

END POINT

Sets the travel and limit point of each servo.

The End Point function adjusts the left and right servo throws, generates differential throws, and will correct improper linkage settings.

The travel rate can be varied from 0% to 140% in each direction on channels 1 to 12(FASSTest 12CH mode). Also, the limit point where servo throw stops may be varied from 0% to 155%.

- Select [END POINT] in the Linkage menu and access the setup screen shown below by touching the RTN button.

• Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.

The diagram shows the 'END POINT' setup screen with four channels (AIL, ELE, THR, RUD) and their respective limit and travel values. A 'RETURN' button is shown with an arrow pointing to the 'HOME/EXIT' button. To the right, the 'SensorTouch' control panel is shown with a circular touch sensor and a 'RTN' button. A legend indicates that the touch sensor is used for scrolling, moving the cursor, and adjusting values. A 'To next page' button is also shown.

Channel	AIL	ELE	THR	RUD
1	AIL	ELE	THR	RUD
Limit Point	135	135	135	135
Travel	100	100	100	100
Travel	100	100	100	100
Limit Point	135	135	135	135

(limit point) (travel) (travel) (limit point)

<SensorTouch™>

- Scrolling
- Moving cursor
- Adjusting value

To next page

(The display screen is an example. The screen depends on the model type.)

Servo travel adjustment

1. Move the cursor to the travel icon of the channel you want to adjust and touch the RTN button to switch to the data input mode.
2. Adjust the rate by scrolling the touch sensor.
Initial value: 100%
Adjustment range: 0%~140%
*When the RTN button is touched for one second, the rate is reset to the initial value.
Touch the RTN button to end adjustment and return to the cursor mode.
3. Repeat this procedure for each rate.

Limit point adjustment

1. Move the cursor to the limit point icon of the channel you want to adjust and touch the RTN button to switch to the data input mode.
2. Adjust the limit point by scrolling the touch sensor.
Initial value: 135%
Adjustment range: 0%~155%
*When the RTN button is touched for one second, the limit point is reset to the initial value.
Touch the RTN button to end adjustment and return to the cursor mode.
3. Repeat this procedure for each limit point.

SERVO SPEED

Sets the speed of each servo.

The speed of the servo from 1CH to 12CH of operation can be set up.

It can adjust to 0-27.

Speed becomes slow as a numerical value's 0 increases in the state of the fastest of the servo.

* Speed cannot be made quicker than the maximal rate of the servo to be used.

* It will overlap, if speed control of a S.BUS servo setup is used at the time of S.BUS servo use, and speed changes. Please use one either.

* The speed of THR is not set up simultaneously with THR DELAY (model menu : only airplane).

- Select [SERVO SPEED] in the Linkage menu and access the setup screen shown below by touching the RTN button.

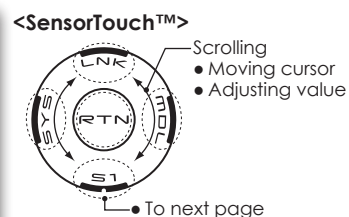
- Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.



SRVO SPEED		1/2	
1AIL	0	5GEAR	0
2ELE	0	6VPP	0
3THR	0	7AUX5	0
4RUD	0	8AUX4	0

(channel) (speed) (channel) (speed)

(The display screen is an example. The screen depends on the model type.)



Servo speed setting

1. Touch the Speed button of the channel you want to set.
2. Use the adjustment buttons to adjust the servo speed.

• Initial value: 0

• Adjustment range: 0~27 (steps)

*When the RTN button is touched for one second, the rate is reset to the initial value.

3. Repeat this procedure for each channel.

THR CUT

Stops the engine safely and easily. (airplane and helicopter only)

Throttle cut provides an easy way to stop the engine. Generally speaking, modelers will do so by flipping a switch with the throttle stick at idle. The action is not functional at high throttle to avoid accidental dead stick landings. The switch's location and direction must be chosen, as it defaults to NULL.

Individually adjust the Throttle Cut activation setting for each condition. (helicopter)

*Since conditions are not offered when an Airplane is selected, the Throttle Cut options will vary from the options noted below.

*The Throttle Cut POS and SW settings are utilized for all conditions.

*If the Throttle Cut switch is activated, or on, this status will continue even if the condition is changed to an inhibited setting.

*If the condition is inhibited (INH) the Throttle Cut is off if the SW is in the off position and the throttle stick is low.

- Select [THR CUT] in the Linkage menu and access the setup screen shown below by touching the RTN button.
- Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.

- Current throttle position
- Cut position

Throttle cut setting procedure

1. Activate the function:

Move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode.

Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the function and return to the cursor mode.

2. Switch selection:

Move the cursor to the [SW] item and access the switch setup screen by touching the RTN button and select the switch and ON direction.

*For a detailed description of the setting method, see [Switch Setting Method] at the back of this manual.

3. Throttle cut position setting:

Move the cursor to the [POS] item and touch the RTN button to switch to the data input mode.

Adjust the servo operation position at throttle cut operation by scrolling the touch sensor.

Initial value: 17%

Adjustment range: 0%~50%

*When the RTN button is touched for one second, the servo operation position is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

*With the selected cut switch ON and the throttle stick at idle; adjust the rate until the engine consistently cuts off.

However, be sure that the throttle linkage is not pulled too tight or unreasonable force is not applied to the servo.

• Individually adjust the Throttle Cut activation setting for each condition. (helicopter)

THR CUT	NORMAL	OFF
NORMAL	ACT	POS
IDLEUP1	INH	17%
IDLEUP2	INH	SA
IDLEUP3	INH	THRO
HOLD	INH	16%

Designating a Throttle Cut setting position. (helicopter)

*A throttle cut function acts in the low side of the throttle position.

*"THRO" setting is common with all condition.

Warning

Normal setting is slightly above idle.

1. To add the Throttle Cut position, use the cursor to select the THRO percentage desired, then press and hold the RTN button for one second.

SET: Push RTN(1sec)	NORMAL	ACT	POS	OFF
NORMAL	INH	17%		
IDLEUP1	INH	SA		
IDLEUP2	INH	THRO		
HOLD	INH	18%	<	>

IDLE DOWN

Lowers the engine idling speed.(airplane only)

The Idle Down function lowers the engine to its idle position. Like Throttle Cut, this is usually accomplished by flipping a switch with the throttle stick at idle. The action is not functional at high throttle to avoid accidental dead sticks. The switch's location and direction must be chosen, as it defaults to NULL.

- Select [IDLE DOWN] in the Linkage menu and access the setup screen shown below by touching the RTN button.

• Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.

• Current throttle position

Idle down setting procedure

1. Activate the function:

Move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode.

Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the function and return to the cursor mode.

2. Switch selection:

Move the cursor to the [SW] item and access the switch setup screen by touching the RTN button. Select the switch and ON direction.

*For a detailed description of the setting method, see [Switch Setting Method] at the back of this manual.

3. Offset rate setting:

Move the cursor to the [OFFSET] item and touch the RTN button to switch to the data input mode.

Adjust the servo offset rate at idle down operation by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -100%~0%~+100%

*When a minus rate is input, an offset is applied at the high side.

*Maximum offset amount is near maximum slow.

*When the RTN button is touched for one second, the offset rate is reset to the initial value.

Touch the RTN button to end the adjustment and return to the cursor mode.

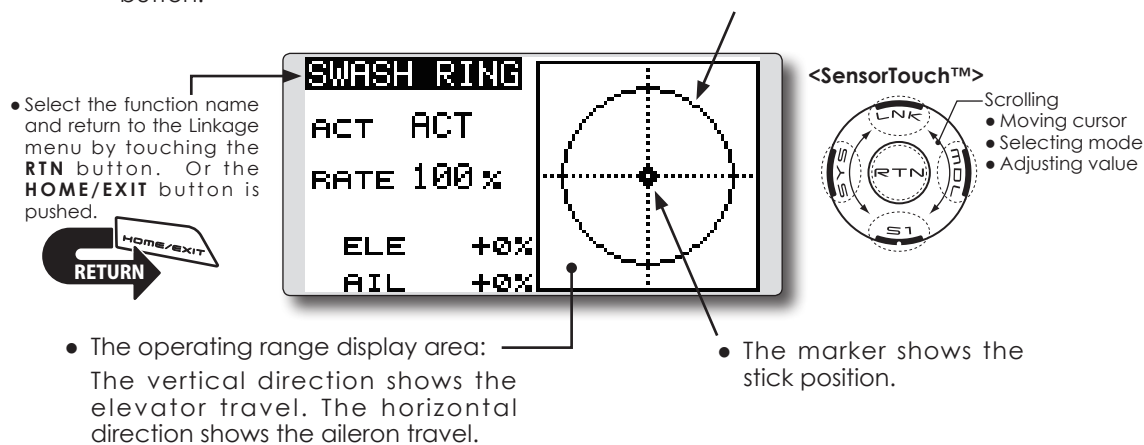
SWASH RING

Limits the swash plate travel to within a fixed range. (Helicopter only)

This function limits the swash travel to a fixed range in order to prevent damaging the swash linkage by simultaneous operation of the ailerons and elevators. It is very useful in 3D aerobatics which use a large travel.

- Select [SWASH RING] in the Linkage menu and access the setup screen shown below by touching the RTN button.

- When the swash ring function is activated, a circle is displayed in the operating range display area and the rate input box is displayed. Stick operation is limited to the area of this circle.



Swash ring setting procedure

1. Activate the function:

Move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode.

Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the function and return to the cursor mode.

2. Rate setting:

Move the cursor to the [RATE] item touch the RTN button to switch to the data input mode.

Set the rate by scrolling the touch sensor.

Initial value: 100%.

Adjustment range: 50 to 200%.

*Adjust the rate to maximum swash tilt.

*When the RTN button is touched for one second, the rate is reset to the initial value.

Touch the RTN button to end adjustment and return to the cursor mode.

SWASH

Swash AFR and linkage correction function. (helicopter only, except swash type H-1)

Neutral Point

At your linkages, if the servo horn deviates from a perpendicular position at neutral, the linkage compensation functions in this menu may not compensate effectively. To correct this use the Neutral Point function. This will move the neutral point of the servos to the actual perpendicular position. However, this adjustment changes only the axis point of the compensation functions in this menu, and does not affect the neutral position of other functions.

Swash AFR

Swash AFR function reduces, increases, or reverses the rate (travel) of the aileron, elevator and collective pitch functions, by adjusting or reversing the motion of all servos involved in that function, only when using that function.

Mixing Rate

This mixing is used to compensate the swash-plate as necessary during specific control inputs.

The following compensation mixing is possible; PIT to AIL, PIT to ELE, AIL to PIT, ELE to AIL, and ELE to PIT (HR3 mode.) It adjusts the swash-plate to for proper operation of each control using the corresponding compensation mixing.

Linkage Compensation

This compensation mixing is used to correct the swash-plate for pitch control at low pitch and high pitch.

Speed Compensation

This function is used to cancel the reaction that is generated by the difference in the movements of each servo when the swash-plate moves.

Subtrim

Subtrim for aileron, elevator and pitch can be set during swash setting.

Pitch adjustment function

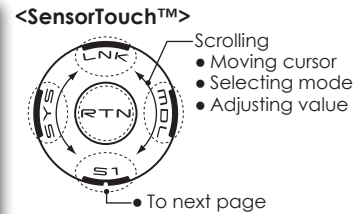
High, neutral and low pitch fixed outputs can be used while adjusting the pitch.

- Select [SWASH] in the Linkage menu and access the setup screen shown below by touching the RTN button.

- Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.



SWASH		1/6	
NEUTRAL	AFR		
POS 50%	AIL	+50%	
	ELE	+50%	
	PIT	+50%	



Neutral point setting procedure

The neutral point becomes the correction standard point.

*Adjusting the servo horn so that the neutral point is near the 50% position makes the mixing amount small.

1. Neutral point setting

Move the cursor to the [POS] item and hold the pitch operation so that the servo horn is at a right angle to the linkage rod and Touch the RTN button for one second. This value indicates the servo's neutral position.

After reading the neutral point, use the other correction functions to make further adjustments.

Swash AFR setting procedure

The swash AFR function makes adjustments so that the servos travel the specified amount by [AIL], [ELE], and [PIT] operation.

1. Move the cursor to the function you want to adjust and touch the RTN button to switch to the data input mode.

2. Adjust the AFR rate by scrolling the touch sensor.

Initial value: +50%

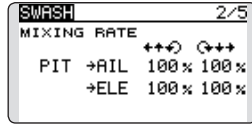
Adjustment range: -100%~+100%

*When the RTN button is touched for one second, the AFR rate is reset to the initial value.

Touch the RTN button to end adjustment and return to the cursor mode.

Mixing rate setting procedure

The HR3 swash-plate type will be used as an example to describe mixing rate setting. The mixing used in other swash modes may be different, however, the setting procedure is the same.



*Set the throttle stick to the preset neutral point. Adjust the length of the linkage rod so that the swash plate is horizontal at this position.

*The sub-trim function can be used to make small adjustments.

*Adjust so that the pitch curve is a straight line and the helicopter achieves maximum pitch.

*Move the cursor to the item you want to adjust and touch the RTN button to switch to the data input mode. Touch the RTN button to end adjustment and return to the cursor mode.

1. Adjusting the aileron operation [AIL to PIT]

Adjust the AIL to PIT rate so there is no binding in the elevator or pitch movement when the aileron stick is moved to the left and right.

*Adjust by scrolling the touch sensor.

*The left and right sides can be adjusted individually.

2. Adjusting the elevator operation [ELE to AIL]/ [ELE to PIT]

Adjust the ELE to AIL and ELE to PIT rates so there is no binding in the aileron or pitch movement when the elevator stick is moved up and down.

*Adjust by scrolling the touch sensor.

*The up and down sides can be adjusted individually.

3. Adjusting the pitch operation [PIT to AIL][PIT to ELE]

Adjust the PIT to AIL and PIT to ELE rates so that the swash plate moves to the level/horizontal position when the throttle stick was moved to maximum low and full high.

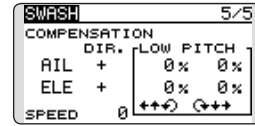
*Adjust by scrolling the touch sensor.

*The slow and high sides can be adjusted individually.

Linkage compensation setting procedure

*Prior to utilizing the linkage compensation settings, it is important to adjust the mixing rate settings.

*Linkage compensation overrides interference from the aileron operation with the elevator or elevator operation with the aileron at collective pitch control for low pitch and high pitch.



*When making the following setting, Move the cursor to the item you want to set and touch the RTN button to switch to the data input mode. Touch the RTN button to end adjustment and return to the cursor mode.

1. Compensating aileron input [AIL]

Set the throttle to the lowest position. Move the aileron stick to the left and right and adjust the aileron compensation amount so that interference in the elevator or pitch direction is minimal.

*Adjust by scrolling the touch sensor.

*The left and right sides can be adjusted individually.

*If the interference increases when the compensation amount was increased, make adjustments with the direction [DIR.] using the plus "+" or minus "-".

2. Compensating elevator input [ELE]

Adjust the elevator compensation amount so that the aileron or pitch direction interference when the elevator stick was moved up and down is minimal.

3. Repeat steps 1 and 2 above, perform aileron and elevator compensation similarly at full throttle.

Speed compensation setting procedure

1. Move the cursor to the "SPEED" item and touch the RTN button to switch to the data input mode.

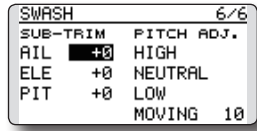
2. Set the throttle stick to the neutral point position. Quickly move the elevator stick and adjust the speed compensation amount [SPEED] for minimum interference in the pitch direction.

*Adjust by scrolling the touch sensor.

Touch the RTN button to end adjustment and return to the cursor mode.

Subtrim setting procedure

Subtrim can be set on the last page of the swash setting screen.



*The sub-trim value set here is reflected at sub-trim of the linkage menu.

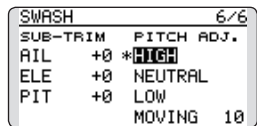
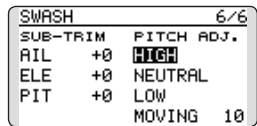
Pitch adjustment procedure

The pitch adjustment function can be used on the last page of the swash setting screen.

1. Call the last page of the swash setting screen.
2. When the cursor is moved to a pitch adjustment button and the RTN button is touched, the corresponding pitch is output.

* In the pitch adjustment mode an * is displayed at the left side of the current output setting button.

*If the cursor is moved to another button and the RTN button is touched during pitch adjustment, the pitch adjustment mode is deactivated.



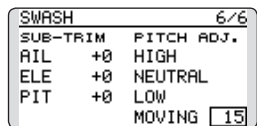
Function details are as follows:

Button	Function
High	High pitch fixed output mode
Neutral	Neutral pitch fixed output mode
Low	Low pitch fixed output mode
Moving	Cyclic pitch output mode

*The cyclic pitch speed can be set with the button at the right side of the "Moving" button.

Setting range: 1 to 100

*When the set value is large, motion becomes fast and when the set value is small, motion becomes slow.



T1-T4 SET.

Digital trim settings

This function adjusts the digital trim's step amount and operation mode (T1~T4.)

When the flight conditions are set, the trim operation can be coupled with the conditions when combination mode is selected.

The T14SG unit of trim is displayed on the home screen.

Only the trim displayed on the home screen can be moved to the center position without changing the actual trim's memory position.

- Select [T1-T4 SET.] in the Linkage menu and access the setup screen shown below by touching the RTN button.
- Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.
- Trim operation mode
"COMB.": Combination mode
"SEPAR": Separate mode

T1-T4 SET. NORMAL			
STEP	MODE	UNIT	
T1	4	SEPAR	--
T2	4	SEPAR	T1-T4
T3	4	SEPAR	MEMORY
T4	4	SEPAR	INH

(The display screen is an example. The screen depends on the model type.)

Control step amount setting

1. Move the cursor to the [STEP] item and touch the RTN button to switch to the data input mode.
2. Set the control step amount by scrolling the touch sensor.
Initial value: 4
Adjustment range: 0~200
*When the RTN button is touched for one second, the control step amount is reset to the initial value.
*When the value is increased, the change per step becomes larger.
3. Touch the RTN button to end adjustment and return to the cursor mode.

Separate/combination mode selection (Heli and Glider only)

1. Move the cursor to the [MODE] item and touch the RTN button to switch to the data input mode.
2. Select the mode by scrolling the touch sensor. A confirmation message appears.
*The display blinks.
[COMB.]: Combination mode. The trim's data is reflected in all flight conditions.
[SEPAR]: Separate mode. Trim adjustments are made individually for each flight condition.
3. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

Display unit selection

1. Move the cursor to the [UNIT] item and touch the RTN button to switch to the data input mode.
2. Select the mode by scrolling the touch sensor. A confirmation message appears.
*The display blinks.
[--]: A step number is displayed on the home screen. There is no unit display.
[%]: "%" is displayed as a unit.
3. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

Trim Memory Operation procedure

1. Move the cursor to the [T1-T4 MEMORY] item and touch the RTN button to switch to the data input mode.
2. Select the ACT mode by scrolling the touch sensor. A confirmation message appears.
[INH]: Inhibited *The display blinks.
[ACT]: Activated
3. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)
4. At the home screen, move the cursor to the trim you want to change and touch the RTN for one second. The trim display is moved to the center position.
*When the function is inhibited, the trim position returns to the actual trim position.

WARNING

Low Battery alarm voltage set Warning normal reset

The T14SG includes an audible alarm that sounds when the transmitter's battery voltage drops below a pre-determined setting; adjustable for cell types and voltages.

Mixing warning at power ON can be reset to OFF.

Warning display:

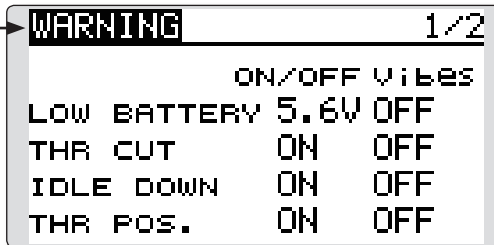
Airplane: Throttle cut/Idle down/Throttle position/Snap-roll/Motor position/Airbrake/Motor

Helicopter: Condition/Throttle cut/Throttle position/Throttle Hold

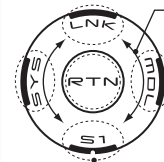
Glider: Condition/Motor position/Trim-mix/Motor

- Select [WARNING] in the Linkage menu and access the setup screen shown below by touching the RTN button.

- Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.



<SensorTouch™>

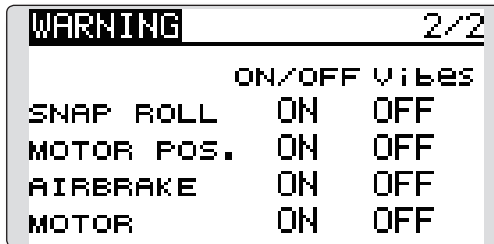


Scrolling

- Moving cursor
- Selecting mode
- Adjusting value

• To next page

- Push S1 button to advance to next page.



Accessing and Activating the Low Battery Alarm

1. The Low Battery (LOW BATTERY) alarm voltage is accessed through the T14SG's System Menu. Within the System Menu, use the SensorTouch™ to highlight the SOUND option and then press the Return (RTN) button to confirm the selection.
2. Use the SensorTouch to scroll to the Low Battery (LOW BATTERY) alarm, and then press the Return (RTN) button to access the voltage settings. Using the SensorTouch, adjust the voltage as desired and/or determined by the transmitter battery pack being utilized. The voltage options range from 5.0V to 6.0V. Suggested voltage settings are as follows:

- 5-Cell NiCd or NiMH: 5.6V
- 2-Cell LiFe: 6.0V

*About low battery voltage, all the models included in one transmitter are changed in common. It cannot set to different voltage for every model. Moreover, data reset is not carried out.

Warning normally resetting method

1. Move the cursor to the item you want to reset to OFF and touch the RTN button to switch to the data input mode.
2. Select the OFF mode by scrolling the touch sensor.
*The display blinks.
3. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

TELEMETRY

Displaying data from the receiver

This screen displays your choice of data from the receiver.

Also warnings can be activated regarding other data from your aircraft. For example, if the receiver voltage drops, the user can be warned by an alarm (and vibration).

- *It cannot be used in FASST mode and S-FHSS mode.
- *Only receiver voltage and EXT voltage can be used in FASSTest12CH mode.
- *The FASSTest14CH mode can use all the telemetry functions.

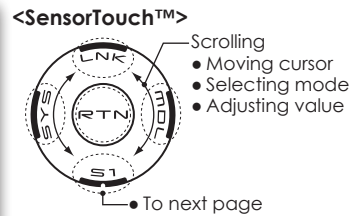
- [TELEMETRY] can be called if the HOME/EXIT button is pushed from a home screen.
- Select [TELEMETRY] in the Linkage menu and access the setup screen shown below by touching the RTN button.

- Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.



TELEMETRY 1/3	
Rx-BATT.	1 TEMP.
0.0V	-----
RECEIVER	SBS-01T
EXT-VOLT	2 RPM
0.0V	0RPM
RECEIVER	SBS-01RM/O

- Receiver -> Transmitter. The reception strength is shown.



- Push S1 button to advance to next page.

TELEMETRY 2/3	
3 ALTITUDE	3 DISTANCE
-----	-----
SBS-01A	SBS-01G
3 VARIO	3 SPEED
-----	-----
SBS-01A	SBS-01G

How to see telemetry data

1. Telemetry screen can be called if the HOME/EXIT button is pushed from the home screen. Or select [TELEMETRY] in the Linkage menu and access the setup screen by touching the RTN button.
2. If each item is chosen and the RTN button is pushed, an alarm setup can be performed with the minimum/maximum after a transmitter is turned on.

*Receiver voltage can be checked immediately. An optional sensor will need to be attached to S.BUS2 of a receiver if you would like to see other information.

*No special setup is necessary if each sensor displayed is left as in the default setup. Separate sensor ID is also unnecessary. However, if two or more of one kind of sensor is used, setup is required in the "SENSOR" menu.

Warning

Do not watch the transmitter screen during flight.

*You may lose sight of the aircraft during flight and this is extremely dangerous. Have an assistant on hand to check the screen for you. A pilot should NEVER take his eyes off his aircraft.

TELEMETRY : Rx-BATT.

Displaying data from the receiver battery voltage

In this screen, the battery voltage of a receiver is displayed.

If it becomes higher or lower than the setting an alarm and/or vibration will alert you.

*It cannot be used in FASST mode and S-FHSS mode.

*Only receiver voltage and EXT voltage can be used in FASSTest12CH mode.

*The FASSTest14CH mode can use all the telemetry functions.

