Manuals+ — User Manuals Simplified.

RC6GSV3 2.4GHz Radio System Instruction Manual

Contents

RC6GS

RC6GSV3 2.4GHz Radio System

SAFETY PRECAUTIONS

- Never operate your model during adverse weather conditions. Poor visibility can cause disorientation and loss of control of your model.
- Never use this product in a crowded and illegal area.
- Always ensure the trim levers are at 0 and the battery is properly charged before connecting the receiver.
- Always check all servos and their connections prior to each run.
- Always be sure to turn off the receiver before the transmitter.

WARNING
This product is not a toy and is NOT suitable for children under the age of 14. Adults should keep the product out of the reach of children and exercise caution when operating this product in the presence of children. Water or moisture may enter the transmitter inside through gaps in the antenna or joystick and cause model instability, even out of control. If running in wet weather(such as a game) is inevitable, always use plastic bags or waterproof cloth to cover the transmitter.

FCC Statement

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 the 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.

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 this device must accept any interference received, including interference that may cause undesired operation.
2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Packing list (Please refer to the sales interface for the actual packing list)

No.	Items	Quantity
1	RC6GS V3 Transmitter	1
2	R7FG Receiver	1
3	EXT Connect Cable for F7FG	1
4	Lanyard	1
5	Instruction Manual	1
6	Packing Box	1

RC6GS V3 Remote Control System

Transmitter RC6GS V3

Transmitter Overview

Switch/Button Introduction

Switch/Button	Introduction	Function
ST	Steering wheel	Default control channel 1 steering. Customizable to control other channels
TH	Throttle trigger	Default control channel 2 throttle. Customizable to control other channels
VR	Knob switch	Default control channel 3. Customizable to control channel 3/4/5/6/7
SwA	Momentary switch	Default control channel 4. Customizable to control channel 3/4/5/6/7
SwB	Three-way switch	Default control channel 5. Customizable to control channel 3/4/5/6/7
SwC	Three-way switch	Default control channel 6. Customizable to control channel 3/4/5/6/7
SwD	Momentary switch	Default control channel 7. Customizable to control channel 3/4/5/6/7
LK-A	Two-way switch	Lock mode of SwA. Customizable to control channel 3/4/5/6/7
LK-B	Momentary switch	Lock mode of SwB. Customizable to control channel 3/4/5/6/7
LK-C	Momentary switch	Lock mode of SwC. Customizable to control channel 3/4/5/6/7
LK-D	Two-way switch	Lock mode of SwD. Customizable to control channel 3/4/5/6/7

Note:

1. CH in the transmitter stands for Channel.

2. Momentary switch: The servo value will reach the maximum (or the minimum) when pressing the button, and back to the original value when loosen.

3. Two-way switch

1) LK-A/LK-D: The servo value will reach the maximum (or the minimum) when pressing SwA/SwD once, and back to the original value when pressing SwA/SwD again.

2) LK-B/LK-C: Toggle SwB/SwC to the DOWN or UP position (excluding the CNT position), the servo value will reach the maximum (or the minimum); Toggle SwB/SwC again to return to the position, servo value will jump to the minimum (or the maximum).

4. Three-way switch: Three different servo values will be switched when the switch is located at three different positions.

Specifications

- **Size:** 174.8*116.4*224.2mm(6.88*4.58*8.83″)
- **Channel:** 7 channels
- **ID seed:** 10
- **Control Range:** 600 meters
- **Modulation Mode:** GFSK
- **Weight:** 319g(11.28oz)
- **Model Memory:** 30
- **Antenna Length:** 106mm(4.17″) Spread Spectrum: FHSS
- **RF Power:** <20dbm
- **LCD Screen:** 128*64 Resolution, LCD Backlight

- **Battery Box Dimension:** 89*59*25mm (3.5*2.32*0.98″)
- **Adaptable Models:** Cars/Boats/Robots
- **Operating Voltage:** 4.8-16.8V, 6pcs of AA batteries or 2S-4S LiPo battery
- **Low RSSI Alarm:** Support
- **Simulator Function:** Support
- **Model Battery Voltage Telemetry:** Maximum 8S (33.6V) model battery voltage telemetry
- **Compatible Receiver:** R7FG(Standard)/R8FG/R8EF/R8F/R6FG/R6F/R4FGM/R4F
- **Frequency:** 2.4Ghz ISM Band 2400MHz–2483.5MHz Channel resolution: 4096 with regular jitter of 0.5us
  Operating Current: 80-120mA
- **Low Voltage Alarm:** Support
- **FPV Head Track Function:** Support
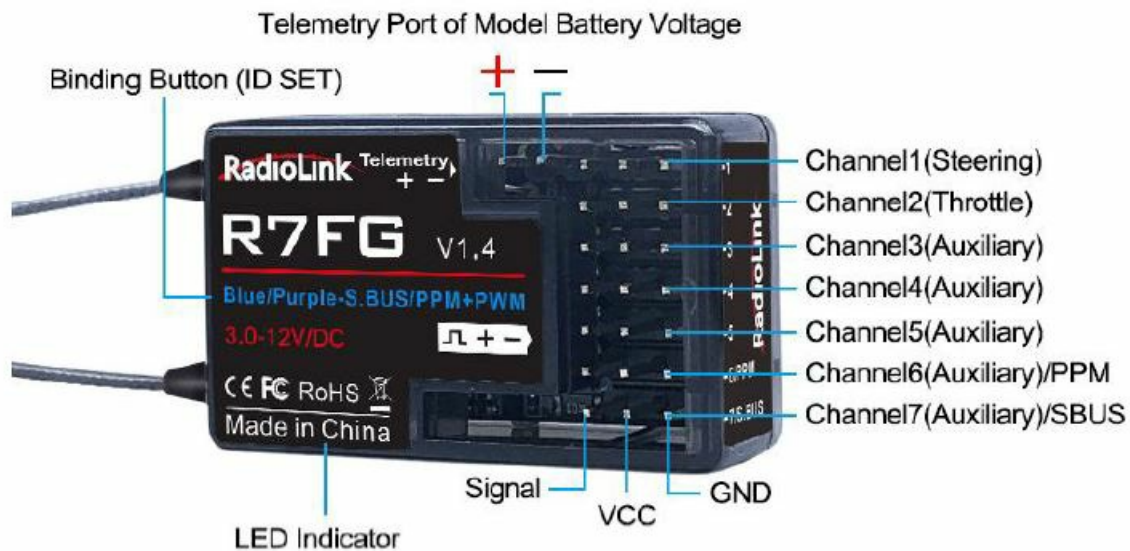- **CRSF Protocol:** Support

