

 2.4GHz 4 Channel  
Surface Telemetry Receiver



# SRX12, MRX3

## Instruction

Version 1.0

### Hitec Customer Service

Help is available from the Hitec office through phone support and e-mail inquiries. Our US office is generally open Monday thru Friday, 8:00AM to 4:30PM PST. These hours and days may vary by season. Every attempt is made to answer every incoming service call. Should you get voice mail, leave your name and number and a staff member will return your call.

### Hitec Website

Make plans to visit the Hitec website, [www.hitecrd.com](http://www.hitecrd.com), on a regular basis. Not only is it full of specs and other information about the entire Hitec product line, our FAQ pages will eventually hold valuable information and program update about the OPTIMA D receiver.

### The On-Line Community

One of the benefits of the extensive R/C online community is the vast wealth of archived knowledge available. Hitec sponsors forums on most of the popular R/C web sites where a Hitec staff member or representative tries to answer all manner of product related questions. Bringing together strangers with common interests is proving to be one of the greatest gifts of the internet. If past history is any guide to the future, we are certain forums will be started about the Hitec 2.4 system and several are certain to stand out as valuable archives of information.

### Warranty and Non-Warranty Service

All Hitec products carry a two year from date of purchase warranty against manufactures defects. Our trained and professional service representative will determine if the item will be repaired or replaced. To provide all the necessary information we need to administrate your repair, visit our website at [www.hitecrd.com](http://www.hitecrd.com) and download the repair form, fill it out and send in your item for repair.

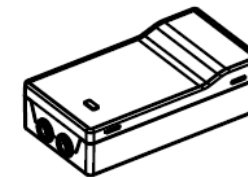
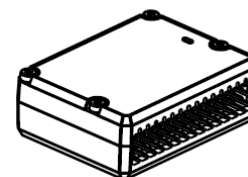


### Warning

1. The receiver antenna should not be placed near the engine, metal parts, or high current batteries.
2. The receiver Antenna should not get damaged. To prevent antenna damage, do not install the antenna near the sharp edge or bend it more than 90 degree in angle.
3. Use a Velcro or think double sided tape to install to absolve the shock during the operation.
4. When LED indicator irregularly blinks, indicates unstable frequency environment, stop operating and look for the possible cause of problems.

### SRX 12, MRX 3 Specifications & Features: Full Range Aircraft Telemetry 2.4GHz Receiver

Receiver Model	Size	Weight
SRX12	46.5 x 35.5 x 15.7mm	21g
MRX3	38.8 x 20.2 x 11.5mm	6.5g



Operation Voltage : NiMH, NiCD – 4~6 cell (4.8V~7.2V) or Li-Po – 2 cell (7.4V) can be used. Up to 7.4V BEC power from ESC also can be used.

SRX12 → SPC port allow to use up to 70V (4.8V~70.0V).

#### 1. LED

Indicates the set-up process codes and current status of the receiver. (Please refer to page 2 for more detail)

#### 2. System Power Input & Servo Signal Output Port

Supplying power to Receiver System, Servo, Bus system and Sensor accessories from RX Battery. Signal output port. External Battery Voltage, SPC Input Port.

#### PWM Output Port

- SRX 12 – General Servo can use in CH1~CH12 Port.
- MRX 3 – General Servo can use in CH1~CH3 Port

#### Single Line( SL ) Output Port ( SRX 12, MRX 3 )

- With SL function, Futaba S-Bus or PPM can be selected. Please select suitable Bus system based on your device. (Please refer to ID Link section for more detail)

#### Sensor Output Port \*MSB\* (SRX 12)

- Multiplex M-Link Sensor can be connected and can use in SRX 12 Receiver via MSB port

#### Voltage Sensor (MRX 3)

- MRX 3 can check External Battery voltage (Main Battery) using Voltage Sensor port up to 70V (4.8V~70V ). Voltage can be checked by Transmitter in real time.

#### SPC Power Input Port (SRX 12)

- Using SPC, SRX 12 can be operated from 4.8V to max 70V.
- When using SPC, separate servo power must be needed.
- (4.8~7.4V, 4~5cell NiMH/NiCd battery or Li-Po 2 cell Battery)

## Jumper

- The jumper is installed at the factory and is used when the receiver is powered by an electronic speed control, a commercially available B.E.C. (battery eliminator circuit), dedicated 4.8 to 6V, NiMH battery pack or a regulated Li-Po battery. The jumper is removed when the receiver is powered using the SPC feature as described.

