on at once, then follow the sequence of steps 2 to 7 in the following table, allowing at least 1 second between each step. When setting the switches for each step the switches do not have to be set in one go, each switch can be switched sequentially.







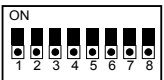


*After completion of step 6 the LEDs 1 to 4 on the RTD should flash several times to indicate field programming mode has been selected.*

## RTD Factory Reset

Step	Action	
1	SW1.6,1.7,1.8 ON THEN Power-Up	
2	WAIT FOR ALL LEDS to FLASH then SW1.6,1.7,1.8 OFF	
3	SW 1.7,1.8 ON	
4	SW 1.7,1.8 OFF	
5	SW 1.8 ON	
6	SW 1.8 OFF	
7	LED 1 to 4 flash 3 times	FIELD PROGRAMMING ENABLED
8	Set Switches as Shown	
9	Set SW 4 ON	
10	Set SW 4 OFF	
11	Remove and re-power	







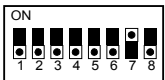
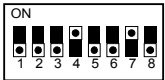

To exit out of Field Programming mode, remove power for 5 seconds and then re-power the device.

### RTD Baud Rate : 4800, NO Parity

Step	Action	
1	SW1.6,1.7,1.8 ON THEN Power-Up	
2	WAIT FOR ALL LEDS to FLASH then SW1.6,1.7,1.8 OFF	
3	SW 1.7,1.8 ON	
4	SW 1.7,1.8 OFF	
5	SW 1.8 ON	
6	SW 1.8 OFF	
7	LED 1 to 4 flash 3 times	FIELD PROGRAMMING ENABLED
8	Set Switches as Shown	
9	Set SW 4 ON	
10	Set SW 4 OFF	
11	Remove and re-power	









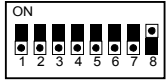
To exit out of Field Programming mode, remove power for 5 seconds and then re-power the device.

### RTD Baud Rate : 4800, EVEN Parity

Step	Action	
1	SW1.6,1.7,1.8 ON THEN Power-Up	
2	WAIT FOR ALL LEDS to FLASH then SW1.6,1.7,1.8 OFF	
3	SW 1.7,1.8 ON	
4	SW 1.7,1.8 OFF	
5	SW 1.8 ON	
6	SW 1.8 OFF	
7	LED 1 to 4 flash 3 times	FIELD PROGRAMMING ENABLED
8	Set Switches as Shown	
9	Set SW 4 ON	
10	Set SW 4 OFF	
11	Remove and re-power	










To exit out of Field Programming mode, remove power for 5 seconds and then re-power the device.

### RTD Baud Rate : 4800, ODD Parity

Step	Action	
1	SW1.6,1.7,1.8 ON THEN Power-Up	
2	WAIT FOR ALL LEDS to FLASH then SW1.6,1.7,1.8 OFF	
3	SW 1.7,1.8 ON	
4	SW 1.7,1.8 OFF	
5	SW 1.8 ON	
6	SW 1.8 OFF	
7	LED 1 to 4 flash 3 times	FIELD PROGRAMMING ENABLED
8	Set Switches as Shown	
9	Set SW 4 ON	
10	Set SW 4 OFF	
11	Remove and re-power	










To exit out of Field Programming mode, remove power for 5 seconds and then re-power the device.

### RTD Baud Rate : 9600, NO Parity

Step	Action	
1	SW1.6,1.7,1.8 ON THEN Power-Up	
2	WAIT FOR ALL LEDS to FLASH then SW1.6,1.7,1.8 OFF	
3	SW 1.7,1.8 ON	
4	SW 1.7,1.8 OFF	
5	SW 1.8 ON	
6	SW 1.8 OFF	
7	LED 1 to 4 flash 3 times	FIELD PROGRAMMING ENABLED
8	Set Switches as Shown	
9	Set SW 4 ON	
10	Set SW 4 OFF	
11	Remove and re-power	










To exit out of Field Programming mode, remove power for 5 seconds and then re-power the device.

