LHCXRC CT01 Remote Control Transmitter User Manual

LHCXRC

Remote Control Transmitter
User Manual

CT01

Contents

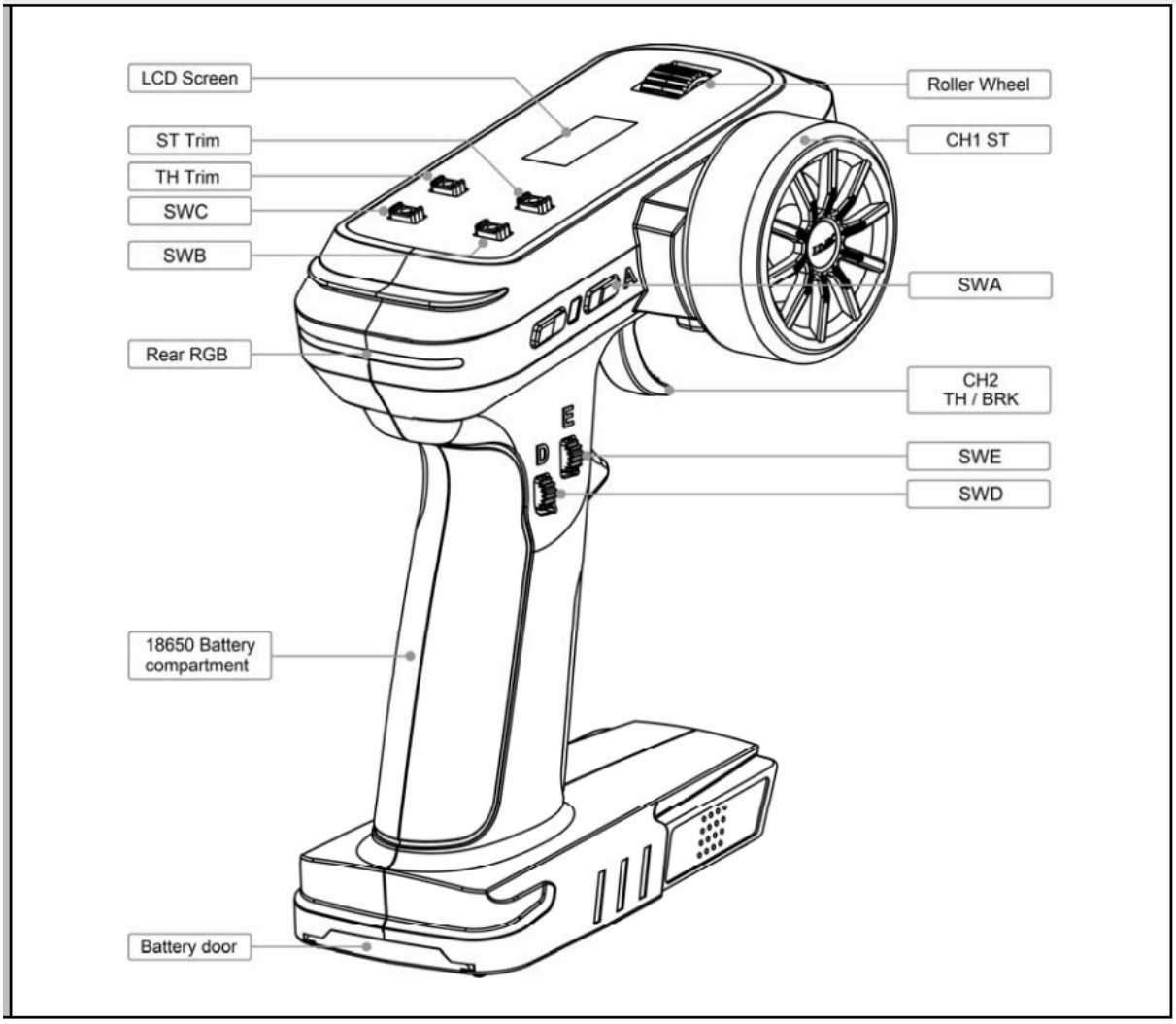
CT01 Remote Control Transmitter

- LDARC 02 bidirectional 2.4Ghz wireless system
- Telemetry voltage for main battery, custom alert voltage
- 8 channels output, 5 model files
- 6 SW channels all support custom output PWM value
- Sound and vibration warning
- Support dual tracks (tank) mode
- Backlight of key support white / color / lights out mode
- Transmitter support firmware update
- English and Chinese language menu
- Wireless signal strength indication, receiver connect / disconnect alert
- 6 SW channels all support channel remap
- 8 channels independent failsafe setting
- Detachable 18650 battery, standard USB Type-C charging interface
- Custom RGB rear light
- 50Hz / 100Hz / 200Hz servo speed