Basic Operations

Display on LCD Screen
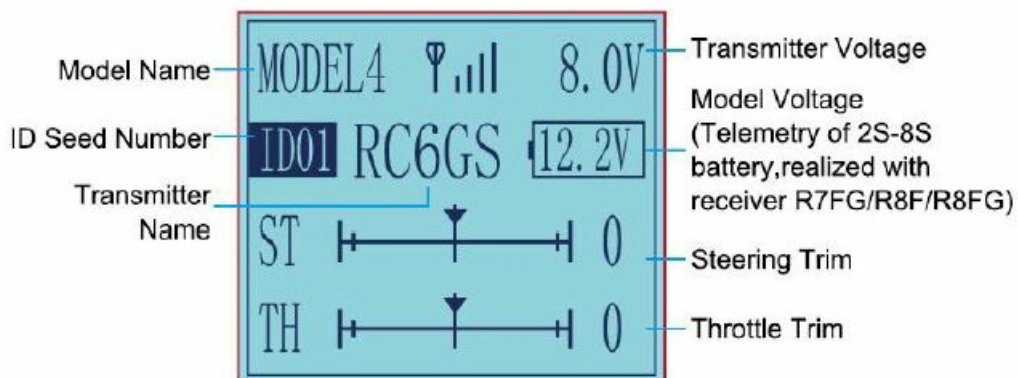
R7FG Overview
RC6GS V3 comes with an R7FG, 2.4GHz 7 channels receiver, splash-proof, gyro integrated and high voltage servo supported.

Telemetry Port of Model Battery Voltage

Binding Button (ID SET)

R7FG V1.4
RadioLink Telemetry + −
Blue/Purple-S.BUS/PPM+PWM
3.0-12V/DC
CE FC RoHS
Made in China

Channel1(Steering)
Channel2(Throttle)
Channel3(Auxiliary)
Channel4(Auxiliary)
Channel5(Auxiliary)
Channel6(Auxiliary)/PPM
Channel7(Auxiliary)/SBUS

Signal — VCC — GND

LED Indicator

Antenna Feeder Bindig Button (ID SET)

- **Size:** 35*22*14mm (1.38*0.87*0.55″)
- **Weight:** 6g (0.21 oz)
- **Channel:** 7 channels
- **Antenna Length:** 205mm(8.07″)
- **Operating Current:** 30mA Operating
- **Voltage:** 3-12V
- **Control Distance:** 600 meters on the ground
- **Signal:** PWM&PPM&SBUS
- **Gyro:** With gyro-integrated, customizable gyro sensitivity
- **Applicable Model Types:** Cars /Boats/Robots
- **Water Splash Proof** IPX4

Real-time Telemetry: Support. Telemetry of maximum 8S(33.6V) battery supported. Compatible transmitter: RC8X/RC6GS V3/RC6GS V2/RC4GS V2/RC6GS (3-position switch version)/RC4GS (version with P.D AFTER 180101)/ T8S/T8FB

Binding
RC6GS V3 and R7FG have already finished binding by default. Turn on the RC6GS V3 and the R7FG, the signal tower will be displayed on the top of the screen as in the picture right, which means the transmitter and receiver have finished binding.If you purchase a new R7FG receiver separately, you need to bind the receiver to the transmitter. Each receiver has an individual ID code. When the binding is done, the ID code will be stored in the transmitter and there's no need to rebind.
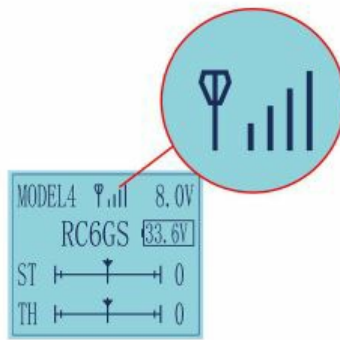
Binding Steps:

1. Put the transmitter and the receiver close to each other (about 50 centimeters) and power both on.
2. Switch on the transmitter and the LED on R7FG will start flashing slowly.
3. There is a black binding button(ID SET) on the side of the receiver. Press the button for more than 1 second and release, the LED will flash quickly, meaning the binding process is ongoing.
4. When the LED stops flashing and is always on, binding is complete and there will be a signal tower shown on top of the LCD screen of the transmitter. If not succeed, the LED will keep flashing slowly to notify, and repeat the above steps.

Note: Too close distance between the transmitter and receiver may cause a signal block, which leads to unsuccessful binding or signal loss. After the binding is successful, if RC6GS V3 and R7FG receivers are too close (for example, within 60 centimeters), the signal may also be lost because of the signal block. Bring the RC6GS V3 transmitter and R7FG receiver farther apart, the signal loss will disappear automatically.

Precautions for Receiver Usage

1. Please test RSSI(Received Signal Strength Indicator) before operating models. For methods on how to test it, please refer to Chapter 1.2.8.
2. If the antenna of the receiver is damaged, replace it with a new antenna or receiver in time.
3. Keep the two antennas at a 90-degree angle (as shown on the right).
4. Big models may contain metal parts that influence signal emission. In this case, antennas should be positioned at both sides of the model to ensure the best signal status in all circumstances.
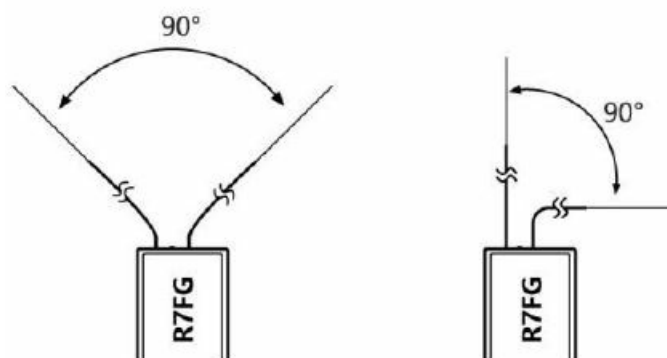
5. Antennas should be kept away from metal conductors and carbon fiber at least half an inch away and no overbending.
6. Keep antennas away from the motor, ESC, or other possible interference sources.
7. Sponge or foam material is advised to use to prevent vibration when installing the receiver.
8. The receiver contains some electronic components of high precision. Be careful to avoid strong vibrations and

high temperatures.

9. Special vibration-proof material for R/C like foam or rubber cloth is used to pack to protect the receiver.
Keeping the receiver in a well-sealed plastic bags can avoid humidity and dust, which would possibly make the receiver out of control.

