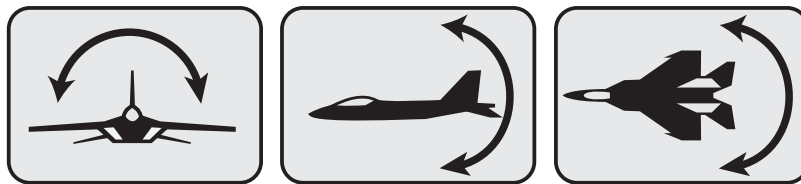


Gyro Program Box  
**GPB-1**

*Ver. 8.x*

*Software Update Functions*

*For* **GYA483**  
**GYA573** *Ver. 6.x*



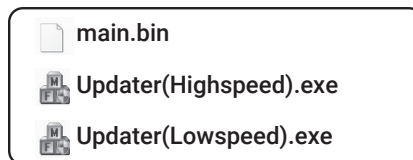
## GPB-1 Software Update Procedure

### GPB-1 UPDATE

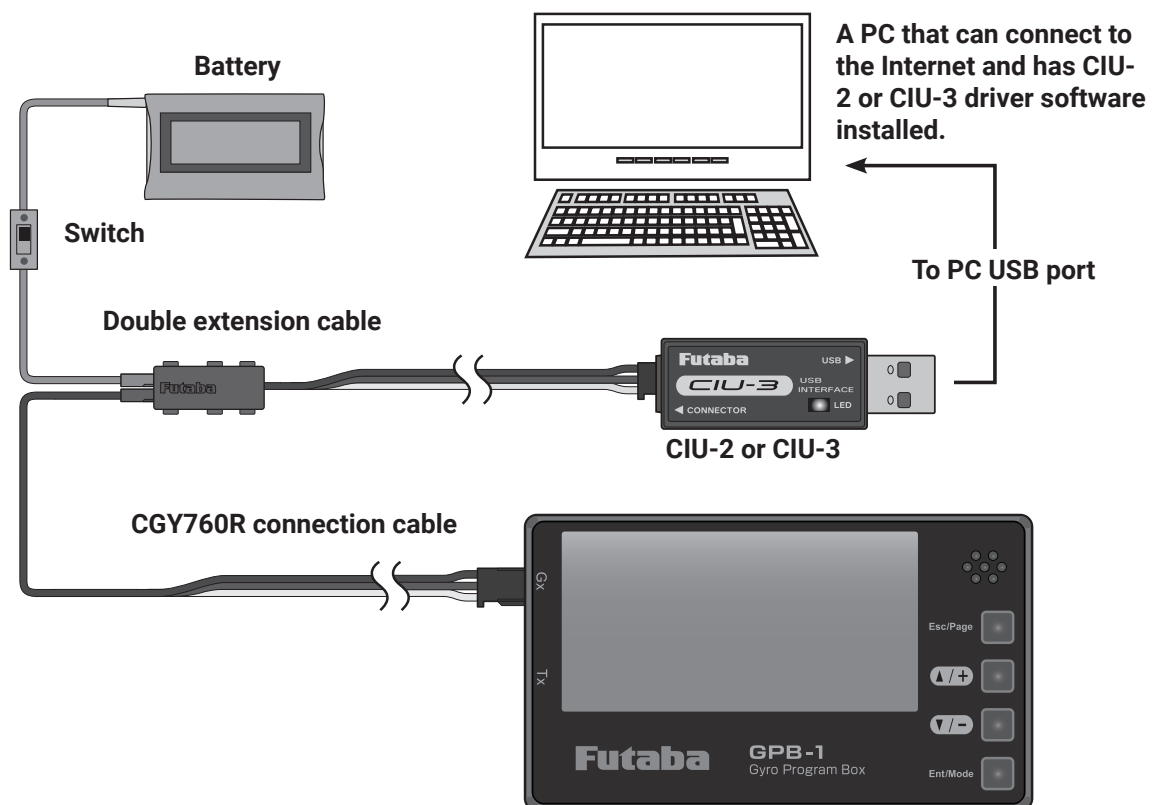
The GPB-1 can be updated from PC using CIU-2 or CIU-3.

- \* The following optional products are required for the update.
  - CIU-2 or CIU-3
  - Cable for CGY760R / GY701 / GY520 or DSC cable for update
  - Receiver battery

1. Download the CGY760R update file from our website or your local distributor's website.
2. Extract the zip file on your computer.




3. Connect as shown in the figure.




## PC side

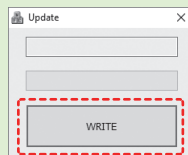
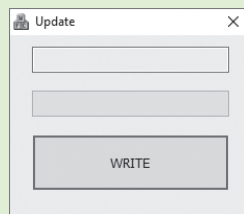
### PC

5. Start an executable file by a PC.

CIU-3  Updater(Highspeed).exe

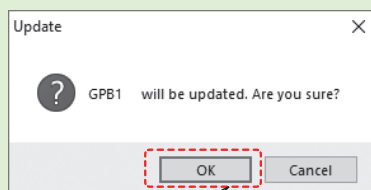
CIU-2  Updater(Lowspeed).exe

Double  
-click



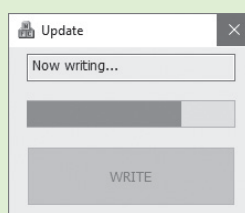
Click [WRITE]

WRITE



Click [OK]

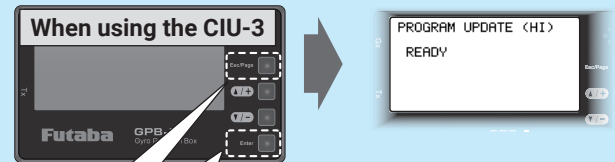
OK



## GPB-1 side

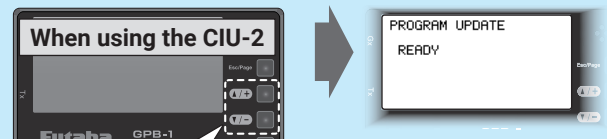
### GPB-1

4. When using the CIU-3, hold down the [Enter] and [Esc/Page] keys of the GPB-1 and turn on the power. Release the [Enter] and the [Esc / Page] keys when the backlight of the screen lights up.



