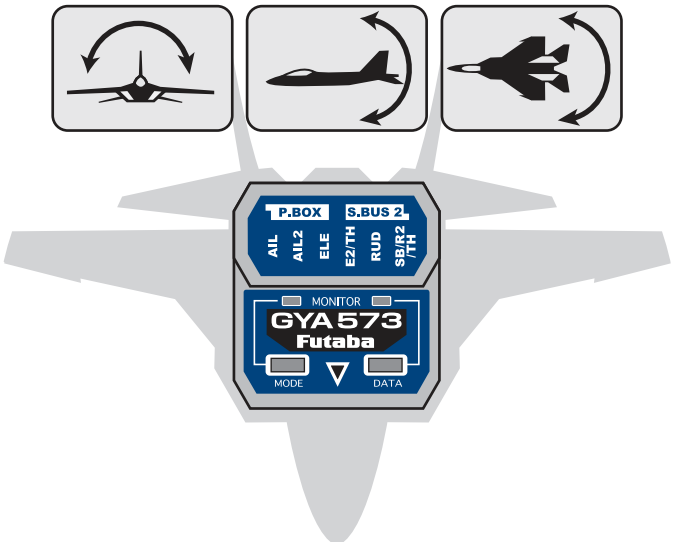
T32MZ

GYA573

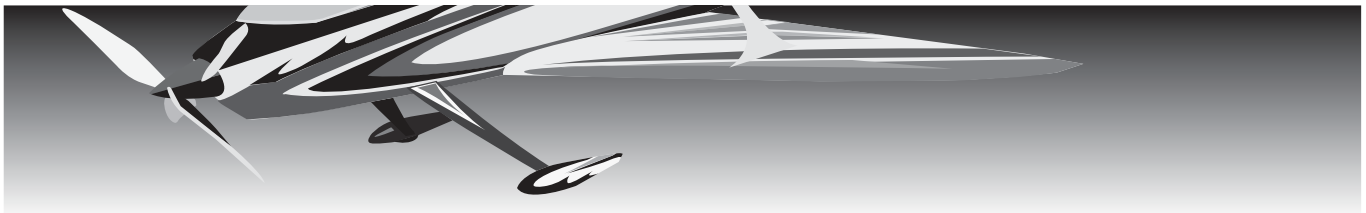


T32MZ(WC) Ver.4.5

GYA573 Ver.6.x

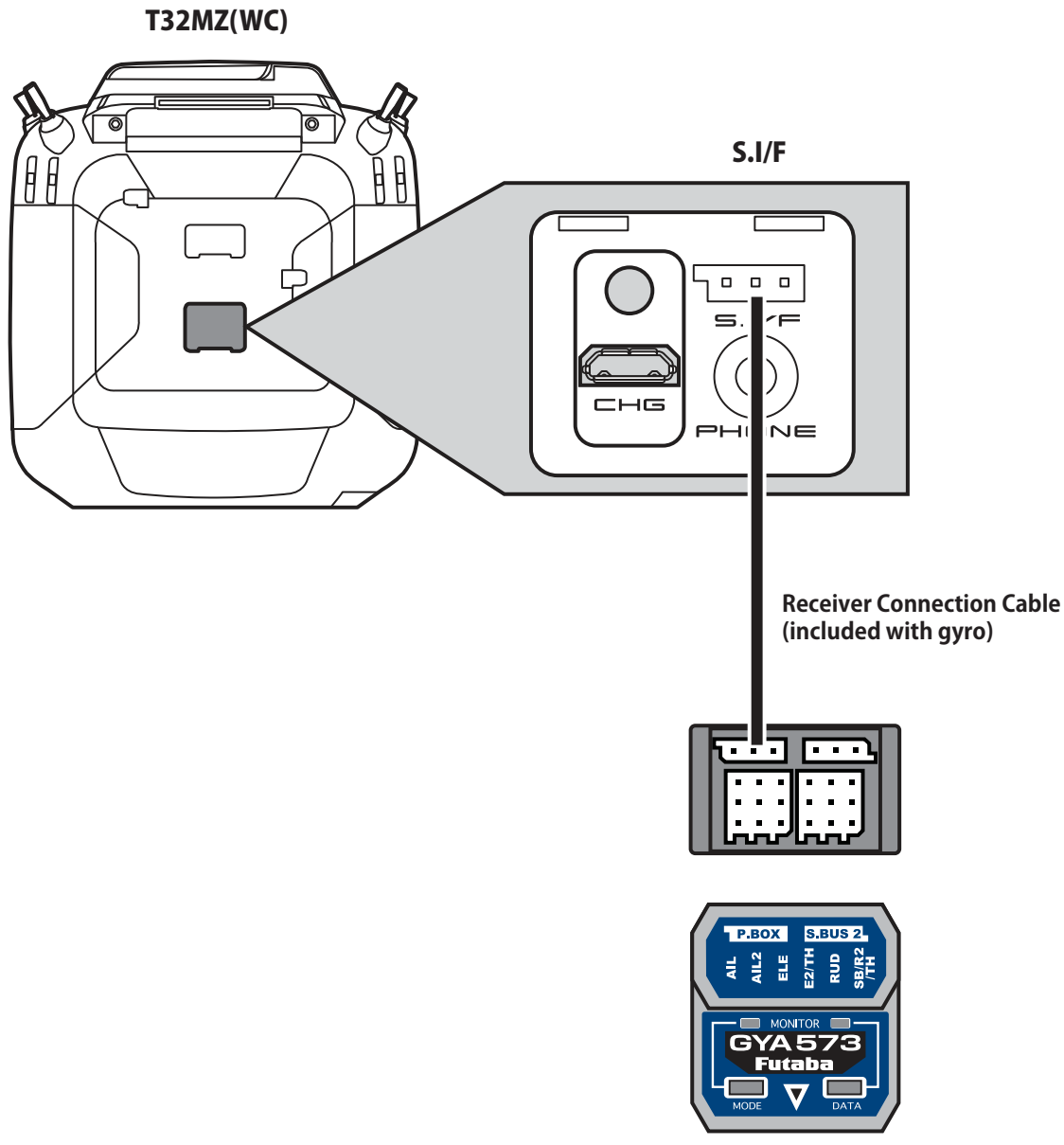
Setting manual

1M23Z08524



By installing the latest software on the T32MZ(WC), you can setting the airplane gyro GYA573 on the T32MZ(WC).

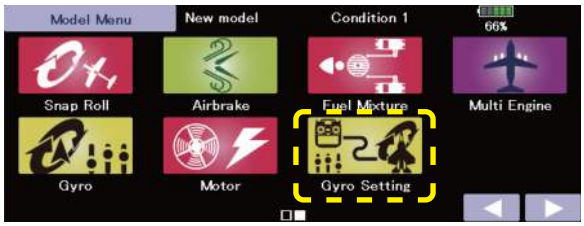
Connection T32MZ(WC) and GYA



⚠ CAUTION

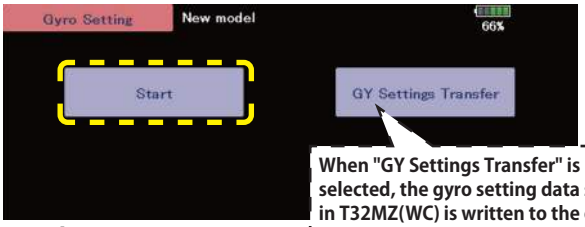
- Be sure to connect and disconnect the GYA and T32MZ(WC) connection cable with the power off.

1



1. Select “Gyro setting” on the last page of Airplane Model Menu

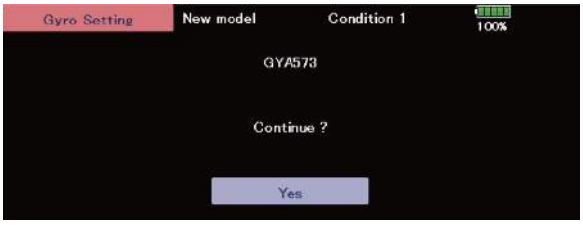
2



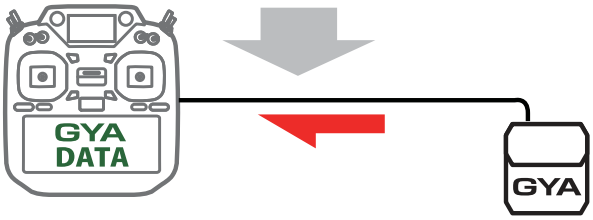
When "GY Settings Transfer" is selected, the gyro setting data saved in T32MZ(WC) is written to the gyro.

2. Select "Start"

* At this time, if Gyro is not connected to T32MZ(WC) by wire, this screen appears.

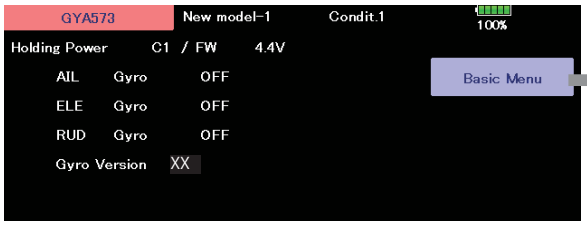


Tap "Yes" to display the GYA data saved in T32MZ(WC).



Select "Start"
This will download the gyro data to the T32MZ(WC).

