Ripmax

Saturn

2.4GHz FHSS Radio System Instruction Manual

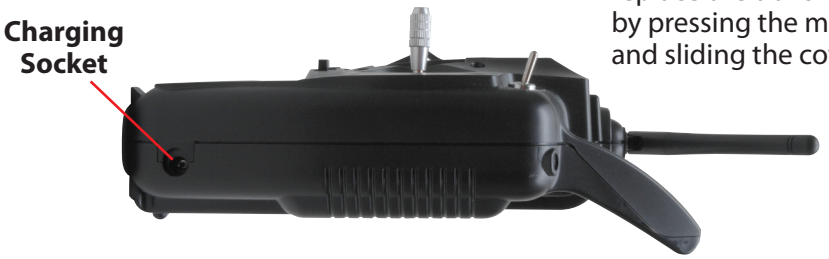
X6

6 CHANNEL

CONTENTS

Transmitter

Remove the battery cover to replace the transmitter batteries by pressing the marked point and sliding the cover off.



Receiver

Channel Output

CH1 - Channel 1 (Aileron)
CH2 - Channel 2 (Elevator)
CH3 - Channel 3 (Throttle)
CH4 - Channel 4 (Rudder)
CH5 - Channel 5 (Aux 1)
CH6 - Channel 6 (Aux 2)

Receiver Aerial Installation

To ensure the best range, the receiver aerial should be installed as far away from conductive materials such as metal and carbon.

The aerial should be mounted away from any sources of electrical noise such as motors and ESC. The receiver contains precision electronic parts. It is the most delicate on-board radio component and must be protected from vibration, shock and temperature extremes. To protect the receiver, wrap it in foam rubber or similar vibration-absorbing material. Always protect the receiver from moisture and both fuel and exhaust residue.

Transmitter Aerial

The transmitter aerial is adjustable. Please make sure it is never pointing directly at the model as this reduces the signal strength to the receiver.

Always keep the aerial vertical to create the best RF conditions for your receiver. Of course, this will depend on how you hold the transmitter, but in most cases, adjusting the aerial so that it is pointing straight up will give the best results.

Never hold the aerial when the transmitter is in use as it can degrade the quality of the signal.

Pairing Procedure

There is a new pairing procedure for binding the receiver to the transmitter
Your transmitter and receiver are factory bound, but should you purchase a second receiver, you will need to pair it to your transmitter.

1. Turn on the Transmitter (both red & green lights should illuminate).

2. Press 'setup' on front of receiver and then power up the receiver (the red light on the receiver should be flashing).

3. While the light on receiver is still flashing, press the 'PDM' button on Transmitter. The green light should being flashing.

4. After a short period, the green light on the Transmitter will illuminate to solid green and the flashing light on the receiver will illuminate to solid red.

5. Release the 'PDM' button, the binding process is complete. To store the pairing memory between the transmitter and receiver, simply turn off the transmitter, then turn on again.

