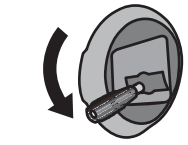
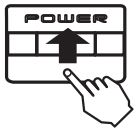
Common function

The setting screens are called from the following menu. All the functions common to airplane, helicopter, glider, and multi-copter model types are shown here.

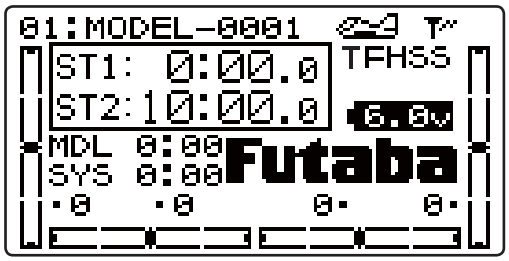


● First set the throttle to slow.

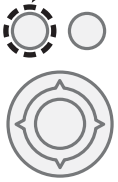


● Then turn on the power.

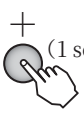
(Home screen)



To menu screen by holding down the + key



● When the END key is pressed, the display returns to the home screen.

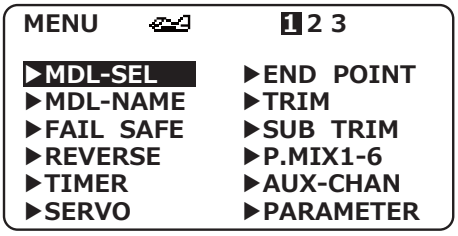


(1 second)

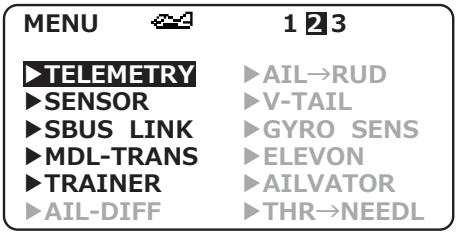
● When the + key is pressed for 1 second, the menu screen is displayed.

MENU

MENU 1/3



MENU 2/3



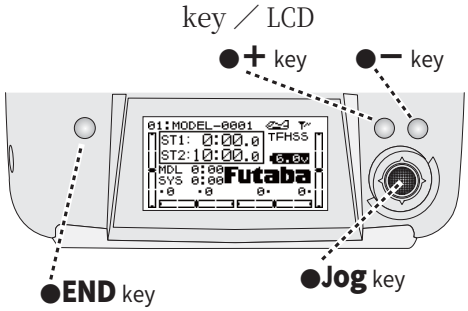
MENU 3/3

(Selection)

● Move the cursor (highlighted) up and down and to the left and right with the Jog key and select the function.
The cursor can be moved over several pages.

(Calling the setting screen)

● Press the Jog key to open the setting screen.



■ Function

MENU1/3	
MDL-SEL Model select ／ Model Copy ／ Data reset ／ RX ／ Link	(P.40)
MDL-NAME Model name ／ User name	(P.43)
FAIL SAFE Fail safe	(P.45)
REVERSE Servo reverse	(P.47)
TIMER Timer	(P.48)
SERVO Servo monitor ／ Servo test	(P.49)
END POINT End point	(P.50)
TRIM Trim reset ／ Trim step	(P.51)
SUB TRIM Sub trim	(P.52)
P.MIX1-6 Program mixing 1 ～ 6	(P.53)
AUX-CHAN AUX channel	(P.56)
PARAMETER Data reset ／ Model type ／ ATL-trim ／ LCD contrast ／ Back light : mode, time, adjustment ／ Home display ／ Battery alarm ／ Battery vibration ／ Buzzer tone ／ Jog navi ／ Jog light ／ Jog time ／ Telemetry : mode, unit ／ Speech : language, volume ／ Stick position alarm	(P.58)

MENU2/3	
TELEMETRY Telemetry Display ／ Alarm setup	(P.66)
SENSOR Telemetry sensor	(P.83)
SBUS LINK S.BUS servo set up	(P.89)
MDL-TRANS Data transfer of another 10J or 8J	(P.92)
TRAINER Trainer	(P.93)

MDL-SEL Model select（select ／ copy ／ reset ／ RX type ／ link） (Common)

Function

This function is used when calling and copying model data stored in the transmitter. The selected model data can also be reset. System changes (T-FHSS Air, S-FHSS) matched to the receiver type and linking with the receiver are also done here.

Model select（SELECT）

The model data of up to 30 models can be stored in the transmitter. This function is used when calling saved model data.

Model copy（COPY）

This is the model data copy function. It is convenient when you want to store model data as backup or build a number of models with the same data settings.

- The data of the model memory currently in use can be copied to another model memory.

Data reset（RESET）

The model data currently in use can be reset to its initial value. However, it does not Reset other than the following of a parameter.
[The function reset in a parameter : ATL trim, TELEMETRY mode, STK POSI ALRM]

Receiver selection（RX）

The R3008SB supplied with the transmitter, employs the T-FHSS Air system. When you want to use an S-FHSS receiver, switch to S-FHSS here. However, the telemetry function cannot be used with the S-FHSS system.

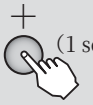
Link（LINK）

When linking with the receiver, the transmitter is set to the link mode here. The ID number of the currently linked receiver is displayed.

Method

Calling the setting screen

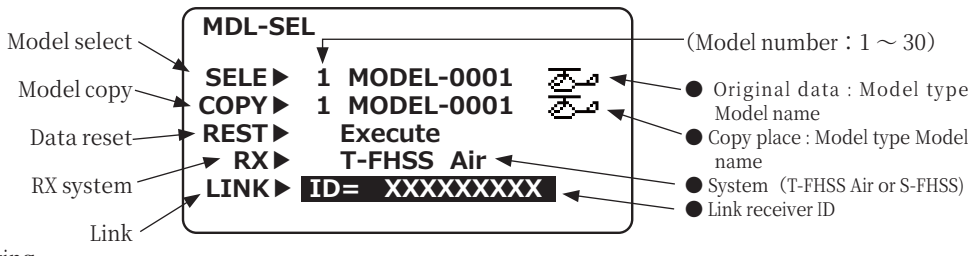
① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "MDL-SEL" from the menu with the Jog key.

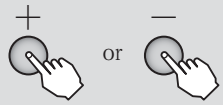
③ Open the setting screen by pressing the Jog key.

● Select the setting item with the Jog key.



Model select

① Select the SELECT item and then select the model number by pressing the + key or – key.



Selection range : 1 ~ 30

② Press the Jog key for 1 second.

● Confirmation message "sure?" blinks.

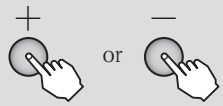
③ Select the model by pressing the Jog key.

● A confirmation "beep beep" sounds to show that selection is complete.

For safety, a double setting system is used. When a change is cancelled after the confirmation message is displayed, the change is not made when moved to another setting item by Jog key.

Model copy

① Select the COPY item and the select the model number of the copy destination by pressing the + key or – key.



Selection range : 1 ~ 30

② Press the Jog key for 1 second.

● Confirmation message "sure?" blinks.

③ Copy the model by pressing the Jog key.

● A confirmation "beep" sounds and "COMPLETE" is displayed on the screen to show that copying is complete.

For safety, a double setting system is used. When a change is cancelled after the confirmation message is displayed, the change is not made when moved to another setting item by Jog key.

Date reset

① Select the REST item and then press the Jog key for 1 second.

● Confirmation message "sure?" blinks.

② Date reset by pressing the Jog key.

● A confirmation "beep" sounds and "COMPLETE" is displayed on the screen is complete.

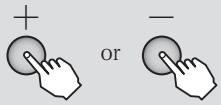
For safety, a double setting system is used. When a change is cancelled after the confirmation message is displayed, the change is not made when moved to another setting item by Jog key.

⚠ CAUTION

Only the throttle channel (CH3) initial setting is REV (reverse). Thoroughly check the Hi and Low directions of the engine or motor used and be careful that they do not suddenly run at full speed. Even after data reset, CH3 is reversed.

RX type

① Select the RX item and then select T-FHSS Air or S-FHSS by pressing the + key or – key.



Selection range : T-FHSS Air, S-FHSS

● Confirmation message "sure?" blinks.

② RX type change by pressing the Jog key.

● A confirmation "beep" sounds is complete.

For safety, a double setting system is used. When a change is cancelled after the confirmation message is displayed, the change is not made when moved to another setting item by Jog key.

Link

① Select the LINK item and then press the Jog key for 1 second.

● T-FHSS Air only. S-FHSS does not enter the link mode. Use the receiver link button to link the receiver.

② Enters the link mode for about 20 seconds. During this time, bring the receiver near the transmitter and turn on the receiver power. When linking, the receiver ID is displayed.

● In the link mode, a confirmation "beep beep beep" sounds and the time remaining is displayed on the screen. When 20 seconds have elapsed, a continuous beep sounds and the link mode is exited.

For safety, linking must not be performed while the drive motor or engine is running. When linking is complete, turn the power off and on and check operation.

MDL-NAME Model name ／ User name (Common)

Function

A model name is inputted into each model in T10J.

User name is inputted into T10J.

Model name setting（MDL NAME）

This function assigns a name to the model data. The model name is displayed on the top row of the home screen. This serves to prevent model memory mistakes if the current aircraft name or other name is entered.

● Up to 10 characters can be set.

User name setting（USR NAME）

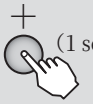
The user name displayed on the home screen can be set. (When a user name is not set, the Futaba logo is displayed) When the home screen display is changed to USR-NAME by PARAMETER, the set user name is displayed on the home screen.

● Up to 10 characters can be set.

Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.

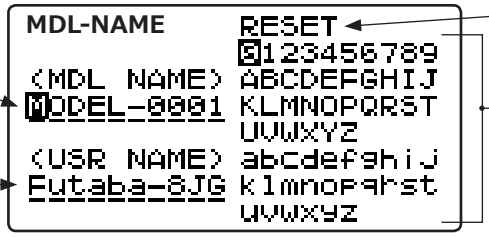


② Select "MDL-NAME" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

Model name

User name



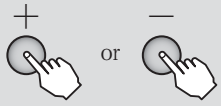
(Reset)

(Candidate characters)

● Characters that can be entered ; Numeric/upper case alphabet/ lower case alphabet

Model name

① Move the cursor to the model name digit you want to change by pressing the + key or – key.



② Move the cursor to the candidate character you want to change with the Jog key.

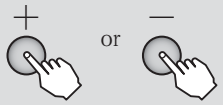
③ Change the character by pressing the Jog key.

Set the model name by repeating steps ① to ③ above.

Reset method：When the cursor is moved to any digit of the model name by + key or – key and the Jog key is pressed in the state in which the cursor was moved to RESET by Jog key, the model name returns to its initial setting.

User name

① Move the cursor to the user name digit you want to change by pressing the + key or – key.



② Move the cursor to the candidate character you want to change with the Jog key.

③ Change the character by pressing the Jog key.

Set the user name by repeating steps ① to ③ above.

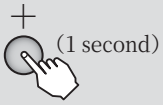
Reset method: When the cursor is moved to any digit of the user name by + key or – key and the Jog key is pressed in the state in which the cursor was moved to RESET by Jog key, the user name returns to its initial setting (Futaba logo).

Displaying the user name on the home screen

The set user name can be displayed on the home screen. (When a user name is not set, the Futaba logo is displayed.) When the home screen display is changed to USR-NAME by PARAMETER, the set user name is displayed.

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



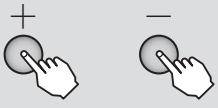
② Select "PARAMETER" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

Parameter

① Select "HOME-DSP" from the parameter 2 page with the Jog key.

② Select "USR-NAME" by pressing the + key or – key.



③ End setting by pressing the END key.

Function

When normal radiowaves cannot be received due to noise and interference, the NOR mode, which holds the servo of each channel in its position immediately before reception was lost, or F/S (Fail Safe) mode, which moves the servo of each channel to a preset position, can be selected. When T-FHSS Air is selected, the battery fail safe voltage can be set.

- When the throttle channel was reversed by servo reverse function, the F/S data is also reversed. (Throttle channel only) If the receiver battery voltage drops below the set value when the fail safe mode was selected, the battery fail safe function moves the servo to a preset position.
- The S-FHSS fail safe voltage is 3.8V.
- Only the throttle channel battery fail safe function can be turned on and off.
- When this function was performed reset the battery fail safe function by the following method and immediately land.

Reset method : The battery fail safe function can be temporarily disabled by moving the throttle stick to the slowest side. However, after 30 seconds the battery fail safe function will return to the battery fail safe state.

⚠ WARNING

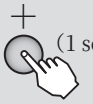
For safety, always set the fail safe functions.

- Remember to set the throttle channel fail safe function so that the servo moves to the maximum slow side for airplanes and to the slow side from the hovering position for helicopters. Crashing of the model at full high when normal radio waves cannot be received due to interference, etc., is very dangerous.
- If the battery fail safe is reset by the throttle stick, it may be mistaken for an engine malfunction and will be reset at throttle slow and the model will continue to fly. If you have any doubts, immediately land.

Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "Fail safe" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

● Select the setting item with the Jog key.

F/S Position
Mode select

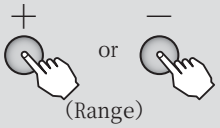
FAIL SAFE		1 2 3 TFHSS	
	MODE.	POSI	B-F/S
1: AIL	▶NOR	---	---
2: ELE	▶NOR	---	---
3: THR	▶F/S	20%	ACT
4: RUD	▶NOR	---	---
5: GER	▶NOR	---	---

B-F/S : ON/OFF

Fail safe

■ Mode selection

① Select the mode by pressing the + key or – key at the MODE item of each channel.



(Range)
NOR, F/S

(When F/S mode was selected)

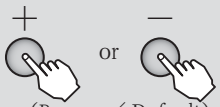
■ F/S position

② In the mode selected state, set the F/S position by holding the stick of that channel in the position you want to set and press the Jog key for 1 second.

● A confirmation beeping sounds to show that the servo position was set.

■ When using the B-F/S mode

① Select ACT by pressing the + key or – key at the B-F/S item.



(Range ／ Default)
INH, ACT ／ INH

Battery fail safe voltage setting

① Select BATTERY F/S VOLTAGE on page 3 of the fail safe screen with the Jog key.

② Set the voltage by pressing the + key or – key.

(Set up range)

3.8V 4.0V 4.2V 4.4V 4.6V 4.8V
5.0V 5.3V 5.6V 5.9V 6.2V 6.5V
6.8V 7.1V 7.4V

③ End setting by pressing the END key.

REVERSE Servo reverse (Common)

Function

Servo reversing (REVERSE): changes the direction an individual servo responds to a CONTROL STICK motion.

For CCPM helicopters, be sure to read the section on SWASH AFR before reversing any servos.

With the exception of CCPM helicopters, always complete your servo reversing prior to any other programming.

When using ACRO functions that control multiple servos, such as FLAPERON or V-TAIL, it may be confusing to determine whether the servo needs to be reversed or a setting in the function needs to be reversed. Refer to the instructions for each specialized function for further details.

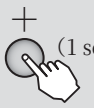
⚠ CAUTION

- Only the throttle channel (CH3) initial setting is REV (reverse). Thoroughly check the Hi and Low directions of the engine or motor used and be careful that they do not suddenly run at full speed.
- Since the direction of the ailerons of an airplane can be easily mistaken, be very careful.

Method

Calling the setting screen

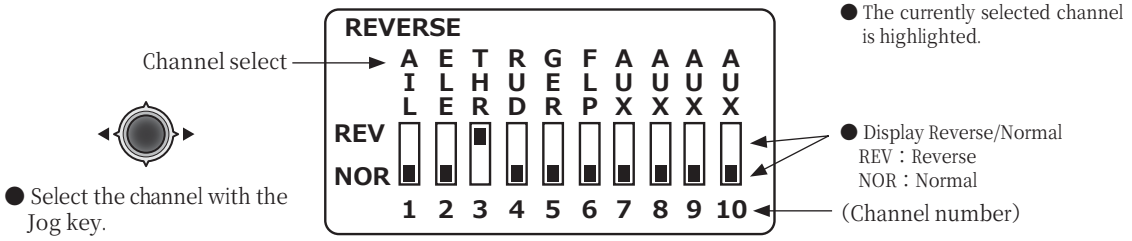
① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "REVERSE" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

To prevent erroneous setting, after the servo reverse screen was called as described above, the channel will not be selected if the Jog key is not pressed at the left and right.



Servo Reverse

① Channel is Select by Jog key.

Selection range： 1 ～ 10ch

② NOR or REV is chosen by Jog key.

● The confirmation message "sure?" blinks on the screen. (Not displayed if the same as before.)

③ Reverse the servo by pressing the Jog key.

● A confirmation beeping sounds and the direction of operation is reversed.

For safety, a double setting system is used. When a change is cancelled after the confirmation message is displayed, the change is not made when moved to another setting item by Jog key.

TIMER Timer (Common)

Function

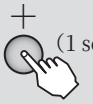
The timer is convenient during a competition to set the specified amount of time or the flying time on a full tank of fuel.

- Two timer systems can be set. Timer 1 <TMR1> and Timer 2 <TMR2>
- The timers can be set for each model. Since the timers can be set to match the model, they do not have to be reset each time the model is changed
- The type of timer can be selected from among up (UP), down (DOWN), and down stop (DN-STP). The up timer is counted up from 0 and the elapsed time is displayed on the screen. The down timer is counted down from the set time and the remaining time is displayed on the screen. The down stop timer stops the count at 0. Each timer can be set up to 99 minutes 59 seconds.
- Switches A to H, throttle stick (ST-THR), or power switch (PWR-SW) can be selected as the start/stop switch (ON-SW). The ON/OFF direction can also be set. However, when the power switch was selected, the timer starts when the power switch is turned on.
- When the timer you want to reset is selected with the Jog key and the Jog key is pressed for 1 second at the home screen, the timer is reset. Switches A to H can be selected as the reset switch (RS-SW). The ON/OFF direction can also be set.
- The up/down timer audible alarm indicates the time by a beep every second, continuous beeping at 2 second intervals from 20 seconds before the set time, and a continuous beeping at a 1 second interval from 10 seconds before the set time.

Method

Calling the setting screen

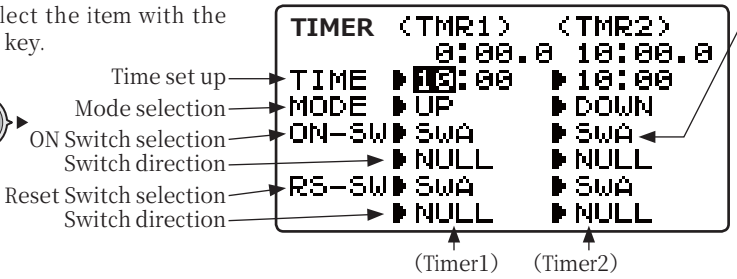
① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "TIMER" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

● Select the item with the Jog key.

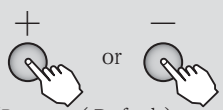


● When the throttle switch is selected at switch selection, hold the throttle stick in the position you want to set the ON/OFF point at ON direction setting and set the ON/OFF position by pressing the Jog key for 1 second. The timer is turned ON at points higher than this position. The ON direction can be switched by pressing the + key or – key.

Timer <TMR1><TMR2>

■ Mode selection

① Select timer mode from the "MODE" with the + or − key.



(Range / Default)
UP, DOWN, DN-STP/UP

■ Timer time setting

② Set the time by pressing the + key or – key at each TIME (minutes):(second) item.

(Range / Default)
0 ～ 99 minutes 59 seconds/10 minutes 00 second

■ Switch selection and ON direction setting

③ Select the switch by pressing the + key or – key at the ON-SW or RS-SW item and set the ON direction by pressing the + key or – key at the ON direction setting item.

(Switch setting range/Default)
ON-SW: SwA ～ H, ST-THR, PWR-SW/SwA
RS-SW: SwA ～ H/SwA
(Switch ON direction/Default)
3P SW: NULL (normally off), UP, UP&DWN, UP&CNT, CENTER, CNT&DN, DOWN/NULL
2P SW: NULL, UP, DOWN/NULL

SERVO Servo monitor ／ Servo test (Common)

Function

The servo display/servo test function displays the CH1 to CH10 servo output bar graph and tests servo operation.

- The servo display function can be used for a simple operation check of such functions as the mixing function.
- When the servo test function is turned on, the servo moves to the left and right at the set period. A variable speed LNR (linear) mode or fixed speed JMP (jump) mode can be selected. This can be used to check the servo, etc. Operation ON/OFF can also be selected for each channel.

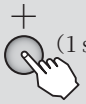
⚠ CAUTION

⃠ Using the servo test will move the servos to their full throw. Do not use this with linkages installed. Using it may damage the servo and linkage.

Method

Calling the setting screen

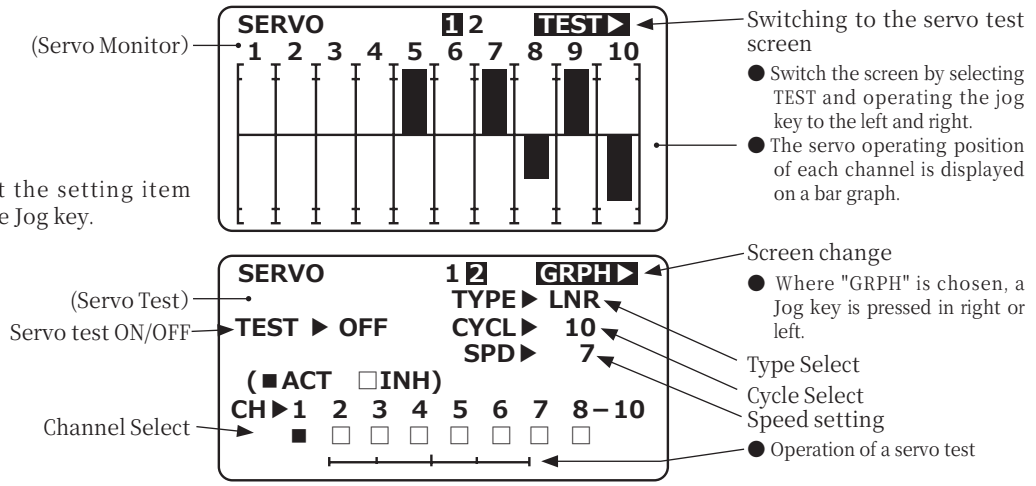
① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "SERVO" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

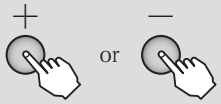
● Select the setting item with the Jog key.



Servo test

■ Type/cycle/speed setting

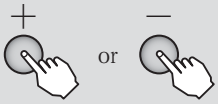
① Select the setting item (TYPE, CYCL, SPD) with the Jog key and set the item by pressing the + key or – key.



(Range ／ Default)
TYPE：LNR, JMP ／ LNR
CYCL：1 ～ 100 ／ 10 (full speed at 1)
SPD：1 ～ 100 ／ 7 (full speed at 100)

■ Channel selection

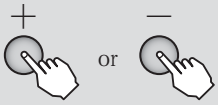
② Select the channel you want to test with the Jog key and select ACT/INH by pressing the + key or – key.



Selection range：ACT, INH
Default：INH(only CH1 is ACT)

■ Servo test start/stop

③ Select the "TEST" item with the Jog key and start/stop the servo test by pressing the + key or – key.



Selection range：ON, OFF
Default：OFF

END POINT End point (Common)

Function

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

- The servo travel can be adjusted individually at the left and right sides.

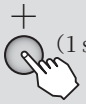
Servo throw

At 100% setting the servo throw of each channel is about 40 ° for channels 1 to 4 and about 55 ° for channels 5 to 10.
However, the maximum servo travel for channels 5 to 10 is about 110%.
*When channels 5 to 8 were mixed by flaperon, differential or ailvator, the throw becomes the same (about 40 °) as channels 1 to 4.

Method

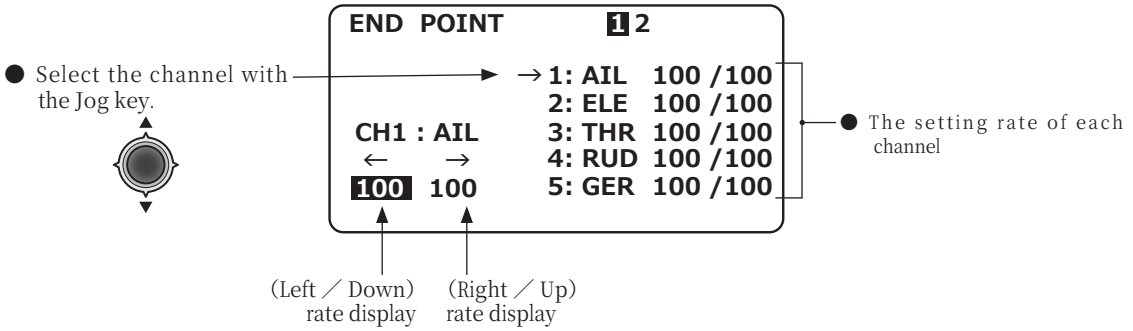
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "END POINT" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.



＜ ChannelDisplay ＞

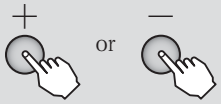
ACROBATIC		HELICOPTER		GLIDER (AF4)		MULTICOPTER	
1: AIL(Aileron)	6: FLP(Flap)	1: AIL(Aileron)	6: PIT(PITCH)	1: AIL(Aileron)	6: FL2(Flap2)	1: AIL(Aileron)	6: AUX
2: ELE(Elevator)	7: AUX	2: ELE(Elevator)	7: AUX	2: ELE(Elevator)	7: AL2(Aileron2)	2: ELE(Elevator)	7: AUX
3: THR(Throttle)	8: AUX	3: THR(Throttle)	8: AUX	3: MOT(Motor)	8: FL3(Flap3)	3: THR(Throttle)	8: AUX
4: RUD(Rudder)	9: AUX	4: RUD(Rudder)	9: AUX	4: RUD(Rudder)	9: FL4(Flap4)	4: RUD(Rudder)	9: AUX
5: GER(Gear)	10: AUX	5: GYR(GYRO)	10: AUX	5: FLP(Flap)	10: AUX	5: MOD	10: AUX

End point

① A channel is chosen by Jog key.

Selection range : 1 ～ 10ch

② Operate the stick or knob of the selected channel fully to the left (down) or right (up) and adjust the rate by pressing the + key or – key.



Range :
0 ～ 140%
Default : 100%

- When you want to return the set value to the initial value, press the + key and – key simultaneously.

Adjust the rate of each direction of the stick and VR by repeating step ① .

Function

Trim Reset

This function returns the trim of the model memory in use to the center (initial state).

However, at this time, sub trim and trim step amount are not reset.

Trim Step

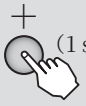
The amount of trim change per step can be changed between 1 and 40 according to the aircraft capacity and trim application.

Set it to match the application. With ordinary aircraft, a setting of about 2 to 10 should be fine. (Initial value: 4)

Method

Calling the setting screen

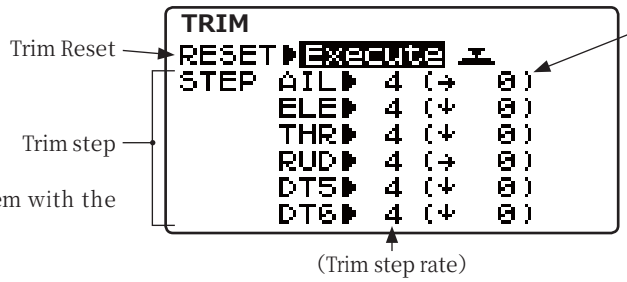
① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "TRIM" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

● Select the item with the Jog key.



● The numbers in ( ) indicate the current trim position. (The trim operating range is 120 ～ 100[DT5,DT6])

Trim reset

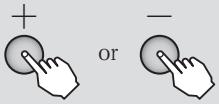
① Select the RESET item and press the Jog key for 1 second.

● A "beep" sounds to indicate that resetting is complete. At this time, the trim position number returns to 0.

● For example, when the step size is the initial value (4), trim movement from center to end is 30 steps. If the step size is made 40, the trim moves 3 steps.

Trim step

① Select the trim you want to set from the STEP item and set the step size by pressing the + key or – key.



Range : 1 ～ 40

Default : 4

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

SUB TRIM Sub trim (Common)

Function

The Sub-Trim function is used to set the servo neutral position, and may be used to make fine adjustments to the control surface after linkages and pushrods are hooked up. When you begin to set up a model, be sure that the digital trims are set to their center position.

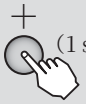
Setting precautions

If sub trim is too large, the servo operating range may be exceeded at maximum control surface angle and generate a dead band in which the servo does not operate. First connect the linkage so that the amount of sub trim used is held to a minimum.

Method

Calling the setting screen

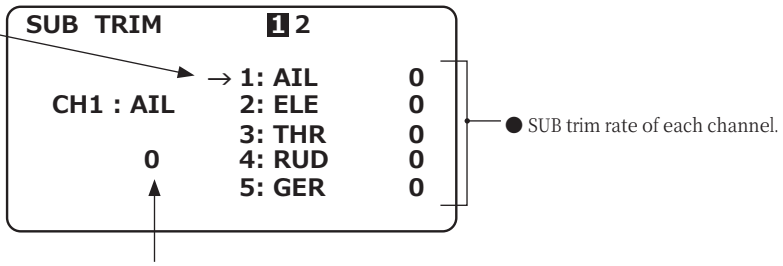
① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "SUB TRIM" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

● Select the channel with the Jog key.



< ChannelDisplay >

ACROBATIC		HELICOPTER		GLIDER (AF4)		MULTICOPTER	
1: AIL(Aileron)	6: FLP(Flap)	1: AIL(Aileron)	6: PIT(PITCH)	1: AIL(Aileron)	6: FL2(Flap2)	1: AIL(Aileron)	6: AUX
2: ELE(Elevator)	7: AUX	2: ELE(Elevator)	7: AUX	2: ELE(Elevator)	7: AL2(Aileron2)	2: ELE(Elevator)	7: AUX
3: THR(Throttle)	8: AUX	3: THR(Throttle)	8: AUX	3: MOT(Motor)	8: FL3(Flap3)	3: THR(Throttle)	8: AUX
4: RUD(Rudder)	9: AUX	4: RUD(Rudder)	9: AUX	4: RUD(Rudder)	9: FL4(Flap4)	4: RUD(Rudder)	9: AUX
5: GER(Gear)	10: AUX	5: GYR(GYRO)	10: AUX	5: FLP(Flap)	10: AUX	5: MOD	10: AUX

Sub trim

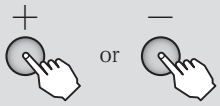
① A channel is chosen by Jog key.

Selection range :

(page 1) 1 ~ 5ch

(page 2) 6 ~ 10ch

② Select the SUB trim you want to set from channel item and set the rate by pressing the + key or – key.



Range :
-120 ~ +120%
Default : 0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

P.MIX1-6 Program mixing 1～6 (Common)

Function

Mixing that can independently customize 6 functions can be used. Programmable mixing is used to remove bad tendencies of the aircraft and make operation pleasant. In addition to mixing between arbitrary channels, this function includes linking (linking with another mix), trim addition, offset, and switch setting functions.

P.MIX 1 ～ 4 (normal type)

The following functions can be set for programmable mixing 1 to 4:

【Mixing Channel】
- Use this function by changing the channel because the master channel and slave channels initial setting is a temporary combination.
- When OFS was selected as the master channel, the mixing rate setting applies to slave only. When a mixing rate is set, slave servo operation is offset by that amount.
- A knob (VR) or digital trim (DT5, DT6), as well as a channel, can be selected as the master channel.

【Trim selection】
- Whether or not mixing includes master channel trim operation can be selected.

【Mixing reference point change】
- The master channel mixing reference point can be shifted.

【Switch selection】
- The programmable mixing ON/OFF switch can be selected. The switches that can be selected are switches A to H and the throttle stick.
- The switch operating direction can be set. When a 2 position switch was selected, up /down can be set, and when a 3 position switch was selected, up/up and down /up / and center/center/center and down /down can be selected. When the throttle stick was selected, the ON/OFF position and operation direction can be set. When "NULL" is selected, mixing is always ON.

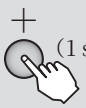
P. MIX 5 ～ 6（curve type）

Programmable mix 5 to 6 allows setting of the mixing rate by 5 point curve.
OFS and knob/digital trim use and trim selection by normal type master channel setting described above are impossible, but switch selection is possible.

Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "P.MIX1-6" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

P.MIX Selection

■ Calling the setting screen

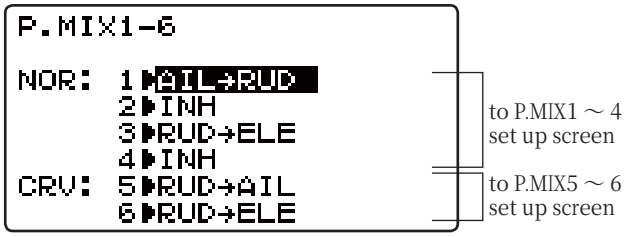
① Use the Jog key to select the P.MIX number you want to use.

② Call the setting screen by pressing the Jog key.

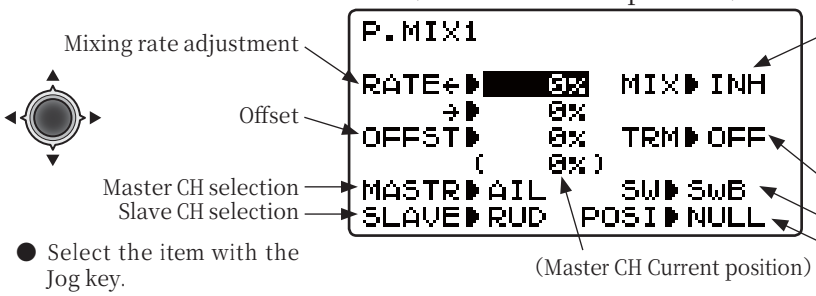
● P.MIX1 ～ 4 (normal type)

● P.MIX5 ～ 6 (curve type)

(P.MIX 1-6)



(P.MIX1 ～ 4 set up screen)

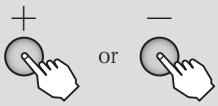


● Select the item with the Jog key.

P.MIX1 ～ 4

■ Function activation

① Select the MIX item and select ON or OFF by pressing the + key or – key.

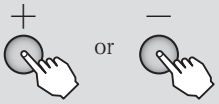


● When you do not want to use the function select INH.

■ Master/slave channel selection

② Select the MASTR channel you want to use by pressing the + key or – key.

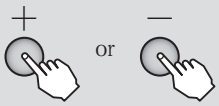
③ Select the Slave channel you want to us by pressing the + key or – key.



● A knob VR or digital trim DT5/DT6, as well as channels 1 to 10, can be specified as the master channel. In addition, when OFS was selected as the master channel, slave servo operation is offset.

■ Mixing rate adjustment

④ Select the RATE item and adjust the mixing rate by pressing the + key or – key for each direction of the stick, etc. selected at the master channel.



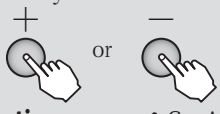
Range : -100 ～ +100%
Default : 0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

(Changing the ON/OFF Switch)

■ ON/OFF Switch selection

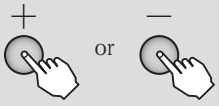
① Select the "SW" item and then select the switch by pressing the + key or – key.



Selection range : SwA ～ SwH、THR

■ Switch ON direction setting

② Select the "POSI" item and select the switch ON direction by pressing the + key or – key.



● 2P SW : NULL(always ON), UP, DOWN

● 3P SW : NULL(always ON), UP, UP&D, UP&C, CNTR, C&DN, DOWN

● THR stick: Hold the stick at the ON/OFF point and set the ON/OFF position by pressing the Jog key for 1 second. (If the Jog key is pressed for 1 second when the position was set, it returns to the NULL state.) The switch ON direction can also be selected by pressing the + key or – key.

(Changing the mixing reference point)

■ Mixing reference point setting

① Select the "OFFST" item and hold the master side stick or knob in the position you want to set and set the new reference point by pressing the Jog key.

(1 second)

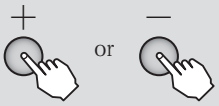
Range : -100 ～ +100%
(THR only 0 ～ 100%)

Default : 0%

(Including trim operation)

■ Trim ON/OFF setting

① Select the "TRM" item and select ON or OFF by pressing the + key or – key.



Range : OFF、ON

Default : OFF

● When you do not want to include trim in mixing select OFF.

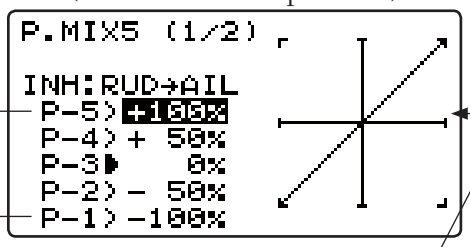
⚠ CAUTION

❗ At the end of setting, check that the mixing function is performed normally.

(P.MIX5 ～ 6 set up screen)

● Select the item with the Jog key.

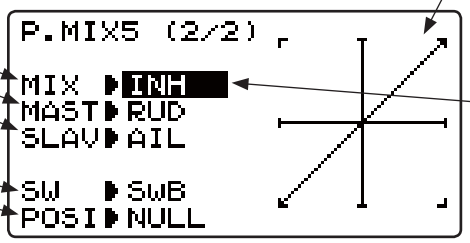
5Point curve setting



● The set curve is displayed on a graph.

Function activation
Master CH select
Slave CH select

Switch selection
Switch ON direction



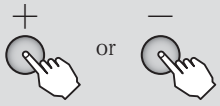
● When INH is selected, the function cannot be used. When ON or OFF is selected, the function is activated. ON and OFF changes are linked to the switch.

P.MIX5 ～ 6

Refer to the P.MIX1 ～ 4 setting method described previously for settings other than the 5 point curve setting described below.

■ 5point curve setting

① Select the setting item (P-1 ～ P-5) of each point with the Jog key and set the amount of movement of each point by pressing the + key or – key.



Range : -100 ～ +100%

Default : 0%

⚠ CAUTION

❗ At the end of setting, check that the mixing function is performed normally.

AUX-CHAN AUX Channel (Common)

Function

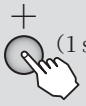
Auxiliary channel function (AUX-CH): defines the relationship between the transmitter controls and the receiver output for channels 5-10.

⚠ Remember that if you assign primary control of a channel to a switch which you later use for other functions (like dual/triple rates or airbrakes), every time you use that other function you will also be moving the auxiliary channel.

Method

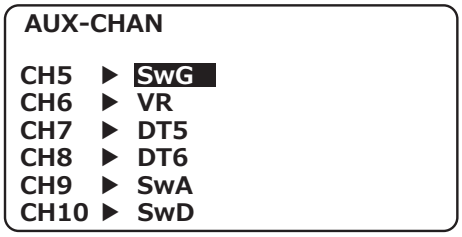
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "AUX-CHAN" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.



