TABLE OF CONTENTS

Introduction

Disclaimer

Thank you for purchasing this DETRUM product. This is a 2.4GHz digital proportional R/C system with high performance. In order to make full use of the features of this product and to safely enjoy your R/C activities, please read this manual carefully before using. Please install and use this product in strict accordance with the manual. The company assumes no liability or loss incurred directly or indirectly from improper use, installation, or any modification of this product.

Products shall be subject to any changes without additional notices.

This product is suitable for users experienced in operating model aircraft and aged 14 years or older.

Please fly at a locally recognized model aircraft flying field.

Indications and Symbols for Safe Use

The following symbols used in this manual indicate the precautions regarding possible danger which may occur following improper operation.

⚠ **DANGER**: Procedures, which if not properly followed, may lead to a dangerous condition of death or serious injury.

⚠ **WARNING**: Procedures, which if not properly followed, may lead to a possibility of death or serious injury.

⚠ **CAUTION**: Procedures, which if not properly followed, may lead to a possibility of property damage, or a danger of injury.

   ⊘ Prohibited   ❶ Mandatory

Installation Precautions

It is very important to properly install the R/C system on the model aircraft.

Please refer to the following instructions:

- In order to protect the receiver, wrap the receiver with 10mm foam rubber, and then fasten it with a rubber band or a Velcro strap.

- The servos should be installed with rubber gaskets and brass eyelets to isolate the vibration from the fuselage. When locking the screws, follow the principle that the rubber gasket does not distort. If the locking is too tight, it will reduce the vibration-proof performance.

- When mounting a servo, make sure that the servo can rotate over its full travel and check that the push-rods and servo arms do not bind or contact each other.

- When mounting a power switch, keep away from the engine's exhaust pipe and any places with high vibration. And ensure that you can turn the switch on/off without binding.

- The two antennas of the receiver should be placed at 90 degrees to each other. Do not place the two antennas twisted together or in parallel.

Flying Precautions

⚠ **WARNING**: Personal injury and property loss may be caused by improper aircraft handling. Please operate strictly according to the following safety instructions.

Flying Field and Conditions:

⊘ In order to protect the personal safety and their property, please do not fly at the following places:

Near another radio control flying field

Near or above people

Near residential areas, schools, hospitals or other places where people congregate

Near high-voltage lines, tall buildings, or communication facilities

⊘ Never fly on rainy day, thunder storm, when the wind is strong, and at night.

⊘ Always keep away from wet conditions.

This product is made of precision electronic components and mechanical parts, please keep away from wet conditions, to prevent the components damage from water and cause a failure which would lead to a crash.

⊘ Always keep away from hot conditions.

This product is made of precision electronic components and mechanical parts, please keep away from hot conditions, to avoid distortion or damage.

Precautions before Flight:

⊘ Always make sure that all servos in the model work properly following the transmitter stick movements prior to flight. And make sure that all switches work properly as well.

❶ Always check the remaining capacity of both the transmitter and receiver batteries before each flying session prior to flight. Low battery capacity will cause loss of control and a crash.

❶ Always perform a range test before each flying session.

❶ Always check the operation of each control surface before each flying session. When using the trainer function, please check both the instructor and student transmitters.

❶ For safety reasons, always set fail safe functions before each flying session. Especially set the throttle channel fail safe function.

Precautions during Flight:

⊘ Never grasp the transmitter antenna during flight. Otherwise, the transmitter output power will reduce drastically.

⊘ Do not point the antenna directly toward the aircraft during flight. When pointing the antenna directly, the transmitter output is the weakest. The strong radio wave radiate from the side of the transmitter antenna.

⊘ Never turn on and off the power switch of transmitter during flight or while the engine or motor is running.

⊘ Do not touch the engine, motor or other heating device or component during and immediately after use. These devices or components may become hot during use.

❶ For safety, always fly the aircraft in visible range. Flying behind tall buildings will not only lose sight of the aircraft, but also degrade the RF signal performance.

❶ Always return the transmitter setting screen to the initial main screen during flight. Erroneous input during flight is very dangerous.

Precautions in Other Conditions

⊘ Never fly in the range check mode (test mode). In the range check mode, the transmitter output power is greatly reduced, it may cause a crash.

⊘ When setting the transmitter during flight preparations, do not set it upright on the ground. The transmitter may fall to the ground, the sticks may move and the servos may rotate unexpectedly and cause injury.

⊘ Do not touch the receiver antenna directly by hands. Otherwise, the components may be damaged by static, and this may cause a reduction in transmission distance of the receiver.

❶ Before turning on the transmitter, always make sure the transmitter throttle stick and throttle trim are in the lowest position.

❶ Always turn on the R/C system in proper sequence: turn on the transmitter first, then turn on the receiver, and then turn on the engine or motor. Incorrect sequence may cause loss of control and personal injury.

❶ Always turn off the R/C system in proper sequence: turn off the engine or motor first, then turn off the receiver, and then turn off the transmitter. Incorrect sequence may cause loss of control and personal injury.

Product Description

Box Contents

- GAVIN-6C Transmitter
- DETRUM RXC7 Receiver
- Bind Plug
- Instruction Manual
- USB Cable (optional)
- Simulator Convertor (optional)
- 9g Servo *4pcs (optional)

📖 **NOTE**: The set contents depend on the type of set.

Transmitter

Specifications

Parameters	GAVIN-6C Specifications
Coder	6-channel
Transmitting frequency	2.4GHz
Power supply	1.5V AA batteries *4pcs
Consuming current	Test mode: less than or equal to 120mA. Operating mode: less than or equal to 230mA.
Output power	Test mode: 10mW. Operating mode: 100mW.
Output pulse	1050~1850ms (neutral 1500ms)

Features

- It is suitable for airplane, helicopter, and multicopter (multirotor).
- You can store a maximum of 30 aircraft models in the transmitter.
- Adopting 2.4GHz direct sequence spread spectrum (DSSS) and multiple frequency-hopping technology, the transmitter has strong anti-interference

performance.

- The ergonomic design enables users to hold the transmitter easily.

- The LCD display is designed with straightforward menu and intuitive graphical interface. It is easy to understand and convenient to use.

- This allows adjustment of the sticks lever tension, and there are four selectable stick modes to meet different operating habits.

- With a USB interface, it is easy to upgrade the transmitter firmware to the latest program.

- With fail safe function, it allows to set the positions that the servos move to in the case of fail.

- With trainer function, make it possible that a skilled instructor can teach a student with flying skills.

- With test mode function, it allows to check the environment interference and the R/C system before each flying session.

Names of Each Transmitter Control

Antenna

Status display LED
(under the Indicated position)

Switch (GEAR)

Switch (HOLD)

Elevator Stick

Rudder Stick

Digital Trim (elevator)

Digital Trim (rudder)

Exit Key (EXT)

Menu Selection Key
(UP, DOWN)

Trainer Connector

Switch (TRAINER)

Switch (FLAP)

Switch (FMOD)

Throttle Stick

Aileron Stick

Digital Trim (throttle)

Digital Trim (aileron)

Enter Key (ENT)

Changing Value Key
(R/+, L/-)

Neck Strap Attachment

Power Switch

LCD Display

📖 **NOTE**: When the **Stick Mode** is set to **MODE 1**, the positions of sticks and digital trims are shown in the figure. The positions are different depending on the stick mode. For details, please refer to *Stick Mode [Stick Mode] (Page 49)*.
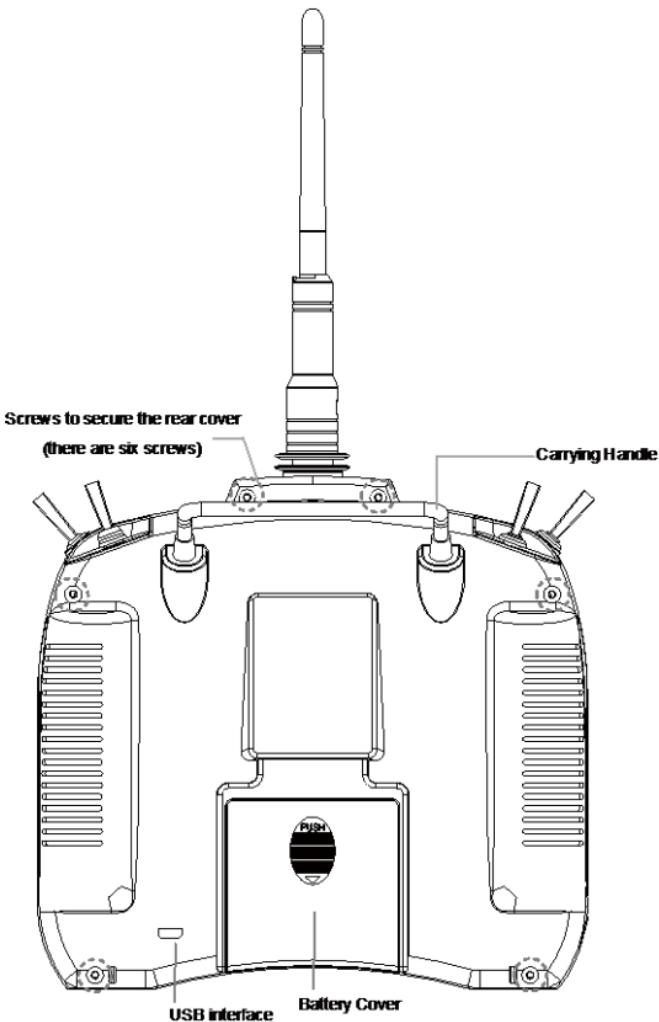
- Antenna

  The strong radio wave radiate from the side of the transmitter antenna. Do not point the antenna directly toward the aircraft during flight.