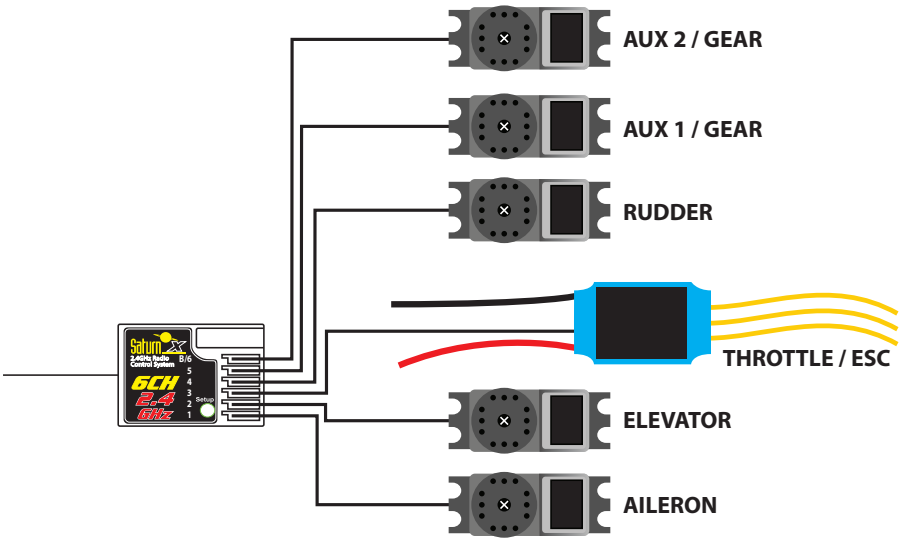
Pairing Procedure Continued

Please refer to the text below for the LED status of the receiver's condition.

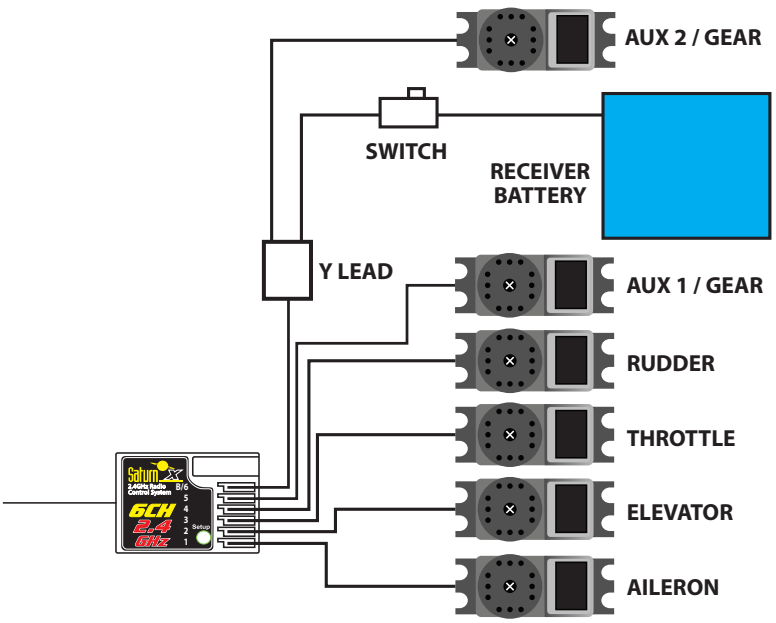
Receiving signals and the ID is matched:	LED On
Receiving signals but the ID is not matched/ No Signal Reception:	LED Off
Receiver ID memory is empty:	LED blinks once per second

Connection

The receiver is typically connected as shown here:



If you are not flying electric with a BEC equipped (Battery Eliminator Circuit) electronic speed controller, you can connect a separate 4.8 volt receiver battery to any spare receiver socket.

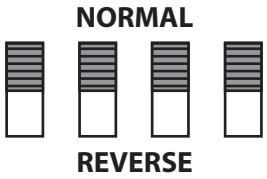


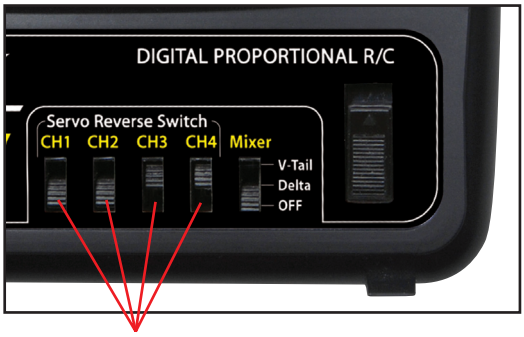
Adjustment Procedures

The servo direction and centre position of each of the four channels can be adjusted.

Servo Reversing:

Turn on the transmitter and the receiver. Check the direction of operation of each servo. If a servo operates in the wrong direction, it can be reversed without changing the linkage, by simply changing the position of the corresponding servo reversing switch.