3



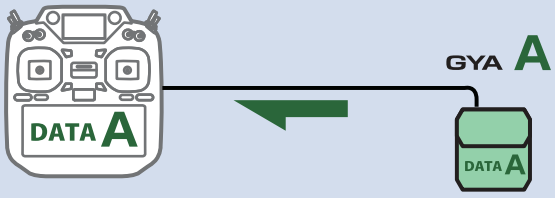
To Basic menu

3. Home screen is displayed

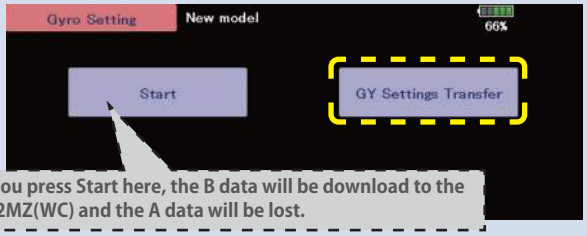
*Once writing is complete, turn the gyro off and then on again. The data for the added functions will be deployed.

*GYA573 data cannot be written to GYA553.

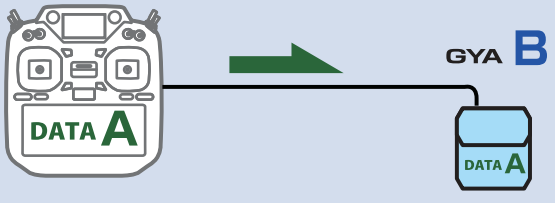
◆ When copying data from Gyro A to Gyro B



Connect the gyro A to the T32MZ(WC) and press [Start]. (Enter the data of A into T32MZ(WC))



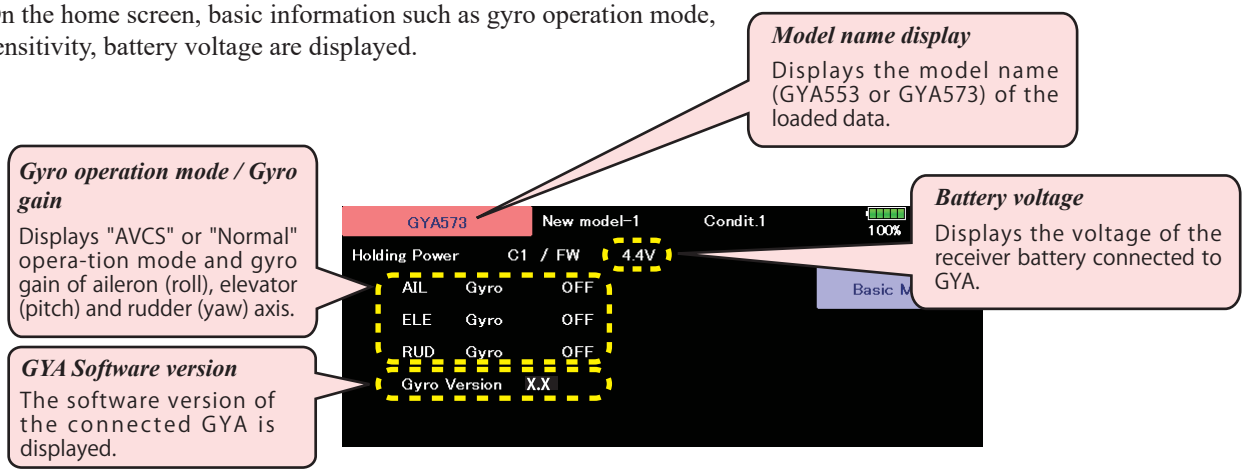
If you press Start here, the B data will be download to the T32MZ(WC) and the A data will be lost.



Connect Gyro B to T32MZ(WC) and press [GY Settings Transfer]. (Put data on A into gyro B)

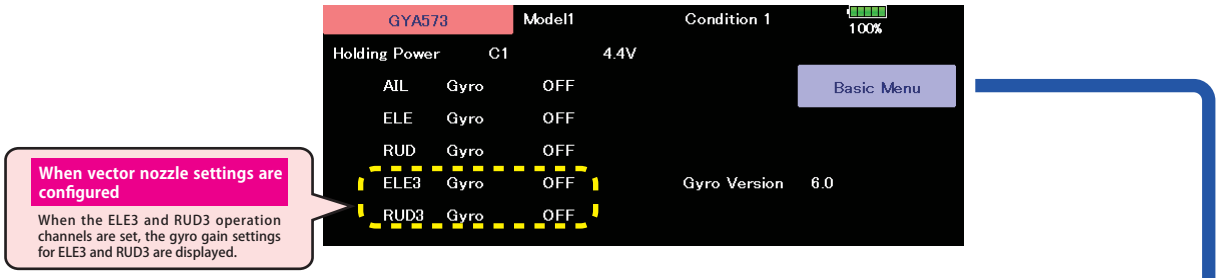
Home screen

On the home screen, basic information such as gyro operation mode, sensitivity, battery voltage are displayed.

