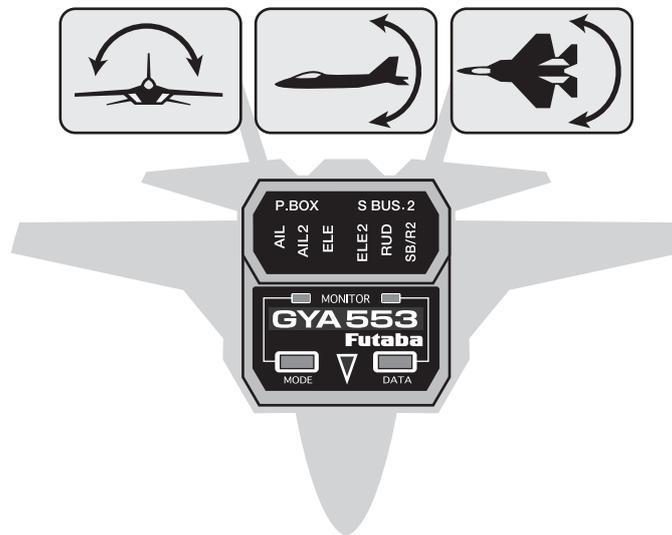




# T32MZ

## GYA553



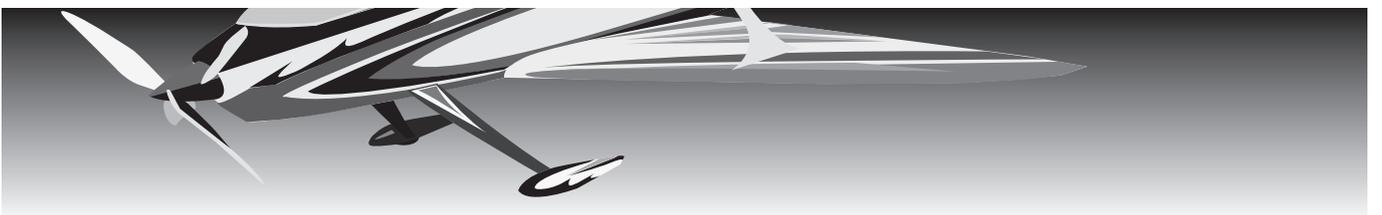
**T32MZ(WC)**

**GYA553 Ver.4**

**Setting manual**

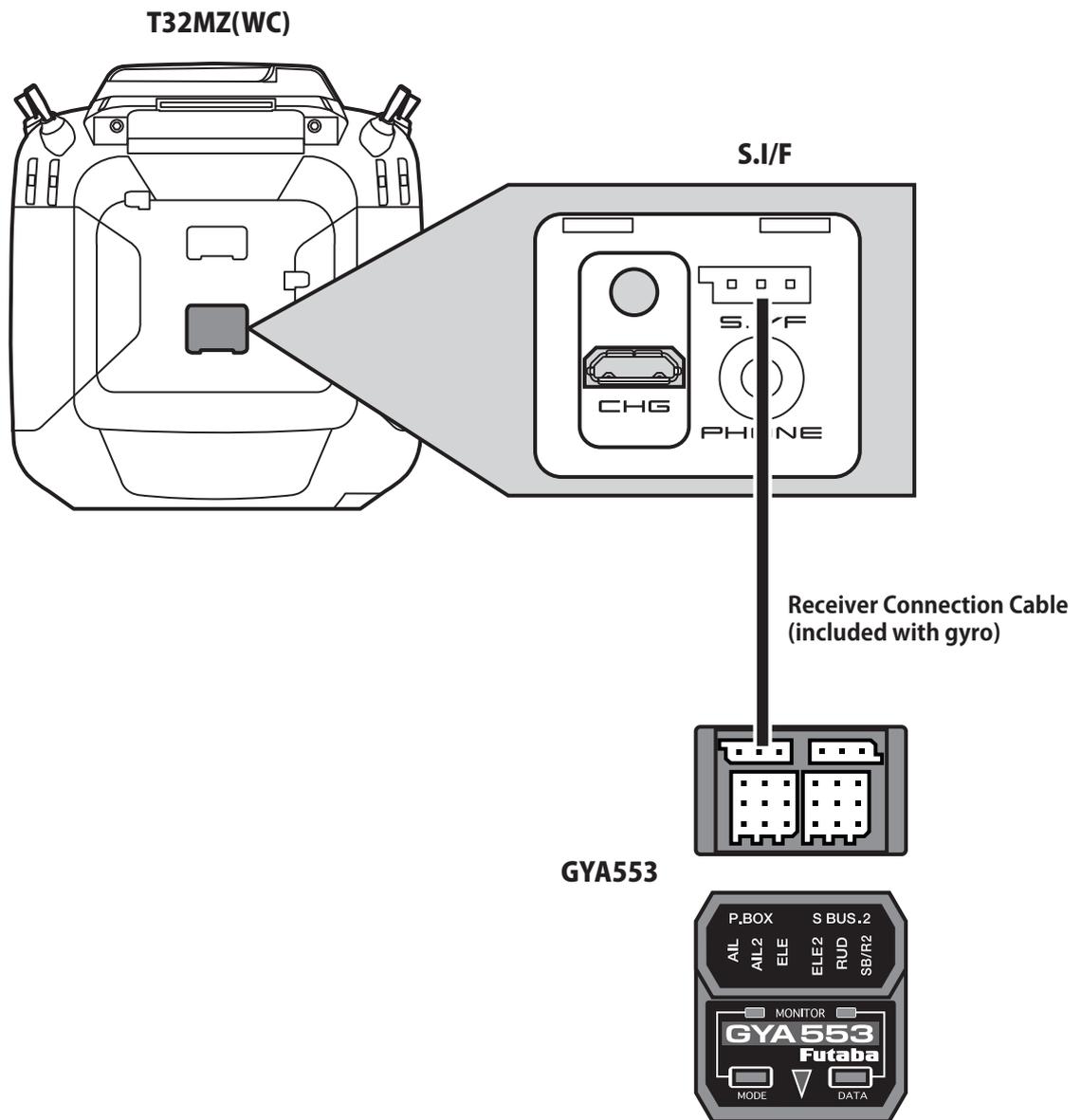
**Futaba**

1M23Z06845



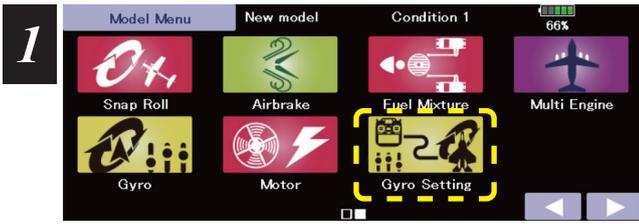
By installing the latest software (Ver. 4.3 ~) on the T32MZ(WC), you can setting the airplane gyro GYA553 on the T32MZ(WC).

### Connection T32MZ(WC) and GYA553

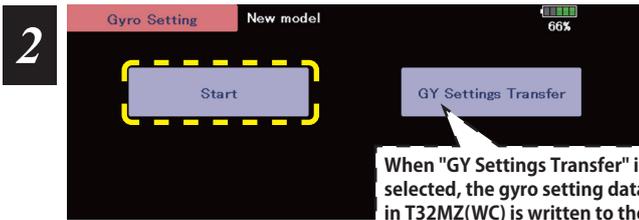


#### ⚠ CAUTION

- ① Be sure to connect and disconnect the GYA553 and T32MZ(WC) connection cable with the power off.



**1.** Select "Gyro setting" on the last page of Airplane Model Menu

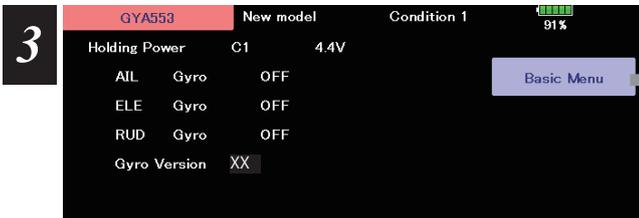


**2.** Select "Start"

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



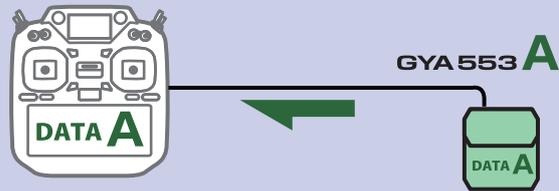
Select "Start"  
This will download the gyro data to the T32MZ(WC).