- Carrying Handle

  The carrying handle is designed for easily carrying and placing the transmitter.

● Power Switch

Push the switch upward to turn on the transmitter, push downward to turn off.

● Neck Strap Attachment

For a long flight you can choose to use a neck strap for easy handing. The neck strap attachment is on the neutral position, in order to get the best balance for transmitter.

● Switch

   ◆ HOLD: 2 positions, alternate, short lever

   ◆ FMOD: 3 positions, alternate, short lever

   ◆ GEAR: 2 positions, alternate, short lever

   ◆ FLAP: 2 positions, alternate, short lever

   ◆ TRAINER: 2 positions, momentary, long lever

Generally, the throttle hold switch is set to **HOLD**, acrobatic flight switch is set to **FMOD**, landing gear switch is set to **GEAR**, flap switch is set to **FLAP**. Users can choose the above switches for specified functions according to individual habits. For details, please see *Function Set [Func Set] (Page 40).*

● Sticks

When the **Stick Mode** is set to **MODE 1**, the positions of sticks are shown in the figure.

● Digital Trims

This transmitter is equipped with four digital trims. Each time you press a trim button, the trim position moves one step. You can always monitor trim positions by referencing the LCD screen.

⚠ **CAUTION**: The trim positions you have set will be stored in memory and will remain there even the transmitter powered off.

● Keys

   ◆ **EXT**: exit key, press this key to return to the previous menu.

   ◆ **UP**: press this key to select the menu upward.

   ◆ **DOWN**: press this key to select the menu downward.

- 9 -

- ◆ **ENT**: enter key, press this key to enter the sub-menu or to confirm the setting.

- ◆ **R/+**: press this key to choose the value upward.

- ◆ **L/+**: press this key to choose the value downward.

● LCD

You can get the current status from the main screen, and set the parameters from the function menu.

● Simulator / Trainer Connector

It can be used as a simulator or trainer connector.

- ◆ When it is used as a simulator connector, connect the transmitter and computer with a dedicated control cable, and then carry out a simulated flight on computer. In order to use this function, you need to equip with a flight simulator and the matched attachment.

- ◆ When it is used as a trainer connector, connect the instructor and student transmitter with an optional trainer cable, and then a skilled instructor can teach a student with flying skills.

● USB interface

With a USB interface, it is easy to upgrade the transmitter firmware to the latest program.

Main Screen

As shown in the figure, it is the main screen of the transmitter.

- 10 -
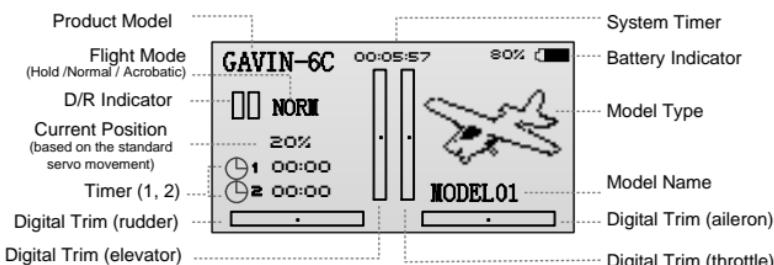
 Note:

● When the **Stick Mode** is set to **MODE 1**, the positions of trims are shown in the figure. The positions are different depending on the stick mode. For details, please refer to *Stick Mode [Stick Mode] (Page 49)*.

● For details about the flight modes, please refer to *Flight Mode (Page 17)*.

Receiver

Specifications

Parameters	DETRUM RXC7 Specifications
Type	2.4GHz 7-channel
Sensitivity	-95dBm
Frequency interval	larger than or equal to 4MHz
Power supply	4.8~6V
Weight	10g
Size	39mm * 28.5mm * 14.5mm

Features

● Adopting 2.4GHz direct sequence spread spectrum (DSSS) and multiple frequency-hopping technology, the receiver has high sensitivity and strong anti-interference performance.

● Using diversity antenna, ensure that the receive signals are stable.

● Multiple channels output the signals simultaneously, to enhance the synchronized movement.

● The receiver has a memory function for frequency and ID.

● The receiver has the fail safe function.

● The distance for signal control is more than 1000 meters.

Receiver Connections

The channels of DETRUM RXC7 receiver are labeled with names, as shown in the following figure.

Aileron channel | AILE
Elevator channel | ELEV
Throttle channel | THRO
Rudder channel | RUDD
Gear channel | GEAR
Auxiliary channel | AUX1
Auxiliary channel | AUX2
Bind plug | BIND
(This is used during the bind procedure)
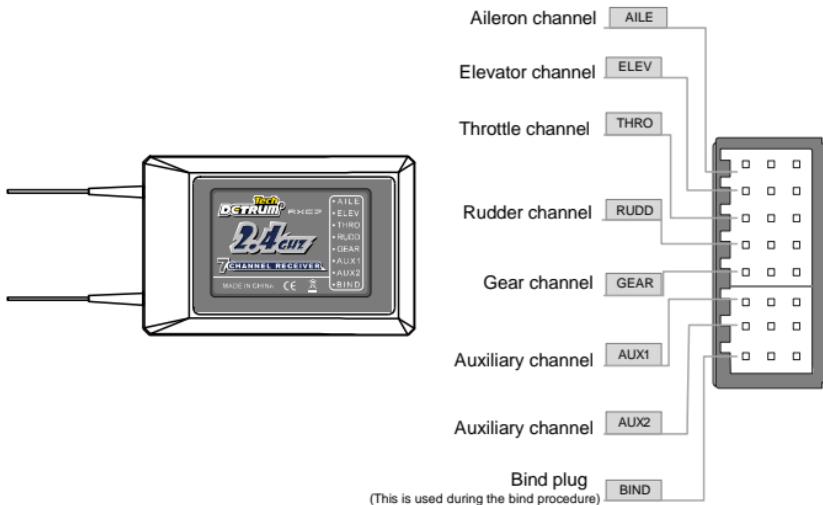
When connecting the servo to the channel connector, please note the line sequence. Each connector has 3 pins, one of the pins near the front panel is the signal end, and the remaining two pins are the positive and negative.

- If the connectors become detached while flying, there will be a risk of uncontrolled operation. Please securely insert all of the connectors as far as they will go.

- The two antennas of the receiver should be placed at 90 degrees to each other. Do not place the two antennas twisted together or in parallel.

Basic Operation

Adjust the Stick Lever Tension

This allows adjustment of the stick lever tension to meet different operating habits.

Tools: Phillips screwdriver, ESD wrist strap or ESD gloves.

Conditions: Before operating, please wear an ESD wrist strap or ESD gloves.

Steps:

1. Open the battery cover, and remove the batteries.

2. Remove the six screws on the rear cover with a Phillips screwdriver.

3. Open the rear cover and remove the wirings between the PCB and rear cover.

   The wirings: a connection between the battery pack and the interface marked with **J1** on PCB, a connection between TRAINER switch and the interface marked with **TRAINER** on PCB, a connection between USB interface and the interface marked with **USB** on PCB.

⚠️ **CAUTION**: Please gently ease off the transmitter's rear cover, to avoid breaking the wirings.

4. Use a Phillips screwdriver to adjust the spring strength as you prefer by turning the screw of the stick you want to adjust. Turning the screw clockwise increases the tension, counter clockwise to loosen.

⚠ **CAUTION**: Do not loosen the screw too much, the stick may not operate.

5. Connect the wirings between the PCB and rear cover, close the rear cover, and then tighten the six screws on the rear cover.

6. Install the batteries and the battery cover.

Change the Location of Throttle Stick

If you want to change the throttle stick from right-hand to left-hand, or change from left-hand to right-hand, it is need to change the location of the throttle stick, and then change the stick mode. The following is the method for changing the location of the throttle stick.

Tools: Phillips screwdriver, ESD wrist strap or ESD gloves.

Conditions: Before operating, please wear an ESD wrist strap or ESD gloves.

Steps:

1. Open the battery cover, and remove the batteries.

2. Remove the six screws on the rear cover with a Phillips screwdriver.

3. Open the rear cover and remove the wirings between the PCB and rear cover.

   The wirings: a connection between the battery pack and the interface marked with **J1** on PCB, a connection between TRAINER switch and the interface marked with **TRAINER** on PCB, a connection between USB interface and the interface marked with **USB** on PCB.

⚠ **CAUTION**: Please gently ease off the transmitter's rear cover, to avoid breaking the wirings.

4. Remove the eight screws fixed the sticks on the front cover with a Phillips screwdriver.

Srews to secure the stick
(there are 8 screws)
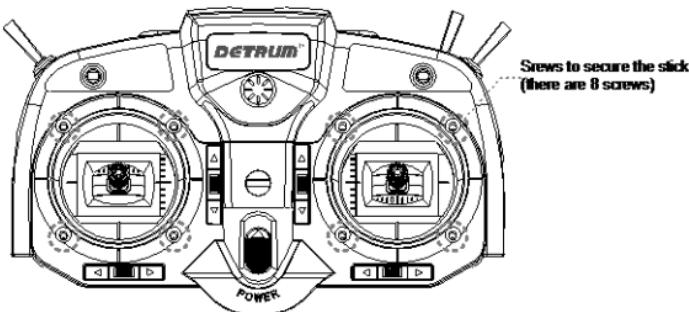
5. Remove the wirings between the sticks and PCB.

   One stick is connected with two interfaces marked with **AILE** and **THRO** on PCB, the other stick is connected with two interfaces marked with **ELEV** and **RUDD** on PCB. Please remember the original connection before removing the wirings.