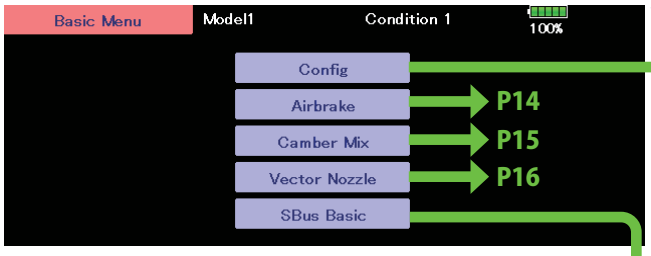


Basic menu

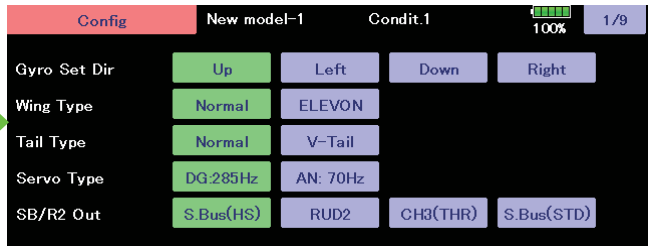
Home screen



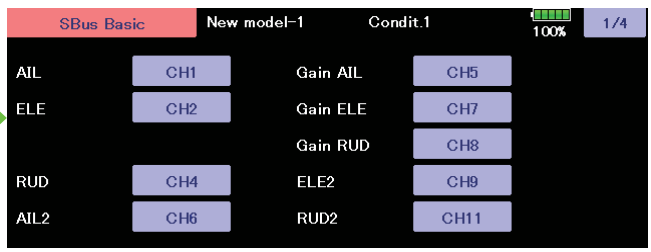
Basic menu



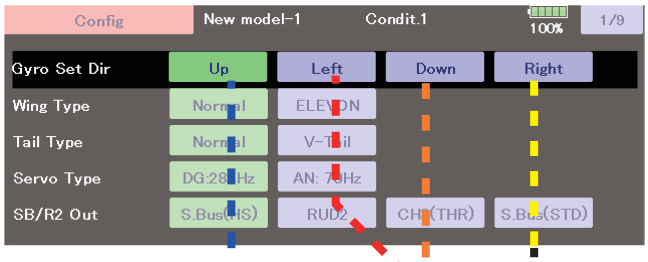
◆ Config



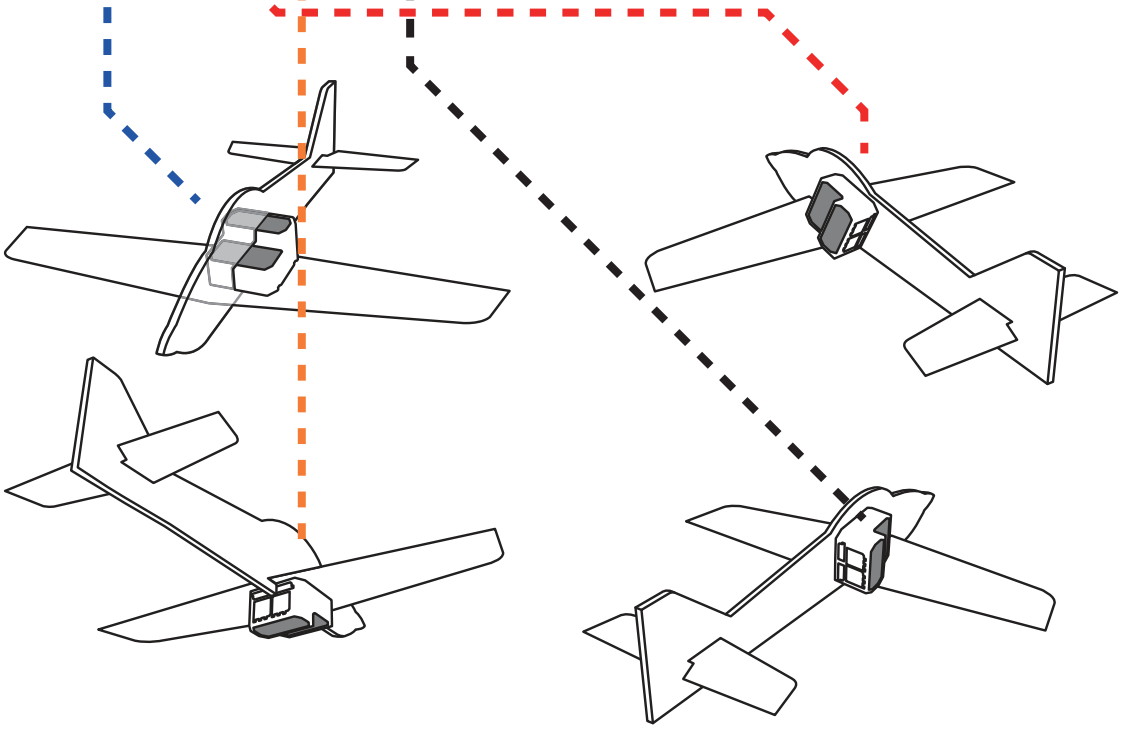
◆ S.BUS basic



Config 1/9 Gyro set mounting direction



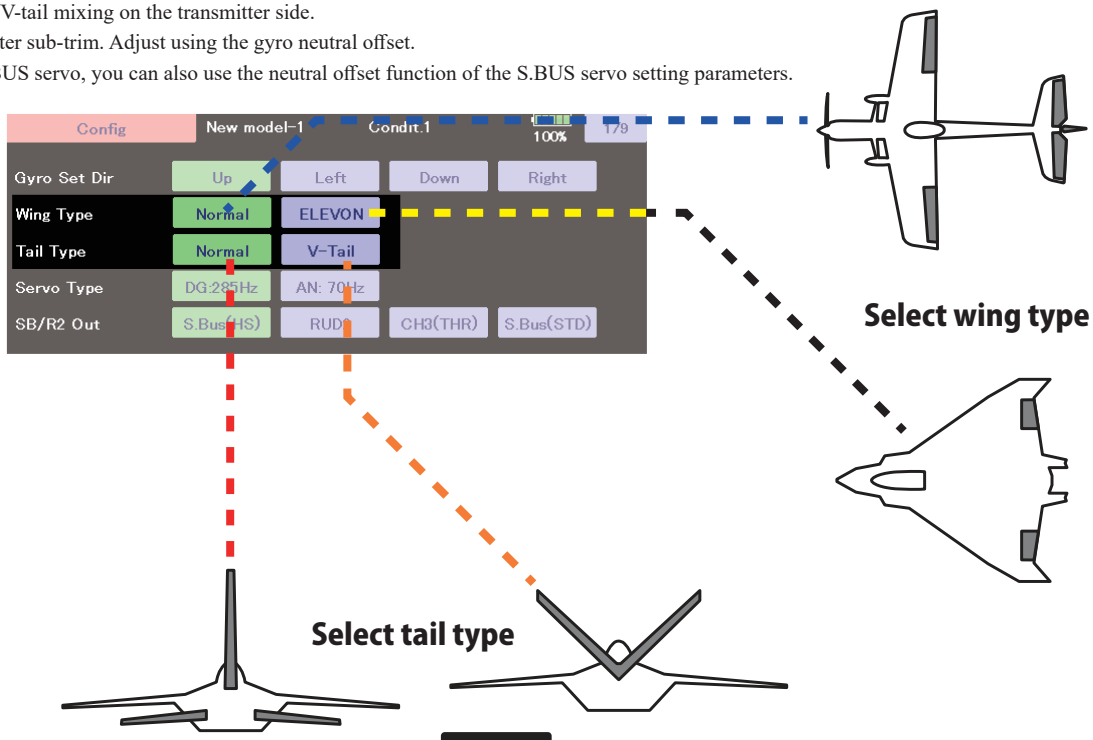
Set the mounting direction of GYA. Set mounting direction with reference to figure below.



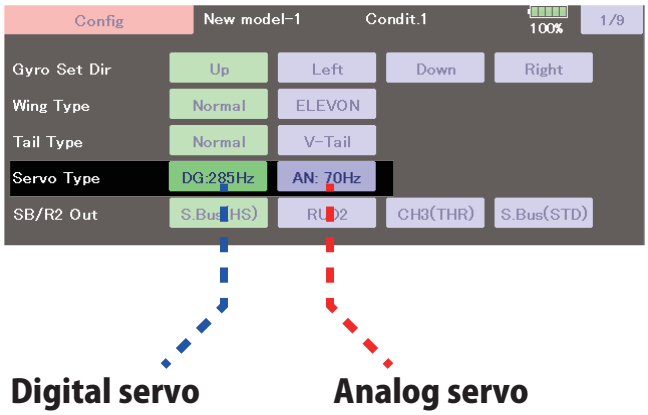
Config 1/9 WING/TAIL

Set with the wing type/tail type of GYA. The wing type/tail type of the transmitter is not used and is normal.

- Turn off the elevon/V-tail mixing on the transmitter side.
- Do not use transmitter sub-trim. Adjust using the gyro neutral offset.
- When using the S.BUS servo, you can also use the neutral offset function of the S.BUS servo setting parameters.



Config 1/9 Servo type



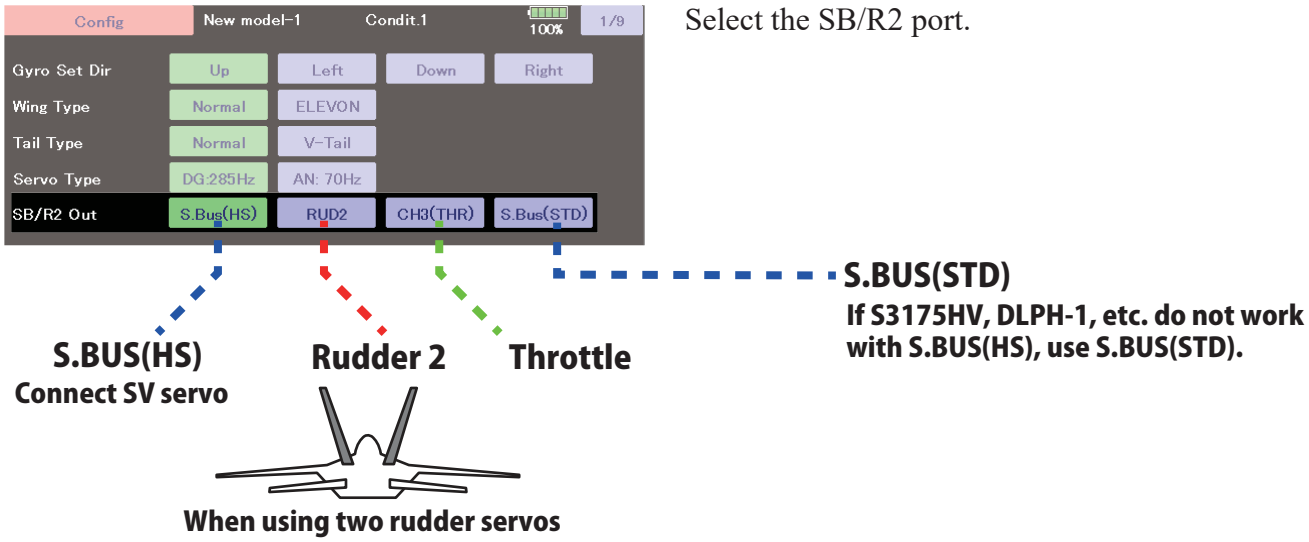
Select the servo type according to the servo to be used.

Digital servo → DG : 285 Hz

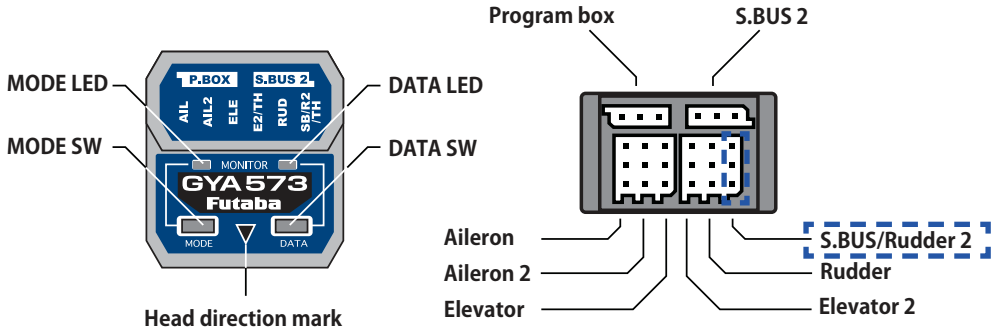
Analog servo → AN : 70 Hz

The stability of digital-servo mode of a flight increases in order to perform a high-speed control action.

Config 1/9 SB/R2 OUT



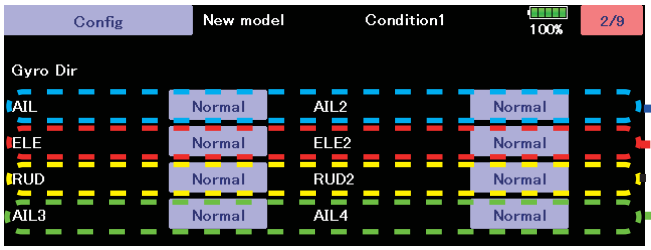
Select the SB/R2 port.



Config 2/9 Gyro direction

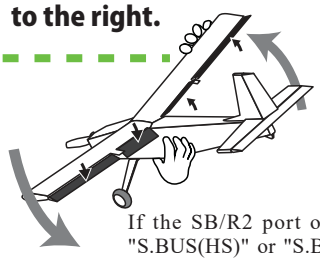
It is the direction settting of the gyro. Be careful as it will crash if the direction is reversed.

For dual aileron, dual elevator, and dual rudder aircraft, check the operating direction of each second aileron/elevator/rudder.