< AUX Channel Default >

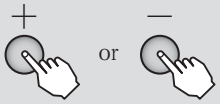
ACROBATIC		HELICOPTER		GLIDER		MULTICOPTER	
CH5	SwG(SwitchG)	CH5	SwF(SwitchF)	CH5	SwG(SwitchG)	CH5	SwE(SwitchE)
CH6	VR(Volume)	CH6	----(PITCH)	CH6	VR(Volume)	CH6	SwC(SwitchC)
CH7	DT5(Trim5)	CH7	SwC(SwitchC)	CH7	DT5(Trim5)	CH7	VR(Volume)
CH8	DT6(Trim6)	CH8	VR(Volume)	CH8	DT6(Trim6)	CH8	DT6(Trim6)
CH9	SwA(SwitchA)	CH9	SwA(SwitchA)	CH9	SwA(SwitchA)	CH9	SwA(SwitchA)
CH10	SwD(SwitchD)	CH10	SwD(SwitchD)	CH10	SwD(SwitchD)	CH10	SwD(SwitchD)

AUX Channel

① A channel is chosen by Jog key.

Selection range : 5 ~ 10ch

② Select the "SW" item and then select the switch by pressing the + key or – key.



Selection range : NULL, SwA ~ SwH, VR, DT5, DT6

⚠ WARNING

The priority of AUX

Don't assign two or more functions to one channel.
Priority may be given to a higher rank function and a low rank function may be canceled.

ACRO	CH5	PITCH	GYRO	SW-G		
	CH6	FLAP TRIM	FLAPERON	VR		
	CH7	AIL DIFF	GYRO	DT5		
	CH8	AILVATOR	PITCH	THR → NEEDLE	GYRO	DT6
	CH9	SW-A				
	CH10	SW-D				
HELI	CH5	GYRO	SW-F			
	CH6	PITCH				
	CH7	GYRO	GOVERNOR	SW-C		
	CH8	ELE2	THR → NEEDLE	GYRO	GOVERNOR	VR
	CH9	GOVERNOR	SW-A			
	CH10	SW-D				
GLIDER	CH5	FLAP1	GYRO	DT5		
	CH6	FLAP2	SW-G			
	CH7	AILERON2	GYRO	SW-D		
	CH8	FLAP3	GYRO	DT6		
	CH9	FLAP4	SW-A			
	CH10	CAMBR MIX	VR			
MULTICOPTER	CH5	GYRO	SW-E			
	CH6	SW-C				
	CH7	GYRO	VR			
	CH8	GYRO	DT6			
	CH9	SW-A				
	CH10	SW-D				

PARAMETER Parameter function (Common)

Function

PARAMETER submenu: sets those parameters you would likely set once, and then not disturb again.

Once you have selected the correct model you wish to work with, the next step is setting up the proper parameters for this specific model:

Data reset（RESET）

The present model data is reset. Data Reset does NOT reset, ATL Trim, TELEMETRY mode, or STK POSI Alarm.

Model type（TYPE） SWASH : Only helicopter　WING : Only glider

MODEL TYPE: sets the type of programming used for this model.
The T10J has 30 model memories, which can each support:

- One powered aircraft (ACRO) memory type (with multiple wing and tail configurations. See twin aileron servos, twin elevator servos, ELEVON, and V-TAIL for further information.)
- Eight helicopter swashplate types, including CCPM. See Helicopter MODEL TYPE for details.
- If you use CGY750, the swash type should choose H-1.　(Swash type is chosen by setup in CGY750.)
- Five glider wing types. See glider WING TYPE for details.
- Multicopter type.

Before doing anything else to set up your aircraft, first you must decide which MODEL TYPE best fits this particular aircraft. (Each model memory may be set to a different model type.) If your transmitter is a T10JA, the default is ACRO. If it is a T10JH, the default is HELI(H1).

ATL Trim（ATL）

Adjustable travel limit (ATL): makes the channel 3 TRIM LEVER (THROTTLE TRIM) effective only at low throttle, disabling the trim at high throttle. This prevents pushrod jamming due to idling trim changes. This function defaults to ON. If you are not using channel 3 for throttle, you may want trim operation the same as on all other channels. To do so, set ATL to OFF. If you need the ATL to be effective at the top of the stick instead of the bottom, reverse the THR-REV setting. Note that this affects all models in the radio, not just the model you are currently editing.

LCD contrast（CONTRAST）

Contrast adjustment LCD screen.

- You adjust to legible contrast. set up range -10 ～ +10

Back light（BACK-LIT）

Back light mode of a LCD screen can be chosen.

- ALWAYS / KEY-ON (Shines for a definite period of time after key operation.) / OFF

Light time（LIT-TIME）

Sets the length of time the backlight will stay on.

- Set up range 1 ～ 30

Light adjustment（LIT-ADJS）

Light volume adjustment of a back light.

- Set up range 1 ～ 30

Home display（HOME-DSP）

Item selection displayed on a home screen

- Futaba logo (Default), USR-NAME , RX BATT, DT5/DT6, THR/PIT (Case of helicopter, the position of a throttle and pitch.)

Battery alarm（BATT-ALM）

Select the battery alarm voltage according to the battery to be used.

- 4 dry cell batteries ⇒ 4.2V DRY4
- HT5F1800B (NiMH battery) ⇒ 5.0V NiMH5
- FT2F2100B (Lithium ferrite battery) ⇒ 5.8V LiFe2

Battery alarm vibration（BATT VIB）

Battery alarm is told with vibration.

Buzzer tone（BUZ-TONE）

The tone of buzzer sound when a key is pressed.

- Set up range : OFF,1(low) ～ 100(high)

Jog key navigation（Jog-NAVI）

Blink at the time of Jog key operation, Display of the operation direction.

Jog light（Jog-LIT）

ON/OFF of a Jog key light.

Jog light time（Jog-TIME）

Time setting in which a Jog key light shines.

- Set up range : 1 ～ 30(s)

Telemetry mode setting（TELEMETRY MODE）

Sets whether or not telemetry is activated. When using 2 receivers with 1 transmitter, select INH.

- Range：ACT / INH

Telemetry display units setting（TELEMETRY UNIT）

Sets whether the telemetry display is in meters or yards/pounds.

- Range：METER / YARD （℃ / ℉）

Speech language setting（SPEECH LANGUAGE）

Sets the speech language when listening to telemetry information through earphones.

- Range：Japanese (JPN), English (English), German (Deutsch)

Speech volume setting（SPEECH VOLUME）

Sets the volume when listening to telemetry information through earphones.

- Range：LOW / HIGH

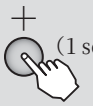
Stick position alarm setting（STK POSI ALRM）

Can be set so that an audible alarm sounds once when the throttle stick reaches the set position.

Method

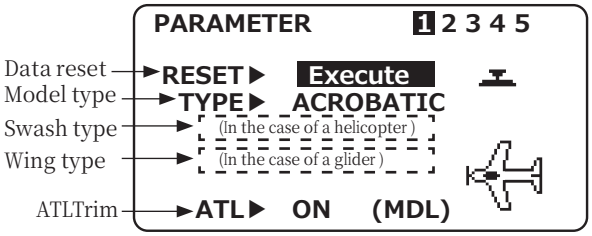
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "PARAMETER" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.



----- page 1

● Next page 2 ～ 5

LCD contrast（CONTRAST） Back light（BACK-LIT） Light time（LIT-TIME） Light adjustment（LIT-ADJS） Home display（HOME-DSP）	----- page 2
Battery alarm（BATT ALM） Battery alarm vibration（BATT VIB） Buzzer tone（BUZ-TONE） Jog key navigation（JOG-NAVI） Jog light（JOG-LIT） Jog light time（JOG-TIME）	----- page 3
（TELEMETRY MODE） （TELEMETRY UNIT） （SPEECH LANGUAGE） （SPEECH VOLUME）	----- page 4
Stick position alarm（STK POSI ALRM）	----- page 5

Date reset

① Call the "RESET" from the PARAMETER by Press the Jog key for 1 second.

● Confirmation message "sure?" blinks.

② Date reset by pressing the Jog key.

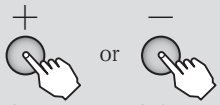
● A confirmation "beep" sounds and "COMPLETE" is displayed on the screen is complete.

For safety, a double setting system is used. You need to confirm your setting changes by pressing the jog key. When "COMPLETE" can be seen, it is the completion of reset.

⚠ CAUTION Only the throttle channel (CH3) initial setting is REV (reverse). Thoroughly check the Hi and Low directions of the engine or motor used and be careful that they do not suddenly run at full speed. Even after data reset, CH3 is reversed.

Model type

① Select the "TYPE" item and then select the model type by pressing the + key or – key.



● The new model type is displayed on the screen.

② Press the Jog key for 1 second.

● Confirmation message "sure?" blinks.

③ Model type change by pressing the Jog key.

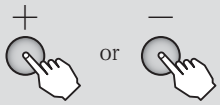
● A confirmation "beep" sounds is complete.

For safety, a double setting system is used. You need to confirm your setting changes by pressing the jog key. If you fail to press the jog key and see "COMPLETE" on your screen, your changed are not saved.

Selection range：
ACROBATIC, HELICOPTER,GLIDER,MULTI COPT

Swash type（for Heli）

① Select the "SWASH" item and then select the swash type by pressing the + key or – key.



② Press the Jog key for 1 second.

● Confirmation message "sure?" blinks.

③ Swash type change by pressing the Jog key.

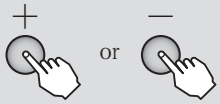
● A confirmation "beep" sounds is complete.

For safety, a double setting system is used. You need to confirm your setting changes by pressing the jog key. If you fail to press the jog key and see "COMPLETE" on your screen, your changed are not saved.

Selection range： H-1, HR3, H-3, HE3, HN3, H-2, H-4, H4X

Wing type（for Glider）

① Select the "WING" item and then select the swash type by pressing the + key or – key.



② Press the Jog key for 1 second.

● Confirmation message "sure?" blinks.

③ Swash type change by pressing the Jog key.

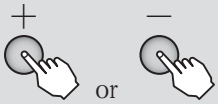
● A confirmation "beep" sounds is complete.

For safety, a double setting system is used. When a change is cancelled after the confirmation message is displayed, the change is not made when moved to another setting item by Jog key.

Selection range： 1AIL, 2AIL, 2A+1F, 2A+2F, 2A+4F

ATL Trim ON/OFF

① Select the "ATL" item and change the mode by pressing the + key or – key.

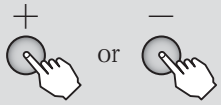


Selection range： ON, OFF

Default： OFF

LCD contrast

① Select the "CONTRAST" item and change numerical value (contrast) by pressing the + key or – key.



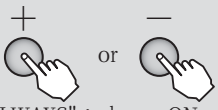
Selection range : -10 ～ +10

Default : 0

Back-light ／ Light-time ／ Light-adjustment

■ Back-light mode

Select the "BACK-LIT" item and change the mode by pressing the + key or – key.



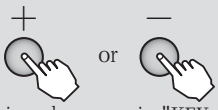
● "ALWAYS" : always ON
"OFF" : always OFF
"KEY-ON" : It light on after Key operation.

Selection range :
ALWAYS, OFF, KEY-ON

Default : ALWAYS

■ Light-time

Select the "LIT-TIME" item and change numerical value (time) by pressing the + key or – key.



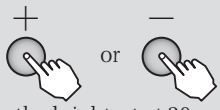
● It is only a case in "KEY-ON" mode here.

Selection range : 1 ～ 30(s)
Default : 10(s)

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

■ Light-adjustment

Select the "LIT-ADJ" item and change numerical value (brightness) by pressing the + key or – key.



● It is the brightest at 30.

Selection range : 1 ～ 30
Default : 15

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

Home display

① Select the "HOME-DSP" item and change the mode by pressing the + key or – key.

● "Futaba" : Display about a Futaba logo.
"USR-NAME" : Display about a user name.
"DT5/DT6" : Display about the position of DT5 and DT6
"RX BATT" : Display about the receiver battery voltage
"THR/PIT" : Display about the position of pitch and throttle.

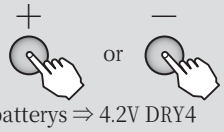
Selection range :
Futaba, USR-NAME,DT5/ DT6, RX BATT, THR/PIT(*)

Default : Futaba

*Only Heli mode can be chosen about THR/PIT.

Battery alarm voltage

① Select the "BATT ALM" item and change the numerical value (voltage) by pressing the + key or – key.



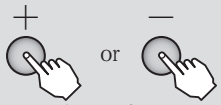
● AA alkaline batterys ⇒ 4.2V DRY4
● Futaba HT5F1800B ⇒ 5.0V NiMH5
● Futaba FT2F2100B ⇒ 5.8V LiFe2

Selection range :
4.2V 4.6V 5.0V 5.4V 5.8V
6.2V 6.6V 7.0V 7.4V

*The voltage drop of a rechargeable battery and a dry cell battery is different. When using a rechargeable battery, always change the voltage.

Battery alarm voltage vibration

① Select the "BATT VIB" item and change the ON or OFF by pressing the + key or – key.

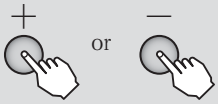


● ON ⇒ The battery alarm of a transmitter is told with vibration.

Selection range :
ON, OFF

Buzzer tone

① Select the "BUZ-TONE" item and change the numerical value (tone) by pressing the + key or – key. The higher the numerical value the higher the tone.

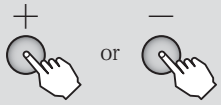


Selection range :
OFF, 1 ～ 100

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

Jog key navigation

① Select the "Jog-NAVI" item and change the mode by pressing the + key or – key.



Selection range :
ON,OFF

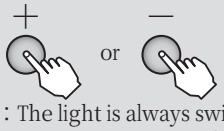
When NAVI selected
flashes when the Jog key was pressed.

When a function that only operates in the vertical direction is selected, the LED blinks vertically.

When a function that operates in the vertical and horizontal directions is selected, the LED blinks vertically and horizontally.

Jog light

① Select the "Jog-LIT" item and change the mode by pressing the + key or – key.



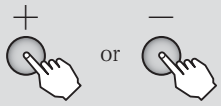
● "ALWAYS" : The light is always switched on.
"KEY-ON" : KEY operation → Light on.
"OFF" : Always off.

Selection range :
ALWAYS, KEY-ON, OFF

Default : KEY-ON

Jog light time

① Select the "Jog-TIME" item and change numerical value (time) by pressing the + key or – key.



● Jog-Lit sets the lighting time when KEY-ON was set.

Selection range :

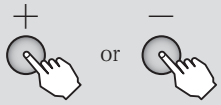
1 ～ 30

Default : 10

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

Telemetry mode

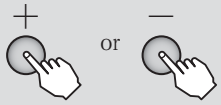
① Select the "TELEMETRY-MODE" item and change the mode by pressing the + key or – key.



Selection range :
ACT, INH

Telemetry unit

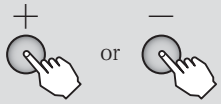
① Select the "TELEMETRY-UNIT" item and change the mode by pressing the + key or – key.



Selection range :
METER, YARD

Speech language

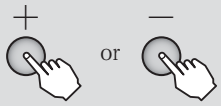
① Select the "SPEECH-LANGUAGE" item and change the language by pressing the + key or – key.



Selection range :
Japanese, English, Deutsch

Speech volume

① Select the "SPEECH-VOLUME" item and change the volume by pressing the + key or – key.

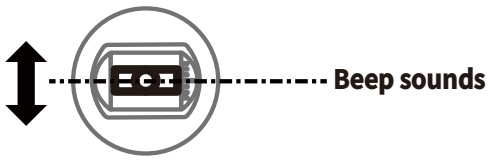


Selection range :
HIGH, LOW

Stick position alarm

An alarm (single beep) can be sounded at the specified throttle stick position.

● Alarm function ON/OFF can be set by switch.



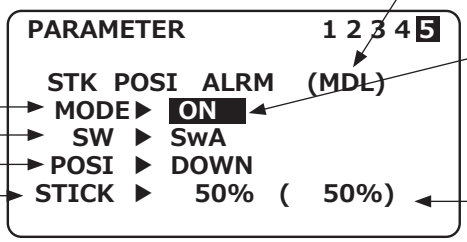
When the THR stick is set to the specified position.

Select "Parameter"

Press the Jog key to the side and select page 5.

● Select the item with the Jog key.

(STK POSI ALRM)



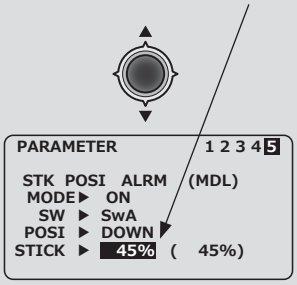
INH ⇔ ON/OFF
Switch selsction
Switch direction
Stick position

● Parameter setting is not reset. However, **STK POSI ALRM, Telemetry mode** and the **ATL trim** on which **(MDL)** was displayed are resettable.

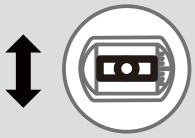
● When INH is selected, the function cannot be used. When ON or OFF is selected, the function is activated. ON and OFF changes are linked to the switch.

●The number in parenthesis is the current throttle stick position.

① Stick position is chosen by Jog key.



② Set the throttle stick to the position at which you want to generate the alarm.



THR Stick

③ When the Jog key is held down the alarm sounds at that position.

Memorize the position at which the beep is to sound.

TELEMETRY Telemetry (Common)

Function

This screen displays and sets the various information from the receiver. An alarm and vibration can be generated depending on the information. For example, a drop in the voltage of the receiver battery housed in the aircraft can be reported by an alarm.

- This function can only be used in the T-FHSS Air mode. The S-FHSS system cannot use telemetry.
- Telemetry sensors sold separately can be mounted in the aircraft to display a variety of information. (Receiver voltage does not require a sensor.)
- The telemetry function cannot be used if the telemetry mode of the parameters is not ACT.
- When 2 receivers are used with 1 transmitter, the telemetry function cannot be used.

Viewing the receiver voltage.	**Setting is unnecessary. When menu telemetry is listened to, the voltage appears.**	P.66
Viewing the drive battery voltage.	**CA-RVIN-700 and wiring work are necessary.**	P.70
Using various optional telemetry sensors.	**Optional telemetry sensors are necessary. T10J setting is unnecessary.**	P.74 ~ 82
Using several telemetry sensors of the same type.	**Setting by "sensor" in the menu is necessary. (Slot setting is necessary.)**	P.84
Setting alarms from the telemetry information.	**Setting by "Telemetry" in the menu is necessary.**	P.75 ~ 82

RX-BATT

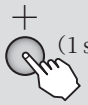
● Viewing the receiver voltage.

In the initial state, the receiver voltage is displayed at the transmitter.

Display

Calling the setting screen

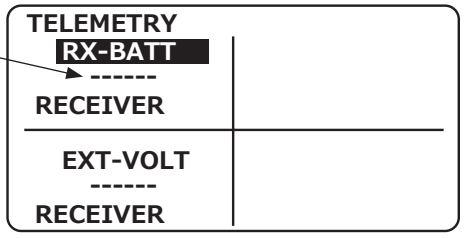
① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "TELEMETRY" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

Receiver voltage display



● How to display receiver voltage on a home screen.

PARAMETER
↓
HOME-DSP
↓
"RX BATT" is chosen by + key or − key.

● Viewing the receiver voltage maximum and minimum values.

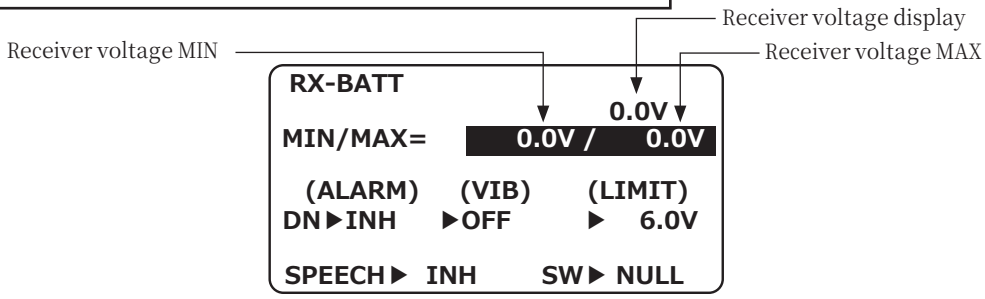
In the initial state, the receiver voltage maximum and minimum values are displayed in the transmitter. (Value until reset)

Display

Calling the setting screen

① Select "RX-BATT" from the telemetry screen with the Jog key.

② Open the setting screen by pressing the Jog key.

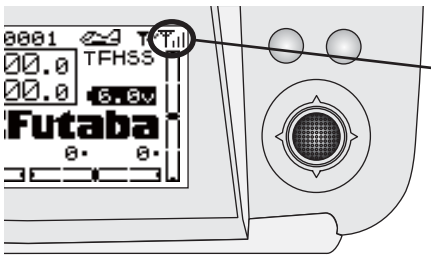


MIN/MAX reset

① Select "MIN/MAX" from the RX-BATT screen with the Jog key.

② Date reset by pressing the Jog key for 1 second.

● A confirmation "beep" sounds when complete.



● Receiver → Transmitter. The reception of the signal from the receiver to the transmitter is shown. This does not affect flight.

⚠ WARNING

Do not stare at or set the transmitter setting screen while flying.

■Losing sight of the aircraft during flight is very dangerous.

■When you want to check the information during flight, call the telemetry screen before flight and have the screen checked by someone other than the operator.

● Setting receiver voltage alarm.

Use this setting to sound an alarm when the receiver battery voltage drops dangerously low. VIB (vibration) that vibrates the transmitter at the same time can also be set.

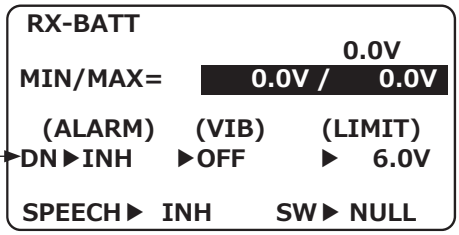
Method

Calling the setting screen

① Select "RX-BATT" from the telemetry screen with the Jog key.

② Open the setting screen by pressing the Jog key.

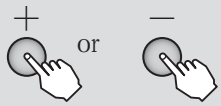
DN (down) shows than an alarm is generated when the voltage drops below the set voltage.



Alarm set

① In the RX-BATT screen state, select (ALARM) from the menu with the Jog key.

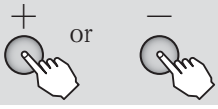
② Select the "ACT" by pressing the + key or – key.

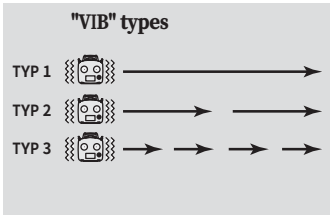


Vibration set

① In the RX-BATT screen state, select (VIB) from the menu with the Jog key.

② Select the "TYP1 ～ TYP3" by pressing the + key or – key.

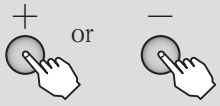




Alarm voltage set

① In the RX-BATT screen state, select (LIMIT) 0.0V from the menu with the Jog key.

② Select the voltage by pressing the + key or – key.



Selection range :

3.5V ～ 8.4V

● When you want to set 5.0V, press the + key and – key simultaneously.

● Listening to the receiver voltage by speech.

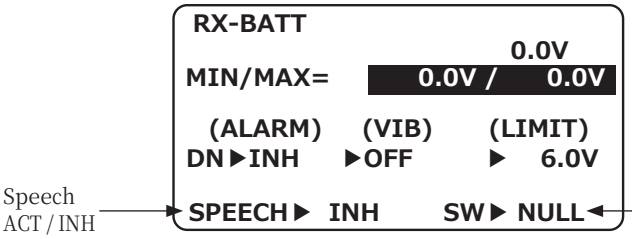
The receiver voltage can be heard verbally from the transmitter with a commercial earphone (3.5φ plug). The speech function can be turned on and off with the specified switch.

Method

Calling the setting screen

① Select "RX-BATT" from the telemetry screen with the Jog key.

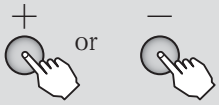
② Open the setting screen by pressing the Jog key.



Speech

① In the RX-BATT screen state, select (SPEECH) from the menu with the Jog key.

② Select the "ACT" by pressing the + key or – key.

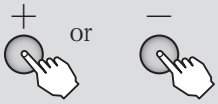


Switch

① In the RX-BATT screen state, select (SW) from the menu with the Jog key.

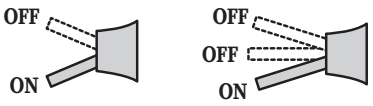
In "NULL", a speech always turns on.

② Select the switch by pressing the + key or – key.



Selection range :

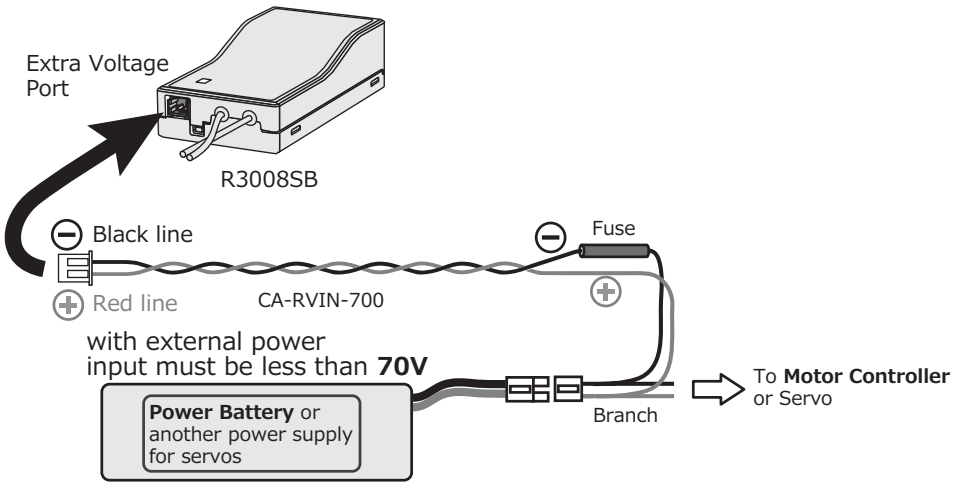
NULL, SWA ～ SWH



EXT-VOLT

When connected as shown in the figure, the voltage of the drive battery in the aircraft and another power supply battery can be displayed at the T10J.

- CA-RVIN-700 (external voltage input connector sold separately) is necessary.
- Soldered wiring work is necessary.



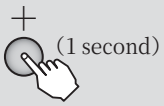
- EXT-Voltage display

When connected as shown in the figure, the drive battery voltage is displayed at the transmitter.

Display

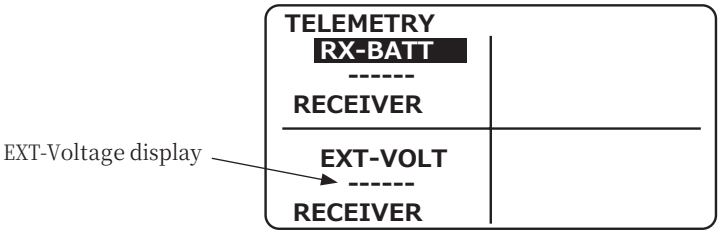
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "TELEMETRY" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.



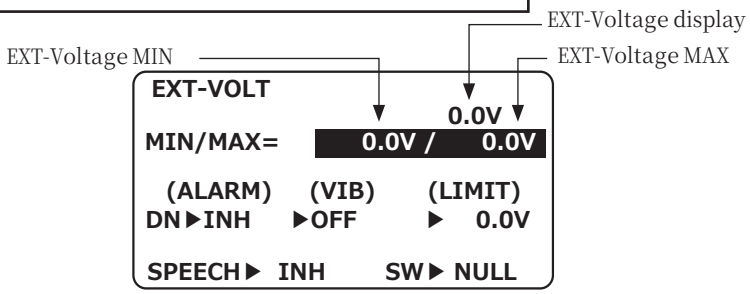
● EXT-Voltage MIN/MAX

In the initial state, the EXT-voltage maximum and minimum values are displayed at the transmitter. (Value until reset)

Calling the setting screen

① Select "EXT-VOLT" from the telemetry screen with the Jog key.

② Open the setting screen by pressing the Jog key.



MIN/MAX reset

① In the EXT-VOLT screen state, select (MIN/MAX) from the menu with the Jog key.

② Date reset by pressing the Jog key for 1 second.

● A confirmation "beep" sounds is complete.

● EXT-Voltage alarm set up

This setting will sound an alarm when the EXT-voltage drops dangerously low. VIB (vibration) that vibrates the transmitter at the same time can also be set.

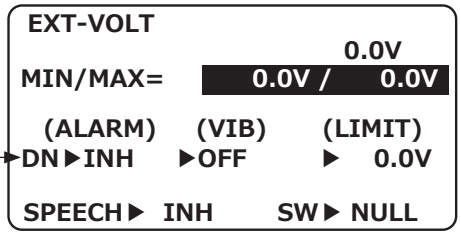
Method

Calling the setting screen

① Select "EXT-VOLT" from the telemetry screen with the Jog key.

② Open the setting screen by pressing the Jog key.

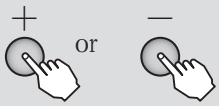
DN (down) shows than an alarm is generated when the voltage drops below the set voltage.



Alarm set

① In the EXT-VOLT screen state, select (ALARM) from the menu with the Jog key.

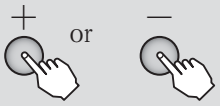
② Select the "ACT" by pressing the + key or – key.



Vibration set

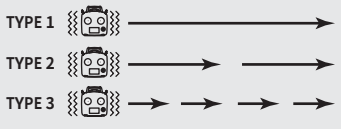
① In the EXT-VOLT screen state, select (VIB) from the menu with the Jog key.

② Select the "TYP1 ～ TYP3" by pressing the + key or – key.



"VIB" types

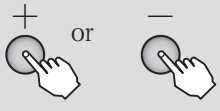
If the following types are selected, the transmitter will vibrate during the warning.



Alarm voltage set

① In the EXT-VOLT screen state, select (LIMIT) from the menu with the Jog key.

② Select the voltage by pressing the + key or – key.



Selection range :

0.0V ～ 70.0V

● When you want to set 5.0V, press the + key and – key simultaneously.

● Listening to the EXT-voltage by speech.

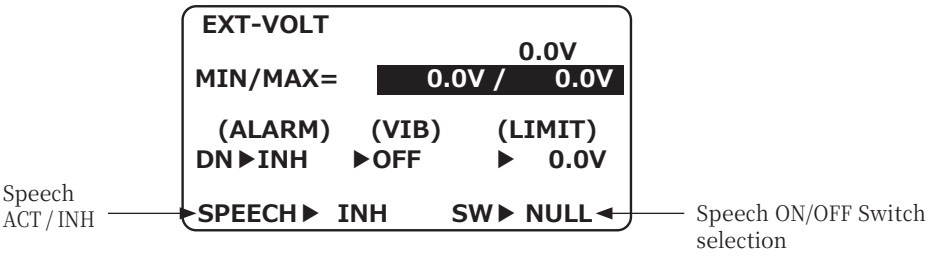
The EXT- voltage can be heard verbally from the transmitter with a commercial earphone (3.5mm plug). The speech function can be turned on and off with the specified switch.

Method

Calling the setting screen

① Select "EXT-VOLT" from the telemetry screen with the Jog key.

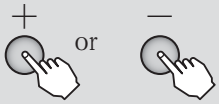
② Open the setting screen by pressing the Jog key.



Speech

① In the EXT-VOLT screen state, select (SPEECH) from the menu with the Jog key.

② Select the "ACT" by pressing the + key or – key.

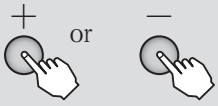


Switch set

① In the EXT-VOLT screen state, select (SW) from the menu with the Jog key.

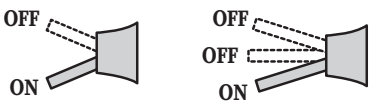
In "NULL", a speech always turns on.

② Select the switch by pressing the + key or – key.



Selection range :

NULL, SWA ~ SWH



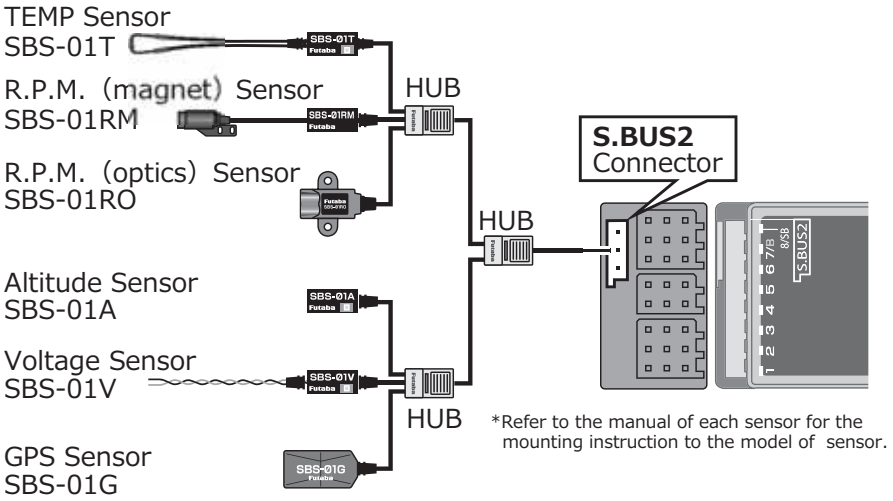
Various telemetry sensors (optional) information display and alarm setting

Various telemetry sensors (sold separately) are connectable to the S.BUS2 port of the R3008SB through a 3-way hub and relay terminals. The information of sensors connected at initialization can be viewed as long as 2 or more of the same kind of sensor are not used (for example, 2 temperature sensors).

- Sensors that can be used with the T10J: Futaba SBS-01T, SBS-01RM, SBS-01RO, SBS-01A, SBS-01V, SBS-01G
- Robbe sensors that can be used with the T10J: Robbe TEMP125, GPS-1675, VARIO-1712, VARIO-1672, CURR-1678

*Futaba does not sell Robbe sensor.

Sensor Connection



Method

Sensor information can be viewed by calling telemetry from the menu and calling the connected sensor display page. The detailed setting screen of that sensor can be called by selecting and pressing the sensor you want to select with the Jog key.

- Refer to the receiver battery (RX-BATT) item for a description of key operation.

① Select "TELEMETRY" from the menu with the Jog key.

TELEMETRY 1 2 3	
RX-BATT	02 TEMP
------	------
RECEIVER	SBS-01T
EXT-VOLT	05 R.P.M
------	0rpm
RECEIVER	SBS-01RM/O

② The sensor item of your choice is chosen by Jog key, and Jog key is pressed.

TELEMETRY 1 2 3	
RX-BATT	02 TEMP
------	------
RECEIVER	SBS-01T
EXT-VOLT	05 R.P.M
------	0rpm
RECEIVER	SBS-01RM/O

Sensor set up

TEMP : Display of SBS-01T(Option), and alarm setup

*A temperature sensor must be installed in the aircraft.

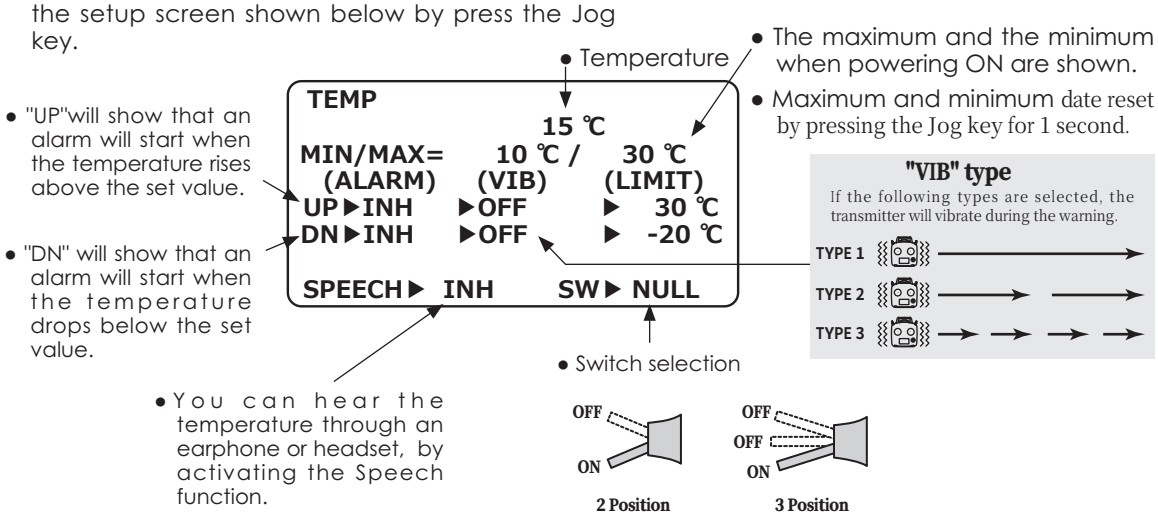
TEMP is a screen which displays/sets up the temperature information from an optional temperature sensor.

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.

● Conversion of a display unit is performed by "TELEMETRY UNIT" of "PARAMETER".

● Select [TEMP] in the TELEMETRY screen and access the setup screen shown below by press the Jog key.



Alert set : Hot warning

1. Move the cursor to the UP:(ALERT) item.
2. Select the ACT mode by press the +-key.
3. Move the cursor to the UP:(LIMIT)[value]item.
4. Ajust the rate by press the +-key.
   Initial value: +100℃
   Adjustment range: -20℃ ~200℃
   (UP:(LIMIT) ≧ DN:(LIMIT))

*When the + - key simultaneous press, the rate is reset to the initial value.

(To terminate the input and return to the original state, touch the END key.)

Alert set : Low-temperature warning

1. Move the cursor to the DN:(ALERT) item.
2. Select the ACT mode by press the +-key.
3. Move the cursor to the DN:(LIMIT)[value]item.
4. Ajust the rate by press the +-key.
   Initial value: 0℃
   Adjustment range: -20℃ ~200℃
   (UP:(LIMIT) ≧ DN:(LIMIT))

*When the + - key simultaneous press, the rate is reset to the initial value.

(To terminate the input and return to the original state, touch the END key.)

