



ICON RC™

3 Channel FM Instruction Manual



COX Hobby Distributors
1295 H St.
Penrose, CO 81240

Printed in China

FEATURES:

- 3 channel single stick proportional FM transmitter
- 3 channel, single conversion FM receiver with 5 amp ESC and BEC
- Linear proportional 3rd channel lever
- Servo reverse on Ch 1 and Ch 2
- "V" tail switch
- Alkaline or NiCad operation
- NiCad charge jack

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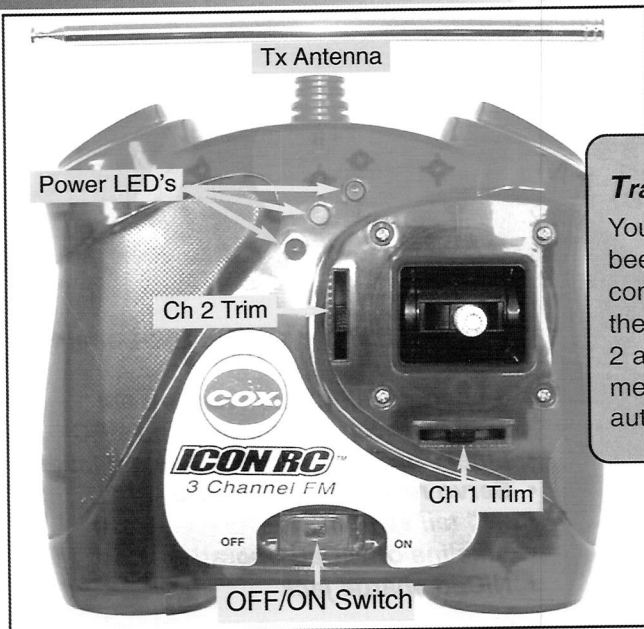
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System Features

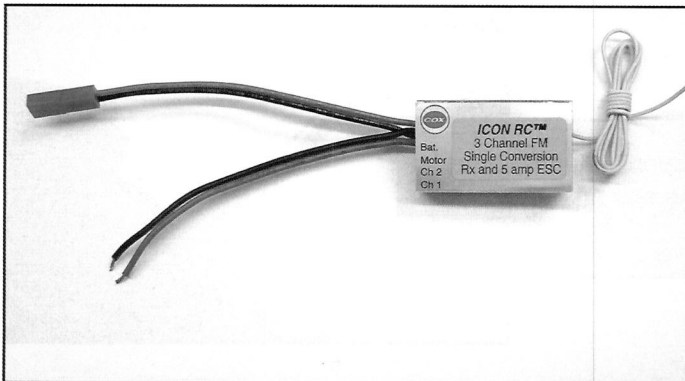
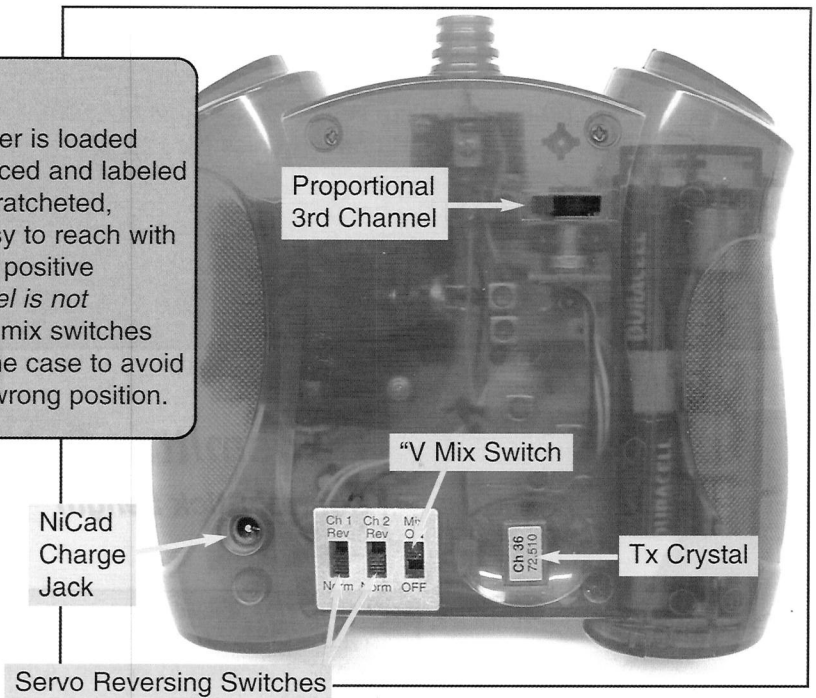


Transmitter - front view.