- Select [Rx-BATT.] in the TELEMETRY screen and access the setup screen shown below by touching the RTN button.
- Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.
- The maximum and the minimum when powering ON are shown.
- Receiver battery voltage

- ↓The "down" arrow will indicate that an alarm will sound when the voltage drops to below the setting.

Alert set

1. Move the cursor to the ↓ALERT [INH] item and touch the RTN button to switch to the data input mode.
 2. Select the ACT mode by scrolling the touch sensor.
 3. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)
 4. Move the cursor to the ↓THRESHOLD [4.0V] item and touch the RTN button to switch to the data input mode.
 5. Adjust the rate by scrolling the touch sensor.
Initial value: 4.0V
Adjustment range: 0.0V~8.4V
- *When the RTN button is touched for one second, the rate is reset to the initial value.
6. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

"Vibes" type

If the following types are selected, the transmitter will vibrate during the warning.

- TYPE 1
- TYPE 2
- TYPE 3
- TYPE 4

TELEMETRY : EXT-VOLT

Displaying data from the EXT battery voltage port

*CA-RVIN-700 or SBS-01V must be installed in the aircraft.

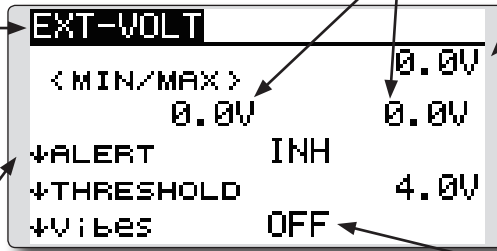
The EXT-VOLT screen will display the data from the EXT-battery output from the R7008SB receiver. In order to use this function, it is necessary to connect External voltage connector of the R7008SB receiver to a CA-RVIN-700 (FUTM5551) or SBS-01V to the battery you desire to measure the voltage of.

You will be alerted by an alarm or vibration if the voltage set by you is exceeded.

- *It cannot be used in FASST mode and S-FHSS mode.
- *Only receiver voltage and EXT voltage will be received in the FASSTest12CH mode.
- *The FASSTest14CH mode will display all telemetry data.

- Select [EXT-VOLT] in the TELEMETRY screen and access the setup screen shown below by touching the RTN button.

- Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.



- The maximum and the minimum when powering ON are shown.

- EXT battery voltage



• To next page

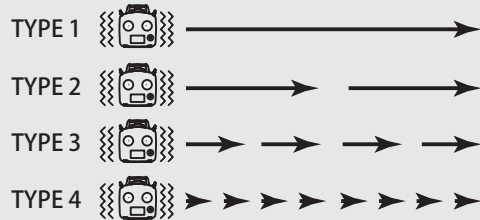
- ↓The arrow will indicate that an alarm will sound when the voltage drops to below the setting.

Alert set

1. Move the cursor to the ↓ALERT [INH] item and touch the RTN button to switch to the data input mode.
 2. Select the ACT mode by scrolling the touch sensor.
 3. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)
 4. Move the cursor to the ↓THRESHOLD [4.0V] item and touch the RTN button to switch to the data input mode.
 5. Adjust the rate by scrolling the touch sensor.
Initial value: 4.0V
Adjustment range: 0.0V~100.0V
- *When the RTN button is touched for one second, the rate is reset to the initial value.
6. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

"Vibes" type

If the following types are selected, the transmitter will vibrate during the warning.



TELEMETRY : TEMP.

Displaying data from the temperature

***A temperature sensor must be installed in the aircraft.**

TEMP. is a screen which displays/sets up the temperature information from an optional temperature sensor.

The temperature of the model (engine, motor, battery etc.) which is flying can be displayed.

If it becomes higher or lower than the setting an alarm and/or vibration will alert you.

*It cannot be used in FASST mode and S-FHSS mode.

*Only receiver voltage and EXT voltage can be used in FASSTest12CH mode.

*The FASSTest14CH mode can use all the telemetry functions.

- Select [TEMP.] in the TELEMETRY screen and access the setup screen shown below by touching the RTN button.
- Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.
- An upward arrow will show that an alarm will sound when the temperature rises above the set value.
- An downward arrow will show that an alarm will sound when the temperature drops below the set value.
- The maximum and the minimum when powering ON are shown.
- Temperature

<SensorTouch™>

- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value
- To next page

"Vibes" type

If the following types are selected, the transmitter will vibrate during the warning.

TYPE 1		→
TYPE 2		→ →
TYPE 3		→ → → →
TYPE 4		→ → → → → →

Alert set : Hot warning

- Move the cursor to the ↑ALERT item and touch the RTN button to switch to the data input mode.
 - Select the ACT mode by scrolling the touch sensor.
 - Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)
 - Move the cursor to the ↑THRESHOLD [+100°C] item and touch the RTN button to switch to the data input mode.
 - Adjust the rate by scrolling the touch sensor.
Initial value: +100°C
Adjustment range: 1°C ~200°C
(↑THRESHOLD > ↓THRESHOLD)
- *When the RTN button is touched for one second, the rate is reset to the initial value.
- Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

Alert set : Low-temperature warning

- 2/2 page is accessed by pushing S1. Move the cursor to the ↓ALERT item and touch the RTN button to switch to the data input mode.
 - Select the ACT mode by scrolling the touch sensor.
 - Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)
 - Move the cursor to the ↓THRESHOLD [+0 °C] item and touch the RTN button to switch to the data input mode.
 - Adjust the rate by scrolling the touch sensor.
Initial value: +0°C
Adjustment range: 0°C ~199°C
(↑THRESHOLD > ↓THRESHOLD)
- *When the RTN button is touched for one second, the rate is reset to the initial value.
- Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

TELEMETRY : RPM

Displaying data from the RPM

*A RPM sensor must be installed in the aircraft.

RPM is a screen which displays / sets up the RPM information from an optional RPM sensor.

The RPM of the model (engine, motor, etc.) which is flying can be shown.

If it becomes higher or lower than the setting an alarm and/or vibration will alert you.

*It cannot be used in FASST mode and S-FHSS mode.

*Only receiver voltage and EXT voltage can be used in FASSTest12CH mode.

*The FASSTest14CH mode can use all the telemetry functions.

- Select [RPM] in the TELEMETRY screen and access the setup screen shown below by touching the RTN button.
- Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.
- Press the S1 button to advance to the next page.
- "MAGNETIC" or "OPTICAL" is set according to the sensor you use.
SBS-01RM : MAGNETIC
SBS-01RO : OPTICAL
- The maximum and the minimum when powering ON are shown.
- In "MAGNETIC", the gear ratio of your engine (motor) you are using is entered.
- In "OPTICAL", the number of blades of the propeller (rotor) your model is entered.

"Vibes" type
If the following types are selected, the transmitter will vibrate during the warning.

TYPE 1		→
TYPE 2		→ →
TYPE 3		→ → → →
TYPE 4		→ → → → → →

Alert set : Over rotations

1. Move the cursor to the ↑ALERT item and touch the RTN button to switch to the data input mode.
 2. Select the ACT mode by scrolling the touch sensor.
 3. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)
 4. Move the cursor to the ↑THRESHOLD [2000rpm] item and touch the RTN button to switch to the data input mode.
 5. Adjust the rate by scrolling the touch sensor.
Initial value: 2000rpm
Adjustment range: 1rpm~150,000rpm
(↑THRESHOLD > ↓THRESHOLD)
- *When the RTN button is touched for one second, the rate is reset to the initial value.
6. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

Alert set : Under rotations

1. Scroll to the second page by pushing S1. Move the cursor to the ↓ALERT item and touch the RTN button to switch to the data input mode.
 2. Select the ACT mode by scrolling the touch sensor.
 3. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)
 4. Move the cursor to the ↓THRESHOLD [0rpm] item and touch the RTN button to switch to the data input mode.
 5. Adjust the rate by scrolling the touch sensor.
Initial value: 0rpm
Adjustment range: 0rpm~149,999rpm
(↑THRESHOLD > ↓THRESHOLD)
- *When the RTN button is touched for one second, the rate is reset to the initial value.
6. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

TELEMETRY : ALTITUDE

Displaying data from the altitude

***An altitude sensor or GPS sensor must be installed in the aircraft.**

ALTITUDE is a screen which displays / sets up the altitude information from an optional altitude sensor or GPS sensor. The altitude of the model which is flying can be known. If it becomes higher (low) than preset altitude, you can be told by alarm. To show warning by vibration can also be chosen. Data when a power supply is turned on shall be 0 m, and it displays the altitude which changed from there. Even if the altitude of an airfield is high, that shall be 0 m and the altitude difference from an

airfield is displayed. This sensor calculates the altitude from atmospheric pressure. Atmospheric pressure will get lower as you go up in altitude, using this the sensor will estimate the altitude. Please understand that an exact advanced display cannot be performed if atmospheric pressure changes in a weather situation.

*It cannot be used in FASST mode and S-FHSS mode.

*Only receiver voltage and EXT voltage can be used in FASSTest12CH mode.

*The FASSTest14CH mode can use all the telemetry functions.

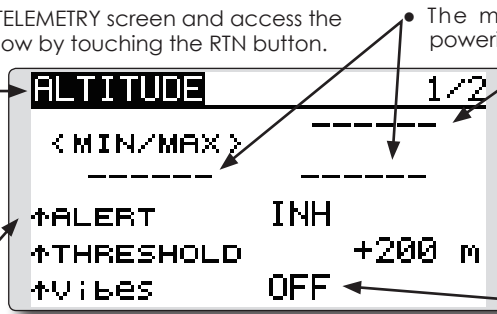
- Select [ALTITUDE] in the TELEMETRY screen and access the setup screen shown below by touching the RTN button.

- Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.

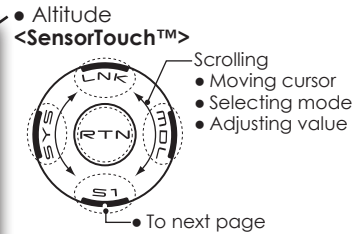


- ↑ An upward arrow indicates the alarm will sound when the altitude reaches above your set value.

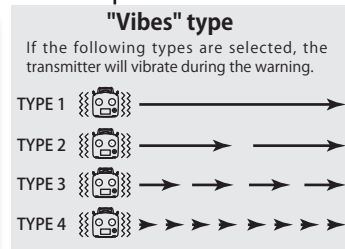
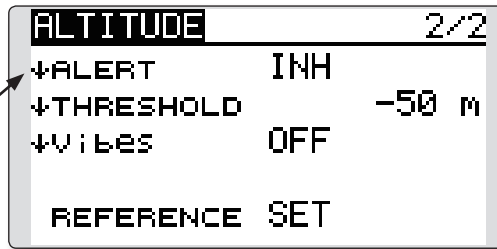
- ↓ An downward arrow indicates the alarm will sound when the altitude reaches below your set value.



- The maximum and the minimum when powering ON are shown.



- Press the S1 button to advance to the next page.



First, the set of a reference is required.

1. The model and transmitter to which the altitude sensor was connected are turned on.
2. Move the cursor to the [SET] of "REFERENCE" item and touch the RTN button to switch to the data input mode.
3. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

*Atmospheric pressure is changed according to the weather also at the same airfield. You should preset before a flight.

Alert set : High side

1. Move the cursor to the ↑ALERT item and touch the RTN button to switch to the data input mode.
2. Select the ACT mode by scrolling the touch sensor.
3. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)
4. Move the cursor to the ↑THRESHOLD [+200m] item and touch the RTN button to switch to the data input mode.
5. Adjust the rate by scrolling the touch sensor.
Initial value: +200m
Adjustment range: -499m~+5,000m
(↑THRESHOLD > ↓THRESHOLD)

*When the RTN button is touched for one second, the rate is reset to the initial value.

6. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

Alert set : Low side

1. Scroll to the second page by pushing S1. Move the cursor to the ↓ALERT item and touch the RTN button to switch to the data input mode.
2. Select the ACT mode by scrolling the touch sensor.
3. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)
4. Move the cursor to the ↓THRESHOLD [-50m] item and touch the RTN button to switch to the data input mode.
5. Adjust the rate by scrolling the touch sensor.
Initial value: -50m
Adjustment range: -500m~+4,999m
(↑THRESHOLD > ↓THRESHOLD)

*When the RTN button is touched for one second, the rate is reset to the initial value.

6. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

TELEMETRY : VARIO

Displaying data from the variometer

***An altitude sensor or GPS sensor must be installed in the aircraft.**

VARIO is a screen which displays / sets up the variometer information from an optional altitude sensor or GPS sensor.

The variometer of the model which is flying can be known.

If it becomes higher or lower than the setting an alarm and/or vibration will alert you.

To ensure that the pilot is aware as to the model's

status, the T14SG incorporates a different melody for ascent and descent. Additionally, depending upon the rate of climb or descent, the tones vary to indicate whether or not the airplane is climbing or descending at a rapid rate.

*It cannot be used in FASST mode and S-FHSS mode.

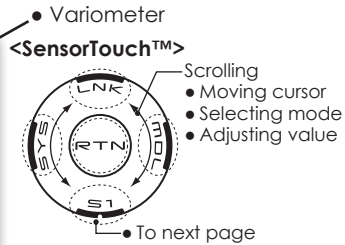
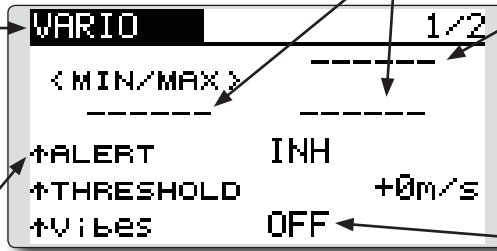
*Only receiver voltage and EXT voltage can be used in FASSTest12CH mode.

*The FASSTest14CH mode can use all the telemetry functions.

- The maximum and the minimum when powering ON are shown.

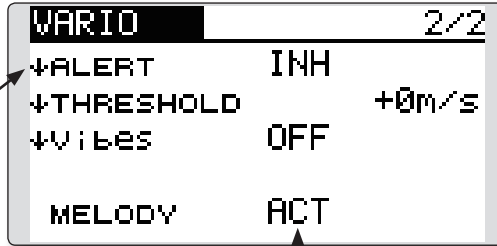
- Select [VARIO] in the TELEMETRY screen and access the setup screen shown below by touching the RTN button.

- Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.

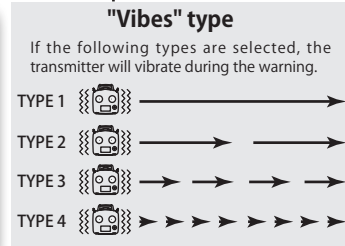


- ↑ An upward arrow indicates the alarm will sound when the altitude reaches above your set value.

- Press the S1 button to advance to the next page.



- ↓ An downward arrow indicates the alarm will sound when the altitude reaches below your set value.



- If this is set to ACT, a melody will be activated during the rise or dive, depending on your set values.

Alert set : Rise side

1. Move the cursor to the ↑ALERT item and touch the RTN button to switch to the data input mode.
2. Select the ACT mode by scrolling the touch sensor.
3. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)
4. Move the cursor to the ↑THRESHOLD [+0m/s] item and touch the RTN button to switch to the data input mode.
5. Adjust the rate by scrolling the touch sensor.
Initial value: +0m/s
Adjustment range: -49m/s~+50m/s
(↑THRESHOLD > ↓THRESHOLD)

*When the RTN button is touched for one second, the rate is reset to the initial value.

6. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

Alert set : Dive side

1. Scroll to the second page by pushing S1. Move the cursor to the ↓ALERT item and touch the RTN button to switch to the data input mode.
2. Select the ACT mode by scrolling the touch sensor.
3. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)
4. Move the cursor to the ↓THRESHOLD [+0m/s] item and touch the RTN button to switch to the data input mode.
5. Adjust the rate by scrolling the touch sensor.
Initial value: +0m/s
Adjustment range: -50m/s~+49m
(↑THRESHOLD > ↓THRESHOLD)

*When the RTN button is touched for one second, the rate is reset to the initial value.

6. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

TELEMETRY : BATTERY

Displaying data from the battery voltage
 *SBS-01V must be installed in the aircraft.

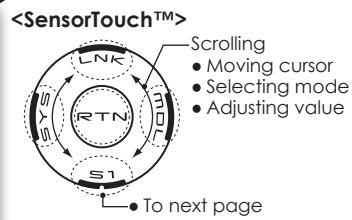
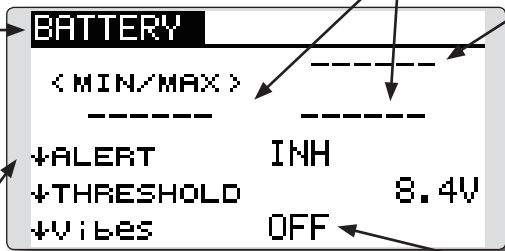
In this screen, the battery voltage is displayed. In order to use this function, it is necessary to connect External voltage connector of R7008SB ⇔ SBS-01V ⇔ Battery

- *It cannot be used in FASST mode and S-FHSS mode.
- *Only receiver voltage and EXT voltage can be used in FASSTest12CH mode.
- *The FASSTest14CH mode can use all the telemetry functions.

SBS-01V measures two batteries. The drive battery connected to two lines is displayed on EXT-VOLT. The battery for receivers connected to 3P lines is displayed here.

- Select [BATTERY] in the TELEMETRY screen and access the setup screen shown below by touching the RTN button.
- The maximum and the minimum when powering ON are shown.
- battery voltage

- Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.



- ↓The arrow will indicate that an alarm will sound when the voltage drops to below the setting.

Alert set

1. Move the cursor to the ↓ALERT [INH] item and touch the RTN button to switch to the data input mode.
 2. Select the ACT mode by scrolling the touch sensor.
 3. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)
 4. Move the cursor to the ↓THRESHOLD [4.0V] item and touch the RTN button to switch to the data input mode.
 5. Adjust the rate by scrolling the touch sensor.
 Initial value: 4.0V
 Adjustment range: 0.0V~8.4V
- *When the RTN button is touched for one second, the rate is reset to the initial value.
6. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

"Vibes" type

If the following types are selected, the transmitter will vibrate during the warning.

TYPE 1	
TYPE 2	
TYPE 3	
TYPE 4	

TELEMETRY : DISTANCE

Displaying data from the distance

*A GPS sensor must be installed in the aircraft.

Distance is a screen that displays and sets the altitude data from an SBS-01G (GPS Sensor) sold separately. The distance to the airborne aircraft can be read by the transmitter. When the aircraft flies outside (inside) the set distance the operator is alerted by an alarm and vibration.

*The GPS sensor sold separately is necessary. Mount and connect the sensor in accordance with the sensor instruction manual.

*It cannot be used in FASST mode and S-FHSS mode.

*Only receiver voltage and EXT voltage can be used in FASSTest12CH mode.

*The FASSTest14CH mode can use all the telemetry functions.

- It is the receiving accuracy from a GPS Satellite. Please wait until it becomes 3 displays, and push [REFERENCE].
- Select [DISTANCE] in the TELEMETRY screen and access the setup screen shown below by touching the RTN button.
- Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.
- Press the S1 button to advance to the next page.
- The ↑arrow shows that an alarm is generated when the set value is exceeded.
- The ↓arrow shows that an alarm is generated when the distance drops below the set value.
- Distance alarm setting range 0m ~ 4,999m (↑THRESHOLD > ↓THRESHOLD)
- Maximum distance after transmitter was turned on.
- Current distance
- Distance alarm setting range 1m ~ 5,000m
- Alarm when the aircraft moves far away. (↑THRESHOLD > ↓THRESHOLD)

First, the set of a reference is required.

1. The model and transmitter to which the GPS sensor was connected are turned on.
2. It waits until the GPS receiving accuracy displayed on a screen becomes three.
3. Move the cursor to the [SET] of "REFERENCE" item and touch the RTN button to switch to the data input mode.
4. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

*Now, the position of the present model was set to 0 m.

4. Move the cursor to the ↓THRESHOLD [1,000m] item and touch the RTN button to switch to the data input mode.
5. Adjust the rate by scrolling the touch sensor.
- *When the RTN button is touched for one second, the rate is reset to the initial value.
6. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

Alert setting when aircraft goes too far

1. Move the cursor to the ↑ALERT item and touch the RTN button to switch to the data input mode.
2. Select the ACT mode by scrolling the touch sensor.
3. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

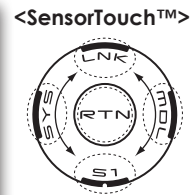
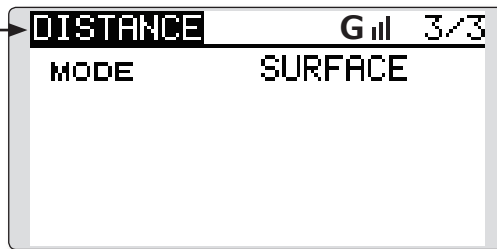
Alert setting when the aircraft approaches

1. Access the second page by pushing S1. Move the cursor to the ↓ALERT item and touch the RTN button to switch to the data input mode.
2. Select the ACT mode by scrolling the touch sensor.
3. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)
4. Move the cursor to the ↓THRESHOLD [0m] item and touch the RTN button to switch to the data input mode.
5. Adjust the rate by scrolling the touch sensor.
6. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

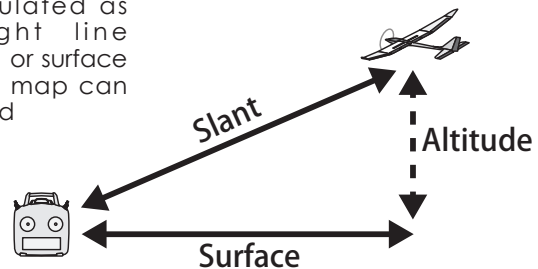
*When the RTN button is touched for one second, the rate is reset to the initial value.

- Select [DISTANCE] in the TELEMETRY screen by touching the RTN button. And S1 button is touched twice.

- Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.



- Altitude calculated as either straight line distance (slant) or surface distance on a map can also be selected (3/3)



Two displays methods, straight line distance and surface distance, can be selected as shown above.

1. Select page 3 by touching the S1 button twice from the "DISTANCE" screen.
2. Select <SLANT> <SURFACE> next to "MODE", scroll to the desired method and touch the RTN button.

TELEMETRY : SPEED

The speed screen displays and sets the speed data from an SBS-01G (GPS sensor) sold separately.

The speed of the aircraft during flight can be displayed.

After flight, the maximum speed during flight can be viewed. Because this speed is based on position data from a GPS satellite, the ground speed

Displaying data from the speed
 *A GPS sensor must be installed in the aircraft.

is displayed instead of air speed. Consequently, with a head wind, the displayed speed decreases and with a tail wind, the displayed speed increases.

*It cannot be used in FASST mode and S-FHSS mode.

*Only receiver voltage and EXT voltage can be used in FASSTest12CH mode.

*The FASSTest14CH mode can use all the telemetry functions.

- Select [SPEED] in the TELEMETRY screen and access the setup screen shown below by touching the RTN button.
- Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.
- Displays the maximum speed after the transmitter is turned on.
- Displays the current speed
- Press the S1 button to advance to the next page.
- The ↑ arrow shows that an alarm is generated when the speed exceeds the set value.
- The ↓ arrow shows that an alarm is generated when the speed drops below the set value.
- Speed alarm setting range 0 ~ 499km/h (↑THRESHOLD > ↓THRESHOLD)
 *Alarm when the speed has decreased.

<SensorTouch™>

- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value
- To next page
- Speed alarm setting range 1 ~ 500km/h (↑THRESHOLD > ↓THRESHOLD)
 *Alarm when the speed has increased.

"Vibes" type

If the following types are selected, the transmitter will vibrate during the warning.

TYPE 1 [Vibe icon] →

TYPE 2 [Vibe icon] → →

TYPE 3 [Vibe icon] → → → →

TYPE 4 [Vibe icon] → → → → → →

Alert setting when speed increases

1. Set "↑ALERT" on the <SPEED> screen to ACT. Move the cursor to INH and touch the RTN button.
2. Select the ACT mode by scrolling the touch sensor.
3. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)
4. The speed at which an alarm is generated can be set by selecting the speed display next to "↑THRESHOLD" and touching the RTN button. This generates an alarm when the speed increases.
5. Adjust the rate by scrolling the touch sensor.
 *When the RTN button is touched for one second, the rate is reset to the initial value.
6. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

Alert setting when speed decreases

1. Select page 2 by pressing S1 from the <SPEED> screen and set "↓ALERT" to ACT.

2. Select the ACT mode by scrolling the touch sensor.
3. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)
4. The speed at which an alarm is generated can be set by selecting the numerical display next to "↓THRESHOLD" and touching the RTN button. This sounds an alarm when the speed decreases.
5. Adjust the rate by scrolling the touch sensor.
 *When the RTN button is touched for one second, the rate is reset to the initial value.
6. Touch the RTN button. (To terminate the input and return to the original state, touch the S1 button.)