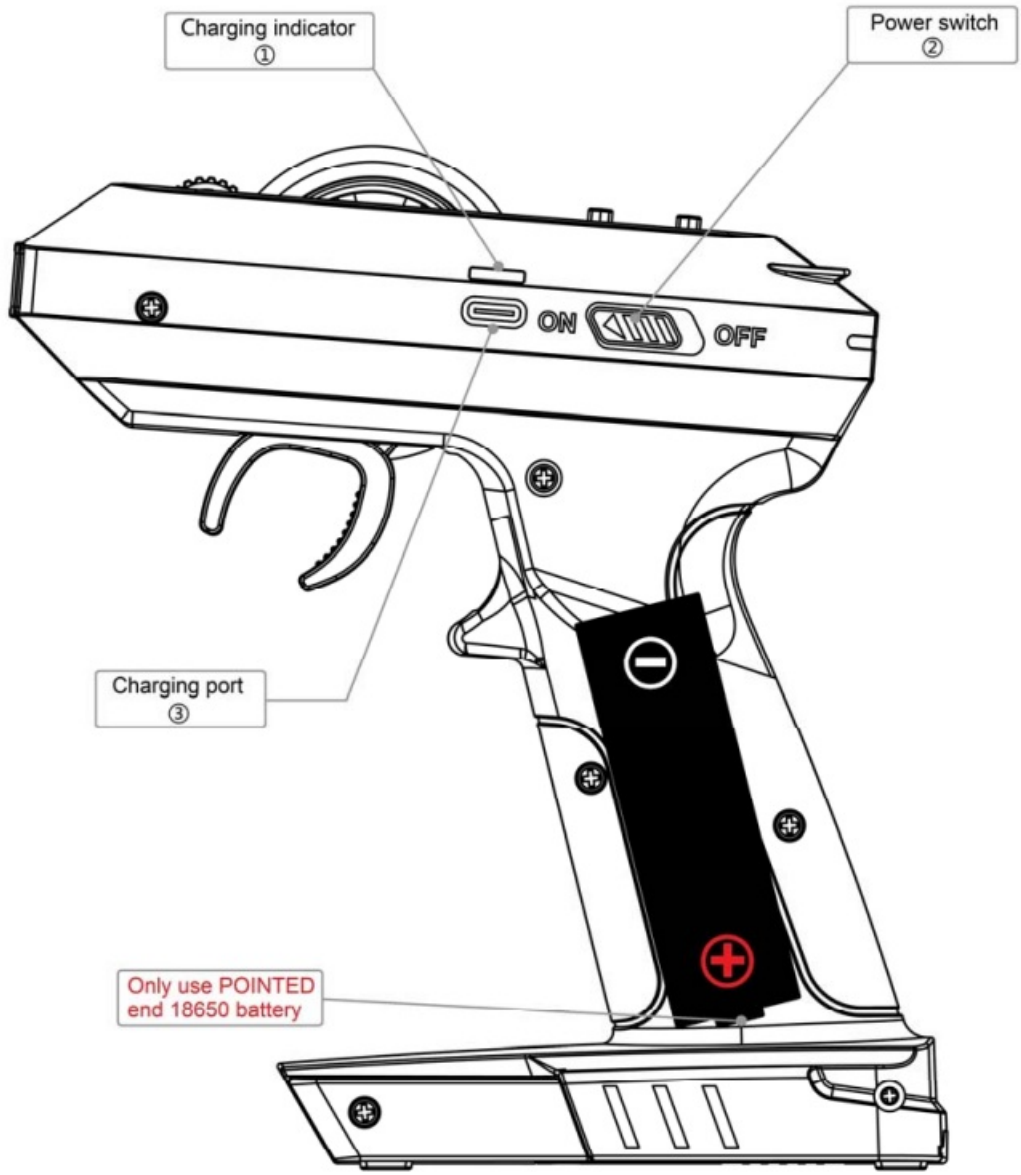
WARNING

- This product is not a toy, user need model hands-on experience. Please be careful when using, we do not assume responsibility for any property damage or personal injury caused by use this product.
- DO NOT using in thunderstorm, bad weather and harsh environments.
- Remove ESC and motor before run binding procedure or else may result in serious injury.
- Receiver maybe lost signal when the distance too far, sheltered by barrier or radio interference. Use reasonable failsafe setting,'under the premise of ensuring safety", remove motor Gear then power off transmitter to test failsafe working properly or not.