6. Take out the two sticks and exchange the location, and tighten the eight screws on front cover.

7. Reconnect the wirings between the sticks and PCB.

8. Connect the wirings between the PCB and rear cover, close the rear cover, and then tighten the six screws on the rear cover.

9. Install the batteries and the battery cover.

📔 **NOTE**: After changing the location of throttle stick and elevator stick, please change the stick mode. For details, please refer to *Stick Mode [Stick Mode] (Page 49)*.

Turn on/off the Transmitter

Turn on the transmitter:

1. Move the throttle stick to the lowest position before turning on the power switch.

2. Push the power switch upward to turn on the transmitter.

   After power on, the LCD displays as the following figure. The transmitter's LED indicator stays illuminated at the same time. Wait for about 2 seconds,

the LCD will enter the main screen.

If the throttle stick is not at the lowest position, after turning on the power switch, the LCD will prompt "THR is not reset!". Lower throttle stick to the lowest position, the information will disappear and the LCD will enter the main screen.

Turn off the transmitter:

1. Turn off the power switch, the transmitter shut down at once.

Binding

In order for the transmitter and receiver to communicate, it is essential to pair or bind them together. When you use the R/C system first time or change a transmitter or receiver, this procedure is necessary.

Before binding, Lower throttle to the lowest position and make sure the transmitter is powered off. Place the transmitter and the receiver close to each other within a distance of about one meter.

Steps:

1. Insert the bind plug into the **BIND** port of the receiver.

2. Turn on the receiver. The receiver's red LED will flash slowly when receiver is ready to bind.

3. While pulling and holding the **TRAINER** switch of transmitter, turn on the transmitter. The system begins to bind.

4. Once receiver's green LED stays illuminated, this indicates the receiver is bound to the transmitter. Release the **TRAINER** switch.

5. Remove the bind plug from the receiver. Turn off the transmitter and receiver.

Range Test

It is extremely important to perform a range check before each flying session. This enables you to ensure that each function is working as it should be. GAVIN-6C transmitter allows you to reduce its power output and access the test mode. Then you can detect interference from environment and perform a range check.

Steps:

1. Lower throttle to the lowest position and make sure the transmitter is powered off.

2. While pressing **ENT** key, turn on the transmitter, the transmitter will access the test mode.

   The LCD will display as the following figure, and the transmitter's LED indicator will flash on test mode.

   You can exit the test mode by pressing **EXT** key.

```
┌─────────────────────────────┐
│   ┌─────────────────────┐   │
│   │                     │   │
│   │   Test mode on      │   │
│   │                     │   │
│   └─────────────────────┘   │
│                             │
└─────────────────────────────┘
```
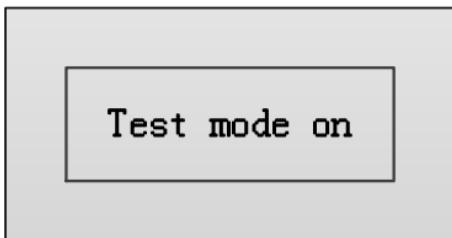
2. With the test mode on, walk away from the model while simultaneously operating the controls. Have an assistant stand by the model to confirm that all controls are completely and correctly operational. You should be able to walk approximately 30~50 paces from the model without losing control.

⚠️ **WARNING**: Never fly in range check mode (test mode).

Flight Mode

The flight mode function allows switching between various aircraft flight characteristics (flight mode) using a switch. The flight modes which can be selected are various with model type.

- Airplane / multicopter flight mode: **NORM** (normal) and **HLD** (hold).

- Helicopter flight mode: **NORM** (normal), **HLD** (hold), and **ACR** (acrobatic).

It is possible to activate these flight modes by the throttle hold switch and acrobatic flight switch:

- The default throttle hold switch is **HOLD**. Users can modify it (please see *Function Set [Func Set] (Page 40)*). Push the **HOLD** switch to the top, the aircraft model will switch to **NORM** flight mode. Pull the **HOLD** switch to the bottom, the aircraft model will switch to **HLD** flight mode.

- Acrobatic flight function is only for the helicopter. The default acrobatic flight switch is **FMOD**. Users can modify it (please see *Function Set [Func Set] (Page 40)*). Push the **FMOD** switch to the top or middle, the aircraft model will switch to **NORM** flight mode. Pull the **FMOD** switch to the bottom, the aircraft model will switch to **ACR** flight mode.

Dual Rate (D/R) setting

This function switches aileron, elevator, and rudder control surfaces between different control surface angles and curves, using the dual rate (D/R) switches.

Generally, different rates are required for different types of flying. For example, low rate (smaller control surface angles) is required for flying at high speeds whereby the model's response becomes more sensitive. On the other hand, high rate might be required for flying slower aggressive acrobatic maneuvers such as hovering thereby the model may not be as sensitive.

Setting Method:

1. Choose the switches for AIL D/R, ELE D/R, and RUD D/R functions.

   The default values for AIL D/R, ELE D/R, and RUD D/R functions are **OFF**. Users can choose from any of the switches (HOLD, FMOD, GEAR, and FLAP) on the transmitter. The steps for setting the switches are described in *Function Set [Func Set] (Page 40)*.

   You can select the same switch for aileron, elevator, and rudder control surfaces, and can also select different switches for each control surface.

2. Put the switch to the up or down position for a high or low rate.

   The high rate is 100%, and the low rate is 60%.

Model Parameter

Before setting the model parameters, please use the **Model Set** function to select a proper model.

In the main screen, press **ENT** key to enter the main menu, press **UP** or **DOWN** key to select **Model Parameter**, and then press **ENT** key to enter the **Model Parameter** interface.

For different model types, the model parameters are different.

AIRPLANE	HELICOPTER	MULTICOPTER
1. Rev Set	1. Rev Set	1. Rev Set
2. End Point	2. End Point	2. End Point
3. Sub Trim	3. Sub Trim	3. Sub Trim
4. Stick Curve	4. Stick Curve	4. Stick Curve
5. THR Curve	5. THR Curve	5. THR Curve
6. THR Hold	6. PIT Curve	6. THR Hold
7. Mix Set	7. THR Hold	
8. Servo Delay	8. Swash Mix	
	9. Servo Delay	

Servo Reverse [Rev Set]

This function is used to reverse the servo operating direction for each channel. When set up a new model, you need to move the stick to check the servo direction, to determine whether the channel direction needs to be reversed.

Setting Method:

1. In the **Model Parameter** menu, press **UP** or **DOWN** key to select **Rev Set**, and then press **ENT** key to enter the setting interface.

```
Rev Set                    1/6
1. CH1 :              Norm ▲
2. CH2 :              Norm
3. CH3 :              Norm
```

2. Press **UP** or **DOWN** key to select the channel, and then press **R/+** or **L/-** key to set the value of the channel.

   Values:

   * **Norm**: It means the servo direction of selected channel is the normal direction.

   * **Rev**: It means the servo direction of selected channel is the reverse direction.

   The default is **Norm**.

⚠ **WARNING**:

● Please set the **Rev Set** function before setting the **Fail Safe** function. Otherwise it will affect the servo direction of the fail safe (opposite to the original direction).

● Generally, do not set the value of **CH3** (throttle channel) to **Rev**.

End Point [End Point]

The adjustment is carried out with reference to the neutral position. This function allows independent adjustment of the servo maximum movement in either direction, for each channel.

When multiple channel mixing is used, the resultant servo movement angle may become too large, and an unreasonable force be applied to the linkages. It is possible to limit the maximum movement of the servos by setting the end point.

Setting Method:

1. In the **Model Parameter** menu, press **UP** or **DOWN** key to select **End Point**, and then press **ENT** key to enter the setting interface.

```
End Point                1/12
┌─────────────────────────────┐
│1.CH1 LOW:      100 ↕       │
└─────────────────────────────┘
 2.    HIG:      100

 3.CH2 LOW:      100
```
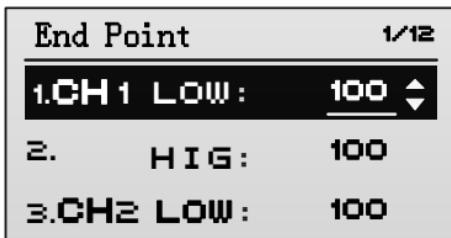
2. Press **UP** or **DOWN** key to select **LOW** / **HIG** of one channel, and then press **R/+** or **L/-** key to set the value of **LOW** / **HIG** travel.

● **LOW**: It is used to adjust the left servo throws. Values: 0~120. The default is **100**.

● **HIG**: It is used to adjust the right servo throws. Values: 0~120. The default is **100**.

Sub Trim [Sub Trim]

This function is used to set the servo neutral position.

Setting Method:

1. In the **Model Parameter** menu, press **UP** or **DOWN** key to select **Sub Trim**, and then press **ENT** key to enter the setting interface.
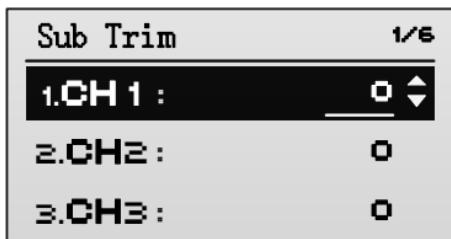
```
Sub Trim                 1/6
┌─────────────────────────────┐
│1.CH1:            0 ↕        │
└─────────────────────────────┘
 2.CH2:            0

 3.CH3:            0
```

2. Press **UP** or **DOWN** key to select the channel, and then press **R/+** or **L/-** key to set the value of the channel.