Press the [Enter] and [Esc/Page] keys next turn ON

When using the CIU-2, hold down the [▲/+] and [▼/-] keys of the GPB-1 and turn on the power. Release the [▲/+] and [▼/-] keys when the backlight of the screen lights up.



Press the [▲/+] and [▼/-] keys next turn ON

#### When using the CIU-3

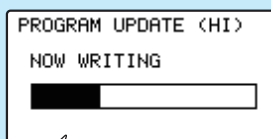
PROGRAM UPDATE <HI>  
READY

#### When using the CIU-2

PROGRAM UPDATE  
READY

### CAUTION

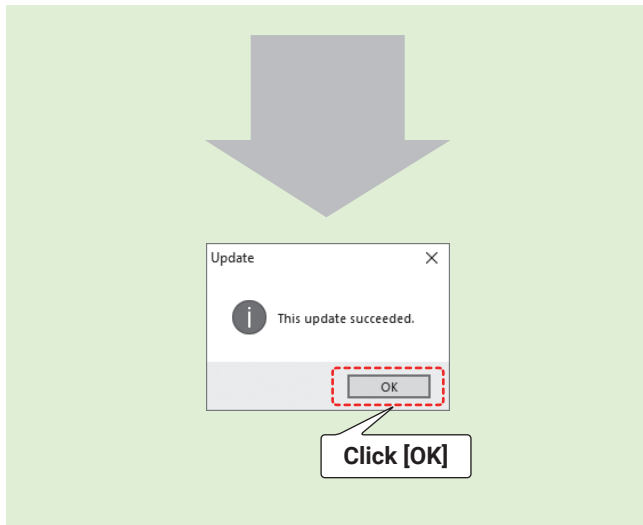
⚠ Do not turn off the power or remove the battery while updating. GPB-1 may be damaged.



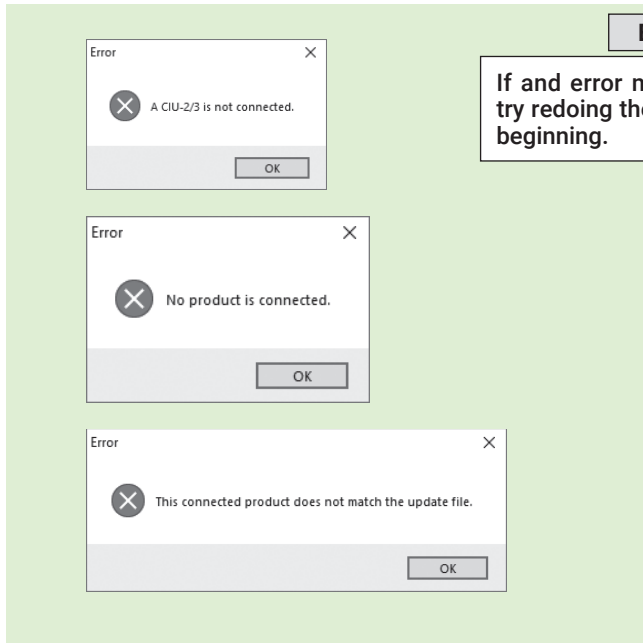
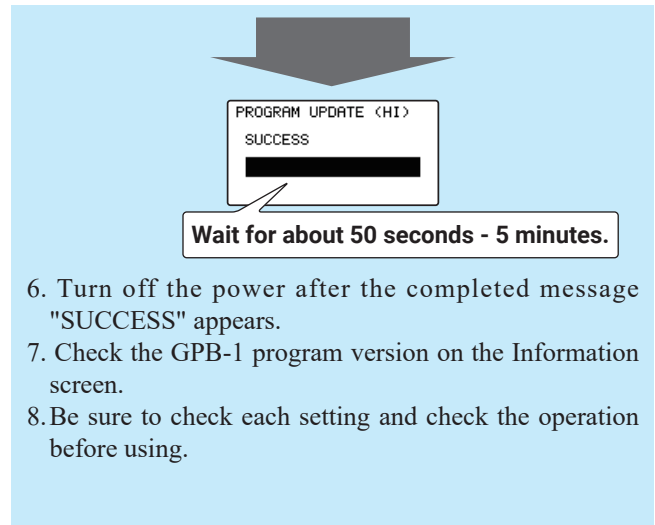
Wait for about 50 seconds - 5 minutes.

Don't turn on the power !

## PC side

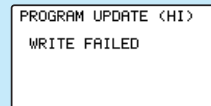


## GPB-1 side



### Error

If and error message appears, try redoing the update form the beginning.



If the cable disconnects or a contact failure occurs during the update, the update stops halfway. In that case, please try updating again from the beginning.

If the GPB-1 fails to update or does not start, please have it serviced.

## Ver.8.0

1. Supported the steering (RUD4) gyro function of GYA573.
2. Compatible with airplane gyro GY483.

\*Ver.8.0 is for airplanes only. Helicopter gyros cannot be used.

## Ver.7.0

Added support for the vector nozzle function of the GYA573 V6.x airplane gyro.  
Additionally, the Camber Mix setting rate range has been expanded from  $\pm 100$  to  $\pm 200$ .GPB-1 Ver.7.0 is designed exclusively for the airplane gyro. It cannot be used with the helicopter gyros.

## Ver.6.0

Compatible with airplane gyro GYA573. Ver.6.0 is for airplanes only. Helicopter gyros cannot be used.

## Ver.5.2

Supported servo type change of S-HC501.

## Ver.5.1

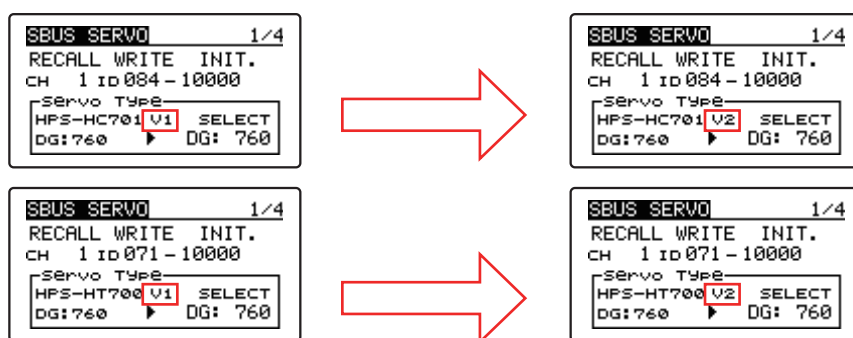
Added function of gyro GYA553 V4~ for Airplane

## Ver.5.0

Added function of gyro CGY770R for helicopter

## Ver.4.4

1. Supported servo type change of HPS-H701.
2. Compatible with Ver2.0 of HPS-HC701 and HPS-HT700.  
Before the update, V1 will be displayed, and after the Ver2.0 update, V2 will be displayed.



