

The Reign TX-100 & XRE-100 transmitter/receiver kit is a revolutionary product. This product allows for wirelessly triggering a relay through a battery powered hand held transmitter up to 40-miles away.

WHAT'S INCLUDED

There are two pieces included in the TX-100 to XRE-100 kit.

The Reign TX-100 to XRE-100 kit includes (1) TX-100 (transmitter) and (1) XRE-100 (receiver units).

HOW IT WORKS...

Congratulations on your purchase of the Transmitter Solutions TX-100 to XRE-100 - Transmitter/Receiver kit. It has been designed with state-of-the-art radio technology to push a wireless transmitter signal up to 40 miles away to a receiver.

The TX-100 to XRE-100 kit can be easily paired together with the program/learn button on the XRE-100 board. Simply connect the Dry output closure to the device you are triggering and you will be up and running.

The TX-100 is a send/receiver unit that sends a signal when the button is pressed, indicated by a red LED light. And receives a signal back, indicated by a green LED light. This allows users to know the signal was sent and received by the corresponding XRE-100 unit.

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1. RECEIVER SPECIFICATIONS

Power Input: 12-24 Volt AC/DC

Relays: 10A 250 VAC/ 28VDC

12V: 50mA (idle)
1A (transmit)

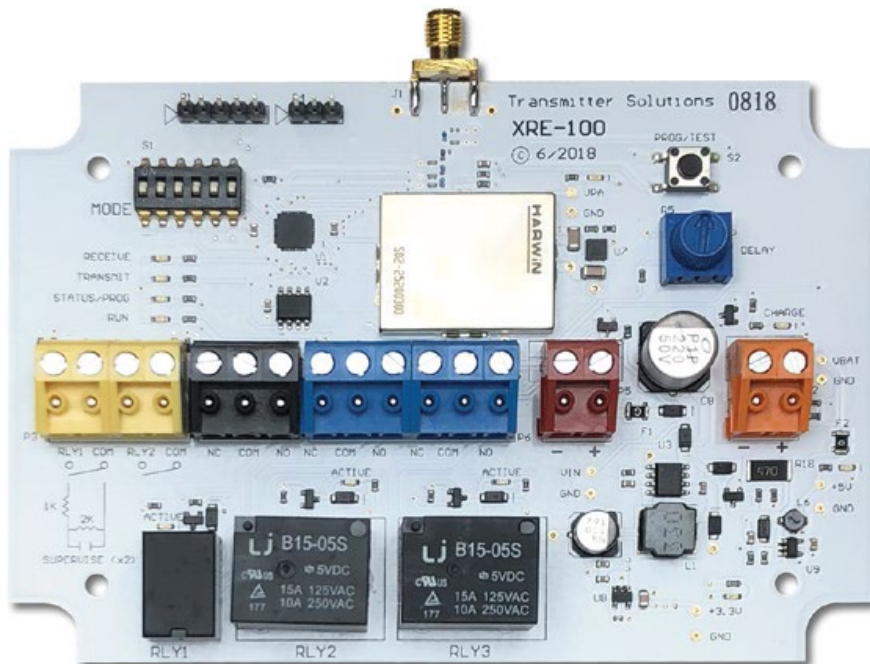
24V: 25mA (idle)
500ma (transmit)

Range: 1/2 mile (Through obstructions)

Relays: 10A 250 VAC/ 28VDC

Minimum / Maximum Temperature Range: -40°F to 185°F (-40°C to 85°C)

Security Encryption: AES



POWER INPUT: 12 to 24 VOLTS AC/DC. - 1 AMP Minimum
Always follow polarity when DC Power is used.

BATTERY INPUT: for 12 Volt Sealed Lead Acid (SLA) battery only.
Solid GREEN LED indicates battery charging. Momentarily flashing GREEN LED indicates battery is charged and a trickle/conditioning charge is occurring.