Values: -100~100. The default is **0**.

Stick Curve [Stick Curve]

This function is used to adjust servos operation in response to aileron / elevator /

- 21 -

rudder stick operation. The servo position can be set independently for a maximum of 9 point positions.

Setting Method:

1. In the **Model Parameter** menu, press **UP** or **DOWN** key to select **Stick Curve**, and then press **ENT** key to enter the **AIL Curve** setting interface.
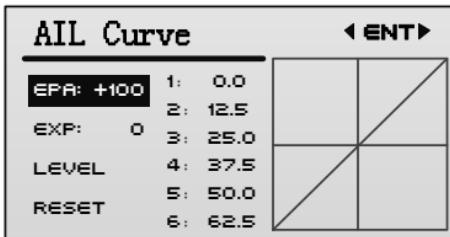
Continue to press **ENT** key to enter **ELE Curve** and **RUD Curve** setting interface. The setting methods of elevator curve and rudder curve are the same as aileron curve. Take the aileron curve setting method as an example.
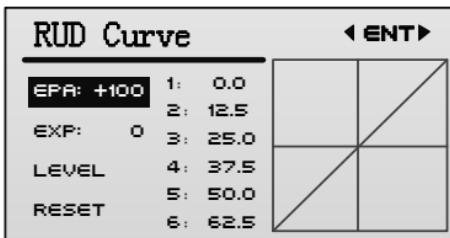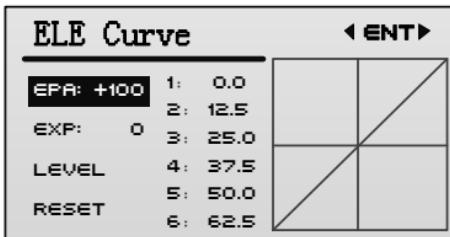
2. Press **UP** or **DOWN** key to select the setting item, and then press **R/+** or **L/-** key to set the value of the item.

- **EPA**: EPA (end point adjustment) is used to adjust the end point. The larger the value is, the larger the servo travel is when move the stick. Values: 0~100. The default is **100**.

- **EXP**: It is used to set the exponent of the curve. Offer a servo travel that is not directly proportional to the stick travel. The control response is milder below half-stick, but becomes increasing stronger as stick travel approaches 100%. The larger the value is, the milder below half-stick. Values: 0~50. The default is **0**. When the value is set to **0**, the servo travel is proportional to the stick travel.

- **LEVEL**: It is used to move up or down the curve.

- **RESET**: It is used to set the curve to initial value.

- **1~9**: It is used to set the value of a specific point. The servo position can be set independently for a maximum of 9 point positions.

Throttle Curve [THR Curve]

This function is used to adjust throttle servo operation in response to throttle stick operation. The servo position can be set independently for a maximum of 9 point positions.

- For airplane / multicopter

  In the **Model Parameter** menu, press **UP** or **DOWN** key to select **THR Curve**, and then press **ENT** key to enter the **NORM THR Curve** setting interface.
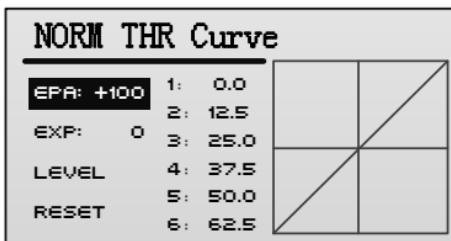
- For helicopter

  You can set throttle curve for the helicopter's **NORM** (normal) and **ACR** (acrobatic) flight mode respectively.

- **NORM THR Curve** (Normal Throttle Curve): It is used to adjust throttle servo operation in response to throttle stick operation when the helicopter is in **NORM** flight mode.

- **ACR THR Curve** (Acrobatic Throttle Curve): It is used to adjust throttle servo operation in response to throttle stick operation when the helicopter is in **ACR** flight mode.

📖 **NOTE**: The introductions for **NORM** and **ACR**, please see *Flight Mode (Page 17)*.

In the **Model Parameter** menu, press **UP** or **DOWN** key to select **THR Curve**, and then press **ENT** key to enter the **NORM THR Curve** setting interface. Continue to press **ENT** key to enter **Acro THR Curve** setting interface.
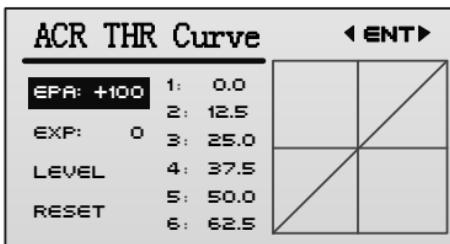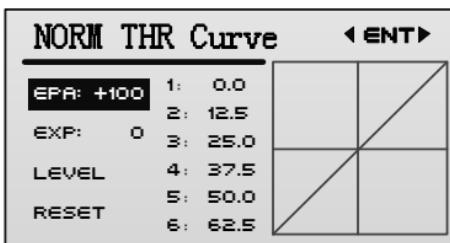
After setting the throttle curve of helicopter, you can select the normal or acrobatic throttle curve by using acrobatic flight switch (the default is FMOD).

The setting method of throttle curve, please refer to *Stick Curve [Stick Curve] (Page 21).*

Pitch Curve [PIT Curve] (Heli only)

📖 **NOTE**: This function is available for helicopter only.

It is used to adjust pitch operation in response to throttle stick operation. The servo position can be set independently for a maximum of 9 point positions.

You can set pitch curve for the **HLD** (hold), **NORM** (normal) and **ACR** (acrobatic) flight mode of helicopter respectively.

- **HLD PIT Curve** (Hold Pitch Curve): It is used to adjust pitch operation in response to throttle stick operation when the helicopter is in **HLD** flight mode.

- **NORM PIT Curve** (Normal Pitch Curve): It is used to adjust pitch operation in response to throttle stick operation when the helicopter is in **NORM** flight mode.

- **ACR PIT Curve** (Acrobatic Pitch Curve): It is used to adjust pitch operation in response to throttle stick operation when the helicopter is in **ACR** flight mode.

📖 **Note**: The introductions for **HLD**, **NORM**, and **ACR**, please see *Flight Mode (Page 17)*.

In the **Model Parameter** menu, press **UP** or **DOWN** key to select **PIT Curve**, and then press **ENT** key to enter the **HLD PIT Curve** setting interface.



```
HLD PIT Curve    ◄ ENT ►
EPA: +100     1:   0.0
EXP:    0     2:  12.5
              3:  25.0
LEVEL         4:  37.5
              5:  50.0
RESET         6:  62.5
```
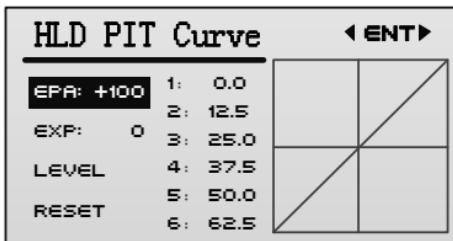
Continue to press **ENT** key to enter the **NORM PIT Curve** and **ACR THR Curve** setting interface.

```
NORM PIT Curve    ‹ ENT ›

EPA: +100   1:  0.0
            2:  12.5
EXP:   0    3:  25.0
LEVEL       4:  37.5
            5:  50.0
RESET       6:  62.5
```

```
ACR PIT Curve     ‹ ENT ›

EPA: +100   1:  0.0
            2:  12.5
EXP:   0    3:  25.0
LEVEL       4:  37.5
            5:  50.0
RESET       6:  62.5
```
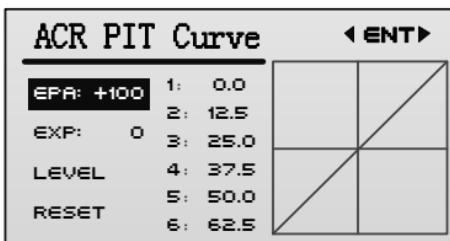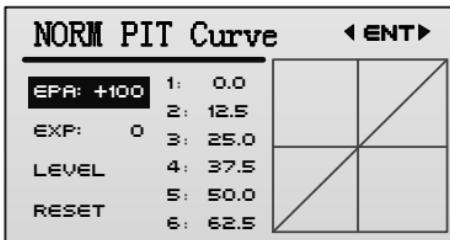
The setting method of pitch curve, please refer to *Stick Curve [Stick Curve] (Page 21)*.

After setting the helicopter's pitch curve, you can select the hold, normal, or acrobatic throttle curve by using throttle hold switch (the default is HOLD) and acrobatic flight switch (the default is FMOD).

Throttle Hold [THR Hold]

This function is for auto rotation landing by holding the throttle servo at a low position. Using a selected switch, the throttle servo can be fixed at an optional position, and the throttle stick will lose effect on throttle hold mode.

The HOLD switch is used for throttle hold function by default. The switch can be modified. For details, please refer to *Function Set [Func Set] (Page 40)*.

Setting Method:

1. In the **Model Parameter** menu, press **UP** or **DOWN** key to select **THR Hold**, and then press **R/+** or **L/-** key to set the value.

   This parameter is used to adjust the throttle position (expressed as a percentage and based on the throttle travel). Values: -10~50. The default is **0**.

2. Open the throttle hold switch to fix the throttle servo at a preset position.

The characters **HLD** will display in the main screen on throttle hold mode.
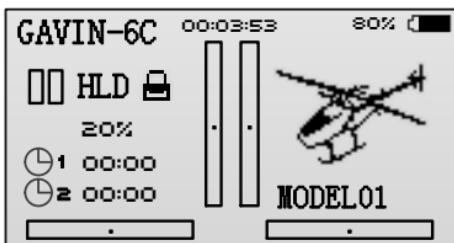
Mix Set [Mix Set] (Airplane only)

📖 **NOTE**: This function is available for airplane only.