## Ver.4.3

Supported servo type change of HPS-HC701 and HPS-HT700.

## Ver.4.2

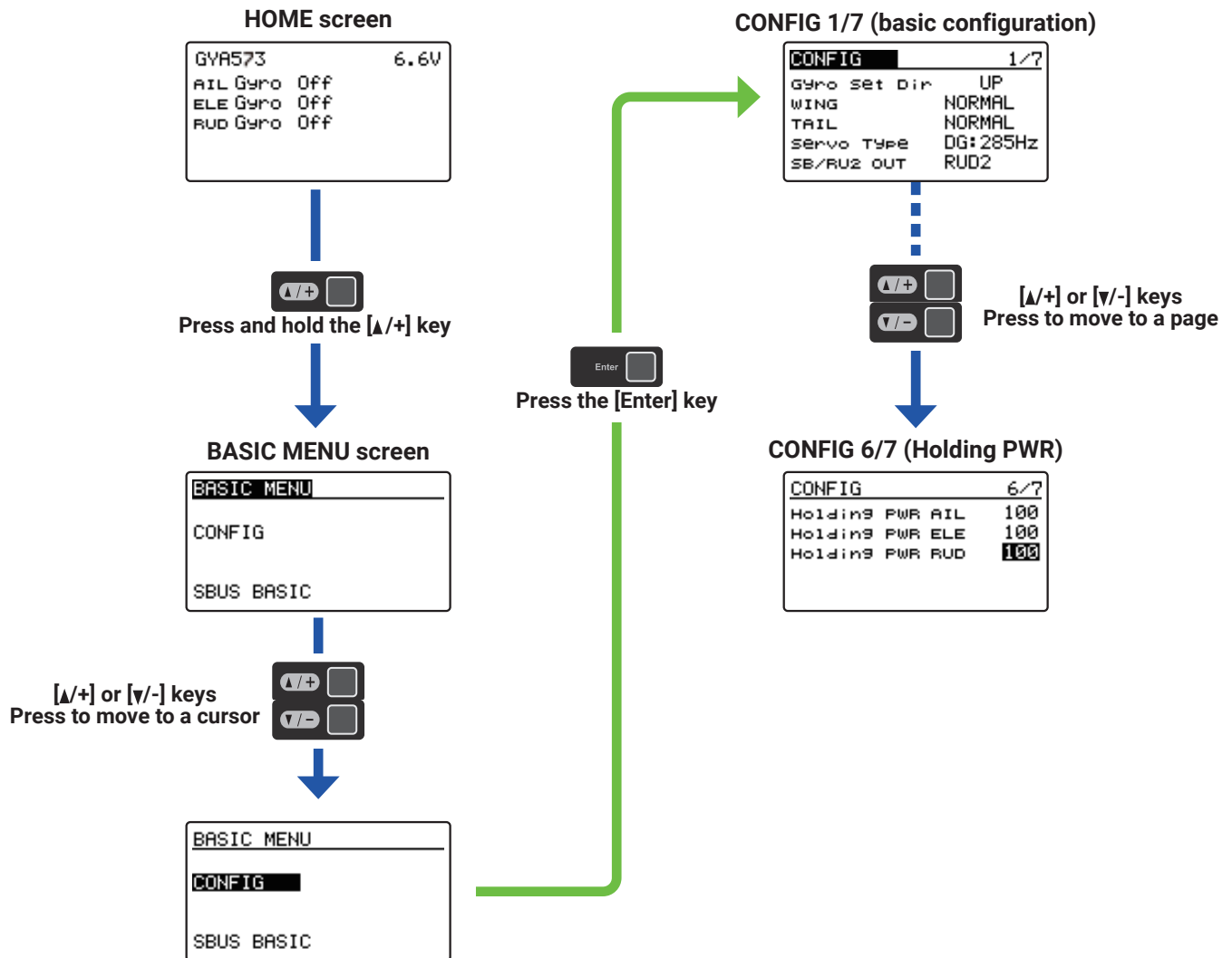
Added function of gyro GYA553 for airplane

1. Added Aileron 3/Aileron 4.
2. S.BUS(HS)---SV servo and S.BUS(STD)---S3175HV, DLPH-1, etc. can be selected with SB/RU2 output (S.BUS output).

### GYA553 --- Added AIL / ELE / RUD "Holding PWR" setting to parameter setting

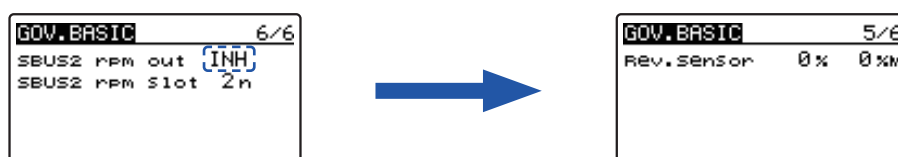
You can adjust the attitude holding force of the aircraft in AVCS mode.

Decreasing the value weakens the holding power and makes the operation feeling closer to the normal mode.



### CGY760R / 755 --- GOV Basic Menu 5/6 "Rev. Sensor" screen

Even if the "SBUS 2rpm out" setting is set to INH in the GOV basic menu 6/6 of the CGY760R / 755, the rotation speed sensor test is now possible on the "Rev. Sensor" screen.