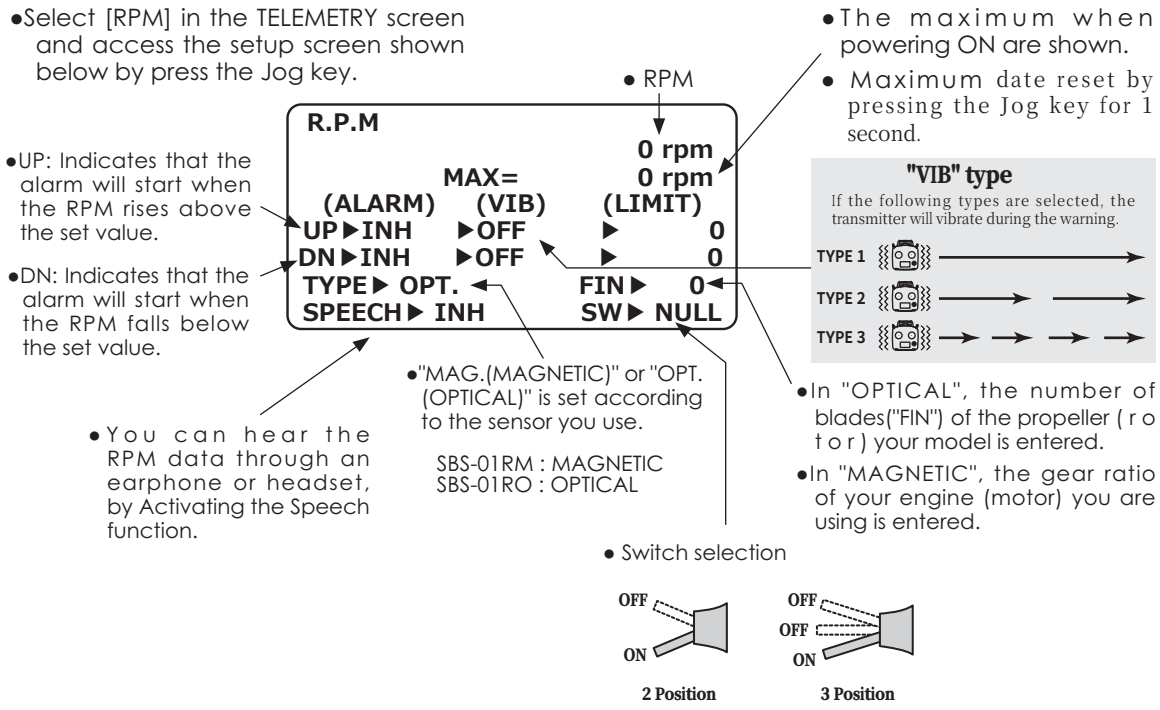
R.P.M : Display of SBS-01RM/RO(Option), and alarm setup

*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.



Alert set : Over rotations

1. Move the cursor to the UP:ALERT item.
2. Select the ACT mode by press the +-key.
3. Move the cursor to the UP:(LIMIT) [value]item.
4. Ajust the rate by press the +-key.
   Initial value: 2000rpm
   Adjustment range: 0rpm~390,000rpm
   (UP:(LIMIT) ≧ DN:(LIMIT))

*When the + - key simultaneous press, the rate is reset to the initial value.
(To terminate the input and return to the original state, touch the END key.)

Alert set : Under rotations

1. Move the cursor to the DN:ALERT item.
2. Select the ACT mode by press the +-key.
3. Move the cursor to the UP:(LIMIT) [value]item.
4. Ajust the rate by press the +-key.
   Initial value: 0rpm
   Adjustment range: 0rpm~390,000rpm
   (UP:(LIMIT) ≧ DN:(LIMIT))

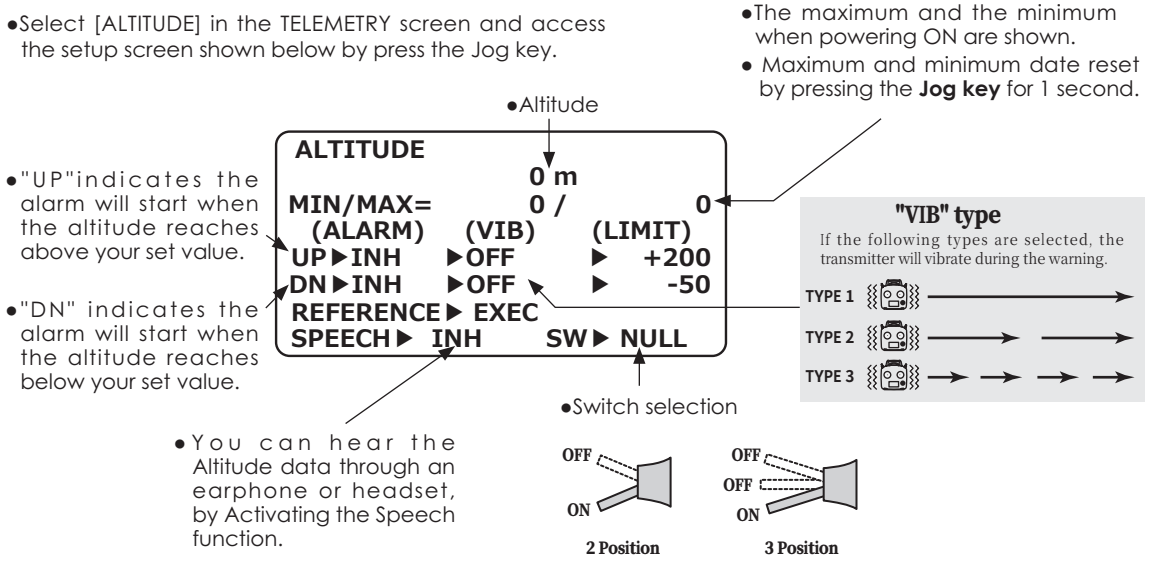
*When the + - key simultaneous press, the rate is reset to the initial value.
(To terminate the input and return to the original state, touch the END key.)

ALTITUDE : Display of SBS-01A / SBS-01G(Option), and alarm setup

*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.

● Conversion of a display unit is performed by "TELEMETRY UNIT" of "PARAMETER".



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 [REFERENCE] of "EXEC" item.
3. Press the Jog key (1s or more press).

*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 UP:(ALERT) item.
2. Select the ACT mode by press the +-key.
3. Move the cursor to the UP:(LIMIT)[value]item.
4. Ajust the rate by press the +-key.
   Initial value: +200(m)
   Adjustment range: -500~+5000(m)
   (UP:(LIMIT) ≧ DN:(LIMIT))

*When the + - key simultaneous press, the rate is reset to the initial value.

(To terminate the input and return to the original state, touch the END key.)

Alert set : Low side

1. Move the cursor to the DN:(ALERT) item.
2. Select the ACT mode by press the +-key.
3. Move the cursor to the UP:(LIMIT)[value]item .
4. Ajust the rate by press the +-key.
   Initial value: -50(m)
   Adjustment range: -500~+5000(m)
   (UP:(LIMIT) ≧ DN:(LIMIT))

*When the + - key simultaneous press, the rate is reset to the initial value.

(To terminate the input and return to the original state, touch the END key.)

VARIO : Display of SBS-01A / SBS-01G(Option), and alarm setup

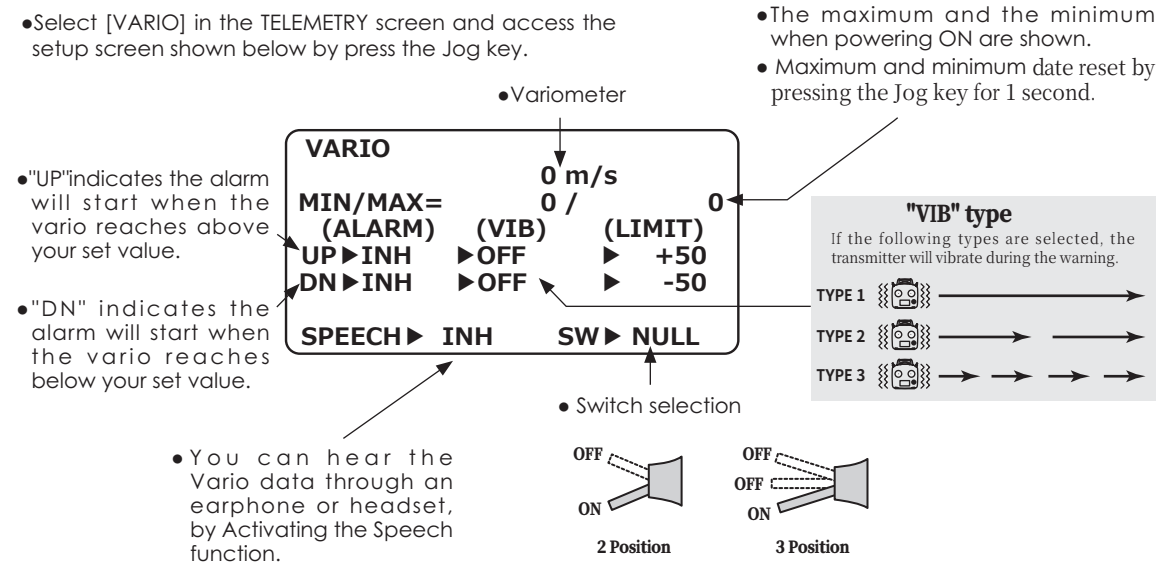
*An altitude sensor or GPS sensor must be installed in the aircraft.

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.

● Conversion of a display unit is performed by "TELEMETRY UNIT" of "PARAMETER".



Alert set : Rise side

1. Move the cursor to the UP:(ALERT) item.
2. Select the ACT mode by press the +-key.
3. Move the cursor to the UP:(LIMIT)[value]item.
4. Ajust the rate by press the +-key.
   Initial value: +50(m/s)
   Adjustment range: -150~+150(m/s)
   (UP:(LIMIT) ≧ DN:(LIMIT))

*When the + - key simultaneous press, the rate is reset to the initial value.

(To terminate the input and return to the original state, touch the END key.)

Alert set : Low side

1. Move the cursor to the DN:(ALERT) item.
2. Select the ACT mode by press the +-key.
3. Move the cursor to the UP:(LIMIT)[value]item.
4. Ajust the rate by press the +-key.
   Initial value: -50(m/s)
   Adjustment range: -150~+150(m/s)
   (UP:(LIMIT) ≧ DN:(LIMIT))

*When the + - key simultaneous press, the rate is reset to the initial value.

(To terminate the input and return to the original state, touch the END key.)

DISTANCE : Display of SBS-01G(Option), and alarm setup

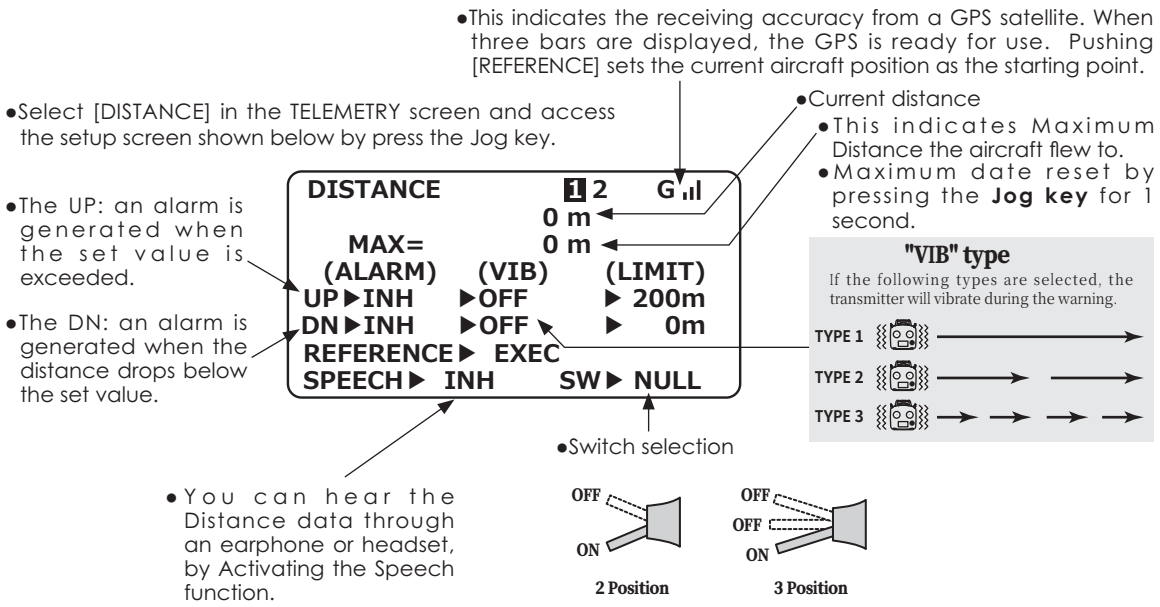
*An GPS sensor must be installed in the aircraft.

The Distance screen displays and sets altitude data from an SBS-01G GPS Sensor (sold separately), and allows the distance to the airborne aircraft to be read by the transmitter. When the aircraft flies inside or outside the set distance an alarm and vibration alerts the pilot.

● Conversion of a display unit is performed by "TELEMETRY UNIT" of "PARAMETER".

***Positioning time of GPS**

A short time is required until the positioning of the GPS is established. In the meantime, don't move the model during this process. Wait until the GPS sensor's LED turns solid green. If it is blinking green it is still acquiring the satellites signals.



Setting the reference position

1. Turn on the transmitter and the model with the GPS sensor installed in it.
2. Wait for the GPS accuracy indicator to display three bars.
3. Move the cursor to REFERENCE [EXEC] and press the Jog key(1s or more press). The models current position is now stored and the distance is set to 0 m.

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

Setting a "too far" alert distance

1. Move the cursor to the UP:(ALERT) item.
2. Select the ACT mode by press the +-key.
3. Move the cursor to the UP:(LIMIT)[value]item.
4. Ajust the rate by press the +-key.
   Initial value: 200(m)
   Adjustment range: 0~5000(m)
   (UP:(LIMIT) ≧ DN:(LIMIT))

*When the + - key simultaneous press, the rate is reset to the initial value.

(To terminate the input and return to the original state, touch the END key.)

Setting a "too close" alert distance.

1. Move the cursor to the DN:(ALERT) item.
2. Select the ACT mode by press the +-key.
3. Move the cursor to the UP:(LIMIT)[value]item.
4. Ajust the rate by press the +-key.
   Initial value: 0(m)
   Adjustment range: 0~5000(m)
   (UP:(LIMIT) ≧ DN:(LIMIT))

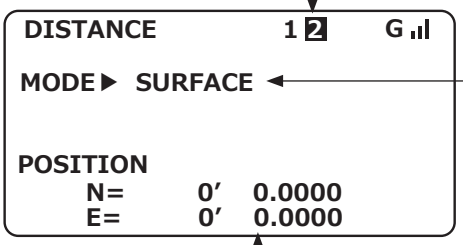
*When the + - key simultaneous press, the rate is reset to the initial value.

(To terminate the input and return to the original state, touch the END key.)

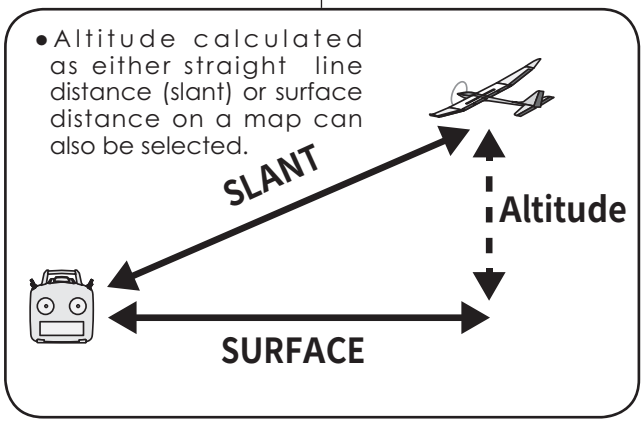
● 2nd page of [**DISTANCE**]

●Select [DISTANCE] in the TELEMETRY screen and access the setup screen shown below by press the Jog key.

●Jog key press a side made 2 page.



●Current position display.
N: North latitude, E: East longitude
S: South latitude, W: West longitude



Two distance calculation methods are available Surface (straight line distance), and Slant may be selected.

1. Select page 2 by Jog key press side from the "DISTANCE" screen.
2. Select <SLANT> <SURFACE> next to "MODE" press the +- key.

SPEED : Display of SBS-01G(Option), and alarm setup

*An GPS sensor must be installed in the aircraft.

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

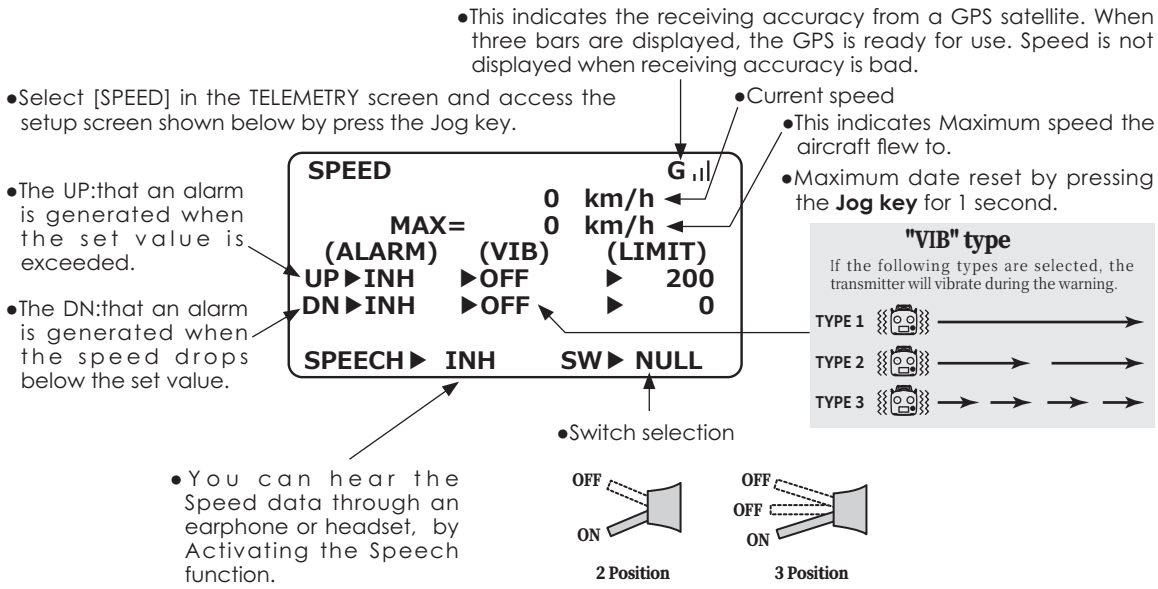
The speed of the aircraft during flight can be displayed.

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

● Conversion of a display unit is performed by "TELEMETRY UNIT" of "PARAMETER".

***Positioning time of GPS**

A short time is required until the positioning of the GPS is established. In the meantime, don't move the model during this process. Wait until the GPS sensor's LED turns solid green. If it is blinking green it is still acquiring the satellites signals.



Alert setting when speed increases

1. Move the cursor to the UP:(ALERT) item.
2. Select the ACT mode by press the +-key.
3. Move the cursor to the UP:(LIMIT)[value]item .
4. Ajust the rate by press the +-key.
   Initial value: 200(km/h)
   Adjustment range: 0~500(km/h)
   (UP:(LIMIT) ≧ DN:(LIMIT))

*When the + - key simultaneous press, the rate is reset to the initial value.

(To terminate the input and return to the original state, touch the END key.)

Alert setting when speed decreases

1. Move the cursor to the DN:(ALERT) item.
2. Select the ACT mode by press the +-key.
3. Move the cursor to the UP:(LIMIT)[value]item .
4. Ajust the rate by press the +-key.
   Initial value: 0(km/h)
   Adjustment range: 0~500(km/h)
   (UP:(LIMIT) ≧ DN:(LIMIT))

*When the + - key simultaneous press, the rate is reset to the initial value.

(To terminate the input and return to the original state, touch the END key.)

***Speed alarm precaution**

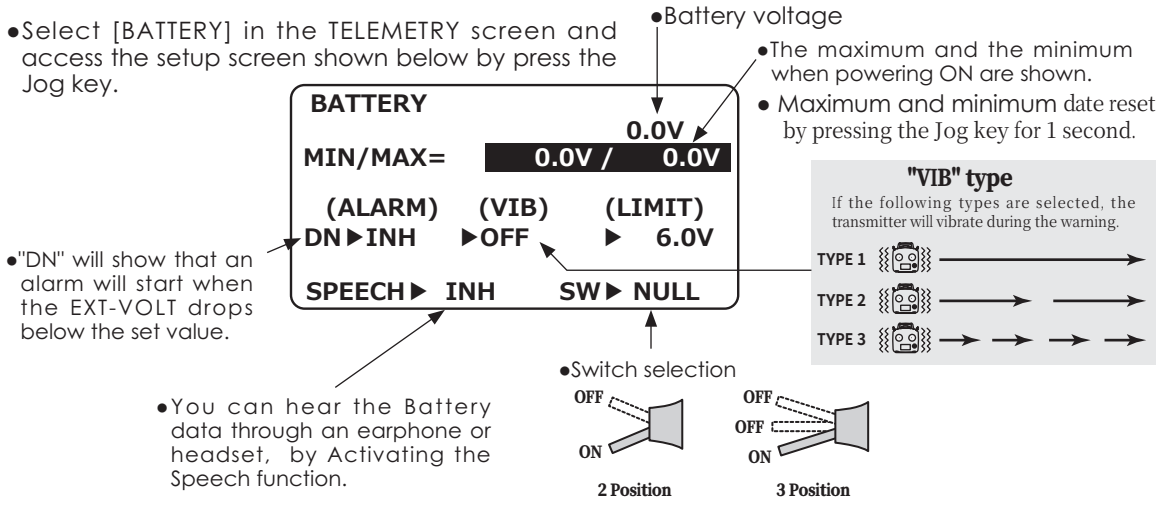
Since the GPS speed sensor displays the ground speed, it cannot be used as a stall alarm. For example, an aircraft that stalls at 50km/h will stall if the tailwind is 5km/h or greater even through 55km/h is displayed by ground speed. In addition, with an aircraft that will disintegrate in midflight at 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.

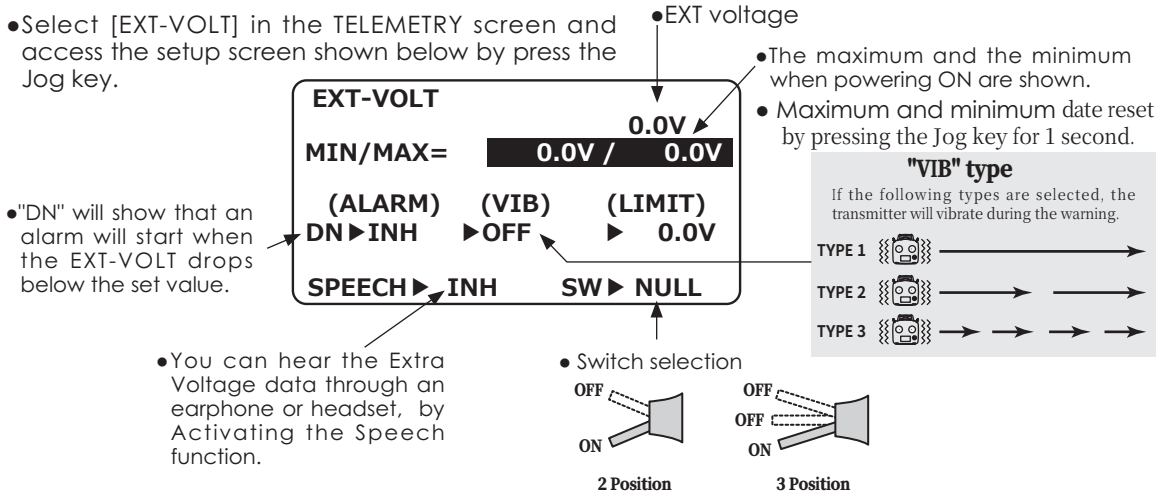
BATTERY / EXT-VOLT: Display of SBS-01V(Option), and alarm setup

*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 of R3008SB ⇔ SBS-01V ⇔ Battery

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.





Alert set : Low-temperature warning

1. Move the cursor to the DN:(ALERT) item.
2. Select the ACT mode by press the +-key.
3. Move the cursor to the DN:(LIMIT)[value]item.
4. Ajust the rate by press the +-key.
   Initial value: 5.0V
   Adjustment range: 3.5~8.4V(BATTERY)
   Adjustment range: 0~70V(EXT-VOLT)

*When the + - key simultaneous press, the rate is reset to the initial value.

(To terminate the input and return to the original state, touch the END key.)

Function

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.

[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**.

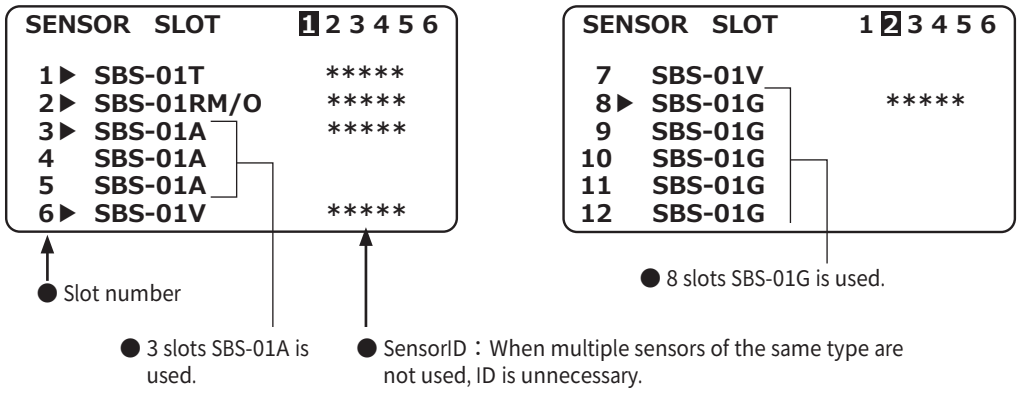
Altitude sensors, GPS sensors and other data sensor units may use **multiple slots**.

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.

● The **"SENSOR"** of a menu is chosen, and **Jog key** press.

● **Jog key** presses side and makes it 2 pages.



＜ Assignable slot ＞

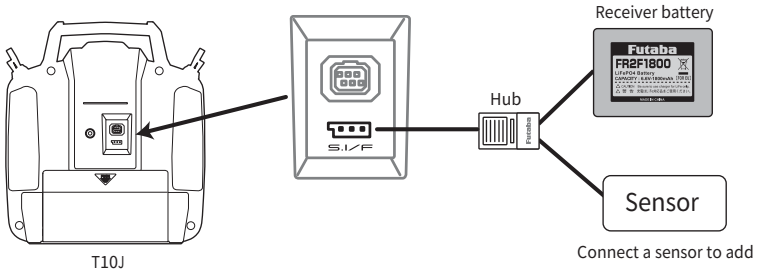
*Altimeter, GPS, and other sensors that display a large amount of data require multiple slots.
*Depending on the type of sensor, the slot numbers that can be allocated may be limited.

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 slot	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 slot	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 slot	8,16,24	
TEMP125-F1713	1 slot	1～31	Europe
VARIO-F1712	2 slot	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 slot	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	
CURR-F1678	3 slot	1,2,3,4,5,8,9,10,11,12,13,16,17,18,19,20,21,24,25,26,27,28,29	
GPS-F1675	8 slot	8,16,24	

● REGISTER（When using multiple telemetry sensors of the same type.）

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

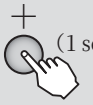
Sensor connect



Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "SENSOR" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

④ **Jog key** presses side and makes it 6pages.

```
SENSOR  SLOT      1 2 3 4 5 6
 1▶ SBS-01T       *****
 2▶ SBS-01RM/O    *****
 3▶ SBS-01A       *****
 4  SBS-01A
 5  SBS-01A
 6▶ SBS-01V       *****
```

Left 1-time press or Right 10-time press

```
SENSOR  SLOT      1 2 3 4 5 6
 31   INHBIT
 ▶ REGISTER
 ▶ SENS SLOT
 ▶ INITIALIZE
 ▶ ALL CLEAR
```

Sensor register

① "REGISTER" in SENSOR SLOT page 6 is chosen by Jog key.

② Press the Jog key for 1 second.

● Confirmation message "sure?" blinks.

③ Press the Jog key.

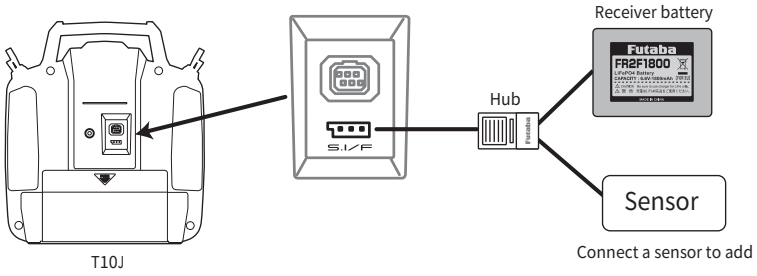
● A confirmation "beep" sounds when complete.

● "COMU-ERROR" : When the number of slots needed in registration is insufficient, an error is displayed and registration cannot be performed.

● SENS SLOT

This procedure changes the slot number of one registered sensor.

Sensor connection



Calling the setting screen

① "SENS SLOT" in SENSOR SLOT page 6 is chosen by Jog key.

② Jog key press.

● **READ** is chosen and **Jog key** is pressed → **"sure?"** → **Jog key** is pressed.

```
SENSOR  SLOT  SETTING
 READ
START SLOT = ** →   1
SLOT LENGTH = **
   TYPE=      ----
     ID = *****
```

● **Number** is chosen, Input a number by the **+ key** or **− key**.

*Referred to
< Assignable slot >

● **"COMU-ERROR"** when reading goes wrong.

● Once the sensor is read correctly, the Sensor ID will be displayed

● INITIALIZE

This function returns the slot setting and alarm setting of each sensor to their initial value (shipped state). Various sensors can be used one by one.

*The slot number memorized at each sensor cannot be initialized.

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.

② Select "SENSOR" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

④ **Jog key** presses side and makes it 6 pages

SENSOR SLOT	1 2 3 4 5 6
1▶ SBS-01T	*****
2▶ SBS-01RM/O	*****
3▶ SBS-01A	*****
4 SBS-01A	
5 SBS-01A	
6▶ SBS-01V	*****

Left 1-time press or Right 10-time press

SENSOR SLOT	1 2 3 4 5 6
31 INHBIT	
▶ REGISTER	
▶ SENS SLOT	
▶ INITIALIZE	
▶ ALL CLEAR	

Initialize

① "INITIALIZE" in SENSOR SLOT page 6 is chosen by Jog key.

② Press the Jog key for 1 second.

● Confirmation message "sure?" blinks.

③ Press the Jog key.

● The initialization is done when "COMPLETE" is shown.

● ALL CLEAR

This function sets all the slots to INH. Sensors cannot be used even if connected to the receiver. All the alarm settings of each sensor are also cleared.

*The slot number memorized at each sensor is not initialized.

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.

② Select "SENSOR" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

④ **Jog key** presses side and makes it 6 pages

```
SENSOR   SLOT      1 2 3 4 5 6
 1▶ SBS-01T        *****
 2▶ SBS-01RM/O     *****
 3▶ SBS-01A        *****
 4   SBS-01A
 5   SBS-01A
 6▶ SBS-01V        *****
```

Left 1-time press or Right 10-time press

```
SENSOR   SLOT      1 2 3 4 5 6
 31   INHBIT
 ▶ REGISTER
 ▶ SENS SLOT
 ▶ INITIALIZE
 ▶ ALL CLEAR
```

All clear

① "ALL CLEAR" in SENSOR SLOT page 6 is chosen by Jog key.

② Press the Jog key for 1 second.

● Confirmation message "sure?" blinks.

③ Press the Jog key.

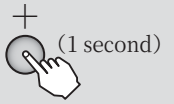
● The clearing is done when "COMPLETE" is shown.

● Manually assigning a sensor slot number

A slot number can be assigned without connecting the sensor to the transmitter. In a manual set, it is required to store a start slot number in a sensor.

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "SENSOR" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

④ Jog key is pressed in a side and it searches for an empty slot. (INHIBIT).

SENSOR	SLOT	1 2 3 4 5 6
1▶	SBS-01T	*****
2▶	SBS-01RM/O	*****
3▶	SBS-01A	*****
4	SBS-01A	
5	SBS-01A	
6▶	SBS-01V	*****

SENSOR	SLOT	1 2 3 4 5 6
13	SBS-01G	
14	SBS-01G	
15	SBS-01G	
16	INHIBIT	
17	INHIBIT	
18	INHIBIT	

Assignment of slot

① When an INHIBIT slot is selected and the Jog key is pressed, a list of sensors that can be assigned to that slot is displayed.

*Refer to the <Assignable slots> table.

② Select the sensor you want to assign and press the Jog key.

③ Press the END key.

SBUS LINK S.BUS servo link (Common)

Function

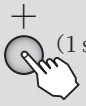
An S.BUS servo can memorize the channel and various settings you input. Servo setting can be performed on the T10J screen by wiring the servo as shown in the figure.

* With some S.BUS(2) servos, there are some functions with cannot be used. If a function cannot be used, the display screen will change. (Only the function which can be used by a servo is displayed.)
* After reading completion, with connection of the above figure, if a stick is moved, the test of operation of the servo can be operated and carried out.

Method

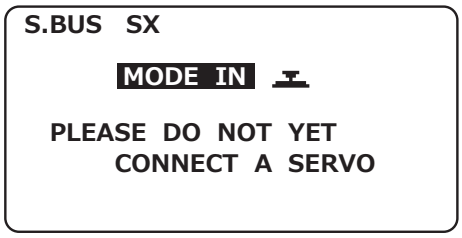
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



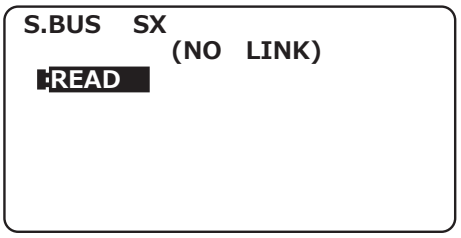
② Select "SBUS LINK" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

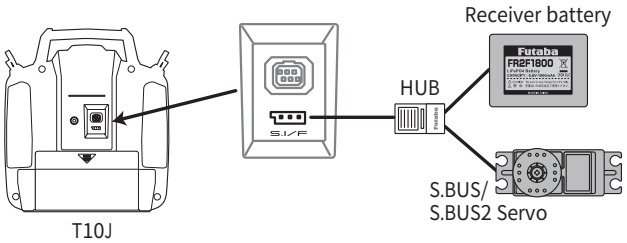


④ Press the Jog key for 1 second.

(1 second)



⑤ Connect a S.BUS servo to set up.



⚠ CAUTION

● Don't connect a servo until "MODE IN".

■Otherwise, a servo will vibrate and break down.

S.BUS Servo setting

⑤ "READ" is chosen by Jog key, Press the Jog key for 1 second.

⑥ READ is completed and the item in which data of S.BUS servo and a setup are possible is displayed.

* "COMU-ERROR" : It is failure of READ. Check a servo and connection.

⑦ S.BUS servo is set up.
⑧ "WRITE" is chosen and Jog key is pressed for 1 second.

The writing is done when "COMPLETE" is shown.

Next page S.BUS servo function

S.BUS Servo Description of function of each parameter

*There are a function which can be used according to the kind of servo, and an impossible function.

• ID

Displays the ID of the servo whose parameters are to be read. It cannot be changed.

• Channel

Channel of the S.BUS system assigned to the servo. Always assign a channel before use.

• Reverse

The direction in which the servo rotates can be changed.

• Servo type

When "Retractable" is selected and the servo has been continuously stopped for 30 seconds, the dead band expands and unnecessary hold current due to external force is eliminated. When a new control signal enters, normal operation is resumed. When using the servo as a landing gear servo, select "Retractable". Also adjust the servo travel to match the landing gear movement range.

• Soft Start

Restricts operation in the specified direction the instant the power is turned on. By using this setting, the first initial movement when the power is turned on slowly moves the servo to the specified position.

• Stop Mode

The state of the servo when the servo input signal is lost can be specified. The "Hold" mode setting holds the servo in its last commanded position even if using AM or FM system.

• Smoother

This function changes smoothness of the servo operation relative to stick movement changes. Smooth setting is used for normal flight. Select the "OFF" mode when quick operation is necessary such as 3D.

• Neutral Offset

The neutral position can be changed. When the neutral offset is large value, the servo's range of travel is restricted on one side.

• Speed Control

Speeds can be matched by specifying the operating speed. The speed of multiple servos can be matched without being affected by motor fluctuations. This is effective for load torques below the maximum torque.

However, note that the maximum speed will not be exceed what the servo is capable of even if the servos operating voltage is increased.

• Dead band

The dead band angle at stopping can be specified.

[Relationship between dead band set value and servo operation]

Small → Dead band angle is small and the servo is immediately operated by a small signal change.

Large → Dead band angle is large and the servo does not operate at small signal changes.

(Note) If the dead band angle is too small, the servo will operate continuously and the current consumption will increase and the life of the servo will be shortened.

• Travel Adjust

The left and right travels centered about the neutral position can be set independently.

• Boost

The minimum current applied to the internal motor when starting the servo can be set. Since a small travel does not start the motor, it essentially feels like the dead band was expanded. The motor can be immediately started by adjusting the minimum current which can start the motor.

[Relationship between boost set value and servo operation]

Small → Motor reacts to a minute current and operation becomes smooth.

Large → Initial response improves and output torque increases. However, if the torque is too large, operation will become rough.

• Boost ON/OFF

OFF : It is the boost ON at the time of low-speed operation.(In the case of usual)

ON : It is always the boost ON.(When quick operation is hope)

• Damper

The characteristic when the servo is stopped can be set.

When smaller than the standard value, the characteristic becomes an overshoot characteristic. If the value is larger than the standard value, the brake is applied before the stop position.

Especially, when a large load is applied, overshoot, etc. are suppressed by inertia and hunting may occur, depending on the conditions. If hunting (phenomena which cause the servo to oscillate) occurs even though the Dead Band, Stretcher, Boost and other parameters are suitable, adjust this parameter to a value larger than the initial value.

[Relationship between damper set value and servo operation]

Small → When you want to overshoot. Set so that hunting does not occur.

Large → When you want to operate so that braking is not applied. However, it will feel like the servo response has worsened.

(Note) If used in the hunting state, not only will the current consumption increase, but the life of the servo will also be shortened.

• Stretcher

The servo hold characteristic can be set. The torque which attempts to return the servo to the target position when the current servo position has deviated from the target position can be adjusted.

This is used when stopping hunting, etc., but the holding characteristic changes as shown below.

[Relationship between stretcher and servo operation]

Small → Servo holding force becomes weaker.

Large → Servo holding force becomes stronger.

(Note) When this parameter is large, the current consumption increases.

• Buzzer

When the power supply of a servo is previously turned on at the time of a power supply injection without taking transmit of a transmitter, the buzzer sound of about 2.5 Hz continues sounding from a servo.

(Even when the transmit of a transmitter is taken out previously, a buzzer becomes until the signal of a servo is outputted normally, but it is not unusual.)

The transmitter has been turned OFF ahead of a servo power supply → The buzzer sound of about 1.25 Hz continues sounding as servo power supply end failure alarm.

(Do not insert or remove the servo connector while the receiver power is ON. A buzzer may sound by incorrect recognition.)

*Buzzer sound is generated by vibrating the motor of a servo.