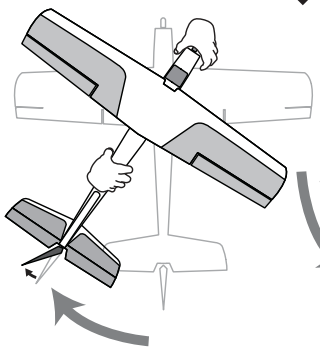


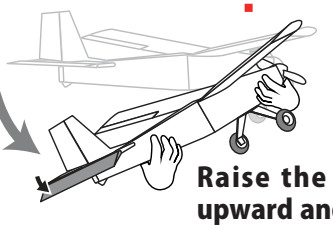
Tilt the airplane to the left on the ground and check that the ailerons operate to the right.

Tilt the airplane to the left on the ground and check that the 4-ailerons operate to the right.



Turn the airplane to the right on the ground and check that the rudder operates to the left.





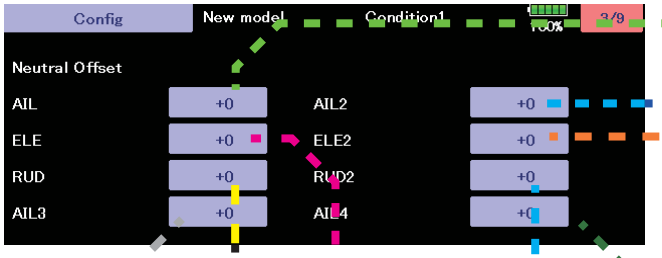
Raise the airplane with its nose upward and check that the elevator operates downward.

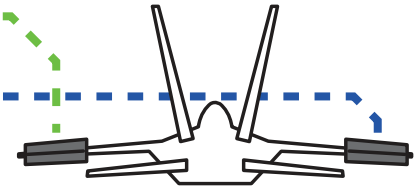
If the SB/R2 port output is set to "S.BUS(HS)" or "S.BUS(STD)", the setting menu will display AIL3 and AIL4 setting items.

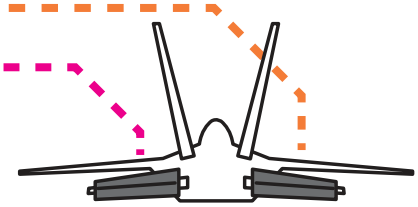
* AIL3 and AIL4 settings cannot be set with the button settings on the GYA main unit.

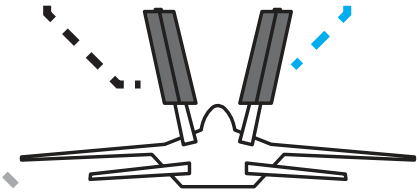
Config 3/9 Neutral offset

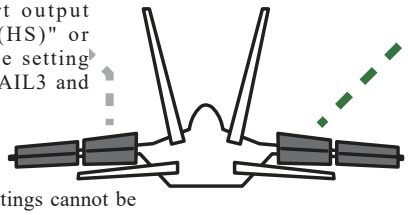
Neutral position setting for each servo.

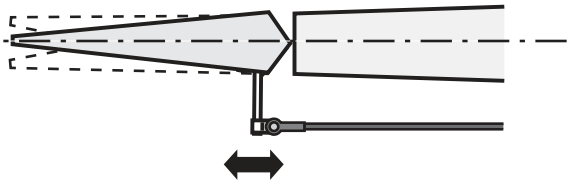












If the SB/R2 port output is set to "S.BUS(HS)" or "S.BUS(STD)", the setting menu will display AIL3 and AIL4 setting items.

* AIL3 and AIL4 settings cannot be set with the button settings on the GYA main unit.

This will move the neutral to the desired position.

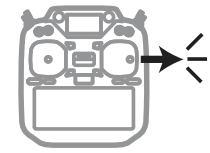
Config 4/9 5/9 Servo limit

This is the limit setting for each servo. The position of the maximum operation is read into the gyro in the first setting.

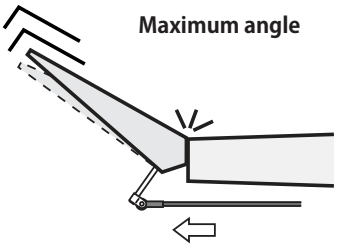
If the SB/R2 port output is set to "S.BUS(HS)" or "S.BUS(STD)", the setting menu will display AIL3 and AIL4 setting items.

* AIL3 and AIL4 settings cannot be set with the button settings on the GYA main unit.

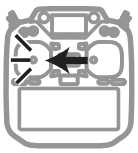
Aileron example



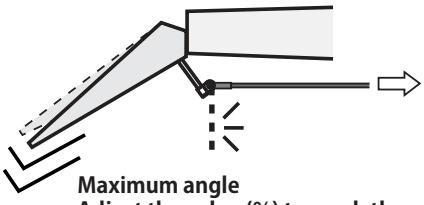
Stick to full right



Adjust the value (%) to reach the maximum operating position



Stick to full left



Maximum angle
Adjust the value (%) to reach the

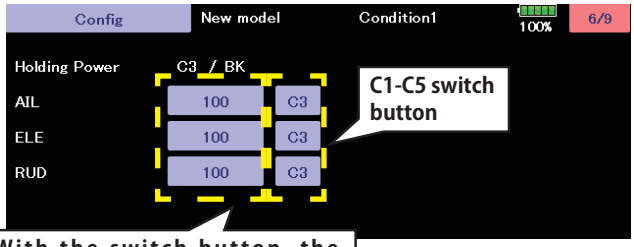
Config 6/9 Holding Power

It is a function to adjust the posture holding force of the aircraft in AVCS mode.
Decreasing the value weakens the holding power and makes the operation feeling closer to the normal mode.

The current rate numbers C1 to C5 are displayed by operating the channel of the transmitter.

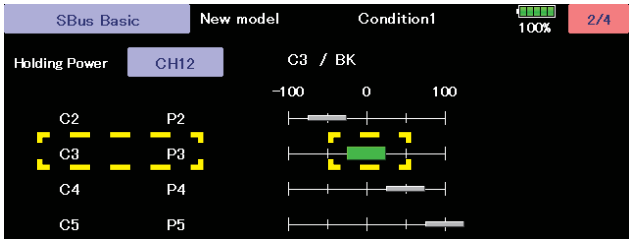
Like the flight condition function of the transmitter, you can set up to 5 different data for the attitude holding force rate of the aircraft in AVCS mode by operating the switch from the transmitter, and switch between them. You can set the holding power rate selector switch to the channel with the AFR function of the transmitter, and set the point for each rate on the AFR point curve to switch. It is also possible to use the flight condition function to work with the flight condition switch.

Config 6/9



With the switch button, the "holding power" of each rate (C1 to C5) can be displayed and adjusted.

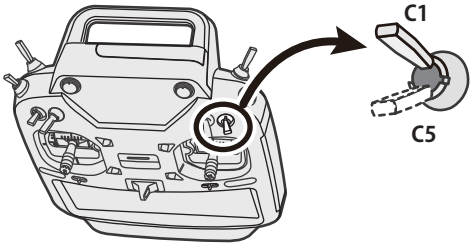
S.BUS Basic 2/4



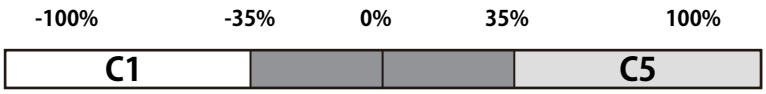
By operating the channel of the transmitter, the channel position of the current rate numbers C1 to C5 will be displayed in green.

Display and adjust the current rate numbers C1 to C5 by operating the channel on the transmitter.

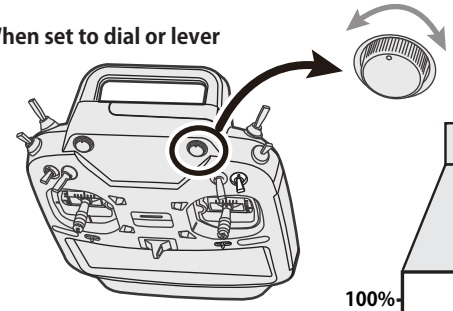
When set to SW of DG1 or DG2



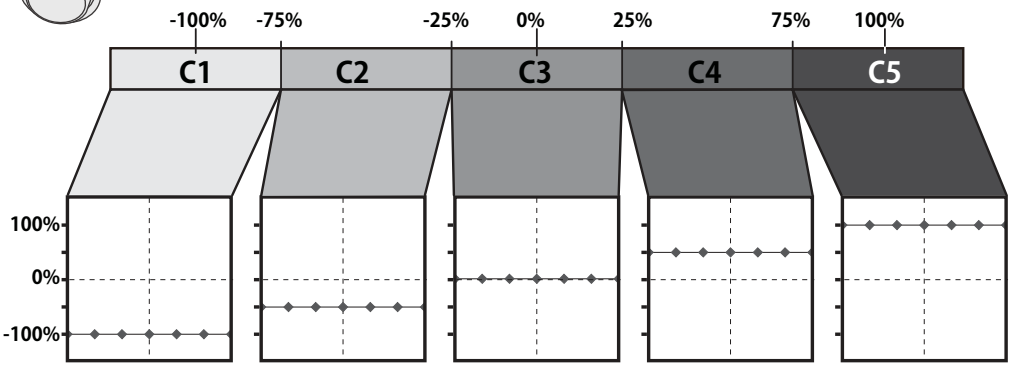
Switch channel rate



When set to dial or lever



Channel rate



Config 7/9 4D Flight (Backward flight) Gyro Reverse Mode Adjustment

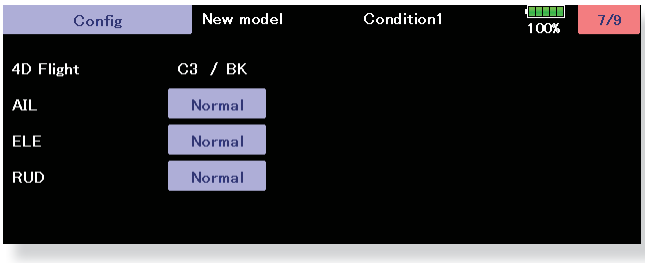
Page 7 is for setting the gyro reverse mode. This is a special setting for 4D backward flight. Select whether to reverse the control direction of the aileron, elevator, and rudder when flying backward. Normally, when flying backward, the steering direction of all the rudder is reversed, so the control direction of the gyro is also reversed.