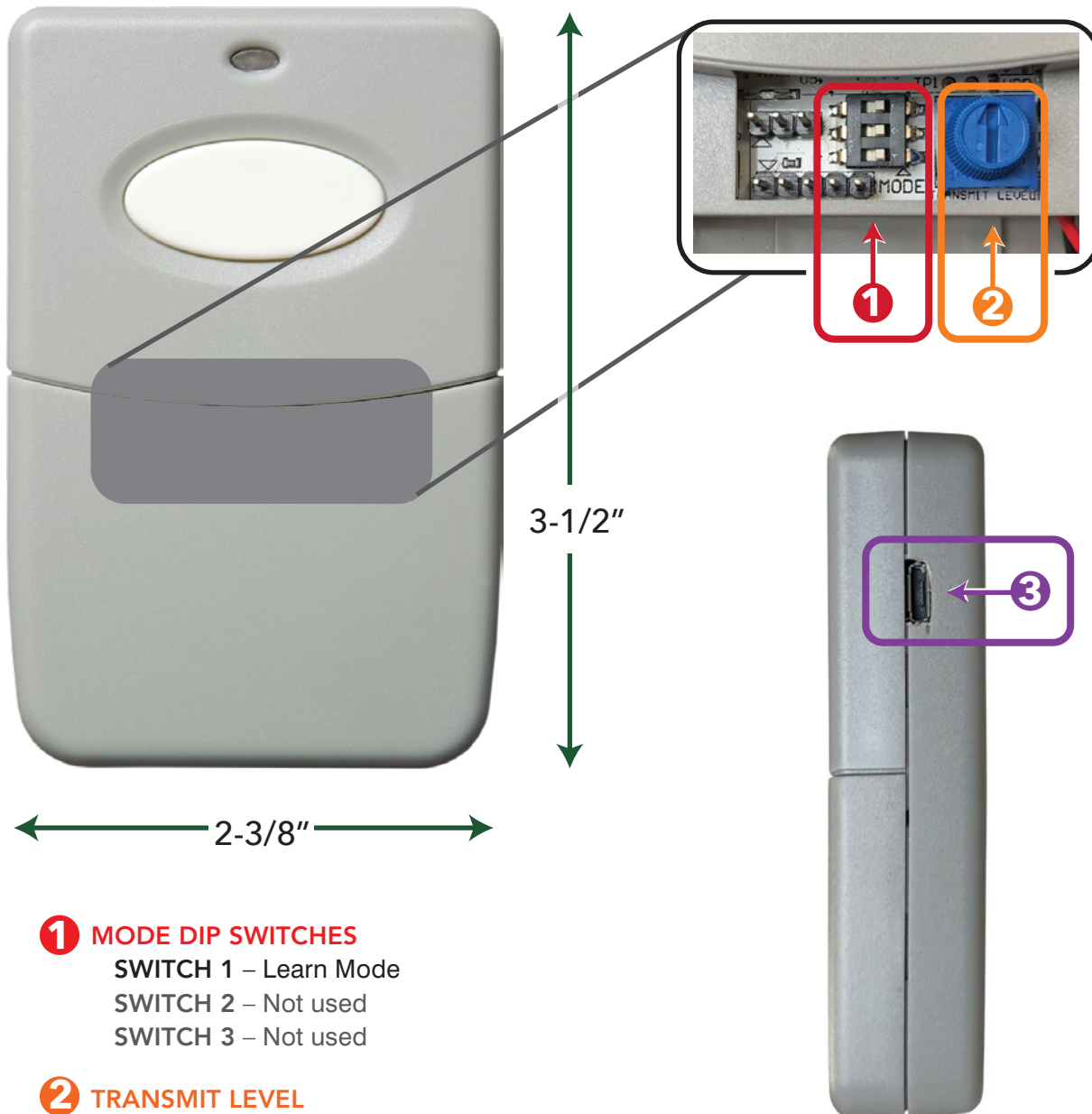
2. TRANSMITTER SPECIFICATIONS

Minimum / Maximum Temperature Range: -40°F to 185°F (-40°C to 85°C)