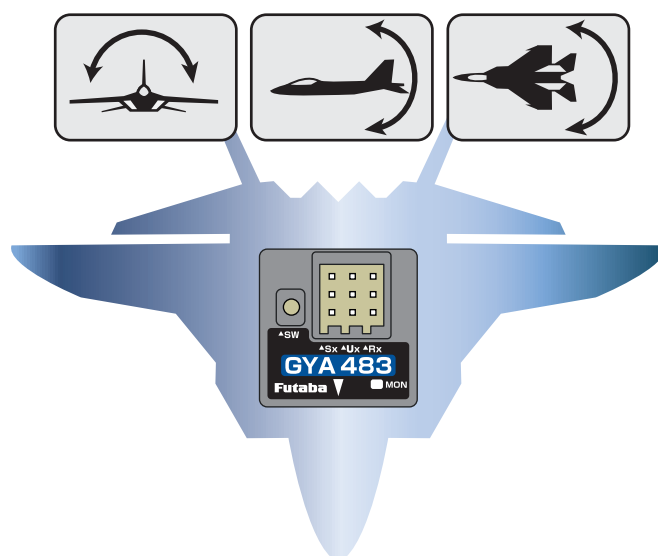


*Gyro Program Box*

# **GPB-1**

# **GYA573**

# **GYA483**



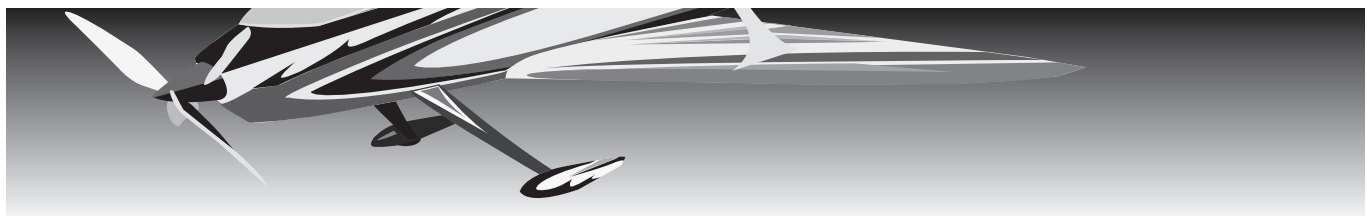
## **GPB-1 for GYA**

---

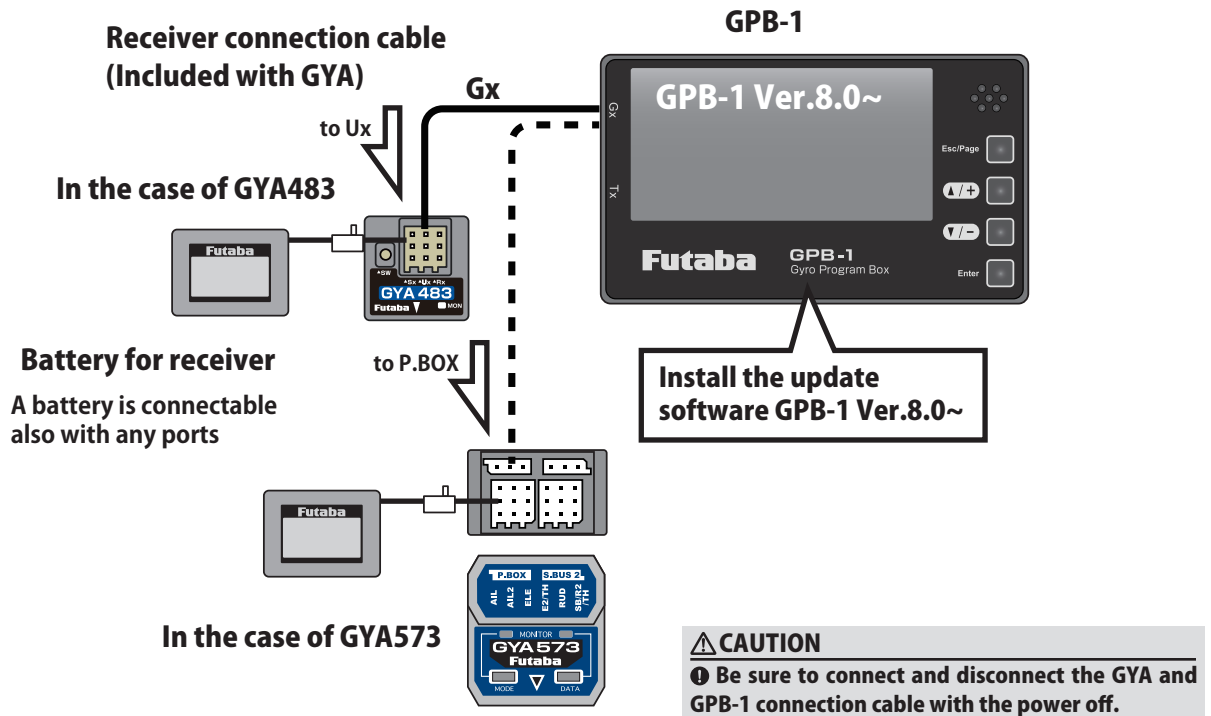
## **Setting manual**

---

\*GPB-1 Ver.8.x is for use only with GYA483/GYA573 Ver.6.x.  
It cannot be used to configure helicopter gyros (CGY760R and CGY770R).