Switching between forward (FW) and reverse (BK) uses the same CH12 signal as the holding force. Up from near the midpoint of the throttle stick is forward, and down is reverse.

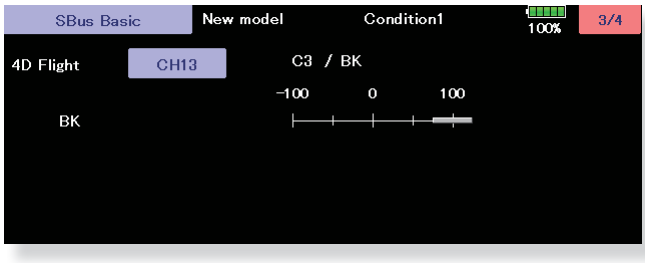
For details on setting the switching point, please refer to the transmitter settings.

In gyro reverse mode, the gyro controls in the same direction as the aircraft's tilt. Switch between forward and reverse to check that the gyro control direction changes correctly.

Config 7/9



S.BUS Basic 3/4

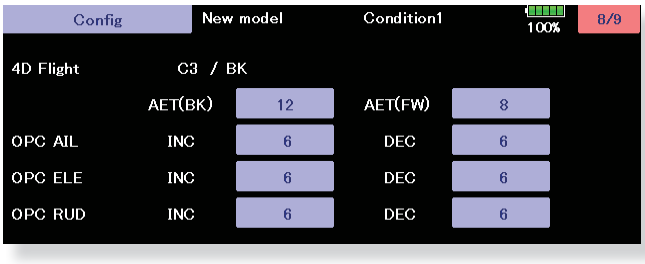


Config 8/9 4D Flight (Backward flight) Mode Adjustment

Page 8 is for setting the gyro reverse mode. This is a special setting for 4D backward flight.

The AET (BK) and AET (FW) functions estimate the aircraft's flight attitude during forward and backward transitions and optimize gyro control. If the aircraft's attitude changes quickly, decrease the value. If the attitude changes slowly, increase the value. The correction values for forward and backward transitions can be set independently. The setting range is 0 to 30. The OPC parameter adjusts the speed when the control amount increases and decreases. The setting range is 0 to 27. The values in the setting example are the standard setting values for SkyLeaf-ST. The optimal value will vary depending on the aircraft characteristics and flight style.

Config 8/9



Pages 7-8 are for 4D backward flight settings. For detailed settings, refer to the GYA 4D Flight Setting Manual on the Futaba WEB site.

Config 9/9 Reset

Config 9/9

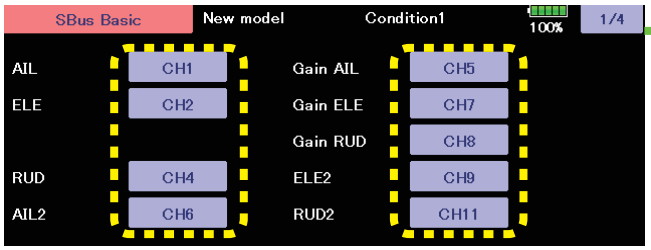
Reset each Config item. It returns to the initial value.

The E2/TH port can be set to ELE2 output or CH3 (THR) output.

*For GYA573, air brake, camber mix settings and Vector nozzle settings will also be initialized.

SBUS Basic menu

Set the CH for each function according to the transmitter to be used. Any unused functions should be set to INH (Inhibited).

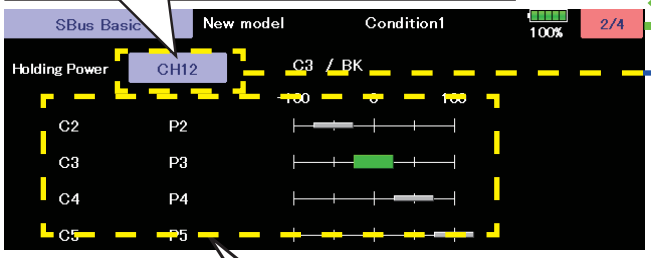


⚠WARNING

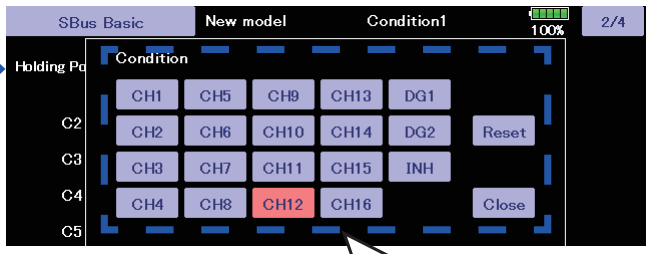
❗ Always verify that the S.BUS function assignments match your transmitter' s function (in the FUNCTION menu) assignments. If any changes are made within the transmitter function assignments, then it will also be necessary to make the changes within the S.BUS function assignments. To change the channel, GYA and T32MZ(WC) must be connected.

The channel of each function can be changed.

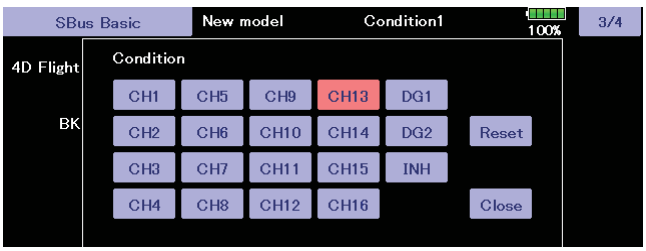
Tap to move to the rate switching CH setting page.

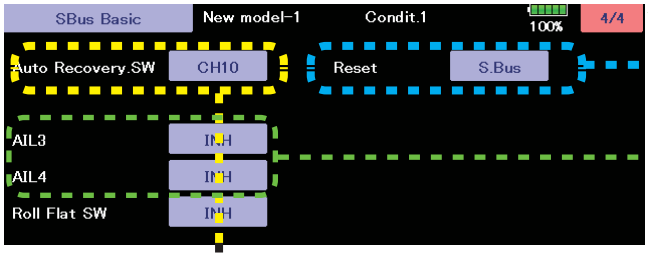


Holding Power C2 to C5



Tap the CH used for rate switching to select it.





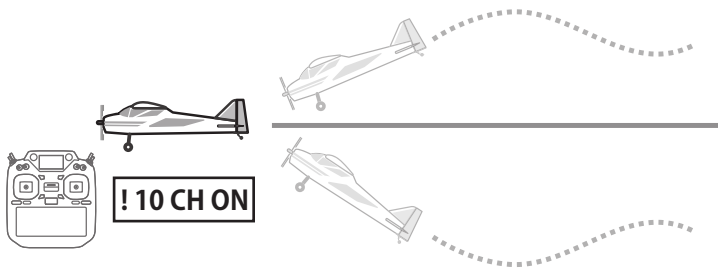
ON-OFF channel for auto recovery

Reset each S.BUS function. It returns to the initial value.

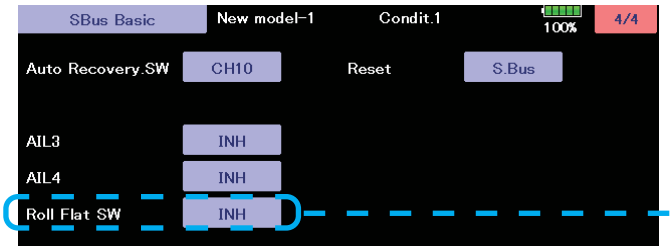
CH setting items for AIL3 and AIL4 are displayed on the final screen of the S.BUS basic setting screen. By setting the operation CH of AIL3 and AIL4, the gyro-controlled signal is output to the corresponding CH of the S.BUS output.

* Match the operation CH and CH setting on the function setting screen on the transmitter side.

*When the AIL3 and AIL4 CH settings are INH, the gyro control is not performed and the data sent from the transmitter is output as is.



For GYA573



This is the channel setting for the switch that turns roll flat ON/OFF.

The roll angle at which roll flat turns ON can be set by the pulse width at the ON position.

(Set using the AFR rate on the transmitter for this setting CH, etc.)

【Roll Flat】

This function keeps only the roll axis horizontal (roll angle 0°).
When used during landing approach, it keeps the roll axis horizontal, making aileron operation easier and allowing you to concentrate on throttle and elevator operation, making landing easier. It also maintains horizontality during inverted flight. The roll angle at which the roll flat function turns on should be set to 10° to 15° during landing, and 15° to 20° during normal flight, for a smooth flight.