*Speed alarm precaution

Since the GPS speed sensor displays the ground speed, it cannot be used as a stall alarm. For example, an aircraft that stalls at 50km/h will stall if the tailwind is 5km/h or greater even though 55km/h is displayed by ground speed. In addition, with an aircraft that will disintegrate in midflight at 400km/h at an over-speed alarm, when the headwind reaches 30km/h the airplane will disintegrate in midair due to over speeding even at a ground speed of 370km/h.

SENSOR

Various telemetry sensors setting

This screen registers the telemetry sensors used with the transmitter. When only one of a certain type of sensor is used, this setting is unnecessary and the sensor can be used by simply connecting it to the S.BUS2 port of the transmitter.

When using 2 or more of the same kind of sensor, they must be registered here.

- Select [SENSOR] in the Linkage menu and access the setup screen shown below by touching the RTN button.

[What is a slot?]

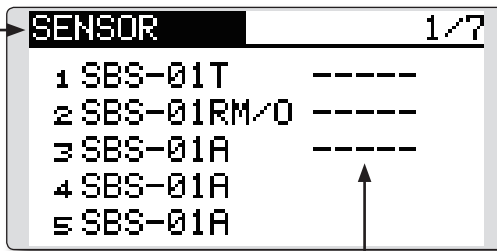
Servos are classified by CH, but **sensors** are classified in units called “slot”. There are **slots** from **No. 1** to **No. 31**.

Altitude sensors, GPS sensors and other data sensor units may use **multiple slots**.

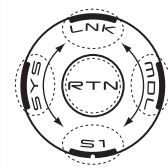
Using a sensor which uses two or more slots, the required number of slots is automatically assigned by setting up a **start slot**.

When 2 or more of the same kind of sensor are used, the sensors themselves must allocate unused slots and memorize that slot.

- Select the function name and return to the Linkage menu by touching the **RTN** button. Or the **HOME/EXIT** button is pushed.

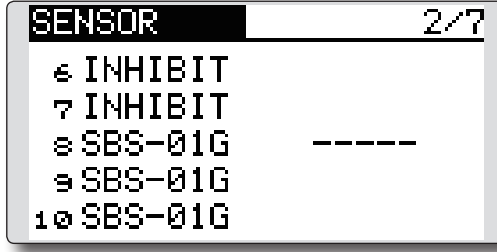


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- Sensor ID: When multiple sensors of the same type are not used, ID is unnecessary.

*3 slots of altitude sensor are used.
*8 slots of GPS sensor are used.



- As shown in the table below, an altimeter requires 3 contiguous slots and a GPS sensor requires 8 contiguous slots. In addition, since the GPS (SBS-01G) start slots are 8, 16, and 24, slots 6 and 7 are inhibited.

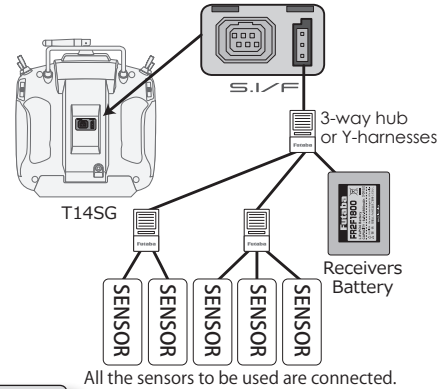
< Assignable slot > *Altimeter, GPS, and other sensors that display a large amount of data require multiple slots.
*Depending on the type of sensor, the slot numbers that can be allocated may be limited.

Sensor	The required number of slots	The number which can be used as a start slot	Selling area
TEMP (SBS-01T)	1 slot	1 ~ 31	Global
RPM (SBS01RM,SBS-01RO)	1 slot	1 ~ 31	
Voltage (SBS-01V)	2 slots	1,2,3,4,5,6,8,9,10,11,12,13,14,16,17,18,19,20,21,22,24,25,26,27,28,29,30	
Altitude (SBS-01A)	3 slots	1,2,3,4,5,8,9,10,11,12,13,16,17,18,19,20,21,24,25,26,27,28,29	
GPS (SBS-01G)	8 slots	8,16,24	
TEMP125-F1713	1 slot	1 ~ 31	Europe
VARIO-F1712	2 slots	1,2,3,4,5,6,8,9,10,11,12,13,14,16,17,18,19,20,21,22,24,25,26,27,28,29,30	
VARIO-F1672	2 slots	1,2,3,4,5,6,8,9,10,11,12,13,14,16,17,18,19,20,21,22,24,25,26,27,28,29,30	
GPS-F1675	8 slots	8,16,24	

SENSOR : RELOAD

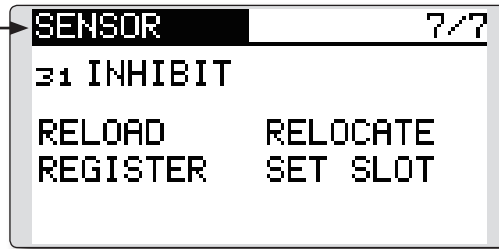
This page is set when using multiple telemetry sensors of the same type.

When using multiple sensors of the same type the sensors must be registered in the transmitter. Connect all the sensors to be used to the T14SG as shown in the figure at the right and register them by the following procedure. The ID of each sensor is registered in the transmitter.

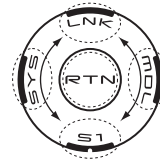


- Call page 7 by touching the S1 button 6 times from the [SENSOR] menu.

- Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.



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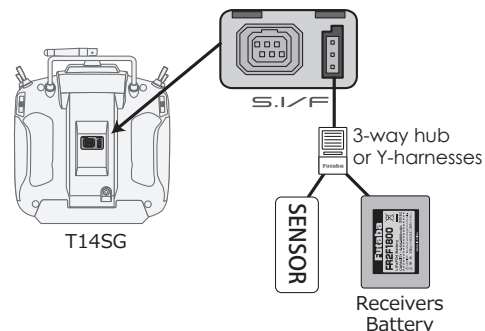
Reading all the sensors to be used

1. Connect all the sensors and receiver batteries to be used to the T14SG through a hub as shown in the figure above.
2. Move the cursor to "RELOAD" on page 7 of the [SENSOR] screen.
3. Touch the RTN button.
All the sensors are registered and can be used.

SENSOR : REGISTER

This page is set when using multiple telemetry sensors of the same type.

This function registers an additional sensor. Connect the sensor as shown in the figure at the right and register it by the following procedure. The sensor ID is registered in the transmitter.



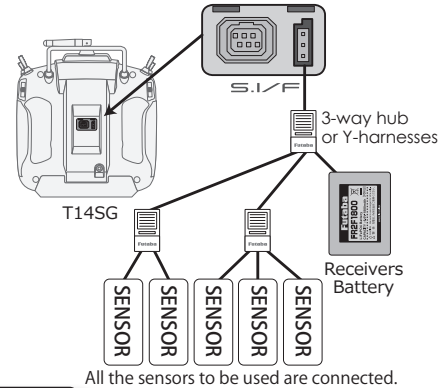
Additional sensor registration

1. Connect the sensor and receiver battery to be used to the T14SG through a hub as shown in the figure at the right.
2. Move the cursor to "REGISTER" on page 7 of the <Sensor> screen.
3. Touch the RTN button.
The sensor is registered and can be used.

*When the number of slots needed in registration is insufficient, an error is displayed and registration cannot be performed. Disable unused slots or perform the following relocate.

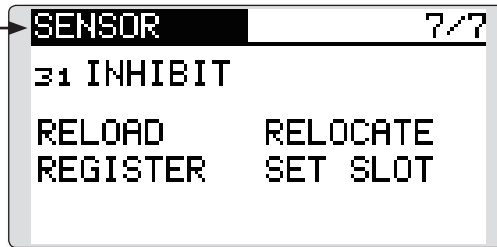
SENSOR : RELOCATE This page is set when using multiple telemetry sensors of the same type.

This function secures contiguous unused slots by rearranging the registration state when sensor registration and deregistration are performed repeatedly and the unused slots are fragmented.

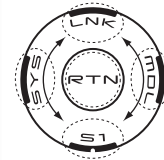


- Call page 7 by touching the S1 button 6 times from the [SENSOR] menu.

- Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.



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Relocate of sensors to be used

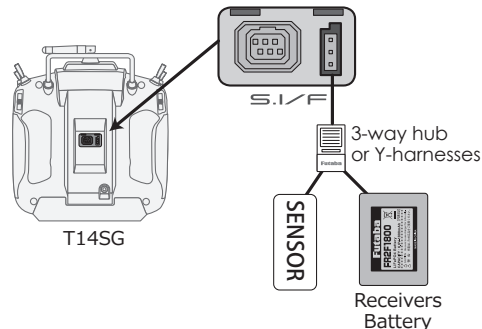
1. Connect all the sensors and receiver batteries to be used to the T14SG through a hub as shown in the figure above.
2. Move the cursor to "RELOCATE" on page 7 of the [SENSOR] screen.
3. Touch the RTN button.

SENSOR : SET SLOT This page is set when using multiple telemetry sensors of the same type.

This procedure changes the slot No. of one registered sensor.

Sensor slot change

1. Connect the sensor and receiver battery to be changed to the T14SG through a hub as shown in the figure above.
2. Move the cursor to "SET SLOT" on page 7 of the <Sensor> screen.
3. Touch the RTN button. A sensor details screen appears.
4. Move the cursor to "LOAD" and touch the RTN button.
5. The current start slot is displayed. Move the cursor to the number of the start slot and change it to the desired value. (Cannot be set to a slot that cannot be allocated like the table of all pages.)
6. Move the cursor to "WRITE" and touch the RTN button.



DATA RESET

Model memory setting data reset.

This function is designed to allow you to reset trim settings or all of the settings saved in the active model memory. You may individually choose to reset the following data;

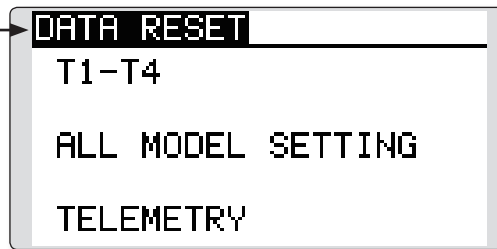
T1~T4:

Reset the digital trim setting.

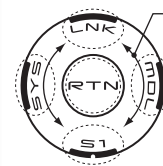
*The trim step amount and trim rate are not reset.

- Select [DATA RESET] in the Linkage menu and access the setup screen shown below by touching the RTN button.

- Select the function name and return to the Linkage menu by touching the RTN button. Or the HOME/EXIT button is pushed.



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- Scrolling
- Moving cursor

All model setting:

Resets all Linkage and Model Menu functions except for Frequency, Model Select, Low battery voltage, and Model Type.

*If the Model Type selected is Glider, the motor function channel is automatically reversed in the Reverse menu; all other channels remain normal.

TELEMETRY:

Reset the telemetry setting.

Data resetting method

1. Move the cursor to the item you want to reset and touch the RTN button.

*A confirmation message appears.

2. Execute reset by touching the RTN button for one second. (Touch the S1 button to cease resetting.)

[T1-T4]: Resets only the T1-T4

[ALL MODEL SETTING]: Resets all the functions in the Linkage menu and Model menu except the frequency, model select, and model type functions.

[TELEMETRY]: Resets only the telemetry functions.

MODEL MENU (COMMON FUNCTIONS)

This section describes the D/R, program mixing, and other functions common to all model types.

Before setting the model data, use the Model Type function of the Linkage menu to select the model type matched to the aircraft. If a different model type is selected afterwards, the D/R, program mixing, and other parameters are reset.

If either a helicopter or glider have been selected as the model type, then the specific functions in the Model menu can be set for each flight condition. If you want to switch the settings for each condition by switch, stick position, etc., use the Condition

Select function to add flight conditions. (Up to five conditions can be used)

Note: The T14SG is designed so that the airplane and glider (including EP glider) model types are compatible with aircraft of similar type wings.

This section outlines the relationship between the functions common to airplanes and gliders, except some dedicated functions, and model type.

The setting menu will depend on the number of servos and other differences according to the wing type used. The setup screens in the instruction manual are typical examples.

- Access the model menu shown below by touching the MDL button twice at the home screen, etc.

• Select the function name and return to the Model menu by touching the RTN button. Or a HOME/EXIT button is pushed.

• Select the function you want to set and access the setup screen by touching the RTN button.

*The Model menu screen depends on the model type.

Model Menu functions (Common) list

•SERVO

Servo test and servo position display (For a description of its functions, see the Linkage Menu section.)

•CONDITION (applicable to helicopter and glider selections)

Flight conditions addition, deletion, copy, condition renaming, and condition delay can be set.

•DUAL RATE

The D/R curve of a T14SG transmitter may be activated from a switch, stick, position, etc. For

information on how to do so, please refer to the Switch Setting Method located at the back of this manual.

•PROG. MIX

The T14SG transmitter allows up to five completely customizable program mixes.

CONDITION

Flight condition's switch assignment, copy, priority change and condition delay can be set. [except airplane type]

This function, in the Model menu, can be used to switch the settings of up to 5 flight conditions. Please note this is not applicable to airplane type selections.

Note: To prevent accidental activation of any unused flight conditions during flight, set the switch setting of those unused conditions to null [--].

- A Condition Delay function can be set. Unnecessary fuselage motion which may be generated when there are sudden changes
- If multiple conditions were set, their operational priority may be customized as desired.
- Select [CONDITION] at the Model menu and access the setup screen shown below by touching the RTN button.

• Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.

(Condition name) (Condition switch)

(Currently selected condition name)

<SensorTouch™>

- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

• To next page

Condition switch selection/deletion

1. Move the cursor to the switch item of the condition you want to select/delete and access the switch setup screen by touching the RTN button and select the switch and ON direction.

*For a detailed description of the setting method, see [Switch Setting Method] at the back of this manual.

Condition copy

DELAY	SOURCE
9 GVR2 0	NORMAL
10 GVR3 0	+ COPY
11 AUX1 0	DESTIN.
12 AUX1 0	IDLEUP1

(Setup screen page 3)

1. Move the cursor to the [SOURCE] item and touch the RTN button to switch to the data input mode.

Select the copy source condition by scrolling the touch sensor. Then, touch the RTN button.

2. Move the cursor to the [DESTIN.] item and touch the RTN button.

Select the copy destination condition by scrolling the touch sensor. Then, touch the RTN button.

*The current condition can not be selected for the copy destination condition.

3. Move the cursor to the [COPY] item and touch the RTN button. A confirmation message appears.

*The display blinks.

4. Touch the RTN button for one second and the copying is completed. (Touch the S1 button to stop copying.)

Priority change

1. Move the cursor to the priority up-arrow or down-arrow you want to change and touch the RTN button.

The priority of the corresponding condition is changed. (The last condition becomes the highest priority.)

*The Normal condition cannot be changed or moved, its priority is always the lowest.

Condition delay setting

CONDITION	NORMAL	2/3
DELAY		
1 AIL 0	5 GYRO 0	
2 ELE 0	6 PIT 0	
3 THR 0	7 GOV 0	
4 RUD 0	8 NDL 0	

(Setup screen page 2)

1. Select the condition which you want to set.
2. Move the cursor to the "DELAY" icon of the channel you want to set and touch the RTN button to switch to the data input mode.
Adjust the delay amount by scrolling the touch sensor.
Initial value: 0
Adjustment range: 0~27 (maximum delay)
3. Touch the RTN button to end adjustment and return to the cursor mode.

DUAL RATE The angle and curve of each stick function can be set. [All model types]

Dual rate function is used to adjust the amount of throw and the operational curve of the stick functions (aileron, elevator and rudder) for each flight condition or up to 5 rates for each function. For airplane type, it is also possible to adjust the operational curve of the throttle function.

This is normally used after the End Point programming has been completed to define the maximum throw. When mixing is applied from one channel to another channel, both channels can be adjusted at the same time by adjusting the operation

rate through the dual rate function.

Neutral position of the dual rate curve can be set.

Dual rate curve of FLAP, FLAP3, BUTTERFLY, and CAMBER function can be set. (Airplane/Glider)

*FLAP3 and BUTTERFLY are glider only functions.

*EXP rate setting is not allowed in the FLAP, FLAP3, BUTTERFLY, and CAMBER functions.

*Individual switch setting is not allowed in the FLAP, FLAP3, and BUTTERFLY, CAMBER functions. (Condition switching only)

- Select [DUAL RATE] at the Model menu and access the setup screen shown below by touching the RTN button.

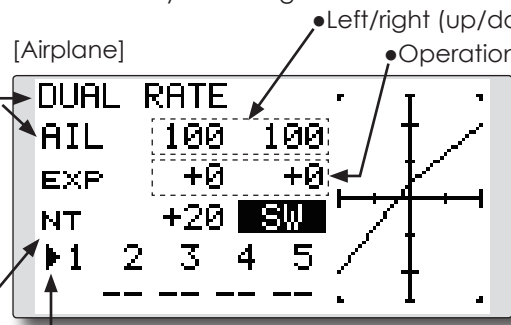
- Function selection

- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.

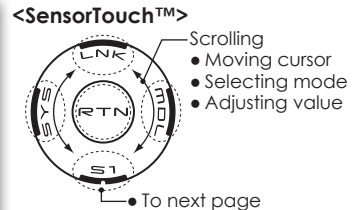


- Neutral position

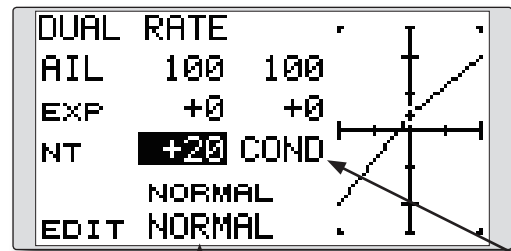
(Currently selected circuit #)



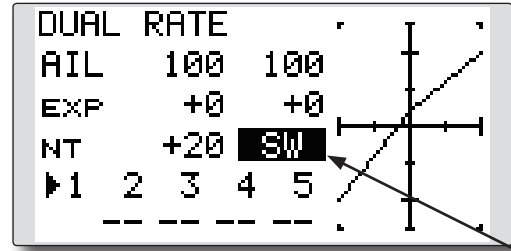
- Switch selection
- *Up to five rates for each function



[Helicopter/glider]



- Condition selection
- Condition Mode selection



- Switch selection
- Switch mode selection

Dual rate setting procedure

1. Function selection

Move the cursor to the function selection item and touch the RTN button to switch to the data input mode.

Select the function you want to adjust by scrolling the touch sensor.

Touch the RTN button to the cursor mode.

2. Switch selection

Move the cursor to the circuit # item and access the switch setup screen by touching the RTN button. Select the switch activation method and the activation position (if applicable).

*For a detailed description of the setting method, see [Switch Setting Method] at the back of this manual.

3. Left/right (up/down) rate adjustment

*Perform the settings below after changing to the circuit # or condition you want to adjust.

Move the cursor to the rate item you want to adjust and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Initial value: 100%

Adjustment range: 0%~140%

*When the RTN button is touched for one second, the servo operation position is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

Repeat this procedure for additional rate and other functions as desired.

4. Operation curve (EXP curve) adjustment

*Perform the settings below after changing to the circuit # or condition you want to adjust.

Move the cursor to the EXP item you want to adjust and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -100%~+100%

*When the RTN button is touched for one second, the servo operation position is reset to the initial value.)

*Using the EXP curve is effective to smoothe or soften the control inputs around center to avoid over-controlling the model. This is often used for the ailerons, elevator and rudder and may be used with the throttle in the case of an airplane selection to smoothe the engine controls as well.

Touch the RTN button to end adjustment and return to the cursor mode.

Repeat this procedure for all other rates and functions as desired.

5. Neutral position adjustment

*Perform the settings below after changing to the circuit # or condition you want to adjust.

Move the cursor to the [NT] item and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -100%~+100%

*When the RTN button is touched for one second, the neutral position is reset to the initial value.)

Touch the RTN button to the cursor mode.

PROG. MIX

Program mixing which can be freely customized. Up to five mixings can be used for each model. [All model types]

Programmable mixing may be used to correct undesired tendencies of the aircraft, and it may also be used for unusual control configurations. Mixing means that the motion of a command channel, called the "master," is added to the motion of the mixed channel, called "slave."

curve (Linear/5-point) can be changed. You may select Mixing ON/OFF switch, control or you may choose to have mixing remaining on all the time.

The Programmable mixing includes a powerful link function, which allows Programmable mixing to be linked with the special mixing functions, or with other programmable mixing functions. The link function can be set up for Master and Slave channel individually.

You may choose to have the Master's trim added to the Slave channel response ("Trim" setting). The mixing

- Select [PROG. MIX] at the Model menu and access the setup screen shown below by touching the RTN button.

- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.

PROG. MIX

1	INH:AIL	→ELE
2	INH:AIL	→ELE
3	INH:AIL	→ELE
4	INH:AIL	→ELE
5	INH:AIL	→ELE

<SensorTouch™>

- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

• To next page

Mix setup screen call

- Move the cursor to the mix # whose function you want to activate and access the setup screen by touching the RTN button.

•Mixing rate (Left/right, up/down)
[Linear curve]

PROG. MIX 1/2

# 1	>	+0
INH	>	+0
AIL		OFFS
↓		
ELE	×	+0
LINEAR	∨	+0

•Curve selection •Offset rate (X, Y)

[5-point curve]

PROG. MIX 1/2

# 1	>5	+0
INH	>4	+0
AIL	▶3	+0
↓		
ELE	>2	+0
POINT	>1	+0

•Curve selection •Point rate (point1-5)

PROG. MIX 2/2

# 1	ACT	INH	--
MASTER	AIL	LINK	TRIM
SLAVE	ELE	OFF	OFF

- Current mix No.
- Switch selection
- ON/OFF
- Slave CH
- Master CH
- Link setting
- Trim mode setting

Prog. mix setting procedure

•Activate the function.

Move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode.

Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the function and return to the cursor mode.

*The function is activated. (ON or OFF display)

*ON/OFF switch and mix rate are not set even though the function is activated.

●ON/OFF switch setting

Move the cursor to the switch item and access the switch setup screen by touching the RTN button and select the switch and ON direction.

*For a detailed description of the setting method, see [Switch Setting Method] at the back of this manual.

*Always on when [--].

●Master channel setting

1. Move the cursor to the [MASTER] item and touch the RTN button to switch to the data input mode.

Select the function by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to change the function and return to the cursor mode.

2. When you want to link this mixing with other mixes, move the cursor to the [LINK] item and touch the RTN button to switch to the data input mode.

Select the link mode, either [+] or [-], by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to set the link mode and return to the cursor mode.

*Check to ensure that the link mode is functioning properly by operating the mix accordingly.

*Master channel control can be set to activate based on the amount of stick input, or VR input, neither of which include ATV, D/R, and mixing selection. In this case, the switch setup screen is displayed by touching the RTN button with "H/W" selected in the function selection. Select master channel control. (To terminate the "H/W" selection, select the [--] display and touch the RTN button.

●Slave channel setting

1. Move the cursor to the [SLAVE] item and touch the RTN button to switch to the data input mode.

Select the function by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to change the function and return to the cursor mode.

2. When you want to link this mixing with other mixes, move the cursor to the [LINK] item and touch the RTN button to switch to the data input mode.

Select the link mode to [+] or [-] by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to set the link mode and return to the cursor mode.

*Check the direction by actual operation.

●Trim mode ON/OFF setting

1. When changing the trim mode, move the cursor to the [TRIM] item and touch the RTN button to switch to the data input mode.

Select ON/OFF by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to change the trim mode ON/OFF and return to the cursor mode.

*To incorporate the mixing from the master trim select [ON]. If trim is not desired, select [OFF].

*Effective when a function is set in the master channel.

●Linear curve setting

[Rate setting]

1. Move the cursor to the mixing rate setting item and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -100%~+100%

*When the RTN button is touched for one second, the servo operation position is reset to the initial value.

Touch the RTN button to end adjustment and return to the cursor mode.

