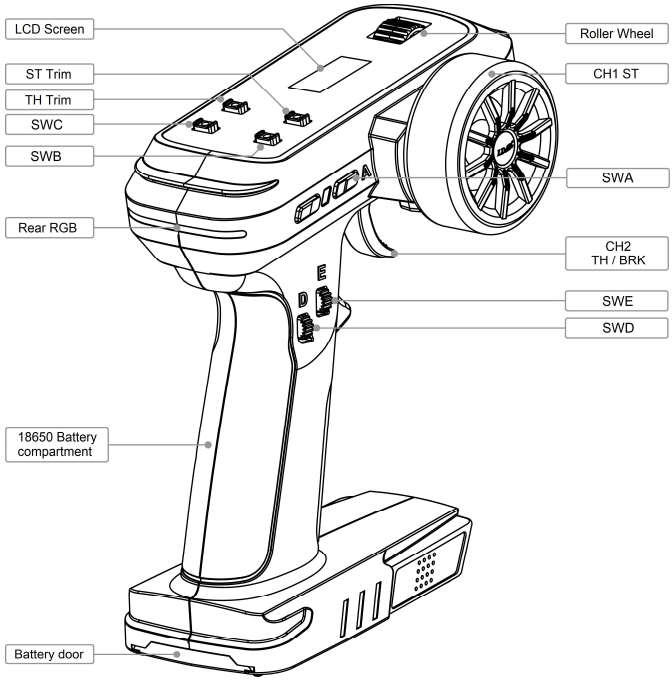
CT01 TRANSMITTER USER MANUAL

- **LDARC O_2** 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

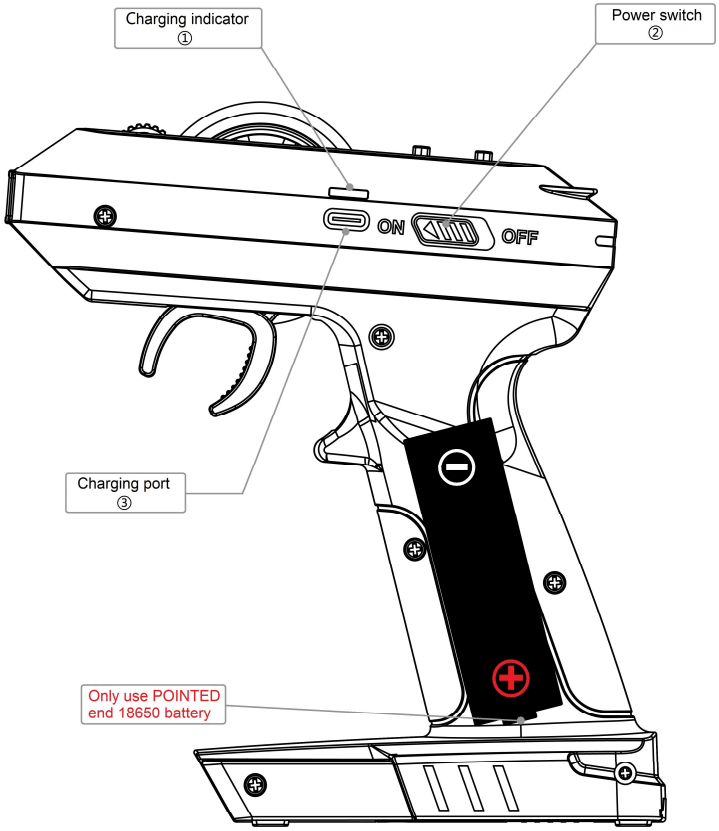
WARNING

- 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-pol POINTED end 18650 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.