Your Cox ICON RC 3 channel FM transmitter has been designed for comfort and a positive feeling of control. From the stylish and ergonomical curvature of the case to the conveniently placed, precision molded 2 axis control stick, the Cox ICON RC™ transmitter is meant to fit in your hand and provide the control authority you'd expect from an industry leader.

Transmitter - rear view.

The ICON RC™ 3 channel transmitter is loaded with great features, conveniently placed and labeled for easy identification and use. The ratcheted, proportional 3rd channel lever is easy to reach with your left index figure and provides a positive throttle/spoiler response (*this channel is not reversible*). Servo reversing and “V” mix switches are recessed below the surface of the case to avoid being inadvertently switched to the wrong position.



Receiver

The COX ICON RC™ 3 channel 2 in 1 receiver is a single conversion, highly selective, light weight FM design with several sophisticated features. In addition to the 2 servo, 3 pin servo plug, the COX ICON RC™ 2-in-1 receiver features a built-in Battery Elimination Circuit (BEC), that supplies a safe 5 V to your servos using a 6 cell (7.2 V) battery pack. The ICON RC™ 2 in 1 receiver also has an Electronic Speed Control (ESC), that allows a full range of power settings to the flight motor. The high-current MOSFET motor driver is capable of supplying up to 5 Amps of continuous motor current. In addition, the ICON RC™ 2 in 1 receiver includes a voltage sensing circuit that automatically shuts off the motor when the battery pack has dropped to approximately 0.9 V per cell. This allows a safe margin of remaining power to steer and land the model. Once the motor shuts off in flight, it cannot be re-started until the battery is recharged for the next flight. The COX ICON RC™ receiver is a really great design with flight ranges exceeding 300 meters or 1,000 feet.

Servos

The Cox ICON RC™ 6 gram micro servo (COX item # 005500) is compatible with Hitec, Futaba, JR and Airtronics ("Z") radio systems.

Specs:

Torque: 9.9 oz-in (.72 Kg-cm)

Speed: 0.10 sec/60 degrees

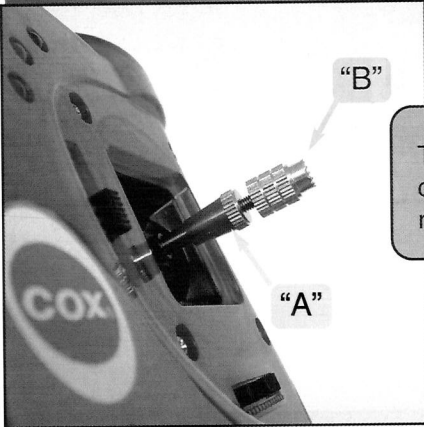
Weight: 6 gm (.21 oz) with connector

Voltage: 4.8 - 6 volt



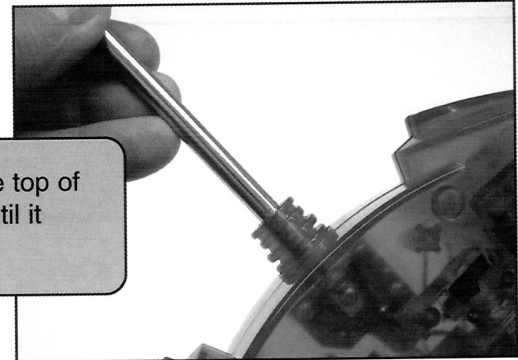
Transmitter Setup

Control Stick Length



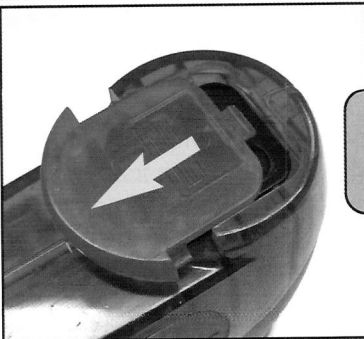
To adjust the length of the control stick, hold "A" tightly and rotate "B" counterclockwise to loosen. Adjust "B" to the desired length, then rotate "A" to tighten.