Working Modes

R7FG has a built-in gyroscope, which can output not only PWM signals but also PPM and SBUS signals. There are four working modes, including ordinary PWM mode, SBUS mode, Gyro mode, and Gyro + SBUS mode. The channel signal corresponding to each mode are as follows:

R7FG Working Mode					
Working Mode	PWM Mode	SBUS Mode	Gyro mode	Gyro + SBUS Mode	Note
LED Indicator Color	Green	Blue	Red	Purple(Red+Blue)	
Channel	Telemetry	Telemetry Port of Model Battery Voltage + - TELEMETRY port is only for 2S-8S battery voltage telemetry. The port cannot be used to power the receiver.				
	1	PWM	PWM	PWM	PWM	Steering
	2	PWM	PWM	PWM	PWM	Throttle
	3	PWM	PWM	PWM	PWM	Auxiliary
	4	PWM	PWM	PWM	PWM	Auxiliary
	5	PWM	PWM	PWM	PWM	Auxiliary
	6/PPM	PWM	PPM	PWM	PPM	Auxiliary
	7/S.BUS	PWM	S.BUS	PWM	S.BUS	Auxiliary

Working mode settings

1. Turn on/off the gyro: Short press the binding button 3 times within 2 seconds to switch the gyro on and off, and the color of the LED indicator will switch accordingly.
2. Gyro phase switch: Short press the binding button twice within 2 seconds to switch the gyro phase.
3. Turning on/off the SBUS: short press the binding button once to turn on/off the SBUS, and the color of the LED indicator will switch accordingly. After the SBUS signal is enabled, channels 1-5 output PWM; the sixth channel outputs the PPM signal, and the seventh channel outputs the SBUS signal.

Gyro Setup

The gyro function of receiver R7FG for professional cars can be enabled and disabled. When it's enabled, the turning stability can be maximized during competition. When there is a false position, the gyro function keeps the car straight forward and turns precisely.

Gyro Enabled

The factory setting is gyro function OFF by default. Short press the binding button (ID SET) three times with an interval of less than 1 second, and the RED indicator flashes three times. The red LED on/off indicates the gyro

function is on/off.

Attention

1. It's normal that the servo keeps shaking when connected to the receiver. Because the gyro helps to correct the steering gear angle of the servo automatically if the gyro function has turned on, you can turn off the gyro function if you do not need this function.

2. The servo shakes strongly means the gyro is too sensitive. Please turn VR knob to reduce the gyro sensitivity.

3. If the receiver has been switched to the gyro mode (with LED indicator ON), but the gyro does not work when turning the car, please enter menu 20. GYRO to check if the RATE is close to 0%, and increase the RATE.

Gyro Phase
When the gyro forward is enabled, try to turn the model car to check if the gyro is correcting the wheels. Normally, the wheels should turn right to correct when the car is turned left while the wheels should turn left to correct when the car is turned right. If the gyro phase is reversed, short press the binding button (ID SET) twice with intervals less than 1 second. The RED indicator flashes twice means the gyro phase is switched.

Gyro Sensitivity Adjustment
The gyro sensitivity can be adjusted in the BASIC MENU– GYRO in the transmitter. VR and STD modes are optional. The Gyro sensitivity setting is CH3 by default (factory setting) and can be adjusted by the VR knob. If VR knob or channel 3 is used for other functions, select STD mode and adjust the gyro sensitivity by buttons Dec(-) or Inc(+) . The percentage is displayed when sensitivity is adjusted while the bigger percentage means higher sensitivity.

Telemetry of Model Battery Voltage
Model battery voltage can be returned in real-time when the R7FG receiver is bound to RC6GS V3 successfully. It can be set in the menu "19. ALARM". For example, if it is 3S lithium battery used in the model car, the warning value should be set as 11.1V (3.7V*3). The connection is as follows:
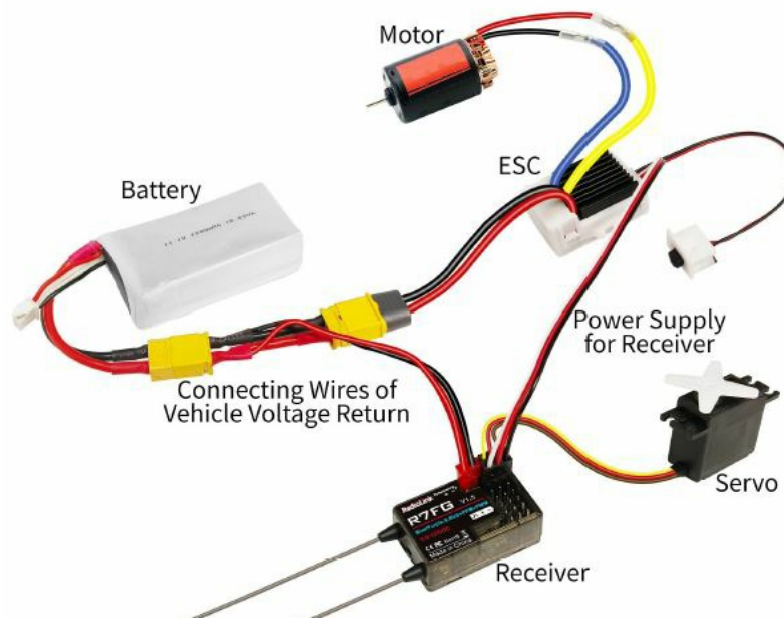
Note

1. Battery connected to TELEMETRY port is only for 2S-8S (7.4V-33.6V) battery voltage telemetry. The TELEMETRY port cannot be used to power the receiver.

2. R8FG, R7FG, and R8F receivers all support telemetry of model battery voltage. Make sure the polarity of the
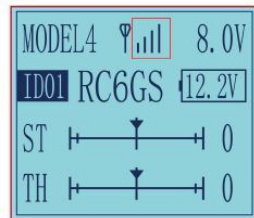
battery is not reversed. Otherwise, reverse insertion will cause an abnormal voltage display of telemetry.

RSSI Testing
RSSI stands for Received Signal Strength Indicator.

RSSI test method:

1. After successful binding between the receiver and the transmitter, the signal tower in Picture 1 appears on the screen.


Picture 1   Picture 2

2. Short press the Exit button twice in the home page to enter the return information interface. RSSI is at the top of the interface in Picture 2.
3. Make the receiver antenna and transmitter antenna parallel, and keep a distance of about 60 centimeters from the transmitter(as shown below) to observe the RSSI value. It is normal that RSSI value is within the range of 0 to -30dBm. The closer the value is to 0, the stronger the signal is. If RSSI is not within the range of 0 to -30dBm, the RSSI value is abnormal and there is some problem of signal transmission.
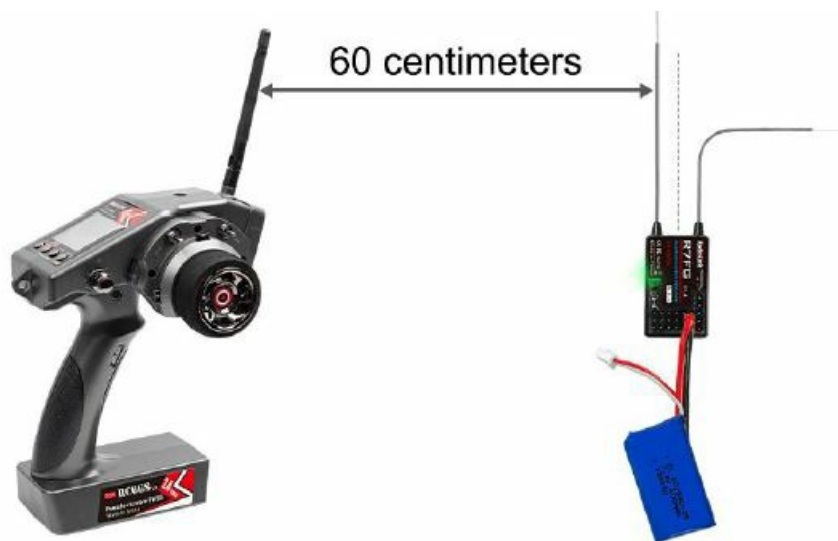
Abnormal Signal Strength Solution:

1. Check whether the antenna of the receiver or the transmitter is damaged. If it is damaged, the antenna needs to be replaced.
2. If there is no damage of the antenna, you can test the transmitter and receiver for malfunctions by replacing the receiver.