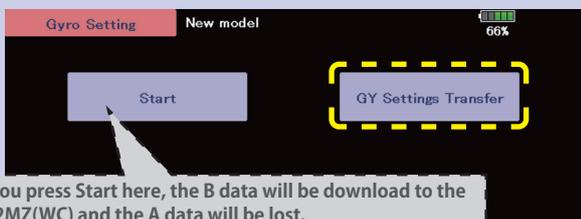
**3.** Home screen is displayed

To Basic menu

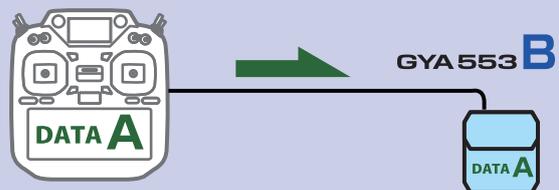
## ◆ When copying data from Gyro A to Gyro B



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.

### Gyro operation mode / Gyro gain

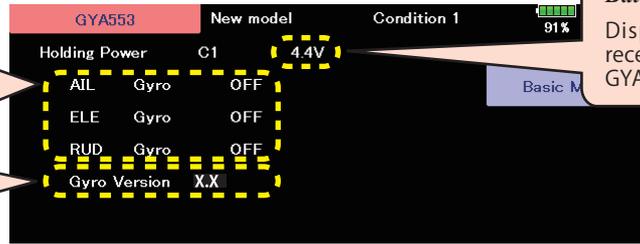
Displays "AVCS" or "Normal" operation mode and gyro gain of aileron (roll), elevator (pitch) and rudder (yaw) axis.

### GYA553 Software version

The software version of the connected GYA553 is displayed.

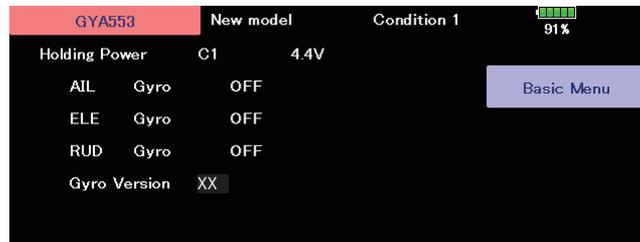
### Battery voltage

Displays the voltage of the receiver battery connected to GYA.