Since current is consumed and a servo generates heat, please do not operate the number more than needed or do not continue sounding a buzzer for a long time.

MDL-TRANS Model transfer (Common)

Function

Transmission of model data is possible with T10J transmitters. Data transfer is performed by the radio. The MDL-TRANS function works with the current model you are using in the transmitter. As for the receiving transmitter, any data on the current model that is receiving the information will be over-written.

*T10J does not carry out normal operation during data transfer.

⚠ CAUTION

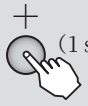
Always check servo direction prior to every flight as an additional precaution to confirm proper model date, hook ups, and radio function.

NOTE: MDL-TRANS between two T10J radios should be performed within a 2-meter range.

Method

Calling the setting screen

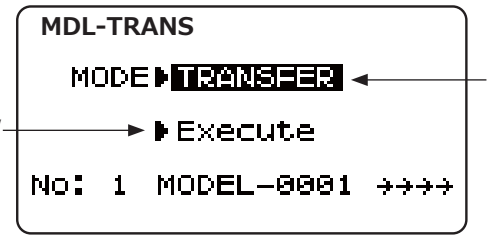
① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "MDL-TRANS" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

Execution of transmission/reception

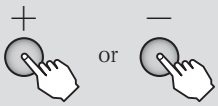


MODE：TRANSFER(T10J of data origin)／RECEIVE(T10J which receives data)

Model transfer

● MDL-TRANS between two T10J radios should be performed within 2-meter range.

① In each T10J, the + or − key is pressed and it is made "TRANSFER" and "RECEIVE".



● "TRANSFER"：T10J of data origin
"RECEIVE"：T10J which receives data

Selection range： TRANSFER, RECEIVE

② Select "Execute" with the Jog key.

③ Hold down the Jog key [each T10J].

● "COMPLETE" is displayed and the mode transfer is finished.

● From T8J to T10J, data transfer is possible. In that case, TYPE of T10J on the "RECEIVER" side is changed into "T8J" by +− key. However, data cannot be sent to T8J from T10J.

● If data is not being transmitted, the receiving transmitter returns to normal operation 10 seconds after execution. At this time, "Failure" (not transmitting) is displayed.

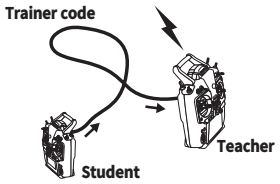
Function

Since the channel and operation mode used in training can be selected, the training difficulty can be set to match the student's level.

The trainer function can be used by connecting the instructor's transmitter to the student's transmitter using a special trainer cord (sold separately). Student operation is possible by instructor switch operation. If the student enters a dangerous situation, control can be immediately switched to the instructor.

- Four operation modes can be selected at each channel.
- The trainer switch is set to switch H.

When the trainer function is used, the snap roll function is automatically deactivated.



⚠ CAUTION Use the trainer function under the following conditions:

- When the instructor uses a T10J transmitter, set the student's transmitter modulation to PPM (for conventional frequency transmitter). (When the student uses a T10J transmitter, the modulation mode does not have to be changed. A PPM signal is always output from the trainer jack.)
- Before flight always confirm that all the instructor and student channels operate normally as set.
- Always insert the trainer cord as far as it will go and take measures so that the cord will not work loose during use.
- Always remove the high frequency module of the student's transmitter. (For module type)
- Never turn on the student's transmitter power switch.

Trainer function operation modes

- FNC mode: The channel set to this mode can be controlled by the student using the mixing set at the instructor's transmitter. (Student settings are returned to their initial value in advance.)
- MIX mode: The channel set to this mode is controlled by mixing the instructor and student signals. Correction rudder is applied by the instructor. When this mode is selected, the student's rate is reduced to prevent servo overthrow. The student's rate can also be set. (The student's settings are returned to their initial value in advance.)
- NOR mode: The channel set to this mode is controlled by signals from the student's transmitter. (The instructor and student settings must be the same.)
- OFF mode: The channel set to this mode cannot be controlled by the student. It can only be controlled by the instructor.

However, channels not provided at the student's transmitter are controlled by the instructor regardless of the above settings.

When other models are selected, the trainer function is deactivated, but the channel settings remain.

Example of use

- When the FUNC mode is set at the stick channel, helicopter stick operation training is possible even with a 4EX transmitter (4 channels for aircraft).
- Control by the instructor is possible by setting only the training channel matched to the student's level to the NORM mode and setting the other channels to the OFF mode.

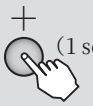
◆ Trainer Cords

Instructor	Student	Trainer Cords
10J	10C, 9C, 7C, 6EX, 4EX	T12FG (FUTM4405)
	18MZ,14MZ, 14SG, FX-22, 12Z, 12FG, 8FG, 10J, 8J, 6J	T12FG (FUTM4405) and 9C (FUTM4415) Trainer Cords
18MZ,14MZ, 14SG, FX-22, 12Z, 12FG, 8FG, 10C, 9C, 7C, 8J, 6J, 4EX	10J	

Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.

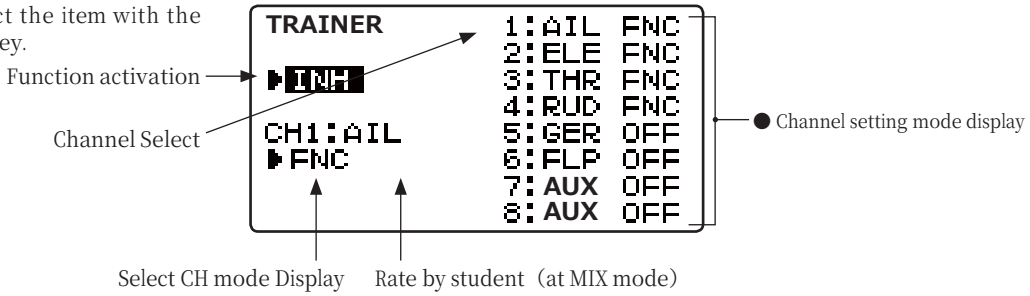


② Select "TRAINER" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

(Trainer function)

● Select the item with the Jog key.



< ChannelDisplay >

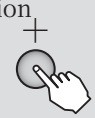
ACROBATIC		HELICOPTER		GLIDER (AF2)		MULTICOPTER	
1: AIL(Aileron)	6: FLP(Flap)	1: AIL(Aileron)	6: PIT(PITCH)	1: AIL(Aileron)	6: FL2(Flap2)	1: AIL(Aileron)	6: AUX
2: ELE(Elevator)	7: AUX	2: ELE(Elevator)	7: AUX	2: ELE(Elevator)	7: Al2(Aileron2)	2: ELE(Elevator)	7: AUX
3: THR(Throttle)	8: AUX	3: THR(Throttle)	8: AUX	3: MOT(Motor)	8: AUX	3: THR(Throttle)	8: AUX
4: RUD(Rudder)		4: RUD(Rudder)		4: RUD(Rudder)		4: RUD(Rudder)	
5: GER(Gear)		5: GYR(GYRO)		5: FLP(Flap)		5: MOD(Mode)	

*CH9 and CH10 cannot use a trainer function.

Trainer function

■ Function activation

① Select the "OFF" by pressing the + key or – key.



or

● When you do not want to use the function select INH.

■ Mode setting

② The mode of the channel of hope is chosen by pressing the + key or – key.

or

Selection range： OFF, NOR, FNC, MIX、

Default： OFF

(When MIX mode Select)

■ Student rate setting

③ Jog key is pressed in a side and a channel is chosen, rate setting by pressing the + key or – key.

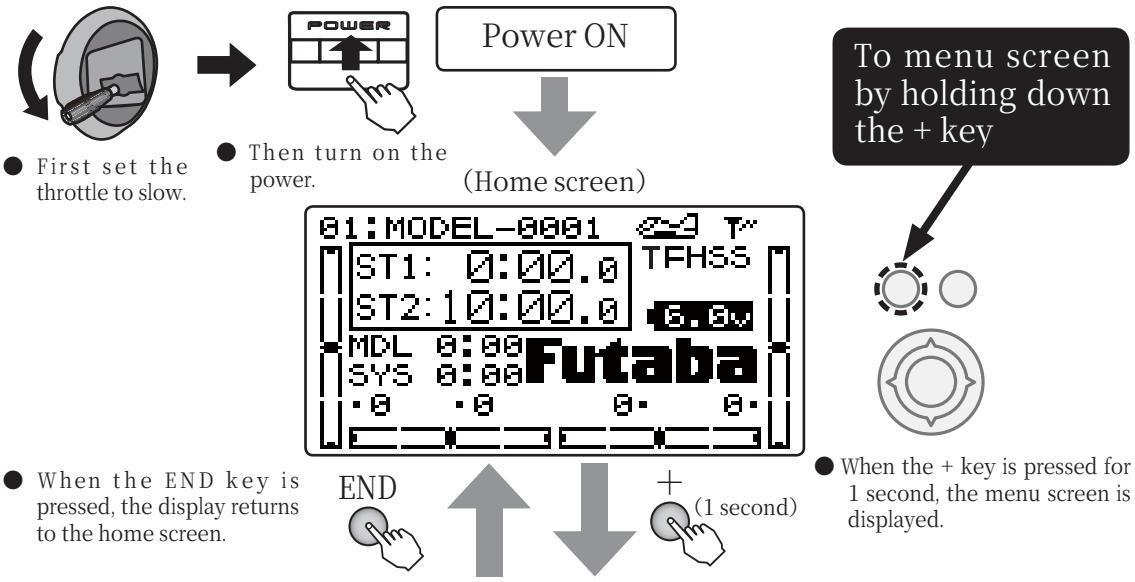
or

Range： 0 ～ 100%

Default： 30%

Common function

The setting screen of each function is called from the following menu. The function when the model type was set to airplane (ACROBATIC) is displayed here.



- First set the throttle to slow.
- Then turn on the power.
- When the END key is pressed, the display returns to the home screen.
- When the + key is pressed for 1 second, the menu screen is displayed.

MENU

MENU 1/3

MENU 1 2 3	
▶MDL-SEL	▶END POINT
▶MDL-NAME	▶TRIM
▶FAIL SAFE	▶SUB TRIM
▶REVERSE	▶P.MIX1-6
▶TIMER	▶AUX-CHAN
▶SERVO	▶PARAMETER

MENU 2/3

MENU 1 2 3	
▶TELEMETRY	▶AIL→RUD
▶SENSOR	▶V-TAIL
▶SBUS LINK	▶GYRO SENS
▶MDL-TRANS	▶ELEVON
▶TRAINER	▶AILVATOR
▶AIL-DIFF	▶THR→NEEDL

MENU 3/3

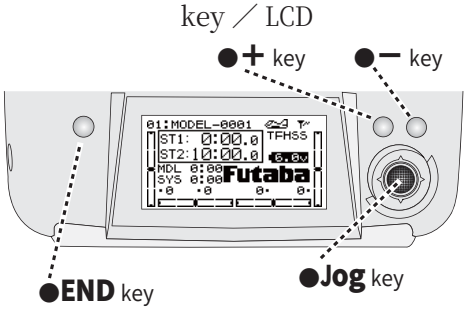
MENU 1 2 3	
▶D/R,EXPO	▶THR.CUT
▶FLAPERON	▶IDLE DOWN
▶AIR-BRK	▶SNAP ROLL
▶FLAP→ELE	▶THR-CURVE
▶ELE→FLAP	▶PIT-CURVE
▶FLAP TRIM	▶THR DELAY

(Selection)

- Move the cursor (highlighted) up and down and to the left and right with the Jog key and select the function. The cursor can be moved over several pages.

(Calling the setting screen)

- Press the Jog key to open the setting screen.



Refer to "Common Functions" previously described for a description of this function.

■ Function

MENU1/3	
MDL-SEL Model select ／ Model Copy ／ Data reset ／ RX ／ Link	(P.40)
MDL-NAME Model name ／ User name	(P.43)
FAIL SAFE Fail safe	(P.45)
REVERSE Servo reverse	(P.47)
TIMER Timer	(P.48)
SERVO Servo monitor ／ Servo test	(P.49)
END POINT End point	(P.50)
TRIM Trim reset ／ Trim step	(P.51)
SUB TRIM Sub trim	(P.52)
P.MIX1-6 Program mixing 1 ～ 6	(P.53)
AUX-CHAN AUX channel	(P.56)
PARAMETER Data reset ／ Model type ／ ATL-trim ／ LCD contrast ／ Back light : mode, time, adjustment ／ Home display ／ Battery alarm ／ Battery vibration ／ Buzzer tone ／ Jog navi ／ Jog light ／ Jog time ／ Telemetry : mode, unit ／ Speech : language, volume ／ Stick position alarm	(P.58)

MENU2/3	
TELEMETRY Telemetry Display ／ Alarm setup	(P.66)
SENSOR Telemetry sensor	(P.83)
SBUS LINK S.BUS servo set up	(P.89)
MDL-TRANS Data transfer of another 10J or 8J	(P.92)
TRAINER Trainer	(P.93)
AIL-DIFF Aileron Differential	(P.97)
AIL → RUD Aileron → Rudder	(P.98)
V-TAIL V-Tail	(P.99)
GYRO SENS Gyro mixing	(P.100)
ELEVON Elevon	(P.101)
AILVATOR Ailvator	(P.102)
THR → NEEDL Throttle → Needle Mixing	(P.103)

MENU3/3	
D/R, EXPO Dual rate ／ EXPO	(P.104)
FLAPERON Flaperon	(P.106)
AIR-BRK Air brake	(P.108)
FLAP → ELE Flap → Elevator mixing	(P.110)
ELE → FLAP Elevator → Flap mixing	(P.111)
FLAP TRIM Flap trim	(P.112)
THR.CUT Throttle cut	(P.113)
IDLE DOWN Idle down	(P.115)
SNAP ROLL Snap roll	(P.116)
THR-CURVE Throttle curve	(P.117)
PIT-CURVE PIT-curve	(P.118)
THR DELAY Throttle delay	(P.119)

AIL-DIFF Aileron differential (ACROBATIC)

Function

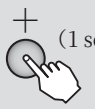
The left and right aileron differential can be adjusted independently. This function is restricted to 2 servo aileron.

NOTE：Aileron Differential cannot be used simultaneously with Flaperon or Elevon. If another function is already active, “Others WING mix “ON” is displayed on the screen. After setting the active function to “INH” , set the Aileron Differential function to “ACT” .

Method

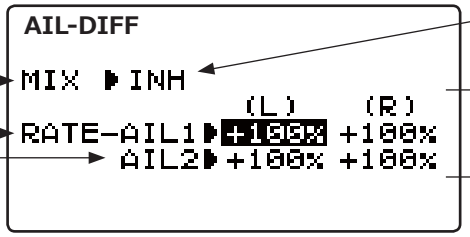
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "AIL-DIFF" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.



● When INH is selected, the function cannot be used. To use the function, select ACT.

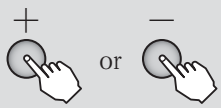
(Aileron)
L：Aileron stick Left side rate
R：Aileron stick Right side rate

● Select the setting item with the Jog key.

Aileron Differential

■ Activating the function

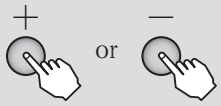
① Select the "MIX" item and then select the "ACT" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Aileron rate

② Select the "RATE-AIL1" item and move the aileron stick to the left and right and adjust the travel of each servo by pressing the + key or – key.



Range：-120 ～ +120%
Default：+100%

● When you want to return to the initial value, press the + key and – key simultaneously. However, when the polarity is changed only the number returns to the initial value.

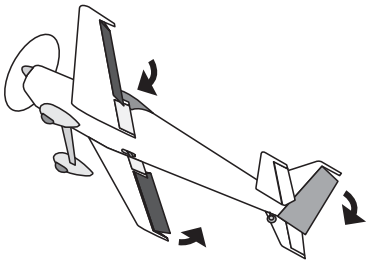
(Adjust the "RATE-AIL2" item in the same way as ② .)

AIL → RUD Aileron → Rudder mixing (ACROBATIC)

Function

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

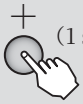
- When the linkage direction is reversed by the linkage, adjustments can be made by changing the rate polarity.



Method

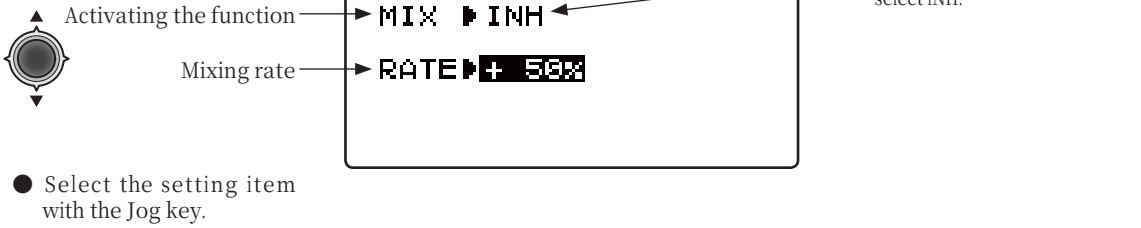
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "AIL → RUD" from the menu with the Jog key.

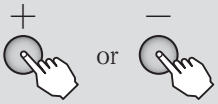
③ Open the setting screen by pressing the Jog key.



Aileron → Rudder Mixing

■ Activating the function

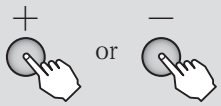
① Select the "MIX" item and then select the "ON" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Mixing rate

② Select the "RATE" item and then adjust the mixing rate by pressing the + key or – key.



Range : -100 ~ +100%
Default : +50%

● When you want to return the set value to the initial value, press the + key and – key simultaneously. However, polarity does not return.

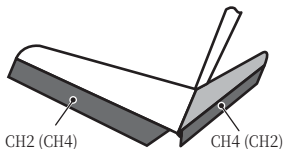
V-TAIL V-Tail (ACROBATIC)

Function

This mixing is used with V tail aircraft that combine the elevator and rudder functions.

NOTE : V Tail cannot be used simultaneously with Elevon or Ailevator. When another function is already activated, "Other WING mix "ON" " is displayed on the screen. Set the V tail function to ACT after setting the active function to INH.

V-tail

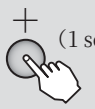


	CH2 Servo	CH4 Servo
Elevator	ELE1	ELE2
Rudder	RUD2	RUD1

Method

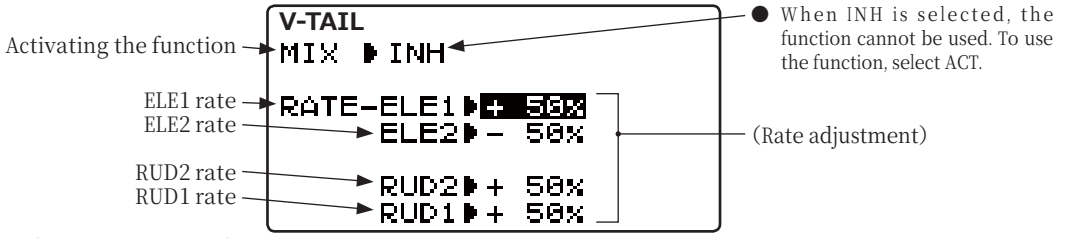
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "V-TAIL" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

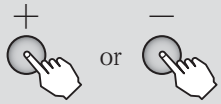


● Select the setting item with the Jog key.

V-TAIL

■ Activating the function

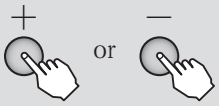
① Select the "MIX" item and then select the "ACT" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Rate adjustment

② Select the "RATE" item and then adjust the mixing rate by pressing the + key or – key.



Range : -100 ~ +100%
Default : +50%
(only ELE2 : -50%)

● When you want to return the set value to the initial value, press the + key and – key simultaneously.However, polarity does not return.

NOTE : We recommend that setting be performed while moving the stick and checking the amount of movement. If the amount of movement is too large, elevator and rudder operation will be compounded and the servo travel range will be exceeded and a dead band in which the servo will not operate may be created.

GYRO SENS Gyro sensor (ACROBATIC)

Function

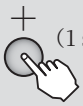
This function is dedicated mixing for switching the gyro sensitivity and gyro mode (AVCS/NORMAL) of Futaba airplane use gyros. Up to 3 axes can be set.

- The sensitivity switch can be selected and the sensitivity of each direction of the switch can be set. (Switches A to H) If the airplane stalls during flight, the gyro will lose control of the plane's attitude. From the standpoint of safety, we recommend that the OFF (0%) position also be set using a 3 position switch.
- CH5, CH5/CH7, CH5/CH8 or CH5/CH7/CH8 combinations can be selected as the sensitivity setting channel.

Method

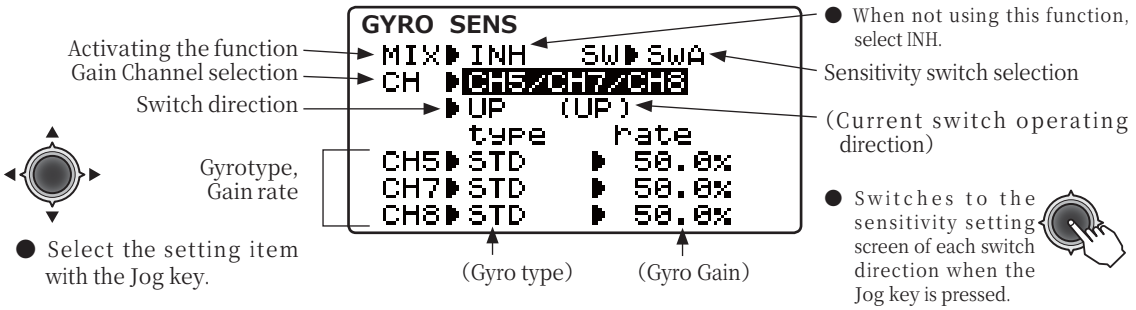
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "GYRO SENS" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

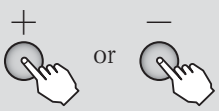


● When using a Futaba GYA gyro, select gyro type GY. This switches the gyro sensitivity setting item to mode and sensitivity direct reading display.

GYRO SENS

■ Activating the function

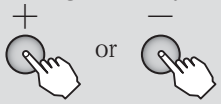
① Select the "MIX" item and then select the "ON" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Sensitivity switch selection

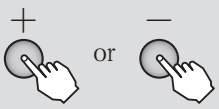
② Select the "SW" item and then select the switch by pressing the + key or – key.



Range : SwA ~ SwH、Default : SwA

■ Sensitivity setting channel selection

③ Select the "CH" item and then select the sensitivity setting channel by pressing the + key or – key.



Range : CH5、CH5/CH7、CH5/CH8、CH5/CH7/CH8

Default : CH5

■ Gyro type and sensitivity setting

④ Press the Jog key and select the sensitivity setting screen you want to set and then set "type" (gyro type) and "rate" (gyro sensitivity) of each channel by pressing the +key or – key.

("type") Range : STD,GY Default : STD

("rate") Range : 0 ~ 100%(STD) , NOR100 ~ 0 ~ AVC100%(GY) Default : 50%(STD) , 0%(GY)

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

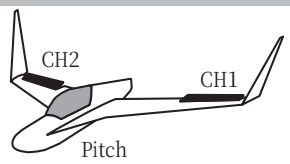
ELEVON Elevon (ACROBATIC)

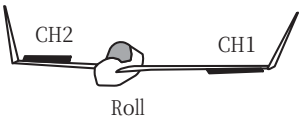
Function

This mixing is used with delta wing, tailess, and disk shaped airplanes that combine the aileron and elevator functions.

Connect the CH1 servo to the left aileron and the CH2 servo to the right aileron.

●The aileron and elevator travel can be adjusted individually.





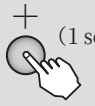
NOTE：Elevon cannot be used simultaneously with V-tail or Ailevator functions. You may use Flaperon or Differential when this function is active. If another function is already active, “Other WING mix “ON” is displayed on the screen. After setting the active function to “INH” , set the V-tail function to “ACT” .

	CH1 servo	CH2 servo
Roll	AIL1	AIL2
Pitch	ELE2	ELE1

Method

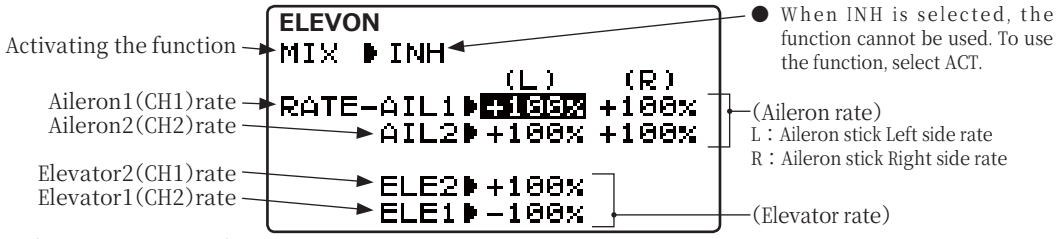
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "ELEVON" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

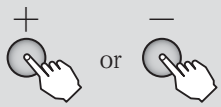


● Select the setting item with the Jog key.

ELEVON

■ Activating the function

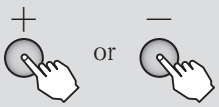
① Select the "MIX" item and then select the "ACT" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Rate set

② Select the "RATE" item and then adjust the mixing rate by pressing the + key or – key.



Range：-120 ～ +120%
Default：+100%
(only ELE1 : -100%)

● When you want to return the set value to the initial value, press the + key and – key simultaneously.However, polarity does not return.

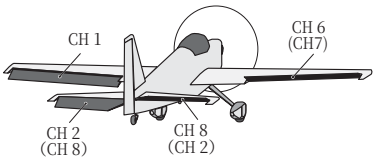
NOTE：We recommend that setting be performed while moving the stick and checking the amount of movement. If the amount of movement is too large, elevator and aileron operation will be compounded and the servo travel range will be exceeded and a dead band in which the servo will not operate may be created.

AILVATOR Ailvator (ACROBATIC)

Function

Ailevator mixes both Ailerons and Elevators together. Or the function can be used separate from your ailerons when you have two Elevator servos. Since there are aircraft like jet fighters that use the elevators as ailerons, using this function can give you a sense of reality. Aileron operation can also be used with 2 elevator servo specifications. The servos connect to the receiver CH2 and CH8 output.

- Elevator and aileron travel can be adjusted individually.
- Confirm the direction of operation, because it is different depending on the linkage.



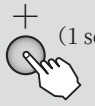
	CH2 servo	CH8 servo
Roll	AIL3	AIL4
Pitch	ELE1	ELE2

NOTE : Ailevator cannot be used simultaneously with V-tail or Elevon functions. When "Other WING mix "ON" "is displayed on the screen, set the ailvator function to ACT after setting the active function to INH.

Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.

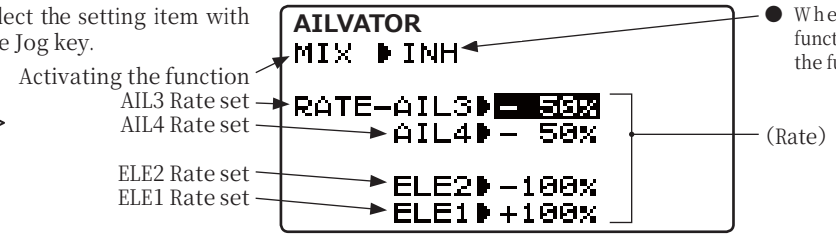


② Select "AILVATOR" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

Airplane

● Select the setting item with the Jog key.

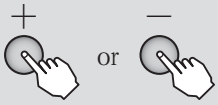


● When INH is selected, the function cannot be used. To use the function, select ACT.

AILVATOR

■ Activating the function

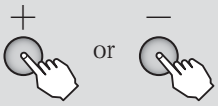
① Select the "MIX" item and then select the "ACT" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Rate set

② Select the "RATE" item and then adjust the mixing rate by pressing the + key or – key.



Range : -100 ~ +100%
Default : -50%(AIL3, AIL4),
-100%(ELE2), +100%(ELE1)

● When you want to return the set value to the initial value, press the + key and – key simultaneously.However, polarity does not return.

NOTE : We recommend that setting be performed while moving the stick and checking the amount of movement. If the amount of movement is too large, elevator and aileron operation will be compounded and the servo travel range will be exceeded and a dead band in which the servo will not operate may be created.

● When used as 2 elevator servos specifications without aileron operation, set the AIL3 and AIL4 travel to 0%.

THR → NEEDL Throttle → Needle mixing (ACROBATIC)

Function

This function is used when the engine is equipped with a mixture control system (needle control and other mixture adjustments to the engine).

The throttle control servo connects to receiver CH8.

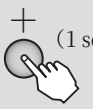
- The mixture can be set by 5 point curve in relation to the throttle stick.
- An acceleration function which accelerates the engine to the optimal mixture when the throttle is opened can be set.

NOTE : This cannot be used if Ailevator function is active as they cannot be used simultaneously. "AILVATOR mix "ON" "is displayed on the screen. Set the THR → NEEDL function to ACT after setting the active function to INH.

Method

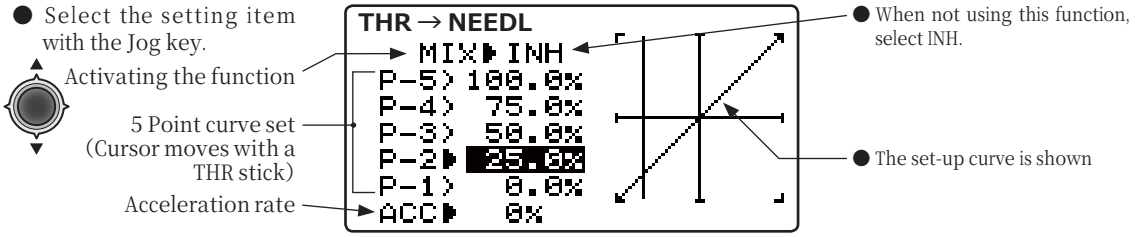
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "THR → NEEDL" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.



Throttle curve

■ Activating the function

① Select the "MIX" item and then select the "ON" by pressing the + key or – key.

or

● When you do not use a function, set to the "INH" side.

■ 5 point curve setting

② Select the setting item (P-1 ～ P-5) and then set the travel of each point by pressing the + key or – key.

Range : 0 ～ 100%
Default : P-1:0%, P-2:25%, P-3:50%, P-4:75%, P-5:100%

■ Acceleration rate

③ Select the "ACC" item and adjust the acceleration amount by pressing the + key or – key.

Range : 0 ～ 100%, Default : 0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

D/R,EXPO Dual rate ／ EXPO (ACROBATIC)

Function

D/R

The aileron, elevator and rudder channel control surface angle can be switched in 2 steps

- The control surface angle is adjusted by each direction of the switch. The left and right (up and down) direction of each switch can be set individually.

EXP

This function makes operation more pleasant by changing the operating curve so that servo movement is sluggish or sensitive relative to stick operation near the aileron, elevator, throttle, and rudder neutral position. Adjustments can be made in 2 steps according to the control surface angle.

- The "-" side makes servo movement sluggish and the "+" side makes servo movement sensitive near the neutral position. Exponential is applied to entire throttle servo travel. When the "+" side is increased, the slow side becomes sluggish and the high side becomes sensitive.
- Setting corresponding to each rate of dual rate (D/R) is possible. (Except throttle) The direction of each switch and the left and right (up and down) direction of each channel can be set individually.

Switch selection (SW)

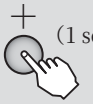
Switches A to H can be selected as the aileron channel, elevator channel, and rudder channel dual rate (exponential) switch.

- Default : Aileron : SwitchD ／ Elevator : SwitchA ／ Rudder : SwitchB

Method

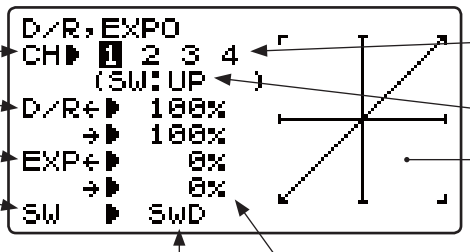
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "D/R,EXPO" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.



Channel selection
Dual rate
EXPO
Switch selection

● Channel selection/Select the setting item with the Jog key.

(Switch No.)

(D/R and EXPO rate display)
Top row ; Left side ／ down
Bottom row ; Right side ／ up

● The channel under selection is underlined.

(Switch Direction)

● The dual rate and exponential settings are displayed by a curve.

< Channel >
1 : Aileron
2 : Elevator
3 : Throttle
4 : Rudder

D/R

① A channel is chosen by Jog key.

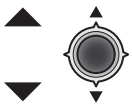
Range : 1, 2, 4

② Adjust the rate by moving the cursor to D/R with the Jog key, switching the dual rate switch to the direction you want to set, moving the stick to the left (down) or right (up) side and pressing the + key or – key.

Range :
0 ~ 140%
Default : 100%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

Adjust the rate of each direction of the dual rate switch and stick by repeating step



● Moving to another setting item of the same channel is possible by Jog key.

EXPO

① Select the "EXP" item and then select the channel with the Jog key.

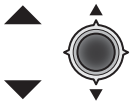
Range : 1 ~ 4

② Adjust the rate by moving the cursor to EXP with the Jog key, switching the dual rate switch to the direction you want to set, moving the stick to the left (down) or right (up) side and pressing the + key or – key.

Range :
-100 ~ +100%
Default : 0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

Adjust the rate of each direction of the dual rate switch and stick by repeating step



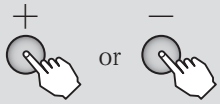
● Moving to another setting item of the same channel is possible by Jog key.

Switch Change

① Select the "SW" item and then select the channel with the Jog key.

Range : 1, 2, 4

② A switch is chosen by + key or -key.



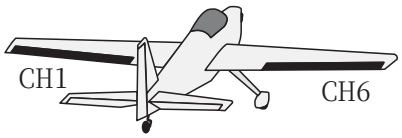
Range : SwA ~ SwH

FLAPERON Flaperon (ACROBATIC)

Function

This mixing function mixes two ailerons and also gives the ailerons a flap function. Aileron and left and right aileron control surfaces can be raised at the same time. If this function is used together with air brake function, the aircraft speed can be dropped when landing and is effective in narrow places. Connect the left aileron servo to CH1 (AIL) and the right aileron servo to CH6 (FLP).

- The up and down angle of the left and right aileron control surfaces can be adjusted individually.
- The left and right flap travel can also be adjusted individually.



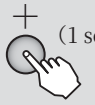
	CH6 servo	CH1 servo
Aileron Operation	Right Aileron	Left Aileron
Flap Operation	Flap1	Flap2

NOTE : Only the Flaperon, AileronDifferential, or Elevon functions can be used. They cannot be turned on simultaneously. When another function is already activated, "Other WING mix "ON" "is displayed on the screen. Set the Flaperon function to ACT after setting the active function to INH.

Method

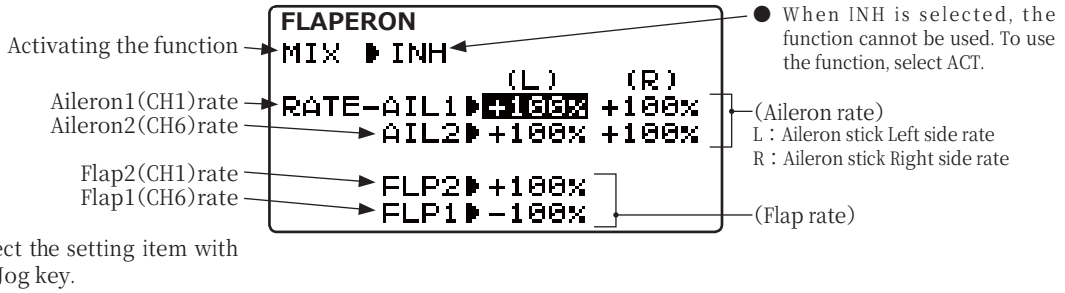
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "FLAPERON" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

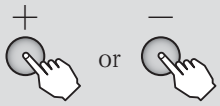


● Select the setting item with the Jog key.

Flaperon

■ Activating the function

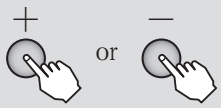
① Select the "MIX" item and then select the "ACT" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Aileron rate

② Select "RATE-AIL1" and operate the aileron stick to the left and right and adjust the travel of each servo by pressing the + key or – key.



Range：-120 ～ +120%
Default：100%

● When you want to return the set value to the initial value, press the + key and – key simultaneously. However, when the polarity is changed, only the number is returned to the initial value.

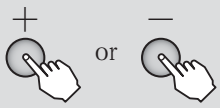
(The "RATE-AIL 2" item is adjusted in the same way as ② .)

(When flap trim is used, make the settings shown below.)

● However, set the basic travel with the Flap function in advance. (Default：0%)

■ Flap rate

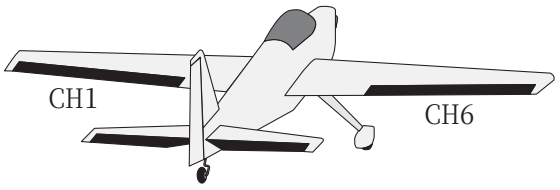
③ Select the "RATE-FLP2" item and adjust the Flap2 travel by pressing the + key or – key.



Range：-120 ～ +120%
Default：+100%

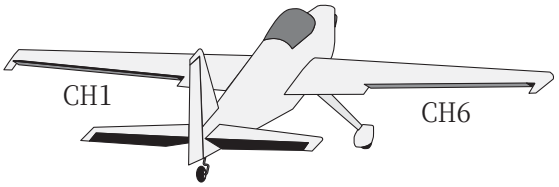
● When you want to return the set value to the initial value, press the + key and – key simultaneously.However, polarity does not return.

(The "RATE-FLP1" item is adjusted in the same way as ③ . However, the "RATE-FLP1" side initial value is -100%.)



Flaperon ACT

When flaperon is active, the ailerons can be controlled by the servos connected to CH1 and CH6. The servo travel can be adjusted by the left and right end points.



Air brake ACT

The left and right ailerons can be raised (brake operation) and lowered (flap operation) at the same time by setting SW-C to its lowest position.

AIR-BRK Air brake (ACROBATIC)

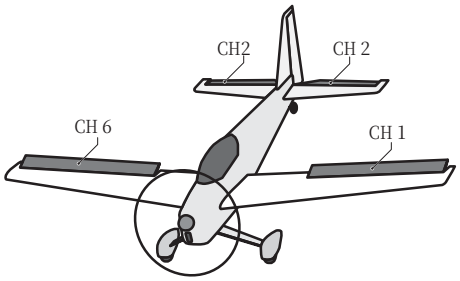
Function

This function is used when the air brake is necessary during landing and is turned on and off by switch C (initial setting).

- Normally when the ailerons are used as a brake, they are raised (UP side)
- When the operation mode is "OFST" (offset), the air brake is controlled by switch operation. When the operation mode is "LINR" (linear), the air brake is operated linearly at switch ON and from the control stick set position.
- If the "LINR" mode was selected, the throttle stick controls CH3 and the air brake operation, but it can be separated from CH3 operation. CH 3 control can be switched from stick to stick or to VR knob. However, when other than stick was selected, the throttle trim and function reverse functions cannot be used.
- When used in the "LINR" mode, adjust the travel with the throttle stick at the maximum slow side (braking amount maximum).