Conditions for the roll flat function to be ON (when all of the following conditions are met)

1) Roll Flat Switch Channel is set (not INH)

2) When the roll flat switch channel is in the - position from neutral when viewed on the transmitter AFR setting screen.

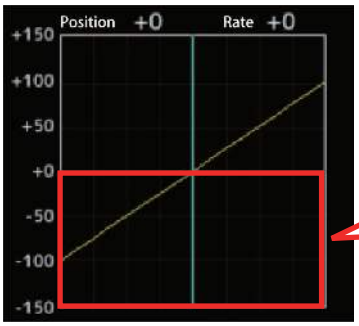
3) When the roll flat switch channel operation position is viewed on the AFR setting screen of the transmitter, when the rate value is Wp (%), the roll angle of the aircraft is within Wp/2 (degrees).

4) When the aileron stick is in the neutral position.

5) When the aircraft pitch angle is ± 60° or less

【EX.】 When the roll flat switch channel is CH15, if the operating position of CH15 is the AFR rate -50%, the roll angle at which the roll flat function will be turned ON will be within ± 25°

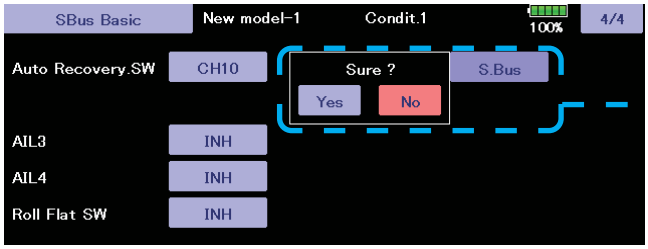
When the Roll Flat Switch Channel is set to an AFR rate of -100% or less, the auto recovery mode operates.



When the roll flat switch channel is in the - rate side from neutral, the roll flat function becomes ACT.

The roll angle at which roll flat is ON is 1/2 the AFR rate of the roll flat switch channel operating position.

【EX.】When the AFR rate of the roll flat switch channel operating position is -50%, if the roll angle is within ± 25° , the roll flat function is ON.



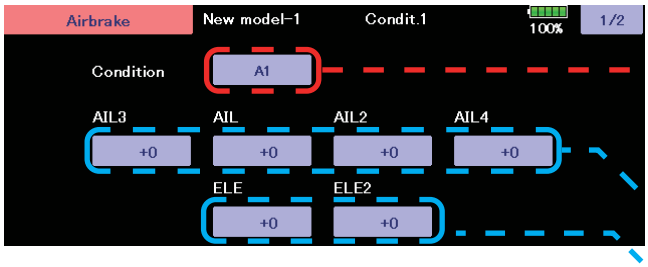
Reset the S.BUS basic items. After execution, the items will return to the factory default values.

Tap "Reset" and then "Yes" on the confirmation screen to reset to the initial value.

Air Brake

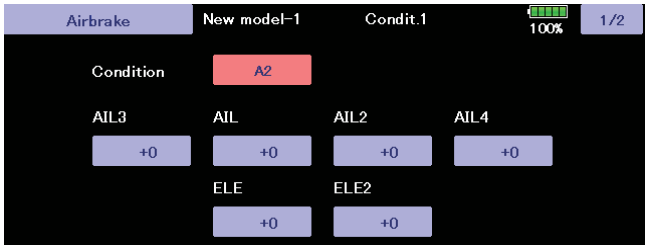
This function is the same as the air brake function of the transmitter. Two rates, A1 and A2, can be set.
(The amount of operation is slightly less than that of the air brake function of the transmitter. It can also be used in AVCS mode where the air brake function of the transmitter cannot be used.)

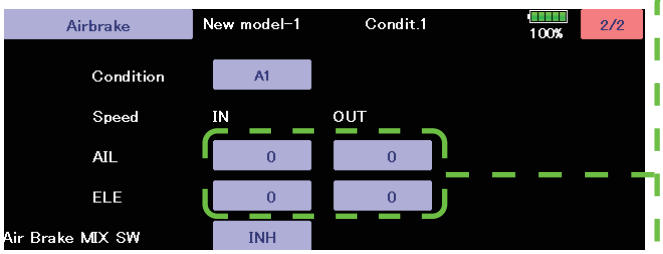
Roll Flat function works even when the air brake is on.



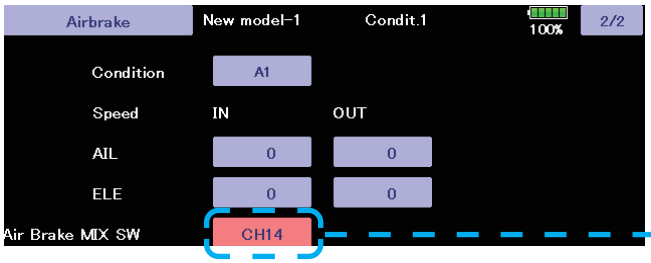
Air brake mix rate No. display
The air brake can be set to two rates: A1 and A2.

Operation rate (-250 ～ 0 ～ +250)

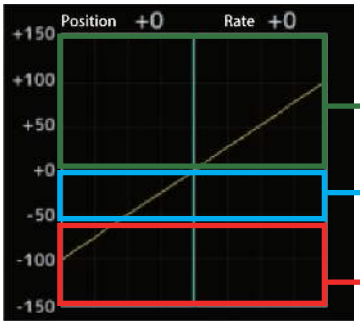




Setting the operating speed of each servo
Setting range：0 ～ 27
IN is the operating speed when the air brake mix is turned ON.
OUT is the speed when the air brake mix is turned OFF.
When switching between A1 ⇔ A2, the speed setting of the one that is turned ON (IN side) takes priority.



Air brake Mix ON/OFF CH setting
Setting range: INH, CH1-CH16, DG1, DG2
A1 and A2 rates change with the pulse width of the same CH
Set with AFR on the transmitter



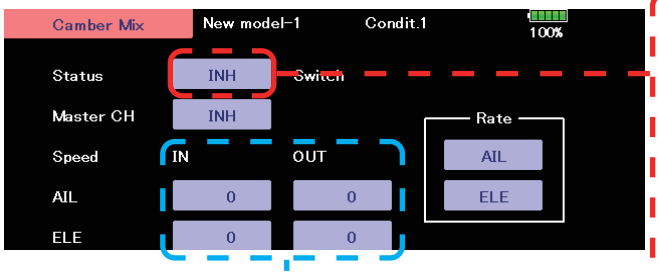
A1 and A2 are in the OFF region (neutral to +rate side)

Area where A1 is ON and A2 is OFF ((neutral to -50% side)

Area where A1 is OFF and A2 is ON (-50% or less)

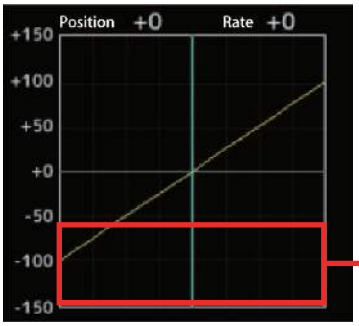
Camber mixing

This function is equivalent to the camber mixing function of the transmitter.
It can also be used in AVCS mode where the transmitter's camber mixing function cannot be used.

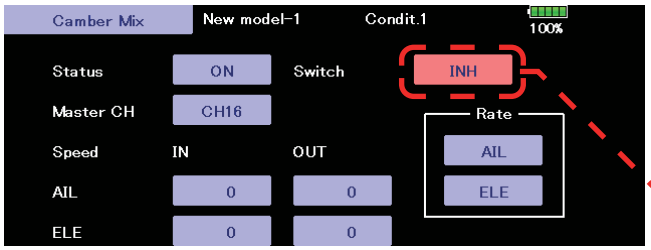


Camber Mix ON/OFF setting
[Display]
INH：Inhibit
OFF：Camber Mix is ACT, but Master CH is not set
ON：Camber Mix is set to ACT and the master channel is also set, but the ON/OFF channel is not set (Mixing is active).
ACT：Camber Mix is set to ACT with both the master channel and the ON/OFF channel set.

Camber Mix operation speed setting (0 to 27)
Mixing OFF ⇒ When ON or when the master CH is operated while ON, it operates at the IN side rate.
Mixing ON ⇒ When OFF, it operates at the OUT side rate

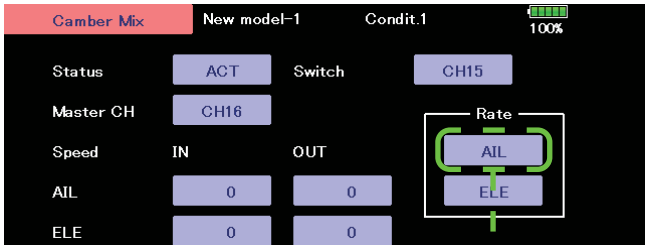


Area where camber switch is ON (-50% or less)

