HOTRC CT-6A

HOTRC CT-6A 2.4GHz 6-Channel RC Transmitter and Receiver User Manual

Model: CT-6A | Brand: HOTRC

Introduction

This manual provides comprehensive instructions for the HOTRC CT-6A 2.4GHz 6-Channel RC Transmitter and Receiver system. Designed for remote control cars, boats, and tanks, this system offers stable 2.4GHz frequency hopping spread spectrum (FHSS) technology, ensuring reliable control over distances of 400-500 meters. The CT-6A features a user-friendly single-handed design, advanced channel mixing capabilities, and multiple power supply options for convenience. Please read this manual thoroughly before operation to ensure safe and optimal performance.

Key Features

- **Upgraded Functionality:** Features an added LED screen, improved lock function, automatic shutdown after 15 minutes of inactivity, voltage and signal return functions, and upgraded plug wire code to button code.
- **Enhanced Channel Adjustment:** Supports 1/2 channel mixing control and now also 5/6 channel mixing control. Allows adjustment of travel volume for channels 1-6. Receiver upgraded to 6 PWM outputs plus one level signal.
- **Stable 2.4GHz Signal:** The 2.4GHz 6-channel remote control with CT-600 receiver is perfect for RC car, boat, and tank models. It offers a 2.4GHz frequency and 3ms receiver response, ensuring stable control of your model up to 400-500 meters and includes out-of-control protection.
- **Powerful 6 Channels:** This RC receiver with 6 channels can be set for leakage protection. Channels 1-2 can be set for mixing control mode, channels 3-4 can control servos, and channels 5-6 can control lights. Features a precise adjustment knob that can be locked.
- **High-Quality Construction:** The RC transmitter and receiver feature a standard sponge wheel, exquisite electroplating on the steering wheel, and a high-quality PVC panel. Comfortable silicone strips on both sides with an exquisite leather pattern provide a pleasant feel and resist sweat.
- **Versatile Power Supply:** Supports 18650 battery, AA batteries, and 2S lithium battery power supply. Two batteries can be used simultaneously. The remote control can also charge the 18650 battery.
- **Single-Handed Operation:** Ergonomic pistol grip and steering wheel design for comfortable single-handed control, ideal for beginners.

Product Overview

Figure 1: The HOTRC CT-6A 2.4GHz 6-Channel RC Transmitter and its accompanying F-06A receiver. The transmitter features a pistol grip design with a steering wheel for intuitive control, while the receiver provides 6 PWM channels and a bind button.

Figure 2: An overview of the HOTRC CT-6A's key features, including 2.4G frequency hopping, LCD screen, charging & analog port, mixed control function, return channel, locking function, stroke adjustment, single-hand operation, positive and negative channels, automatic shutdown, and electronic fine tuning.

FUNCTION INTRODUCTION

Figure 3: Labeled diagram of the CT-6A transmitter showing its components: Charging port/simulation port, Internal Antenna, Directional joystick, Single-hand operation, Metal pendant, CH4, CH3, Throttle trigger, 18650 battery compartment, AA battery compartments, and 2S lithium battery interface.