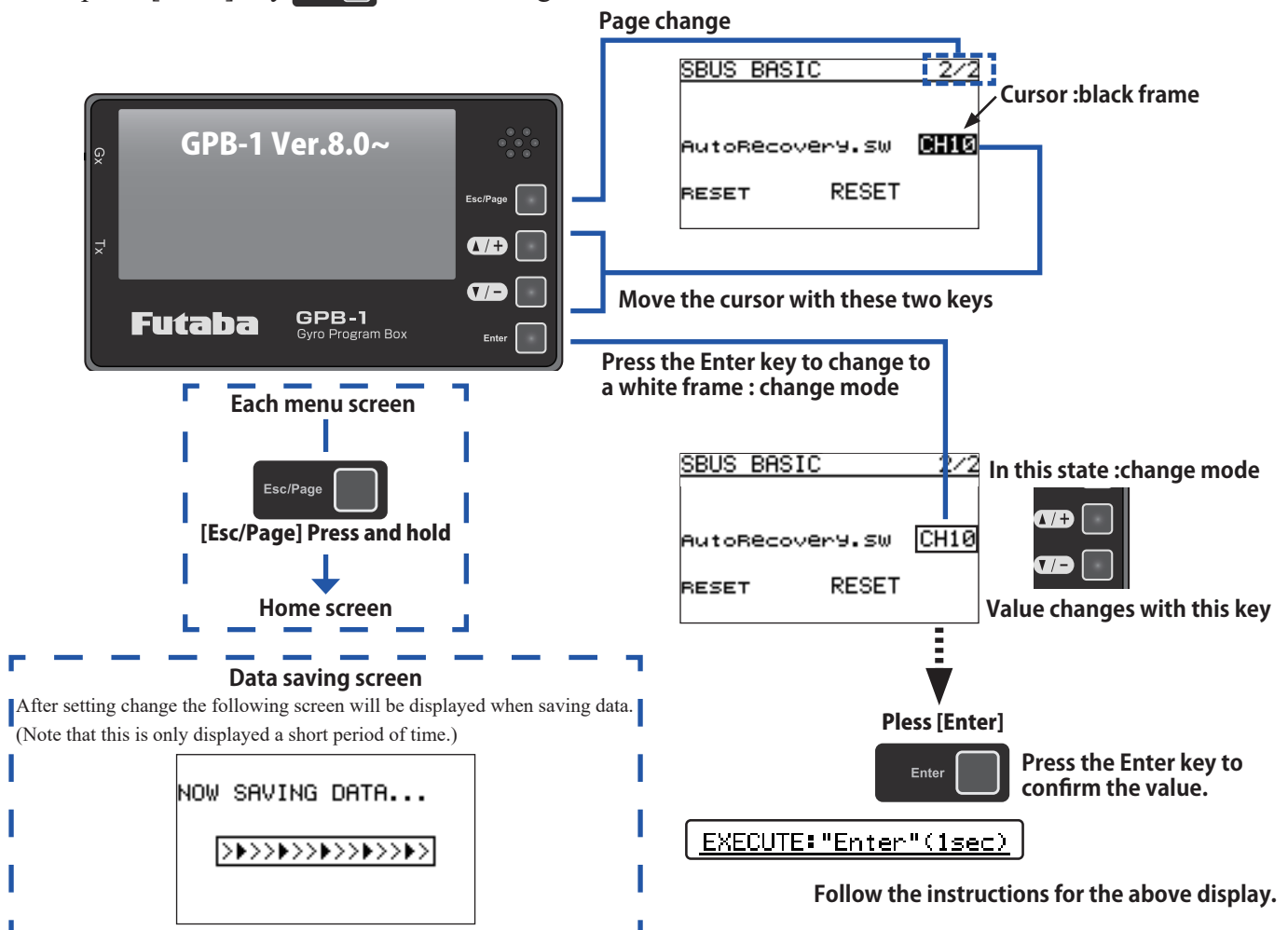


## Connection GPB-1 and GYA



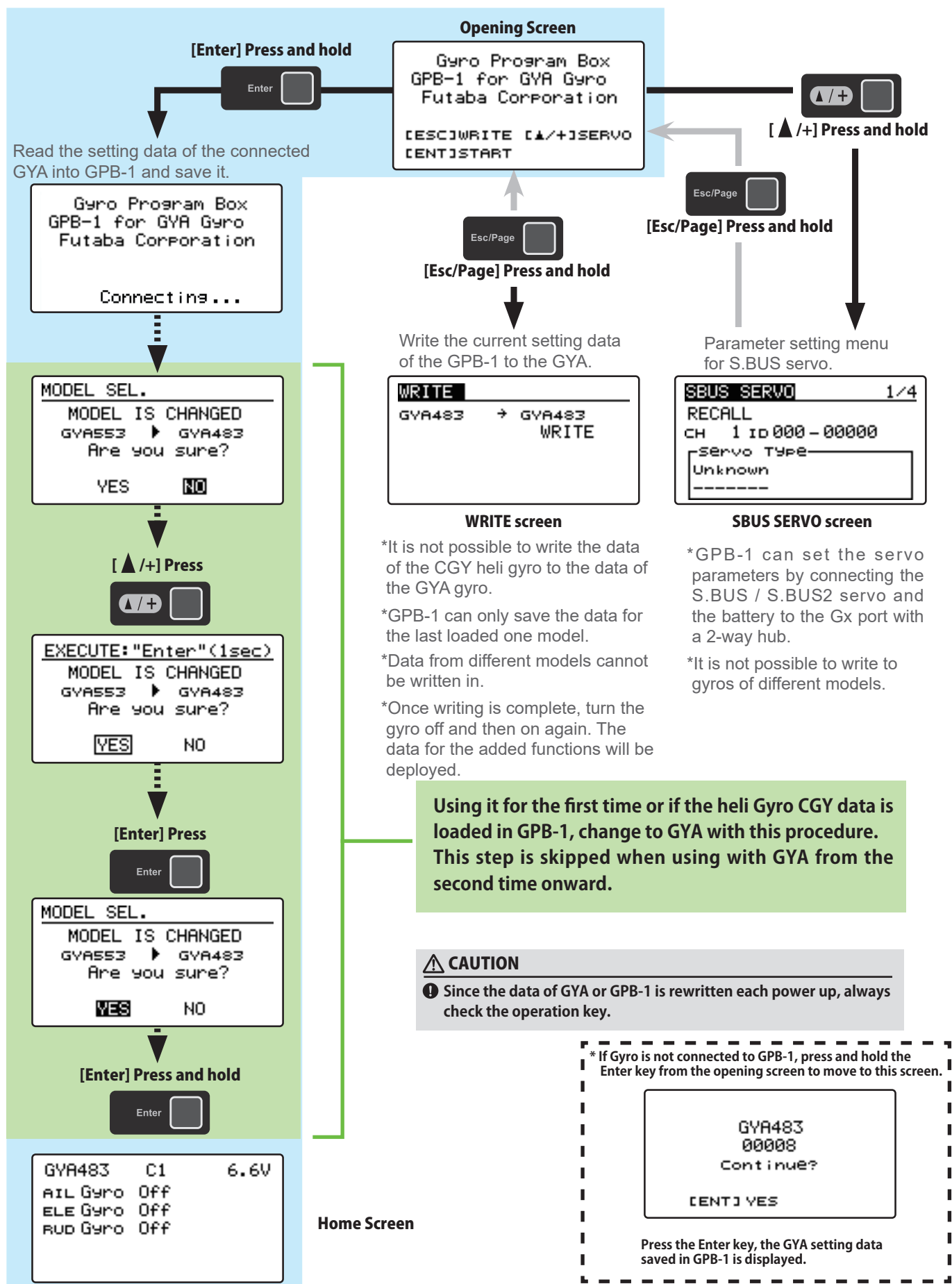
## How to operate each menu screen

Use the or key to move the cursor to the setting item on the screen and press the [Enter] key to enter the setting mode. or key to change the setting contents. When you are done, press [Enter] key to exit setting mode.