RC6GS V3 Functions

Servo Value
After powering on RC6GS V3, press the "Exit" button on the main interface to view the servo value (See Picture 1 and Picture 2 below).
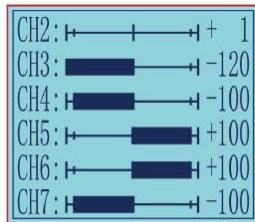
Language "LANGUAGE"
Both English and Chinese menus are available (See Picture 3 below).

Model Select "MODEL"
RC6GS V3 can store model memories for 30 models. Use this function to call a new model. Each model can independently set the parameters of each function (See Picture 4 below).
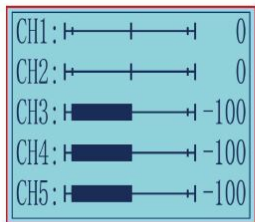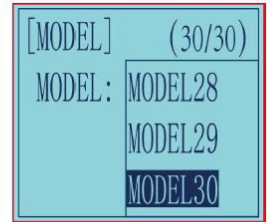

| Picture 1 | Picture 2 | Picture 3 | Picture 4 |

End Point Adjust "EPA"
Use EPA when performing left and right steering angle adjustments, throttle high side/brake side operation amount adjustment, and channel 3 servo upside/downside operation amount adjustment during linkage.Correct the maximum steering angle and left and right steering angles when there is a difference in the turning radius due to the characteristics, etc. of the vehicle.
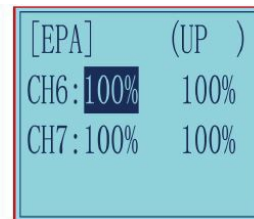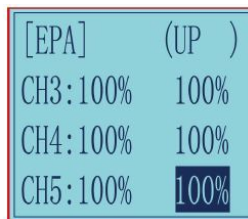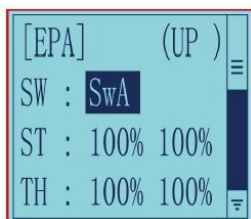
Setting item (channel and value range)

- **CH1 to CH7:** 0%~120%
- **Initial value:**100% End point adjustment
- **Switch setting:** Set a switch or button to switch in different end points.
- You can set SWA, SWB, SWC, SWD, or the lock modes of these four switch buttons LK-A, LK-B, LK-C, LK-D.
- "NULL" means no switch assigned. After setting the endpoint parameter of the corresponding channel, the transmitter will always execute the set end point, and it cannot be switched.
- UP (up)/DOWN (down)/CNT (central): It indicates the position of the selected switch. Push/Press the switch to different positions to set different EPA.

Steering Exponential "STEXP"
This function is used to change the sensitivity of the steering servo around the neutral and both end positions. It has no effect on the maximum servo travel.

- **RATE:** Steering EXP rate
- **Adjustment range** -100%~0%~+100%
- **Initial value:** 0%
- **0%~-100%:** Sensitivity around the neutral position is low, getting higher when approaching the ends.
- **0%:** Sensitivity around the neutral and ends position is equal
- **0%~+100%:** Sensitivity around the neutral position is high, getting lower when approaching ends

Steering Servo Speed Delay "STSPD"
Quick steering operation will cause momentary understeering, loss of speed, or spinning. This function is effective

in such cases.
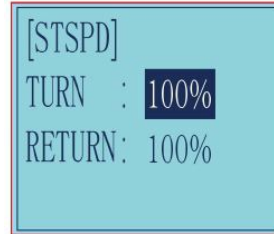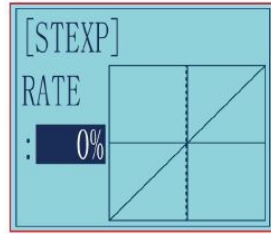
Setup item

- **TURN:** turn direction
- **RETURN:** return back to the original direction
- **Adjustment range** 0%~100% (each direction) At 100%, there is no delay

Throttle Exponential "THEXP"

This function makes the throttle high side and brake side direction servo operation quicker or milder. It has no effect on the servo maximum operation amount. For the high side, selection from among three kinds of curves (CRV/VTR/EXP) is also possible. The curve can be divided into: Five dots throttle curve adjustment, Single point adjustment, Exponential curve adjustment, and Braking index curve adjustment.
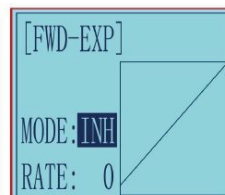
MODE:

- **INH:** means the mixing function is disabled. Regardless of whether there is a set control switch or value under this function, it is not enabled.
- **ON:** means turning the function on. Set the mode to ON, the current mixing control can take effect.
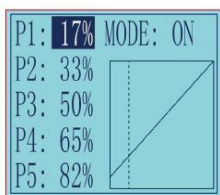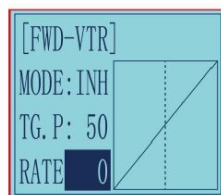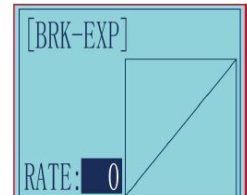

Adjustment method for CRV curve (See Picture 1 above) Mode: ON/INH

- **RATE:** 0%~100% Adjustment method for VTR curve (See Picture 2 above) Mode: ON/INH
- **TG.P:** 20-80
- **RATE:** -100~0~+100

Adjustment method for EXP curve (See Picture 3 above) MODEL: ON/INH
RATE: -100 ~ 0 ~ +100

Adjustment method for BRK-EXP curve (See Picture 4 above) RATE: -100 ~ 0 ~ +100

- **0~-100:** flat braking
- **0:** uniform braking
- **0~+100:** sensitive braking

Throttle Speed Delay "THSPD"

Sudden trigger operation on a slippery road only causes the wheels to spin and the vehicle cannot accelerate smoothly. Setting the throttle speed function reduces wasteful battery consumption while at the same time permitting smooth, enjoyable operation.