## Basic menu

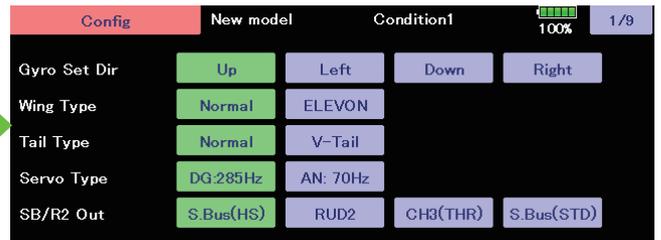
### Home screen



### Basic menu



### ◆ Config



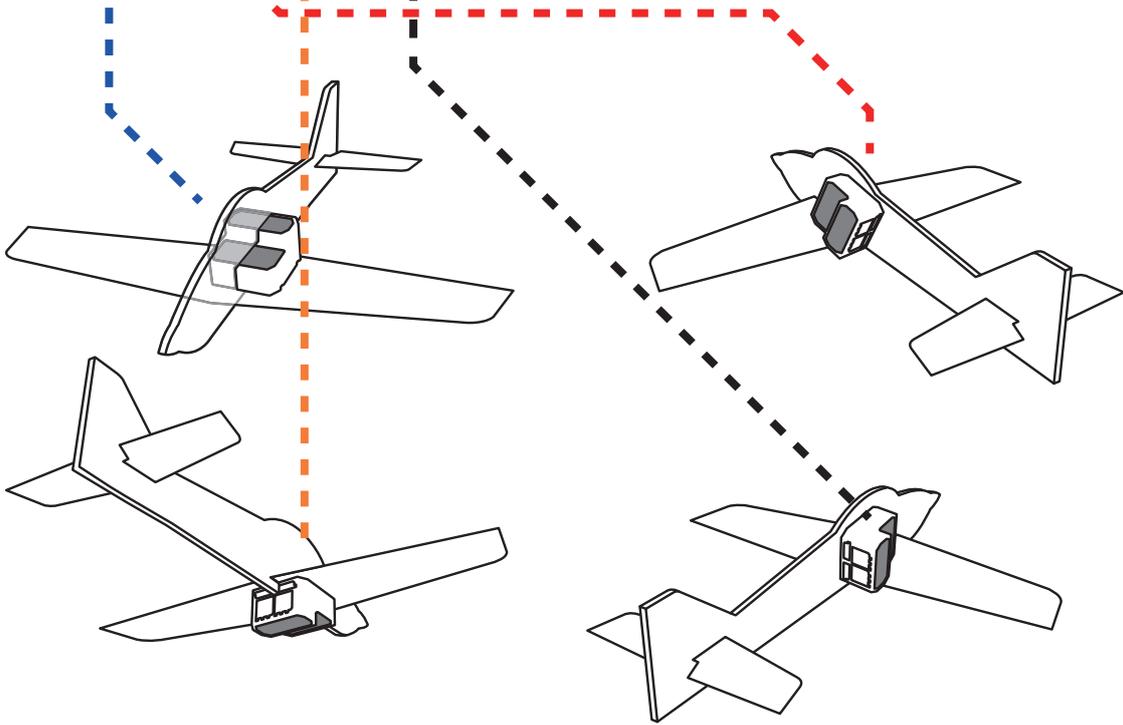
### ◆ S.BUS basic



**Config 1/9 Gyro set mounting direction**

Config	New model	Condition1	100%	1/9
Gyro Set Dir	Up	Left	Down	Right
Wing Type	Normal	ELEVON		
Tail Type	Normal	V-Tail		
Servo Type	DG:285Hz	AN: 70Hz		
SB/R2 Out	S.Bus(HS)	RUD2	CH3(THR)	S.Bus(STD)

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

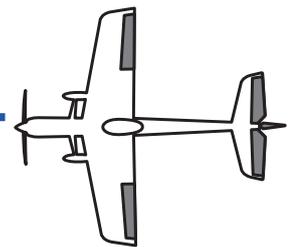


**Config 1/9 WING/TAIL**

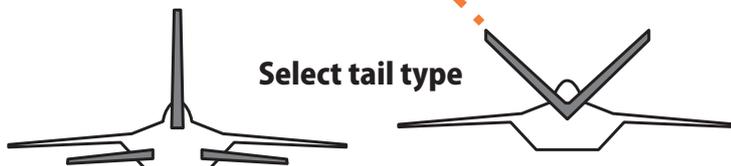
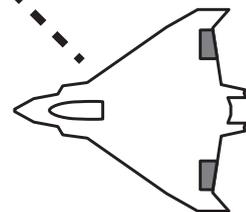
Set with the wing type/tail type of GYA553. The wing type/tail type of the transmitter is not used and is normal.

- 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	New model	Condition1	100%	1/9
Gyro Set Dir	Up	Left	Down	Right
Wing Type	Normal	ELEVON		
Tail Type	Normal	V-Tail		
Servo Type	DG:285Hz	AN: 70Hz		
SB/R2 Out	S.Bus(HS)	RUD2	CH3(THR)	S.Bus(STD)



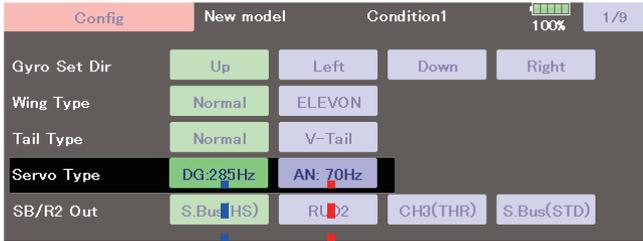
Select wing type



Select tail type

# Config

## Config 1/9 Servo type



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

**Digital servo → DG : 285 Hz**

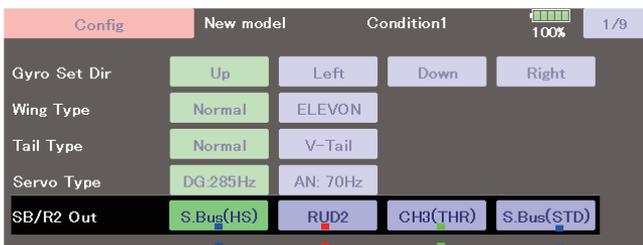
**Analog servo → AN : 70 Hz**

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

Digital servo

Analog servo

## Config 1/9 SB/R2 OUT



Select the SB/R2 port.