● Adjustment item for every wing type

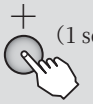
Display	(Normal)	Flaperon	Aileron Differential
AIL1(1CH)	-----	Aileron1	Aileron1
ELEV(2CH)	Elevator	Elevator	Elevator
FLAP(6CH)	Flap	Aileron2	Flap
AIL2(7CH)	-----	-----	Aileron2



Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



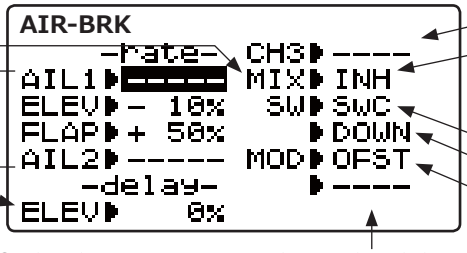
② Select "AIR-BRK" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

Activating the function

Rate set

Delay Rate set



3CH Control set

● When not using this Function select INH. The display of On/Off is shown when active and assigned to a switch.

Switch selection

Switch direction

Mode

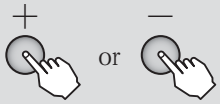
● Select the setting item with the Jog key.

● When the "LINR" operation mode was selected, the current throttle stick position is displayed at the operation reference point and in the bottom row parentheses.

Air brake

■ Activating the function

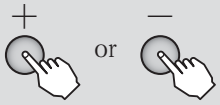
① Select the "MIX" item and then select the "ON" or "OFF" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Rate set

② Select the "rate" item and adjust the servo travel by pressing the + key or – key.

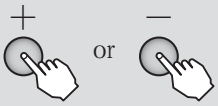


Range：-100 ～ +100%
Default：+50%（ELEV only -10%）

● When you want to return the set value to the initial value, press the + key and – key simultaneously. However, polarity does not return.

■ Delay Rate set

③ Select the "delay" item and adjust the elevator operation delay by pressing the + key or – key.



● The amount of delay is large at 100%.

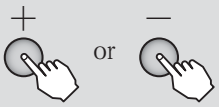
Range：0 ～ 100%、Default：0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

(In the case of change of a switch)

■ Switch selection

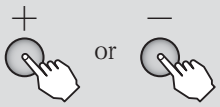
① Select the "SW" item and then select the switch by pressing the + key or – key.



Range：SwA ～ SwH
Default：SwC

■ Switch direction

② Select the ON direction by pressing the + key or – key at the ON direction selection item.

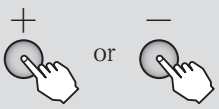


Range：
● 2P SW：NULL, UP, DOWN
● 3P SW：NULL, UP, UP&D, UP&C, CNTR, C&DN, DOWN

(In the case of change of a mode)

■ Mode

① Select the "MOD" item and select the operation mode by pressing the + key or the – key.



Range：OFST, LINR
Default：OFST

■ Operation reference point setting ("LINR" mode only)

② Select the operation reference point setting item newly displayed at the bottom row of "MOD" and hold the throttle stick at the air brake start point and set the reference point by pressing the Jog key for 1 second.

Range：0 ～ 100%

(When 3CH control is changed at the time of "LINR")

■ "LINR" mode 3CH control

① Select the "CH3" item and select control by pressing the +key or – key.

Range：THR, SwA ～ SwH, VR, DT5, DT6
Default：THR

FLAP → ELE

Flap → Elevator mixing (ACROBATIC)

Function

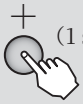
This mixing is used to compensate for pitch changes (elevator direction) at flap operation.

- When the mixing direction is reversed by the linkage adjustment is possible by changing the rate polarity.
- The mixing reference point can be shifted. (OFFSET)

Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



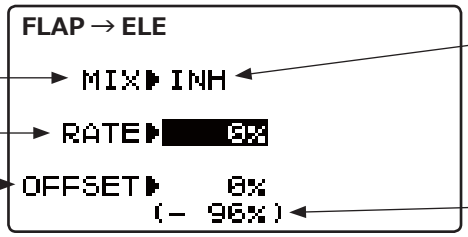
② Select "FLAP → ELE" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

Activating the function

Mixing rate

Mixing offset rate



● When not using this function, select INH.

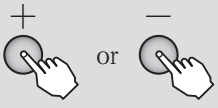
(Present flap operating position)

● Select the setting item with the Jog key.

Flap → ElevatorMixing

■ Activating the function

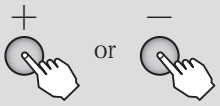
① Select the "MIX" item and then select the "ON" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Mixing rate

② Select the "RATE" item and then adjust the mixing rate by pressing the + key or – key.



Range : -100 ～ +100%
Default : 0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

(When changing the mixing reference point)

■ Mixing reference point offset setting

① Select the "OFFSET" item and turn the Flap knob to the point you want to make the mixing reference point and set the reference point by pressing the Jog key for 1 second.

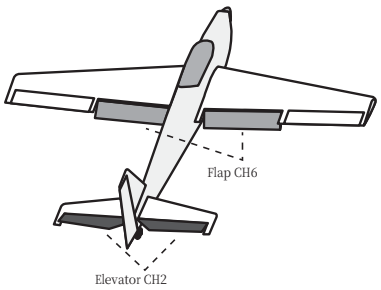
Range : -100 ～ +100% Default : 0%

ELE → FLAP Elevator → Flap mixing (ACROBATIC)

Function

This mixing is used when you want to apply mixing from elevators to flaps. Usually, mixing is such that the flaps are lowered by raising the elevators. When used with Fun Fly and other aircraft, small loops are possible.

●The up side and down side rates can be adjusted.



Method

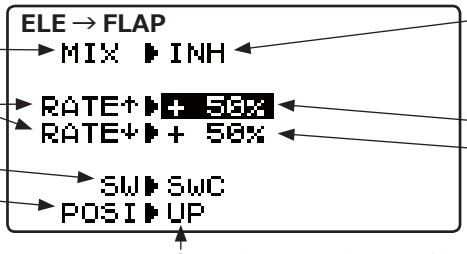
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.

② Select "ELE → FLAP" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

Activating the function
Mixing rate
Switch selection
Switch direction



● When not using this Function select INH. The display of On/Off is shown when active and assigned to a switch.

(Elevator down side rate)
(Elevator up side rate)

● This cursor position operates and chooses an elevator stick.

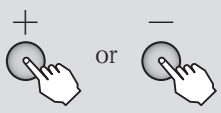
● Select the setting item with the Jog key.

● Sets the ON/OFF direction of the selected switch.
○ 2P SW：NULL, UP, DOWN
○ 3P SW：NULL, UP, UP&D, UP&C, CNTR, C&DN, DOWN

Elevator → FlapMixing

■ Activating the function

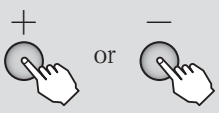
① Select the "MIX" item and then select the ON or OFF by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Switch selection

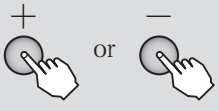
② Select the "SW" item and then select the switch by pressing the + key or – key.



Range：SwA ～ SwH、Default：SwC

■ Switch direction

③ Select the "POSI " by pressing the + key or – key at the ON direction selection item.

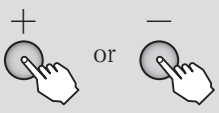


Range：

● 2P SW：NULL, UP, DOWN
● 3P SW：NULL, UP, UP&D, UP&C, CNTR, C&DN, DOWN

■ Mixing rate

④ Select the "RATE" item and then adjust the mixing rate by pressing the + key or – key.



Range：-100 ～ +100%　Default：+50%

● When you want to return the set value to the initial value, press the + key and – key simultaneously. However, polarity does not return.

● RATE ↑ / ↓ cursor position operates and chooses an elevator stick.

FLAP TRIM Flap trim (ACROBATIC)

Function

This function trims the CH6 VR knob.

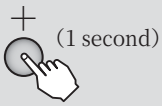
●The trim travel can be adjusted.

*When the flaperon function is activated ("ACT"), this function is turned on automatically. It can be turned on and off independently.

Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.

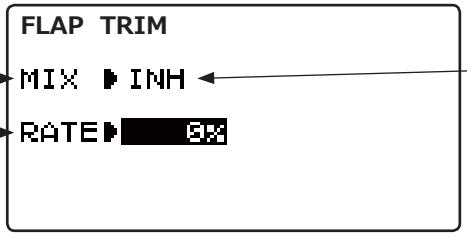


② Select "FLAP TRIM" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

Activating the function →

Flap trim rate →



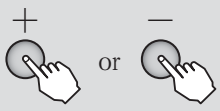
● When INH is selected, the function cannot be used. To use the function, select ACT.

● Select the setting item with the Jog key.

Flap Trim

■ Activating the function

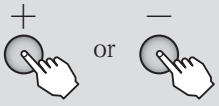
① Select the "MIX" item and then select the "ACT" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Flap rate

② Select the "RATE" item and then adjust the flap rate by pressing the + key or – key.



Range : -100 ~ +100%

Default : 0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

THR.CUT Throttle cut (ACROBATIC)

Function

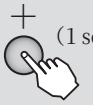
This function cuts (stops) the engine or motor by stick operation. At throttle operation, the rate is adjusted to the position which completely cuts the throttle servo or ESC when the throttle is operated. When Thr.Cut is active, the throttle position is held regardless of the throttle stick position.

- NOR/ESC operation mode switching. For motor aircraft, select ESC. For motor aircraft, the throttle position when the function is reset can be set so the motor will not unexpectedly run at high speed when the throttle cut function is reset. When the throttle stick is higher than the set throttle position, the throttle cut function is not reset even if the switch is set to OFF. Set to a safe throttle position (slow side).
- Function operation can be selected from among switches A ~ H.
- Set the throttle cut function for safety also.

Method

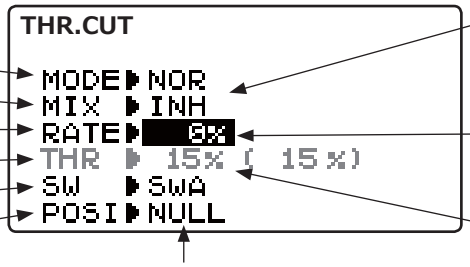
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "THR.CUT" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.



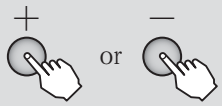
Mode
Activating the function
Cut Position rate
Throttle Position
Switch selection
Switch direction

- Select the setting item with the Jog key.
- Sets the ON/OFF direction of the selected switch.
  - ○ 2P SW : NULL, UP, DOWN
  - ○ 3P SW : NULL, UP, UP&D, UP&C, CNTR, C&DN, DOWN
- When not using this Function select INH. The display of On/Off is shown when active and assigned to a switch.
- Adjusts the rate to the position that completely cuts the throttle servo or ESC.
- The "THR" item can be set when the operation mode is "ESC" . The number in parentheses is the current throttle stick position.

Throttle Cut

■ Mode

① Select the "MODE" item and then select the mode by pressing the + key or – key.

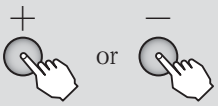


Range : NOR, ESC
Default : NOR

● "NOR" : Engine plane
"ESC" : Electric motor plane

■ Activating the function

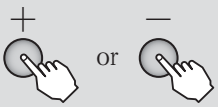
② Select the "MIX" item and then select the off by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Switch selection

③ Select the "SW" item and then select the switch by pressing the + key or – key.

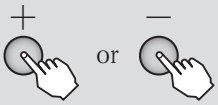


Range : SwA ~ SwH

Default : SwA

■ Switch direction

④ Select the "POSI" by pressing the + key or – key at the ON direction selection item.

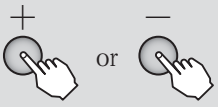


Range :

● 2P SW : NULL, UP, DOWN
● 3P SW : NULL, UP, UP&D, UP&C, CNTR, C&DN, DOWN

■ Cut Position rate

⑤ Select the "RATE" item and then select the cht position by pressing the + key or – key (motor stop).



● It adjusts to the position where an engine is cut.

Range : -30 ~ 0 ~ +30%
Default : 0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

(In the case of ESC)

■ Function release Throttle Position

⑥ Select the "THR" item and then select the release position by THR stick is lowered and Jog key is pressed for 1 second.

● Set to a safe low throttle position.

Range : 0 ~ 100%
Default : 15%

IDLE DOWN Idle down (ACROBATIC)

Function

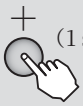
This function is linked to the air brake switch and gear switch and lowers the engine idle. It is used when engine idle is set high to prevent the engine from stalling during flight and you want to lower engine idle when landing.

- The amount engine idle is lowered can be set.
- At idling down operation, the stop lever adjusts the idle down amount.
- Function operation can be selected from among switches A ～ H. The switch direction can also be selected.

Method

Calling the setting screen

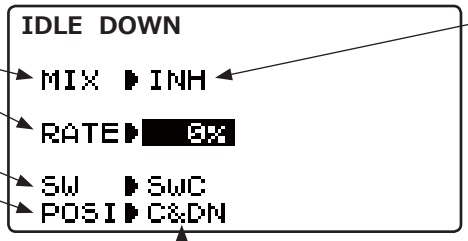
① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "IDLE DOWN" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

Activating the function
Idle down rate
Switch selection
Switch direction



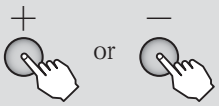
● When not using this Function select INH. The display of On/Off is shown when active and assigned to a switch.

● Select the setting item with the Jog key.

● Sets the ON/OFF direction of the selected switch.
○ 2P SW：NULL, UP, DOWN
○ 3P SW：NULL, UP, UP&D, UP&C, CNTR, C&DN, DOWN

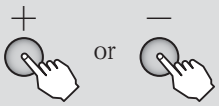
Idle down

■ Activating the function
① Select the "MIX" item and then select the on or off by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Switch selection
② Select the "SW" item and then select the switch by pressing the + key or – key.

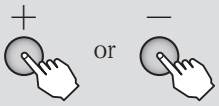


Range：SwA ～ SwH、Default：SwC

■ Switch direction
③ Select the "POSI" by pressing the + key or – key at the ON direction selection item.

Range：
● 2P SW：NULL, UP, DOWN
● 3P SW：NULL, UP, UP&D, UP&C, CNTR, C&DN, DOWN

■ Idle down rate
④ Select the "RATE" item and then adjust the idle down rate by pressing the + key or – key.



Range：0 ～ 40%
Default：0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

● The idle down amount is usually 10% ～ 20%. Hold down the aircraft and set the throttle switch to the maximum slow position while the engine is running and adjust the idle drop amount while turning the switch on and off.

SNAP ROLL Snap roll (ACROBATIC)

Function

This function performs snap roll by switch (SwH).

- The roll direction is selected from among 4 directions (R/U, L/U, R/D, L/D) by 2 switches.
- As a safety measure, a safety mode can be set so that operation is not performed even if a switch is mistakenly turned on when retracting the landing gear.

(Direction Switch)

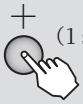
	SW1	SW2
1: R/U	↑	↑
2: L/U	↓	↑
3: R/D	↑	↓
4: L/D	↓	↓

NOTE : The trainer function cannot be turned on simultaneously with this function. If the trainer function is active, "trainer "ACT"" is displayed on the screen. After setting the trainer function to "INH" , turn on this function.

Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



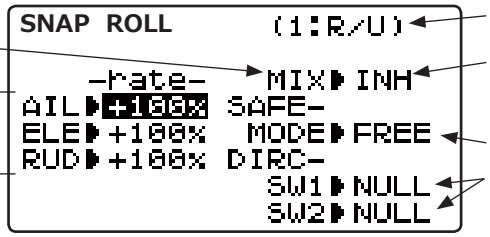
② Select "SNAP ROLL" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

● Select the setting item with the Jog key.

Activating the function

Rate set



(Snap roll direction)

● When INH is selected, the function cannot be used. To use the function, select ACT.

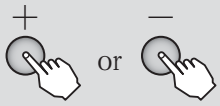
Safe mode set

Direction Switch selection

Idle down

■ Activating the function

① Select the "MIX" item and then select the "OFF" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Direction switch selection

② Select the "DIRC-SW1" and "DIRC-SW2" item and select each switch by pressing the + key or – key.

Range :
NULL, SwA ～ SwH
Default : NULL

■ Servo Rate set

③ Switch the DIRC-SW1 or DIRC-SW2 in the direction you are wanting to adjust by pressing the + key or – key at the "AIL" , "ELE" , and "RUD" items.

Range : -120 ～ +120%

● Set the R/U, L/U, R/D, and L/D directions.

■ Safe mode set

④ Select the "SAFE-MODE" item and then select the mode by pressing the + key or – key.

Range :
FREE, CH5+, CH5-
Default : FREE

● When a 3 position switch was selected at "DIRC-SW1" setting, 1:R/U, 2:L/U, 3:R/D switching is possible with 1 switch. At this time, "DIRC-SW2" cannot be selected.

Safe mode setting can set the direction of the landing gear switch.

● When "CH+" was selected, the safety device sets the landing gear switch to the rear position and the snap switch is not effective even if operated. When the landing gear switch is in the forward position, operation is possible. When "CH5-"was selected, the safety device operates and the snap switch is ineffective even if operated. When the landing gear switch is in the rear position, operation is possible.

● When "FREE" was selected: The safety device does not operate regardless of the switch direction.

THR-CURVE Throttle curve（Airplane） (ACROBATIC)

Function

This function sets a 5 point throttle curve so that the engine/motor speed relative to movement of the throttle stick is the optimum value for flight.

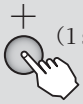
●A curve can be set for each switch position.

However, this function cannot be used when the throttle EXP function was set. When this function is set, the throttle EXP function cannot be used.

Method

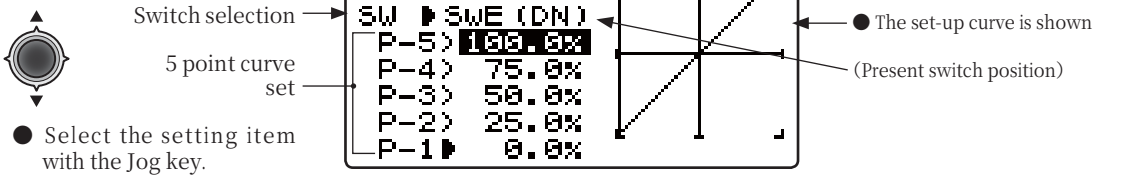
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "THR-CURVE" from the menu with the Jog key.

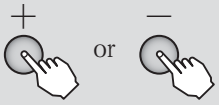
③ Open the setting screen by pressing the Jog key.



Throttle curve

■ Activating the function

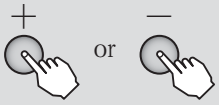
① Select the "MIX" item and then select the "ON" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Switch selection

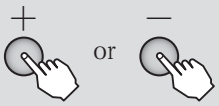
② Select the "SW" item and then select the switch by pressing the + key or – key.



Range：SwA ～ SwH、Default：SwE

■ 5 point curve set

③ By Jog key, either of P-1 to P-5 is chosen. The + key or - key is pressed and a rate is set up.



Range：0 ～ 100%

Default：P-1:0%, P-2:25%, P-3:50%, P-4:75%, P-5:100%

PIT-CURVE Pitch curve（Airplane） (ACROBATIC)

Function

This function is a function for the variable pitch propellers of an airplane.

The curve of five points can be set up.

- PIT-curve function cannot be used when an AILVATOR function is ACT.
- CH of a pitch can be set to 8CH or 5CH.

Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.

② Select "PIT-CURVE" from the menu with the Jog key.

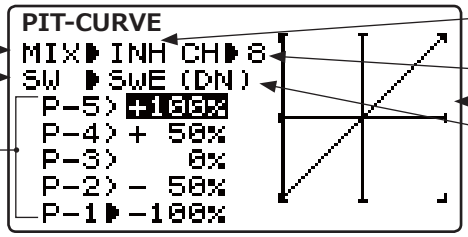
③ Open the setting screen by pressing the Jog key.

Activating the function

Switch selection

5 point curve set

● Select the setting item with the Jog key.



● When not using this function, select INH.

Channel selection

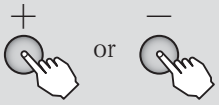
● The set-up curve is shown

(Present switch position)

PIT-curve

■ Activating the function

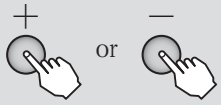
① Select the "MIX" item and then select the "ON" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Switch selection

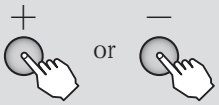
② Select the "SW" item and then select the switch by pressing the + key or – key.



Range：SwA ～ SwH、Default：SwE

■ 5 point curve set

③ By Jog key, either of P-1 to P-5 is chosen. The + key or - key is pressed and a rate is set up.



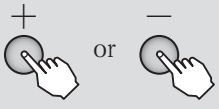
Range：-100 ～ +100%

Default：P-1:-100%, P-2:-50%, P-3:0%, P-4:+50%, P-5:+100%

(When a channel is changed)

■ Channel selection

① Select the "CH" item and then select the channel by pressing the + key or – key.



Range：8CH、5CH

Default：8CH

THR DELAY Throttle delay (ACROBATIC)

Function

When this function is used, the throttle servo operating speed can be slowed down.

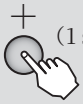
(Perfect for turbojet engine throttle control, etc.)

●The amount of delay can be set.

Method

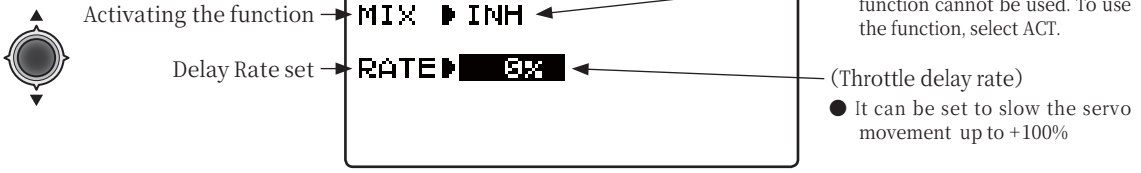
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "THR DELAY" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

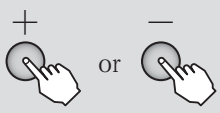


● Select the setting item with the Jog key.

THR DELAY

■ Activating the function

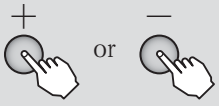
① Select the "MIX" item and then select the "ACT" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Delay Rate set

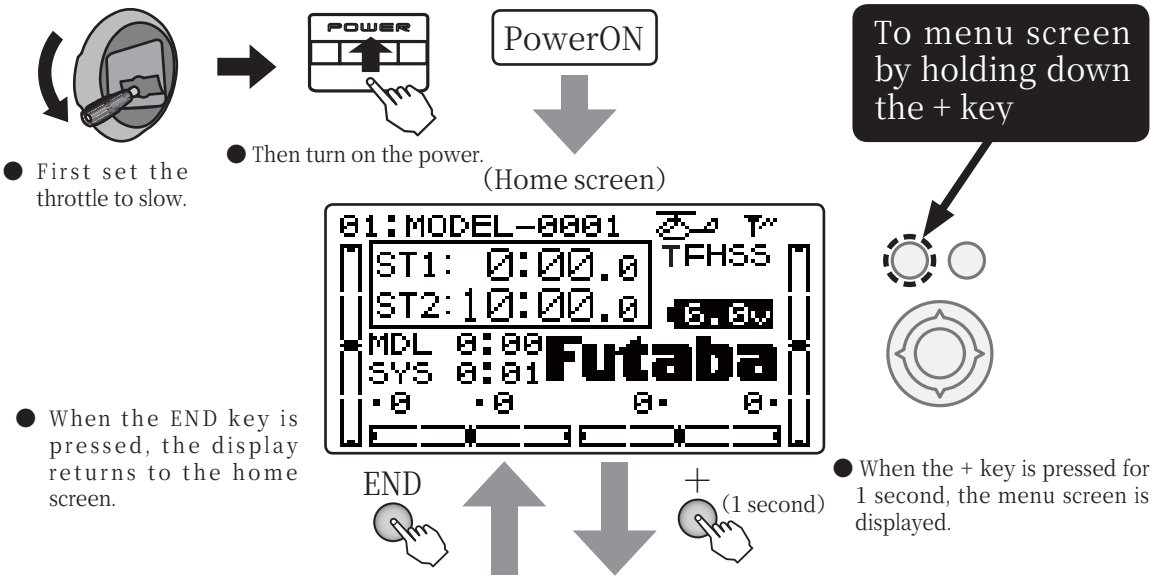
② Select the "RATE" item and then adjust the rate by pressing the + key or – key.



Range : 0 ~ 100%
Default : 0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

The setting screen of each function is called from the following menu. The function when the model type was set to helicopter is displayed here.



MENU

MENU 1/3

MENU 1 2 3	
▶MDL-SEL	▶END POINT
▶MDL-NAME	▶TRIM
▶FAIL SAFE	▶SUB TRIM
▶REVERSE	▶P.MIX1-6
▶TIMER	▶AUX-CHAN
▶SERVO	▶PARAMETER

MENU 2/3

MENU 1 2 3	
▶TELEMETRY	▶SWASH AFR
▶SENSOR	▶SWH.MIX
▶SBUS LINK	▶SWH.RING
▶MDL-TRANS	▶OFFSET
▶TRAINER	▶DELAY
▶CONDITION	▶THR.CUT

MENU 3/3

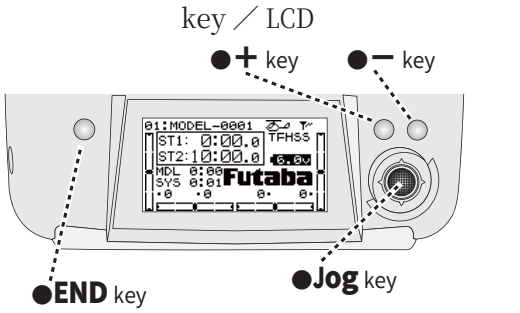
MENU 1 2 3	
▶GYRO SENS	▶GOVERNOR
▶D/R,EXPO	▶HOV-THR
▶THR-CURVE	▶HOV-PIT
▶PIT-CURVE	▶HI / LO-PIT
▶REVO.MIX	▶THR-MIX
▶THR HOLD	▶THR→NEEDL

(Selection)

● **Move the cursor (highlighted) up and down and to the left and right with the** Jog key **and select the function. The cursor can be moved over several pages.**

(Calling the setting screen)

● **Press the** Jog key **to open the setting screen.**



(Condition switching at each setting screen)

● Press the jog button for 1 second. When setting conditions with the following function, each setting can be made by switching the condition by pressing the Jog key for 1 second. Throttle curve, Pitch curve, Pitch → Rudder, Gyro sens, HI/LO-Pitch, OFFSET, Throttle MIX, THR → Needle, Swash MIX

Refer to "Common Functions" previously described for a description of this function.

■ Function

MENU1/3	
MDL-SEL Model select ／ Model Copy ／ Data reset ／ RX ／ Link	(P.40)
MDL-NAME Model name ／ User name	(P.43)
FAIL SAFE Fail safe	(P.45)
REVERSE Servo reverse	(P.47)
TIMER Timer	(P.48)
SERVO Servo monitor ／ Servo test	(P.49)
END POINT End point	(P.50)
TRIM Trim reset ／ Trim step	(P.51)
SUB TRIM Sub trim	(P.52)
P.MIX1-6 Program mixing 1 ～ 6	(P.53)
AUX-CHAN AUX channel	(P.56)
PARAMETER Data reset ／ Model type ／ ATL-trim ／ LCD contrast ／ Back light : mode, time, adjustment ／ Home display ／ Battery alarm ／ Battery vibration ／ Buzzer tone ／ Jog navi ／ Jog light ／ Jog time ／ Telemetry : mode, unit ／ Speech : language, volume ／ Stick position alarm	(P.58)

MENU2/3	
TELEMETRY Telemetry Display ／ Alarm setup	(P.66)
SENSOR Telemetry sensor	(P.83)
SBUS LINK S.BUS servo set up	(P.89)
MDL-TRANS Data transfer of another 10J or 8J	(P.92)
TRAINER Trainer	(P.93)
CONDITION (Idle-up・Throttlehold) Condition	(P.122)
SWASH AFR (H-1 removes) Swash AFR	(P.123)
SWH.MIX Swash MIXing	(P.124)
SWH.RING Swash RING	(P.126)
OFFSET Trim offset	(P.127)
DELAY Delay	(P.128)
THR.CHT Throttle cut	(P.129)

MENU3/3	
GYRO SENS Gyro mixing	(P.131)
D/R, EXPO Dual rate ／ EXPO	(P.132)
THR-CURVE Throttle curve	(P.134)
PIT-CURVE Pitch curve	(P.136)
REVO.MIX Revolution mixing (PIT to RUD)	(P.138)
THR HOLD Throttlehold	(P.140)
GOVERNOR Governor mixing	(P.141)
HOV-THR Hovering Throttle	(P.143)
HOV-PIT Hovering Pitch	(P.144)
HI/LO-PIT HI/LO-pitch trim	(P.145)
THR-MIX Swash → Throttle mixing	(P.146)
THR-NEEDL Throttle → Needle mixing	(P.147)

CONDITION Condition select (Idle-up・Throttlehold) (HELICOPTER)

Function

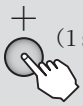
The condition switches (idle up 1/2/3 and throttle hold switch) are not operative at initial setting. Switch setting is performed in advance with the condition select function.

●Initially set to idle up 1: SwE (center), idle up 2: SwE (forward), idle up : SwF (forward), throttle hold: SwG (forward).

Method

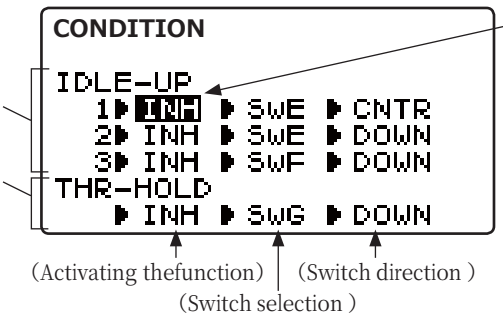
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "CONDITION" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.



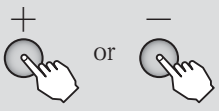
● When not using this Function select INH. The display of On/Off is shown when active and assigned to a switch.

● Select the setting item with the Jog key.

Condition select

■ Activating the function

① Select the "INH" item of the condition you want to use and set it to "ON" or "OFF" by pressing the + key or – key.

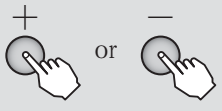


● Set conditions you do not want to use to **"INH"**.

(In the case of change of a switch)

■ Switch selection

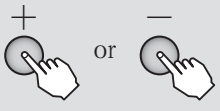
② A cursor is moved to "Switch selection" and a switch is changed by ＋ key or － key.



Range：SwA ～ SwH
Default：SwE(IDLE-UP1/2)、SwF(IDLE-UP3)、SwG(THR-HOLD)

■ Switch direction

③ A cursor is moved to "Switch direction" and a switch direction is changed by ＋ key or － key.



Range：

● 2P SW：NULL, UP, DOWN
● 3P SW：NULL, UP, UP&D, UP&C, CNTR, C&DN, DOWN

SWASH AFR

Swash AFR (HELICOPTER)

(When swash type is H-1, this setting screen is not displayed.)

Function

This is the adjustable function rate (AFR) function when HR3, H-3, HE3, HN3, H-2, H-4, or H4X is selected as the swash type. The ailerons, elevators, and pitch steering angle and direction can be adjusted.

Method

Calling the setting screen

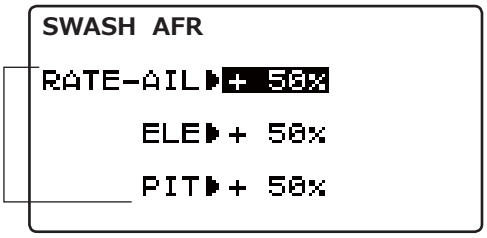
① Call the menu screen from the home screen by pressing the + key for 1 second.

② Select "SWASH AFR" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

● Select the setting item with the Jog key.

Rete



● Depending on the swash type the screen display is different.

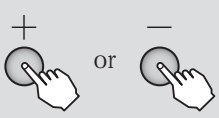
● When the polarity is changed, the direction of operation is reversed.

NOTE：If the steering angle is too large, linkage binding may occur .

Swash AFR

■ Travel adjustment of each function

① Select each function item of "RATE" and set the rate by pressing the + key or – key.



Range：-100 ～ +100%
Default：+50%

● When you want to return the set value to the initial value, press the + key and – key simultaneously. However, polarity does not return.

SWH. MIX Swash mixing (HELICOPTER)

Function

This mixing is used to correct the bad tendencies of the swash plate in the aileron direction and elevator direction relative to aileron, elevator, and pitch operations. It adjusts the rate of the direction that requires correction so that the servo operates smoothly in the proper direction relative to each operation.

- The correction amount of each condition can be set.
- The left and right (up and down) correction amount can be set for each condition.

Example of use: Using to correct bad roll tendencies

① AIL → ELE is set to ON.

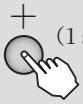
② ACTION/ON is common to all conditions. The rate of unused conditions is set to 0%.

③ When the nose drops at right roll and the right side rate is adjusted in the "+" direction, the elevators move to the up side when the right aileron is deflected.
Left roll can be adjusted by left side rate.
However, since the left and right ailerons polarity and elevators operating direction relationship is reversed; check the correction direction by swash plate operation.

Method

Calling the setting screen

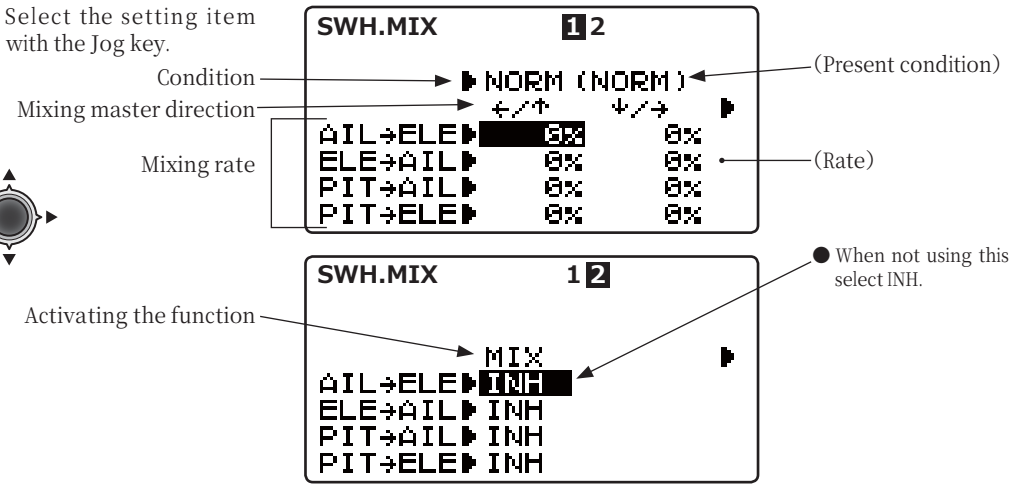
① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "SWH.MIX" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

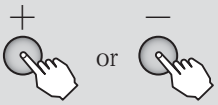
● Select the setting item with the Jog key.



Swash mixing

■ Activating the function

① Select the "MIX" item and then select the "ON" by pressing the + key or – key.



● When you are not using a function, set this to INH.

■ Setup of rate

② Select the "RATE" item and then adjust the mixing rate by pressing the + key or – key.

Range：-100 ～ +100%
Default：0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

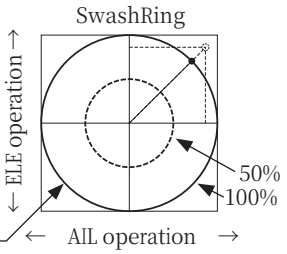
● ON/OFF of a function, Setup of rate, and a trim, Jog key is pushed and setting condition can be chosen.

Range：
NORM, IDL1, IDL2, IDL3, HOLD

SWH.RING Swash ring (HELICOPTER)

Function

This swash mixing function limits swash travel to prevent damage to the switch linkage due to simultaneous aileron and elevator operation. If is effective in 3D aerobatics with a large steering angle.

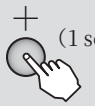


● Aileron and elevator stick operation is limited to within the circle (swash mixing) in the figure shown at the right. (When rate is 100%)

Method

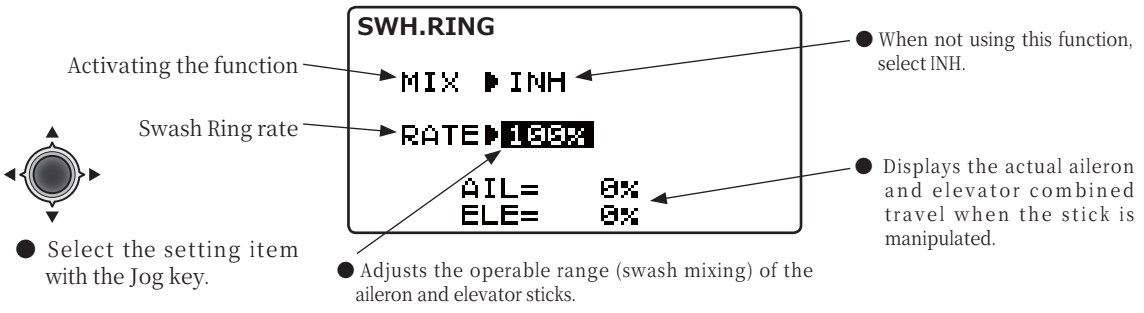
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "SWH.RING" from the menu with the Jog key.

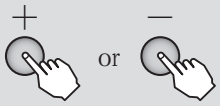
③ Open the setting screen by pressing the Jog key.



Swash Ring

■ Activating the function

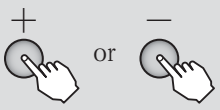
① Select the "MIX" item and then select the "ON" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Setup of rate

② Select the "RATE" item and then adjust the mixing rate by pressing the + key or – key.



Range : 50 ~ 200%
Default : 100%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

NOTE : Adjust the swash mixing rate to the largest swash inclination at which the linkage rod does not interfere.

OFFSET Trim offset (HELICOPTER)

Function

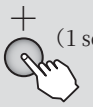
If this trim offset function is used, independent trim adjustments can be made during hovering and in the air. This function can offset the ailerons, elevators, and rudder neutral position by linking to the set switch or condition. A habit that tends to appear from the standpoint of helicopter characteristics when flying at high speed is possible. This function can correct this habit.

- For a clockwise rotation rotor, since the helicopter tilts to the right during flight, use the offset function to set the swash plate so that the helicopter tilts to the left. Since the direction of the elevators is different depending on adjustment of the aircraft, decide the setting direction after flight. When the gyro is used in the AVCS mode at the rudder, etc., the offset rate is made 0% (initial setting) to make corrections at the gyro side.
- When the switch was selected 1 offset system can be set for a 2 position switch and 2 offset systems can be set for a 3 position switch. Linking to conditions (IDL1 ～ 3, HOLD) is also possible.
- When the offset function is on, data adjustment is possible even by digital trim. The trim adjusted rate is input in the air. (When the offset function is ON, the initial screen trim display is linked.)