2. Repeat this procedure for all other rates as desired.

[Offsetting the curve horizontally in the vertical or horizontal direction]

1. Move the cursor to the [OFFS] setting item and touch the RTN button to switch to the data input mode.

Adjust the offset rate by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -100%~+100%

*When the RTN button is touched for one second, the servo operation position is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

2. Repeat this procedure for the other direction.

●5-point curve setting

[Rate setting]

1. Move the cursor to the point rate setting item you want to adjust and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -100%~+100%

*When the RTN button is touched for one second, the servo operation position is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

2. Repeat this procedure for each point as desired.

FUEL MIX

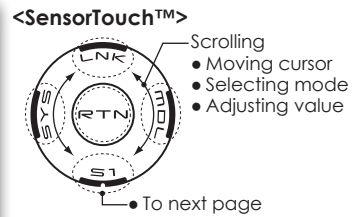
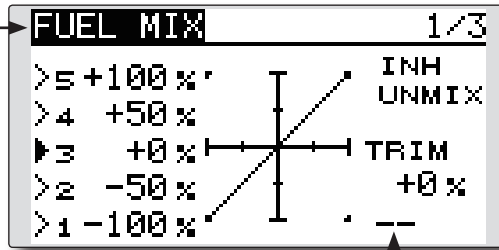
Dedicated mixing used to adjust the fuel mixture of applicable engines. [Airplane/helicopter]

This function is utilized to refine inflight needle adjustments of engines that offer mixture control carburetors.

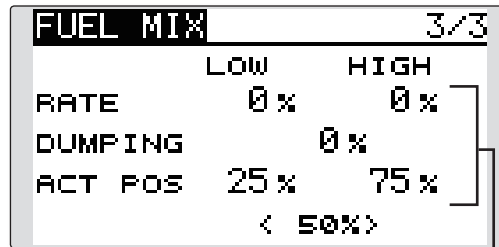
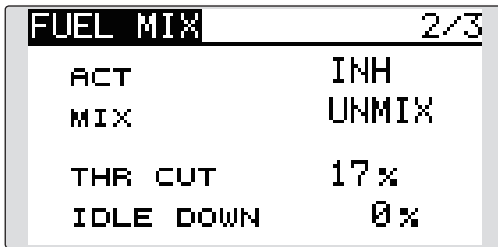
Note: Initial settings does not assign fuel mix to any channel. Prior to utilizing the Fuel Mix settings, select an unused channel on your receiver and assign it accordingly for the mixture control. Additionally, please make sure that your [Control] and [Trim] are set to null [-].

- Select [FUEL MIX] at the Model menu and access the setup screen shown below by touching the RTN button. [Airplane type]

- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.

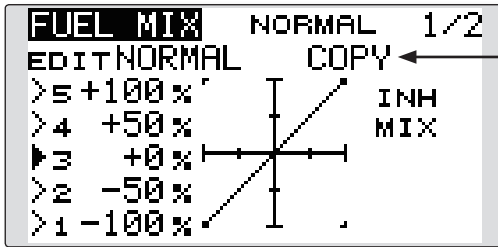


- Needle high trim selection

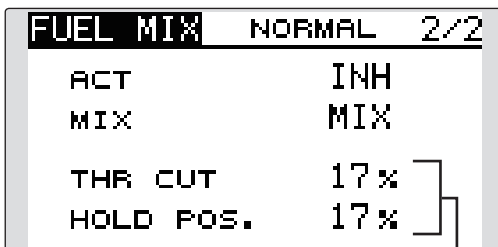


- Acceleration setting

[Helicopter type]



- Mixing curve copy function
Move the COPY item and touch the RTN button to switch to the data input mode. Select the copy destination condition by scrolling the touch sensor and touch the RTN button. Select the [YES] and touch the RTN button.



- Engine cut setting

Setting method

*Before using this function, assign the [FUEL MIX] function to an unused channel in the Linkage menu [FUNCTION].

●Activate the function.

1. Move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode.

Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the function and return to the cursor mode. (ON is displayed.)

2. Move the cursor to the [MIX] item and touch the RTN button to switch to the data input mode.

Select the mixing mode you want to change by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to change the mode and return to the cursor mode.

*When [MIX] is selected at the [MIX] icon, the throttle curve data that is set becomes the mix master. When [UNMIX] is selected, the throttle stick position becomes the master.

●5-point curve setting

1. Move the cursor to the point rate setting item you want to adjust and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -100%~+100%

*When the RTN button is touched for one second, the servo operation position is reset to the initial value.)

Touch the RTN button to end adjustment and return to the cursor mode.

2. Repeat this procedure for each point.

●Needle high trim setting

1. Move the cursor to the needle high trim selection item and access the switch setup screen by touching the RTN button. Select the needle high trim lever.

*For a detailed description of the setting method, see [Switch Setting Method] at the back of this manual.

2. Move the cursor to the TRIM rate item and touch the RTN button to switch to the data input mode.

Adjust the trim rate by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -30%~+30%

*When the RTN button is touched for one second, the rate is

reset to the initial value.)

Touch the RTN button to end adjustment and return to the cursor mode.

*Needle high trim works as high trim based on the center. (Works like ATL trim.)

●Acceleration setting (Airplane)

*This function is used to adjust the needle/engine rise characteristics during acceleration. This enables an acceleration function which temporarily increases the needle operation from the throttle stick.

This function is used when there are symptoms of the mixture being too lean or too rich, which would be generated by sudden throttle stick inputs.

[Acceleration rate setting (RATE)]

*Acceleration can be adjusted for both high and low settings.

[Damping rate setting (DUMPING)]

*The return time after operation (Dumping) can be set.

Move the cursor to the rate item you want to change and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end adjustment and return to the cursor mode.

[Operation point setting (ACT POS)]

*The operation point at which the acceleration setting will occur. If this point is exceeded, acceleration is performed.

Move the cursor to the [ACT POS] item and hold the throttle stick to the position you want to change and touch the RTN button for one second.

Note: When using the acceleration function, since the needle stroke is large, adjust your settings so there is no binding of your linkage.

●Engine cut setting

*Operation linked with the throttle hold function, throttle cut function, and idle down function is possible. The throttle cut position can be adjusted accordingly. Set it to the full closed position.

Move the cursor to the throttle cut or idle down item and touch the RTN button to switch to the data input mode.

Adjust the servo position by scrolling the touch sensor.

Initial value: THR CUT: 17%, IDLE DOWN: 0%

Adjustment range: THR CUT: 0~50%, IDLE DOWN: 0~100%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

MODEL MENU (AIRPLANE/GLIDER FUNCTIONS)

The dedicated mixes, etc. that are applicable when an airplane or glider model type is selected are displayed in this Model menu functions section. Prior to adjusting any of these mixes, etc. use the Model Type function in the Linkage menu to select the model type, wing type, and tail type matched to the aircraft. Other settings reset the data used in mixing function, etc.

For glider, many dedicated mixes can be set for each flight condition, as required. To switch the settings for each condition by switch or stick

position, use the Condition Select function to add flight conditions. (Up to five conditions can be used)

Note: The T14SG is designed so that the airplane and glider model types can utilize aircraft of the same wing type.

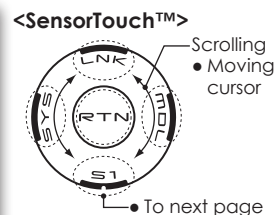
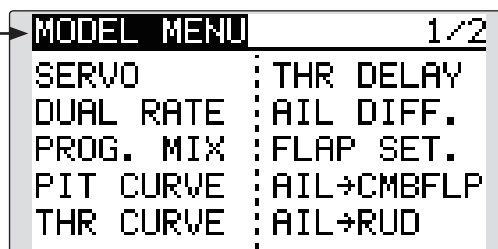
The functions common to airplanes and gliders, with the exception of some dedicated functions, are written without regard to the model type.

While there may be differences, depending on the number of servos, etc. the wing type used, etc. the setup screens in the instruction manual are typical examples.

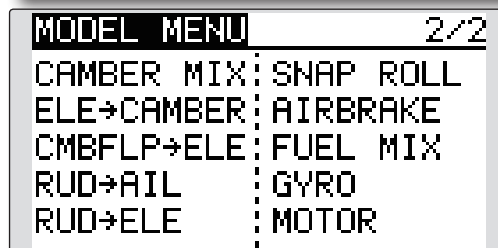
- Access the model menu shown below by touching the MDL button twice at the home screen, etc.

*The Model menu screen depends on the model type.

- Select the function name and return to the Model menu by touching the RTN button. Or a HOME/EXIT button is pushed.



- Select the function you want to set and access the setup screen by touching the RTN button.



Model Menu functions list

PITCH CURVE

Compatible with VPP (Variable Pitch Propeller) function. [Airplane, general]

THR CURVE

THR curve function adjusts the throttle operation curve for optimum engine speed to throttle stick movement. [Airplane/glider, general]

THR DELAY

THR-DELAY function is used to slow the response of the throttle stick to simulate the slow response of a turbine engine, etc. [Airplane, general]

AIL DIFFERENTIAL

The left and right aileron differential can be adjusted independently. For glider, the differential

rate in butterfly mixing can be adjusted. [Airplane/glider, 2 ailerons or more]

FLAP SETTING

The up/down travel of each flap can be adjusted independently for each servo according to the wing type. [Airplane/glider, 2 flaps or more]

AIL to CAMB.FLP

This mix operates the camber flaps in the aileron mode. It improves the roll axis characteristics. [Airplane/glider, 2 ailerons + 2 flaps or more]

AIL to BRKFLP

This mix operates the brake flaps in the aileron mode. It improves the roll axis characteristics. [Glider, 4 flaps]

AIL to RUD

This mix is used when you want to coordinate the rudder with aileron operation for banking at shallow angles. [Airplane/glider, general]

RUD to AIL

This function is used when you want to mix the ailerons with rudder input. Rudder is applied during rolling maneuvers such as knife edge flight. [Airplane/glider, general]

CAMBER MIX

This mix adjusts the camber and corrects the elevators. [Airplane/glider, 2 ailerons or more]

ELE to CAMBER

This mix is used when you want to mix the camber flaps with elevator to increase the lift of the model. [Airplane/glider, 2 ailerons or more]

CAMB.FLP to ELE

This mix is used to correct for changes in attitude when the camber flaps are utilized. [Airplane/glider, 2 ailerons + 1 flap or more]

BUTTERFLY (Crow)

This function is used to quickly slow the aircraft and/or reduce the altitude. [Glider, 2 ailerons or more (Flying: 2 ailerons + 1 flap or more)]

TRIM MIX

The ailerons, elevators, and flaps trim offset rate can be accessed by selecting a switch or condition selection as desired. [Glider, 2 ailerons or more]

AIRBRAKE

This function is used when airbrakes are necessary when landing or when diving, etc. during flight. (Airplane, 2 ailerons or more)

GYRO

This is a dedicated mix when a GYA Series gyro is used. [Airplane/glider, general]

V-TAIL

This function incorporates the elevators and rudder input for use with V-tail models. [Airplane/glider, V-tail specifications]

AILEVATOR (DUAL ELEVATOR)

This function adjusts the elevators and ailerons of models with elevator specifications. [Airplane/glider, ailevator specifications]

WINGLET

This function adjusts the left and right rudders of winglet models. [Airplane/glider, winglet specifications]

MOTOR

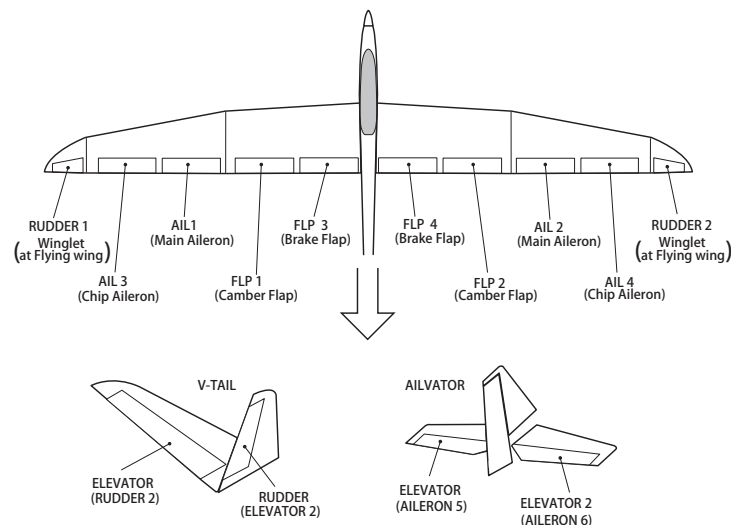
This function adjusts the operation speed when the motor of an F5B or other such EP glider is started by a switch. [Airplane/glider, general]

RUD to ELE

This function is used to correct rolling maneuvers such as, knife edge flight. [Airplane, general]

SNAP ROLL

This function selects the snap roll switch and adjusts the amount of servo input. Servo speed can also be adjusted. [Airplane general]



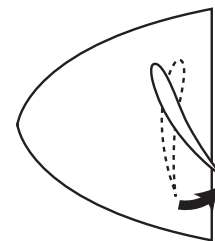
PIT CURVE

[Corresponding model type]: Airplane, general

This function adjusts the pitch curve for VPP (Variable Pitch Propeller) airplane.

*Up to 3 conditions can be set.

*The priority increases in condition 1→2→3 order.



- Select [PIT CURVE] at the Model menu and access the setup screen shown below by touching the RTN button.

NOTE: When VPP is not assigned to any channel, the pitch curve is not displayed in the model menu. In this case, assign VPP to any channel on the function screen.

• Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.

PIT CURVE # 1

>5	+100	(100)	
>4	+50	75.0	
>3	+0	50.0	
>2	-50	25.0	
>1	-100	(0)	

•Curve rate
•Curve point

<SensorTouch™>

- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value
- To next page

Setting method

•VPP condition selection

1. Move the cursor to the # button at the top right side of the screen and touch the RTN button to switch to the data input mode. Select the VPP condition by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to call the setting screen and return to the cursor mode.

2. Move the cursor to the switch item and touch the RTN button to access the selection screen. Select the switch and set its ON direction.

*For a description of the switch selection method, see the description at the back of this manual.

Set the VPP condition 2 and 3 switch.

*The VPP conditions can also be checked in the HOME screen.



•5-point curve setting

[Curve rate setting]

1. Move the cursor to the curve rate setting item you want to adjust and touch the RTN

button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Initial value: 0%

Adjustment range: 0%~100%

*When the RTN button is touched for one second, the rate is reset to the initial value.

Touch the RTN button to end the adjustment and return to the cursor mode.

2. Repeat this procedure for each point.

[Moving curve point]

1. Move the cursor to the curve point setting item you want to adjust and touch the RTN button to switch to the data input mode.

Adjust the curve point by scrolling the touch sensor.

Initial value: P1: (0%), P2: 25%, P3: 50%, P4: 75%, P5: (100%)

Adjustment range: Up to 2.5% in front of the adjoining point

*When the RTN button is touched for one second, the curve position is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

2. Repeat this procedure for each point.

[Deleting/returning curve point]

Move the cursor to the curve point setting item you want to delete/return and touch the RTN button for one second.

THR CURVE

[Corresponding model type]: Airplane/glider, general

This function adjusts the throttle curve for optimum engine speed from throttle stick input.

*When throttle curve is set to ON when there is no throttle function; this curve acts as the motor function.

- Select [THR CURVE] at the Model menu and access the setup screen shown below by touching the RTN button.

NOTE: If this throttle curve function is activated, you can not use the THR-EXP function within the DUAL RATE function simultaneously.

• Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.

• Curve rate • Curve point

<SensorTouch™>

- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

• To next page

Setting method

• Activate the function.

1. Move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode.

Select the ON mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the function and return to the cursor mode.

• 5-point curve setting

[Curve rate setting]

1. Move the cursor to the curve rate setting item you want to adjust and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Initial value: 0%

Adjustment range: 0%~100%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

2. Repeat this procedure for each point.

[Moving curve point]

1. Move the cursor to the curve point setting

item you want to adjust and touch the RTN button to switch to the data input mode.

Adjust the curve point by scrolling the touch sensor.

Initial value: P1: (0%), P2: 25%, P3: 50%, P4: 75%, P5: (100%)

Adjustment range: Up to 2.5% in front of the adjoining point

*When the RTN button is touched for one second, the curve position is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

2. Repeat this procedure for each point.

[Deleting/returning curve point]

Move the cursor to the curve point setting item you want to delete/return and touch the RTN button for one second.

THR DELAY

[Corresponding model type]: Airplane, general

THR-DELAY function is used to slow the response of the throttle stick to simulate the slow response of a turbine engine, etc.

*This function is the same as THR of servo speed. If it sets up in great numbers, it overlaps and a THR servo becomes late further. Please do not let me overlap. Use either.

- Select [THR DELAY] at the Model menu and access the setup screen shown below by touching the RTN button.



Setting method

•Operation speed (delay) setting

1. Move the cursor to the [DELAY] item and touch the RTN button to switch to the data input mode.

Adjust the delay rate by scrolling the touch sensor.

Initial value: 0

Adjustment range: 0~27 (maximum delay)

*When the RTN button is touched for one second, the rate is reset to the initial value.)

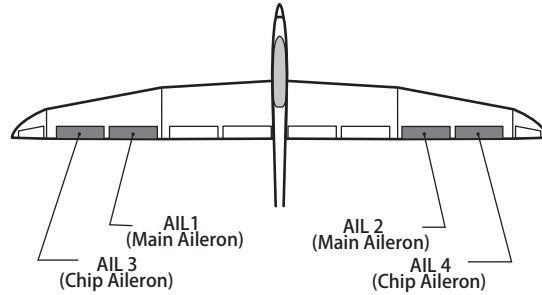
Touch the RTN button to activate the function and return to the cursor mode.

AIL DIFF.

[Corresponding model type]: Airplane/glider, 2 ailerons or more

The left and right aileron differential can be adjusted independently.

For glider, the differential rate in butterfly mixing can be adjusted.




*The display screen is an example. The actual screen depends on the Model Type.

- Select [AIL DIFF.] at the Model menu and access the setup screen shown below by touching the RTN button.

[Airplane (2A+2F)]

- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.

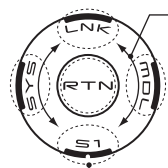


- Aileron left/right adjustment

AIL DIFF.

	LEFT	RIGHT
AIL	100%	100%
AIL2	100%	100%

<SensorTouch™>



(Currently selected condition name)

[Glider (4A+2F)]

AIL DIFF. NORMAL

	LEFT	RIGHT
AIL	100%	100%
AIL2	100%	100%
AIL3	100%	100%
AIL4	100%	100%
BUTTERFLY ADJUST		+0%

Setting method

•Aileron left/right adjustment

Move the cursor to the aileron (AIL) 1~4 left (or right) setting item and touch the RTN button to switch to the data input mode.

Adjust the aileron angles by scrolling the touch sensor when the stick is moved to the left (or right) end.

Initial value: 100%

Adjustment range: 0~120%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

•Aileron differential adjustment in butterfly mixing

Move the cursor to the [BUTTERFLY ADJUST] item and touch the RTN button to switch to the data input mode.

Adjust the differential rate by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -120~+120%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

FLAP SET.

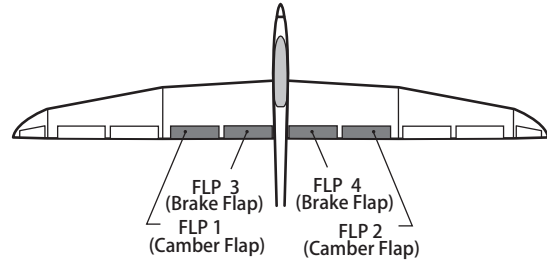
[Corresponding model type]: Airplane/glider, 2 flaps or more

The up/down travel of each flap (camber flaps: FLP1/2, brake flaps: FLP3/4) can be adjusted independently for each servo according to the wing type.

- The operation reference point of each flap can be offset

The camber flaps of a 4-flap model can be mixed with the brake flaps. (BRKFLP to CMBFLP)

- An ON/OFF switch can be set.
- Select [FLAP SET.] at the Model menu and access the setup screen below by touching the RTN button.



*The display screen is an example. The actual screen depends on the model type.

• Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.

FLAP SET.

CAMBER FLAP

FLAP FLP2

UP +100% +100%

DOWN +100% +100%

OFFSET +0% +0%

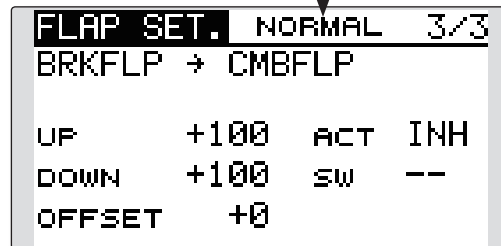
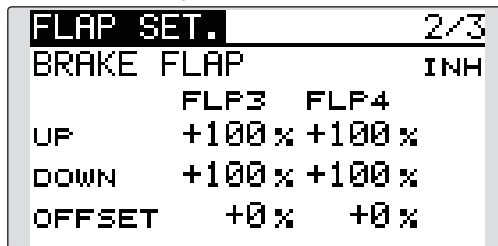
<SensorTouch™>

• Scrolling
• Moving cursor
• Selecting mode
• Adjusting value

• To next page

• Up /Down adjustment • Operation reference point offset

(Glider: Currently selected condition name)



Setting method

• Flap up/down adjustment

Move the cursor to the flap (FLP) 1~4 Up or Down item according to the wing type and touch the RTN button to switch to the data input mode. Adjust the travel independently by scrolling the touch sensor.

Initial value: +100%

Adjustment range: -120~+120%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

• Reference point adjustment

Move the cursor to the [OFFSET] item and touch the RTN button to switch to the data input mode. Adjust the operation reference point of each flap by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -100~+100%

*When the RTN button is touched for one second, the reference point is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

• Activate the Brake FLP to Camber FLP mixing

Move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode. Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the function and return to the cursor mode. (ON is displayed.)

To select a switch, move the cursor to the [SW] item and touch the RTN button to call the selection screen. Select the switch and set its ON direction. (Always ON at "--" setting)

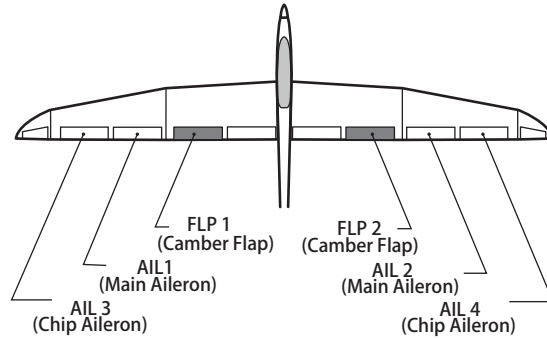
*For a description of the switch selection method, see the description at the back of this manual.

AIL to CMBFLP

[Corresponding model type]: Airplane/glider, 2 ailerons + 2 flaps or more

This mix operates the camber flaps (FLP1/2) in the aileron mode. When the aileron stick is manipulated, the ailerons and camber flaps perform aileron operation simultaneously to significantly improve the roll axis.

- The aileron left/right mixing rate of each flap servo can be independently adjusted.
- An ON/OFF switch can be set.
- Linking is possible: Link this mix to other mixes.



*The display screen is an example. The actual screen depends on the model type.

- Select [AIL to CMBFLP] at the Model menu and access the setup screen shown below by touching the RTN button.

- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.



(Glider: Currently selected condition name)

AIL→CMBFLP		LEFT	RIGHT
FLAP		+0%	+0%
FLP2		+0%	+0%
ACT	INH		LINK INH
SW	--		

<SensorTouch™>

- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

• To next page

- Adjustment of each flap servo

Setting method

•Activate the function

Move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode. Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the function and return to the cursor mode. (ON is displayed.)

When selecting a switch, move the cursor to the [SW] item and touch the RTN button to call the selection screen. Select the switch and set its ON direction. (Always ON at "--" setting)

*For a description of the switch selection method, see the description at the back of this manual.

•Mixing rate adjustment

Move the cursor to the flap (FLP) 1~2 left or right item according to the wing type and touch the RTN button to switch to the data input mode. Adjust the mixing rate

independently by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -120~+120%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

•Link mode setting

When linking a mix, move the cursor to the [LINK] item and touch the RTN button to switch to the data input mode. Select the ON mode by scrolling the touch sensor.

*The display blinks.

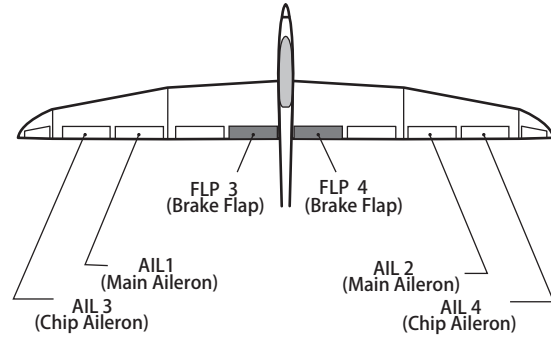
Touch the RTN button to set the link mode and return to the cursor mode.