Security Encryption: AES

Range: 1/2 mile (Through obstructions)

Power: Micro-USB Rechargeable



- 1 MODE DIP SWITCHES**
SWITCH 1 – Learn Mode
SWITCH 2 – Not used
SWITCH 3 – Not used

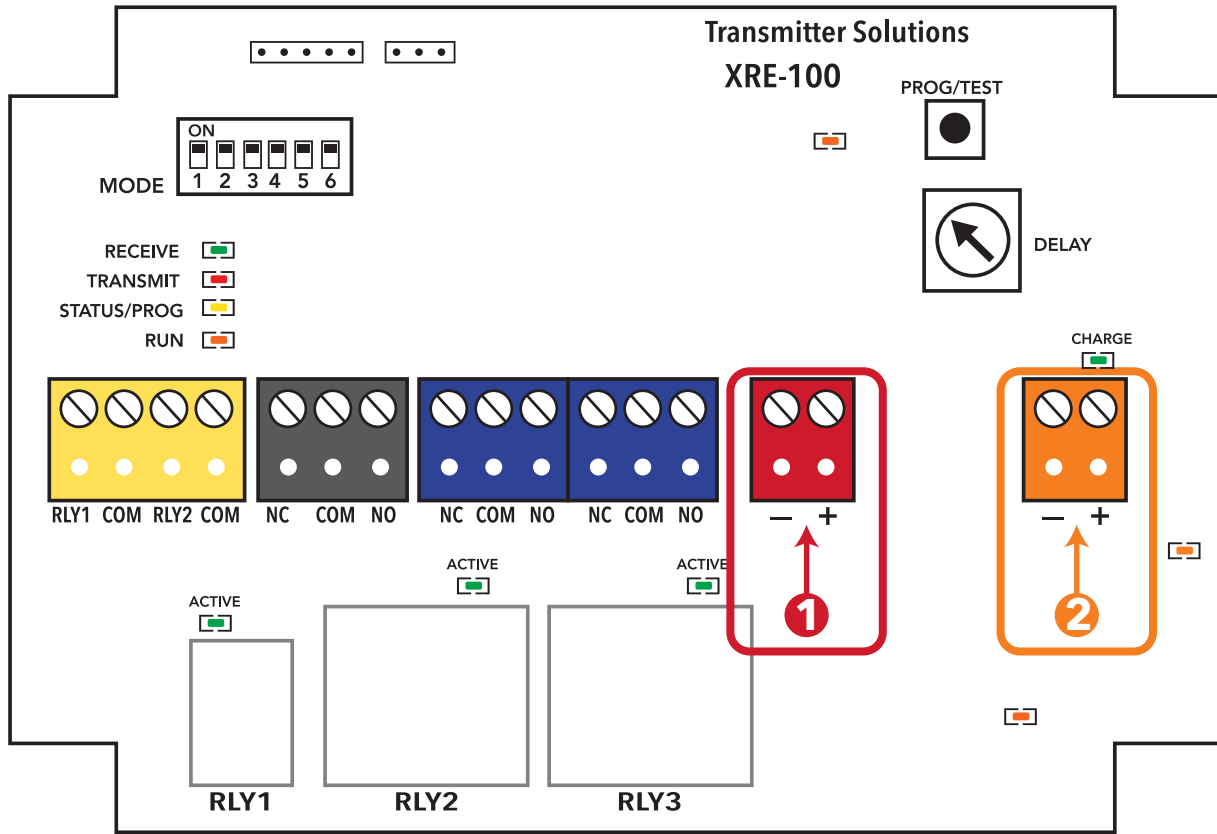
- 2 TRANSMIT LEVEL**
Clockwise for more power when transmitting.
Counterclockwise for less power when transmitting.
(Battery life will vary based on transmit power level set)

- 3 MICRO-USB PORT**

3. POWER DETAILS

The XRE-100 requires 1 amp of current draw to transmit at full power.