Operation
Throttle servo(amp) operation is delayed so that the drive wheels will not spin even if the throttle trigger is operated more than necessary. This delay function is not performed when the throttle trigger is returned and at brake operation. Speed1 or speed2 can be selected.OFF means shutting down the throttle speed function.
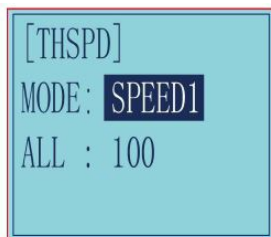
Picture 1
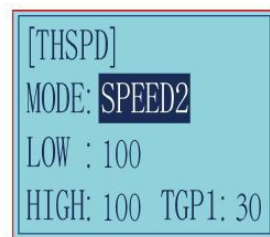
Picture 2

Adjustment method for SPEED1 MODE: Speed type selection ALL: Speed adjustment

Adjustment range

- 0~100 (each direction)
- At 100, there is no delay

Adjustment method for SPEED2

- **MODE:** Speed type selection
- **LOW:** Low side range speed adjustment HIGH: High side range speed adjustment TGP1: Low and medium
  speed switching point

Adjustment range

- LOW: 0~100
- HIGH: 0~100
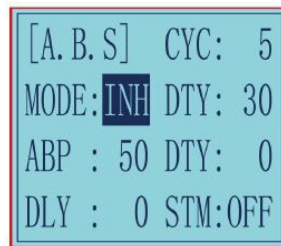- At 100, there is no delay
- TGP1: 0~100

A.B.S. Function "A.B.S"

Pulse brake
When the brakes are applied while cornering with a 4 4-wheel drive or other type of vehicle, under-steer may

occur. The generation of under-steer can be eliminated and corners can be smoothly cleared by using this function.

Operation

```
[A.B.S]  CYC:  5
MODE:INH  DTY: 30
ABP : 50  DTY:  0
DLY :  0  STM:OFF
```

- When the brakes are applied, the throttle servo will pulse intermittently. This will have the same effect as pumping the brakes in a full-size car.
- The brake return amount, pulse cycle, and brake duty can be adjusted.
- The region over which the ABS is effective can be set according to the steering operation. (Mixing function)

MODE

- **INH:** means the mixing function is disabled. Regardless of whether there is a set control switch or value under this function, it is not enabled.
- **ON:** means turning the function on. Set the mode to ON, the current mixing control can take effect.
- ABP(Amount of brake return): Sets the rate at which the servo returns versus trigger operation for brake release. When set to 0, the ABS function is not performed. When set to 50, the servo returns 50% (1/2)of the trigger operation amount and when set to 100, the servo returns to the neutral position.
  - **Brake return amount (ABP):** 0 ~ 50 ~ 100
  - **Initial value:** 50
- Brake return amount (ABP) is influenced by the "EXP" rate on the brake side.
- DLY(Delay): Sets the delay from brake operation to ABS operation.
  - **"0":** A.B.S. function performed without any delay
  - **"50":** A.B.S function performed after an approximate 0.7 sec delay
  - **"100":** A.B.S. function performed after an approximate 1.7 secs delay
- **Delay amount (DLY):** 0 ~ 100 Initial value; 0
  - **CYC(Cycle):** The smaller the set value, the faster the pulse cycle. Pulse speed adjustment Cycle speed (CYC): 0 ~ 30
  - **Initial value:** 5
- TGP(Trigger point): Sets the trigger point at which the ABS function begins to operate at brake operation. The number is the 100 display with the full brake position made 100%.
  - **Operation point (TGP):** 0 ~ 100
  - **Initial value:** 30
- DTY(Cycle duty ratio): Sets the proportion of the time the brakes are applied and the time the brakes are released by pulse operation. The ratio can be set to +3 ~ 0~-3 in 7 steps.
  - "-3": Brake application time becomes shortest. (Brakes lock with difficulty)
  - "+3": Brake application time becomes longest (Brakes lock easily) (Remark) For low grip set at the – side and for high grip set at the + side.

- ◦ **Duty ratio (DTY):** -3 ~ 0 ~ +3
- ◦ **Initial value:** 0
- ◦ **STM(Steering mixing):** Sets the range within which the A.B.S. function is performed relative to steering wheel operation. Steering mixing (STM) OFF, N10 ~ N100, E10 ~ E100
- **Initial value:** OFF When steering mixing is set and steering operation enters the set range, "*" is displayed in front of the number. When mixing is OFF, the A.B.S function can operate over the entire steering range.

Steering operation
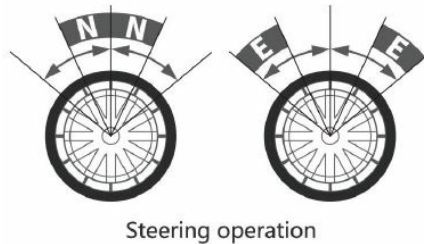
Throttle Acceleration "ACCEL"
Function which adjusts the movement characteristic from the throttle neutral position. The servo will jump to the input position at its maximum possible speed. Unlike exponential, which adjusts the whole throttle movement into a curve, throttle acceleration simply "jumps" away from neutral and then leaves the remaining response linear.

- **FWRD:** Forward side acceleration amount
- **BRAK:** Brake side acceleration amount
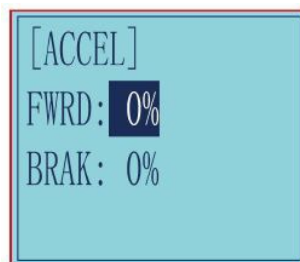
1. Forward-side acceleration adjustment
    - **"0%":** No acceleration
    - **"100%":** Maximum acceleration(Approximately1/2of the forward side steering angle) Forward acceleration amount(FWRD): 0%~100%
    - **Initial value:** 0%
2. Brake side acceleration adjustment
    - **"0%":** No acceleration
    - **"100%":** Maximum acceleration (Brake side maximum steering angle) Brake side acceleration amount(BRAK): 0%~100% Initial value: 0%

Idle-up "IDLUP"

Idle-up at Engine Start
Use this function to improve the starting characteristics of the engine by raising the idling speed when starting the engine of a gas-powered car.

- **Idle-Up rate (RATE):** -50% ~ -1%, 0%, +1% ~ +50%
- **Initial value:** 0%
- "-": Brake side

- "+": Forward side

[IDLUP]
RATE: 0%
TH-LOCK:+ 20%(SWA)

Cruise Control "TH-LOCK"
In addition to adjusting the throttle speed when the throttle trigger is in the neutral position, the Idle up at engine start function can also set the throttle lock, select the throttle value that needs to be locked, and the setting range is -100% to +100%. After the throttle is locked, no matter the current No matter where the throttle trigger is, the throttle output will jump to the set value. This function is controlled by the trigger of the SWA, two-way switch, press to lock, press again to unlock, the control switch defaults to SWA and cannot be modified.
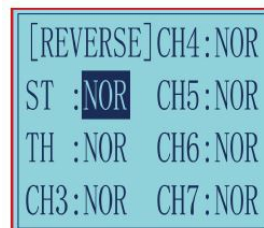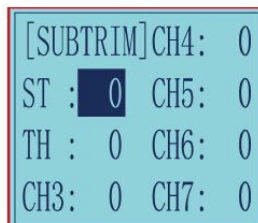
Sub-trim "SUBTRIM" Servo center position adjustment
Use this function to adjust the neutral position of the steering, throttle, and all other channels. Sub-trim (channel and value range)

- **CH1-CH7:** -100~0~+100
- **Initial value :** 0

Channel Reverse "REVERSE"
Servo operation reversing This function reverses the direction of operation of the servos related to transmitter steering, throttle, and channel 3 to channel 7 operations.