AIL to BRAKEFLP

[Corresponding model type]: Glider, 4 flaps

This mix operates the brake flaps (FLP3/4) in the aileron mode. When the aileron stick is manipulated, the aileron and brake flaps perform the aileron operation simultaneously and the roll axis is improved.

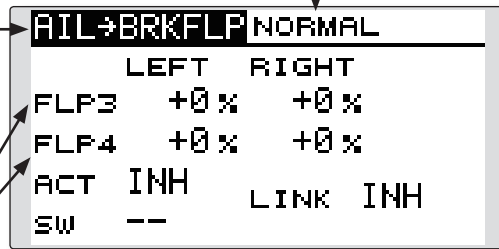
- The aileron left and right mixing rates can be adjusted separately for each flap servo.
- Mixing during flight can be turned ON/OFF by setting a switch. (Always ON at [-] setting)
- Linking can be set: Link this mix to other mixes.



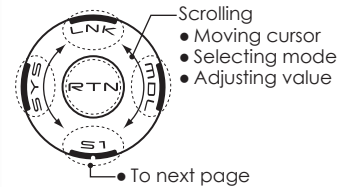
*The display screen is an example. The actual screen depends on the model type.

- Select [AIL to BRKFLP] at the Model menu and access the setup screen shown below by touching the RTN button.

- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.



<SensorTouch™>



- Adjustment of each flap servo

Setting method

• Activate the function

Move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode. Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the function and return to the cursor mode. (ON is displayed.)

When setting a switch, move the cursor to the [SW] item and touch the RTN button to access the selection screen. Select the switch and set its ON direction. (Always ON at "-" setting)

*For a description of the switch selection method, see the description at the back of this manual.

• Mixing rate adjustment

Move the cursor to the flap (FLP) 3~4 left or right item and touch the RTN button to switch to the data input mode. Adjust the mixing rate independently by scrolling the touch

sensor.

Initial value: 0%

Adjustment range: -120~+120%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

• Link mode setting

To activate the mixing, move the cursor to the [LINK] item and touch the RTN button to switch to the data input mode. Select the ON mode by scrolling the touch sensor.

*The display blinks.

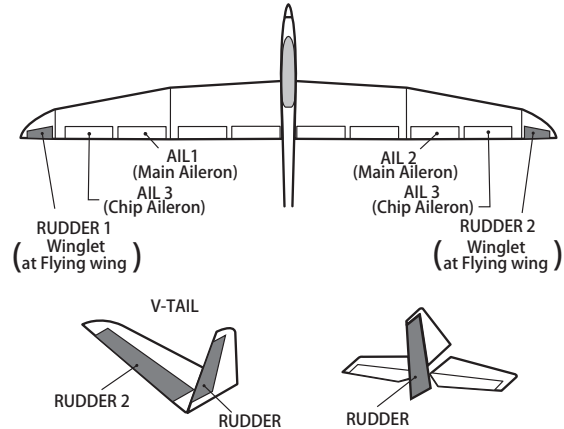
Touch the RTN button to set the link mode and return to the cursor mode.

AIL to RUD

[Corresponding model type]: Airplane/glider, general

Use this mix when you want to mix the rudders with aileron operation. This allows the aircraft to bank at a steep angle.


- Mixing during flight can be turned ON/OFF by a switch. (Always ON at [--] setting)
- The mixing rate can be adjusted.



- Select [AIL to RUD] at the Model menu and access the setup screen shown below by touching the RTN button.

(Glider: Currently selected condition name)

- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.



AIL→RUD

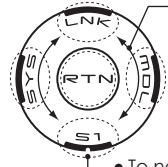
LEFT RIGHT

+0% +0%

ACT INH

SW --

<SensorTouch™>



- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

• To next page

*The display screen is an example. The actual screen depends on the model type.

Setting method

•Activate the function

Move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode. Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the function and return to the cursor mode. (ON is displayed.)

When selecting a switch, move the cursor to the [SW] item and touch the RTN button to call the selection screen. Select the switch and set its ON direction. (Always ON at "--" setting)

*For a description of the switch selection method, see the description at the back of this manual.

•Mixing rate adjustment

Move the cursor to the left or right item and touch the RTN button to switch to the data input mode. Adjust the mixing rate independently by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -100~+100%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

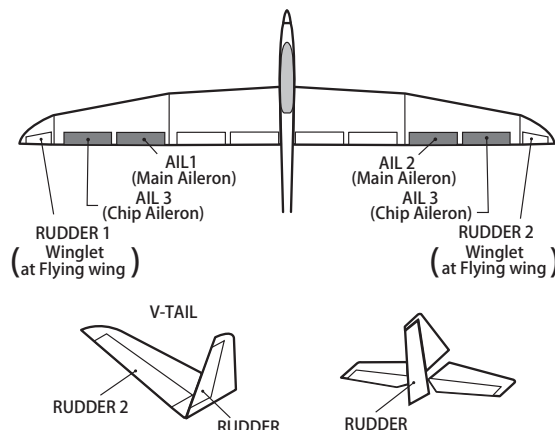
Touch the RTN button to end the adjustment and return to the cursor mode.

RUD to AIL

[Corresponding model type]: Airplane/glider, general

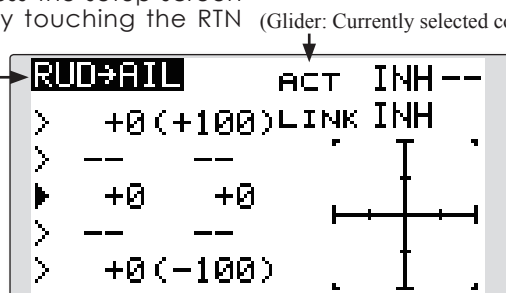
This function is used when you want to mix the ailerons with rudder input. It is used when rudder is applied during roll maneuvers such as, knife edge flight. It can be used to turn or bank scale models, large models, etc. like a full-size aircraft.

- Mixing during flight can be turned ON/OFF by setting a switch. (Always ON at [-] setting)
- Linking can be set: Link this mix to other mixes.
- The mixing rate can also be adjusted.
- A 5-point curve can be set at airplane model type.

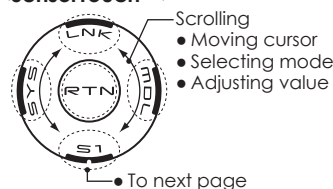


- Select [RUD to AIL] at the Model menu and access the setup screen shown below by touching the RTN button.

- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.



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*The display screen is an example. The actual screen depends on the model type.

Setting method

• Activate the function

Move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode. Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the function and return to the cursor mode. (ON is displayed.)

When setting a switch, move the cursor to the [SW] item and touch the RTN button to call the selection screen. Select the switch and set its ON direction. (Always ON at "--" setting)

*For a description of the switch selection method, see the description at the back of this manual.

• Mixing rate adjustment (glider)

Move the cursor to the left or right item and touch the RTN button to switch to the data input mode. Adjust the mixing rate independently by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -100~+100%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

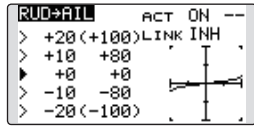
• Link mode setting

To activate the link mixing, move the cursor to the [LINK] item and touch the RTN button to switch to the data input mode. Select the ON mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to set the link mode and return to the cursor mode.

●5-point curve setting (airplane)



[Curve rate setting]

1. Move the cursor to the curve rate setting item (left side) you want to adjust and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Adjustment range: -100%~+100%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

2. Repeat this procedure for each point.

[Moving curve point]

1. Move the cursor to the curve point setting item you want to adjust and touch the RTN button to switch to the data input mode.

Adjust the curve point by scrolling the touch sensor.

Adjustment range: Up to 2.5% in front of the adjoining point

*When the RTN button is touched for one second, the curve position is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

2. Repeat this procedure for each point.

[Deleting/returning curve point]

Move the cursor to the curve point setting item you want to delete/return and touch the RTN button for one second.

CAMBER MIX

[Corresponding model type]: Airplane/glider, 2 ailerons or more

This function adjusts the rate of camber operation for the wing camber (ailerons, camber flaps, brake flaps) in the negative and positive directions. The aileron, flap, and elevator rates can also be adjusted independently and attitude changes caused by camber operation can be corrected.

- Initial setting assigns camber operation to side lever L.S.
- The up/down rates of the aileron, flap, and elevator servos can be adjusted. When the mixing direction is reversed by the linkage, adjustments can be made by changing the mixing rate polarity (+ or -).
- Mixing during flight can be turned ON/OFF by setting a switch. (Always ON at [-] setting)
- A condition delay can be set. A cut switch which can turn OFF the delay function can be set.

- Select [CAMBER MIX] at the Model menu and access the setup screen shown below by touching the RTN button.

*The display screen is an example. The actual screen depends on the model type.

• Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.

• Condition delay setting

• Condition delay cut switch

• Aileron rate adjustment

• Flap rate adjustment

• Elevator rate adjustment

CAMBER MIX

ACT	INH	RATE
SW	--	AIL
COND. DELAY	0	FLAP
CUT-SW	--	ELE

<SensorTouch™>

- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value
- To next page

CMB (AIL) NORMAL ← (Glider: Currently selected condition name)

	RATE1	RATE2	INH
AIL	+0%	+0%	
AIL2	+0%	+0%	
AIL3	+0%	+0%	
AIL4	+0%	+0%	

CMB (FLP) NORMAL

	RATE1	RATE2	INH
FLAP	+0%	+0%	
FLP2	+0%	+0%	

CMB (ELE) NORMAL

	RATE1	RATE2	INH
ELE	+0%	+0%	

Setting method

●Activate the function

Move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode. Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the function and return to the cursor mode. (ON is displayed.)

When setting a switch, move the cursor to the [SW] item and touch the RTN button to call the selection screen. Select the switch and set its ON direction. (Always ON at "--" setting)

*For a description of the switch selection method, see the description at the back of this manual.

●Condition delay setting

Move the cursor to the [COND.DELAY] item and touch the RTN button to switch to the data input mode. Adjust the condition delay by scrolling the touch sensor.

Initial value: 0

Adjustment range: 0~27

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

When setting a cut switch, move the cursor to the [CUT-SW] item and touch the RTN button to access the selection screen. Select the switch and set its ON direction. (Always ON at "--" setting)

*For a description of the switch selection method, see the description at the back of this manual.

●Rate adjustment

The rates are adjusted by accessing the aileron, flap, and elevator rate screens.

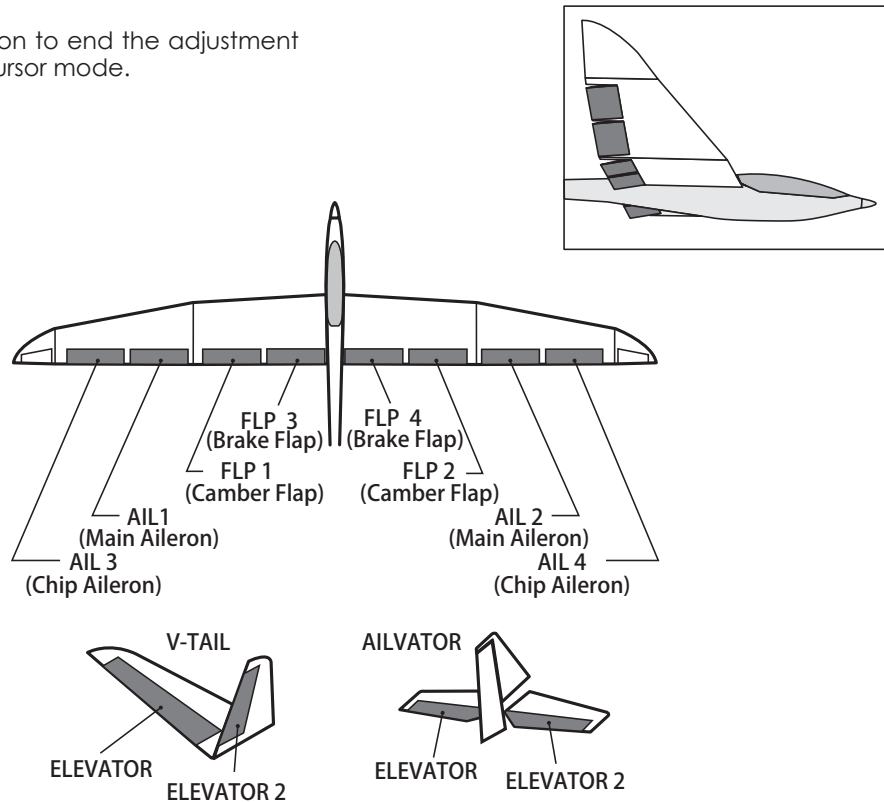
Move the cursor to the rate1 or rate2 item and touch the RTN button to switch to the data input mode. Adjust the rate independently by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -100~+100%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.



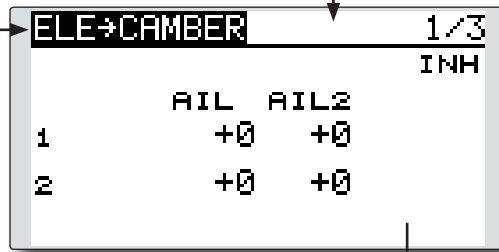
ELE to CAMBER

[Corresponding model type]: Airplane/glider, 2 ailerons or more

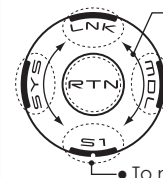
This function is used when you want to mix the camber flaps with elevator operation. When used, the flaps are lowered by up elevator, and lift is increased.

- Select [ELE to CAMBER] at the Model menu and access the setup screen shown below by touching the RTN button.

- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.



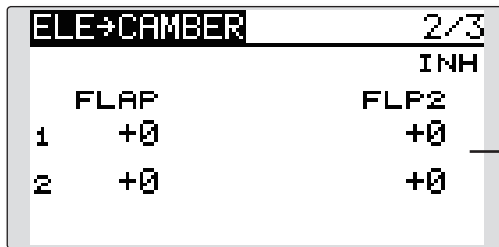
<SensorTouch™>



- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

• To next page

*The display screen is an example. The actual screen depends on the model type.



•Mixing rate adjustment

Move the cursor to the up or down mixing rate item for each servo and touch the RTN button to switch to the data input mode. Adjust the rate independently by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -100~+100%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.



Setting method

•Activate the function

Move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode. Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the function and return to the cursor mode. (ON is displayed.)

When setting a switch, move the cursor to the [SW] item and touch the RTN button to call the selection screen. Select the switch and set its ON direction. (Always ON at "--" setting)

*For a description of the switch selection method, see the description at the back of this manual.

•Range setting (Glider only)

Move the cursor to the [RANGE] item and hold the elevator stick to the desired position (upper or lower side) and then touch the RTN button for one second to set the range.

*The mixing does not work near neutral of the elevator stick.

Initial value: 0%

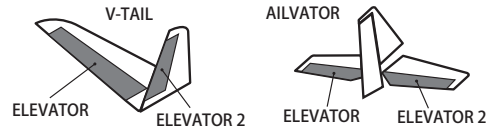
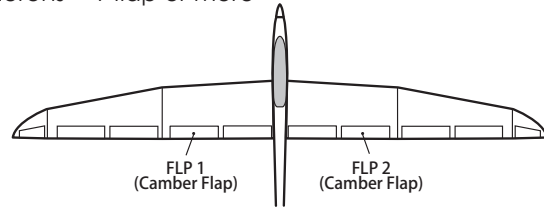
Adjustment range: 0~100%

CMBFLP to ELE

[Corresponding model type]: Airplane/glider,
2 ailerons + 1 flap or more

When the camber/speed flaps are utilized, the aircraft might experience, a change in pitch. This mix compensates for such changes by incorporating elevator input.

- The elevator servos up/down rates can be adjusted separately. If the mixing direction is reversed, change the mixing rate polarity (+ or -).
- Mixing during flight can be turned ON/OFF by setting a switch. (Always ON at [-] setting)



- Select [CMBFLP to ELE] at the Model menu and access the setup screen shown below by touching the RTN button.

• Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.

(Glider: Currently selected condition name)

CMBFLP→ELE		
	RATE1	RATE2
ELE	+0%	+0%
ACT	INH	
SW	--	

• Elevator rate adjustment

<SensorTouch™>

*The display screen is an example. The actual screen depends on the model type.

Setting method

•Activate the function

Move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode. Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the function and return to the cursor mode. (ON is displayed.)

When setting a switch, move the cursor to the [SW] item and touch the RTN button to call the selection screen. Select the switch and set its ON direction. (Always ON at "--" setting)

*For a description of the switch selection method, see the description at the back of this manual.

•Mixing rate adjustment

Move the cursor to the RATE1 or RATE2 item and touch the RTN button to switch to the data input mode. Adjust the mixing rate independently by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -120~+120%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

BUTTERFLY

[Corresponding model type]: Glider, Normal: 2 ailerons or more
Flying: 2 ailerons + 1 flap or more

This function is utilized to quickly slow the aircraft and reduce altitude by simultaneously raising the left and right ailerons and lowering the flaps (camber flap, brake flap).

Butterfly (Crow) produces an extremely efficient landing configuration by accomplishing the following:

1. Slow the aircraft's velocity.
2. Provide washout at the wing tips to reduce the tendency to tip stall.

3. Create more lift toward the center of the wing allowing it to fly at a slower speed

- Mixing during flight can be turned ON/OFF by setting a switch. (Always ON at [-] setting)
- The point at which the butterfly operation reference point can be offset.
- The operational speed of the ailerons and flaps can be adjusted.
- The differential rate can be adjusted.


*For a description of the setting method, see the aileron differential function.

- Select [BUTTERFLY] at the Model menu and access the setup screen shown below by touching the RTN button.

*The display screen is an example. The actual screen depends on the model type.

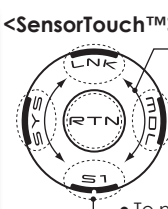
(Currently selected condition name)

• Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.



• Aileron/flap rate adjustment

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- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

• To next page

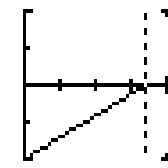
BUTTERFLY NORMAL 1/3

AIL	+0%	AIL2	+0%
AIL3	+0%	AIL4	+0%
FLAP	+0%	FLP2	+0%

INH

BUTTERFLY NORMAL 2/3

ELE +100% ON



• Elevator adjustment

BUTTERFLY NORMAL 3/3

ACT	INH	SPEED
SW	--	AIL 0
		FLAP 0
		ELE 0

• Servo speed setting

OFFSET 15

< 49% >

• Butterfly operation reference point

Setting method

● Activate the function

Move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode. Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the function and return to the cursor mode. (ON is displayed.)

When setting a switch, move the cursor to the [SW] item and touch the RTN button to call the selection screen. Select the switch and set its ON direction. (Always ON at "--" setting)

*For a description of the switch selection method, see the description at the back of this manual.

● Rate adjustment

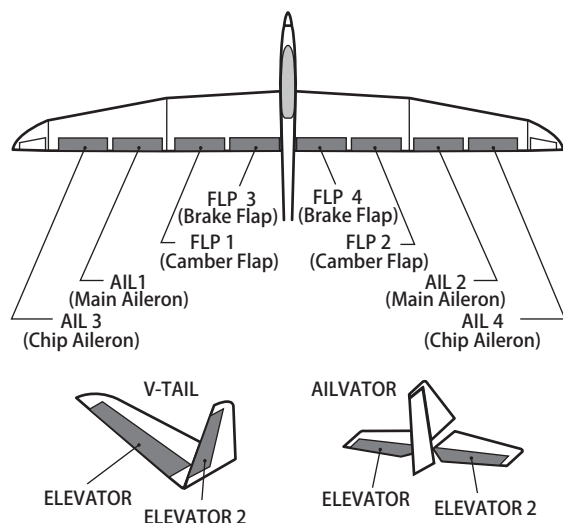
Move the cursor to the aileron, flap or elevator rate item and touch the RTN button to switch to the data input mode. Adjust the rate independently by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -200~+200% (Elevator: -120~+120%)

*When the RTN button is touched for one second, the rate is reset to the initial value.)

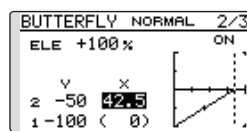
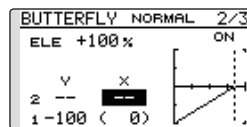
Touch the RTN button to end the adjustment and return to the cursor mode.



● Elevator compensation curve adjustment

	Output (Y)	Position (X)
Offset point	Fixed (0)	Fixed (offset position)
2- Intermediate point	Settable	Settable
1- End point	Settable	Fixed

* The range where mixing does not work close to the neutral position of the elevator stick can be adjusted. (Glider only)



*When offset is set, the curve is initialized.

● Reference point adjustment

Move the cursor to the [OFFSET] item and hold the airbrake stick to the desired position and then touch the RTN button for one second to set the butterfly operational reference point.

Initial value: 0% (upper side)

Adjustment range: 0~100%

● Servo speed setting

Move the cursor to the aileron, flap or elevator speed item and touch the RTN button to switch to the data input mode.

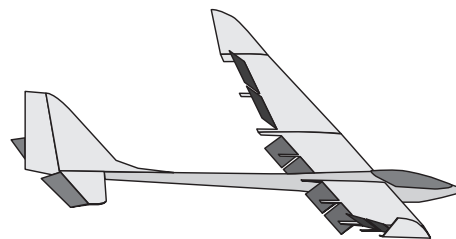
Adjust the rate by scrolling the touch sensor.

Initial value: 0

Adjustment range: 0~27 (maximum delay)

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to activate the function and return to the cursor mode.



TRIM MIX

[Corresponding model type]: Glider, 2 ailerons or more

This function adjusts the trim offset rates of the ailerons, elevators, and flaps (camber flaps, brake flaps) according to the flight status.

As an example this function can be set up for launching, with speed flaps and ailerons drooped, and a slight amount of up elevator, and can be used for high speed flying, with both ailerons and speed flaps reflexed slightly, and a bit of down elevator.

To prevent sudden trim changes when switching flight conditions, a delay can be set to provide a

smooth transition between the two conditions. It is also possible to program a cut switch which will turn off the delay.

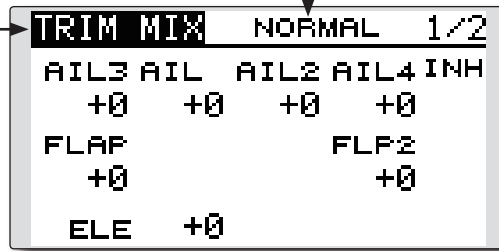
Furthermore, you can set the auto switch, which will link the trim mix to a stick, switch, or dial.

Additionally, the speed of the aileron, elevator, and flap servos can be adjusted.

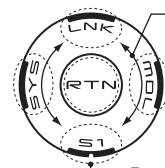
- Select [TRIM MIX] at the Model menu and access the setup screen shown below by touching the RTN button.

*The display screen is an example. The actual screen depends on the model type.

- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.



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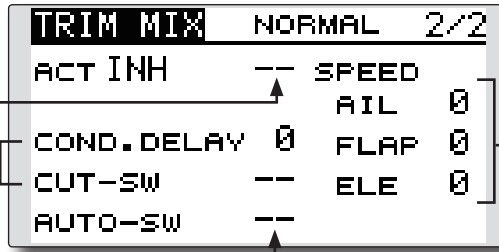


- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

• To next page

- Ailerons, flaps, and elevators offset rate

- Switch selection
- Condition delay setting



- Ailerons, flaps, and elevators servo speed setting

- Auto switch selection

Setting method

●Activate the function

Move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode. Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the function and return to the cursor mode. (ON is displayed.)

When setting a switch, move the cursor to the switch item and touch the RTN button to access the selection screen. Select the switch and set its ON direction. (Always ON at "--" setting)

*For a description of the switch selection method, see the description at the back of this manual.

●Trim offset rate adjustment

Move the cursor to the aileron, flap or elevator rate item and touch the RTN button to switch to the data input mode. Adjust the rate independently by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -250~+250%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

●Condition delay setting

Move the cursor to the [COND.DELAY] item and touch the RTN button to switch to the data input mode. Adjust the condition delay by scrolling the touch sensor.

Initial value: 0

Adjustment range: 0~27

*When the RTN button is touched for one second, the servo operation position is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

When setting a cut switch, move the cursor to the [CUT-SW] item and touch the RTN button to access the selection screen. Select the switch and set its ON direction. (Always ON at "--" setting)

*For a description of the switch selection method, see the description at the back of this manual.