## Fail-Safe / Hold ( SRX 12, MRX 3 )

- If the receiver signal somehow becomes interrupted or interference occurs, the servos will move to the pre-set Fail-Safe point you previously stored in the Fail-Safe set-up. Make sure you set the Fail-Safe function properly.  
If Fail-Safe has not been activated, the signal will switch off after the Hold period of one second.
- In the interest of safety, we recommend that the Fail-Safe function should always be activated, and the Fail-Safe settings should be selected so as to bring the model to a non-critical situation

Please refer to Fail-Safe/ Hold page for more detail

## Compatibility

- SRX 12/ MRX 3 receivers are compatible with transmitter using Spectra G3 AFHSS 2.4Ghz system. Currently Aurora 16 and Flash 14 are using Spectra G3 AFHSS 2.4Ghz system.
- Aurora 9/ 9X, Optic 5/6/6 sports, Lite 4, Flash 7/8, Eclipse 7 pro are not compatible with SRX 12, MRX 3 receiver

## Connection Diagram

### Electric powered aircraft with Electronic Speed Control

Use this method on electric air plane using ESC's providing power to the receiver and servo function.  
(If ESC has no BEC circuit, please use separate battery for receiver and servo)

### Glow, gas or electric powered aircraft using separate a receiver battery supply

Follow below connection diagram when using a regulated Li-PO, Li-Fe (2cell) or 4~6cell Ni-MH, Ni-CD battery.

## ID Link (ID-Set up)

Each radio set (using Spectra G3 system and SRX 12 or MRX 3 receiver) is already Linked from the factory. You don't need to ID Link when you purchased a set of radio. However, If you buy additional SRX 12 or MRX 3 receiver, you have to do ID Link with new receiver and the radio. Before ID Link, please make sure all connection correctly refer to above connection diagram.



Note

When you try to have Link, please located TX & RX less than a 3 feet distance.

## How to ID Link between G3 Spectra radio and SRX 12/MRX 3 receiver

- 1) Turn on the Radio power
- 2) Select 'Spectra' in the system menu in the radio. (Aurora 16/Flash 14)
- 3) Select G3 and choose Frame Time → Receiver No (S1) → Bus type step by step.
- 4) Make sure distance between radio and receiver within 3 feet and turn on Receiver power.

- 5) Blue LED in the receiver will be blinking rapidly and will be blinking slowly.
- 6) Please check ID Link correctly or not by moving radio stick and press 'Finish' in the menu to escape.

## Fail-Safe / Hold Function Mode

Fail-Safe Mode?

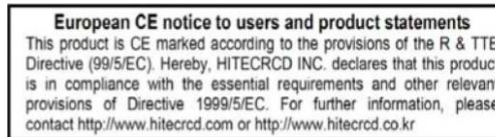
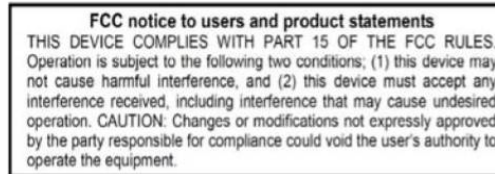
- If the receiver signal somehow becomes interrupted or interference occurs, the servos will move to the pre-set Fail-Safe point you previously stored in the Fail-Safe set-up. Make sure you set the Fail-Safe function properly.  
If Fail-Safe has not been activated, the signal will switch off after the Hold period of one second. This means that the servos become "soft" and remain in their last commanded position under no load (this may equate to full-throttle!), until a valid signal is picked up again.
- In the interest of safety, we recommend that the Fail-Safe function should always be activated, and the Fail-Safe settings should be selected so as to bring the model to a non-critical situation (e.g. motor idle /electric motor OFF, control surfaces neutral, airbrakes extended, aero-tow release open, etc.).

- 1) Switch on the Radio
- 2) Select 'Fail-Safe' from system menu in Aurora 16/Flash 14
- 3) Select Fail-Safe or Hold for your purpose
- 4) If you choose 'Fail-Safe', set the Fail-Safe position of servo or motor by change value in the menu or stick and then press 'Set' to confirm.
- 5) Press 'Send' to memorize Fail-Safe value to Receiver. (LED in the receiver will be blinking rapidly)



Note

- The FAIL-SAFE settings should be checked every time before you run the engine/motor.
- This product is designed to be used as a R/C hobby product and should be operated under local regulation.



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## WARNING & SAFETY INFORMATION

### *Safety Symbols*

#### **Warning**

- When encountering this symbol in the manual, you must follow these recommendations to avoid irreparable damage to your car, system or connected devices or to avoid accidents with injuries or death.

### IC Information

This device complies with Industry Canada licence-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

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.  
L'exploitation est autorisée aux deux conditions suivantes :  
(1) l'appareil ne doit pas produire de brouillage, et  
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The antenna(s) used for this device must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

### *FCC Information*

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

#### *FCC notification to users*

This equipment has been tested and found to comply with the limits for a CLASS B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference, the user is encouraged to try to correct the interference by consulting with a dealer or an experienced technician for technical assistance.

**Any changes or modifications to the equipment not expressly approved by the party responsible for compliance could void user's authority to operate the equipment.**