**S.BUS(HS)**  
Connect SV servo

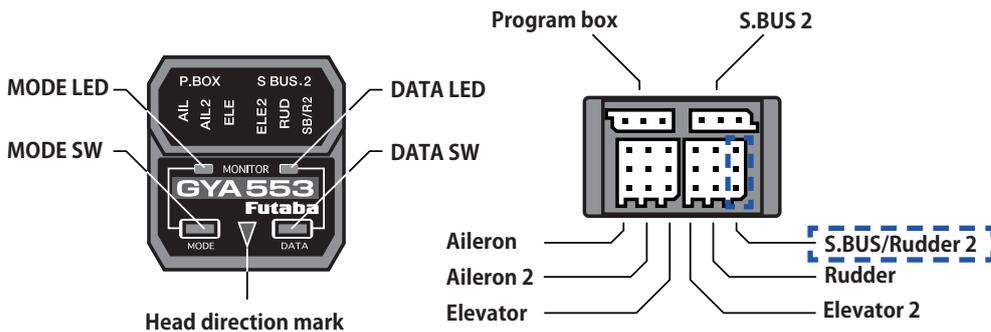
**Rudder 2**

**Throttle**

**S.BUS(STD)**

If S3175HV, DLPH-1, etc. do not work with S.BUS(HS), use S.BUS(STD).

When using two rudder servos



# Config

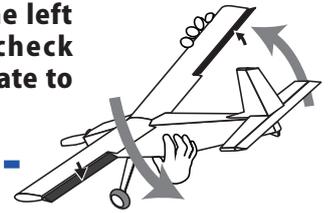
## Config 2/9 Gyro direction

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

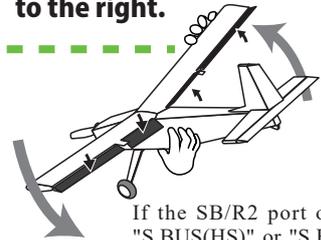
For dual aileron, dual elevator, and dual rudder aircraft, check the operating direction of each second aileron/elevator/rudder.

Config	New model	Condition1	100%	2/9
<b>Gyro Dir</b>				
AIL	Normal	AIL2	Normal	
ELE	Normal	ELE2	Normal	
RUD	Normal	RUD2	Normal	
AIL3	Normal	AIL4	Normal	

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



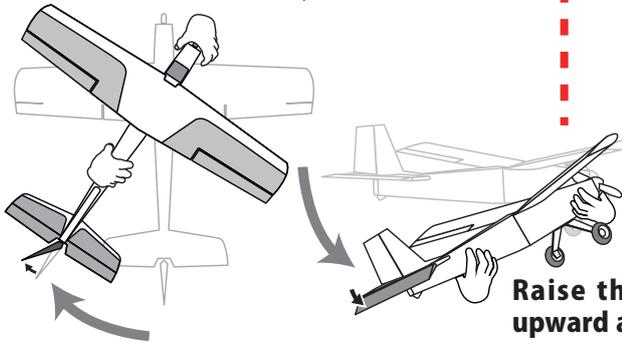
**Tilt the airplane to the left on the ground and check that the 4-aileron operate to the right.**



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 GYA553 main unit.

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

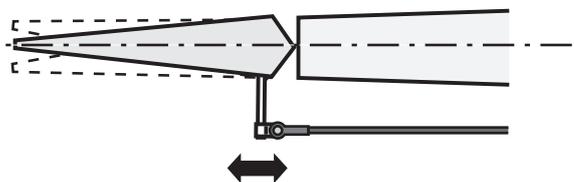
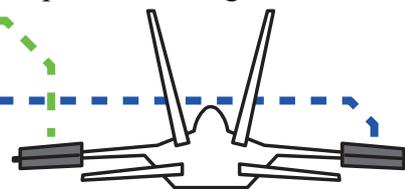


**Raise the airplane with its nose upward and check that the elevator operates downward.**

## Config 3/9 Neutral offset

Config	New model	Condition1	100%	3/9
<b>Neutral Offset</b>				
AIL	+0	AIL2	+0	
ELE	+0	ELE2	+0	
RUD	+0	RUD2	+0	
AIL3	+0	AIL4	+0	

Neutral position setting for each servo.



**This will move the neutral to the desired position.**

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 GYA553 main unit.