## Opening Screen

When GPB-1 starts up with power on, the opening screen is displayed first.



## 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.

**Product Name**  
Displays the product name of the loaded data.

**Battery voltage**  
Displays the voltage of the receiver battery connected to GYA.

```
GYA483  C1  6.6V
AIL Gyro  Off
ELE Gyro  Off
RUD Gyro  Off
```

## Basic menu

### In the case of GYA573

### Home screen

```
GYA573  C1  6.8V
AIL NORM 100%
ELE NORM 100%
RUD NORM 100%
EL3 NORM 100%
RUD3 NORM 100%
```

When vector nozzle settings are configured  
When the ELE3 and RUD3 operation channels are set, the gyro gain settings for ELE3 and RUD3 are displayed.

[Esc/Page] Press and hold

### Basic menu

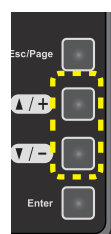
```
BASIC MENU
CONFIG
AIRBRAKE P33
CAMBER MIX P34
Vector Nozzle P35
SBUS BASIC
```

### ◆ Config

```
CONFIG 1/3
Gyro set Dir UP
WING NORMAL
TAIL NORMAL
servo Type DG:285Hz
SB/RU2 OUT S.BUS(HS)
```

### ◆ S.BUS basic

```
SBUS BASIC 1/4
AIL CH1 : Gain AIL CH5
ELE CH2 : Gain ELE CH7
RUD CH4 : Gain RUD CH8
AIL CH6 : EL2 CH9
RUD CH6 : RD2 CH11
```



Move the cursor



Press the Enter key

[▲/+] Press and hold

[Esc/Page] Press and hold

[Esc/Page] Press and hold

## In the case of GYA483

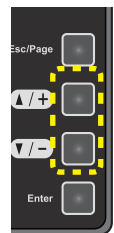
## Home screen

```
GYA483  C1  6.6V
AIL Gyro  Off
ELE Gyro  Off
RUD Gyro  Off
```

Esc/Page  
[Esc/Page] Press and hold

## Basic menu

```
BASIC MENU
CONFIG
AIRBRAKE → P22
CAMBER MIX → P23
SBUS BASIC
```



Move the cursor



Press the  
Enter key

## ◆ Config

```
CONFIG 1/9
Gyro set dir  UP
WING        NORMAL
TAIL        NORMAL
servo Type   AN: 70Hz
Gyro Mode 3  S.B/Pbox
```

▲/+  
[▲/+] Press and hold

Esc/Page  
[Esc/Page] Press and hold

## ◆ S.BUS basic

```
SBUS BASIC 1/4
AIL CH1 : Gain AIL CH5
ELE CH2 : Gain ELE CH7
          Gain RUD CH8
RUD CH4 : EL2      CH9
AIL CH6 : RD2      CH11
```

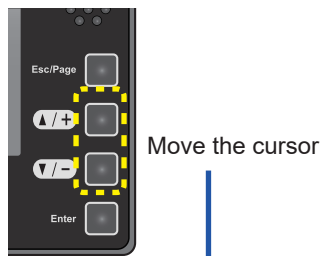
Esc/Page  
[Esc/Page] Press and hold

## Config 1/9 Gyro set mounting direction

```

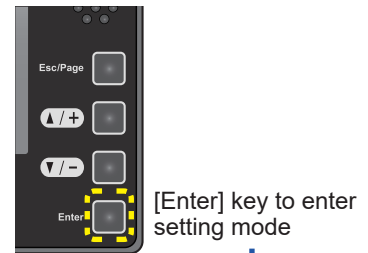
CONFIG 1/9
Gyro set Dir UP
WING NORMAL
TAIL NORMAL
servo Type DG:285Hz
SB/RU2 OUT S.BUS(HS)
    
```