FUNCTION

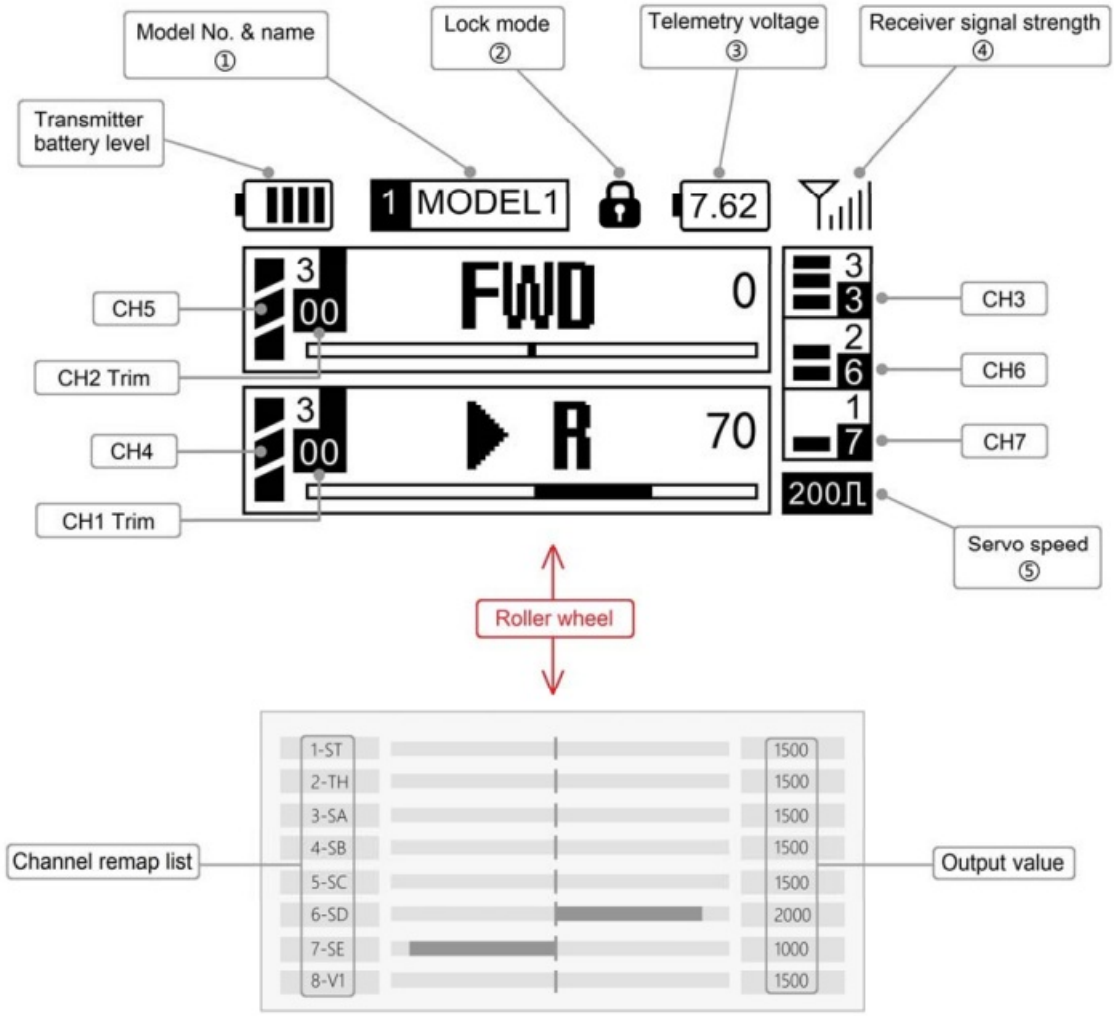


BATTERY & CHARING



- Installing battery : remove the battery door from the bottom of the transmitter, Install battery as shown. ONLY use LI-ion or LI-Dol I POINTED end 118650 battery, charging voltage 4.2V maximum.
- (1) : Red indicator on when charging, light off when charging finished.
- (2) : ON position power-up, OFF position power-off.
- (3): Standard USB Type-C charging interface can use most of mobile phone charger like normal USB charger, GaN charger or mobile power supply (Charge Pal).
- **Warning!** Risk of explosion if use inferior. mechanical deformation, over discharge battery.
- Transmitter charging current 600mA, fully charged need about 2 hours if use 1200mAh capacity battery, about 4 hours if use 2400mAh battery.
- When charging using some old computer or USB hub, maybe cannot fully charged because current limit, please use mobile phone charger.

MAIN MENU



- Transmitter will into <Main menu> after power-up, use roller wheel can switch between 2 page above.
- (1) : Current running model file number and name, more information see page 10 <MENU PREVIEW>.
- (2) : Press roller wheel and hold 3 seconds can lock or unlock main menu.
- (3) : Telemetry voltage value display, low voltage alert setting see page 10 <TELEMETRY>.
- (4): Wireless signal strength level, receiver connect / disconnect alert setting see page 10 <TELEMETRY>.
  Notice: receiver will turn antenna off when very close to transmitter (about 0.1 ~ 2.0 meters), this leads to the display signal strength level down, its normal no need to worry about
- (5): Servo speed, more information see page 10 <MENU PREVIEW>.

MENU PREVIEW

■ <Model Setting> is the setting page of five model files numbered 0/1/2/3/4, the red MO on menu bar indicate the current running model file.

Setting	→	Model Setting	Functional specifications
Exit		Exit	
IONIA		Model No.	Switch current running model file, number 0 /1/213/4 total five model files
Model		Model Name	Custom model file name
Advanced		ST Setting	CH1 ST channel reverse, end point and su b trim
About		TH Setting	CH2 TH channel reverse, end point and su b trim
		CH Remap	Remap define of SWAIBICIDIE and SV1