Mixing allows control input for a channel to affect more than one channel at a time. It supports mixing a channel to another channel and mixing a channel to itself.

In the **Model Parameter** menu, press **UP** or **DOWN** key to select **Mix Set**, and then press **ENT** key to enter the setting interface.

Delta Mixing [Delta Mix]

Corresponding model type: airplane, delta wing

CH1 (AILE): aileron

CH2 (ELEV): elevator

CH1   CH2
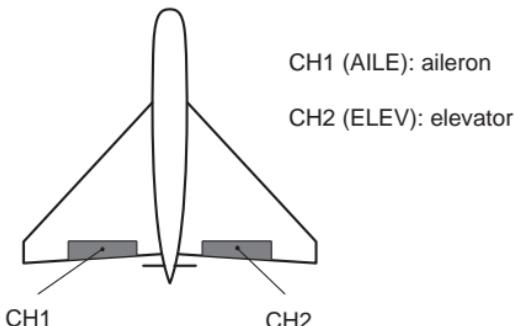
Delta (elevon) mixing mixes channel 1 (aileron) to channel 2 (elevator) allowing the elevons to operate in unison (as elevators) or in opposition (as ailerons).

Setting Method:

1. In the **Mix Set** setting interface, press **UP** or **DOWN** key to select **Delta Mix**, and then press **ENT** key to enter the setting interface.

```
 Delta Mix            1/1

 1.Mix SW:          OFF
```

2. Modify the value of **Mix SW** to **ON** by pressing **R/+** key, to activate the delta mixing function.

    The setting interface is shown in the following figure.
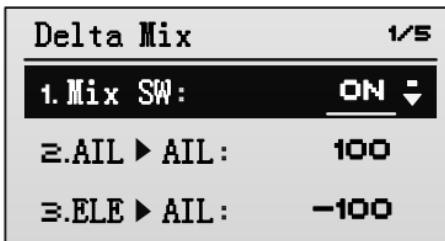
```
 Delta Mix            1/5

 1.Mix SW:           ON

 2.AIL ▶ AIL:       100

 3.ELE ▶ AIL:      -100
```

3. Press **UP** or **DOWN** key to select the setting item, and then press **R/+** or **L/-**

key to set the value of the item.

- **AIL▸AIL**: This parameter is used to set the mixing rate (percentage) from aileron channel to itself. Values: -100~100. If the value is negative, it will adjust the aileron operation in the negative direction. If the value is positive, it will adjust the aileron operation in the positive direction. The default is **100**.

- **ELE▸AIL**: This parameter is used to set the mixing rate (percentage) from elevator channel to aileron channel. Values: -100~100. If the value is negative, it will adjust the aileron operation in the negative direction. If the value is positive, it will adjust the aileron operation in the positive direction. The default is **-100**.

- **AIL▸ELE**: This parameter is used to set the mixing rate (percentage) from aileron channel to elevator channel. Values: -100~100. If the value is negative, it will adjust the elevator operation in the negative direction. If the value is positive, it will adjust the elevator operation in the positive direction. The default is **100**.

- **ELE▸ELE**: This parameter is used to set the mixing rate (percentage) from elevator channel to itself. Values: -100~100. If the value is negative, it will adjust the elevator operation in the negative direction. If the value is positive, it will adjust the elevator operation in the positive direction. The default is **100**.

⚠ **CAUTION**: The delta mixing function can not be utilized when either the V-tail or Flaperon mixing function are active.

V-tail Mixing [V-tail Mix]

Corresponding model type: airplane, V-tail

CH2 (ELEV): elevator

CH4 (RUDD): rudder

CH2   CH4
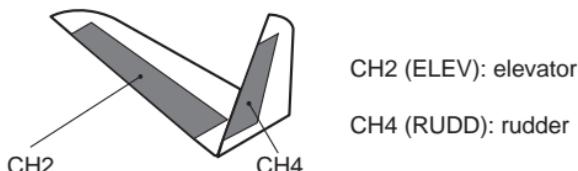
V-tail mixing mixes channel 2 (elevator) to channel 4 (rudder) allowing the ruddervaotrs to operate both as rudders and elevators.

Setting Method:

1. In the **Mix Set** setting interface, press **UP** or **DOWN** key to select **V-tail Mix**, and then press **ENT** key to enter the setting interface.

```
V-tail Mix            1/1

1.Mix SW :         OFF
```

2. Modify the value of **Mix SW** to **ON** by pressing **R/+** key, to activate V-tail mixing function.

    The setting interface is shown in the following figure.
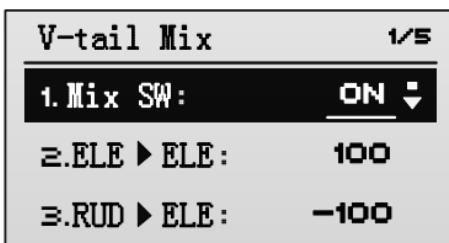
```
V-tail Mix            1/5

1. Mix SW:           ON

2.ELE ▶ ELE:        100

3.RUD ▶ ELE:       -100
```

3. Press **UP** or **DOWN** key to select the setting item, and then press **R/+** or **L/-** key to set the value of the item.

● **ELE▶ELE**: This parameter is used to set the mixing rate (percentage) from elevator channel to itself. Values: -100~100. If the value is negative, it will adjust the elevator operation in the negative direction. If the value is positive, it will adjust the elevator operation in the positive direction. The default is **100**.

● **RUD▶ELE**: This parameter is used to set the mixing rate (percentage) from rudder channel to elevator channel. Values: -100~100. If the value is negative, it will adjust the elevator operation in the negative direction. If the value is positive, it will adjust the elevator operation in the positive direction. The

default is **-100**.

- **ELE▸RUD**: This parameter is used to set the mixing rate (percentage) from elevator channel to rudder channel. Values: -100~100. If the value is negative, it will adjust the rudder operation in the negative direction. If the value is positive, it will adjust the rudder operation in the positive direction. The default is **100**.

- **RUD▸RUD**: This parameter is used to set the mixing rate (percentage) from rudder channel to itself. Values: -100~100. If the value is negative, it will adjust the rudder operation in the negative direction. If the value is positive, it will adjust the rudder operation in the positive direction. The default is **100**.

⚠ **CAUTION**: You can not set V-tail mixing when Delta mixing has already been set. In order to enable V-tail mixing, you need to cancel Delta mixing function first (modify the value of **Mix SW** to **OFF**). However, it is allowed to use V-tail and Flaperon mixing simultaneously.

Flaperon Mixing [Flaperon Mix]

Corresponding model type: airplane, 2 ailerons

CH1 (AILE): left aileron

CH6 (AUX1): right aileron

CH1   CH6
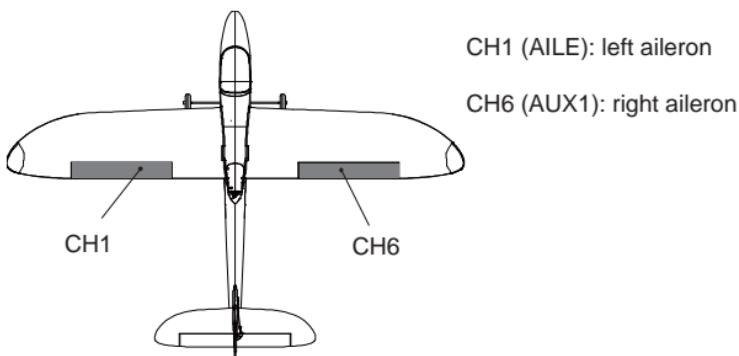
The two aileron servos are connected to channel 1 (AILE) and channel 6 (AUX1). Flaperon mixing allows the ailerons to operate in the same direction (as ailerons) and in opposing directions (as flaps).

Setting Method:

1. In the **Mix Set** setting interface, press **UP** or **DOWN** key to select **Flaperon Mix**, and then press **ENT** key to enter the setting interface.

```
┌─────────────────────────────┐
│ Flaperon Mix         1/1    │
│ ┌─────────────────────────┐ │
│ │1.Mix SW:          OFF ▲ │ │
│ └─────────────────────────┘ │
│                             │
│                             │
└─────────────────────────────┘
```

2. Modify the value of **Mix SW** to **ON** by pressing **R/+** key, to activate Flaperon mixing function.

   The setting interface is shown in the following figure.
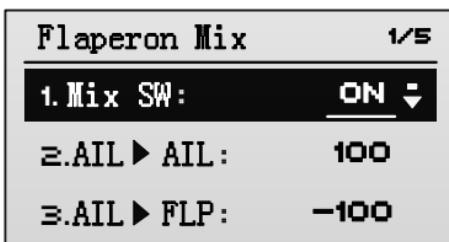
```
┌─────────────────────────────┐
│ Flaperon Mix         1/5    │
│ ┌─────────────────────────┐ │
│ │1.Mix SW:           ON ↕ │ │
│ └─────────────────────────┘ │
│   2.AIL ▶ AIL:      100     │
│                             │
│   3.AIL ▶ FLP:     -100     │
└─────────────────────────────┘
```

3. Press **UP** or **DOWN** key to select the setting item, and then press **R/+** or **L/-** key to set the value of the item.

● **AIL▶AIL**: This parameter is used to set the mixing rate (percentage) from aileron channel to itself. Values: -100~100. If the value is negative, it will adjust the aileron operation in the negative direction. If the value is positive, it will adjust the aileron operation in the positive direction. The default is **100**.