Installing the Antenna



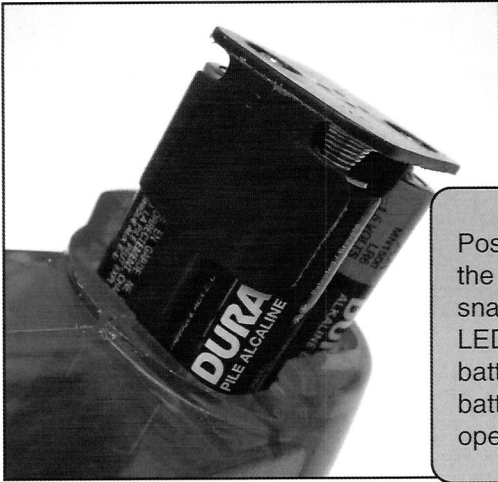
Insert the threaded end of the antenna into the opening in the top of the transmitter case until it stops. Next, rotate the antenna until it tightens. Do not overtighten.

Battery Installation



Locate the battery cover plate on the bottom of the transmitter. Slide the cover in the direction of the arrow. Remove the battery holder.

Insert 8 fresh AA Alkaline or a rechargeable NiCad battery into the battery holder. Note the polarity of the batteries.



Position the battery holder into the battery compartment and slip the battery holder in place. Slide battery cover plate in place and snap closed. Turn the transmitter on and check that the Power LED's are all glowing. If not, open the battery cover, remove the battery pack and check the polarity of the batteries and of the battery holder. Reinstall the battery holder and check for proper operation.

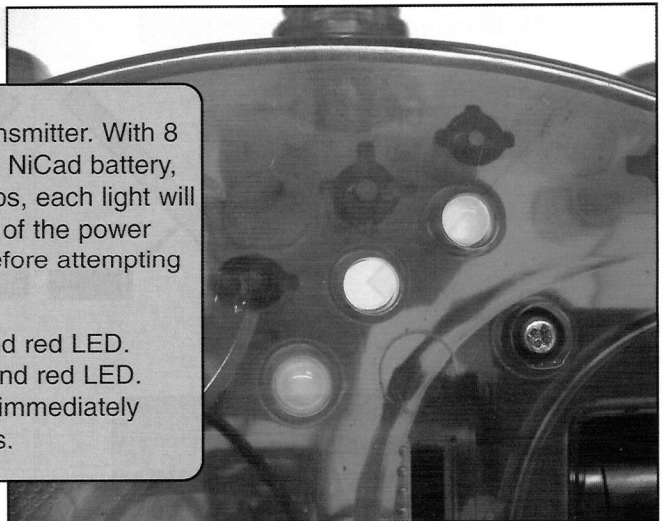
WARNING.

Do not mix old and new batteries. Do not mix alkaline, standard (carbon-zinc) or rechargeable batteries.

Power LED's

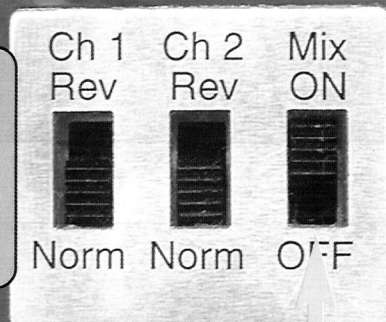
There are 3 LED's located on the front of the transmitter. With 8 fresh alkaline batteries or a fully charged 9.6 volt NiCad battery, all three LED's will light. As supplied voltage drops, each light will turn off in descending order indicating the status of the power output. Be careful to monitor the power LED's before attempting any flight.

- **Full power** is indicated by the green, yellow and red LED.
- **Normal operation** is indicated by the yellow and red LED.
- **Warning!** When only the red LED is on, land immediately and replace or charge the transmitter batteries.