		SW Custom	Define SW channel output value, please re ad blue words #Notice below
		Failsafe	See AILSAFE> this page
		Servo SPD 5o	Setting receiver output servo speed (PWM speed)
		Telemetry	See page 10 <TELEMETRY>
		RGB	Custom RGB rear light color and brightness
		TX Type	<Normal car> or <Dual tracks (tank)> mode

Notice:

- SWA/B/C are 3 gears structure, user can define 3 different output values, range is 900us 2100us.
- SWD are 2 gears structure, user can define 2 different output values, range same as above.
- SWE is trigger structure, user can define 2 different output values, hold SWE will sent one value, release will sent another, range same as above.
- SV1 is virtual potentiometer, user can define potentiometer output values, range same as above.
- <Advanced> is the setting page related to transmitter hardware.

Settin • mo		Advanced	Functional specifications
Exit		Exit	
Model		Bind TLM-On	See page 11 <BIND
Advanced		Bind TLM-Off	
About		LCD-BRT	LCD backlight brightness, turn off backlight i f set to 0
	→	LCD-Contrast	LCD contrast
		SW-Color	The LED of SW key <Color> or <White> m ode switch
		SW-BRT	The LED of SW key brightness, turn off LE D if set to 0
		Calibration	Recalibration the ST and TH channels
		Reset	Reset to the factory default, user need perf orm <Calibration> after <Reset>

FAILSAFE

■ <Failsafe> menu, please read functional specifications below carefully before setting.

Setting		Model Setting		Failsafe
Exit		Exit		Exit
MAill+ 3.z:		Model No. o		CH-1 STP
Model		Model Name		CH-2 STP
Advanced		ST Setting		CH-3 HLD
About		TH Setting__		CH-4 HLD
	→	CH Remap	→	CH-5 HLD
		SW Custom		CH-6 HLD
		Failsafe		CH-7 HLD
		Servo SPD so		CH-8 HLD
		Telemetry		
		RGB		
		TX Type		

Functional specifications
Failsafe support <HOLD>. <STOP> and <Value Custom>

- <HOLD>: receiver will keep the last PWM output when signal lost, usually used for normal SW channels, like car door and light control.

- <STOP>: receiver will stop PWM output (no PWM output) when signal lost, the failsafe will “pushed down” to the device connect to this channel. Usually used for ESC, please read ESC manual carefully to ensure safe operation.
- <Value Custom>: receiver will output custom PWM value when signal lost, for expert use only.