Method

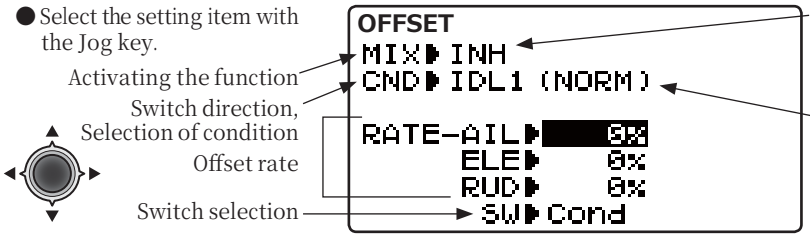
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "OFFSET" from the menu with the Jog key.

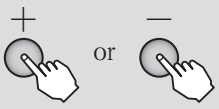
③ Open the setting screen by pressing the Jog key.



Trim offset

■ Activating the function

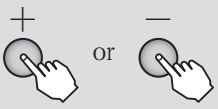
① Select the "MIX" item and then select the "ON" or "OFF" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Switch selection

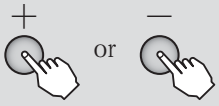
② Select the "SW" item and then select the switch by pressing the + key or – key.



Range : Cond, SwA ～ SwH

■ Switch direction and condition selection

③ Select the switch direction and condition you want to set at the switch direction and condition items.



■ Offset rate

④ Select the "RATE" item and then adjust the offset rate by pressing the + key or – key.

Range : -120 ～ +120%
Default : 0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

DELAY Delay (HELICOPTER)

Function

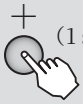
This function prevents sudden offset changes when the offset, pitch→rudder mixing and throttle hold functions are turned on and off.

- Delay can be set at the ailerons, elevators, rudder, throttle, and pitch.
- The set delay is common to the offset, pitch→rudder mixing, and throttle hold functions.

Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.

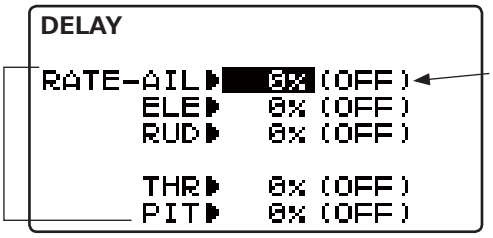


② Select "DELAY" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

● Select the setting item with the Jog key.

Delay rate



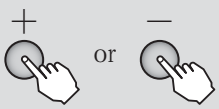
● Linked to the offset, revolution mixing, and throttle hold functions and turned "ON".

● The delay is maximum at 100%.

Delay rate

■ Delay rate setup

① Select the "RATE" item and then adjust the delay rate by pressing the + key or – key.



Range : 0 ～ 100%
Default : 0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

THR.CUT Throttle cut (HELICOPTER)

Function

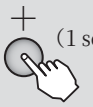
This function cuts (stops) the engine or motor by stick operation. At throttle operation, the rate is adjusted to the position which completely cuts the throttle servo or ESC when the throttle is operated. At function operation, this position is held regardless of the throttle stick position.

- NOR/ESC operation mode switching. For motor aircraft, select ESC. For motor aircraft, the throttle position when the function is reset can be set so the motor will not unexpectedly run at high speed when the throttle cut function is reset. When the throttle stick is higher than the set throttle position, the throttle cut function is not reset even if the switch is set to OFF. Set to a safe throttle position (slow side).
- Function operation can be selected from among switches A ~ H.
- Set the throttle cut function for safety also.

Method

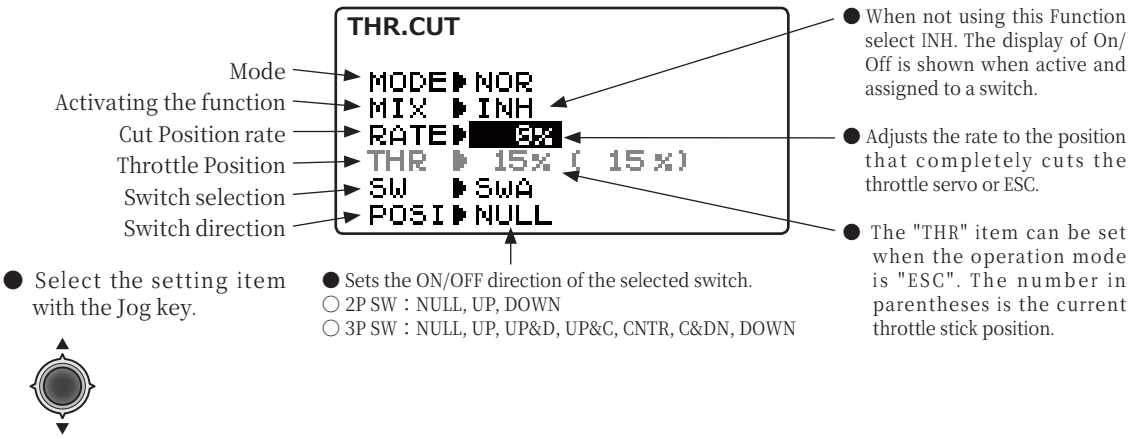
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "THR.CUT" from the menu with the Jog key.

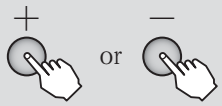
③ Open the setting screen by pressing the Jog key.



Throttle Cut

■ Mode

① Select the "MODE" item and then select the mode by pressing the + key or – key.

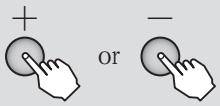


Range : NOR, ESC
Default : NOR

● "NOR" : Engine plane
"ESC" : Electric motor plane

■ Activating the function

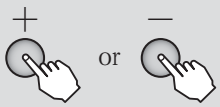
② Select the "MIX" item and then select the off by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Switch selection

③ Select the "SW" item and then select the switch by pressing the + key or – key.

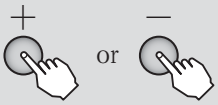


Range : SwA ~ SwH

Default : SwA

■ Switch direction

④ Select the "POSI" by pressing the + key or – key at the ON direction selection item.

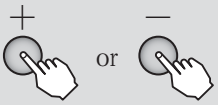


Range :

● 2P SW : NULL, UP, DOWN
● 3P SW : NULL, UP, UP&D, UP&C, CNTR, C&DN, DOWN

■ Cut Position rate

⑤ Select the "RATE" item and then select the cht position by pressing the + key or – key (motor stop).



● It adjusts to the position where an engine is cut.

Range : -30 ~ 0 ~ +30%
Default : 0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

(In the case of ESC)

■ Function release Throttle Position

⑥ Select the "THR" item and then select the release position by THR stick is lowered and Jog key is pressed for 1 second.

● Set to a safe low throttle position.

Range : 0 ~ 100%
Default : 15%

GYRO SENS Gyro mixing (HELICOPTER)

(For helicopters Gyro mixing)

Function

This mixing adjusts the gyro sensitivity from the transmitter. The AVCS gyro (GY mode) or normal gyro (STD mode) can be selected. Up to 3 axes can be set.

- The sensitivity can be linked to the condition (Cond) or an arbitrary switch and set.
- When the GY mode was selected, "AVC" or "NOR" is displayed at the sensitivity setting value.
- The sensitivity setting channel can be selected from the RUD (CH5), RUD/AIL(CH5/CH7), RUD/ELE (CH5/CH8) or RUD/AIL/ELE (CH5/CH7/CH8) combinations.

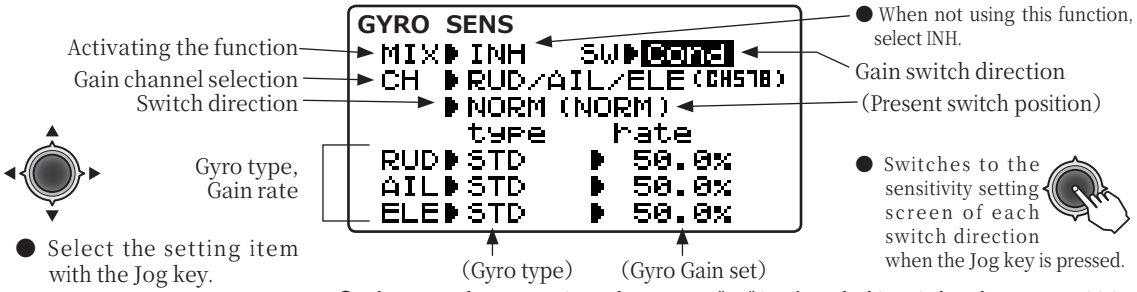
Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.

② Select "GYRO SENS" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

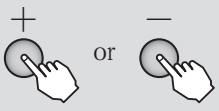


● When a Futaba GY gyro is used, gyro type "GY" is selected. This switches the gyro sensitivity setting item to the mode and sensitivity direct reading display.

Gyro setup

■ Activating the function

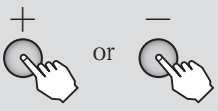
① Select the "MIX" item and then select the "ON" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Gain switch selection

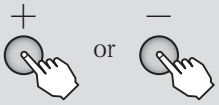
② Select the "SW" item and then select the switch by pressing the + key or – key.



Range : Cond, SwA ~ SwH

■ Gain channel selection

③ Select the "CH" item and then select the sensitivity setting channel by pressing the + key or – key.



Range : RUD, RUD/AIL, RUD/ELE, RUD/AIL/ELE

Default : RUD

■ Gyro type and sensitivity setting

④ Press the Jog key and select the sensitivity setting screen you want to set and then set "type" (gyro type) and "rate" (gyro sensitivity) of each channel by pressing the +key or – key.

("type") Range : STD,GY Default : STD

("rate") Range : 0 ~ 100%(STD) , NOR100 ~ 0 ~ AVC100%(GY) Default : 50%(STD) , 0%(GY)

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

Dual rate ／ EXPO (HELICOPTER)

Function

D/R

The aileron, elevator and rudder channel control surface angle can be switched in 2 steps

- The control surface angle is adjusted by each direction of the switch or condition. The left and right (up and down) direction of each switch can be set individually.

EXP

This function makes operation more pleasant by changing the operating curve so that servo movement is sluggish or sensitive relative to stick operation near the aileron, elevator, throttle, and rudder neutral position. Adjustments can be made in 2 steps according to the control surface angle.

- The "-" side makes servo movement sluggish and the "+" side makes servo movement sensitive near the neutral position. Exponential is applied to entire throttle servo travel. When the "+" side is increased, the slow side becomes sluggish and the high side becomes sensitive.
- Setting corresponding to each rate of dual rate (D/R) is possible. (Except throttle) The direction of each switch and the left and right (up and down) direction of each channel can be set individually.

Switch selection（SW）

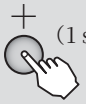
Switches A to H can be selected as the aileron channel, elevator channel, and rudder channel dual rate (exponential) switch.

- Select：Switch ～ SwitchH ／ condition：Cond
- Default：Aileron：SwitchD ／ Elevator：SwitchA ／ Rudder：SwitchB

Method

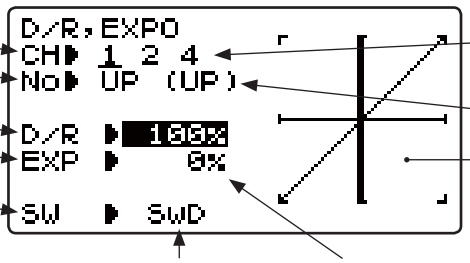
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "D/R,EXPO" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.



Channel selection
Switch direction
Dual rate
EXPO
Switch selection
(Switch number)
(Rate)

● The channel under selection is underlined.

(present switch position)

● The dual rate and exponential settings are displayed by a curve.

● Channel selection/Select the setting item with the Jog key.
● Jog key is pushed for 1 second, a condition screen will change.

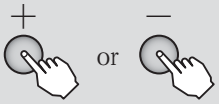
＜Channel＞
1：Aileron
2：Elevator
4：Rudder

Dual rate

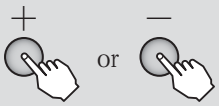
■ Channel selection
① A channel is chosen by Jog key.

Range：1, 2, 4

■ Switch direction
② Select the "No" item and then select the switch direction or condition by pressing the + key or – key.



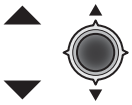
■ D/R Setup of rate
③ Select each function item of "D/R" and set the rate by pressing the + key or – key.



Range：0 ～ 140% Default：100%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

Adjust the rate of each direction of the dual rate switch and stick by repeating step



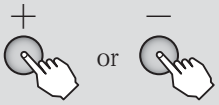
● Moving to another setting item of the same channel is possible by Jog key.

EXPO

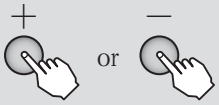
■ Channel selection
① A channel is chosen by Jog key.

Range：1, 2, 4

■ Switch direction
② Select the "No" item and then select the switch direction or condition by pressing the + key or – key.



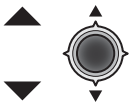
■ EXP Setup of rate
③ Select the "EXP" item and then adjust the rate by pressing the + key or – key.



Range：-100 ～ +100%、Default：0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

Adjust the rate of each direction of the dual rate switch and stick by repeating step



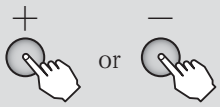
● Moving to another setting item of the same channel is possible by Jog key.

Switch Change

■ Channel selection
① Select the "SW" item and then select the channel with the Jog key.

Range：1, 2, 4

■ Switch selection
② A switch or Cond is chosen by + key or – key.



Range：SwA ～ SwH, Cond

● When "Cond" is chosen, a setup is possible for every condition.

THR-CURVE Throttle curve（For helicopters） (HELICOPTER)

Function

The throttle curve function sets a 5 point curve in relation to the throttle stick movement and adjusts each point over the 0 ～ 100% range so that the engine speed is optimum for flight.

- Normal (NOR), idle up 1 (IDL1), idle up 2 (IDL2), and idle up 3 (IDL3) throttle curves can be set.
- The normal (NOR), idle up 1 (IDL1), idle up 2 (IDL2), and idle up 3 (IDL3) switch can be pre-set at the condition selection screen.

（Normal throttle curve adjustment method）

The normal throttle curve creates a basic throttle curve centered near hovering. This curve is adjusted together with the normal pitch curve so that engine speed is constant and up/down control is easiest. The normal throttle function is always on.

（Idle up 1/2/3 throttle curve adjustment method）

The idle up curves are set so that the engine maintains a constant speed even when the pitch is reduced during flight. Curves matched to the purpose such as loop, roll and 3D are created and idle up curves 1/2/3 are by aerobatics.

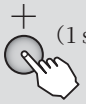
⚠ CAUTIONS

［Operation precautions］ **When starting the engine, always set idle up sticks 1/2/3 to OFF and start the engine at idling.**

Method

Calling the setting screen

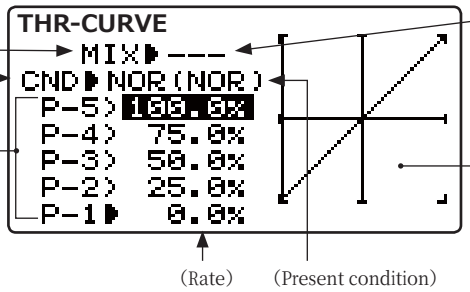
① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "THR-CURVE" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

● Select the setting item with the Jog key.



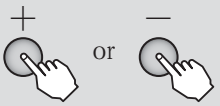
● When not using this Function select INH. The display of On/Off is shown when active and assigned to a switch. A display when normal is "---" (alwaysON).

● The THR-CURVE settings are displayed by a curve.

Throttle curve

■ Activating the throttle curves (ID1/2/3)

① Select the "MIX" item and set to "ON" or "OFF" by pressing the + key or – key.



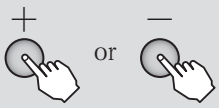
● For the normal condition, "---" is displayed. (Always ON)

● When you do not want to use an idle up curve, set to "INH".

Range：NOR, ID1, ID2, ID3

■ 5 point curve setting

② Select the setting item of each point (P-1 ～ P-5) with the Jog key and set the travel of each point by pressing the + key or – key.



Range：0 ～ 100%

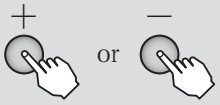
Default：
P-5: 100%
P-4: 75%
P-3: 50%
P-2: 25%
P-1: 0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

■ Curve copying method

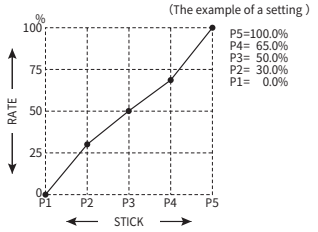
① Select the "CND" item and switch to the curve copy mode by pressing the Jog key.

② Press the + key or – key and select the copy destination condition.

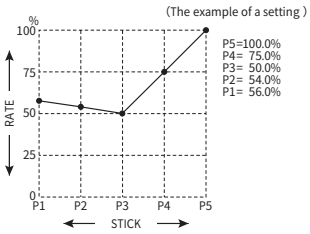


③ Copy the condition by pressing the Jog key for 1 second.

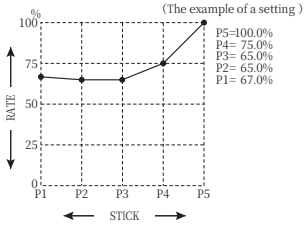
● Throttle curve setting examples



(Normal)

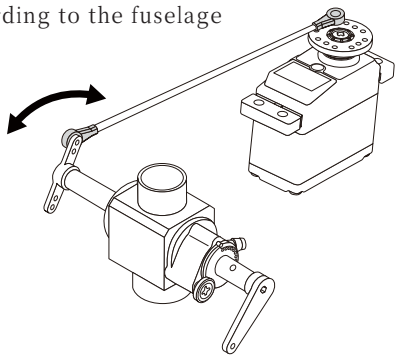


(Idle-up1)



(Idle-up2)

NOTE：Set the actual value of the throttle curve according to the fuselage specifications.



PIT-CURVE Pitch curve (For helicopters) (HELICOPTER)

Function

The pitch curve function allows setting by a 5 point curve in relation to throttle stick movement and adjustment of each point over the -100% ～ +100% range so that the pitch enters the optimum flight state.

- Normal (NOR), idle up 1 (IDL1), idle up 2 (IDL2), idle up 3 (IDL3), and hold (HLD) pitch curves can be set.
- The normal (NOR), idle up 1 (IDL1), idle up 2 (IDL2), idle up 3 (DL3), and hold (HOLD) switches can be pre-set at the conditions selection screen.

NOTE：When the hold switch is on, the hold function has priority even though an idle up switch is in any position.

(Normal curve adjustment method)

The normal pitch curve creates a basic pitch curve centered near hovering. This curve is adjusted together with the throttle pitch curve so that engine speed is constant and up/down control is easiest.

(Idle up 1/2/3 curve adjustment method)

The high side pitch curve sets the maximum pitch that does not apply a load to the engine. The low side pitch curve is created to match the purpose such as loop, roll, and 3D. The idle up 1/2/3 curves are used by aerobatics.

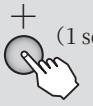
(Throttle hold curve adjustment method)

The throttle hold curve is used when performing auto rotation dives. Set the intermediate pitch to match the stick work at pitch up.

Method

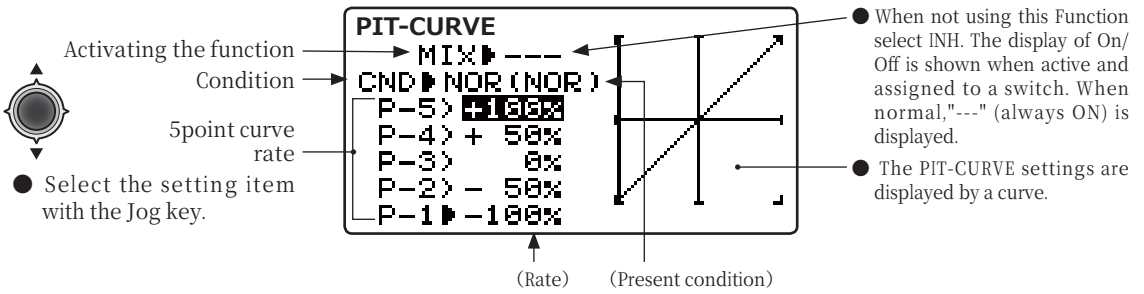
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "PIT-CURVE" from the menu with the Jog key.

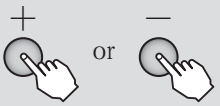
③ Open the setting screen by pressing the Jog key.



Pitch curve

■ Activating the pitch curves(ID1/2/3, HLD)

① Select the "MIX" item and then select the "ON" or **"OFF"** by pressing the + key or – key.



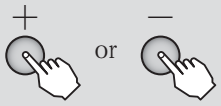
● For the normal condition, "---" is displayed. (Always ON)

● When you do not want to use an idle up, hold curve, set to "INH".

Range：NOR, ID1, ID2, ID3, HLD

■ 5 point curve setting

② Select the setting item of each point (P-1 ～ P-5) with the Jog key and set the travel of each point by pressing the + key or – key.



Range：-100 ～ +100%

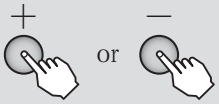
Default：
P-5: +100%
P-4: +50%
P-3: 0%
P-2: -50%
P-1: -100%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

■ Curve copying method

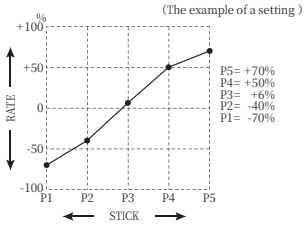
① Select the "CND" item and switch to the curve copy mode by pressing the Jog key.

② Press the + key or – key and select the copy destination condition.

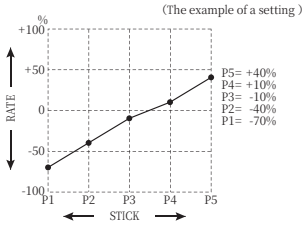


③ Copy the condition by pressing the Jog key for 1 second.

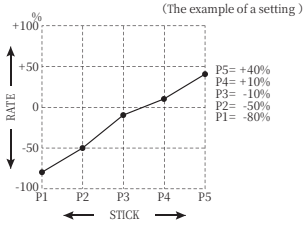
● Pitch curve setting examples



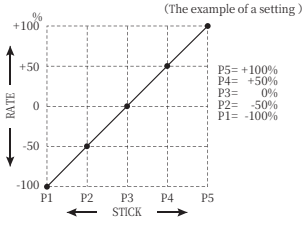
(Normal)



(Idle-up1)

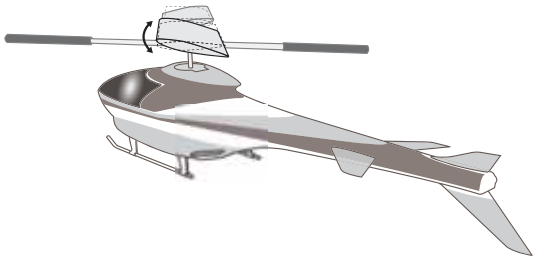


(Idle-up2)



(Hold)

NOTE：Set the actual value of the pitch curve according to the fuselage specifications.



REVO.MIX Pitch → Rudder mixing (HELICOPTER)

Function

The pitch→rudder mixing function controls the pitch of the tail rotor to suppress the reaction torque (force that attempts to swing the helicopter in the direction opposite the direction of rotation of the main rotor) generated by the main rotor pitch and speed. It is adjusted so that the pitch of the tail rotor is also changed when the main rotor pitch changes and reaction torque appears and so that the nose does not swing to the left and right. However, when the AVCS mode is used with a GY Series gyro, pitch→rudder mixing is unnecessary.

- The normal (NOR) idle up 1/2 (IDL1,2), and idle up 3 (IDL3) rates can be set.
- The high side and low side rates can be adjusted.
- For a clockwise rotation rotor, the operating direction is set so that the rudder is mixed in the right direction when the pitch becomes plus. For a counterclockwise rotation rotor, the setting is opposite. The operating direction setting reverses the rate polarity.
  CW rotation: Low side (LOW) -105, high side (HIGH) +10%
  CCW rotation: Low side (LOW) +10%, high side (HIGH) -10%
  *The above values are the initial values. Replace them with the actual setting values.

Adjustment procedure

First, trim at hovering and then adjust the neutral position.

(Normal pitch → rudder mixing)

● Throttle low side (slow while hovering) adjustment

Repeatedly hover from take off and land from hovering at a constant rate matched to your own rhythm, and adjust pitch → rudder mixing so that the nose does not deflect when the throttle is raised and lowered.

If the nose points to the left when landing from hovering or points to the right when taking off, when hovering stabilizes and the stick moves to the neutral position, low side mixing rate is probably too large and when the nose points in the opposite direction, low side rate is probably too small. However, when landing, the direction of the nose may not stabilize depending on the state on the ground. The direction of the nose may also become unstable when rotation of the rotor does not rise.

● Throttle high (up to climbing from hovering and diving hovering) adjustment

Repeat up to climbing from hovering and diving hovering matched to your own rhythm and adjust pitch → rudder mixing so that the nose does not deflect to the left and right when the throttle is raised and lowered. If the nose points to the right when climbing from hovering, the high side mixing rate is too large and if the nose points to the right, the mixing rate is too small. Repeat climbing and diving and make adjustment while taking the balance.

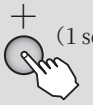
(idle-up1/2,3Pitch → Ruddermixing)

This mixing sets the mixing rate so that the rudder direction is straight forward at high speed flight.

Method

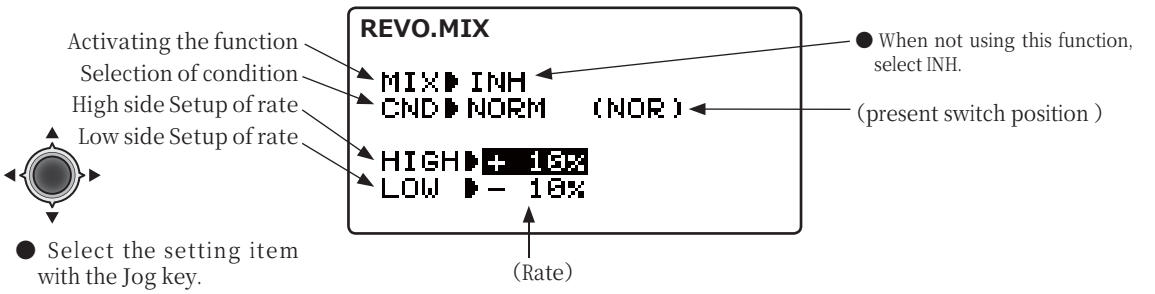
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "REVO.MIX" from the menu with the Jog key.

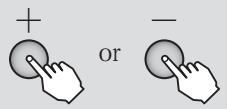
③ Open the setting screen by pressing the Jog key.



Pitch → Rudddermixing

■ Activating the function

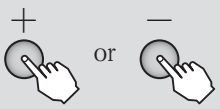
① Select the "MIX" item and then select the "ON" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Selection of condition

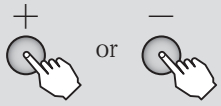
② Select the "CND" item and selection of condition by pressing the + key or – key.



Range：NORM, IDL1/2, IDL3

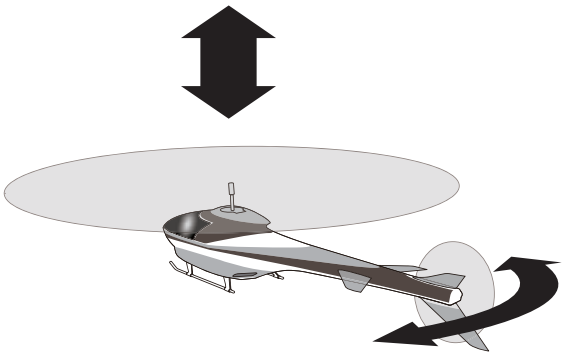
■ Setup of rate

③ Select each function item of "HI"or "LO" and set the rate by pressing the + key or – key.



Range：-100 ～ +100%
Default(NORM)：-20%(LOW)、+20%(HIGH)
Default(IDL1/2/3)：0%(LOW)、0%(HIGH)

● When you want to return the set value to the initial value, press the + key and – key simultaneously.



THR HOLD Throttle hold (HELICOPTER)

Function

The throttle hold function fixes or stops the engine throttle position by hold switch operation during an auto rotation dive. Operation can be set within the -50% ～ +50% range based on the throttle trim position.

The switch is changed at the conditions selection screen. (Initial setting: SwG)

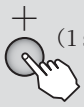
⚠ CAUTIONS

［NOTE］ Priority is given to throttlehold over idle-up.

Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.

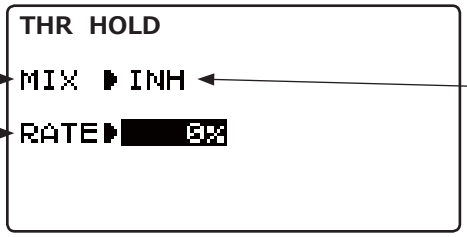


② Select "THR HOLD" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

Activating the function

hold throttle position



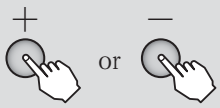
● When not using this Function select INH. The display of On/Off is shown when active and assigned to a switch.

● Select the setting item with the Jog key.

Throttle hold

■ Activating the function

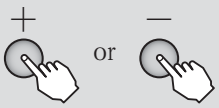
① Select the "MIX" item and then select the "ON" or "OFF" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Hold throttle position

② Select the "RATE" item and then adjust the rate by pressing the + key or – key.



Range：-50 ～ +50%
Default：0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

● Function ACT ↔ INH is linked to condition THR-HOLD, and can be set at any screen.

【Hold position adjustment method】

● When you want to lower the engine idling, set to the "+" direction and adjust so that the carburetor is full open.

● When maintaining idling, set the throttle stick to the slow position and turn the hold switch on and off and set to the number at which the servo does not operate.

NOTE：When connecting the throttle linkage, lower the digital trim to the slowest and adjust so that the carburetor is full open.

GOVERNOR Governor mixing (HELICOPTER)

Function

When a governor (CGY750/GY701/GV-1, etc.) is used, the speed can be adjusted from the transmitter. CH7 or CH8 can be selected as the speed setting control channel.

When using a separate ON/OFF switch (cut switch), ON/OFF control uses CH8. In this case, CH7 controls speed setting.

Setting examples：

● Example of setting that switches the speed and ON/OFF by 3 position switch

Governor speed (setting example)	3position		Adjustment from transmitter
	Switch direction	Setup of rate	
R.P.M 1：OFF	UP	0%	0%（Governor R.P.M "off"）
R.P.M 2：1400	CNTR	50%	"50%"
R.P.M 3：1700	DOWN	100%	"100%"
*For example, speed 3 sets the maximum speed to be used and is lowered and adjusted at the transmitter.	*For the time being use the initial rate setting.		*Since speed adjustment from the transmitter is rate setting, checking the actual speed at the governor display and remembering its relationship is convenient.

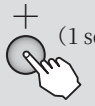
● Switching the speed for each condition
The speed for each condition can be set by selecting "Cond" by switch. Since speed adjustment from the transmitter is rate setting, for the actual speed check the governor display.

● Controlling governor ON/OFF by separate switch
When a separate switch is used to turn the governor on and off, switch setting is performed by "OFF-CNTRL" item.
*Speed and ON/OFF switch settings are different depending on the governor. Perform these settings in accordance with the instruction manual of the governor used.
*At throttle hold, always confirm that the governor is OFF. Conversely, when raising the speed value, reverse the polarity of "CH8".

Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.

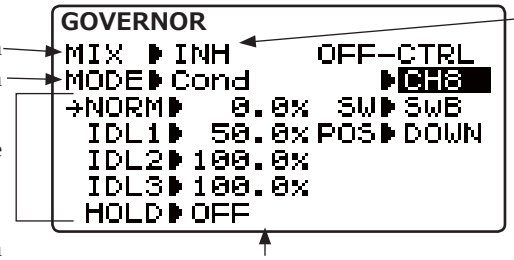


② Select "GOVERNOR" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

● Select the setting item with the Jog key.

Activating the function
Switch selection
Setup of rate



(Rate)

● When "INH", the function cannot be used. When you want to use CH7 as the speed setting channel, select "CH7" and when you want to use CH8(9), select "CH8(9)".

● The above screen shows the case when the speed is set for each condition.

Governor mixing

■ Activating the function (R.P.M CH selection)

① Select the "MIX" item and then select the "CH7""CH8" or "CH9" by pressing the + key or – key.

+ or –

● When you do not use a function, set to the "INH" side.

■ Switch selection

② Select the "MODE" item and then select the switch by pressing the + key or – key.

+ or –

Range：Cond, SwA ～ SwH

■ R.P.M setting

③ Select the "RATE" item and then adjust the rate by pressing the + key or – key.

+ or –

Range：0.0 ～ 100.0%

Default：
(Cond)
NORM=0.0%, IDL1=50.0%, IDL2=100.0%,
IDL3=100.0%, HOLD=0.0%

(2P Switch selection)
UP=0.0%, DOWN=100.0%

(3P Switch selection)
UP=0.0%, CNTR=50.0%, DOWN=100.0%

(When using an ON/OFF switch)

*Select the OFF-CTRL item and then adjust the rate by pressing the + key or – key.

■ ON/OFF Switch selection

① Select the "SW" item and then select the switch by pressing the + key or – key.

+ or –

Range：SwA ～ SwH

Default：SwA

■ Switch direction

② Select the "POSI" by pressing the + key or – key at the ON direction selection item.

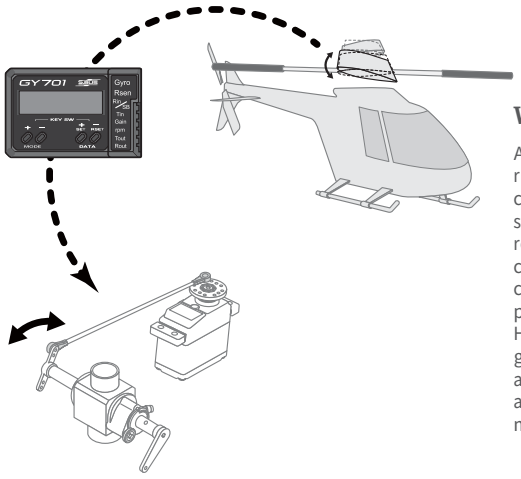
+ or –

● 2P SW：UP, DOWN

● 3P SW：UP, UP&D, UP&C, CNTR, C&DN, DOWN

(When number of rotations goes up at the time of Throttlehold)

*If the speed is increased at throttle hold, the governor and transmitter operating directions will not coincide. In this case, match the operating directions by reversing the polarity of "CH8".



What is a governor ?

A governor is made up of a set of sensors which read the RPM of the helicopter' s head, and a control unit that automatically adjusts the throttle setting to maintain a constant head speed regardless of changes in pitch of blades, weather conditions, etc. Governors are extremely popular in competition helicopters due to the consistency provided.

How does it help in helicopter setup? The governor eliminates the need to spend large amounts of time setting up throttle curves, as it automatically adjusts the engine' s RPM to maintain the desired head speed.

HOV-THR Hovering throttle (HELICOPTER)

Function

The hovering throttle function trims the throttle near the hovering point.

When the hovering throttle knob is turned clockwise, the speed increases and when it is turned counterclockwise, the speed decreases. Rotor speed changes due to changes in the temperature, humidity, and other flying conditions can be trimmed. Adjust for the most stable rotor speed. More precise trimming is possible by using this function together with the hovering pitch function.

- The operation condition can be selected from only normal or normal/idle up 1.

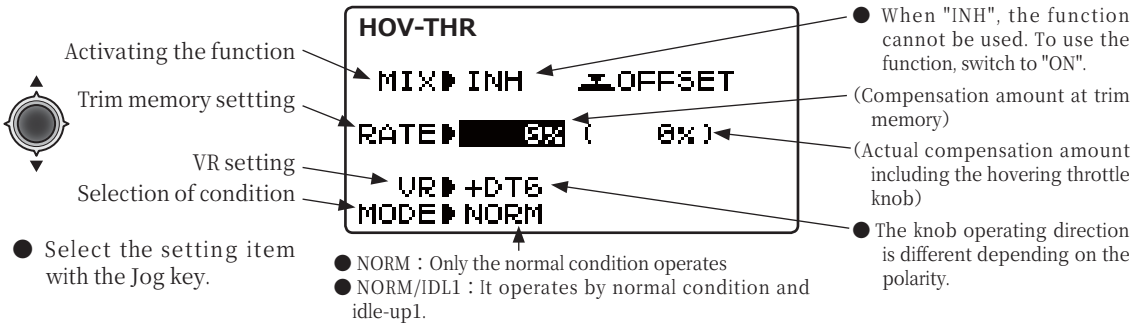
Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.

② Select "HOV-THR" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.



Hovering Throttle

■ Activating the function

① Select the "MIX" item and then select the "ON" by pressing the + key or – key.

or

● When you do not use a function, set to the "INH" side.

■ Selection of condition

② Select the "MODE" item and then select condition by pressing the + key or – key.

or

Range : NORM, NORM/IDL1
Default : NORM

■ VR setting

③ Select the "VR" item and then select the "VR" or "DT" by pressing the + key or – key.

Range : NULL(OFF), +VR, -VR, +DT5, -DT5, +DT6, -DT6
Default : +DT6

(Memorizing the hovering throttle adjustment position)

■ Memory setting

④ Select the "RATE" item and memorize the current trim position by pressing the Jog key.

● When the knob is returned to the center after memorization, the trim position returns to its previous position.

[NOTE] If memorization is repeated at the same position, the value is cumulated.

HOV-PIT Hovering pitch (HELICOPTER)

Function

The hovering pitch function trims the pitch near the hovering point.

When the hovering pitch knob is turned clockwise, the pitch gets stronger and when it is turned counterclockwise, the pitch gets weaker. Rotor speed changes due to changes in temperature, humidity, and other flying conditions can be trimmed. Adjust for the most stable rotor rotation.

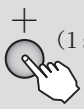
More precise trimming is possible by using this function together with the hovering throttle function.

- The operating condition can be selected from normal only and normal/idle up 1.
- The trim position can be memorized. If it is memorized before the model memory is changed, the original trim state can be retrieved by merely setting the knob to the center when the trim position is recalled.

Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "HOV-PIT" from the menu with the Jog key.

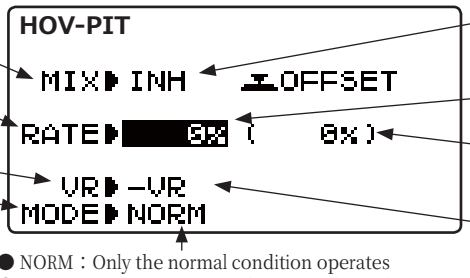
③ Open the setting screen by pressing the Jog key.