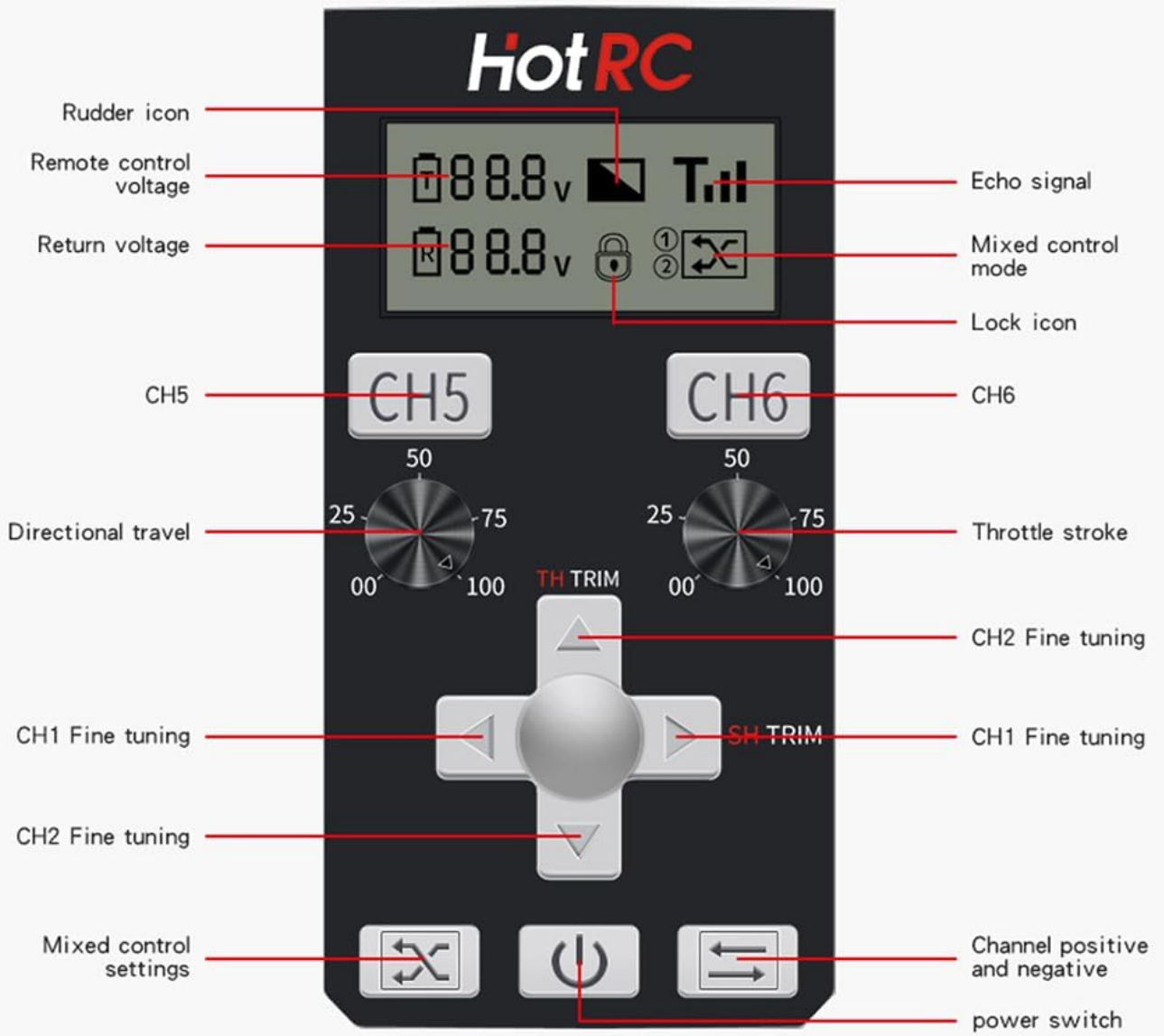

Figure 4: Detailed view of the CT-6A's LCD screen and control panel. Labels include Rudder icon, Remote control voltage, Return voltage, CH5/CH6 displays, Directional travel, Throttle stroke, CH1/CH2 Fine tuning, Mixed control settings, Channel positive and negative, and Power switch.

Setup

1. Battery Installation

The HOTRC CT-6A transmitter supports multiple power supply methods: 18650 battery, AA batteries, or a 2S lithium battery. Two batteries can be used simultaneously. The remote control can also charge the 18650 battery.

Figure 5: Illustration of the three supported power supply methods for the CT-6A transmitter: 18650 battery, 2S lithium battery, and AA batteries. The product does not include batteries; please purchase them separately.

1. Open the battery compartment cover located at the bottom of the transmitter handle.
2. Insert the chosen batteries (e.g., 4 x AA batteries or a 2S lithium battery) according to the polarity markings inside the compartment. The innovative removable battery case allows direct insertion into the 2S lithium battery balance port.
3. Close the battery compartment cover securely.

2. Receiver Connection and Binding

The CT-6A comes with a 6-channel receiver (F-06A or CT-600 4+2 channel receiver). The receiver is equipped with a return function to provide battery voltage and signal strength feedback.