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



```

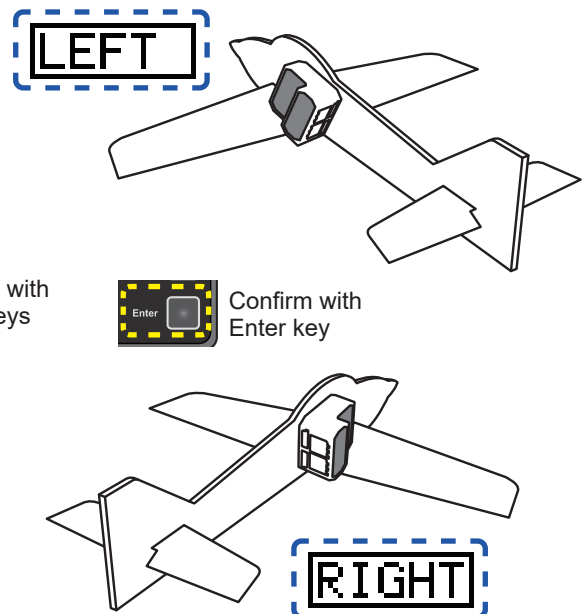
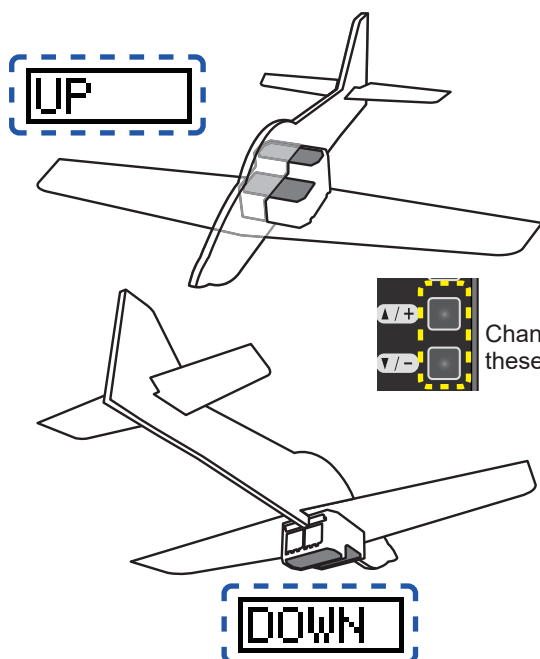
CONFIG 1/9
Gyro set Dir UP
WING NORMAL
TAIL NORMAL
servo Type DG:285Hz
SB/RU2 OUT S.BUS(HS)
    
```



```

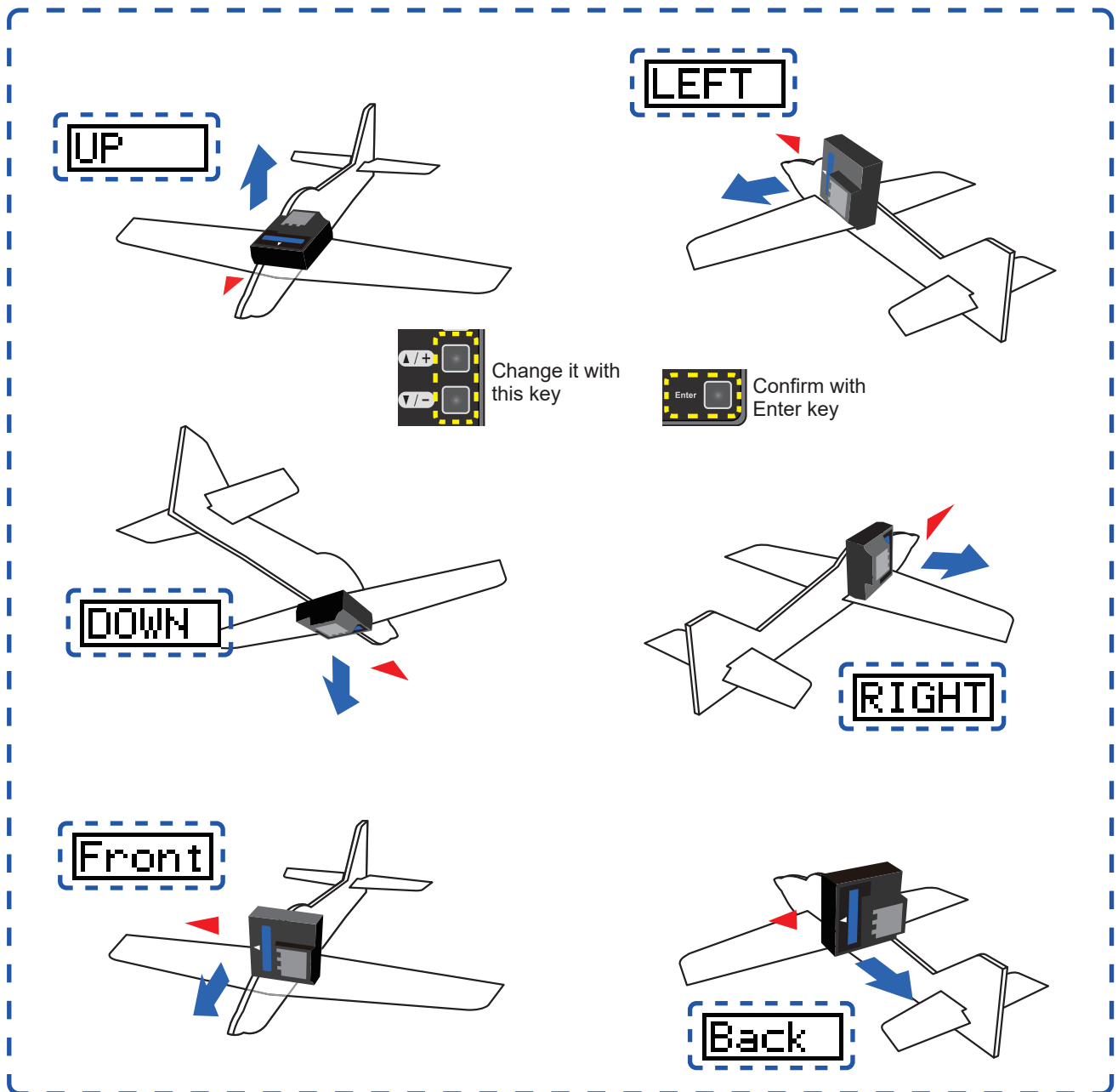
CONFIG 1/9
Gyro set Dir UP
WING NORMAL
TAIL NORMAL
servo Type DG:285Hz
SB/RU2 OUT S.BUS(HS)
    
```

### In the case of GYA573



Config 1/9 Gyro set mounting direction

In the case of GYA483



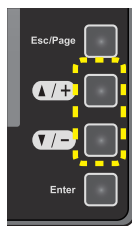
## Config 1/9 WING/TAIL

```

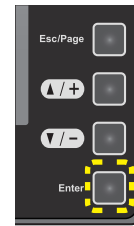
CONFIG 1/9
Gyro set Dir UP
WING NORMAL
TAIL NORMAL
servo type DG:285Hz
SB/RU2 OUT S.BUS(HS)
    
```

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.