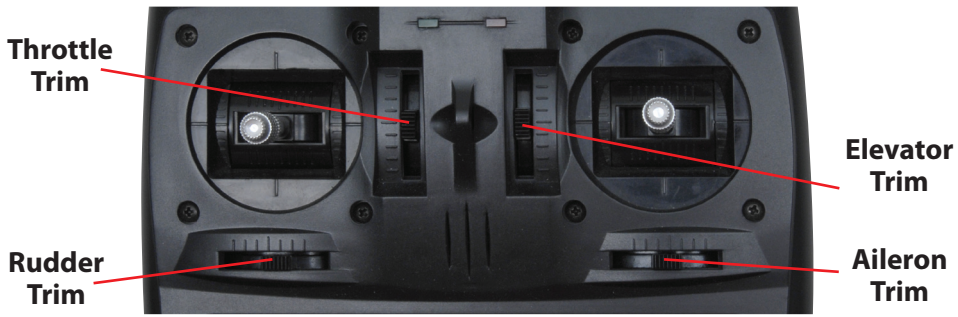
Reversing Switches

CH1 corresponds to CH1 (AILERON)
CH2 corresponds to CH2 (ELEVATOR)
CH3 corresponds to CH3 (THROTTLE)
CH4 corresponds to CH4 (RUDDER)

Note: If you have an electronic speed controller and motor connected to the receiver and you need to reverse the throttle channel, you should turn off the receiver and transmitter first, reverse the channel then, ensuring that the throttle stick is in its low position, switch on the transmitter then the receiver.

Servo Trims:

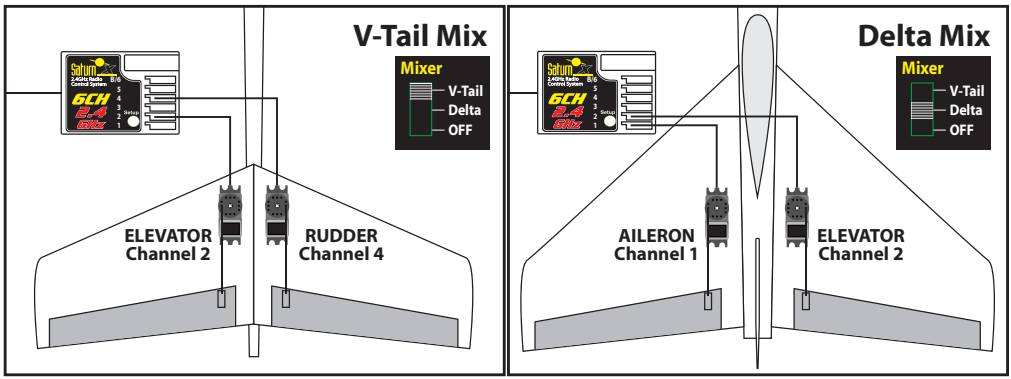
To adjust the centre position of each primary control, simply move the corresponding mechanical trim levers left / right or forwards / backwards until the correct amount of adjustment has been made.



After making changes to the trim and servo reversing switches, check that no pushrods or linkages bind through the full travel of the servos.

Mixing

The Saturn X transmitter has a mixing switch that allows you to select a V-Tail mix - where the elevator and rudder functions are mixed for V-Tail aircraft, or a Delta mix - where the elevator and aileron functions are mixed for flying wings and deltas. Simply connect the servos as show and move the mix switch to the appropriate position.



WARNINGS

Receiver Connections

Ensure that the servo and battery connectors are firmly pushed into the receiver.

Vibration may cause a poorly fitted connector to fail during flight.

Receiver Protection

Ensure that the receiver is adequately protected from vibration by wrapping in foam rubber. Always protect the receiver from moisture and both fuel and exhaust residue.

If the receiver is subjected to vibration and shocks or excessive moisture or exhaust residue, there is a risk that it may operate incorrectly and possibly fail.

Receiver Aerial

Do not cut or bundle the receiver's aerial. Do not wrap the aerial with servo wires and always keep the aerial a minimum of 20mm away from metal and carbon components.

Cutting or bundling the aerial with other components will reduce the receiver's sensitivity and range.

Servo Throws

Operate each servo over its entire range of travel. Ensure that each pushrod or linkage does not bind.

A binding linkage can cause damage to servos and lead to higher current drain which will reduce battery performance.

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