IMPORTANT - XRE REQUIRES AT LEAST 1AMP POWER SUPPLY



1 POWER INPUT:

Power Input: 12 to 24 VOLTS AC/DC. Always follow polarity when DC Power is used. **1 AMP Minimum**

2 BATTERY INPUT:

Battery Input: for 12 Volt Sealed Lead Acid (SLA) battery only.

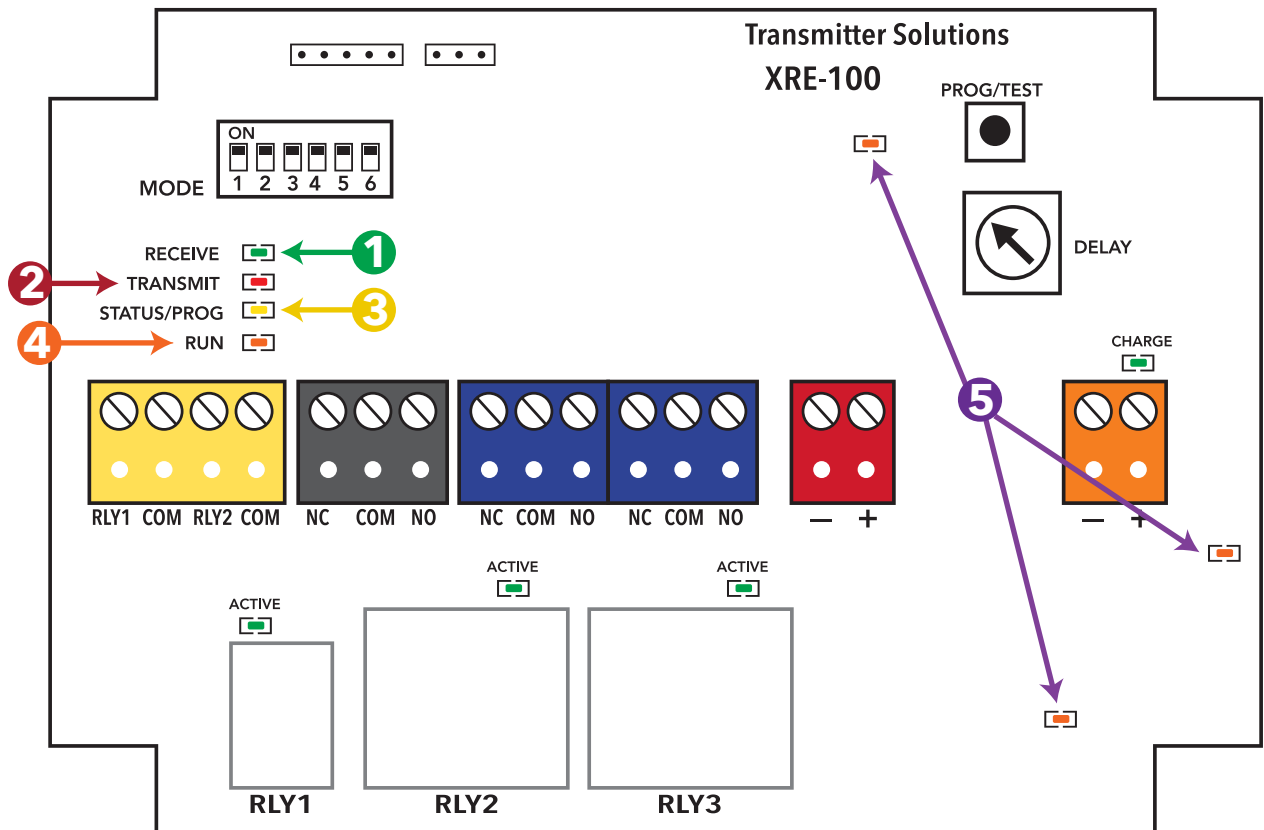
Solid Green LED = Battery charging

Momentary Flashing LED = Battery is fully charged and a trickle/conditioning charge is occurring