## Config 4/9 5/9 Servo limit



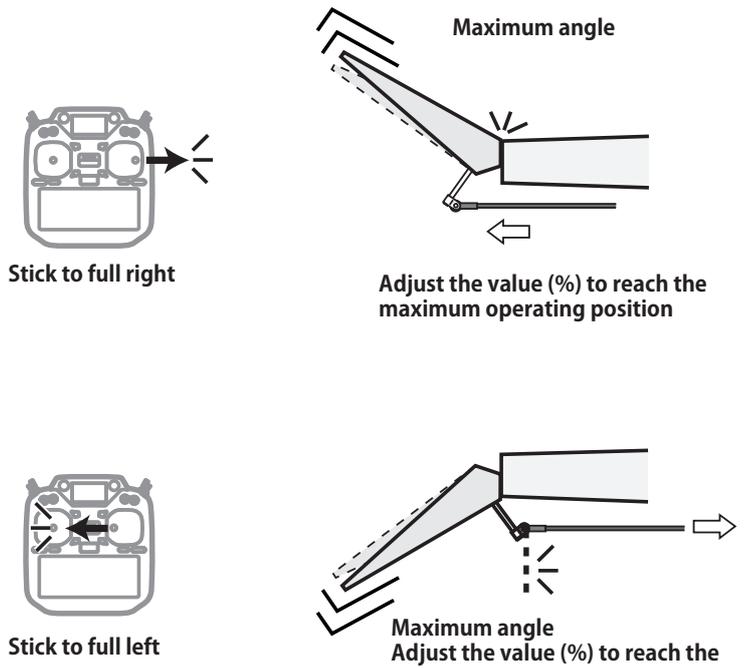
This is the limit setting for each servo. The position of the maximum operation is read into the gyro in the first setting.



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 GYA553 main unit.

### Aileron example

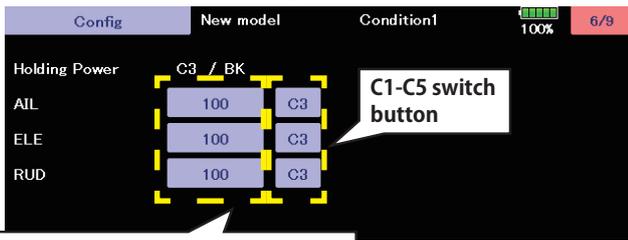


**Config 6/9 Holding Power**

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.

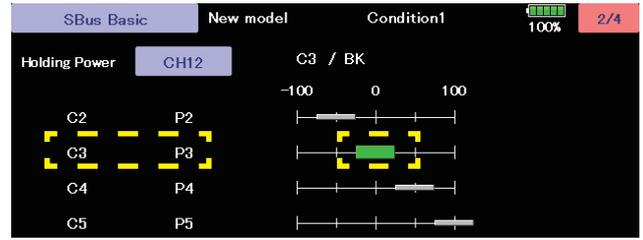
**Config 6/9**



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

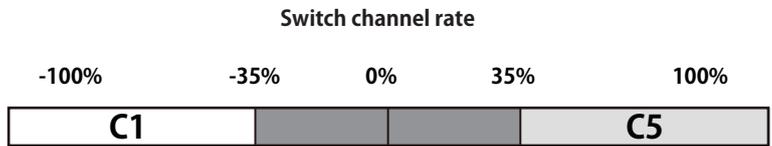
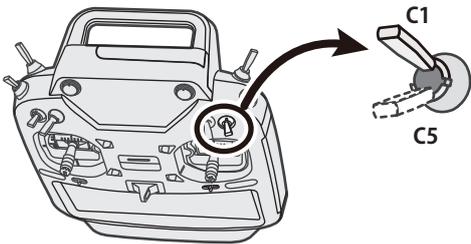
Display and adjust the current rate numbers C1 to C5 by operating the channel on the transmitter.

**S.BUS Basic 2/4**

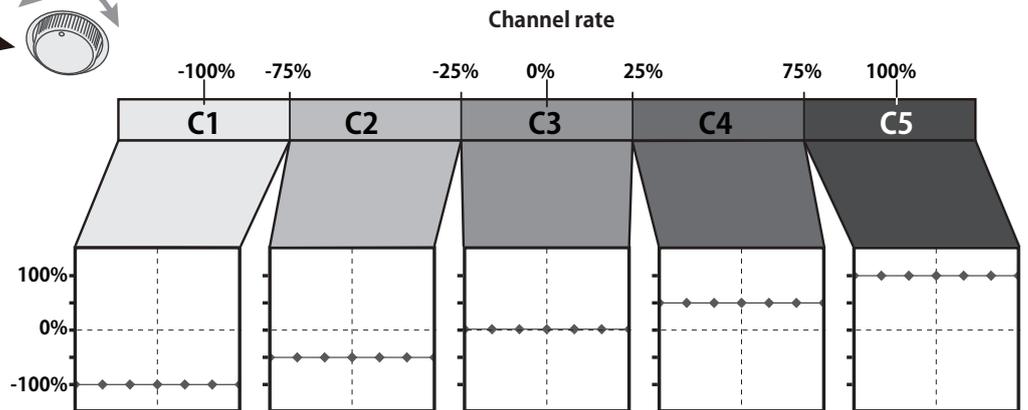
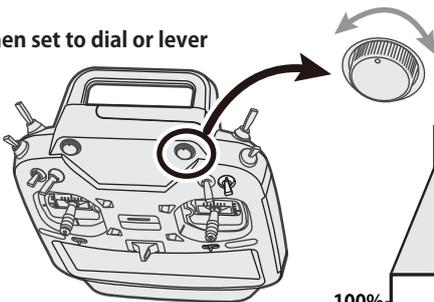