Activating the function

Trim memory settting

VR setting

Selection of condition



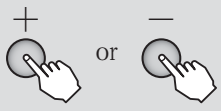
- When "INH", the function cannot be used. To use the function, switch to "ON".
- (Compensation amount at trim memory)
- (Actual compensation amount including the hovering pitch knob)
- The knob operating direction is different depending on the polarity

- Select the setting item with the Jog key.
- NORM : Only the normal condition operates
- NORM/IDL1 : It operates by normal condition and idle-up1.

Hovering Pitch

■ Activating the function

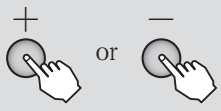
① Select the "MIX" item and then select the "ON" by pressing the + key or – key.



- When you do not use a function, set to the "INH" side.

■ Selection of condition

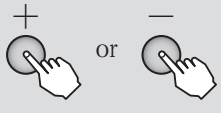
② Select the "MODE" item and then select condition by pressing the + key or – key.



Range : NORM, NORM/IDL1
Default : NORM

■ VR setting

③ Select the "VR" item and then select the "VR" or "DT" by pressing the + key or – key.



Range : NULL(OFF), +VR, -VR, +DT5, -DT5, +DT6, -DT6
Default : -VR

(Memorizing the hovering pitch adjustment position)

■ Memory setting

④ Select the "RATE" item and memorize the current trim position by pressing the Jog key.

- When the knob is returned to the center after memorization, the trim position returns to its previous position.

[NOTE] If memorization is repeated at the same position, the value is cumulated.

HI/LO-PIT HI/LO-pitch trim (HELICOPTER)

Function

The high/low pitch trim function adjusts the pitch servo high side and low side to the optimum pitch individually for each flight condition (normal, idle up 1/2/3, hold).

- The high pitch and low pitch trim levers and operating direction can be selected. The trim levers operate in common for each condition and a use/do not use trim lever can be selected for each function.

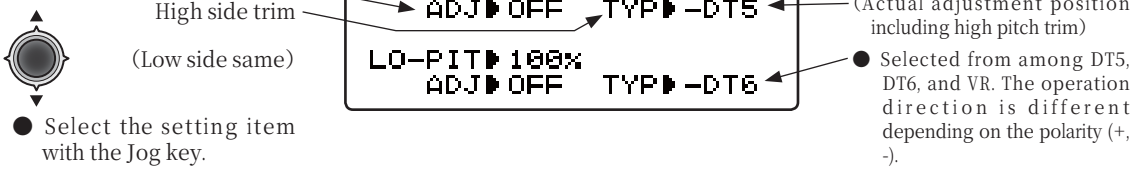
Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.

② Select "HI/LO-PIT" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.



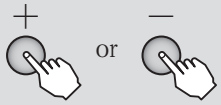
● Select the setting item with the Jog key.

● Selected from among DT5, DT6, and VR. The operation direction is different depending on the polarity (+, -).

HI/LO-pitch trim

■ Selection of condition

① Select the setting condition selection item and select the condition by pressing the + key or – key.



■ DT, VR adjustment ON, OFF selection

② Select ON, OFF by pressing the + key or – key at the high side or low side "ADJ" item.

■ TYP selection

③ Select trim or VR by pressing the + key or – key at the "TYP" item.

Range : +DT5, -DT5, +DT6, -DT6,+VR, -VR

● The high side or low side pitch can be adjusted with the selected digital trim or VR.

■ Adjustment by Key operation

④ Select each function item of "HI-PIT" or "LO-PIT" and set the pitch rate by pressing the + key or – key.

Range : 60 ~ 100%
Default : 100%

THR-MIX Throttle mixing (HELICOPTER)

Function

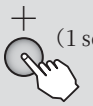
This mixing compensates for slowing of the helicopter when the ailerons, elevators, and rudder are operated.

- The compensation amount can be set for each condition.
- The correction amount limits the throttle hold point 5 (or highest point) operation.

Method

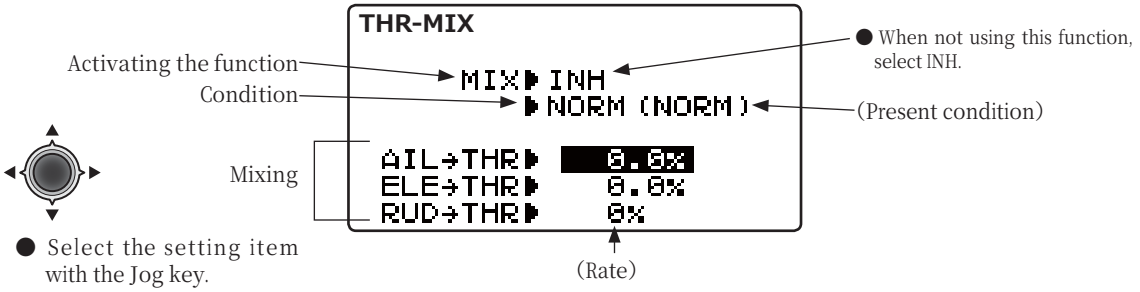
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "THR-MIX" from the menu with the Jog key.

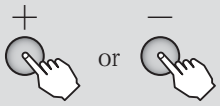
③ Open the setting screen by pressing the Jog key.



Throttle mixing

■ Activating the function

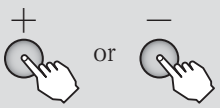
① Select the "MIX" item and then select the "ON" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Setup of rate

② Select each function item of "MIX" and set the rate by pressing the + key or – key.



Range : 0 ～ 100%
(RUD → THR : -100 ～ +100%)
Default : 0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

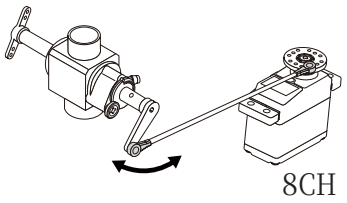
● The setting condition can be selected by pressing the Jog key at rate adjustment.

Range : NORM, IDL1, IDL2, IDL3

THR→NEEDL **Throttle → Needlemixing** (For helicopters) (HELICOPTER)

Function

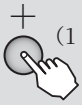
This mixing sets the mixture by a 5 point curve in relation to throttle stick movement when the engine is equipped with a mixture control system (needle control or other mixture adjustment). Normal condition (NOR) idle up use (ID2) and idle up 3 (ID3) can be set independently. The needle servo connects to CH8 of the transmitter.



Method

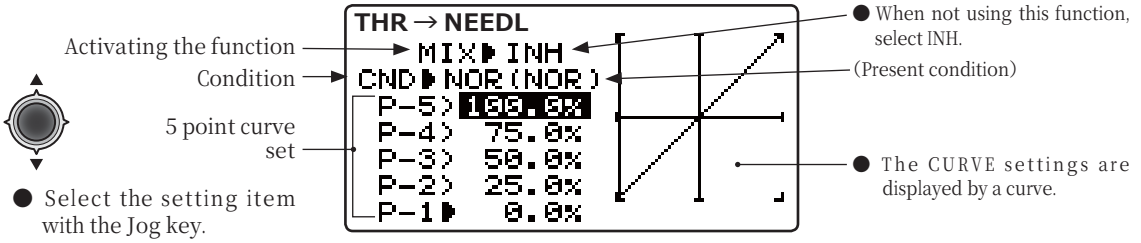
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "THR → NEEDL" from the menu with the Jog key.

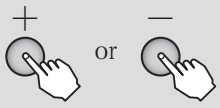
③ Open the setting screen by pressing the Jog key.



Throttle → Needlemixing

■ Activating the function

① Select the "MIX" item and then select the "ON" or "OFF" by pressing the + key or – key.



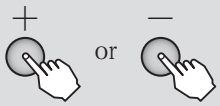
● When you do not use a function, set to the "INH" side.

● When such, setting condition can be chosen by pressing Jog key.

Range：NOR, I12, ID3

■ 5 point curve setting

② Select the setting item of each point (P-1 ～ P-5) with the Jog key and set the travel of each point by pressing the + key or – key.



Range：0.0 ～ 100.0%

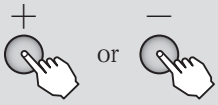
Default：
P-5: 100.0%
P-4: 75.0%
P-3: 50.0%
P-2: 25.0%
P-1: 0.0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

■ Curve copying method

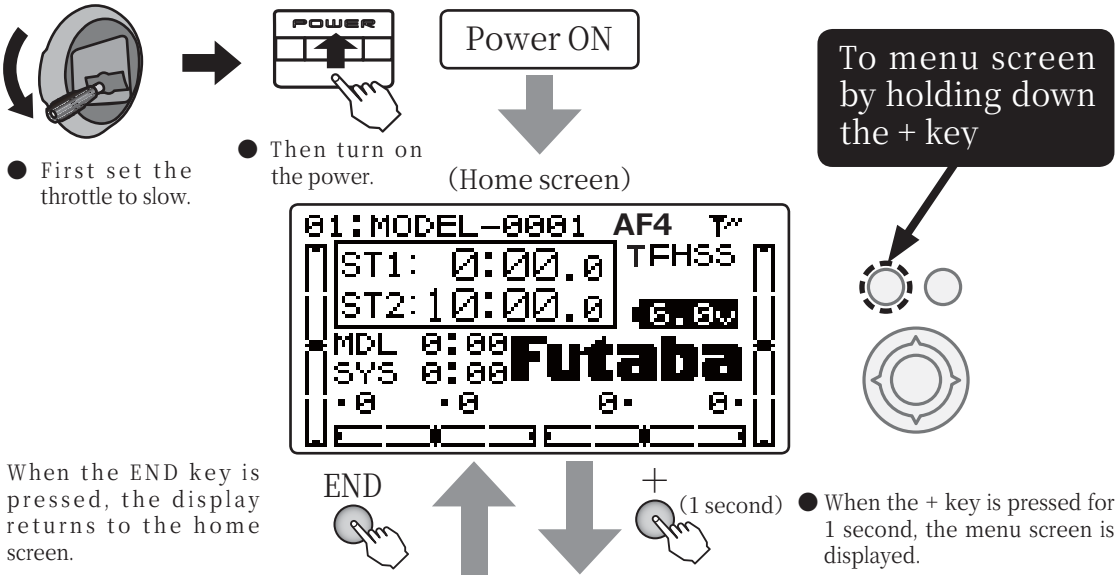
① Select the "CND" item and switch to the curve copy mode by pressing the Jog key.

② Press the + key or – key and select the copy destination condition.

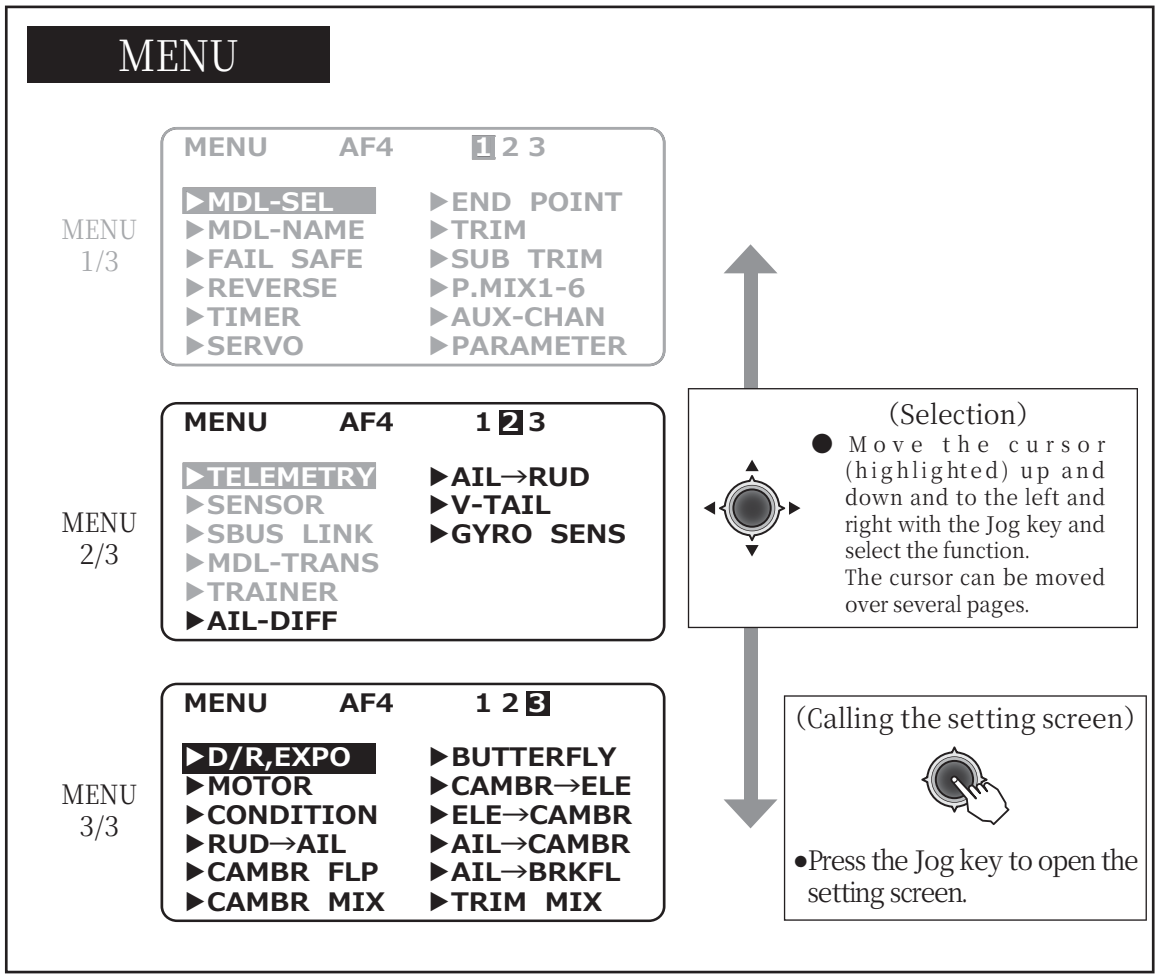


③ Copy the condition by pressing the Jog key for 1 second.

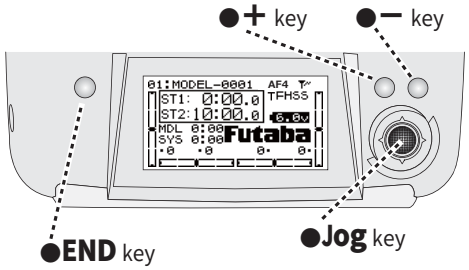
The setting screen of each function is called from the following menu. The function when the model type was set to glider (2AIL+4FLP) is displayed here.



MENU



Key ／ LCD



■ The menu item is an example of WING type 2 ailerons + 4 flaps. The menu items can be changed according to the WING type. For example, if WING type is 1AIL, since the item blinks, reference only the item of the WING type used.

Relevant WING type display → WING TYPE 1AIL 2AIL 2AIL+1F 2AIL+2F 2AIL+4F

Refer to "Common Functions" previously described for a description of this function.

■ Function

MENU1/3	
MDL-SEL Model select ／ Model Copy ／ Data reset ／ RX ／ Link	(P.40)
MDL-NAME Model name ／ User name	(P.43)
FAIL SAFE Fail safe	(P.45)
REVERSE Servo reverse	(P.47)
TIMER Timer	(P.48)
SERVO Servo monitor ／ Servo test	(P.49)
END POINT End point	(P.50)
TRIM Trim reset ／ Trim step	(P.51)
SUB TRIM Sub trim	(P.52)
P.MIX1-6 Program mixing 1 ～ 6	(P.53)
AUX-CHAN AUX channel	(P.56)
PARAMETER Data reset ／ Model type ／ ATL-trim ／ LCD contrast ／ Back light : mode, time, adjustment ／ Home display ／ Battery alarm ／ Battery vibration ／ Buzzer tone ／ Jog navi ／ Jog light ／ Jog time ／ Telemetry : mode, unit ／ Speech : language, volume ／ Stick position alarm	(P.58)

MENU2/3	
TELEMETRY Telemetry Display ／ Alarm setup	(P.66)
SENSOR Telemetry sensor	(P.83)
SBUS LINK S.BUS servo set up	(P.89)
MDL-TRANS Data transfer of another 10J or 8J	(P.92)
TRAINER Trainer	(P.93)
AIL-DIFF Aileron Differential	(P.150)
AIL → RUD Aileron → Rudder	(P.151)
V-TAIL V-Tail	(P.152)
GYRO SENS Gyro mixing	(P.153)

MENU 3/3	
D/R, EXPO Dual rate ／ EXPO	(P.154)
MOTOR SW Motor switch	(P.156)
CONDITION Condition	(P.157)
RUD → AIL Rudder → Aileron mixing	(P.158)
CAMBR FLP Camber flap mixing	(P.159)
CAMBR MIX Camber mixing	(P.160)
BUTTERFLY Butterfly mixing	(P.161)
CAMBR → ELE Camber → Elevator mixing	(P.162)
ELE → CAMBR Elevator → Camber mixing	(P.163)
AIL → CAMBR Aileron → Camber mixing	(P.165)
AIL → BRKFL Aileron → Brake flap	(P.166)
TRIM MIX Trim MIX	(P.167)

AIL-DIFF Aileron differential (GLIDER)

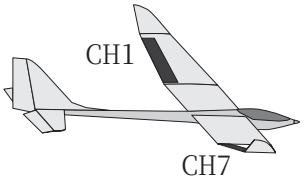
WING TYPE | 2AIL | 2AIL+1F | 2AIL+2F | 2AIL+4F

Function

Two servos can be used for ailerons and a differential can be applied to left and right

aileron operation.

Connect the left aileron to CH1 (AIL) and the right aileron to CH7.

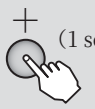


•The up and down angle of the left and right aileron control surface can be adjusted individually.

Method

Calling the setting screen

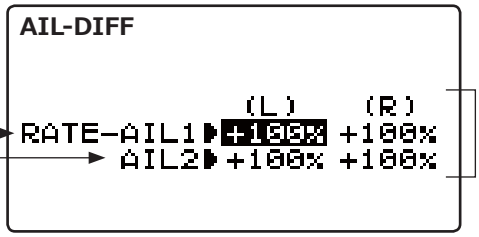
① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "AIL-DIFF" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

Aileron1(CH1)rate
Aileron2(CH7)rate



(Aileron rate)
L：Aileron Stick Left side rate
R：Aileron Stick Right side rate

● Select the setting item with the Jog key.

Aileron Differential

■ Aileron control surface angle adjustment

① Select the "RATE-AIL1" item and then move the aileron stick to the left and right and adjust the travel of each by pressing the + key or – key.

Range：-120 ～ +120%
Default：+100%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.However, polarity does not return.

(Adjust the RATE-AIL2 item the same as ② .)

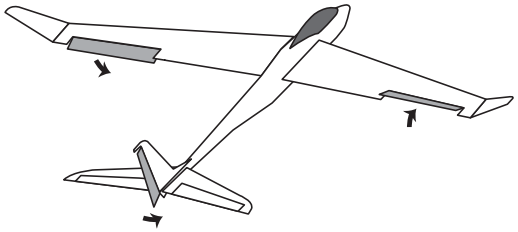
AIL → RUD Aileron → Rudder (GLIDER)

WING TYPE 1AIL 2AIL 2AIL+1F 2AIL+2F 2AIL+4F

Function

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

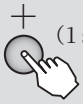
- When the mixing direction is reversed by the linkage, adjustments can be made by changing the rate polarity.



Method

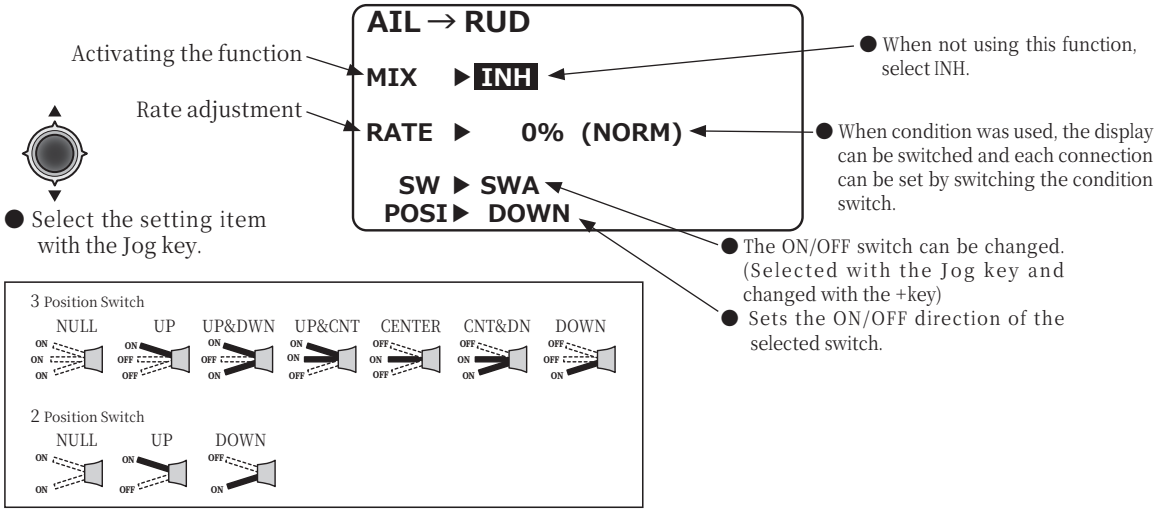
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "AIL → RUD" from the menu with the Jog key.

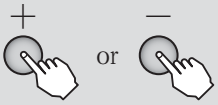
③ Open the setting screen by pressing the Jog key.



Aileron → Rudder

■ Activating the function

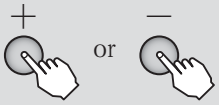
① Select the "MIX" item and then select the "ON" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Mixing rate

② Select the "RATE" item and then adjust the mixing rate by pressing the + key or – key.



Range : -100 ～ +100%
Default : 0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.However, polarity does not return.

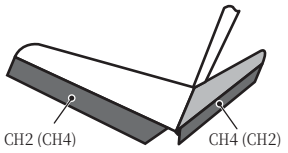
V-Tail (GLIDER)

WING TYPE | 1AIL | 2AIL | 2AIL+1F | 2AIL+2F | 2AIL+4F

Function

This mixing is used with V tail aircraft that combine the elevator and rudder functions.

V-tail

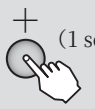


	CH2 Servo	CH4 Servo
Elevator	ELE1	ELE2
Rudder	RUD2	RUD1

Method

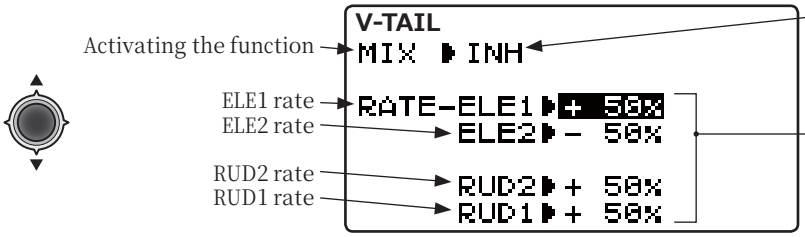
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "V-TAIL" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.



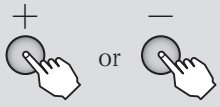
● When INH is selected, the function cannot be used. To use the function, select ACT.

● Select the setting item with the Jog key.

V-TAIL

■ Activating the function

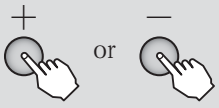
① Select the "MIX" item and then select the "ACT" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Rate adjustment

② Select the "RATE" item and then adjust the mixing rate by pressing the + key or – key.



Range：-100 ～ +100%
Default：+50%
(only ELE2 : -50%)

● When you want to return the set value to the initial value, press the + key and – key simultaneously.However, polarity does not return.

NOTE：We recommend that setting be performed while moving the stick and checking the amount of movement. If the amount of movement is too large, elevator and rudder operation will be compounded and the servo travel range will be exceeded and a dead band in which the servo will not operate may be created.

GYRO SENS Gyro sensor (GLIDER)

WING TYPE 1AIL

Function

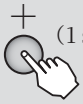
This function is dedicated mixing for switching the gyro sensitivity and gyro mode (AVCS/NORMAL) of Futaba airplane use gyros. Up to 3 axes can be set.

- The sensitivity switch can be selected and the sensitivity of each direction of the switch can be set. (Switches A to H) If the airplane stalls during flight, the gyro will lose control of the plane's attitude. From the standpoint of safety, we recommend that the OFF (0%) position also be set using a 3 position switch.
- CH5, CH5/CH7, CH5/CH8 or CH5/CH7/CH8 combinations can be selected as the sensitivity setting channel.

Method

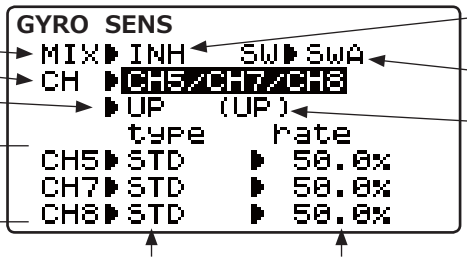
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "GYRO SENS" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.



● When not using this function, select INH.

Sensitivity switch selection

(Current switch operating direction)

● Switches to the sensitivity setting screen of each switch direction when the Jog key is pressed.

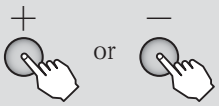
● Select the setting item with the Jog key.

● When using a Futaba GYA gyro, select gyro type GY. This switches the gyro sensitivity setting item to mode and sensitivity direct reading display.

GYRO SENS

■ Activating the function

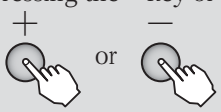
① Select the "MIX" item and then select the "ON" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Sensitivity switch selection

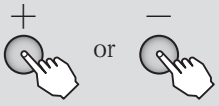
② Select the "SW" item and then select the switch by pressing the + key or – key.



Range : SwA ～ SwH、Default : SwA

■ Sensitivity setting channel selection

③ Select the "CH" item and then select the sensitivity setting channel by pressing the + key or – key.



Range : CH5、CH5/CH7、CH5/CH8、CH5/CH7/CH8

Default : CH5

■ Gyro type and sensitivity setting

④ Press the Jog key and select the sensitivity setting screen you want to set and then set "type" (gyro type) and "rate" (gyro sensitivity) of each channel by pressing the + key or – key.

("type") Range : STD,GY Default : STD

("rate") Range : 0 ～ 100%(STD) , NOR100 ～ 0 ～ AVC100%(GY) Default : 50%(STD) , 0%(GY)

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

D/R,EXPO Dual rate ／ EXPO (GLIDER)

WING TYPE 1AIL 2AIL 2AIL+1F 2AIL+2F 2AIL+4F

Function

D/R

The aileron, elevator and rudder channel control surface angle can be switched in 2 steps

- The control surface angle is adjusted by each direction of the switch. The left and right (up and down) direction of each switch can be set individually.

EXP

This function makes operation more pleasant by changing the operating curve so that servo movement is sluggish or sensitive relative to stick operation near the aileron, elevator, throttle, and rudder neutral position. Adjustments can be made in 2 steps according to the control surface angle.

- The "-" side makes servo movement sluggish and the "+" side makes servo movement sensitive near the neutral position. Exponential is applied to entire throttle servo travel. When the "+" side is increased, the slow side becomes sluggish and the high side becomes sensitive.
- Setting corresponding to each rate of dual rate (D/R) is possible. (Except throttle) The direction of each switch and the left and right (up and down) direction of each channel can be set individually.

Switch selection（SW）

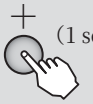
Switches A to H can be selected as the aileron channel, elevator channel, and rudder channel dual rate (exponential) switch.

- Default：Aileron：SwitchD ／ Elevator：SwitchA ／ Rudder：SwitchB

Method

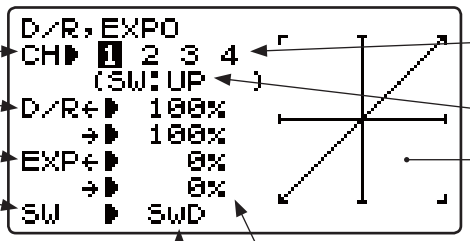
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "D/R, EXPO" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.



Channel selection
Dual rate
EXPO
Switch selection

● The channel under selection is underlined.

(Switch Direction)

● The dual rate and exponential settings are displayed by a curve.

● Channel selection/Select the setting item with the Jog key.

(Switch number)

(D/R and EXPO rate display)
Top row；Left side ／ down
Bottom row；Right side ／ up

＜Channel＞
1：Aileron
2：Elevator
3：Throttle
4：Rudder

D/R

① A channel is chosen by Jog key.

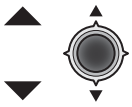
Range：1, 2, 4

② Adjust the rate by moving the cursor to D/R with the Jog key, switching the dual rate switch to the direction you want to set, moving the stick to the left (down) or right (up) side and pressing the + key or – key.

Range：
0 ～ 140%
Default：100%

- When you want to return the set value to the initial value, press the + key and – key simultaneously.

Adjust the rate of each direction of the dual rate switch and stick by repeating step



- Moving to another setting item of the same channel is possible by Jog key.

EXPO

① Select the "EXP" item and then select the channel with the Jog key.

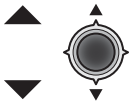
Range：1 ～ 4

② Adjust the rate by moving the cursor to EXP with the Jog key, switching the dual rate switch to the direction you want to set, moving the stick to the left (down) or right (up) side and pressing the + key or – key.

Range：
-100 ～ +100%
Default：0%

- When you want to return the set value to the initial value, press the + key and – key simultaneously.

Adjust the rate of each direction of the dual rate switch and stick by repeating step



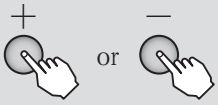
- Moving to another setting item of the same channel is possible by Jog key.

Switch Change

① Select the "SW" item and then select the channel with the Jog key.

Range：1, 2, 4

② A switch is chosen by + key or – key.



Range：SwA ～ SwH

MOTOR SW Motor switch (GLIDER)

WING TYPE 1AIL 2AIL 2AIL+1F 2AIL+2F 2AIL+4F

Function

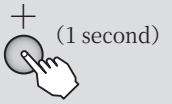
This function sets the operating motor when the EP glider with motor is started by switch. The operating speed can individually set in 2 ranges of high from slow and slow from high. **If you do motor control with a throttle stick, you should set this function to INH.**

- For safety, the ON/OFF switch of the aircraft itself can be set.
- If a transmitter power supply is switched on while the motor SW has been ON, the warning will operate. Be sure to switch on a power supply with the motor-start switch OFF.

Method

Calling the setting screen

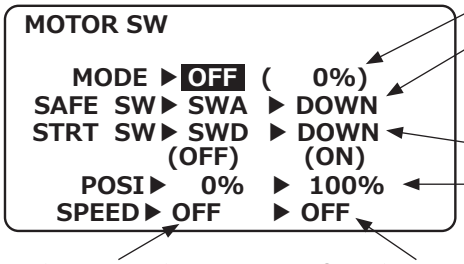
① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "MOTOR SW" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

● Select the setting item with the Jog key.

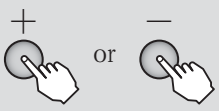


- ● Present motor control position
- ● If this safety switch is not ON, the motor will not start even if the starter switch is turned on. In "NULL", a safe function does not work.
- ● Start SW
- ● A setup of the motor control position (3CH end point)of High-side and Low-side
- ● Decelerating speed setting
- ● Accelerating speed setting

Motor

■ Activating the function

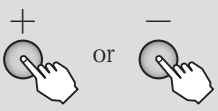
① Select the "MODE" item and then select the "OFF" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Switch selection

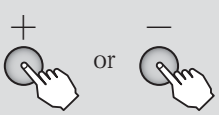
② Change the switch by pressing the + key or – key at the switch selection item.



Range : SwA ～ SwH

■ Switch direction

③ Select the "DOWN" item and then select the position by pressing the + key or – key.



- ● 2P SW : UP, DOWN
- ● 3P SW : UP, UP&D, UP&C, CNTR, C&DN, DOWN

■ Speed setting

④ Select "SPEED " next to (OFF) and (ON) by Jog key.

Range : OFF,1 ～ 10(more slowly)

- ● (ON) is the acceleration speed setting.
- ● (OFF) is the deceleration speed setting.

⚠ DANGER

Always remove the propeller from the motor during setting and at operation checks.

■There is the danger of the propeller spinning unexpectedly and causing a serious injury.

CONDITION Condition (GLIDER)

WING TYPE 1AIL 2AIL 2AIL+1F 2AIL+2F 2AIL+4F

Function

The condition function lets you change multiple settings by one switch operation. Different settings can be made immediately by switching 2 conditions.

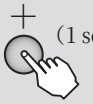
●The functions that can be changed by condition are:

・Aileron→Rudder ・Rudder→Aileron
・Camber FLP ・Camber MIX ・Butterfly
・Camber→ELE ・ELE→Camber ・AIL→Camber
・AIL→BRKFL ・Trim mix

Method

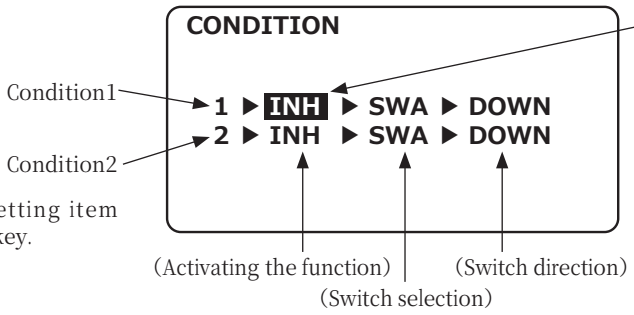
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "CONDITION" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.



● Select the setting item with the Jog key.

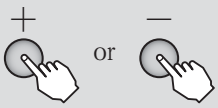
● When not using this Function select INH. The display of On/Off is shown when active and assigned to a switch.

● Priority is given to the condition 2 when the condition 1 and 2 is turned on simultaneously.

CONDITION

■ Activating the function

① Select the "INH" item of the condition you want to use and then set that condition to "ON" or "OFF" by pressing the + key or – key.

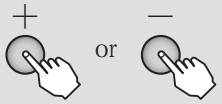


● Set conditions you do not want to use to "INH".

(Changing the switch)

■ Switch selection

② Change the switch by pressing the + key or – key at the switch selection item.

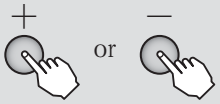


Range : SwA ~ SwH

Default : SwA

■ Switch direction

③ Select the ON direction by pressing the + key or – key at the ON direction selection item.



Range :

● 2P SW : NULL, UP, DOWN
● 3P SW : NULL, UP, UP&D, UP&C, CNTR, C&DN, DOWN

RUD → AIL Rudder → Aileron (GLIDER)

WING TYPE 1AIL 2AIL 2AIL+1F 2AIL+2F 2AIL+4F

Function

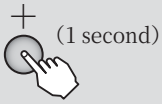
This function is used when you want to mix the ailerons with rudder input. It is used when rudder is applied during roll maneuvers such as, knife edge flight. It can be used to turn or bank scale models, large models, etc. like a full-size aircraft.

- When the mixing direction is reversed by the linkage, adjustments can be made by changing the rate polarity.

Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



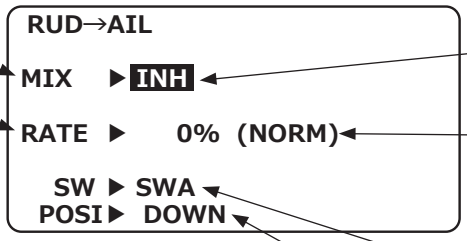
② Select "RUD → AIL" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

Activating the function

Mixing rate

● Select the setting item with the Jog key.

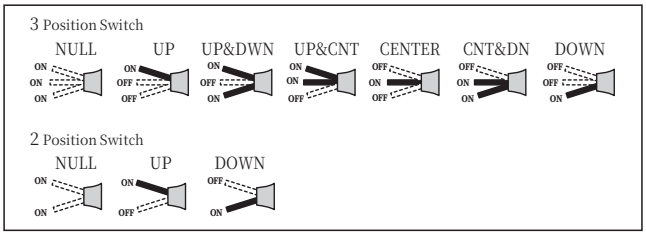


● When not using this function, select INH.

● When condition was used, the display can be switched and each connection can be set by switching the condition switch.

● The ON/OFF switch can be changed. (Selected by Jog key and changed by + key.)

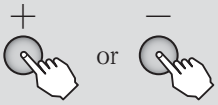
● Sets the ON/OFF direction of the selected switch.



RUD → AIL

■ Activating the function

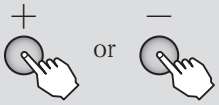
① Select the "MIX" item and then select the "ON" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Mixing rate

② Select the "RATE" item and then adjust the mixing rate by pressing the + key or – key.



Range : -100 ~ +100%
Default : 0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.However, polarity does not return.

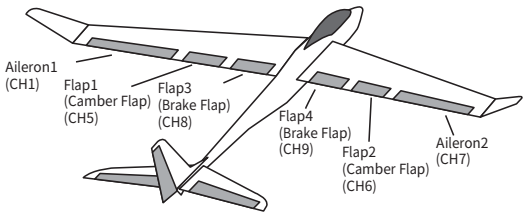
CAMBR FLP Camber flap (GLIDER)

WING TYPE | 2AIL+1F | 2AIL+2F | 2AIL+4F

Function

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 camber flaps operates by DT5 and the brake flaps operates by DT6.

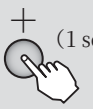
- The axis of each flap can be shifted
- The control switch can be changed by AUX channel



Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "CAMBR FLP" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

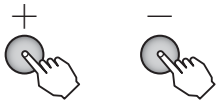
DT5 and DT6 set the amount of movement when the flap is operated.

```
CAMBR FLP                1 2
CAMBER FLAP

              (UP)     (DN)     (OFS)
● Flap1 →  F1 ▶ +100 ▶ +100 ▶ +0
● Flap2 →  F2 ▶ +100 ▶ +100 ▶ +0
● Flap3 →  F3 ▶ +100 ▶ +100 ▶ +0
● Flap4 →  F4 ▶ +100 ▶ +100 ▶ +0
```

● Up side rate ● Down side rate ● Offset rate

● Select the setting item with the Jog key.



● The number is changed by + key or – key.