Steering/Throttle Dual Rate "D/R"

[SUBTRIM]CH4:   0
ST :   0   CH5:   0
TH :   0   CH6:   0
CH3:   0   CH7:   0

[REVERSE]CH4:NOR
ST :NOR   CH5:NOR
TH :NOR   CH6:NOR
CH3:NOR   CH7:NOR

The servo travel amount of all channels can be reduced by the Dual Rate setting. The dual rate function is different from EPA, which requires the travel amount on both sides of the channel to be set separately. Setting the rate of D/R will affect the left and right travel amounts at the same time. For example, after setting a smaller throttle value, the travel amount of the model forward and brake will be reduced at the same time, the setting range is 0-100, and the default is 100. The steering left and right servo travels are adjusted simultaneously.

Switch setting: Set a switch or button to switch in different travel amount of each channel.

- You can set SWA, SWB, SWC, SWD, or the lock modes of these four switch buttons LK-A, LK-B, LK-C, LK-D.
- "NULL" means no switch assigned. After setting the travel amount of the corresponding channel, the transmitter will always execute the set value by default.

- **UP (up)/DOWN (down)/CNT (central):** It indicates the position of the selected switch. Push/Press the switch to different positions to set different travel amounts.

Brake Side Adjustment "ATL"

```
[D/R]      (DOWN)     [D/R]       (UP  )
SW : SwA ST :100     TH :100  CH3: 80
TH :100  CH3:100     CH4:100  CH5:100
CH4:100  CH5:100     CH6:100  CH7:100
```

This function decreases the set value when the braking effect is strong and increases the set value when the braking effect is weak.

- **RATE:** Brake amount
- **Brake amount (RATE):** 0%~100%
- **Initial value:** 100%

Programmable Mixes "PMIX01/02" Programmable mixes between arbitrary channels

These functions allow you to apply mixing between the steering, throttle, CH3, CH4, CH5, CH6 and CH7. PMIX01 setting is the same with PMIX02.

```
[ATL]
RATE:100%
```

```
[PMIX01]  MOD:INH
SW :NULL  POS:CNT
LEFT+100  MST: ST
RIGH+100  SLV: ST
```

- **PMIX:** Programmable Mixes
- **MOD:** Mixing mode.
- **INH:** means the mixing function is disabled. Regardless of whether there is a set control switch or value under this function, it is not enabled.
- **ON:** means turning the function on. Set the mode to ON, the current mixing control can take effect.
- **SW:** Switch to control the mix function. You can set SWA, SWB, SWC, SWD, or the lock modes of these four switch buttons LK-A, LK-B, LK-C, LK-D. "NULL" means no switch assigned. After setting the travel amount of the corresponding channel, the transmitter will always execute the set value by default.
- **POS:** means the position of the switch used to control this function. UP (up)/DOWN (down)/CNT (central): It indicates the position of the selected switch. Push/Press the switch to different positions to set different travel amounts.
- **LEFT:** Mixing rate (Left side)
- **Mixing amount:** -100~0~+100
  Select the setting item "LEFT", "FWRD", or "UP"(These setup items are different depending on the master

channel. ST: "LEFT"; TH: "FWRD"; CH3-CH7:"UP") by pressing "Dec(-)" or "Inc(+)" button.

- ○ **RIGN:** Mixing rate (Right side)
- ○ **Mixing amount:** -100~0~+100

Select the setting item "RGHT", "BRAK", or "DOWN"(These setup items are different depend on the master channel.ST:"RGHT"; TH:"BRAK";CH3-CH7:"DOWN") by pressing "Dec(-)" or "Inc(+)" button.

- **MST:** Master channel
- **Channel selection (MST):** ST, TH, CH3, CH4, CH5, CH6 and CH7.
- **Initial value:** ST
- **SLV:** Slave channel
- **Channel selection (SLV):** ST, TH, CH3, CH4, CH5, CH6 and CH7.
- **Initial value:** ST

Mix Control Setup

The details on how to set the mix control for dual-engine model, please view the link:
https://www.radiolink.com/newsinfo/477940.html

Auxiliary Channel "AUX-CH"
In addition to the two basic channels of the steering channel (channel 1) and the throttle channel (channel 2), RC6GS V3 also has five auxiliary channels, all of which can be customized to assign control switches.
The control switch of the auxiliary channel can be selected as ST(steering), TH(throttle), VR, SwA, SwB, SwC, SwD, LK-A, LK-B, LK-C, LK-D, NULL.(For more details of all switches, please refer to Chapter 1.1.4 Switch/Button Introduction)

Note: When it is set to NULL, the channel will not be controlled by any switch.
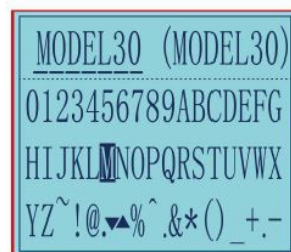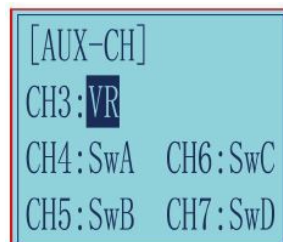

Model Name "NAME"
RC6GS V3 stores model memories for 30 models. Each model memory can be named separately according to the user's requirement. The factory default name is MODEL1.