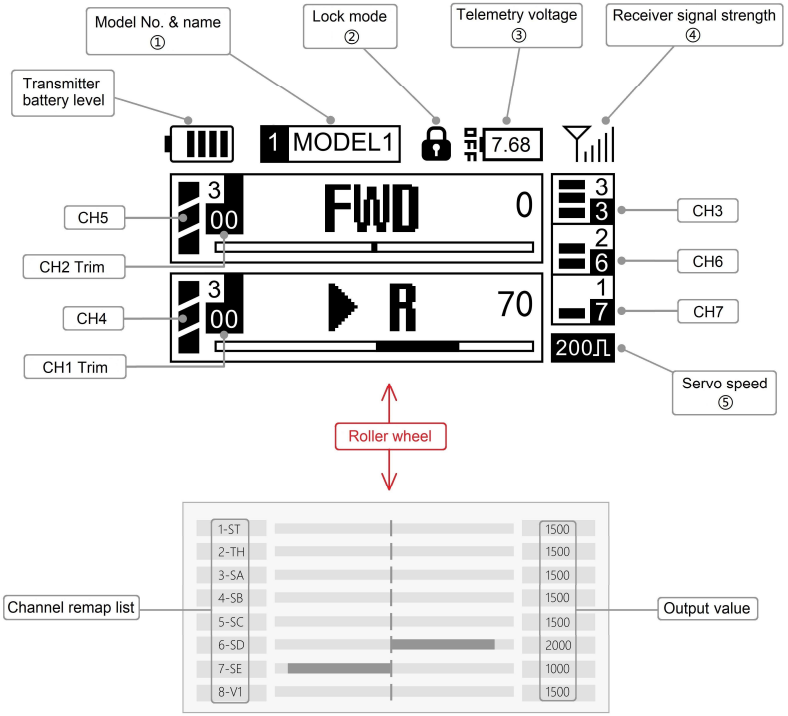
■ ⑧ : Standard USB Type-C charging interface can use most of mobile phone charger like normal USB charger, GaN charger or mobile power supply (Charge Pal).

■ **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>. Battery icon meaning LV Alert OFF, icon meaning LV Alert ON.

■ 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 M0 on menu bar indicate the current running model file.

Setting M0
Exit
切换到中文
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Model Setting M0	Functional specifications
Exit	
Model No. 0	Switch current running model file, number 0/1/2/3/4 total five model files
Model Name	Custom model file name
ST Setting	CH1 ST channel reverse, end point and sub trim
TH Setting	CH2 TH channel reverse, end point and sub trim
CH Remap	Remap define of SWA/B/C/D/E and SV1
SW Custom	Define SW channel output value, please read blue words #Notice below
Failsafe	See <FAILSAFE> this page
Servo SPD 50	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.

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Advanced M0	Functional specifications
Exit	
Bind TLM-On	See page 11 <BIND>
Bind TLM-Off	
LCD-BRT	LCD backlight brightness, turn off backlight if set to 0
LCD-Contrast	LCD contrast
SW-Color	The LED of SW key <Color> or <White> mode switch
SW-BRT	The LED of SW key brightness, turn off LED if set to 0
Calibration	Recalibration the ST and TH channels
Reset	Reset to the factory default, user need perform <Calibration> after <Reset>

<FAILSAFE>

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

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Model Setting M0
Exit
Model No. 0
Model Name
ST Setting
TH Setting
CH Remap
SW Custom
Failsafe
Servo SPD 50
Telemetry
RGB
TX Type

→

Failsafe M0	
Exit	
CH-1	STP
CH-2	STP
CH-3	HLD
CH-4	HLD
CH-5	HLD
CH-6	HLD
CH-7	HLD
CH-8	HLD

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 connect / lost alert setting.

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Model Setting M0
Exit
Model No. 0
Model Name
ST Setting
TH Setting
CH Remap
SW Custom
Failsafe
Servo SPD 50
Telemetry
RGB
TX Type

→

Telemetry M0		Functional specifications
Exit		
C / L Alert	ON	Buzz & vibration when receiver connect or lost
LV Alert	OFF	Buzz & vibration when telemetry voltage below <LV setting>
LV setting	74	Telemetry low voltage alert value
Offset	0	Adjust the telemetry voltage between real battery voltage

Notice: <LV setting> value is the total voltage 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.

In main menu Battery icon 5▯ meaning LV Alert OFF, icon 5▯ meaning LV Alert ON.

<BIND>

■ Bind function in transmitter menu.

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Advanced M0
Exit
Bind TLM-On
Bind TLM-Off
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 O_2 wireless system, each model file of transmitter have unique ID. This feature lets receiver bind to model file instead of transmitter. **If receiver does not bind to current running model file will go to failsafe 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 O_2 wireless system

■ Wireless packet refresh time : 7.5ms
■ Communication data rate ： 1Mbps
■ Channel resolution ： 11bit (2048)
■ PWM maximum range : 900us ~ 1500us ~ 2100us (±125%)
■ Total channels of O_2 system : 16 channels (CT01 only use CH1~8)

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_2 wireless system support:

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

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