### RTD Baud Rate : 9600, EVEN Parity

Step	Action	
1	SW1.6,1.7,1.8 ON THEN Power-Up	
2	WAIT FOR ALL LEDS to FLASH then SW1.6,1.7,1.8 OFF	
3	SW 1.7,1.8 ON	
4	SW 1.7,1.8 OFF	
5	SW 1.8 ON	
6	SW 1.8 OFF	
7	LED 1 to 4 flash 3 times	FIELD PROGRAMMING ENABLED
8	Set Switches as Shown	
9	Set SW 4 ON	
10	Set SW 4 OFF	
11	Remove and re-power	







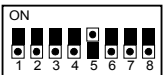

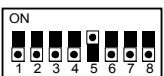
To exit out of Field Programming mode, remove power for 5 seconds and then re-power the device.

### RTD Baud Rate : 9600, ODD Parity

Step	Action	
1	SW1.6,1.7,1.8 ON THEN Power-Up	
2	WAIT FOR ALL LEDS to FLASH then SW1.6,1.7,1.8 OFF	
3	SW 1.7,1.8 ON	
4	SW 1.7,1.8 OFF	
5	SW 1.8 ON	
6	SW 1.8 OFF	
7	LED 1 to 4 flash 3 times	FIELD PROGRAMMING ENABLED
8	Set Switches as Shown	
9	Set SW 4 ON	
10	Set SW 4 OFF	
11	Remove and re-power	


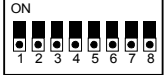




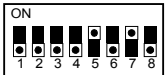
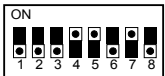
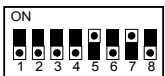
To exit out of Field Programming mode, remove power for 5 seconds and then re-power the device.

### RTD Baud Rate : 19200, NO Parity

Step	Action	
1	SW1.6,1.7,1.8 ON THEN Power-Up	
2	WAIT FOR ALL LEDS to FLASH then SW1.6,1.7,1.8 OFF	
3	SW 1.7,1.8 ON	
4	SW 1.7,1.8 OFF	
5	SW 1.8 ON	
6	SW 1.8 OFF	
7	LED 1 to 4 flash 3 times	FIELD PROGRAMMING ENABLED
8	Set Switches as Shown	
9	Set SW 4 ON	
10	Set SW 4 OFF	
11	Remove and re-power	







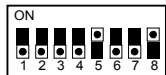
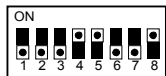
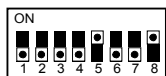
To exit out of Field Programming mode, remove power for 5 seconds and then re-power the device.

### RTD Baud Rate : 19200, EVEN Parity

Step	Action	
1	SW1.6,1.7,1.8 ON THEN Power-Up	
2	WAIT FOR ALL LEDS to FLASH then SW1.6,1.7,1.8 OFF	
3	SW 1.7,1.8 ON	
4	SW 1.7,1.8 OFF	
5	SW 1.8 ON	
6	SW 1.8 OFF	
7	LED 1 to 4 flash 3 times	FIELD PROGRAMMING ENABLED
8	Set Switches as Shown	
9	Set SW 4 ON	
10	Set SW 4 OFF	
11	Remove and re-power	

To exit out of Field Programming mode, remove power for 5 seconds and then re-power the device.

### RTD Baud Rate : 19200, ODD Parity

Step	Action	
1	SW1.6,1.7,1.8 ON THEN Power-Up	
2	WAIT FOR ALL LEDS to FLASH then SW1.6,1.7,1.8 OFF	
3	SW 1.7,1.8 ON	
4	SW 1.7,1.8 OFF	
5	SW 1.8 ON	
6	SW 1.8 OFF	
7	LED 1 to 4 flash 3 times	FIELD PROGRAMMING ENABLED
8	Set Switches as Shown	
9	Set SW 4 ON	
10	Set SW 4 OFF	
11	Remove and re-power	

To exit out of Field Programming mode, remove power for 5 seconds and then re-power the device.