● **AIL▶FLP**: This parameter is used to set the mixing rate (percentage) from aileron channel to flap channel. Values: -100~100. If the value is negative, it will adjust the flap operation in the negative direction. If the value is positive, it will adjust the flap operation in the positive direction. The default is **-100**.

● **FLP▶AIL**: This parameter is used to set the mixing rate (percentage) from flap channel to aileron channel. Values: -100~100. If the value is negative, it will adjust the aileron operation in the negative direction. If the value is positive, it

will adjust the aileron operation in the positive direction. The default is **100**.

- **FLP▸FLP**: This parameter is used to set the mixing rate (percentage) from flap channel to itself. Values: -100~100. If the value is negative, it will adjust the flap operation in the negative direction. If the value is positive, it will adjust the flap operation in the positive direction. The default is **100**.

⚠️ CAUTION:

- When using Flaperon mixing function, do not set the flap to full travel, otherwise the aileron will be invalid.
- You can not set V-tail mixing when Flaperon mixing has already been set. In order to enable Flaperon mixing, you need to cancel Delta mixing function first (modify the value of **Mix SW** to **OFF**). However, it is allowed to use Flaperon and V-tail mixing simultaneously.

Throttle to Balance Mixing [THR▸BAL Mix]

Corresponding model type: airplane, general

This function mixes the throttle operation to the aileron, rudder, and elevator.

Setting Method:

1. In the **Mix Set** setting interface, press **UP** or **DOWN** key to select **THR▸BAL Mix**, and then press **ENT** key to enter the setting interface.
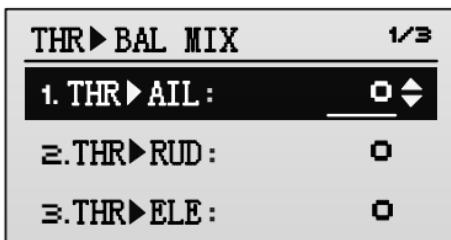
```
THR ▶ BAL MIX          1/3
1. THR ▶ AIL :          ❏ ♦
2. THR ▶ RUD :          ❏
3. THR ▶ ELE :          ❏
```

2. Press **UP** or **DOWN** key to select the setting item, and then press **R/+** or **L/-** key to set the value of the item.

- **THR▸AIL**: This parameter is used to set the mixing rate (percentage) from throttle channel to aileron channel. Values: -100~100. If the value is negative,

it will adjust the aileron operation in the negative direction. If the value is positive, it will adjust the aileron operation in the positive direction. The default is **0**.

- **THR▸RUD**: This parameter is used to set the mixing rate (percentage) from throttle channel to rudder channel. Values: -100~100. If the value is negative, it will adjust the rudder operation in the negative direction. If the value is positive, it will adjust the rudder operation in the positive direction. The default is **0**.

- **THR▸ELE:** This parameter is used to set the mixing rate (percentage) from throttle channel to elevator channel. Values: -100~100. If the value is negative, it will adjust the elevator operation in the negative direction. If the value is positive, it will adjust the elevator operation in the positive direction. The default is **0**.

Veer to Elevator Mixing [Veer▸ELE]

Corresponding model type: airplane, general

This function mixes aileron and rudder to elevator.

The mixing amounts from aileron and rudder to elevator can be set separately for left and right as two independent settings.

Setting Method:

1. In the **Mix Set** setting interface, press **UP** or **DOWN** key to select **Veer▸ELE Mix**, and then press **ENT** key to enter the setting interface.
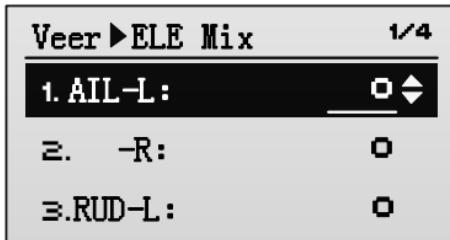
```
Veer▶ELE Mix          1/4
1. AIL-L:              □ ⬍
2.    -R:              □
3.RUD-L:               □
```

2. Press **UP** or **DOWN** key to select the setting item, and then press **R/+** or **L/-** key to set the value of the item.

- **AIL-L**: This parameter is used to set the mixing rate (percentage) from aileron channel to elevator channel when operating the aileron stick to left. Values: -100~100. If the value is negative, it will adjust the elevator operation in the negative direction. If the value is positive, it will adjust the elevator operation in the positive direction. The default is **0**.

- **AIL-R**: This parameter is used to set the mixing rate (percentage) from aileron channel to elevator channel when operating the aileron stick to right. Values: -100~100. If the value is negative, it will adjust the elevator operation in the negative direction. If the value is positive, it will adjust the elevator operation in the positive direction. The default is **0**.

- **RUD-L**: This parameter is used to set the mixing rate (percentage) from rudder channel to elevator channel when operating the rudder stick to left. Values: -100~100. If the value is negative, it will adjust the elevator operation in the negative direction. If the value is positive, it will adjust the elevator operation in the positive direction. The default is **0**.

- **RUD-R**: This parameter is used to set the mixing rate (percentage) from rudder channel to elevator channel when operating the rudder stick to right. Values: -100~100. If the value is negative, it will adjust the elevator operation in the negative direction. If the value is positive, it will adjust the elevator operation in the positive direction. The default is **0**.

Swash Mixing [Swash Mix] (Heli only)

📖 **NOTE**: This function is available for helicopter only.

Using three servos to control the swash plate, the swash mixing function allows coordinated control of the aileron, elevator, and pitch. This swash mixing is essential for helicopters that incorporate CCPM (collective-cyclic pitch mixing) system, and can make the swash plate setting easier.

1. In the **Model Parameter** menu, press **UP** or **DOWN** key to select **Swash Mix**, and then press **ENT** key to enter the setting interface.

```
 Swash Mix          1/4
┌─────────────────────────┐
│ 1. Type:        1 Servo │
└─────────────────────────┘
   2.AIL Mix:       100

   3.ELE Mix:       100
```
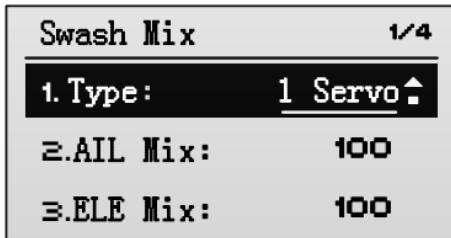
2. Press **UP** or **DOWN** key to select **Type** item, and then press **R/+** or **L/-** key to set the swash type.

   Values:

   ◆ **1 Servo**: Each channel controls one servo, each servo controls one kind of operation, without mixing. If the **Type** is set to **1 Servo**, do not need to set the mixing rate in step 3.

   ◆ **120° CCPM**: This swash type is shown in the following figure. After selecting this swash type, you can adjust the swash mixing by setting the mixing rate in step 3.

   ◆ **140° CCPM**: This swash type is shown in the following figure. After selecting this swash type, you can adjust the swash mixing by setting the mixing rate in step 3.

   ◆ **90° CCPM**: This swash type is shown in the following figure. After selecting this swash type, you can adjust the swash mixing by setting the mixing rate in step 3.

   The default is **1 Servo**.
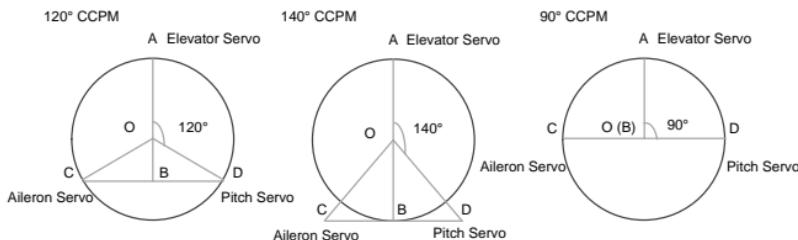
3. Press **UP** or **DOWN** key to select the mixing rate item, and then press **R/+** or **L/-** key to set the value of the item.

- **AIL Mix**: This parameter is used to set the mixing rate (percentage) from aileron to pitch when operating the aileron stick. Values:-100~100. If the value is negative, it will adjust the pitch operation in the negative direction. If the value is positive, it will adjust the pitch operation in the positive direction. The default is **100**.

- **ELE Mix**: This parameter is used to set the mixing rate (percentage) from elevator to aileron and pitch when operating the elevator stick. Values: -100~100. If the value is negative, it will adjust the aileron and pitch operation in the negative direction. If the value is positive, it will adjust the aileron and pitch operation in the positive direction. The default is **100**.

- **PIT Mix**: This parameter is used to set the mixing rate (percentage) from aileron to aileron and elevator when operating the aileron stick. Values: -100~100. If the value is negative, it will adjust the aileron and elevator operation in the negative direction. If the value is positive, it will adjust the aileron and elevator operation in the positive direction. The default is **100**.

Servo Delay [Servo Delay] (Airplane/Heli only)

 NOTE: This function is available for airplane and helicopter only.

This function allows the user to delay input from the servos, then the servos will change at a slower rate when changing between different flying modes.

Setting Method:

1. In the **Model Parameter** menu, press **UP** or **DOWN** key to select **Servo Delay**, and then press **ENT** key to enter the setting interface.

```
Servo Delay          1/6
1.CH 1 :            0
2.CH2 :             0
3.CH3 :             0
```
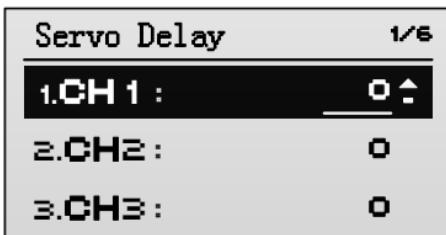
2. Press **UP** or **DOWN** key to select the channel, and then press **R/+** or **L/-** key to set the delay value.