By operating the channel of the transmitter, the channel position of the current rate numbers C1 to C5 will be displayed in green.

When set to SW of DG1 or DG2



When set to dial or lever



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

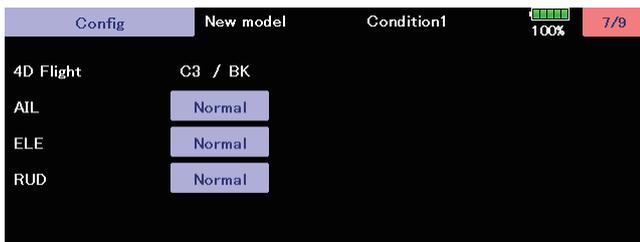
Page 7 is for setting the gyro reverse mode. This is a special setting for 4D backward flight. Select whether to reverse the control direction of the aileron, elevator, and rudder when flying backward. Normally, when flying backward, the steering direction of all the rudder is reversed, so the control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

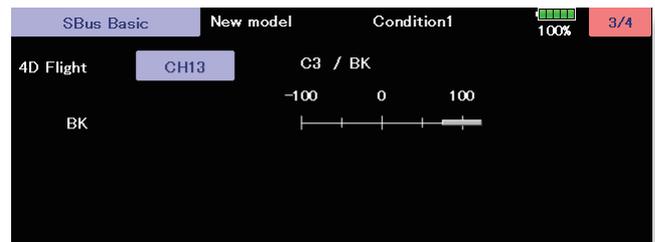
For details on setting the switching point, please refer to the transmitter settings.

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

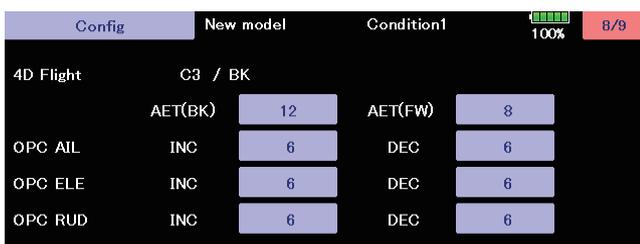


## Config 8/9 4D Flight (Backward flight) Mode Adjustment

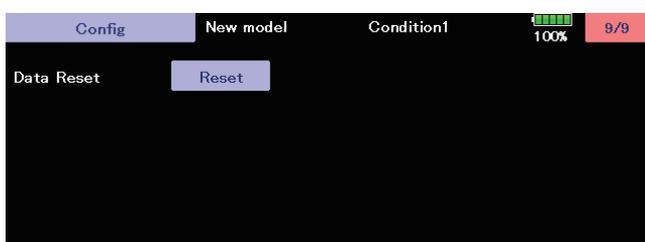
Page 8 is for setting the gyro reverse mode. This is a special setting for 4D backward flight.