ALARM(Safety Alarm for Low Voltage and Signal Strength)
Each model can independently set low voltage and RSSI value alarms, but the alarm functions of RATE and temperature are not yet available. RPM telemetry functions are still under development. If there are new developments, we will announce them to the RadioLink official website as soon as possible.
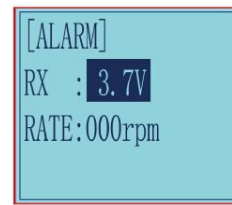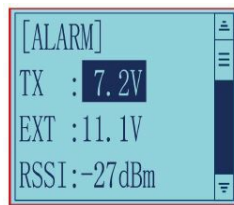
The transmitter default alarm voltage is 7.2V, and it can be customized on 2-4S battery. The receiver's default alarm voltage is 4.0V, and the vehicle battery's default alarm voltage is 11.1V. The RSSI alarm value is turned off by default. Users can set it as the RSSI value corresponding to the farthest safe distance of the actual control. For example, if the farthest remote control distance is 400m, the corresponding RSSI value is -85dBm, then you can set the RSSI alarm value as -85dBm. When the voltage of the transmitter, receiver, vehicle battery, and RSSI signal strength is lower than the set value, there will be a text displayed on the transmitter screen(See Pictures below) and a "didi" sound dual alarm prompt to remind you.
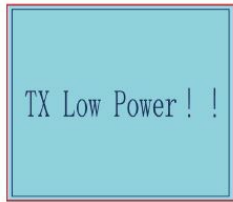
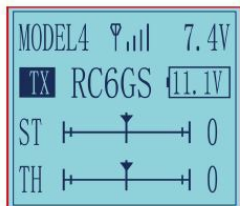

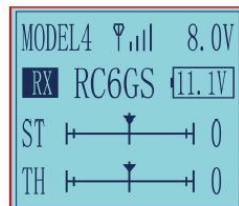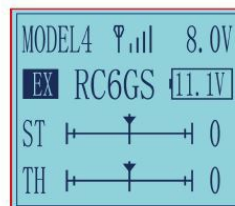| Radio Low Power | Receiver Low Power | Vehicle Low Power | RSSI Low Alarm |

When the above alarm interface appears, press the Enter button, and the TX, RX, EX, or RS will appear respectively on the home page to remind the alarm of the transmitter, receiver, vehicle battery, and RSSI (See Pictures below). When the alarm sounds or the warning words TX, RX, EX, or RSSI appear on the screen, please stop driving immediately and take the vehicle back, check the cause of the alarm, and deal with it properly.
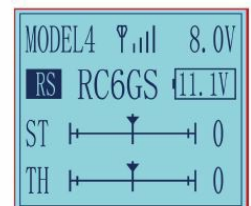

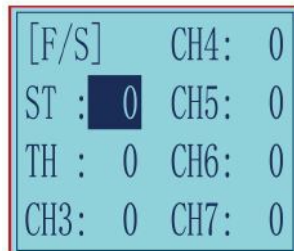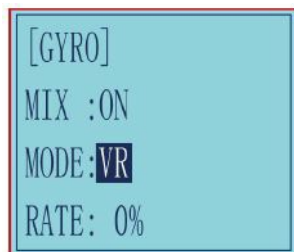| TX: Radio Low Power | RX: Receiver Low Power | EX: Vehicle Low Power | RS: RSSI Low Alarm |

Note

1. RC6GS V3 can set different low voltage alarm values for each model, but the transmitter low voltage alarm is the same for all models.

2. Due to the different voltage ranges available for lithium battery, nickel metal hydride, and nickel cadmium, please set the corresponding voltage value according to the type of battery you use.

Gyro Sensitivity "GYRO"

This function is available to set gyro sensitivity and VR mixing ON or INH. When MIX is set to INH, the gyro is disabled while when MIX set to ON, you can adjust gyro sensitivity STD or VR. STD is adjusted on screen and VR is default CH3. In normal mode (STD), the range of sensitivity is 0%-100%. 0% means the minimum gyro sensitivity or even no gyro function; 100% means the maximum sensitivity. If the gyro sensitivity is too high, it may cause the body to vibrate, please adjust the sensitivity according to the vehicle model.

Fail-Safe" F/S"

This function can set the output value of each channel when the receiver loses control. It is set by servo, throttle, CH3, CH4, CH5, CH6 and CH7.

```
[GYRO]
MIX :ON
MODE:VR
RATE: 0%
```

```
[F/S]      CH4:  0
ST :   0   CH5:  0
TH :   0   CH6:  0
CH3:   0   CH7:  0
```

RANGE

- **CH1 to CH7:** -100~+100
- **Initial value:** 0

ID SEED

When the transmitter and multiple receivers that have been successfully paired are powered on at the same time, one of the receivers can be selected to be controlled through the ID SEED function, while the other receivers are in a standby state and cannot be controlled. The transmitter and receiver have the following two control methods:

1. When ID SEED function is turned off (set INH), RC6GS V3 can control multiple devices at the same time.
2. When ID SEED function is turned on (set ON), RC6GS V3 can select a receiver from multiple receivers and control this model, while other receivers are on standby.

Setting method:
Turn on the mode, set the corresponding ID SEED number according to the number of your car/boat, and complete the binding and other settings. After setting the ID SEED number, the number (such as ID01) will appear on the main interface of the transmitter.

For example: Bind RC6GS V3 with a truck and a car and turn all of them on. First, use RC6GS V3 to control the car to run to the bucket of the truck, and then switch the receiver ID on the truck to drag the car back to the destination.

```
[ID SEED]
MODE:ON
SEED:ID01
   00  10  25  FD
```
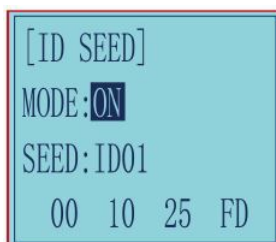
DSC Port Setting "DSC"
There are 3 modes for the DSC function.

1. simulator: Connect to the simulator or TBS Crossfire (See Picture 1 below);

2. 2-axis track: Connect to FPV goggles with head track function (See Picture 2 below).

3. 3-axis track: Connect to FPV goggles with head track function (See Picture 3 below). (RC6GS V3 with firmware V6.7.7 or above supports 3-axis track. If the firmware version is lower than V6.7.7, please update the firmware to use the 3-axis track function)

simulator mode: If you need to connect the simulator or TBS Crossfire to RC6GS V3, please select the mode as: simulator. Insert one end of the standard audio head of the simulator into the DSC port of RC6GS V3, and follow the steps in the simulator instruction manual to calibrate and operate the transmitter in the simulation software. Please refer to Chapter 3.11 for how to connect RC6GS V3 to TBS Crossfire:
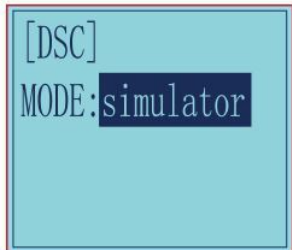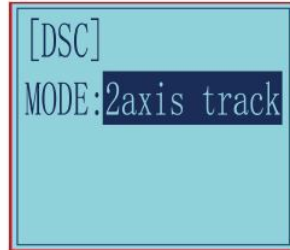
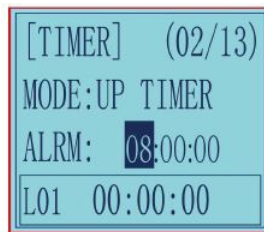|		
[DSC] MODE:simulator	[DSC] MODE:2axis track	[DSC] MODE:3axis track
Picture 1	Picture 2	Picture 3

2-axis track mode: If you need to connect FPV goggles with 2 2-axis track functions to RC6GS V3, set the mode to a 2-axis track (or head track in firmware below V6.7.7). When the DSC mode is selected as 2 2-axis track or head track, the DSC port of RC6GS V3 outputs in channel 5 and channel 6 by default. Connect the roll servo and pitch servo used to control the pan-tilt to the pins of the R7FG receiver in channel 5 and channel 6, and then swing the FPV goggles up and down or left and right, and the servos of the corresponding channel will swing accordingly. Please refer to Chapter 3.12 for how to set up the head track on RC6GS V3. 3-axis track mode: If you need to connect FPV goggles with the 3-axis track function to RC6GS V3, please set the mode to a 3-axis track. When the DSC mode of RC6GS V3 is selected as 3 3-axis track, the DSC port outputs in channel 5, channel 6, and channel 7 by default, which are used to control the pan, tilt, and yaw servos.