   Values: 0~20. The default is **0**. The larger the value is, more slowly the servo speed changes.

- 37 -

Channel Monitor

After completing each setting in **Model Parameter** menu, you can verify the setting through the channel monitor and monitor the status of each channel at any time.

In the main screen, press **ENT** key to enter the main menu, press **UP** or **DOWN** key to select **Channel Monitor**, and then press **ENT** key to enter the **Channel Monitor** interface.
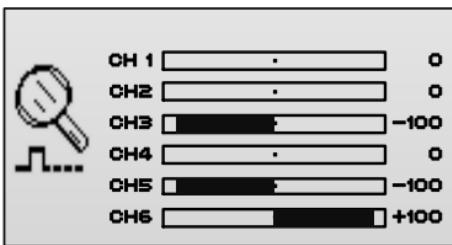
- **CH1**: Aileron channel

- **CH2**: Elevator channel

- **CH3**: Throttle channel

- **CH4**: Rudder channel

- **CH5**: Gear channel

- **CH6**: Auxiliary channel 1

Model Set

In the **Model Set** interface, you can edit a model or switch to another model, set the model type, select the function for each hardware switch, set the trainer function and fail safe function. GAVIN-6C can store a maximum of 30 aircraft models.

In the main screen, press **ENT** key to enter the main menu, press **UP** or **DOWN** key to select **Model Set**, and then press **ENT** key to enter the **Model Set** interface.

Select Model [Model]

This is used to select a model, enables you to access any of the 30 aircraft models in the model list.

Setting Method:

1. In the **Model Set** menu, press **UP** or **DOWN** key to select **Model**, and then press **ENT** key to enter the setting interface.
2. Press **UP** or **DOWN** key to select the model, and then press **ENT** key to confirm the selection.

Edit Model Name [Name]

The model name is used to display in the main screen. Users can edit the model name. The model name is composed of a maximum of 9 characters which contains upper- and lower-case letters, numbers (0~9), or special characters.

Setting Method:

1. In the **Model Set** menu, press **UP** or **DOWN** key to select **Name**, and then press **ENT** key to enter the **Edit model name** interface.
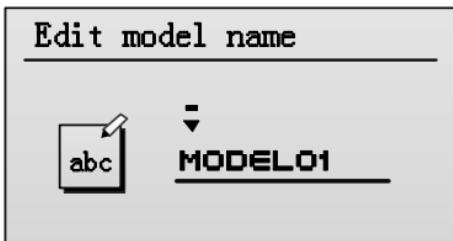
2. Press **UP** or **DOWN** key to move the cursor and select each character, and then press **R/+** or **L/-** key to set the value of each character.

3. After completing to edit the model name, press **ENT** key to save the setting. The LCD display will back to **Model Set** interface automatically.

Select Model Type [Type]

This function allows selection of mode type. The type can be select from airplane (AIRPLANE), helicopter (HELI), or multicopter (MCOPTER).

Setting Method:

1. In the **Model Set** menu, press **UP** or **DOWN** key to select **Type**, and then press **ENT** key to enter the setting interface.

2. Press **UP** or **DOWN** key to select the model type, and then press **ENT** key to confirm the selection. The LCD display will back to **Model Set** interface automatically.

Function Set [Func Set]

The switches (HOLD, FMOD, GEAR, and FLAP) on the transmitter can be used to customize as the control switch for throttle hold, acrobatic flight, aileron D/R,

elevator D/R, rudder D/R, or other auxiliary functions.

Setting Method:

1. In the **Model Set** menu, press **UP** or **DOWN** key to select **Func Set**, and then press **ENT** key to enter the setting interface.

```
Func Set              1/6

1.THR Hold:      HOLD

2.Acro Fly:      FMOD

3.AIL D/R:        OFF
```
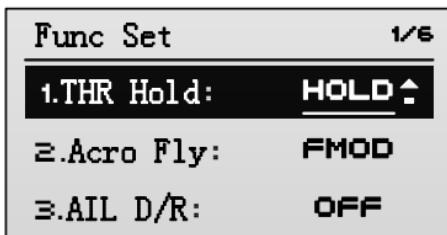
The function items include **THR Hold**, **ACR Fly**, **AIL D/R**, **ELE D/R**, **RUD D/R**, **GEAR**, and **AUX1**.

Values: **OFF**, **HOLD**, **FMOD**, **GEAR**, and **FLAP**. If the value of certain item is set to **OFF**, the corresponding function will be disabled. **HOLD**, **FMOD**, **GEAR**, and **FLAP** are the switches on the transmitter.

The default values of each function item are **HOLD**, **FMOD**, **OFF**, **OFF**, **OFF**, **GEAR**, and **FLAP**.

Generally, the throttle hold switch is set to **HOLD**, acrobatic flight switch is set to **FMOD**, landing gear switch is set to **GEAR**, flap switch is set to **FLAP**. Users can choose the above switches for specified functions according to individual habits.

📖 **NOTE**: There is no **AUX1** function item for helicopter.

2. Press **UP** or **DOWN** key to select the function item, and then press **R/+** or **L/-** key to select the switch.

Trainer Set [Trainer Set]

This function allows two transmitters to be connected by a trainer cord to allow dual control flight instruction. Then a skilled instructor can teach a student with fly skills using this trainer system. The instructor transmitter should be set for trainer operation. The trainer function makes it possible for the instructor to choose

which functions and channels are to be used for instruction.

Always check operation of each control surface before each flying session. When using the trainer function, please check the operation of both the instructor and student transmitters.

Setting Method:

1. Use a trainer cord (optional) to connect two transmitters, and power on the two transmitters.

2. Set the instructor transmitter for trainer operation, and choose the channels used for instruction.

(1) In the **Model Set** menu, press **UP** or **DOWN** key to select **Trainer Set**, and then press **ENT** key to enter the setting interface.

```
Trainer Set          1/1

1.Tainer SW:       OFF ↕
```
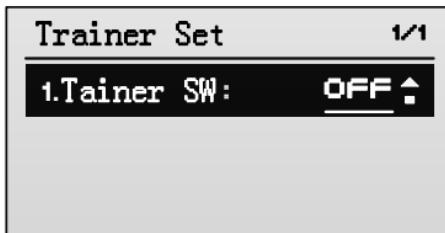
(2) Modify the value of **Trainer SW** to **ON** by pressing **R/+** key, to set this transmitter work as trainer operation.

The setting interface is shown in the following figure.
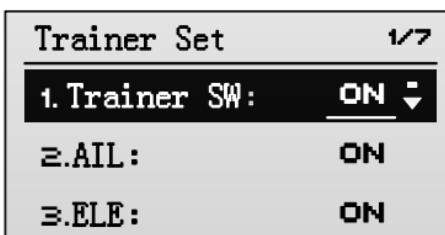
```
Trainer Set          1/7

1. Trainer SW:      ON ↕

2.AIL:             ON

3.ELE:             ON
```

(3) Press **UP** or **DOWN** key to select the channel, and then press **R/+** or **L/-** key to set the value of the channel.

Channels can be set include **AIL**, **ELE**, **THR**, **RUD**, **GEAR**, and **AUX1**.

Values:

- ◆ **ON**: If one of the above channels is set to **ON**, it means this channel is to be used for trainer instruction.

- ◆ **OFF**: If one of the above channels is set to **OFF**, it means this channel is not to be used for trainer instruction, only the instructor side operates.

The default values for each channel are **ON**, **ON**, **ON**, **ON**, **OFF**, and **OFF**.

3. Start a dual control flight between instructor and student.

During flight, push and hold **TRAINER** switch on the instructor transmitter, the model will be controlled by signals from the student transmitter. When the student operates erroneously, the instructor can release **TRAINER** switch and the instructor transmitter regains control of the model. Then the instructor can operate the sticks to correct the flight.

⚠ **CAUTION**: After finishing the trainer operation, please set the value of **Trainer SW** to **OFF** on both the instructor and student transmitters.

Fail Safe [Fail Safe]

If there is signal interference to the transmitter, or the receiver does not receive a valid RF signal from the transmitter, this function moves the servos to predefined positions, to avoid a crash.

⚠ **WARNING:**

- ● For safety, always set the fail safe function before each flying session. Especially set the throttle channel fail safe function, set an appropriate value for the throttle channel according to the model type.

- ● Remember to implement the fail safe setting after completing the aircraft settings.

Setting Method:

1. In the **Model Set** menu, press **UP** or **DOWN** key to select **Fail Safe**, and then press **ENT** key to enter the setting interface.

```
Fail Safe          1/6
1.AIL              ◼▶
2.ELE               ▶
3.THR               ▶
```
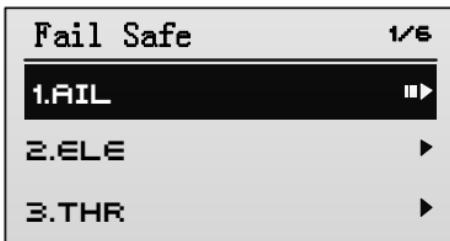
2. Press **UP** or **DOWN** key to select the channel, and then press **ENT** key to enter the setting interface.

Channels can be set include **AIL**, **ELE**, **THR**, **RUD**, **GERA**, and **AUX1**. You can select either mode for each channel in case of loss of RF signal:

- **Servo Hold**: Maintain the servo positions as they were immediately before the radio signal was lost.
- **Fail Safe**: The servos move to predefined positions in case of loss of RF signal.