●Servo speed setting

Move the cursor to the aileron, flap or elevator speed item and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Initial value: 0

Adjustment range: 0~27 (maximum delay)

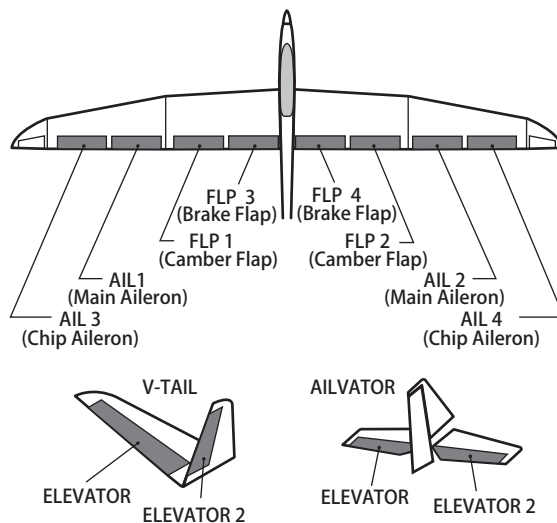
*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to activate the function and return to the cursor mode.

●Auto switch selection

When selecting an auto switch, move the cursor to the [AUTO-SW] item and touch the RTN button to access the selection screen. Select the switch and set its ON direction. (Always ON at "--" setting)

*For a description of the switch selection method, see the description at the back of this manual.



AIRBRAKE

[Corresponding model type]: Airplane, 2 ailerons or more

This function is used to increase the aircraft's drag and is useful for landing or diving, etc.

The preset elevators and flaps (camber flap, brake flap) offset amount can be activated by a switch.

The offset amount of the aileron, elevator, and flap servos can be adjusted as needed. Also the speed of the aileron, elevator, and flap servos can be adjusted. If the Auto Mode is activated, this will link the Airbrake to a stick, switch, or dial. A separate stick switch or dial can also be set as the ON/OFF switch.

Setting example for F3A and other flaperon specifications

(When 2 ailerons model type selected)

Offset rate:

AIL: [-35~-45%], AIL2: [-35~-45%], ELE: [+5~7%]

Note: The input numerics are examples. Adjust the travel to match the aircraft.

Mode setting:

ACT: [ON]


Switch: [SW-C]

AUTO-SW: [-]

- Select [AIRBRAKE] at the Model menu and access the setup screen shown below by touching the RTN button.

*The display screen is an example. The actual screen depends on the model type.

- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.

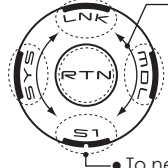


1/2

AIRBRAKE

AIL	AIL2	INH
+0	+0	
FLAP		FLP2
+0		+0
ELE	+0	

<SensorTouch™>



- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

• To next page

- Ailerons, flaps, and elevators offset rate

- Switch selection

2/2

AIRBRAKE

ACT INH	--	SPEED
	↑	AIL 0
		FLAP 0
		ELE 0
AUTO-SW	--	
	↑	

- Ailerons, flaps, and elevators servo speed setting

- Auto switch selection

Setting method

●Activate the function

Move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode. Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the function and return to the cursor mode. (ON is displayed.)

When setting a switch, move the cursor to the switch item and touch the RTN button to access the selection screen. Select the switch and set its ON direction. (Always ON at "--" setting)

*For a description of the switch selection method, see the description at the back of this manual.

●Offset rate adjustment

Move the cursor to the aileron, flap or elevator rate item and touch the RTN button to switch to the data input mode. Adjust the rate independently by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -250~+250%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

●Servo speed setting

Move the cursor to the aileron, flap or elevator speed item and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Initial value: 0

Adjustment range: 0~27 (maximum delay)

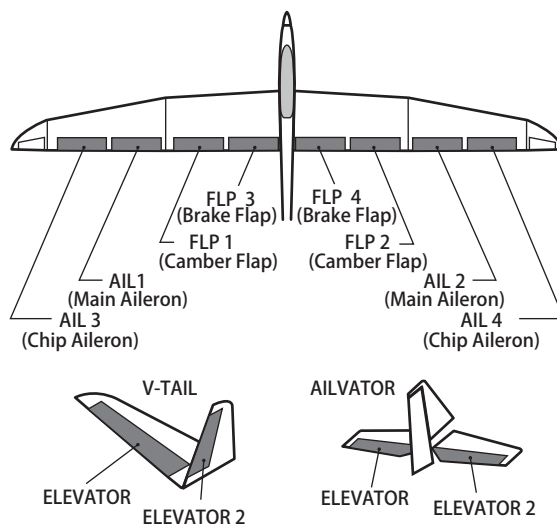
*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to return to the cursor mode.

●Auto switch selection

When setting a auto switch, move the cursor to the [AUTO-SW] item and touch the RTN button to access the selection screen. Select the switch and set its ON direction. (Always ON at "--" setting)

*For a description of the switch selection method, see the description at the back of this manual.



GYRO

[Corresponding model type]: Airplane/glider, general

This function is used when a GYA Series gyro is used to stabilize the aircraft's attitude. The sensitivity and operation mode (Normal mode/AVCS mode) can be changed via a switch.

- Three rates (Rate 1/Rate 2/Rate 3) can be switched.
- Up to 3 axes (Gyro/Gyro 2/Gyro 3) can be simultaneously controlled.

- Select [GYRO] at the Model menu and access the setup screen shown below by touching the RTN button.

Note: This setting does not assign a sensitivity channel. To do so, use the Linkage menu prior to assigning the sensitivity channel (Gyro/Gyro2/Gyro3), be sure to select an unused channel.

Set the [Control] and [Trim] settings other than Function to [--].

[Rate 1 setup screen]

GYRO			
# 1	GYRO	AVCS	0 %
	GYRO2	AVCS	0 %
	GYRO3	AVCS	0 %
	TYPE	GY	
		INH	--

[Rate 2 setup screen]

GYRO			
# 2	GYRO	AVCS	0 %
	GYRO2	AVCS	0 %
	GYRO3	AVCS	0 %
	TYPE	GY	
		INH	--

[Rate 3 setup screen]

GYRO			
# 3	GYRO	AVCS	0 %
	GYRO2	AVCS	0 %
	GYRO3	AVCS	0 %
	TYPE	GY	
		INH	--

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- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value
- To next page

Annotations:

- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.
- Rate 1-3 setup screen selection
- Gyro type selection
- ACT/INH
- Switch selection
- The operation mode (AVCS/NOR) and sensitivity of the three axis Gyro/Gyro2/Gyro3 can be set.

Setting method

*Prior to using the Function menu in the Linkage menu to assign the sensitivity channel (Gyro/Gyro2/Gyro3) select an unused channel.

Set [Control] and [Trim] other than function to [--].

•Rate1-3 setup screen selection

Move the cursor to the setup screen selection item and touch the RTN button to switch to the data input mode. Select the setup screen # by scrolling the touch sensor.

Touch the RTN button to change the setup screen and return to the cursor mode.

•Activate the function

Move the cursor to the [INH] item and touch the RTN button to switch to the data input mode. Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the function and return to the cursor mode.

When setting a rate selection switch, move the cursor to the switch item and touch the RTN button to access the selection screen. Select the switch and set its ON direction. (Always ON at "--" setting)

*For a description of the switch selection method, see the description at the back of this manual.

●Gyro type selection

Move the cursor to the gyro type selection item and touch the RTN button to switch to the data input mode. Select the gyro type by scrolling the touch sensor.

[GY]: When a Futaba GYA gyro is used

[NORM]: When using something other than Futaba GYA gyro is used.

Touch the RTN button to change the gyro type and return to the cursor mode.

*When a Futaba GYA gyro is used and [GY] type is selected, the sensitivity set value is directly read in both the AVCS and NORM modes.

●Operation mode selection (GYA gyro)

Move the cursor to the operation mode

selection item and touch the RTN button to switch to the data input mode. Select the operation mode by scrolling the touch sensor.

[AVCS]: AVCS mode

[NORM]: Normal mode

Touch the RTN button to change the operation mode and return to the cursor mode.

●Sensitivity setting

Move the cursor to the sensitivity icon and touch the RTN button to switch to the data input mode.

Adjust the sensitivity by scrolling the touch sensor.

Initial value: 0%

Adjustment range: 0~100%

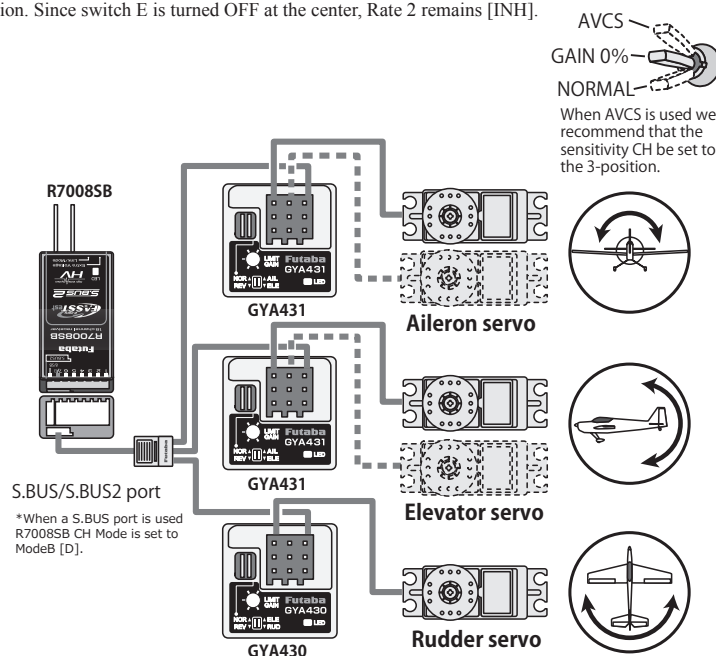
*When the RTN button is touched for one second, the sensitivity is reset to the initial value.)

Touch the RTN button to return to the cursor mode.

(Example) Setting three axis using a GYA430 and GYA431 (2)

- Wing type: Aileron 2 servos mounted fuselage selected
- Set Gyro 1 (GYA431AIL): CH5, Gyro 2 (GYA431ELE): CH7, Gyro 3 (GYA430RUD): CH8 at the Function menu of the Linkage menu.
- Rate 1 [OFF][GY][SE][NORM][60%][NORM][60%][NORM][60%]
Rate 2 [INH]
Rate 3 [OFF][GY][SE][AVCS][60%][AVCS][60%][AVCS][60%]

*Set so that Rate 1 is turned on at the back position of switch E and Rate 3 is turned ON at the front position. Since switch E is turned OFF at the center, Rate 2 remains [INH].

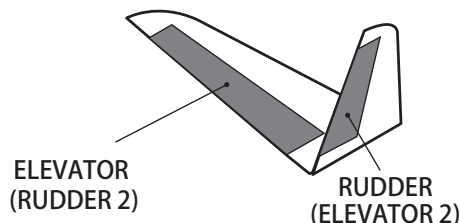


V-TAIL

[Corresponding model type]: Airplane/glider, V-tail

This function enables adjustments for left and right rudder angle changes during elevator and rudder operation of a V-tail airplane.

V-tail is when two servos are used together to control rudder movement as elevators. In addition to each elevator side moving up and down together, each side moves in opposite directions when moving as rudders. On a V-tail, this is also known as a Ruddervator, as they serve the same purpose.



- Select [V-TAIL] at the Model menu and access the setup screen shown below by touching the RTN button.

• Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.

V-TAIL			
ELEVATOR			
ELE <RUD2>	↑	↓	
RUD <ELE2>	+50 %	+50 %	
RUDDER			
ELE <RUD2>	←	→	
RUD <ELE2>	+50 %	+50 %	

(Elevator function)
Up and down travel adjustment of elevator operation

(Rudder function)
Left and right travel adjustment of rudder operation

<SensorTouch™>
Scrolling
• Moving cursor
• Selecting mode
• Adjusting value
To next page

Setting method

• Travel adjustment

Move the cursor to the item you want to adjust and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Initial value: +50%

Adjustment range: -120~+120%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to return to the cursor mode.

*If the mixing direction is reversed, adjustments can be made by changing the mixing rate polarity (+ or -).

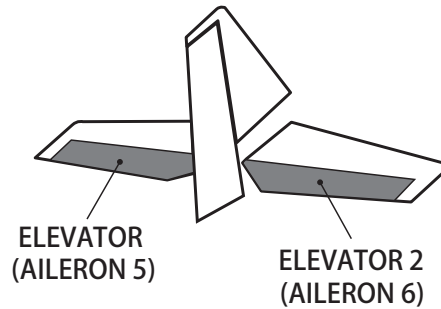
*If a large value of travel is specified, when the sticks are moved at the same time, the controls may bind or run out of travel. Decrease the travel until no binding occurs.

AILEVATOR

[Corresponding model type]: Airplane/glider, Ailevator
(Effective only when 2 servos used at the elevators)

This function improves the performance of the roll axis by operating the elevators as ailerons.

Ailevator is where each elevator in a standard (conventional) or v-tail moves independently, like ailerons on a wing. In addition to each elevator side moving up and down together, each side moves in opposite directions when moving as an Ailevator. On a V-tail, this is also known as a Ruddervator, as they can serve the same purpose. Typically, both Ailevator and ailerons are coupled together to maximize roll performance, especially on larger wingspan planes.



Note: Select Ailevator as the Model Type at the Model Type screen. This changes the output channel. Check the Function menu.

- Select [AILEVATOR] at the Model menu and access the setup screen shown below by touching the RTN button.

- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.

AILEVATOR

ELEVATOR	↑	↓
ELE <AILS>	+100%	+100%
ELE2 <AIL6>	+100%	+100%
AILERON	←	→
ELE <AILS>	+0%	+0%
ELE2 <AIL6>	+0%	+0%

<SensorTouch™>

- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

• To next page

(Elevator function)

- The up and down rate of both elevators when the elevator stick is moved can be individually adjusted.

(Aileron function)

- When the elevators are used as ailerons, aileron travel of the left and right elevators can be adjusted.

Setting method

• Travel adjustment

Move the cursor to the item you want to adjust and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Initial value: ELE: +100%, AIL: 0%

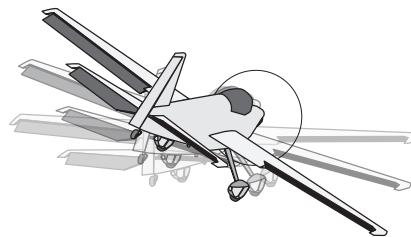
Adjustment range: -120~+120%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to return to the cursor mode.

*If the mixing direction is reversed, adjustments can be made by changing the mixing rate polarity (+ or -).

*If a large value of travel is specified, when the sticks are moved at the same time, the controls may bind or run out of travel. Decrease the travel until no binding occurs.



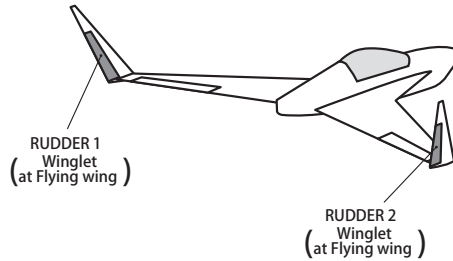
WINGLET

[Corresponding model type]: Airplane/glider, Flying wing only

This function adjusts the left and right rudder angles of airplanes with winglets.


Winglets are used to improve the efficiency of aircraft by lowering the lift-induced drag caused by wingtip vortices. The winglet is a vertical or angled extension located at the tip of each wing.

Winglets work by increasing the effective aspect ratio wing without adding greatly to the structural stress and hence necessary weight of its structure - an extension of wing span would also permit lowering of induced drag, though it would cause parasitic drag and would require boosting the strength of the wing and hence its weight. There would come a point at which no overall useful gains would be made. A winglet helps to solve this by effectively increasing the aspect ratio without adding to the span of the wing.



- Select [WINGLET] at the Model menu and access the setup screen shown below by touching the RTN button.

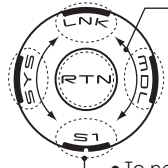
- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.



WINGLET

RUDDER	←		→	
RUDDER	+	100 %	+	100 %
RUDDER2	+	100 %	+	100 %

<SensorTouch™>



- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

• To next page

(Rudder 1/2)

- The travel during rudder stick operation can be individually adjusted.

Setting method

• Travel adjustment

Move the cursor to the item you want to adjust and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Initial value: +100%

Adjustment range: -120~+120%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to return to the cursor mode.

*If the mixing direction is reversed, change the mixing rate polarity (+ or -).

MOTOR

[Corresponding model type]: Airplane/glider, general

This function lets you set the speed when the motor of an F5B or other EP glider is started via a switch. The operation speed can be set for two ranges, slow speed flight and high speed flight (Speed 1/Speed 2). This function can also be operated as a safety function by programming it to a switch.

- The In side and Out side operating speeds can be adjusted independently in 2 ranges (Speed 1/Speed 2).
- The boundary between the 2 ranges can be set. (From Speed 1 to Speed 2)
- The operational speed can only be activated at the initial operation. However, operation can be repeated by setting the switch to OFF before the operation is finished. When you want to reset one

time operation, set the ACT/INH item to [INH] and then reset it to [ON].

- The motor channel is controlled by SW-G. (Glider: Initial setting) When changing the switch or stick which controls the motor, first change Function of the Linkage menu.
- If the Model Type selected is Airplane, the MOTOR function is changed from INH to ON and it is not assigned to another channel, the changes from the throttle channel to the motor channel are enabled.

Note: Initial setting does not assign a motor channel according to the model type. Prior to assigning the motor channel, find an unused channel. Then, use the Function menu of the Linkage menu.

Set [Control] to the switch you want to use and [Trim] to [-].

Note: When using this function, always check the initial operation with the propeller removed.

- Select [MOTOR] at the Model menu and access the setup screen shown below by touching the RTN button.

The screenshot shows the MOTOR setup screen with the following text: **MOTOR** (highlighted), **1/2** (top right), **ACT** **INH**, **SW** **--**, **MOTOR OFF** **+0**, and a vertical bar with **ON** at the top and **OFF** at the bottom. A cursor is positioned on the bar. To the left, a button labeled **RETURN** is shown with an arrow pointing to the screen. To the right, a circular **SensorTouch™** diagram shows various buttons: **LNK**, **RTN**, **S1**, **S2**, **S3**, and **S4**. Arrows indicate scrolling and selecting modes. A legend lists: Scrolling, Moving cursor, Selecting mode, Adjusting value, and To next page.

Setting method

• Activate the function

When using this function, move the cursor to the [ACT/INH] item and touch the RTN button to switch to the data input mode. Select the [ACT] by scrolling the touch sensor and touch the RTN button.

When selecting the ON/OFF switch, move the cursor to the switch item and touch the RTN button to access the selection screen. Select the switch and set its ON direction. (Always ON at "--" setting)

*For a description of the switch selection method, see the description at the back of this manual.

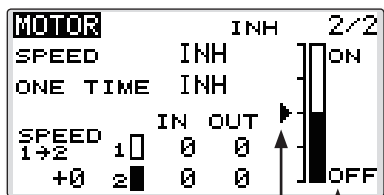
• Motor off position setting

Move the cursor to the [MOTOR OFF] item and touch the RTN button for one second when the motor function switch (SG, etc.) is in the motor OFF position you want to set. The direction of the motor switch is memorized.

The screen graph display OFF direction also changes.

Note:

- **First decide the motor OFF direction, and then set the speed. When you want to reset the motor OFF direction, also reset the speed.**
- **We recommend that Motor OFF be set in combination with F/S.**
- **Set the basic operation direction with the Reverse function to match the ESC used.**
- **Always set the Motor OFF position.**



- ON/OFF direction
- Motor function switch current position

Setting method

• Activate the motor speed function

When using motor speed function, move the cursor to the [INH] item and touch the RTN button to switch to the data input mode. Select the [ACT] by scrolling the touch sensor and touch the RTN button.

• Sifting the boundary between the 2 ranges

Move the cursor to the [SPEED 1>2] item and touch the RTN button to switch to the data input mode.

Adjust the boundary position by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -100~+100%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to return to the cursor mode.

• Operation speed adjustment

Move the cursor to the [IN] (on to off) or [OUT] (off to on) item and touch the RTN button to switch to the data input mode.

Adjust the operation speed you want to set by scrolling the touch sensor.

Initial value: 0

Adjustment range: 0~27

*When the RTN button is touched for one second, the rate is reset to the initial value.)

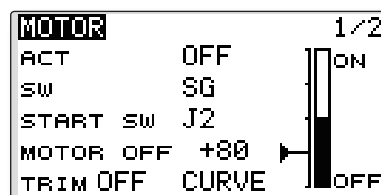
Touch the RTN button to return to the cursor mode.

• Set/Reset the one time operation

Move the cursor to the [ONE TIME] item and touch the RTN button to switch to the data input mode.

Select the [ACT] by scrolling the touch sensor and touch the RTN button to set the one time operation.

*When you want to reset one time operation, set the ACT/INH item to [INH] and then reset it to [ON].



• Start switch function

When active, the "START SW" allows the motor's state to change from OFF to ON. The motor is ON when the main SW and "START SW" are turned ON simultaneously. The motor changes to OFF only when the main SW is turned off. If "START SW" is turned OFF but the main SW is still ON, the motor remains ON.

[START SW function example]

When the throttle (motor) stick is assigned as the "START SW", and the low throttle position of the throttle curve is adjusted, the motor starts operating with the initial stick movement. The motor will not cease functionality even if the stick position is returned to its lowest setting.

• Trim effect / invalid setting in motor OFF

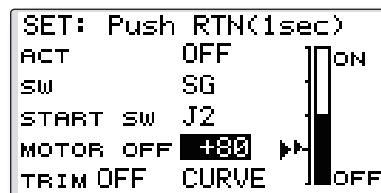
If one of the trim levers is assigned to the Motor function, it is possible to turn the motor off with the trim lever. To maintain compatibility after updating the T14SG/S, the trim setting is adjusted to the on position. However, it is suggested to return it to the off position accordingly in the programming of the transmitter.

*Data Reset will return the trim setting to the off position.

• Screen at the time of the motor OFF setting

When the MOTOR OFF setting is highlighted, you will note the presence of the small cursor that indicates the MOTOR OFF position. To adjust this MOTOR OFF position, use the throttle stick to move the cursor accordingly. When satisfied with this position, press and hold the RTN button on the transmitter.

*The larger cursor is used to indicate the output of the motor channel. This cursor reflects any throttle curves and motor mixing which may be active.



• Throttle curve button

When "CURVE" button is chosen, a throttle curve screen opens.

*When a throttle function is assigned to either channel, the "CURVE" button is not displayed because a throttle curve does not function as a motor curve.

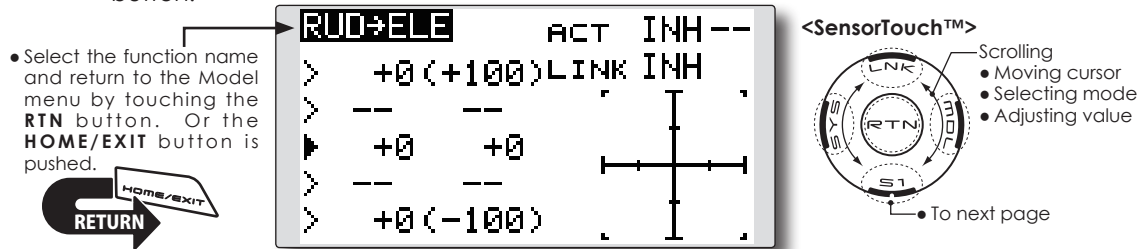
RUD to ELE

[Corresponding model type]: Airplane, general

This function is used when you want to mix elevator operation with rudder operation. It is used to correct undesirable tendencies when rudder is applied in rolling maneuvers such as, knife edge flight.

- Mixing during flight can be turned ON/OFF by setting a switch. (Always ON at [-] setting)
- Link mixing can be set: Links this mix to other mixes.

- Select [RUD to ELE] at the Model menu and access the setup screen shown below by touching the RTN button.



Setting method

• Activate the function

Move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode. Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the function and return to the cursor mode. (ON is displayed.)

When selecting a switch, move the cursor to the [SW] item and touch the RTN button to call the selection screen. Select the switch and set its ON direction. (Always ON at "--" setting)

*For a description of the switch selection method, see the description at the back of this manual.

• 5-point curve setting (airplane)

[Curve rate setting]

1. Move the cursor to the curve rate setting item (left side) you want to adjust and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Adjustment range: -100%~+100%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

2. Repeat this procedure for each point.

[Moving curve point]

1. Move the cursor to the curve point setting item you want to adjust and touch the RTN button to switch to the data input mode.

Adjust the curve point by scrolling the touch sensor.

Adjustment range: Up to 2.5% in front of the adjoining point

*When the RTN button is touched for one second, the curve position is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

2. Repeat this procedure for each point.

[Deleting/returning curve point]

Move the cursor to the curve point setting item you want to delete/return and touch the RTN button for one second.