Camber FLP 2 page
[Brakeflap → Camberflap]

(Currently selected condition)

```
CAMBR FLP   (NORM)   1 2
BRAKE FLAP  →  CAMBER

              (UP)     (DN)     (OFS)
FL ▶        +100 ▶   +100 ▶   +0
MIX ▶ INH
SW ▶ SwA ▶ DOWN
```

● Brake FLP to camber FLP mixing rate and offset (axis shift)

● Selection of whether or not mixing from brake FLP to camber FLP is performed

● Brake FLP to camber FLP mixing switch selection

● Brake FLP to camber FLP mixing switch operation direction

CAMBR MIX Camber mixing (GLIDER)

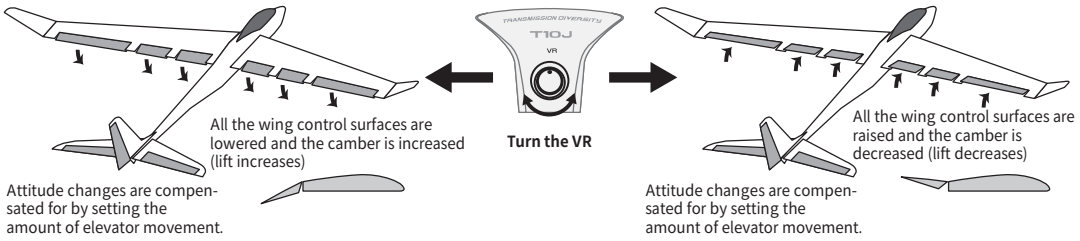
WING TYPE | 2AIL | 2AIL+1F | 2AIL+2F | 2AIL+4F

Function

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 DT6.

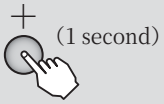
- Operation can be turned on and off by switch
- VR can be changed by AUX channel 10



Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.

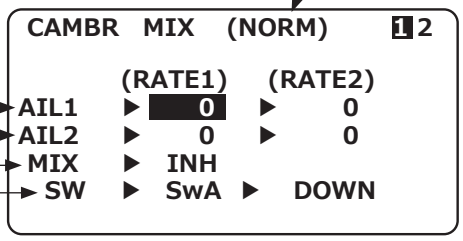


② Select "CAMBR MIX" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

Sets the amount of movement when the VR was turned.

(Currently selected condition)



- Aileron1
- Aileron2
- Camber MIX ACT/INH
- Can be set to operate from a switch. When NULL, it is operated by a VR.

- Select the setting item with the Jog key.

- The number is changed by + key or – key.

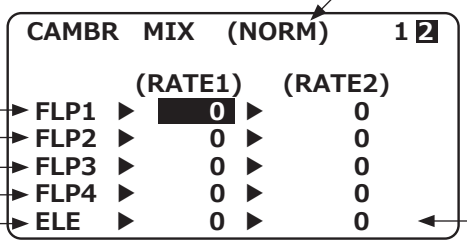
(RATE1) : The amount of operations when VR is turned to the right.

(RATE2) : The amount of operations when VR is turned to the left.

Sets the amount of movement when the VR is turned.

[Camber FLP 2 page]

(Currently selected condition)



- Flap1
- Flap2
- Flap3
- Flap4
- Elevator

- Amount of compensation of the elevator when the camber changed.

BUTTERFLY Butterfly mixing (GLIDER)

WING TYPE | 2AIL | 2AIL+1F | 2AIL+2F | 2AIL+4F

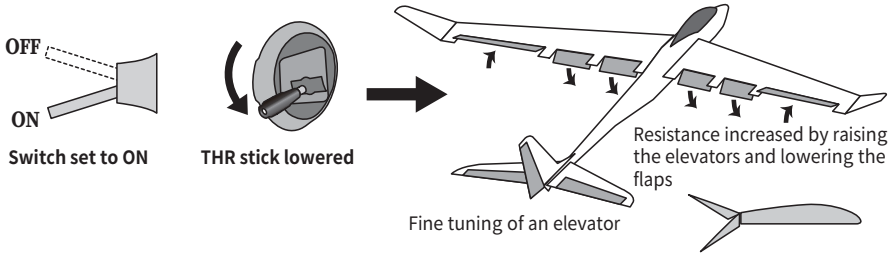
Function

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

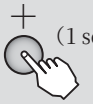
- Mixing during flight can be turned ON/OFF by setting a switch.
- The point at which the butterfly operation reference point can be offset.
- The differential rate can be adjusted.



Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



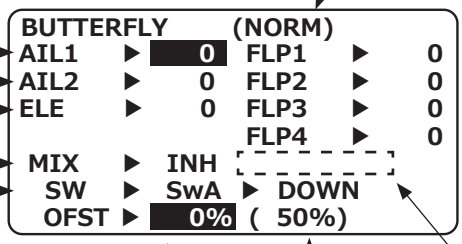
② Select "BUTTERFLY" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

Amount of movement setting

- Aileron1
- Aileron2
- Amount of elevator compensation
- Butterfly : ACT/INH
- Can be either set to a switch or when NULL is controlled by the THR stick.

(Currently selected condition)

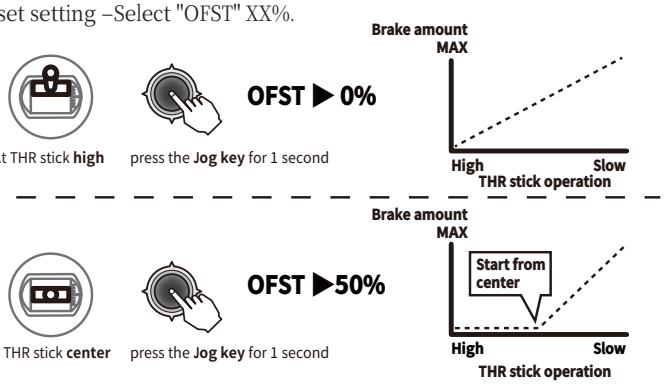


- Current THR stick position 0% : High 100% : Low

- Select the setting item with the Jog key.

- The number is changed by + key or – key.
- When MIX is set to ACT, the amount of MIX(s) according to stick operation is displayed.

- Offset setting –Select "OFST" XX%.



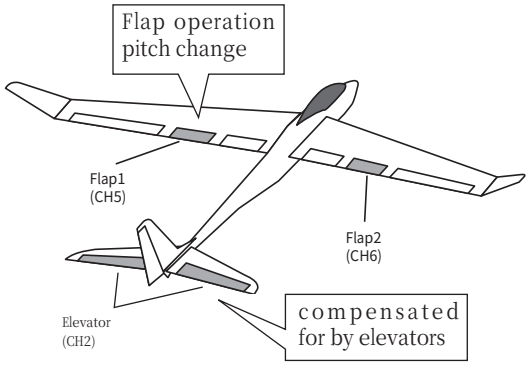
CAMBR→ELE Camber → Elevator mixing (GLIDER)

WING TYPE | 2AIL+1F | 2AIL+2F | 2AIL+4F

Function

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.

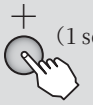
- The elevator servos up/down rates can be adjusted separately. If the mixing direction is reversed, change the mixing rate polarity (+ or –).
- Mixing during flight can be turned ON/OFF by setting a switch. (Always ON at SW [NULL] setting)



Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



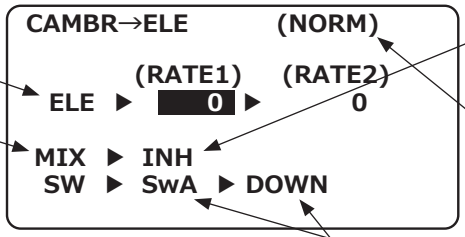
② Select "CAMBR → ELE" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

Mixing rate

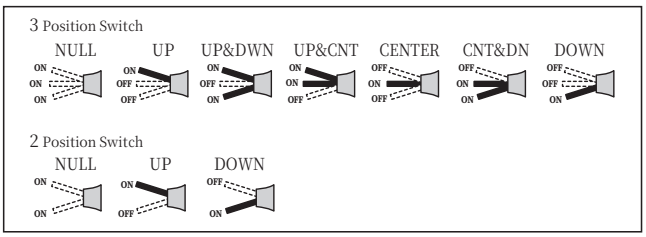
Activating the function

● Select the setting item with the Jog key.



● When not using this function, select INH.

● When condition is used, the display can be switched and each connection can be set by switching the condition switch.



● The ON/OFF switch can be changed. (Selected with the Jog key and changed with the +key)

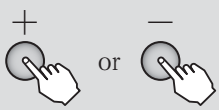
● Sets the ON/OFF direction of the selected switch.

● (RATE1) and (RATE2) show the direction of camber of operation.

Camber → ELE mixing

■ Activating the function

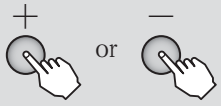
① Select the "MIX" item and then select the "ON" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Mixing rate

② Select the "RATE" item and then adjust the mixing rate by pressing the + key or – key.



Range : -120 ～ +120%
Default : 0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

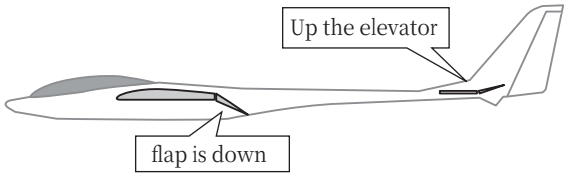
ELE → CAMBR Elevator → Camber mixing (GLIDER)

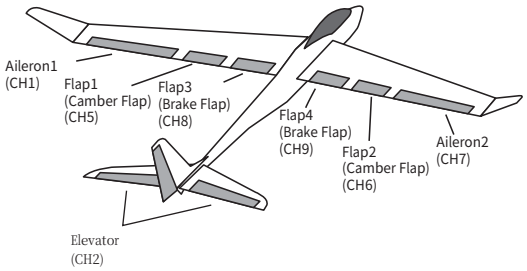
WING TYPE | 2AIL | 2AIL+1F | 2AIL+2F | 2AIL+4F

Function

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.

- In-flight mixing can be turned ON/OFF by assigning this to a switch. (Always ON at SW [NULL] setting)
- The mixing rate can be adjusted.
- Setting so that the flaps are not operated near the center of the elevators is possible. (RANGE)

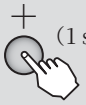




Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "ELE → CAMBR" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

(Currently selected condition)

Mixing rate

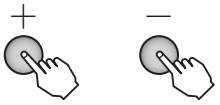
- Aileron1
- Aileron2
- Camber MIX ACT/INH
- Can be either set to a switch or when NULL is always active.

```
ELE→CAMBR   (NORM)   1 2

            (RATE1)   (RATE2)
AIL1 ▶        0 ▶        0
AIL2 ▶        0 ▶        0
MIX  ▶      INH
SW   ▶      SwA ▶     DOWN
RANGE▶     0% (     0%)
```

- Described on the next page.
- Current position of the elevator stick

- Select the setting item with the Jog key.



- The number is changed by + key or – key.

[ELE → Camber 2 page]

(Currently selected condition)

Mixing rate

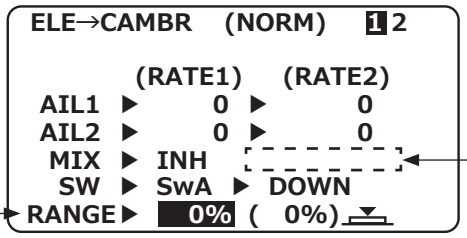
- Flap1
- Flap2
- Flap3
- Flap4

```
ELE→CAMBR   (NORM)   1 2

            (RATE1)   (RATE2)
FLP1 ▶        0 ▶        0
FLP2 ▶        0 ▶        0
FLP3 ▶        0 ▶        0
FLP4 ▶        0 ▶        0
```

- (RATE1) and (RATE2) show the direction of elevator of operation.

(ELE → Camber)



● When MIX is set to ACT, the amount of MIX(s) according to stick operation is displayed.

● Setting that inhibits camber mixing near the elevator center position. Setting so that camber mixing is performed only when the elevators were operated greatly is possible.

RANGE setting

■ Setting state

① Select the "0%" item next to RANGE with the Jog key.

■ To setting value

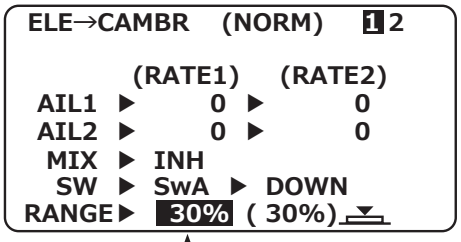
② Move the elevator stick to the position you want operation to begin.

Can be either up or down. When set to down, the up side is also set by the same amount.

■ Set value memorization

③ Press the Jog key for 1 second.

Hold the stick in position.



When elevator operation exceeds the range, the stick position is displayed and mixing is performed.

● When a RANGE number is selected and the Jog key is pressed for 1 second, RANGE is reset to 0% and normal mixing is performed.

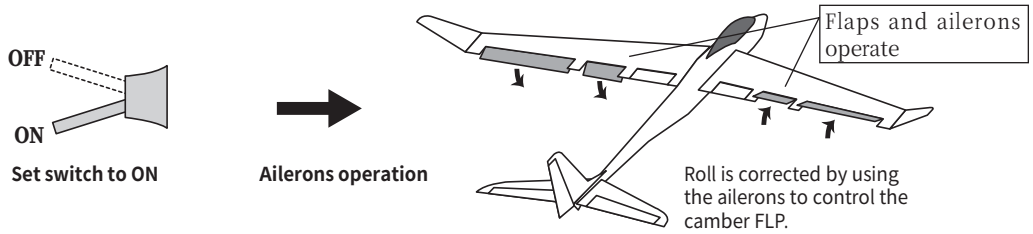
AIL → CAMBR Aileron → Camber mixing (GLIDER)

WING TYPE 2AIL+2F 2AIL+4F

Function

This mixing links the camber flaps with aileron operation (stick). It is used when you want to increase roll axis maneuverability.

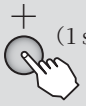
- When the mixing direction is reversed by the linkage, adjustments can be made by changing the rate polarity.



Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



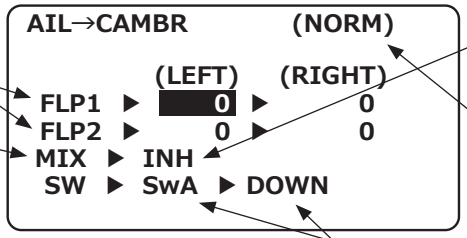
② Select "AIL → CAMBR" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

Mixing rate

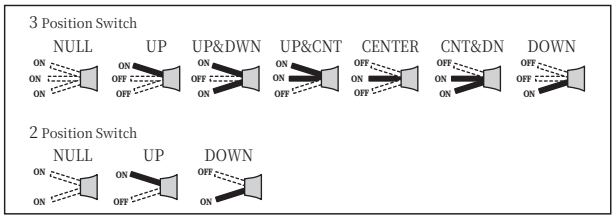
Activating the function

● Select the setting item with the Jog key.



● When not using this function, select INH.

● When condition was used, the display can be switched and each connection can be set by switching the condition switch.



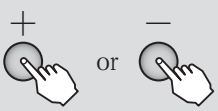
● The ON/OFF switch can be changed. (Selected with the Jog key and changed with the +key)

● Sets the ON/OFF direction of the selected switch.

AIL → Camber mixing

■ Activating the function

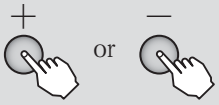
① Select the "MIX" item and then select the "ON" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Mixing rate

② Select the "RATE" item and then adjust the mixing rate by pressing the + key or – key.



Range : -120 ～ +120%
Default : 0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

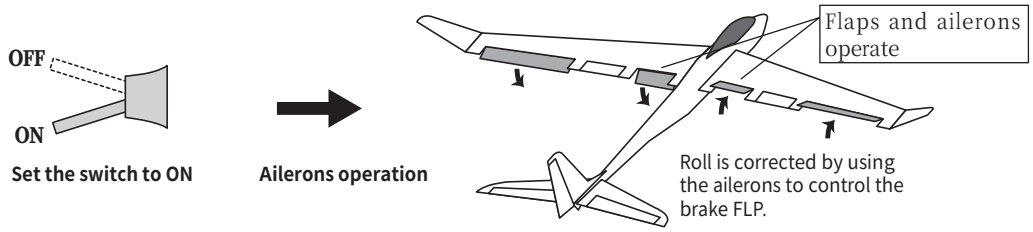
AIL → BRKFL Aileron → Brake flap mixing (GLIDER)

WING TYPE 2AIL+4F

Function

This mixing links the brake flaps with aileron operation (stick). It is used when you want to increase roll axis maneuverability.

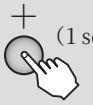
- When the mixing direction is reversed by the linkage, adjustments can be made by changing the rate polarity.



Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



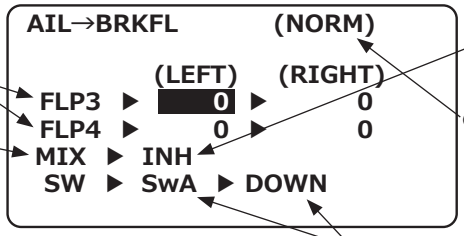
② Select "AIL→BRKFL" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

Mixing rate

Activating the function

● Select the setting item with the Jog key.

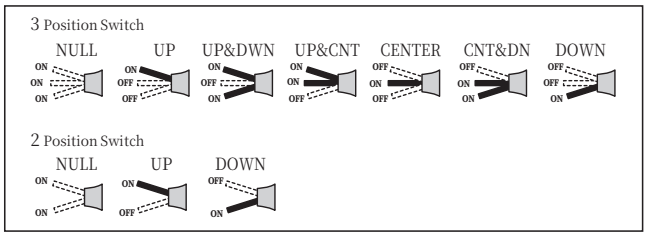


● When not using this function, select INH.

● When condition was used, the display can be switched and each connection can be set by switching the condition switch.

● The ON/OFF switch can be changed. (Selected with the Jog key and changed with the +key)

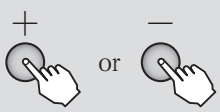
● Sets the ON/OFF direction of the selected switch.



AIL → BRKFL mixing

■ Activating the function

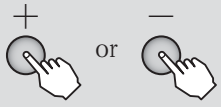
① Select the "MIX" item and then select the "ON" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Mixing rate

② Select the "RATE" item and then adjust the mixing rate by pressing the + key or – key.



Range : -120 ~ +120%
Default : 0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

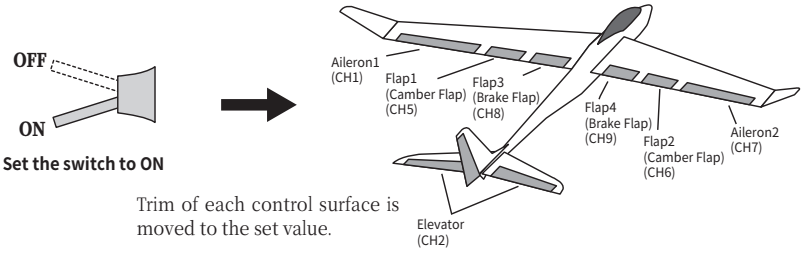
TRIM MIX Trim mix (GLIDER)

WING TYPE | 2AIL | 2AIL+1F | 2AIL+2F | 2AIL+4F

Function

This function shifts the ailerons, elevators, and each flap trim to the preset position by means of a switch.

- The servo speed at which trim is to the set position can be set.

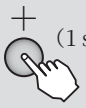


Trim of each control surface is moved to the set value.

Method

Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



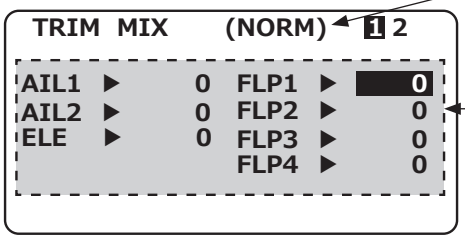
② Select "TRIM MIX" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

- Select the setting item with the Jog key.

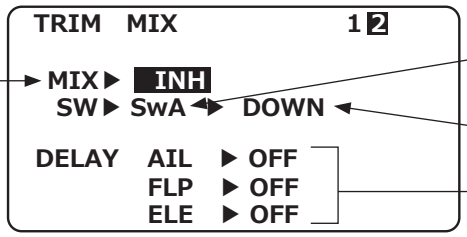
- The number is changed by + key or – key.

[TRIM MIX page1]



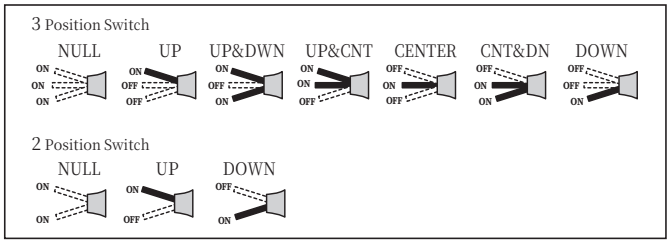
- When condition is used, the display can be switched and each connection can be set by switching the condition switch.
- Sets the trim neutral position of each control surface.
  Range : -100 ～ +100
  Returned to 0 by pressing the + key and – key simultaneously.

[TRIM MIX page2]

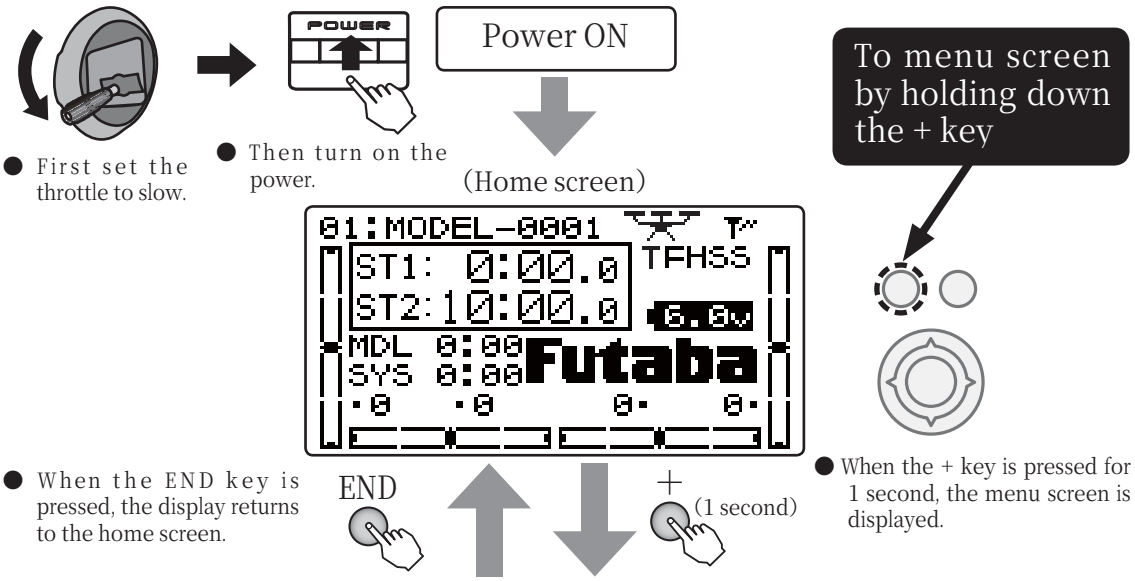


Activating the function
- When not using this function, select INH.

- The ON/OFF switch can be changed. (Selected with the Jog key and changed with the +key)
- Sets the ON/OFF direction of the selected switch.
- Servo speed at which the trim position is to the set position. Sudden attitude changes are prevented by turning the switch on. (Selected by Jog key and changed by + key and – key.)
  Range : OFF(fast shift)、1 ～ 10 (slow shift)
  Returned to OFF by pressing the Jog key for a long time.
  *This is not the servo speed when the stick was operated.

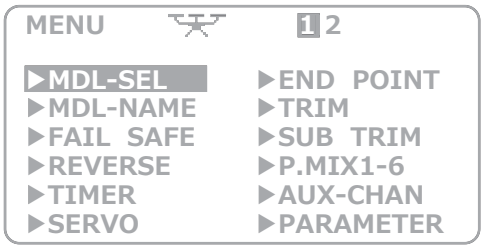


The setting screen of each function is called from the following menu. The function when the model type was set to multicopter (MULTI COPT) is displayed here.

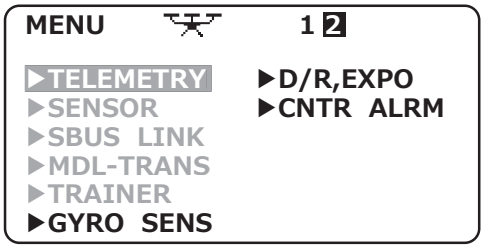


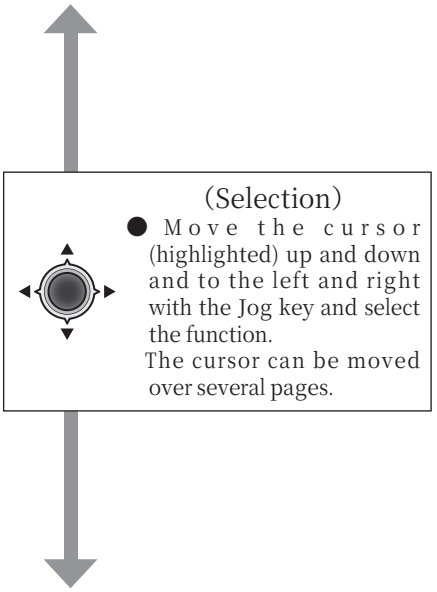
MENU

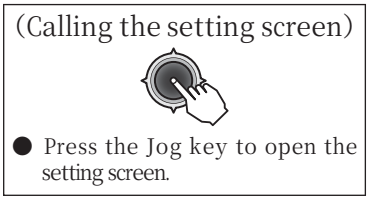
MENU 1/2

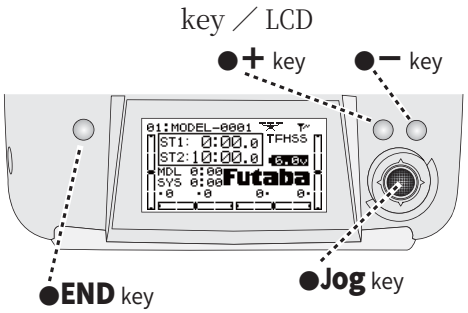


MENU 2/2









Refer to "Common Functions" previously described for a description of this function.

■ Function

MENU1/3	
MDL-SEL Model select ／ Model Copy ／ Data reset ／ RX ／ Link	(P.40)
MDL-NAME Model name ／ User name	(P.43)
FAIL SAFE Fail safe	(P.45)
REVERSE Servo reverse	(P.47)
TIMER Timer	(P.48)
SERVO Servo monitor ／ Servo test	(P.49)
END POINT End point	(P.50)
TRIM Trim reset ／ Trim step	(P.51)
SUB TRIM Sub trim	(P.52)
P.MIX1-6 Program mixing 1 ～ 6	(P.53)
AUX-CHAN AUX channel	(P.56)
PARAMETER Data reset ／ Model type ／ ATL-trim ／ LCD contrast ／ Back light : mode, time, adjustment ／ Home display ／ Battery alarm ／ Battery vibration ／ Buzzer tone ／ Jog navi ／ Jog light ／ Jog time ／ Telemetry : mode, unit ／ Speech : language, volume ／ Stick position alarm	(P.58)

MENU2/3	
TELEMETRY Telemetry Display ／ Alarm setup	(P.66)
SENSOR Telemetry sensor	(P.83)
SBUS LINK S.BUS servo set up	(P.89)
MDL-TRANS Data transfer of another T10J	(P.92)
TRAINER Trainer	(P.93)
GYRO SENS Gyro mixing	(P.170)
D/R, EXPO Dual rate ／ EXPO	(P.171)
CNTR ALRM Center alarm	(P.173)

GYRO SENS Gyro sensor (MULTICOPT)

Function

This function is dedicated mixing for switching the gyro sensitivity and gyro mode (AVCS/NORMAL) of Futaba gyros. Up to 3 axes can be set. The attitude control of multicopter uses the system of multicopter attachment.

This "GYROSENS" will be used for accessories, such as camera control.

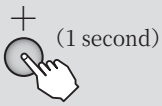
- The sensitivity switch can be selected and the sensitivity of each direction of the switch can be set. (Switches A to H)
- CH5, CH5/CH7, CH5/CH8 or CH5/CH7/CH8 combinations can be selected as the sensitivity setting channel.

***When this function is used, it becomes impossible for CH5 to use it for multi copter controller. Use CH6 for multi copter controller and use SwC.**

Method

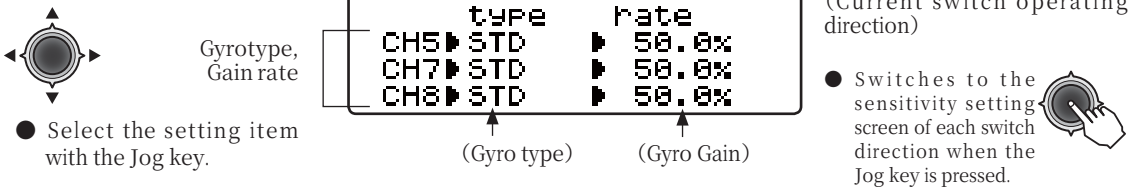
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "GYRO SENS" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.

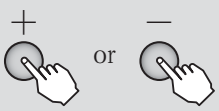


● When using a Futaba GYA gyro, select gyro type GY. This switches the gyro sensitivity setting item to mode and sensitivity direct reading display.

GYRO SENS

■ Activating the function

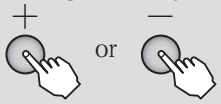
① Select the "MIX" item and then select the "ON" by pressing the + key or – key.



● When you do not use a function, set to the "INH" side.

■ Sensitivity switch selection

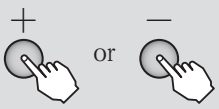
② Select the "SW" item and then select the switch by pressing the + key or – key.



Range：SwA ～ SwH、Default：SwA

■ Sensitivity setting channel selection

③ Select the "CH" item and then select the sensitivity setting channel by pressing the + key or – key.



Range：CH5、CH5/CH7、CH5/CH8、CH5/CH7/CH8

Default：CH5

■ Gyro type and sensitivity setting

④ Press the Jog key and select the sensitivity setting screen you want to set and then set “type” (gyro type) and “rate” (gyro sensitivity) of each channel by pressing the +key or – key.

("type") Range：STD,GY Default：STD

("rate") Range：0 ～ 100%(STD) , NOR100 ～ 0 ～ AVC100%(GY) Default：50%(STD) , 0%(GY)

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

D/R,EXPO Dual rate ／ EXPO (MULTICOPT)

Function

D/R

The aileron, elevator and rudder channel control surface angle can be switched in 2 steps

- The control surface angle is adjusted by each direction of the switch. The left and right (up and down) direction of each switch can be set individually.

EXP

This function makes operation more pleasant by changing the operating curve so that servo movement is sluggish or sensitive relative to stick operation near the aileron, elevator, throttle, and rudder neutral position. Adjustments can be made in 2 steps according to the control surface angle.

- The "-" side makes servo movement sluggish and the "+" side makes servo movement sensitive near the neutral position. Exponential is applied to entire throttle servo travel. When the "+" side is increased, the slow side becomes sluggish and the high side becomes sensitive.
- Setting corresponding to each rate of dual rate (D/R) is possible. (Except throttle) The direction of each switch and the left and right (up and down) direction of each channel can be set individually.

Switch selection（SW）

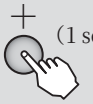
Switches A to H can be selected as the aileron channel, elevator channel, and rudder channel dual rate (exponential) switch.

- Default：Aileron：SwitchD ／ Elevator：SwitchA ／ Rudder：SwitchB

Method

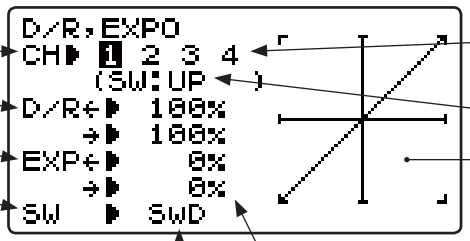
Calling the setting screen

① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "D/R,EXPO" from the menu with the Jog key.

③ Open the setting screen by pressing the Jog key.



Channel selection
Dual rate
EXPO
Switch selection

● Channel selection/Select the setting item with the Jog key.

(Switch number)

(D/R and EXPO rate display)
Top row；Left side ／ down
Bottom row；Right side ／ up

● The channel under selection is underlined.

(Switch Direction)

● The dual rate and exponential settings are displayed by a curve.

＜Channel＞
1：Aileron
2：Elevator
3：Throttle
4：Rudder

D/R

① A channel is chosen by Jog key.

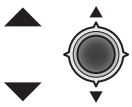
Range：1, 2, 4

② Adjust the rate by moving the cursor to D/R with the Jog key, switching the dual rate switch to the direction you want to set, moving the stick to the left (down) or right (up) side and pressing the + key or – key.

Range：
0 ～ 140%
Default：100%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

Adjust the rate of each direction of the dual rate switch and stick by repeating step



● Moving to another setting item of the same channel is possible by Jog key.

EXPO

① Select the "EXP" item and then select the channel with the Jog key.

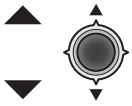
Range：1 ～ 4

② Adjust the rate by moving the cursor to EXP with the Jog key, switching the dual rate switch to the direction you want to set, moving the stick to the left (down) or right (up) side and pressing the + key or – key.

Range：
-100 ～ +100%
Default：0%

● When you want to return the set value to the initial value, press the + key and – key simultaneously.

Adjust the rate of each direction of the dual rate switch and stick by repeating step



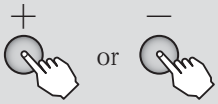
● Moving to another setting item of the same channel is possible by Jog key.

Switch Change

① Select the "SW" item and then select the channel with the Jog key.

Range：1, 2, 4

② A switch is chosen by + key or -key.



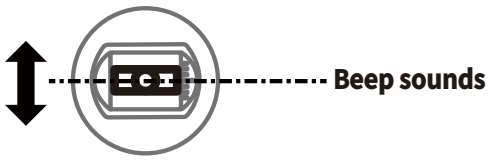
Range：SwA ～ SwH

CNTR ALRM Center alarm (MULTICOPT)

Function

An alarm (single beep) can be sounded at the specified throttle stick position.

- Alarm function ON/OFF can be set by switch.

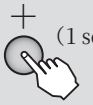


When the THR stick is set to the specified position.

Method

Calling the setting screen

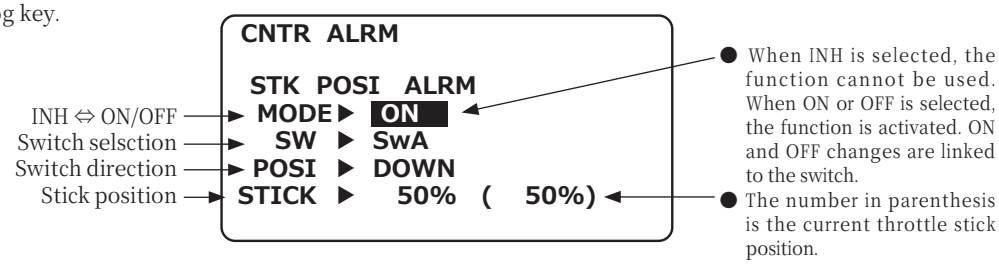
① Call the menu screen from the home screen by pressing the + key for 1 second.



② Select "CNTR ALRM" from the menu with the Jog key.

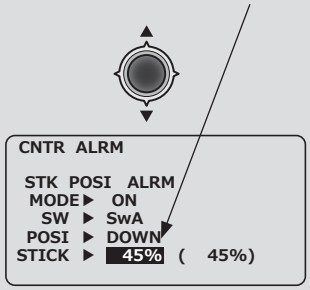
③ Open the setting screen by pressing the Jog key.

● Select the item with the Jog key.

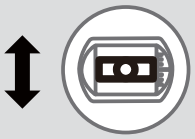


Position setting

① Stick position is chosen by Jog key.



② Set the throttle stick to the position at which you want to generate the alarm.

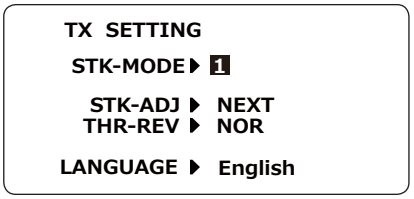


③ When the Jog key is held down the alarm sounds at that position.

Memorize the position at which the beep is to sound.

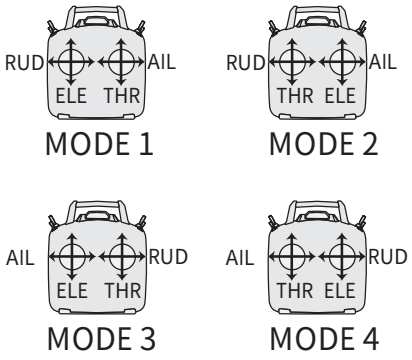
TX SETTING

The settings here are special settings that are unnecessary during normal use. The stick mode can be changed and stick adjustment (calibration), throttle lever reverse, and language can be set.



Turn on the power switch with the + key and – key pressed in the power off state. The screen shown at the left appears. To return to the home screen, turn off the power and then turn the power back on without pressing the keys.

■ STK-MODE



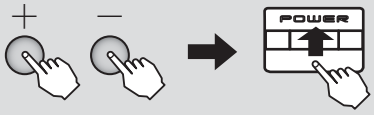
This is the MODE1 ～ MODE4 setting. The initial state is MODE2. To change the mode the stick ratchet must be changed. Request that this be done by Futaba Service. (Charged modification)

■ STK-ADJ

This function is normally not used. If stick deviation should occur, make this adjustment. Do not use it in the normal state.

Calling the setting screen

① Turn off the power and then turn the power back on while pressing the + key and – key simultaneously.

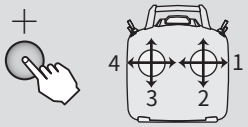


② Select STK-ADJ → NEXT in the menu with the Jog key.

③ Enter the setting screen by pressing the Jog key.

Stick adjustment

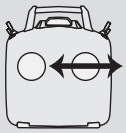
① Select the stick you want to adjust with 1 ～ 4 with the + key.



② Press the Jog key down and select NEUT ■ .

③ Set the stick to the neutral position and press the Jog key.

④ Swing the selected stick fully to the left and right (up and down).



⑤ ■ appears next to "LEFT" and "RGHT". Press the Jog key.

⑥ When "COMPLETE" is displayed, adjustment is complete.

■ THR-REV

This function is not used. When you want to use full throttle with the throttle stick down and slow with the throttle stick up, select REV. When the stick is up, trim is effective and when the stick is down, trim is not effective.

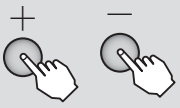
*Throttle servo operation reversed by the linkage is usually performed by reverse in the normal menu. When throttle servo operation is reversed with the THR-REV function, trim becomes ineffective at slow.

THR-REV

① Turn off the power and then turn on the power while pressing the + key and – key simultaneously.

② Select THR-REV → NOR in the menu with the Jog key.

③ Select NOR or REV by pressing the + key or – key. Setting is ended by power off.

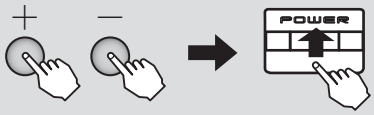


■ LANGUAGE

The language displayed at proportional can be changed. The initial setting is Japanese, but can be selected from among 7 languages.

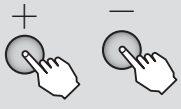
LANGUAGE

① Turn off the power and then turn on the power while pressing the + key and – key simultaneously.



② Select LANGUAGE → English in the menu with the Jog key.

③ Select NOR or REV by pressing the + key or – key. Setting is ended by power off.



Return from the transmitter setting screen to the normal menu by turning on the power without pressing a key.

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