The default setting for each channel is **Servo Hold**. Take the aileron fail safe setting method as an example.

```
AILERON            1/1
1.Set:    Servo Hold⬍
```

3. Change the value to **Fail Safe** by pressing **R/+** key, to activate fail safe function.

When the fail safe function is activated, the setting interface is shown in the following figure.

```
AILERON                1/1
1.Set :        Fail Safe↕

⊇.                     ▢
```
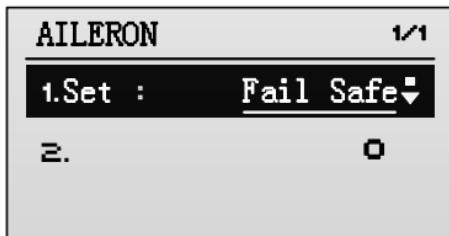
4. Set the value to desired position.

   Values for each channel: -120~120. The default values for each channel are **0**, **0**, **-100**, **0**, **0**, and **0**.

Timer Set [Timer 1/2/3 Set]

This transmitter incorporates two timer systems which are displayed on the main screen. Take the timer 1 setting method as an example.

Setting Method:

1. In the **Model Set** menu, press **UP** or **DOWN** key to select **Timer 1 Set**, and then press **ENT** key to enter the setting interface.

```
Timer 1 Set            1/5
1.Type:           OFF ↕

⊇.Control SW:     THR

⊒.THR Position:   -90
```
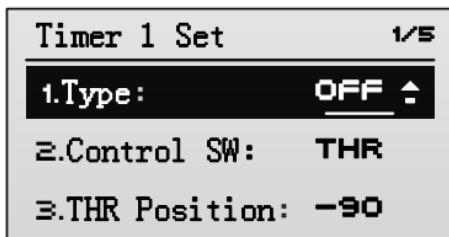
2. Press **UP** or **DOWN** key to select **Type**, and then press **R/+** or **L/-** key to set the timer type.

   Values:

   ◆ **OFF**: This timer is disabled. You do not need to set the following items when **OFF** is selected.

   ◆ **Hidden**: This timer is enabled, but does not display on the main screen.

   ◆ **UP Timer**: This timer is enabled, and displays on the main screen as up

timer.

* **DOWN Timer**: This timer is enabled, and displays on the main screen as down timer.

The default is **OFF**.

3. Press **UP** or **DOWN** key to select **Control SW**, and then press **R/+** or **L/-** key to set the value (timer event).

Values:

* **THR**: The timer will be programmed to start when the throttle is raised above a predefined position, and pause when falling below this position. If the **Control SW** is set to **THR**, you need to set the **THR Position**. Values: -100~100. The default is **-90**.

* **HOLD0**: The timer will be programmed to start when you put the **HOLD** switch on top position, and pause when you put the **HOLD** switch on bottom position.

* **HOLD1**: The timer will be programmed to start when you put the **HOLD** switch on bottom position, and pause when you put the **HOLD** switch on top position.

* **FMOD0**: The timer will be programmed to start when you put the **FMOD** switch on top position, and pause when you put the **FMOD** switch on middle or bottom position.

* **FMOD1**: The timer will be programmed to start when you put the **FMOD** switch on bottom position, and pause when you put the **FMOD** switch on middle or top position.

4. Press **UP** or **DOWN** key to select **Timer (min)** and **(sec)**, and then press **R/+** or **L/-** key to set the value.

Reset Model [Reset]

This function allows you to reset all the setting of current model or all models to default values.

Setting Method:

1. In the **Model Set** menu, press **UP** or **DOWN** key to select **Reset**.

2. Press **R/+** or **L/-** key to select to command, and then press **ENT** to execute the command.

- **Not Act**: Keep the current setting, do not reset the model.

- **Act**: Reset the settings of current model to default values.

- **All**: Reset the settings of all models to default values.

System Set

The **System Set** sets up functions of the transmitter, does not set up any model data.

In the main screen, press **ENT** key to enter the main menu, press **UP** or **DOWN** key to select **System Set**, and then press **ENT** key to enter the **System Set** interface.

Language [Language]

It is used to set the language displayed on LCD, including Chinese and English.

Setting Method:

In the **System Set** menu, press **UP** or **DOWN** key to select **Language**, and then press **R/+** or **L/-** key to set the language.

Calibration [Calibration]

This function calibrates the neutral position of the stick and stick travel. Stick calibration is required in the following conditions:

● Using the transmitter first time

● After changing the stick mode

● After upgrading the transmitter firmware

● When the positions of the sticks are inconsistent with the expected results

Setting Method:

1. In the **System Set** menu, press **UP** or **DOWN** key to select **Calibration**, and then press **ENT** key to enter the setting interface.

```
Calibration
    Full sticks travel
        Set neutral
         Press ENT
```

2. Move both right and left sticks up and down and right to left, next set both right and left sticks to their center position, and then press **ENT** key to calibrate the sticks.

   If the calibration is successful, it will prompt "Completed!", as shown in the following figure. If failed, it will prompt "Please Retry!".

```
    Completed!
```

Stick Mode [Stick Mode]

This function is used to change the stick mode to meet different operating habits.

Values: **MODE 1**, **MODE 2**, **MODE 3** and **MODE 4**. The default is **MODE 1**. The right and left sticks for each mode are shown in the following figure.

MODE 1

elevator stick   throttle stick

rudder stick   aileron stick

MODE 2

throttle stick   elevator stick

rudder stick   aileron stick

MODE 3

elevator stick   throttle stick

aileron stick   rudder stick

MODE 4

throttle stick   elevator stick

aileron stick   rudder stick
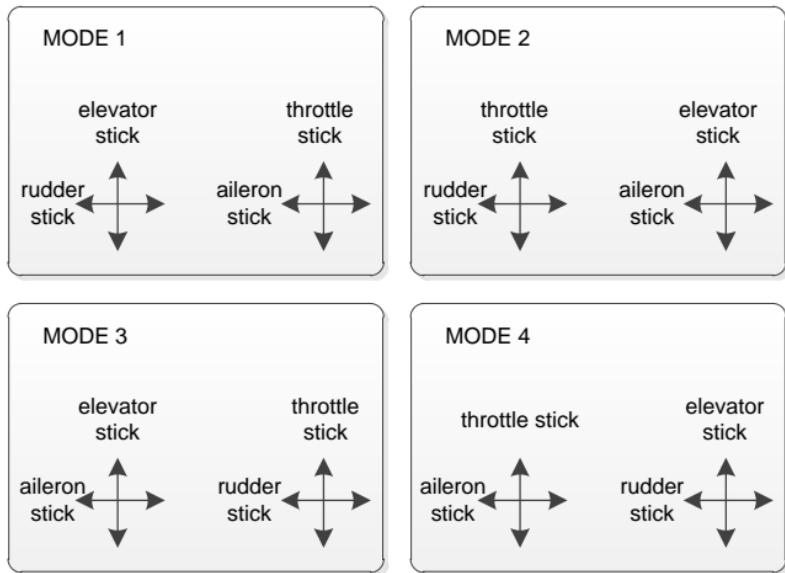
It represents the vertical direction of the stick.   It represents the horizontal direction of the stick.

Setting Method:

In the **System Set** menu, press **UP** or **DOWN** key to select **Stick Mode**, and then press **R/+** or **L/-** key to set the value.

 Note:

- If the throttle stick position to be changed when changing the stick mode, the throttle stick and elevator stick location requires changing. For details, please refer to *Change the Location of Throttle Stick (Page 14)*.

- Be sure to calibrate both stick gimbals after changing the stick mode. For details, please refer to *Calibration [Calibration] (Page 48)*.

Key Volume [Key Volume]

It is possible to change the volume (or mute) for the keys.

Values: 0~10. You may disable the key sound by changing the volume to **0**. The larger the value is, the greater sound volume the keys will emit.

Setting Method:

In the **System Set** menu, press **UP** or **DOWN** key to select **Key Volume**, and then press **R/+** or **L/-** key to set the volume.

Key Tone [Key Tone]

It is possible to change to tone for the keys.

Values: 0~30.

Setting Method:

In the **System Set** menu, press **UP** or **DOWN** key to select **Key Tone**, and then press **R/+** or **L/-** key to set the tone.

Back-light Brightness [Brightness]

It is used to adjust the back-light brightness.

Values: 0~10. You may shut off the back-light by changing the brightness to **0**. The larger the value is, the brighter LCD screen displays.

Setting Method:

In the **System Set** menu, press **UP** or **DOWN** key to select **Brightness**, and then press **R/+** or **L/-** key to set the value.

Contrast [Contrast]

It is used to adjust the LCD screen contrast.

Values: 0~10.

Setting Method:

In the **System Set** menu, press **UP** or **DOWN** key to select **Contrast**, and then **R/+** or **L/-** key to set the value.

Back-light Time [Bright Off]

It is used to adjust the back-light appearance time.

Values: **NORM ON**、**10sec**, **20sec**, **30sec**, **40sec**, **50sec**, and **60sec**. When **NORM ON** is selected, the back-light will be always on. When **10sec**, **20sec**,

30sec, **40sec**, **50sec**, or **60sec** is selected, if there is no operation, the back-light will be on for 10, 20, 30, 40, 50, or 60 seconds before automatically shutting off.

Setting Method:

In the **System Set** menu, press **UP** or **DOWN** key to select **Bright Off**, and then press **R/+** or **L/-** key to set the value.

About Information [About]

This indicates the current version of the transmitter's software and hardware.

In the **System Set** menu, press **UP** or **DOWN** key to select **About**, and then press **ENT** key to check the version information.

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device 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.