• Link mode setting

When selecting the link mixing, move the cursor to the [LINK] item and touch the RTN button to switch to the data input mode. Select the ON mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to set the link mode and return to the cursor mode.

SNAP ROLL

[Corresponding model type]: Airplane, general

This function selects the switch and rate adjustment of ailerons, elevators, and rudder when a snap roll is performed.

- Four snap roll directions can be set. (Right/up, right/down, left/up, left/down)
- Operation mode: When [Master] mode is selected, the Snap Roll function is turned ON/OFF by the master switch. It is possible to set the direction switch was switched to the direction in which you want to snap roll. When [Single] mode is selected, the snap roll in each direction can be executed by means of independent switches and positions.
- A safety switch can be set to prevent the inadvertent activation of the snap roll. For example, the landing gear is lowered, even if the switch is turned on accidentally the snap roll would not be executed. The snap roll switch is activated only when the safety switch is OFF.

(Example) Setting example for F3A

- Mode: [Master]
- Safety SW: [SG] (Safety measure)
- Master SW: [SH] (Main switch for executing snap roll)
- Direction switches:
 - *The snap roll up side left and right and down side left and right direction switches are selected here.
 - Right/Up: OFF [SD]
 - Right/Down: OFF [SD]
 - Left/Up: OFF [SA]
 - Left/Down: OFF [SA]

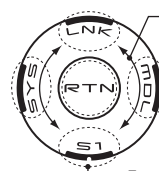
- Select [SNAP ROLL] at the Model menu and access the setup screen shown below by touching the RTN button.

- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.



	AIL	ELE	RUD
↗/↑	+100	+100	+100
↘/↓	+100	-100	-100
↖/↑	-100	+100	-100
↙/↓	-100	-100	+100

<SensorTouch™>



- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

• To next page

SNAP ROLL		2/3
MODE	MASTER	
MASTER-SW	--	
SAFETY-SW	--	

- Master/single mode selection

	ACT	SW
↗/↑	OFF	--
↘/↓	OFF	--
↖/↑	OFF	--
↙/↓	OFF	--

- Direction switches

Setting method

●Master/single mode selection

Move the cursor to the [MODE] item and touch the RTN button to switch to the data input mode. Select the master or single mode by scrolling the touch sensor.

*The display blinks.

[MASTER]: Master mode

[SINGLE]: Single mode

Touch the RTN button to select the mode and return to the cursor mode.

When setting a master switch, move the cursor to the [MASTER-SW] item and touch the RTN button to access the selection screen. Select the switch and set its ON direction.

*For a description of the switch selection method, see the description at the back of this manual.

When setting a safety switch, move the cursor to the [SAFETY-SW] item and touch the RTN button to access the selection screen. Select the switch and set its ON direction.

●Direction switch selection

Move the cursor to the direction switch item and touch the RTN button to access the selection screen. Select the switch and set its ON direction.

*For a description of the switch selection method, see the description at the back of this manual.

●Rate adjustment

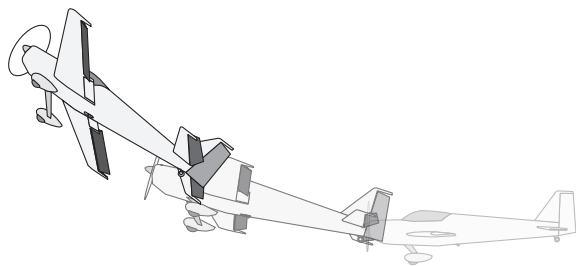
Move the cursor to the aileron, elevator or rudder item for each direction and touch the RTN button to switch to the data input mode. Adjust the rate independently by scrolling the touch sensor.

Initial value: (Dependent upon the snap roll direction)

Adjustment range: -150~+150%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.



MODEL MENU (HELICOPTER)

This section contains information on the commands that apply to helicopters only. For instructions on Airplanes and Sailplanes, refer to the sections pertaining to those aircraft.

Use the Model Type function in the Linkage Menu to select the swash type matched to the respective aircraft.

Also, activate/deactivate flight conditions according to your model. To do so, access at the

Condition Select screen prior to adjusting the model's parameters. (Up to five conditions can be used)

The Dual Rate function and other functions common to all model types have already been described elsewhere in this manual. Please refer to these respective sections for information on how to do so.

- Access the Model menu shown below by touching the RTN button twice at the home screen, etc.

• Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.

The diagram illustrates the Model Menu navigation process. It shows two screenshots of the menu. The first screenshot, labeled '1/2', displays the following functions: SERVO, THR CURVE, CONDITION, THR HOLD, DUAL RATE, SWASH MIX, PROG. MIX, THR MIX, and PIT CURVE, PIT→RUD. The second screenshot, labeled '2/2', displays: FUEL MIX, GYRO, and GOVERNOR. A circular control pad diagram shows the RTN button at the center, with LNK, SYS, and ST buttons around it. A 'Scrolling' cursor is shown moving around the pad, and a 'To next page' button is indicated. A 'RETURN' button is also shown with an arrow pointing to the first screenshot.

• Select the function you want to set and access the setup screen by touching the RTN button.

Model Menu functions (helicopter) list

- PIT CURVE:** Adjusts pitch settings in different flight conditions
- THR CURVE:** Throttle curve and hovering trim adjustment in different flight conditions
- THR HOLD:** Moves the throttle to idle during autorotation
- SWASH MIX:** Compensates control response in different flight conditions
- THROTTLE MIX:** Compensates for power loss when cyclic applied
- PIT to NEEDLE:** Adjusts pitch response in different flight conditions
- PIT to RUD:** Compensates torque changes from pitch angle inputs
- GYRO:** Used to switch gyro sensitivity
- GOVERNOR:** Used to switch RPM of the helicopter's head

PIT CURVE/PIT TRIM

Pitch Curve

This function adjusts the pitch operation curve for each flight condition to optimize the model's performance in relationship to the throttle stick position.

*A simple curve can be created by reducing the number of input points to two or three, and then entering the specified value at the corresponding points.

- Select [PIT CURVE] at the Model menu and access the setup screen shown below by touching the RTN button.
- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.

(Currently selected condition name)

← PIT CURVE NORMAL 1/3

• curve rate • curve point • Pitch curve copy

*The graph display includes the pitch trim operation.

Setting method

•5-point curve setting

[Curve rate setting]

1. Move the cursor to the curve rate setting item you want to adjust and touch the RTN button to switch to the data input mode.
Adjust the rate by scrolling the touch sensor.
Initial value: P1: -100%, P2: -50%, P3: 0%, P4: +50%, P5: +100%
Adjustment range: -100%~+100%

*When the RTN button is touched for one second, the rate is reset to the initial value.

Touch the RTN button to end the adjustment and return to the cursor mode.

2. Repeat this procedure for each point as desired.

[Moving curve point]

1. Move the cursor to the curve point setting item you want to adjust and touch the RTN button to switch to the data input mode.
Adjust the curve point by scrolling the touch sensor.
Initial value: P1: (0%), P2: 25%, P3: 50%, P4: 75%, P5: (100%)
Adjustment range: Up to 2.5% in front of the adjoining point

*When the RTN button is touched for one second, the curve position is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

2. Repeat this procedure for each point as desired.

[Deleting/returning curve point]

1. Move the cursor to the curve point setting item you want to delete/return and touch the RTN button for one second.

•Pitch curve copy function

Move the cursor to COPY and touch the RTN button to switch to the data input mode. Select the copy destination condition by scrolling the touch sensor and touch the RTN button. Select the [YES] and touch the RTN button.

Normal curve adjustment

*For normal curve, create a basic pitch curve centered about hovering. Use this function together with the THR Curve (Normal) function and adjust the curve so that up/down control is best at a constant engine speed.

Idle up curve adjustment

*For the high side pitch curve, set the maximum pitch so that it does not overload the engine. For the low side pitch curve, create curves matched to loop, roll, 3D, and other purposes and use the idle up curves according to the performance.

Throttle hold curve adjustment

*The throttle hold curve is used when executing auto rotations.

Operation precautions

⚠ Warning

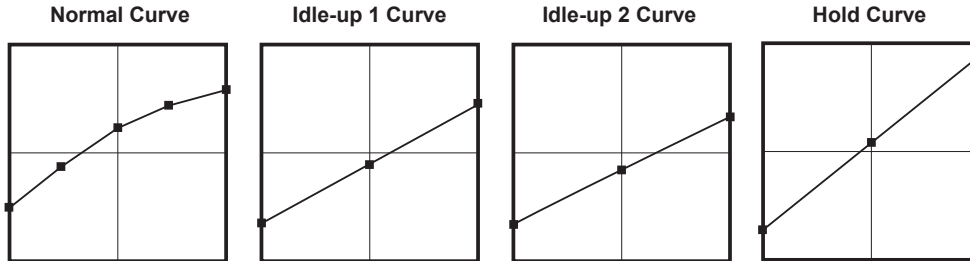
! When actually starting the engine and flying, always set the idle up condition switch to OFF and start the engine at idle.

Curve setting examples

The screens shown below are curves created by entering the pitch rate at low, center, and high side (3 points or 5 points) at each condition.

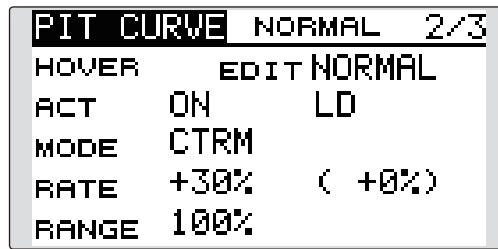
When actually creating a curve, input the rate specified by the model (or the reference value).

●Pitch Curve (Example)



Pitch Trim (Hovering pitch, high pitch, low pitch)

[Hovering pitch trim setting]



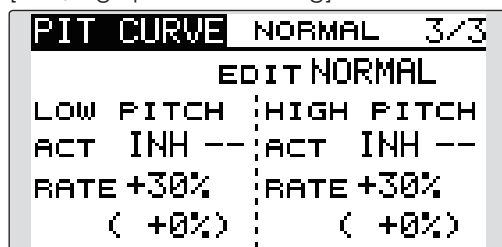
Hovering pitch trim

The Hovering Pitch trim function trims the pitch near the hovering point. Normally, it is used with the hovering condition. The hovering pitch can be fine tuned for changes in rotor speed accompanying changes in temperature, humidity, and other flight conditions. Adjust the hovering pitch so that rotor speed is constant. This function can be used together with the Hovering Throttle Trim function for more precise operation.

Setting method

- Set the function to ACT [ON]. (initial setting)
- Select the adjustment knob.
Selection example: LD (initial setting)
- The trim operation mode (Mode: CTRM/NORM) can be selected.
CTRM mode: Maximum amount of change near center by center trim operation (recommended)
NORM mode: Normal trim (parallel movement trim) operation. The advantage of using this mode is that the hovering pitch can be adjusted without changing the curve.
- The trim rate can be adjusted and the operation direction can be changed.
- Trim adjustment range (Range) setting
When this value is made small, trim can only be used near the center.

[Low/High pitch trim setting]



High Pitch/Low Pitch Trim

High Pitch/Low Pitch Trim is the pitch servo high side and low side trim function.

Setting method

- Set the function to ACT (ON).
- Select the adjustment knobs.
Selection example: LS (high side), RS (low side)
- The trim rate can be adjusted and the operation direction can be changed.
- Trim acts as high side or low side trim with the center as the standard.

THR CURVE/THROTTLE HOVER TRIM

Throttle Curve

Throttle curve function adjusts the throttle operation curve for each condition to optimize the engine speed to throttle stick movement.

The Throttle Hover function trims the throttle near the hovering point. Normally, use it with hovering conditions. Changes in rotor speed

accompanying changes in the temperature, humidity, and other flight conditions can be trimmed. Adjust the throttle so that rotor rotation is most stable. More precise trimming is also possible by using this function along with the Hover Pitch function.

- Select [THR CURVE] at the Model menu and access the setup screen shown below by touching the RTN button.
- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.

(Currently selected condition name)

*The graph display includes the throttle hover trim operation.

<SensorTouch™>

- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value
- To next page

• curve rate

• curve point

• Throttle curve copy

Condition	Curve Rate	Curve Point
5	100.0	(100)
4	75.0	75.0
3	50.0	50.0
2	25.0	25.0
1	0.0	(0)

Setting method

•5-point curve setting

[Curve rate setting]

1. Move the cursor to the curve rate setting item you want to adjust and touch the RTN button to switch to the data input mode. Adjust the rate by scrolling the touch sensor. Initial value: P1: 0%, P2: 25%, P3: 50%, P4: 75%, P5: 100%
Adjustment range: 0%~100%
*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

2. Repeat this procedure for each point as desired.

[Moving curve point]

1. Move the cursor to the curve point setting item you want to adjust and touch the RTN button to switch to the data input mode. Adjust the curve point by scrolling the touch sensor. Initial value: P1: (0%), P2: 25%, P3: 50%, P4: 75%, P5: (100%)
Adjustment range: Up to 2.5% in front of the adjoining point

*When the RTN button is touched for one second, the curve position is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

2. Repeat this procedure for each point as desired.

[Deleting/returning curve point]

1. Move the cursor to the curve point setting item you want to delete/return and touch the RTN button for one second.

•Throttle curve copy function

Move the COPY item and touch the RTN button to switch to the data input mode. Select the copy destination condition by scrolling the touch sensor and touch the RTN button. Select the [YES] and touch the RTN button.

Normal curve adjustment

*Normal curve creates a basic curve centered around hovering. Use it along with the normal pitch curve and adjust so that up/down control results in a constant engine speed.

Idle up curve adjustment

*Set a idle up curve that maintains a constant speed at all times, even during operation which reduces the pitch performed in flight. Create a curve matched to loop, roll, 3D, or other purposes and the idle up curve according to the performance.

Operation precautions

⚠ Warning

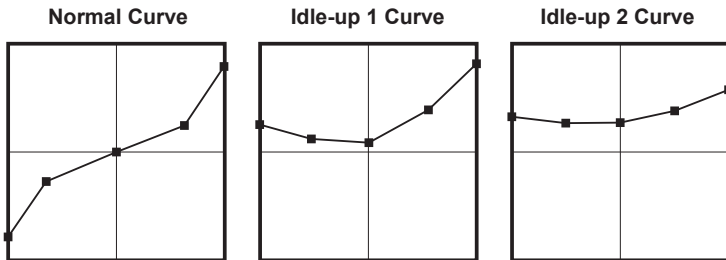
- When actually starting the engine and flying, always set the idle up condition switch to OFF and start the engine at the idle.

Curve setting examples

The curves shown below are created by inputting the data of the 5 points 0% (low side), 25%, 50% (center), 75%, 100% (high) side for each

condition. When actually creating a curve, enter the parameters specified per the model (or the reference value).

•Throttle Curve (Example)



Throttle Hover trim

[Throttle hover trim setting]

```
THR CURVE NORMAL 2/3
HOVER EDIT NORMAL
ACT ON RD
MODE CTRM
RATE +30% (-1%)
RANGE 100%
```

Setting method

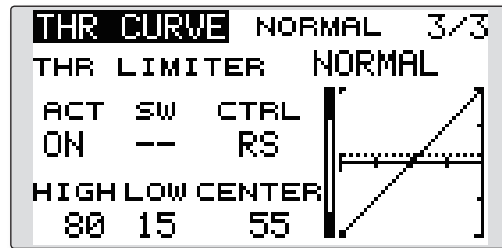
- Set the function to ACT ([ON]). (initial setting)
- Select the adjustment knob.
Selection example: RD (initial setting)
- The trim operation mode (Mode: CTRM/ NORM) can be selected.
CTRM mode: Maximum rate of change near center by center trim operation (recommended)
NORM mode: Normal trim (horizontal movement trim) operation.
- The trim rate can be adjusted and the operation direction can be set.
- Trim adjustment range (Range) setting
With smaller values, the trim is only active near the center.

Throttle limiter function

This function limits the high range of the throttle movement by any slider or trimmer.

*Control which adjusts the limit point during flight can be set.

[Throttle limiter setting]



Setting method

*Set at the 3rd page of the throttle curve screen.

•Activate the function.

1. Select ACT and touch the RTN button.
2. Switch the display to ACT by scrolling the touch sensor.

*The display blinks.

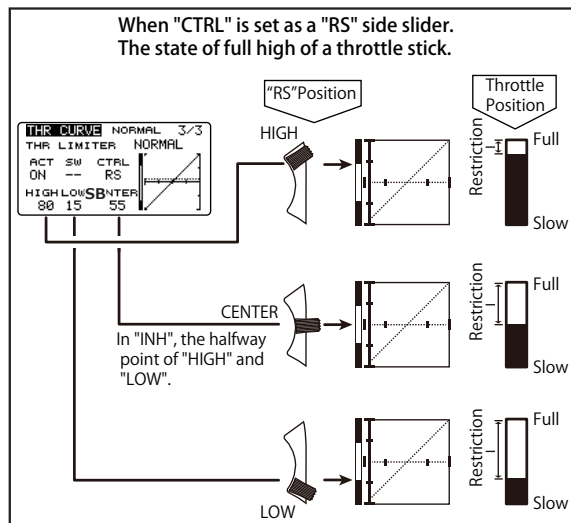
INH: Inhibit

ACT: Activate

3. Enter the selection by touching the RTN button.

•ON/OFF switch setting

1. Select SW and touch the RTN button.
2. The H/W SET screen is displayed. Select the hardware and touch the RTN button.



•High side operating range setting

1. Select HIGH and touch the RTN button.
2. Adjust the high side operating range by scrolling the touch sensor.
*A gauge is displayed at the left side of the graph.
3. Touch the RTN button to switch to the cursor mode.

•Low side operating range setting

1. Select LOW and touch the RTN button.
2. Adjust the low side operating range by scrolling the touch sensor.
*A gauge is displayed at the left side of the graph.
3. Touch the RTN button to switch to the cursor mode.

•Limiter operating range adjustment control setting

1. Select CTRL and touch the RTN button.
2. The H/W SET screen is displayed. Select the hardware and touch the RTN button.
*The throttle limiter operating position is indicated by a dotted line on the graph.
*When limiter operating range adjustment control is NULL, the throttle limiter function is not performed.

•Changing the control center position

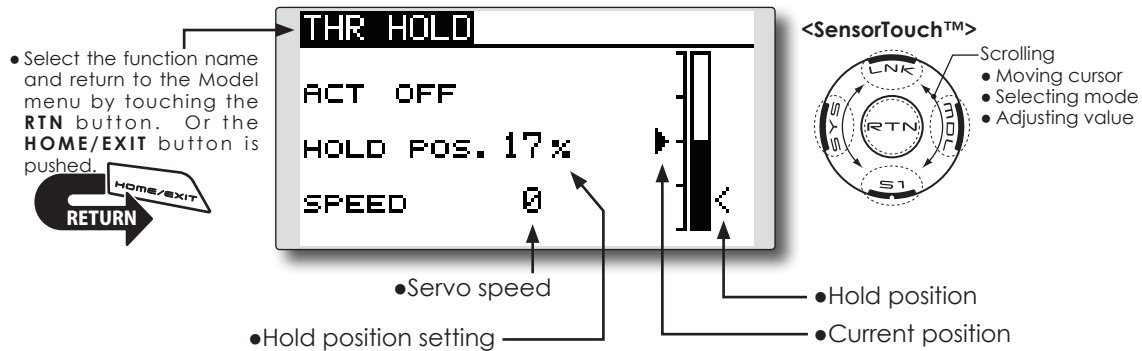
1. Select CENTER and touch the RTN button for 1 second. CENTER changes from INH to "rate display".
2. When the CENTER rate is changed, the neutral position of the hardware set at CTRL can be adjusted.
*When CENTER is INH, the neutral position becomes the LOW intermediate value.
*When CENTER is changed from INH to "rate display", the CENTER rate is set to the LOW intermediate value.
*The CENTER rate can be set between HIGH and LOW.

THR HOLD

This function sets the throttle cut position for auto rotation. The throttle servo operating speed can be adjusted. (Speed)

Note: Initially, this setting does not assign the throttle hold switch. Prior to adjusting the parameters for the throttle hold, we suggest designating a throttle hold switch. To do so, access the Condition menu within the Model menu options.

- Select [THR HOLD] at the Model menu and access the setup screen shown below by touching the RTN button.



Setting method

• Hold condition switch selection

Use the Condition select menu of the Model menu to assign the hold condition switch.

Selection example: SG

• Hold position adjustment

Move the cursor to the hold position item and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Initial value: 17%

Adjustment range: 0%~50%

*Hold position sets the throttle cut position. Adjust it so that the carburetor is completely closed.

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

• Servo speed setting

Move the cursor to the servo speed item and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Initial value: 0

Adjustment range: 0~27 (maximum delay)

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to return to the cursor mode.

Operation precautions

⚠ Warning

- ! When actually starting the engine and flying, always set the idle up condition switch to OFF and start the engine at idle.

SWASH MIX

The swash mix function is used to correct the swash plate in the aileron (roll) direction and elevator (cyclic pitch) corresponding to each operation of each condition.

This function allows the independent rate adjustments for the ailerons, elevator and pitch.

- Select [SWASH MIX] at the Model menu and access the setup screen shown below by touching the RTN button.

Example of use

- As an example, use swash mixing to correct undesirable roll tendencies.
- For a condition which uses AIL to ELE, set this function to ON.

If the front of the helicopter raises during a right roll, when the Rate 2 side is input and the right aileron is operated, the elevator moves to the down side. Tune by adjusting the Rate.

For left roll, adjust to the Rate 1 side.

- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.

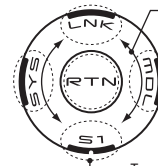


(Currently selected condition name)

SWASH MIX	NORMAL	1/2
EDIT		
NORMAL	RATE1	RATE2
AIL→ELE	+0 %	+0 %
ELE→AIL	+0 %	+0 %
FIT→AIL	+0 %	+0 %
FIT→ELE	+0 %	+0 %

- Condition selection

<SensorTouch™>



- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

• To next page

SWASH MIX	2/2
	ACT SW TRIM
AIL→ELE	INH -- OFF
ELE→AIL	INH -- OFF
FIT→AIL	INH --
FIT→ELE	INH --

Setting method

• Activate the mixing

When using this function, move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode.

Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the mixing and return to the cursor mode. (ON is displayed.)

[Switch selection]

When [[-]] is set, the swash mixing function is always active and operated by merely selecting the condition.

When setting an [ON]/[OFF] switch, move the cursor to the [SW] item and touch the RTN button to access the selection screen. Set the switch and its ON position.

*For a description of the switch selection method, see the description at the back of this manual.

• Mixing rate adjustment

Move the cursor to the mixing rate item you want to correct and touch the RTN button to switch to the data input mode. Adjust the rate independently by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -100~+100%

*When the RTN button is touched for one second, the rate is reset to the initial value.

Touch the RTN button to end the adjustment and return to the cursor mode.

• Trim mode ON/OFF setting

When changing the trim mode, move the cursor to the [TRIM] item and touch the RTN button to switch to the data input mode.

Select ON/OFF by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to change the trim mode ON/OFF and return to the cursor mode.

*When mixing includes master side trim, select [ON] and when mixing does not include master trim, select [OFF].

THROTTLE MIX

This function corrects slowing of engine speed caused by swash plate operation during aileron or elevator operation. The method of applying clockwise or counterclockwise torque when pirouetting can also be corrected.

Setting example

- AIL to THR mixing counteracts the lag in engine RPM's when an aileron input is given to the helicopter. Engine over-speeding can be adjusted independently for the right aileron and left aileron inputs utilizing Rates 1 and 2.

- Select [THROTTLE MIX] at the Model menu and access the setup screen shown below by touching the RTN button.

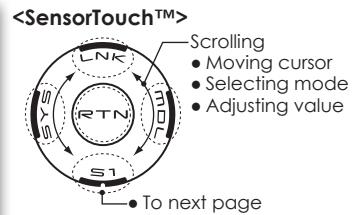
- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.



(Currently selected condition name)

THR MIX	NORMAL	1/2
EDIT		
NORMAL	RATE1	RATE2
AIL→THR	+0%	+0%
ELE→THR	+0%	+0%
RUD→THR	+0%	+0%

•Condition selection



THR MIX		2/2
	ACT	SW
AIL→THR	INH	--
ELE→THR	INH	--
RUD→THR	INH	--
		CTRM

Setting method

•Activate the mixing

When using this function, move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode.

Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the mixing and return to the cursor mode. (ON is displayed.)

[Switch selection]

When [--] is set, the swash mixing function is always active and operated by merely selecting the condition.

When setting an [ON]/[OFF] switch, move the cursor to the [SW] item and touch the RTN button to call the selection screen. Set the switch and its ON position.