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



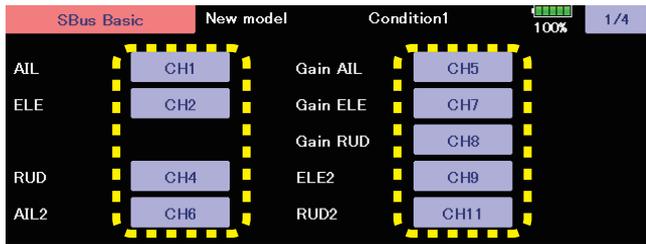
## Config 9/9 Reset



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

## 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).

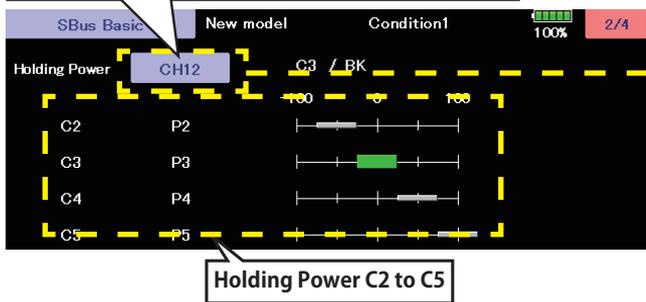


### ⚠ WARNING

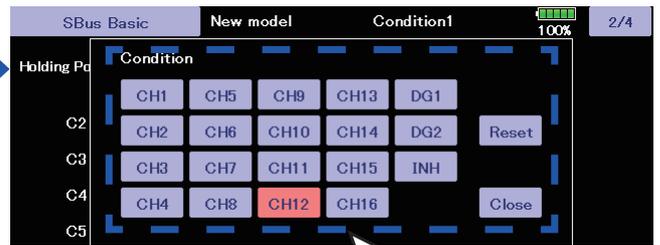
Always verify that the S.BUS function assignments match your transmitter's function (in the FUNCTION menu) assignments. If any changes are made within the transmitter function assignments, then it will also be necessary to make the changes within the S.BUS function assignments. To change the channel, GYA553 and T32MZ(WC) must be connected.

The channel of each function can be changed.

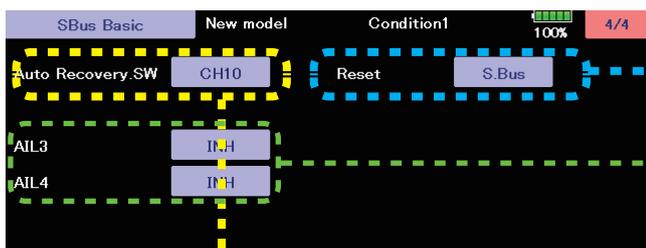
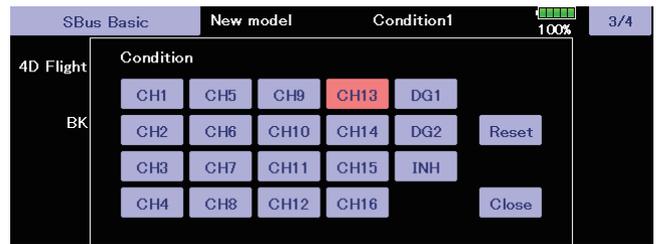
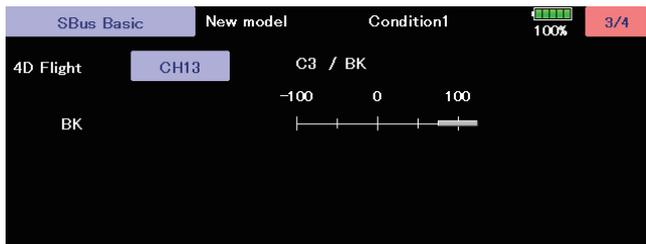
Tap to move to the rate switching CH setting page.



Holding Power C2 to C5



Tap the CH used for rate switching to select it.

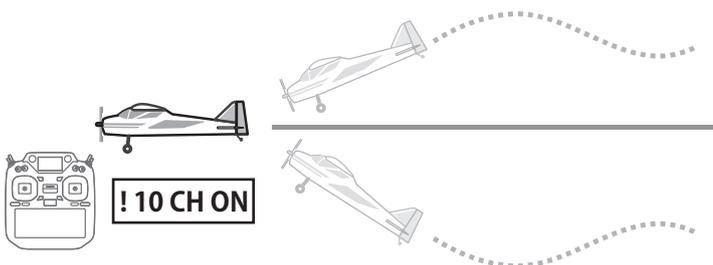


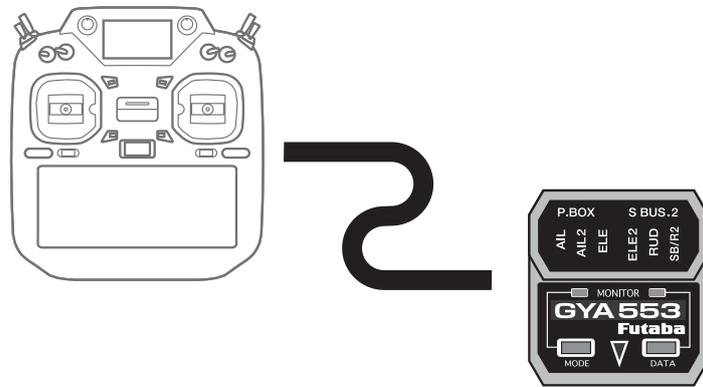
**ON-OFF channel for auto recovery**

**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.





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