4. LED INDICATORS

STATUS LEDs:

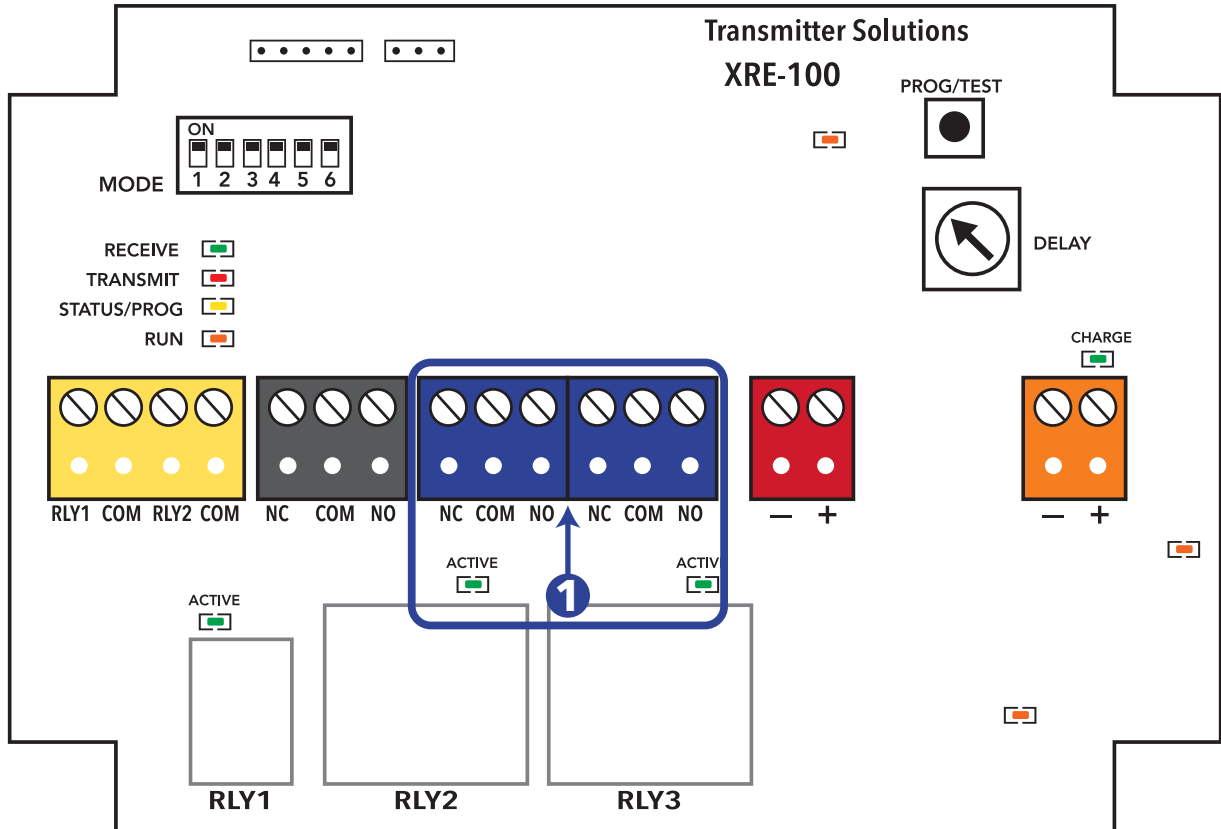
- 1 RECEIVE** - flashes GREEN momentarily when a valid radio transmission is received.
- 2 TRANSMIT** - flashes RED momentarily when the unit transmits a packet as a result of an Relay Input change event or handshake.
- 3 STATUS/ PROG** - flashes yellow patterns indicating status of the unit: pairing, error, etc.
- 4 RUN** - flashes ORANGE 1 second ON and 1 second OFF indicating the microprocessor is running.
- 5 POWER LED** - Glows solid orange when power is present. 5 volt relay supply, 3.3 volt logic supply, and VPA 3.6 volt power amplifier supply.