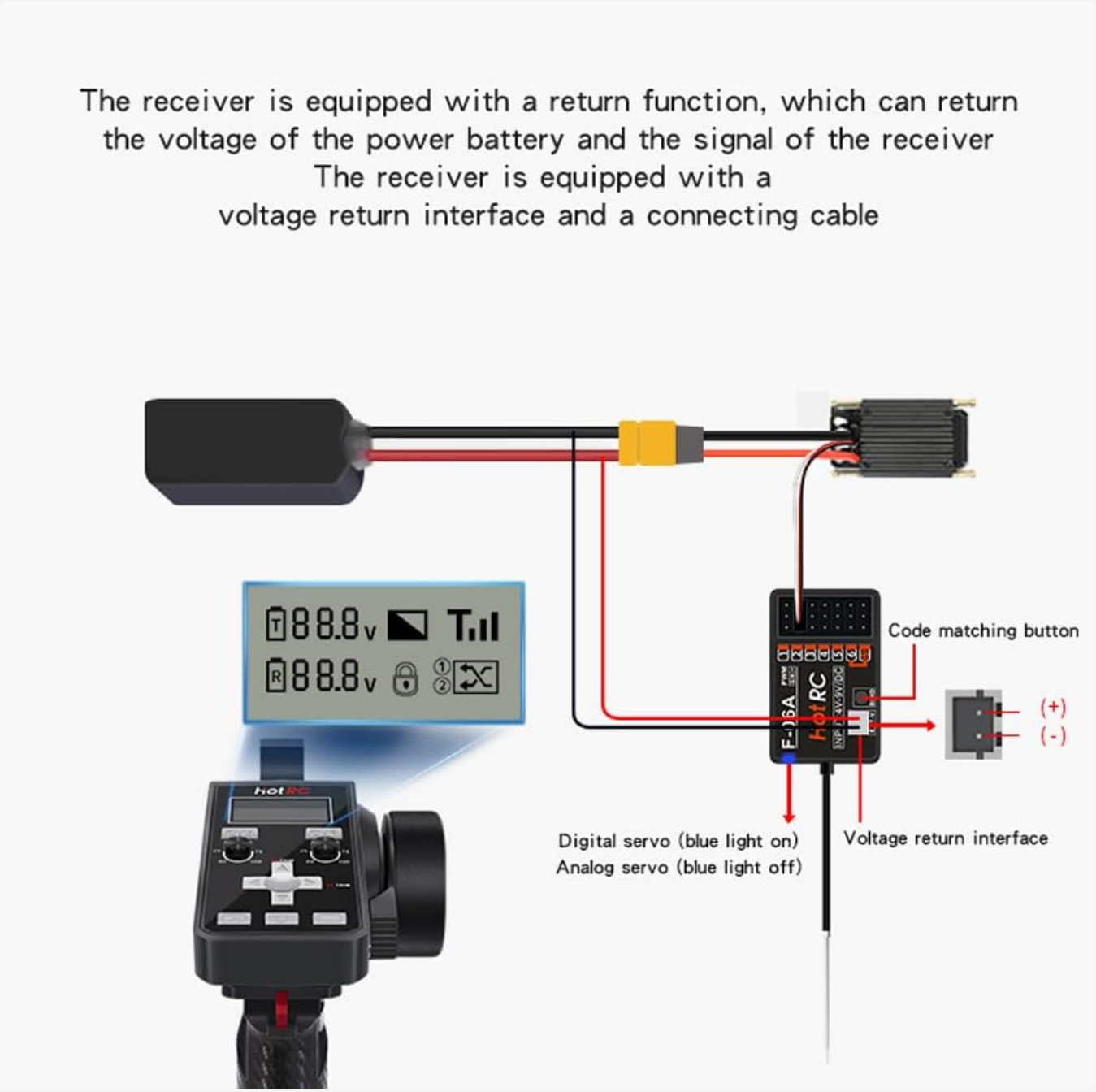

Figure 6: Diagram illustrating the connection of the F-06A receiver. It shows connections for digital servo (blue light on), analog servo (blue light off), voltage return interface, and the code matching button. The receiver provides voltage and signal return to the transmitter's LCD screen.

1. Connect the receiver to your RC model's power source and servos/ESC according to your model's specific wiring diagram. Ensure correct polarity.
2. To bind the receiver to the transmitter, power on the receiver. Press and hold the "BIND" button on the receiver (refer to Figure 6).
3. While holding the BIND button, power on the transmitter. The indicator lights on both the transmitter and receiver should show a successful binding process (e.g., solid light).
4. Once bound, release the BIND button. Power cycle both the transmitter and receiver to confirm the binding is saved.

Operating Instructions

1. Basic Controls

- **Steering Wheel:** Controls the steering (CH1) of your RC model. Turn left or right to steer.

- **Throttle Trigger:** Controls the throttle (CH2). Pull the trigger to accelerate forward, push it away to brake or reverse.
- **CH3/CH4 Buttons:** These buttons (refer to Figure 3) can be assigned to control servos or other functions on your model. By default, they can control servos.
- **CH5/CH6 Buttons:** These channels can be used to control lights or other auxiliary functions.