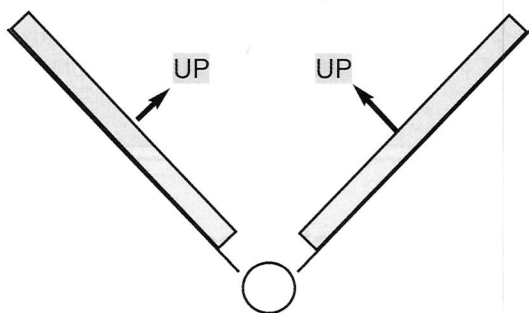


"V" Tail Mixing

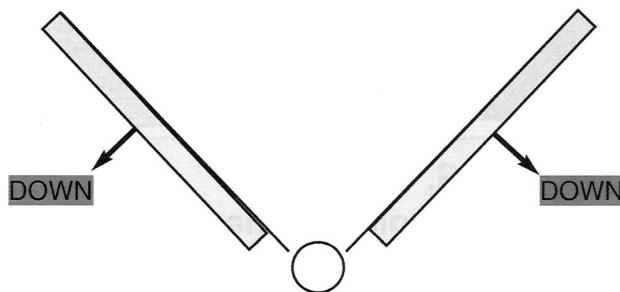
"V" tail mixing is the electronic coupling of the rudder and elevator to the 2 axis control stick. Since a "V" tail airplane requires input from both "ruddervators" for coordinated turns, the transmitter handles all of the electronic mixing of Ch 1 and Ch 2. The switch is either on or off. To turn on, use a small screwdriver and slide the switch toward the ON position.



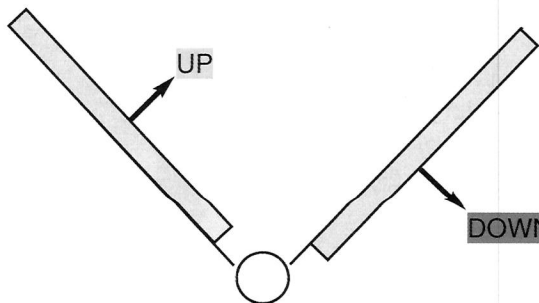
Controlling the up and down, right and left movement of a "V" tailed airplane is a little different than found on a cruciform (conventional rudder/elevator) model. Please refer to the images (as seen from the rear of the model) and directions below to properly set up your "V" tail equipped model. If required, use the servo reverse switches to get the correct direction of each control surface. If that fails to correct the problem, it may be necessary to reroute your control linkages.



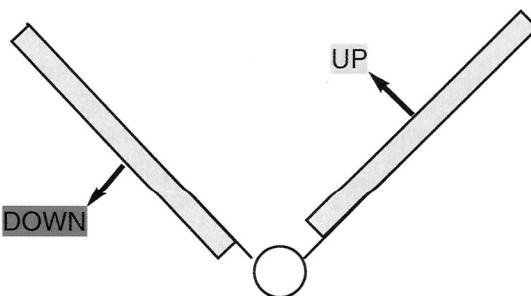
Airplane pitch nose UP -
both ruddervators move UP.



Airplane pitch nose DOWN
both ruddervators move DOWN.



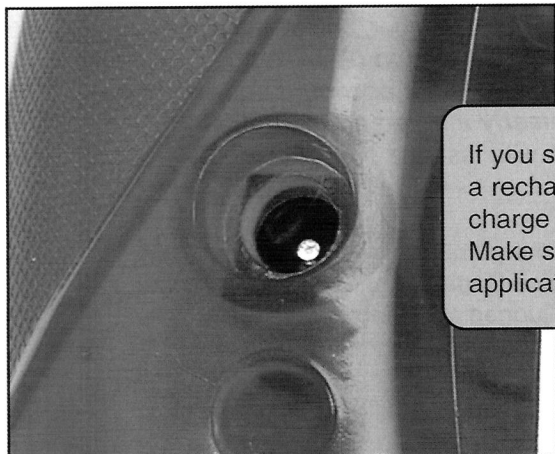
Airplane RIGHT TURN -
left ruddervator moves UP,
right ruddervator moves DOWN.



Airplane LEFT TURN -
right ruddervator moves UP,
left ruddervator moves DOWN.

Servo Reversing Switches

Servo reversing is a useful feature if the installation of your servos does not allow for the correct movement relative to the control stick input. To adjust, use a small screwdriver and flip the switch in the direction opposite the current setting and note the direction of movement of the control surface. There is no servo reversing for the 3rd channel.



NiCad Charge Jack Location

If you should choose to replace the 8 AA Alkaline batteries with a rechargeable NiCad, the Cox ICON RC™ transmitter has a charge jack located on the bottom rear of the transmitter case. Make sure that the charger and batteries are suitable for this application. **Do not charge non-rechargeable batteries.**

Transmitter Crystal Location

WARNING: Any adjustment(s) to your RC transmitter or replacement of transmitter components (crystal, semiconductor, etc..) that may result in modifying the power, range or frequency of your transmitter is a violation of FCC regulation and voids your authority to operate the transmitter. If you require a different operational frequency, please return the transmitter and receiver to Cox Hobbies for professional replacement and tuning.