5. RELAY DIAGRAM AND WIRING

1 RELAY OUTPUTS

Relay Outputs - The Reign XRE-100 comes with 2-relay outputs. Relay 1 is the relay specified for use when the TX-100 is triggered. Relay 2 is used as a delay relay set for a certain amount of time to trigger after relay 1 is activated. Please refer to DIP switch 6 setting on page 8 for more information. The relay state is indicated by the Green ACTIVE LED above the relay.



6. DIP SWITCHES

1 MODE SWITCHES

SWITCH 1 – PROG (PAIR) – Use for programming TX-100 to XRE-100

SWITCH 2 – Not used

SWITCH 3 – Not used

SWITCH 4 – Not used

The behavior of the relay(s) is controlled by Dipswitch 5 & 6.

SWITCH 5 = momentary or latching

SWITCH 6 = single or dual relays

DIPSWITCH 5	DIPSWITCH 6	FUNCTION
OFF	OFF	Relay 1 is momentary ON then OFF. Time ON is determined by RELAY DELAY potentiometer – ½ to 30 seconds. (Unlock door for RELAY DELAY time)
ON	OFF	Relay 1 is latching ON then OFF on next TX-100 transmission. (toggle)
OFF	ON	Relay 1 is momentary ON (½ sec) then Relay 2 is momentary ON (½ sec). Time between Relay 1 and Relay 2 is determined by RELAY DELAY potentiometer – ½ to 30 seconds. (Start warning then roll gate – momentary)
OFF	OFF	Relay 1 is latching ON then Relay 2 is latching ON. Time between Relay 1 and Relay 2 is determined by RELAY DELAY potentiometer. Both relays turn OFF on next TX-100 transmission. (Start warning then roll gate – latching w/ toggle)

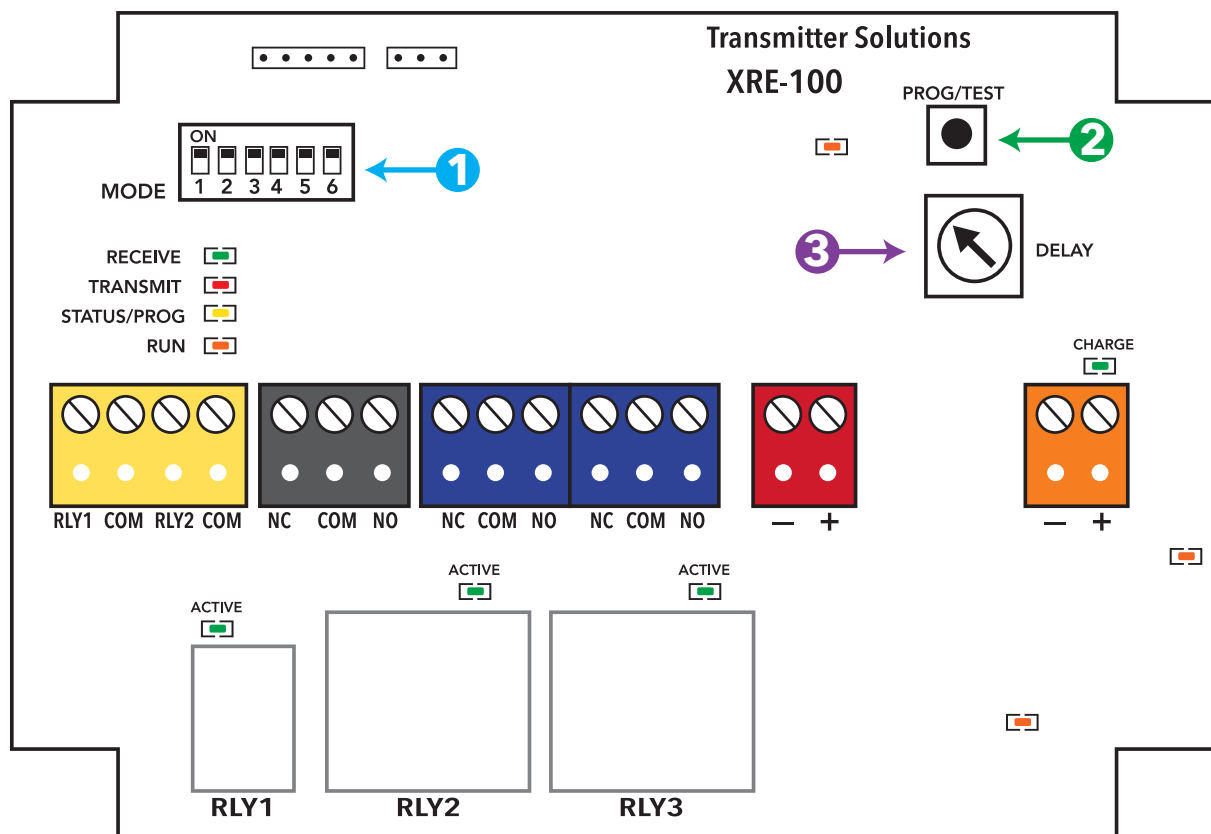
2 PROGRAM/TEST BUTTON:

To program turn DIP switch 1 to the on position in both the XRE-100 and TX-100. With both DIP switches turned on press the TX-100 transmit button.

If done correctly the XRE-100 will flash yellow status LED 3 times and TX-100 will flash green LED 3 times.

3 RELAY DELAY POTENTIOMETER:

Full counter clockwise is 1/2 second delay from relay 1 to relay 2 activation. Full clockwise is 10 second delay from relay 1 activation to relay 2 activation. To activate make sure DIP switch 6 is set to ON in the XRE-100.



7. BATTERY BACKUP

12 Volt Sealed Lead Acid (SLA) battery only. Solid GREEN LED indicates battery charging. Momentarily flashing GREEN LED indicates battery is charged and a trickle/conditioning charge is occurring.

8. PAIRING UNIT IN THE FIELD

To program turn DIP switch 1 to the on position in both the XRE-100 and TX-100. With both DIP switches turned on press the TX-100 transmit button.

If done correctly the XRE-100 will flash yellow status LED 3 times and TX-100 will flash green LED 3 times.

9. TROUBLESHOOTING

TX-100 & XRE-100 units are not communicating:

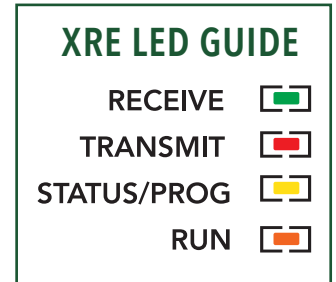
- 1 - Check the Run LED on the XRE-100. Normal operation will be orange LED flashing once a second.
- 2 - Press the button on the TX-100. When pressed, the TX-100 will send a radio test packet and the RED TRANSMIT LED will illuminate. If the paired XRE-100 is online, it will acknowledge with a radio test packet – indicated by a momentary on the green receive LED.

If you do not see the transmit and receive LED lights activate:

- 1 - Power cycle the XRE unit.
- 2 - Move the XRE-100 unit to a higher location and avoid mounting on/in metal objects

If you are not getting the desired range between the TX-100 and XRE-100 unit:

- 1 - Ensure the XRE-100 has at least 1-amp of power dedicated to itself.
- 2 - Ensure the TX-100 is fully charged.
- 3 - Move the XRE-100 unit to a higher location - and avoiding mounting in/on metal objects
- 4 - Check that the potentiometer on the TX-100 board is turned to full power. (All the way to the left)



WARRANTY

The warranty period of this product is 24 months, beginning from the manufacturing date. During this period, if the product does not operate correctly, due to a defective component, the product will be repaired or replaced at the sole discretion of Transmitter Solutions. This warranty does not extend to the product casing which can be damaged by conditions outside of the control of Transmitter Solutions.

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