

SRX800-D Receiver Model
User Manual
Rev. A. Draft

Revision History

| Date | Version | Description | Author |
|---------------|---------|-----------------------|---------------|
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1. SRX800-D Receiver

The SRX800-D Receiver is pictured below in Figure 1. The receiver's physical components are fairly simple and are described in the sections below.



Figure 1: The SRX800-D Upper Panel

1.1 Protective Enclosure

The Protective Enclosure is a watertight, corrosion proof, dust proof housing with “O-Ring” seals and double throw latches.

1.2 Magnetic Actuator Switch

This is a magnetic that has been adhered to the inside top of the enclosure is and used to actuate the sub-panel Reed Switch, when the enclosure is closed. The purpose for this is described below in the section describing the Reed Switch.

1.3 RS-232 Connector

This is one of two ways to connect the data SRX800-D receiver to the computer that executes the SRX800-D Host Application. The RS-232 Serial port offers data transfer speeds up to 115.2KBaud.

1.4 USB Connector

This is the second of two (and the preferred) method of connecting the receiver to the Host computer. The USB interface offers data transfer speeds up to 1 M Baud.




1.5 ON/OFF Volume Control

This is a simple dial switch which turns the receiver OFF when rotated fully counter-clockwise. The receiver is turned on and internal speaker volume control is increased as the dial is rotated clockwise.



1.6 Indicator LEDs

There are three indicator LEDs which provide the only visual interface directly from the receiver. The instruction panel affixed to the left of the panel provides a key to the interpretation of the LED's. They are summarized here but will make more sense once the section on receiver operating modes is understood. See section 0.





OPERATIONAL MODE LED definition:

| SETUP MODE (Every 4 s) | Blink  for 660 ms | | |
|-----------------------------|--|--|--|
| TEST MODE (Every 2 s) | Blink  for 100 ms | | |
| DATALOG MODE (Every 2 s) | Blink  for 100 ms | | |

PULSE DETECTION LED definition:

| |
|--|
| TEST MODE (show any pulse detection): Blink  for 10 ms |
| DATA LOG MODE (show any pulse detection): Blink  for 10 ms |

TAG VALIDATION Mode LED definition:

| | | |
|---|-----------------------------|--|
| TEST MODE (show any successfully parsing): Blink  for about 100 ms | | |
| DATALOG MODE (show any successfully parsing): Blink  for about 100 ms | Left data storage < 2Mbytes | Blink  for about 100 ms every 7.1 s |
| | Data storage full | Blink  for about 100ms every 1.1 s |

1.7 Headphone Jack

Standard micro headphone jack (3.5mm). Stereo or mono may be used. The output itself is NOT stereo.

1.8 Sub-Panel Reed Switch

Not visible to the user of a completely assembled unit, the reed switch is mounted **under** the panel and is actuated by the magnetic actuator, described above, when the lid of the enclosure is closed. The location of the reed switch is indicated by the green rectangle beside the ON/OFF Volume Control.

The purpose of the reed switch is to disable the Indicator LEDs when the enclosure is closed. It is wasteful of battery power to have the LED's operating when the lid is closed.

1.9 12 V Power Input

A DC Power Supply ranging from 11 to 16 V and 300mA must be connected to the receiver via a power cable. The red alligator clip should be connected to the positive terminal, and the black alligator clip to the negative one.

Just in case, the receiver is protected against over-voltage and polarity reversal. However, check for the proper polarity before turning on the receiver.

1.10 GPS Antenna Input

The receiver is equipped with a GPS receiver, but it requires an active external antenna. Make sure the GPS antenna is located in an area where there is clear access to the sky. If this is not possible, the antenna should be placed in the proximity of a window.

Use the GPS active provided by Lotek (SMA connector)

1.11 VHF Antenna Connectors

The four BNC VHF antenna connectors are shown in the figure below on the right. 50 Ohm antennas should be used to ensure proper matching with the receiver.

The four antennas are labeled as A1,A2, A3, and A4.

It is important to ensure that the connector caps provided attached to the antenna connector on a short chain, be tightly fastened to the antenna connector when it is not in use. This will prevent water from breaching the enclosure and damaging the receiver.



Figure 1 Antenna Inputs

2. SRX800 Host

The same software as for the SRX 800 is used for the SRX 800-D model.

Install the host software via the installer. Once started, the host, upon linking to the receiver, will automatically detect the model.

The SRX800-D model has the same menus as the SRX800 model, and performs the same functions. As the receiver does not have a keypad, all the menus and settings are done via the menus available in the host.

3. Regulatory Statements

This device complies with FCC Part 15 and Industry Canada license exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme à FCC Partie 15 de Industrie Canada RSS standard exempts de licence (s). Son utilisation est soumise à Les deux conditions suivantes: (1) cet appareil ne peut pas provoquer d'interférences et (2) cet appareil doit accepter Toute interférence, y compris les interférences qui peuvent causer un mauvais fonctionnement du dispositif.
Per Industry Canada RSS rules:

This device complies with Health Canada's Safety Code. The installer of this device should ensure that RF radiation is not emitted in excess of the Health Canada's requirement. Information can be obtained at http://www.hc-sc.gc.ca/ewh-sem/pubs/radiation/radio_guide-lignes_direct-eng.php

Cet appareil est conforme avec Santé Canada Code de sécurité 6. Le programme d'installation de cet appareil doit s'assurer que les rayonnements RF n'est pas émis au-delà de l'exigence de Santé Canada. Les informations peuvent être obtenues:
http://www.hc-sc.gc.ca/ewhsemt/pubs/radiation/radio_guide-lignes_direct-eng.php