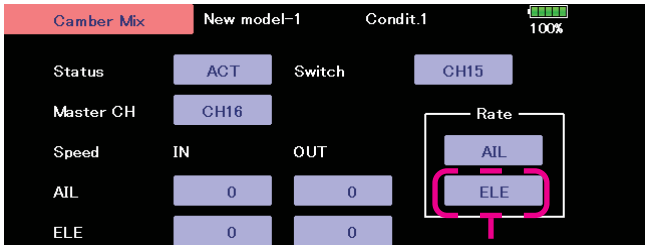


Camber Mix ON/OFF CH setting

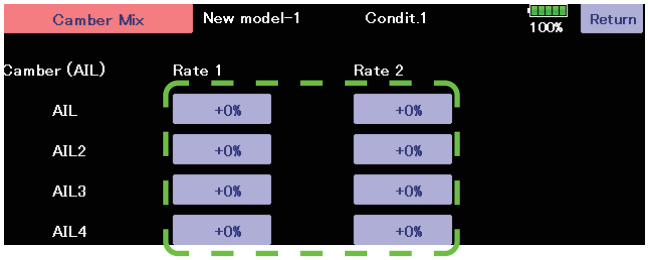
Range：INH, CH1-CH16, DG1, DG2



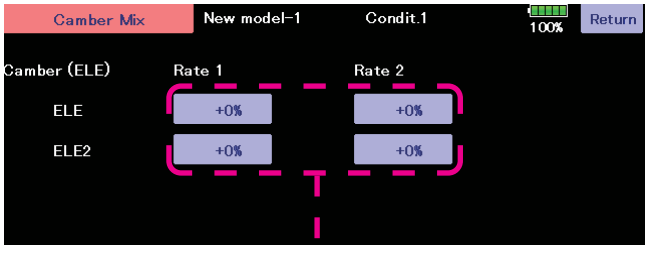
AIL setting screen transition button



ELE setting screen transition button



AIL Operation Rate (-200 ～ 0 ～ +200)
Up and down sides can be set separately

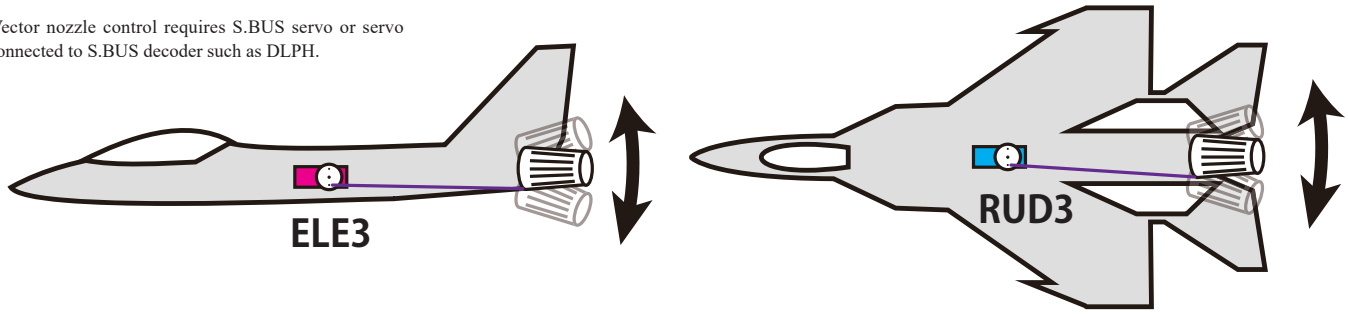


ELE Operation Rate (-200 ～ 0 ～ +200)
Up and down sides can be set separately

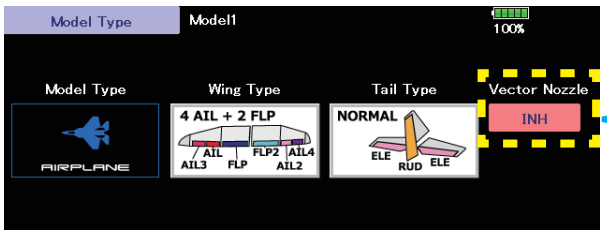
Vector nozzle function settings

This function is for aircraft that can change the direction of rear thrust (pitch axis and yaw axis), such as the latest jet models. The direction of the vector nozzle is controlled by a gyro.

*Vector nozzle control requires S.BUS servo or servo connected to S.BUS decoder such as DLPH.

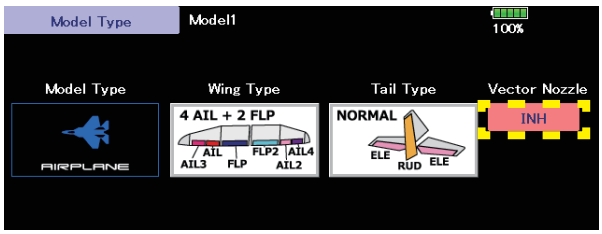


1. Vector nozzle function in ACT

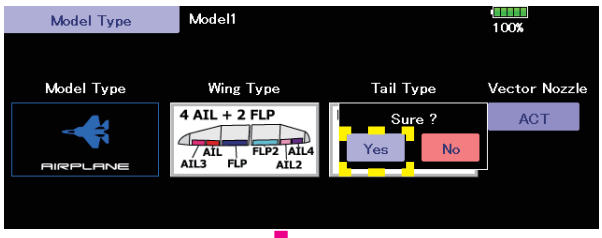


Call the **Model type**.

Vector Nozzle button is added to Model Type menu screen.

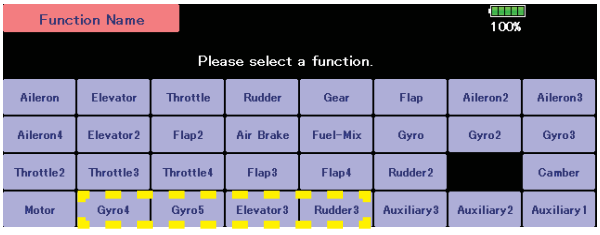


Tap **INH** on the vector nozzle to **ACT.**

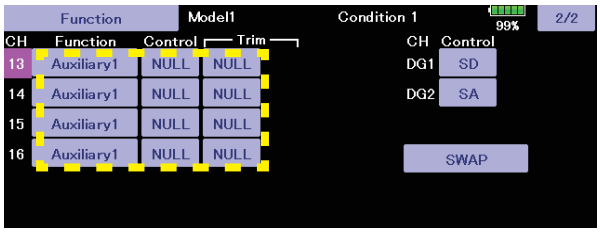


A confirmation screen will appear, so tap **"Yes"**.

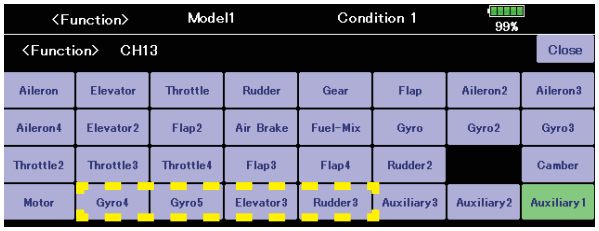
When Vector Nozzle button is ACT, some AUX functions is renamed for Vector Nozzle gyro operation.



2 Operation function settings

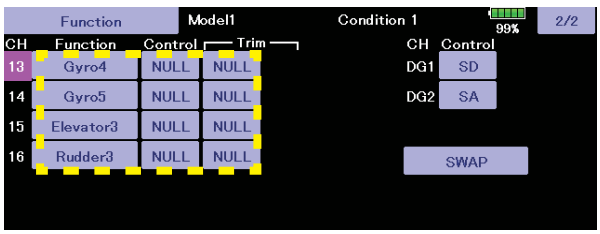


Call the function.



When Function button is tapped, the selection list of Functions are displayed. Please set and select the functions for Vector Nozzle.

When Vector Nozzle button in ModelType menu is ACT, some functions regarding Vector Nozzle are displayed in Function list.

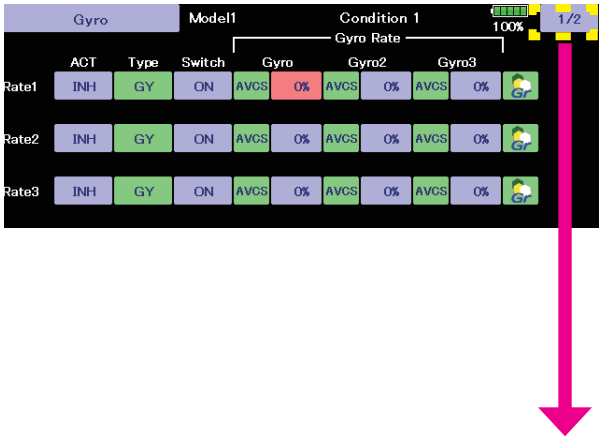


Set the control and trim hardware for Vector Nozzle pitch and yaw direction.

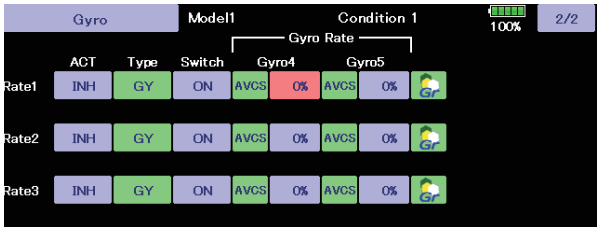
Usually, set them same as ELE and RUD control and trim.

The controls are set to the same default as the elevator/rudder controls. Trim is set to "--" by default.