Notice:

- Use reasonable failsafe setting,’ under the premise of ensuring safety remove motor gear then power off transmitter to test failsafe working properly or not.
- After setting failsafe and servo speed on the transmitter, receiver perform user setting not more than 20 seconds.
- All the channels of receiver will keep 50Hz PWM output after power on, receiver perform the failsafe and servo speed setting not more than 20 seconds after receiving signals.

TELEMETRY

Telemetry voltage and receiver/lost alert setting.

Setting mo		Model Setting		Telemet	Functional specifications
Exit		Exit		Exit	
Model		Model No.		C/L Alert ON	Buzz & vibration when receiver connect or lost
Advanced		Model Name		LV Alert OFF	Buzz & vibration when tele metry voltage below <LV se tting>
About		ST Setting		LV setting 74	Telemetry low voltage alert value
	→	TH Setting	→	Offset o	Adjust the telemetry voltage between real battery voltag e
		CH Remap			
		SW Custom			
		Failsafe			
		Servo SPD			
		Telemetry			
		RGB			
		TX Type			

Notice: <LV setting> value is the total vokage of serial battery, transmitter don’t know how many cells in serial battery, also don’t know battery type. User need set the telemetry low voltage alert value depend on actual situation.

BIND

■ Bind function in transmitter menu.

Setting Atio	→	Advanced
Exit		Exit
Model		Bind TLM-On
Advanced		Bind TLM-Off
About		LCD-BRT
		LCD-Contrast
		SW-Color
		SW-BRT
		Calibration
		Reset

- Power on the receiver then press the <BIND> key within 10 second until green blue LED fast blink meaning receiver in bind mode. Select the <Bind TLM-On> or <Bind TLM-Off> option on the transmitter <Setting>, <Advanced> menu, respectively to the receiver's <TELEMETRY ON> or <TELEMETRY OFF> mode. Receiver will red blue slow blink or red green slow blink after bind success. User need exit transmitter from bind menu and cycle receiver power. The LED meaning please refer to receiver manual.
- <Bind TLM-On> & <TELEMETRY ON> mode : Bidirectional communication between transmitter and receiver, receiver will send telemetry packet to transmitter, user can set the alert voltage value on the transmitter. One model file on the transmitter can bind more than one <TELEMETRY ON> mode receiver but user need keep ONLY ONE receiver power on at the same time because more than one <TELEMETRY ON> mode receiver working in parallel will results in telemetry packet error.
- <Bind TLM-Off> & <TELEMETRY OFF> mode : One-way communication between transmitter and receiver, user can't view the telemetry data and signal strength on transmitter.

  Notice:
- The CT series transmitter use LDARC Oa wireless system, each model file of transmitter have unique ID. This feature lets receiver bind to model file instead of transmitter. Jf receiver does not hind to current run nina model file will an to fallsafe mode. even when use the same transmitter

SPECIFICATIONS

Electrical performance

- Operating voltage : 3.5V – 4.2V
- Operating current : less than 90mA (all light off)
- Operating current : less than 300mA (all light maximum brightness)
- Charging current : 600mA
- Weight : 240g (not include battery)

LDARC 02 wireless system

- Wireless packet refresh time : 7.5ms

- Communication data rate : 1Mbps
- Channel resolution : 11bil (2048)
- PWM maximum range : 900us 1500us – 2100us (1125%)

8 channels hardware define

- 2 linear channels : ST and TH
- 3 channels with 3 gears : SWA. SWB, SWC
- 1 channel with 2 gears : SWD
- 1 trigger channel : SWE
- 1 virtual potentiometer channel : SV1

LDARC O, wireless system support:

- LDARC CT series transmitter
- LDARC CR series receiver
- LDARC X43 micro off-roader
- LDARC M58 micro monster truck

WWW.IDARC.COM

FCC Warning

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.
Any Changes or modifications not expressly approved by the party responsible for compliance could void the users authority to operate the equipment.
Note: 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 in a residential installation. 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 to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

* RF warning for Portable device: The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

Documents / Resources

LHCXRC CT01 Remote Control Transmitter [pdf] User Manual
CT01, 2BAKSCT01, CT01 Remote Control Transmitter, Remote Control Transmitter, Transmitter