Note: If you want to realize the head track function, please make sure the FPV goggles are used to support the corresponding 2-axis or 3-axis head track function.

Timer Setting "TIMER"
The TIMER function is mainly used for game timing and daily training.

- **Mode:** Timer mode, you can choose "UP TIMER" or "DOWN TIMER".
- **UP TIMER:** After triggering the timing function, the timing number will count upwards.
- **DOWN TIMER:** After triggering the timing function, the timing numbers will count down.
- **ALRM(Alarm):** The timer starts. When it reaches the set time, the transmitter starts to alarm. In the countdown 20S, it starts to alarm every 1S. In the countdown 10S, it starts to alarm twice every 1S. When the alarm time is reached, the transmitter will give an alarm. If the switch is not toggled now, the timing will continue. The default alarm time is 8 minutes. The alarm time can be set according to actual needs
- **START:** Select a switch or button used to trigger the timing function. You can choose SWA, SWB, SWC, SWD, TH (throttle trigger), and the lock mode of the four switch buttons. NULL means that the timing function is not enabled. If the switch is set to SWA, SWB, SWC, SWD, or their lock modes, you can select UP (up), CNT (central), or DOWN (down) for the position of the switch to trigger the timing function. If the start switch is TH (throttle trigger), you can set the throttle rate to 0%-100%, and the timing function will be triggered when the throttle trigger is pushed to the set rate.

[TIMER]   (02/13)
MODE:UP TIMER
ALRM: 08:00:00
L01 00:00:00

[TIMER]   (05/13)
START:SwA   UP
STOP:SwA   DOWN
L30 00:00:00

- **STOP:** It is used to stop the timing function. The setting method is the same as the above "START" setting. When the number of laps set is greater than 1, the number of laps will automatically increase by 1 lap each time it stops.
- **RESET:** By toggling the switch set here, all the previously generated timing values will be cleared. Alarm values and laps are retained. The switch setting method is the same as the above "START" setting.

Note

1. When triggering the timing function, please do not put the switch in the stop or reset position, otherwise, the timing function cannot be activated.
2. When the switch is not enough, there are 2 ways to reset all timings: a. By setting the "alarm" value, all timings can be reset. b. All timings can be reset by setting the "mode" value. LAP: used to set the number of laps required for timing, 1-30 lap numbers can be set; Display laps: used to display the lap corresponding to the current timing. L01-L30 can be selected. For example, when it is L02, the timing below corresponds to Lap 2. When the number of laps set is greater than 1, the number of laps will automatically increase by 1 lap each time it stops. Check the timing of each lap: move the cursor to: L01-L30, press the "Enter" button, the cursor starts to blink, and then press the "Dec(-)" or "Inc(+)" buttons at the bottom of the screen to select the laps to check the timing time. The corresponding timing lap and timing will be displayed in the box below.

[TIMER]   (09/13)
REST:NULL   UP
 LAP: 1   L01
L01 00:18:14

[TIMER]   (13/13)
DISP:CURRENT

L01 00:18:14
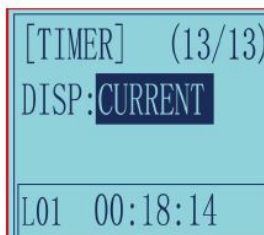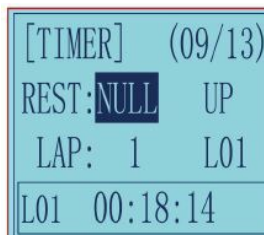
Display: CURRENT, the ON or OFF status of the timing function is only displayed in the function menu of "Timer". HOME PAGE, the ON or OFF status of the timer function is displayed both in the "Home Page" and "Timer" menus at the same time.

Factory Reset "RESET"

RESET- Data reset function: All the data for any model memory can be reset to the original factory defaults. Often this function is done to get a "fresh start" and clear the memory before inputting new model settings.

Note: Resetting the current model memory will permanently erase ALL programming information for that model. The data cannot be recovered. Do not reset the model unless you are certain you want to clear-out that memory and start from scratch.
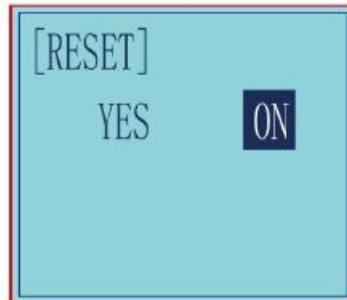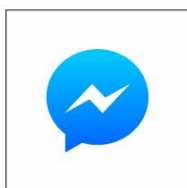

Tutorials

Please search Radiolink_official on YouTube to access RadioLink's official channel and check all the below video tutorials of RC6GS V3. View the playlist of RC6GS V3 or search key words on our channel for the function you want.

1. Firmware Update of RC6GS V3
2. Throttle and Steering Calibration
3. Connect RC6GS V3 to Simulator
4. THSPD Throttle Delay Function on RC6GS V3
5. TIMER Function on RC6GS V3
6. Dual Rate Function on RC6GS V3
7. EPA Function on RC6GS V3
8. Set Different ALARM for 30 Different Models on RC6GS V3
9. ID Seed Function on RC6GS V3
10. Cruise Control Function on RC6GS V3
11. Connect RC6GS V3 to TBS Crossfire
12. Head Track Setup on RC6GS V3
13. LK-A/LK-D Button Setup on RC6GS V3
14. Setup FPV Monitor on RC6GS V3
15. TX Low power & Power Supply Options of RC6GS V3

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RC6GS V3 User Manual

RC6GS V3 Tutorials

If the above communication cannot solve your problem, you can also send emails to our technical support:

after_service@radiolink.com.cn This content is subject to change. Download the latest version from
https://www.radiolink.com/rc6gsv3_manual

- Thank you again for choosing RadioLink product.

Documents / Resources

RC6GS RC6GSV3 2.4GHz Radio System [pdf] Instruction Manual
RC6GSV3 2.4GHz Radio System, RC6GSV3 2.4GHz, Radio System, System, RC6GSV3

References

- **Programmable Dual Mix Control Setting Tutorial(RC6GS V2/RC4GS V2/RC6GS/RC4GS)-RadioLink-Official Website**
- **RC6GS V3 Instruction Manual**