*For a description of the switch selection method, see the description at the back of this manual.

•Mixing rate adjustment

Move the cursor to the mixing rate item you want to correct and touch the RTN button to switch to the data input mode. Adjust the

rate independently by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -100~+100%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

•Operation mode setting

Move the cursor to the [MODE] item and touch the RTN button to switch to the data input mode.

Select the operation mode by scrolling the touch sensor.

*The display blinks.

CTRM mode: Corrects near the center only.

LIN. mode: Corrects the complete range.

Touch the RTN button to change the operation mode and return to the cursor mode.

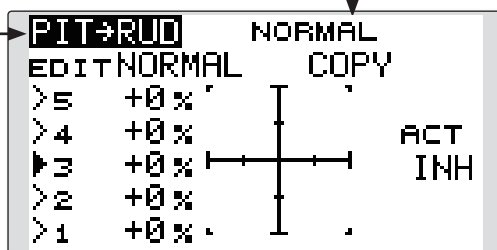
PIT to RUD mixing (Revolution mixing)

Use this mix when you want to suppress the reaction torque generated by main rotor pitch and speed changes during pitch operation. Adjust so that the nose does not move in the rudder direction.

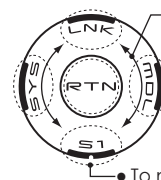
Note: When a GY Series or other heading hold gyro is used, since correction is performed by the gyro, this mix is not utilized. If this function is used when the gyro operation mode is the AVCS mode, the neutral position will change.

- Select [PIT to RUD] at the Model menu and access the setup screen shown below by touching the RTN button. (Currently selected condition name)

- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.



<SensorTouch™>



- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

• To next page

Setting method

• Activate the mixing

When using this function, move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode.

Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the mixing and return to the cursor mode. (ON is displayed.)

• 5-point curve setting

Move the cursor to the curve rate setting item you want to adjust and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Initial value: P1~P5: 0%

Adjustment range: -100%~+100%

*When the RTN button is touched for one second, the rate is reset to the initial value.)

Touch the RTN button to end the adjustment and return to the cursor mode.

Repeat this procedure for each point.

• Pitch curve copy function

Move the cursor to COPY item and touch the RTN button to switch to the data input mode. Select the copy destination condition by scrolling the touch sensor and touch the RTN button. Select the [YES] and touch the RTN button.

<Normal condition mixing curve>

The mixing curve rate should be started using smaller values.

For a rotor with a clockwise operation direction, when pitch was input at the plus side, set these parameters so that mixing is in the clockwise direction. First, trim at hovering and then adjust the neutral position.

1. Adjustment between slow and hovering

Repeatedly hover from take off and land at a constant rate matched to your own rhythm. Then adjust the pitch so that the nose of the helicopter remains steady when the throttle is raised and lowered.

2. Throttle high side (climbing and diving from hovering)

Repeat climbing and diving from hovering at a constant rate matched to your own rhythm and adjust the pitch so that the nose does not deflect when the throttle is raised and lowered.

<Idle up condition mixing curve>

Set the mixing rate so that the rudder direction at high-speed flight is straight ahead. Adjust for each condition used.

GYRO mixing

This function used to adjust gyro sensitivity. The sensitivity and operation mode (Normal mode/AVCS mode) can be set for each condition.

The gyro sensitivity can be switched with each condition or the switch. (5 sensitivities)

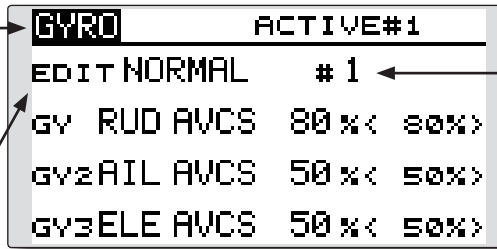
*Compatible with 3 axis gyro(CGY750).

Note: When using the [Gyro2]/[Gyro3] function, assign [Gyro2]/[Gyro3] to any channel on the function screen.

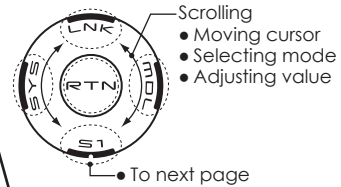
Always set to [--] both (Control) and (Trim) for the [Gyro] function at the Function menu in the Linkage menu.

- Select [GYRO] at the Model menu and access the setup screen shown below by touching the RTN button.

- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.



<SensorTouch™>



- The edit conditions can be changed by touching the S1 button.

*When the rate switching setting of all the gyros is "Switch", the edit conditions are not displayed.

- The edit rate can be changed by operating the edit rate button.

*When the rate switching setting of all the gyros is "COND", the edit rate button is not displayed.

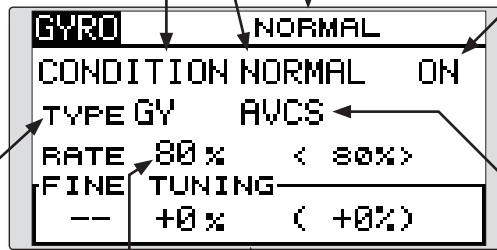
- When the GYRO function button is selected, each GYRO detailed setting screen appears.

- Setup screen selection

(Currently selected condition name)

- Condition/Switch selection

- ON: (initial setting)



- Gyro type selection: [GY]/[NORM]

- Mode selection: [AVCS]/[NORM]

- Gyro sensitivity adjustment

- Fine tuning VR settings

Setting method

●Gyro type selection

Move the cursor to the gyro type selection item and touch the RTN button to switch to the data input mode. Select the gyro type by scrolling the touch sensor.

[GY]: When a Futaba GY gyro is used

[NORM]: When other than Futaba GY gyro is used

Touch the RTN button to change the gyro type and return to the cursor mode.

*When a Futaba GY gyro is used and [GY] type is selected, the sensitivity set value is directly read in both the AVCS and NORM modes.

●Operation mode selection (GY gyro)

Move the cursor to the operation mode selection item and touch the RTN button to switch to the data input mode. Select the operation mode by scrolling the touch sensor.

[AVCS]: AVCS mode

[NORM]: Normal mode

Touch the RTN button to change the operation mode and return to the cursor mode.

●Sensitivity setting

Move the cursor to the rate item and touch the RTN button to switch to the data input mode.

Adjust the sensitivity by scrolling the touch sensor.

Initial value: 80%

Adjustment range: 0~100%

*When the RTN button is touched for one second, the sensitivity is reset to the initial value.)

Touch the RTN button to return to the cursor mode.

●Fine tuning VR settings

Move the cursor to the [--] item and touch the RTN button to access the selection screen. Select the control.

*For a description of the switch selection method, see the description at the back of this manual.

Move the cursor to the rate item and touch the RTN button to switch to the data input mode.

Adjust the trim rate by scrolling the touch sensor.

Initial value: 0%

Adjustment range: -20~+20%

*When the RTN button is touched for one second, the sensitivity is reset to the initial value.)

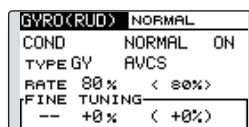
Touch the RTN button to return to the cursor mode.

<EXAMPLE>Rudder gyro gain is changed with a switch (SF) irrespective of condition.

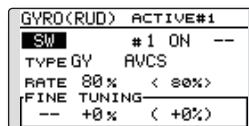
Generally, gain is interlocked with condition and changes a rate.

How to change two rates in the same condition here.

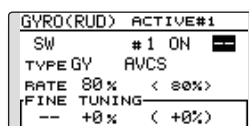
1. Select [GYRO] at the Model menu and access the setup screen shown below by touching the RTN button.



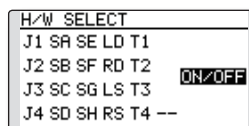
2. Move the cursor to the [COND] item and touch the RTN button to access the selection screen. Select the [SW]. Touch the RTN button to return to the cursor mode.



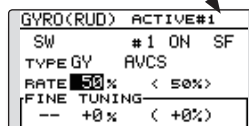
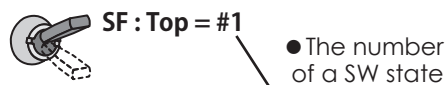
3. # number shows the present switch state. In the state of # 1 a cursor is moved to [--] and RTN is pushed.



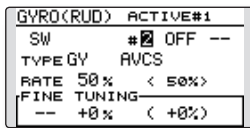
4. [SF] is chosen by [H/W SELECT] and then a top is turned ON.



5. [TYPE GY] and [RATE] of a state of "#1=SF top" are set up.



6. It is a setup of "#2". Move the cursor to the [#1] item and touch the RTN button to access the selection screen. Select the [#2]. Touch the RTN button to return to the cursor mode.

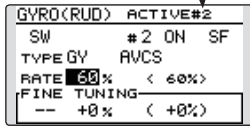


7. Move the cursor to the [--] item and touch the RTN button.
8. [SF] is chosen by [H/W SELECT] and then a bottom is turned ON. the RTN button.
9. [TYPE GY] and [RATE] of a state of "#2=SF bottom" are set up.



SF : Bottom = #2

The number of a SW state



*If 3 position switch is chosen, the change of 3 rates can be performed.

*Combined use of two or more switches cannot be performed.

GOVERNOR mixing

When using a Futaba GV-1/GY701/CGY750 governor, this function is used to switch the RPM of the helicopter's rotor head. The rotor head speed can be switched with each condition or the switch.

*The governor is used by connecting the governor speed setting channel to CH7 (initial setting).

*When using an independent governor [ON]/[OFF] switch, connect the AUX([ON]/[OFF]) connector of the governor to CH8 and set the switch to CH8 (Governor2) at the Function menu of the Linkage Menu.

Note: Always set (Control) and (Trim) to [--] for [Governor] of the Function menu of the Linkage menu.

- Select [GOVERNOR] at the Model menu and access the setup screen shown below by touching the RTN button.
- Setup screen selection
- Condition/Switch selection
- Select the function name and return to the Model menu by touching the RTN button. Or the HOME/EXIT button is pushed.
- Unit display selection: [%]/[rpm]
- Fine tuning VR settings
- RPM adjustment
- ACT/INH: INH (initial setting)
- Scrolling
- Moving cursor
- Selecting mode
- Adjusting value
- To next page

Setting method

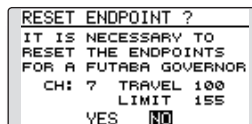
• Activate the mixing

When using this function, move the cursor to the [INH] item and touch the RTN button to switch to the data input mode. Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the mixing and return to the cursor mode. (ON is displayed.)

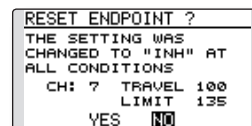
When the Governor is changed from the default inhibited (INH) state to the active (ACT) state, the endpoint menu will be displayed and it is possible to utilize the endpoints for this given condition.



*When the function is set ON/OFF at the governor setup screen, the governor rpm setting channel end point servo travel and limit point are now initialized.

*When changed from INH to ACT (ON), the servo travel is initialized to 100 and the limit point is initialized to 155.

*When operation is changed to INH at all conditions, the servo travel is initialized to 100 and the limit point is initialized to 135.



Use the SensorTouch to scroll to either YES (incorporate the default endpoints) or NO (endpoints are not utilized). Press the Return (RTN) button to confirm the selection made.

• RPM adjustment

Move the cursor to the rate item and touch the RTN button to switch to the data input mode.

Adjust the rpm by scrolling the touch sensor. Initial value: 50% (1500rpm) Adjustment range: OFF, 0~110% (OFF, 700~3500rpm)

*When the RTN button is touched for one second, the sensitivity is reset to the initial value.)

Touch the RTN button to return to the cursor mode.

• Unit display selection

Move the cursor to the UNIT item and touch the RTN button to switch to the data input mode. Select the unit by scrolling the touch sensor.

Touch the RTN button to change the operation mode and return to the cursor mode.

•Display mode selection

- *When [rpm] mode is selected above setting, the display mode can be selected.
- *There is no change in the transmitter output even when the "MODE" is changed. Calibration should be performed via the governor.
- *In order to use the Governor function of the T14SG, it is necessary to change the settings on the governor for the low side 700 rpm mode.

When the MODE of the Governor screen's model menu is changed, the change is also indicated on-screen.



The chart below indicates the mode percentage and the corresponding RPM.

MODE	0%	50%	100%	110%
1000-2000rpm	1000rpm	1500rpm	2000rpm	2100rpm
1000-2500rpm	1000rpm	1500rpm	2500rpm	2700rpm
1000-3500rpm	1000rpm	1500rpm	3500rpm	3900rpm
700-2000rpm	700rpm	1500rpm	2000rpm	2100rpm
700-2500rpm	700rpm	1500rpm	2500rpm	2700rpm
700-3500rpm	700rpm	1500rpm	3500rpm	3900rpm

•Fine tuning VR settings

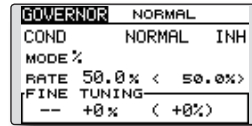
- Move the cursor to the [--] item and touch the RTN button to access the selection screen. Select the control.
- *For a description of the switch selection method, see the description at the back of this manual.
- Move the cursor to the rate item and touch the RTN button to switch to the data input mode.
- Adjust the trim rate by scrolling the touch sensor.
- Initial value: 0% (0rpm)
- Adjustment range: -20~+20% (-200~+200rpm)
- *When the RTN button is touched for one second, the sensitivity is reset to the initial value.)
- Touch the RTN button to return to the cursor mode.

<EXAMPLE>RPM rate is changed with a switch (SF) irrespective of condition.

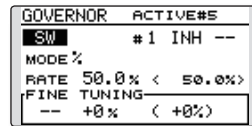
Generally, RPM rate is interlocked with condition and changes a rate.

How to change two rates in the same condition here.

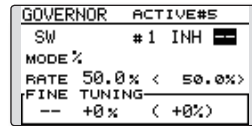
1. Select [GOVERNOR] at the Model menu and access the setup screen shown below by touching the RTN button.



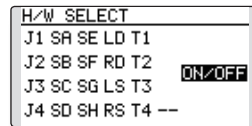
2. Move the cursor to the [COND] item and touch the RTN button to access the selection screen. Select the [SW]. Touch the RTN button to return to the cursor mode. And [INH] is set to [ACT].



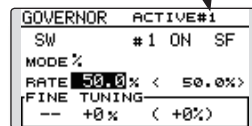
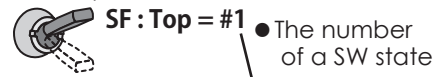
3. # number shows the present switch state. In the state of # 1 a cursor is moved to [--] and RTN is pushed.



4. [SF] is chosen by [H/W SELECT] and then a top is turned ON.



5. [MODE] and [RATE] of a state of "#1=SF top" are set up.



6. It is a setup of "#2". Move the cursor to the [#1] item and touch the RTN button to access the selection screen. Select the [#2]. Touch the RTN button to return to the cursor mode. And [INH] is set to [ACT].

GOVERNOR		ACTIVE#1
SW	#2	OFF --
MODE %		
RATE	50.0%	< 50.0%>
FINE TUNING		
--	+0%	(< +0%)

7. Move the cursor to the [--] item and touch the RTN button.
8. [SF] is chosen by [H/W SELECT] and then a bottom is turned ON. the RTN button.
9. [MODE] and [RATE] of a state of "#2=SF bottom"are set up.



SF : Bottom = #2

● The number of a SW state

GOVERNOR		ACTIVE#2
SW	#2	ON SF
MODE %		
RATE	60.0%	< 60.0%>
FINE TUNING		
--	+0%	(< +0%)

*If 3 position switch is chosen, 3 rate changes can be performed.

*Combined use of two or more switches cannot be performed.

TIMER ST1/ST2

Timer setting

The Timer function may be set for any desired time, i.e. engine run time, specified times for competitions, etc. Two independent timers are provided for your use. The timers are stored independently with each model, meaning that when you switch between model setups, the timer associated with the new model is brought up automatically.

The timers may be set to start and stop from the motion of any switch or stick. You may set the ON and OFF directions freely. Each timer has a capacity of up to 59 minutes 59 seconds.

Each timer may be set for count-down (DOWN mode) or count up (UP mode) operation with a target time or for count up to 99 hours 59 minutes (HOUR mode).

If a target time is set and the timer reaches the set time, a buzzer sound for each count is generated.

Countdown timers sound one short beep during the last twenty seconds and two short beeps during the last ten seconds before reaching the target, then

a long tone at the target time, and continue counting with displaying a minus (-) sign. Count-up timers also beep the last twenty and ten seconds, beep the target time, and keep counting upwards until shut down.

A mode which sounds an alarm each minute of the time remaining up to the timer alarm time can be selected.

The HOUR mode is convenient when used in engine maintenance period and other long-term measurements.

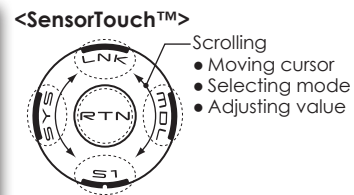
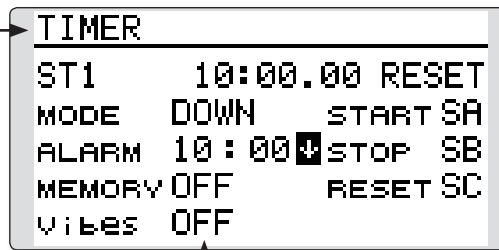
*When the HOUR mode is set, "xx (hour): xx (minute)" is displayed on the count time display. Seconds are not displayed.

*When the HOUR mode is set, ":" blinks each second during timer operation.

*When the HOUR mode is set, the alarm function is inhibited.

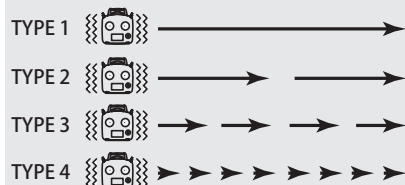
- Select ST1 or ST2 at the home screen and call the setup screen shown below by touching the RTN button.

- Select the function name and return to the home screen by touching the RTN button. Or a HOME/EXIT button is pushed.



"Vibes" type

If the following types are selected, the transmitter will vibrate during the warning.



Timer setting

●Up timer/down timer setting

Move the cursor to the [MODE] item and touch the RTN button to switch to the data input mode.

Select the mode by scrolling the touch sensor and touch the RTN button.

[UP]: Up timer

[DOWN]: Down timer

[HOUR]: Hour mode timer

●Timer time setting

Move the cursor to the [ALARM] item and touch the RTN button to switch to the data input mode.

Set the time by scrolling the touch sensor.

[00]:[00]:[min]:[sec]

Touch the RTN button to end the adjustment and return to the cursor mode.

●Switch setting

Move the cursor to the item of the switch you want to set, access the switch setup screen by touching the RTN button. Select the switch and ON direction.

[For a detailed description of the setting method, see [Switch Setting Method] located on the next page.]

[START]: Start switch

[STOP]: Stop switch

[RESET]: Reset switch

●Memory setting

Move the cursor to the [MEMORY] item and touch the RTN button to switch to the data input mode.

Select the mode by scrolling the touch sensor and touch the RTN button.

[OFF]: Memory function OFF

[ON]: Mode where the timer is not reset when turned power off and switched the model.

●A mode which sounds an alarm each minute can be selected.

Change the setting using the "↑" button (or "↓" button).

"↑": Alarm sounds each minute of the time elapsed from timer start. (Conventional mode)

"↓": Alarm sounds each minute of the time remaining up to the alarm time.

Timer operation

- Timer ST1 and ST2 are started/stopped by pre-selected start/stop switch.
- To reset a timer, operate the pre-selected reset switch, or move the cursor to the [RESET] display on the timer screen and touch the RTN button.

Switch Setting Method

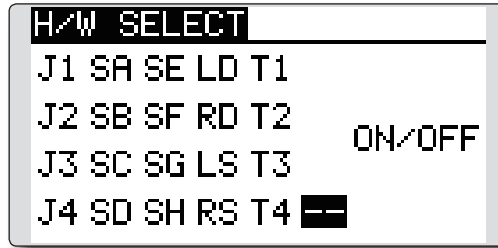
The various functions used in the T14SG can be activated by a switch. For the purposes of this manual, a stick position, VR position, etc. shall be commonly referred to as a switch in all cases. That

is, whenever the manual indicates that something is operated via a switch, it is possible for the user to activate this setting via a stick, stick position, etc.

Switch selection

When a switch is selected at a mixing function, etc., the selection screen shown below is called.

(Switch selection screen example)



Switch selection

1. Use the touch sensor to move the cursor (highlights) to the switch you want to select and touch the RTN button.

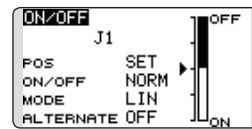
*The switch blinks.

2. To return to the preceding screen, move the cursor to the [H/W SELECT] at the top of the screen and touch the RTN button.

Or, move the cursor to the [ON/OFF] and call the ON/OFF position setting screen by touching the RTN button.

When stick, trim lever, or knob selected

When a stick, trim lever, or knob is used as a switch, two operation modes can be selected:



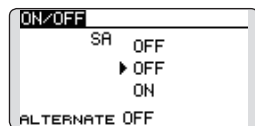
1. When you want to change the mode, move the cursor to [MODE] item and touch the RTN button to switch to the data input mode. Switch the display to the mode you want to change by scrolling the touch sensor and then make the change by touching the RTN button.

●Mode: [LIN]/[SYM]

*Set the ON/Off point by the method described on the next page.

When switch is selected

When switch was selected, ON/OFF position setting is also performed.



*The ON/OFF setting state of each position is displayed.

1. When you want to change the ON/OFF setting, use the touch sensor to move the cursor and touch the RTN button to switch to the data input mode. Switch the ON/Off display by scrolling the touch sensor.

*ON/OFF display blinks.

2. When the RTN button is touched, the ON/Off setting is changed. (Touch the S1 button to stop the change.)
3. To return to the preceding screen, move the cursor to the [ON/OFF] at the top of the screen and touch the RTN button.

Alternate mode setting

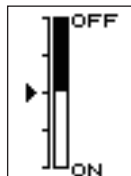
●ALTERNATE mode: [OFF]/[ON]

1. Move the cursor to the [ALTERNATE] item and touch the RTN button to switch to the data input mode.
 2. Change to the mode you want to set by scrolling the touch sensor.
- *The mode display blinks.
3. Touch the RTN button. (Touch the S1 button to stop the change.)
 4. To return to the preceding screen, move the cursor to the [ON/OFF] at the top of the screen and touch the RTN button.

Operation modes

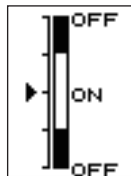
The operation modes available when stick, trim lever, or knob was selected are described below.

Linear mode [LIN]



This mode sets ON/OFF to the left or right (up or down) with the set point as the reference.

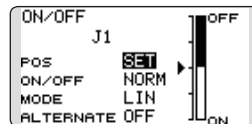
Symmetrical mode [SYM]



Left and right (up and down) operations are symmetrical near the neutral position. For instance, when you want to switch D/R with the aileron stick, when the stick is moved to the left or right, DR can be turned on at the same position.

Shifting the ON/Off point

The ON/OFF point can be shifted. ON/OFF at a free position can be changed.



- Black range: OFF range
- White range: ON range

[Setting method]

1. First, use the touch sensor to move the cursor to the [POS] item.
2. Move the stick, trim lever, or knob to the point you want to change and touch the RTN button. The point is shifted.
3. To return to the preceding screen, move the cursor to the [ON/OFF] at the top of the screen and touch the RTN button.

Logic switch (Condition Select function only)

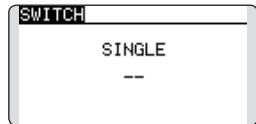
The logic switch function lets you turn operation on and off by combining two switches.

Logic mode

AND: When both switches are ON, the condition is ON.

OR: When either switch is ON, the condition is ON.

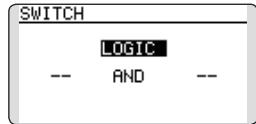
EX-OR: When the two switches are in different states, the condition is ON.



Switch mode selection

1. Move the cursor to the [SINGLE] item and touch the RTN button to switch to the data input mode.
2. Select the [LOGIC] by scrolling the touch sensor.
*[LOGIC] display blinks.
3. Touch the RTN button to change to the logic switch mode.

(Logic switch setting screen)



Logic mode selection

1. Move the cursor to the logic mode item and touch the RTN button to switch to the data input mode.
2. Select the logic mode by scrolling the touch sensor. [AND, OR or EX-OR]
*The mode display blinks.
3. Touch the RTN button to change to the logic mode.

Swich selection

1. Select the right and left switch respectively.
(Refer to the description at the previous page.)

To return to the preceeding screen, move the cursor to the [SWITCH] at the top of the screen and touch the RTN button.