2. Advanced Settings and Adjustments

The CT-6A features an LCD screen and precise adjustment buttons for fine-tuning your model's performance.

Figure 7: The LCD screen displays real-time information such as transmitter voltage, return voltage from the receiver, return signal strength, and mixed control status. This allows for visual monitoring of the system's status.

- **Trim Adjustments (ST TRIM, TH TRIM):** Use the trim buttons (refer to Figure 4) to fine-tune the neutral position of your steering (ST) and throttle (TH) channels. This helps ensure your model tracks straight and stops correctly when the controls are centered.
- **Channel Mixing Control:** Channels 1-2 and 5-6 can be set for mixing control. This allows for complex control setups, such as controlling multiple functions with a single input. Refer to the on-screen menu (Figure 4, "Mixed control settings") for configuration.

- **Travel Volume Adjustment:** The travel volume for channels 1-6 can be adjusted to limit the maximum throw of servos or the range of throttle/steering.
- **Lock Function:** The precise adjustment knob can be locked to prevent accidental changes to settings during operation (refer to Figure 4, "Lock icon").
- **Out-of-Control Protection:** The system includes a failsafe function. In case of signal loss, the receiver will revert to pre-set positions (e.g., throttle to neutral, steering straight) to prevent the model from running away.

Maintenance

- **Cleaning:** Use a soft, dry cloth to clean the transmitter and receiver. Avoid using solvents or abrasive cleaners.
- **Storage:** Store the system in a cool, dry place away from direct sunlight and extreme temperatures. Remove batteries if storing for extended periods to prevent leakage.
- **Battery Care:** Ensure batteries are charged according to their type. Do not overcharge or deep discharge lithium batteries.
- **Inspection:** Periodically check all connections and wires for signs of wear or damage.

Troubleshooting

Problem	Possible Cause	Solution
Transmitter does not power on.	Low or dead batteries; incorrect battery installation.	Replace or recharge batteries. Ensure correct polarity.
No control over the model.	Not bound to receiver; receiver not powered; signal interference; damaged receiver/transmitter.	Perform binding procedure again. Check receiver power. Move to an area with less interference. Inspect for damage.
Model moves erratically or not straight.	Trim settings incorrect; mechanical issues with model.	Adjust steering and throttle trims on the transmitter. Check model's steering linkage and servo.
Reverse function not working.	ESC not configured for reverse; throttle trim incorrect; channel reverse setting.	Check your Electronic Speed Controller (ESC) manual for reverse setup. Adjust throttle trim. Verify channel reverse settings on the transmitter if applicable.
Short control range.	Low transmitter/receiver battery; antenna obstructed or damaged; high interference environment.	Ensure batteries are fully charged. Check antenna for damage and ensure it's not obstructed. Operate in an open area.

Specifications

Feature	Detail
Model Type	Car, Boat, Tank
Channels	6 Channels
RF Range	2.4GHz ISM (2.4005 - 2.4835 GHz)

Feature	Detail
RF Power	<100mW
Modulation	GFSK
Spread Spectrum	FHSS
Reaction Speed	PWM ≤ 20ms
RF Distance	400m - 500m (ground)
Receiving Sensitivity	<-97dbm
Transmitter Voltage	4.5V - 9V DC
Receiver Voltage	4V - 14V DC
Product Dimensions (L x W x H)	5 x 2 x 8 cm
Product Weight	430 grams
Main Material	Plastic
Recommended Age	12 months and up

Warranty and Support

The package includes 1 CT-600 remote control, 1 CT-600 4+2 channel receiver, and 1 user manual.
For any issues with this item, please contact the seller. The seller commits to responding within 24 hours to assist with product-related inquiries and support.
Please retain your proof of purchase for any support inquiries.

Safety Warnings

WARNING: Always operate your RC model in a safe and responsible manner. Ensure you have clear line of sight to your model and are aware of your surroundings. Keep hands, face, and loose clothing away from moving parts.
Battery Safety: Use only recommended battery types. Do not mix old and new batteries, or different types of batteries. Dispose of batteries responsibly. Never short-circuit battery terminals.
Children: This product is not a toy and should be operated under adult supervision, especially for younger users. The recommended age of 12 months and up from the product specifications seems unusually low for an RC product; adult supervision is strongly advised for all users under 14 years of age.