3. Gyro settings screen



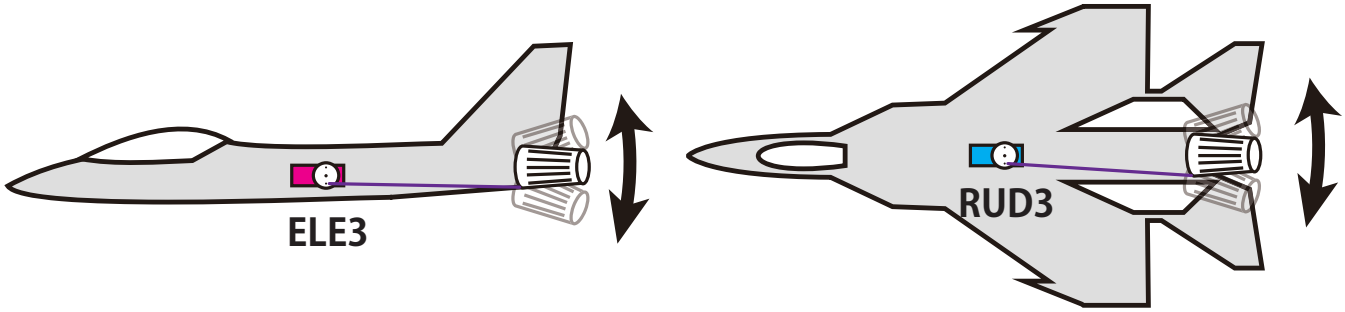
Page change button is added.

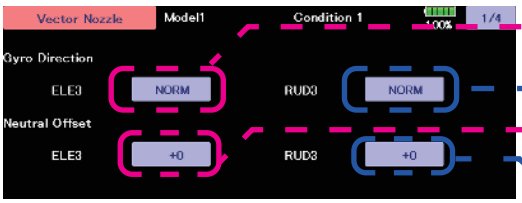


Page 2 is Vector Nozzel gyro setting page.

Gyro4 and Gyro5 settings are independent of Gyro, Gyro2, and Gyro3.

4. Vector Nozzle setting screen



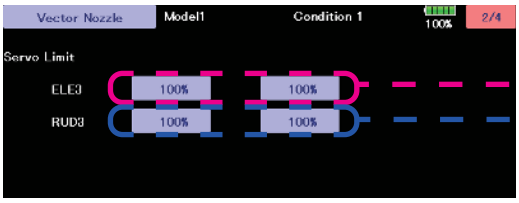


This sets the direction of ELE3 gyro.

This sets the direction of RUD3 gyro.

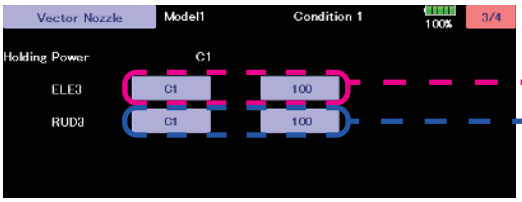
Neutral position adjustment of ELE3.

Neutral position adjustment of RUD3.



Adjustment of maximum operating ELE3 servo position.

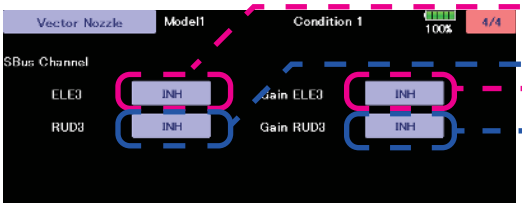
Adjustment of maximum operating RUD3 servo position.



ELE3 holding power.

RUD3 holding power.

This adjusts the aircraft's attitude holding power when in AVCS mode. The smaller the value, the closer it is to normal mode. 5 rates, C1 to C5, can be set.



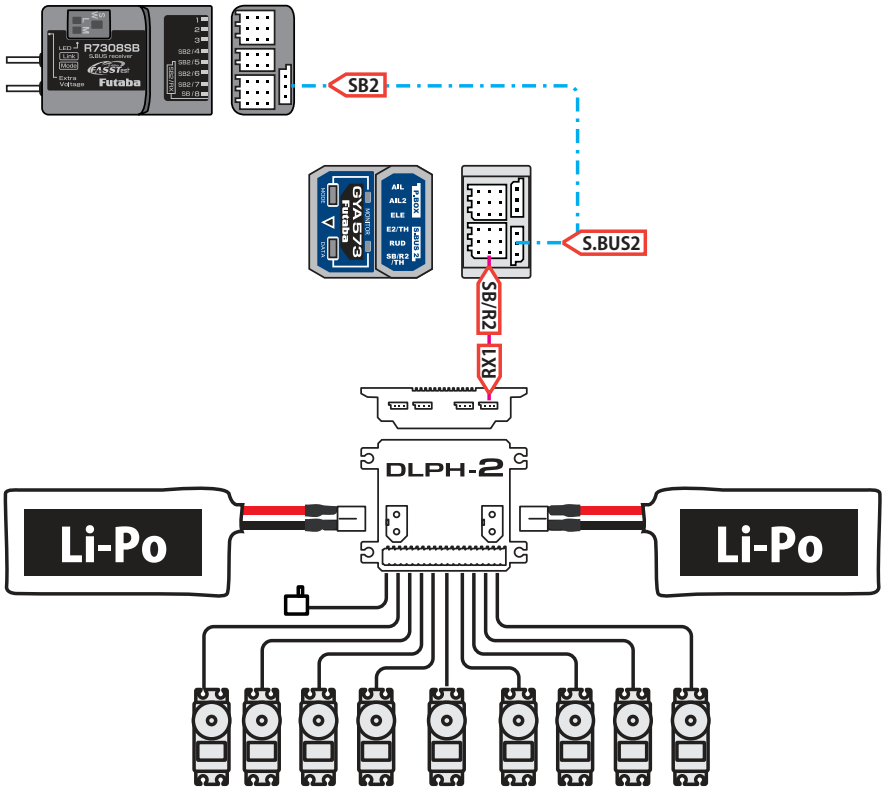
Sets the operation channel for ELE3.

Sets the operation channel for RUD3.

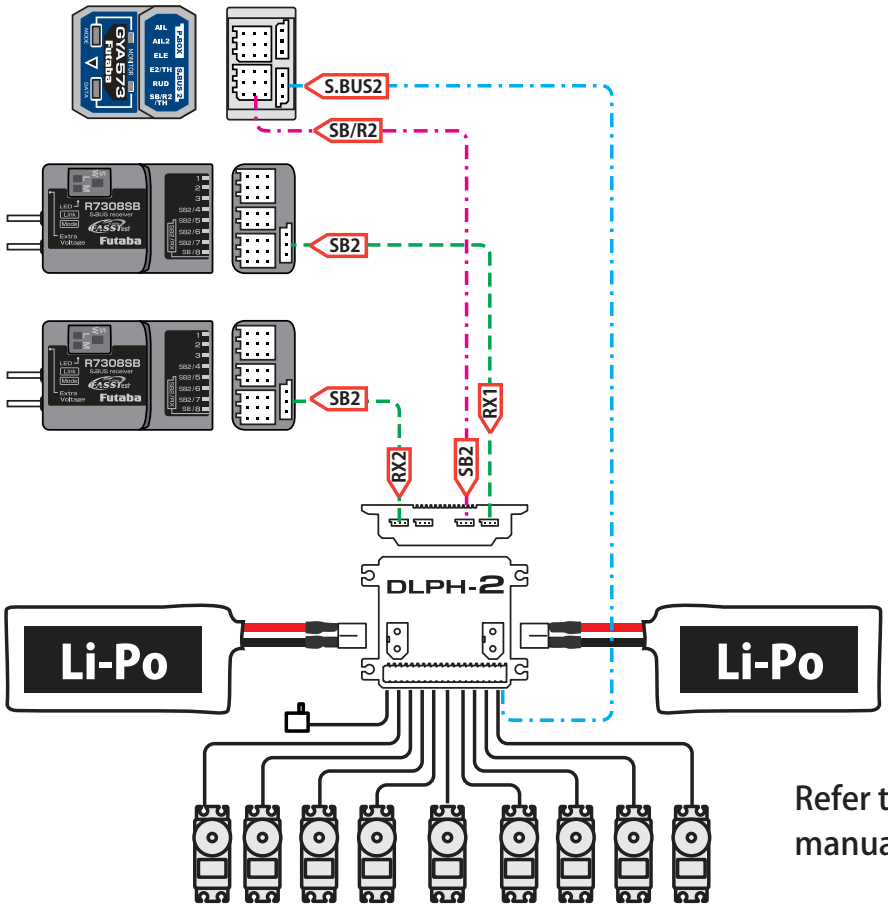
Sets the gyro gain setting channel for ELE3.

Sets the gyro gain setting channel for RUD3.

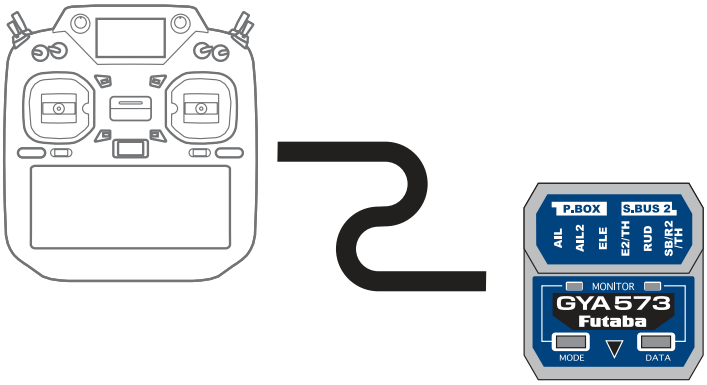
Example of connection one receiver and DLPH-2



Example of connecting two receivers to the DLPH-2



Refer to the DLPH-2 manual for details.


P.BOX
S.BUS 2
AIL
AIL2
ELE
E2/TH
RUD
SB/R2
TH
MONITOR
GYA573
Futaba
MODE
DATA

Futaba®