Move the cursor



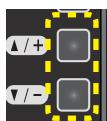
[Enter] key to enter setting mode

```

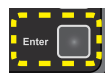
CONFIG 1/9
Gyro set Dir UP
WING NORMAL
TAIL NORMAL
servo type DG:285Hz
SB/RU2 OUT S.BUS(HS)
    
```

```

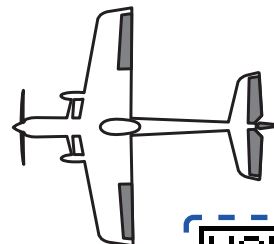
CONFIG 1/9
Gyro set Dir UP
WING NORMAL
TAIL NORMAL
servo type DG:285Hz
SB/RU2 OUT S.BUS(HS)
    
```



Change with these keys



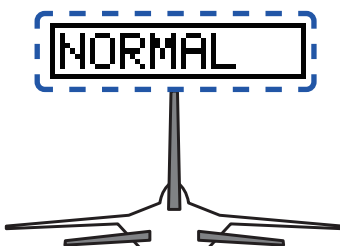
Confirm with Enter key



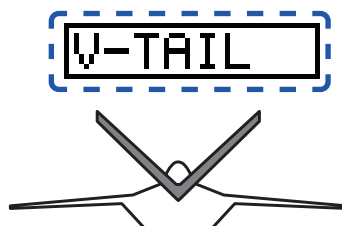
NORMAL

Select wing type

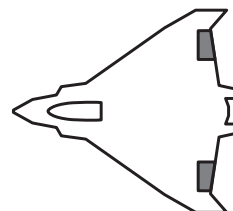
Select tail type



NORMAL



V-TAIL



ELEVON

## Config 1/9 Servo type

```

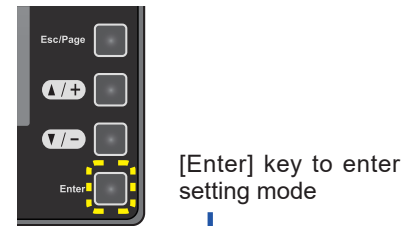
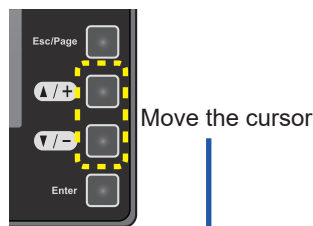
CONFIG 1/9
Gyro set Dir UP
WING NORMAL
TAIL NORMAL
Servo Type DG:285Hz
SB/RU2 OUT S.BUS(HS)
    
```

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
Gyro set Dir UP
WING NORMAL
TAIL NORMAL
Servo Type DG:285Hz
SB/RU2 OUT S.BUS(HS)
    
```

```

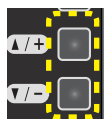
CONFIG 1/9
Gyro set Dir UP
WING NORMAL
TAIL NORMAL
Servo Type DG:285Hz
SB/RU2 OUT S.BUS(HS)
    
```

Servo Type

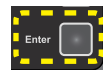
**DG: 285Hz**

**Digital servo**

\*The S.BUS output of the GYA483 is high speed.



Change with these keys



Confirm with Enter key

Servo Type

**AN: 70Hz**

**Analog servo**

\*The S.BUS output of the GYA483 is standard.

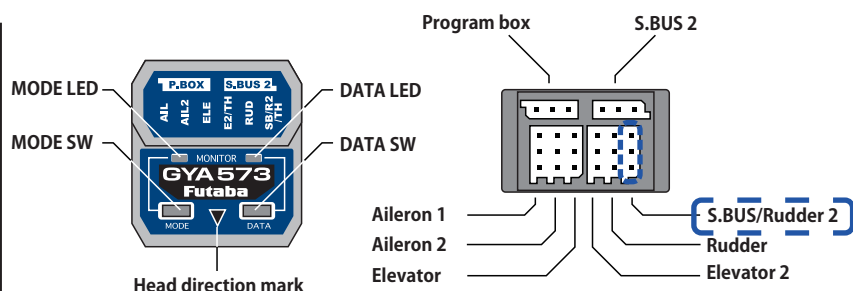
# Config

## Config 1/9 SB/R2 OUT

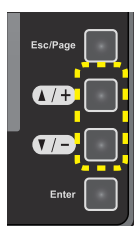
This setting is not available in GYA483.

```

CONFIG 1/9
Gyro set Dir UP
WING NORMAL
TAIL NORMAL
Servo Type DG:285Hz
SB/RU2 OUT S.BUS(HS)
    
```



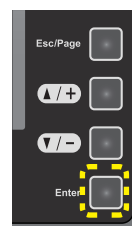
Select the SB / R2 port.



Move the cursor

```

CONFIG 1/9
Gyro set Dir UP
WING NO MAL
TAIL NO MAL
Servo Type DG:285Hz
SB/RU2 OUT S.BUS(HS)
    
```



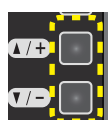
[Enter] key to enter setting mode

```

CONFIG 1/9
Gyro set Dir UP
WING NO MAL
TAIL NO MAL
Servo Type DG:285Hz
SB/RU2 OUT S.BUS(HS)
    
```

SB/RU2 OUT S.BUS(HS)

S.BUS(HS) Connect SV servo



Change with these keys

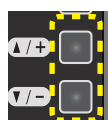


Confirm with Enter key

SB/RU2 OUT S.BUS(STD)

S.BUS(STD)

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



Change with these keys



Confirm with Enter key

SB/RU2 OUT RUD2

Rudder 2



When using two rudder servos

SB/RU2 OUT CH3(THR)

CH3(THR)

Use this port for throttle.

### 1-axis setting

```

CONFIG 1/9
Gyro set Dir UP
WING NORMAL
TAIL NORMAL
Servo Type AN: 70Hz
Gyro Mode 1 AIL/AIL2
    
```

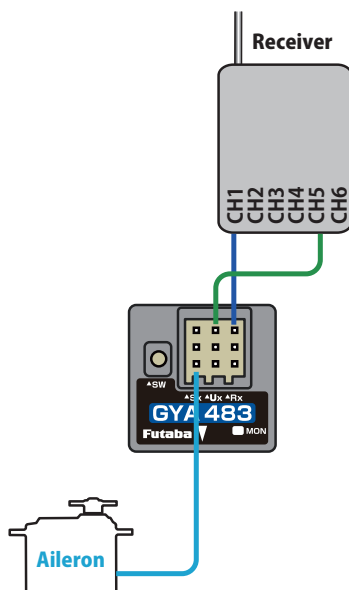
If using only one axis, set Gyro mode to "1 axis".

```

CONFIG 1/9
Gyro set Dir UP
WING NORMAL
TAIL NORMAL
Servo Type AN: 70Hz
Gyro Mode 1 AIL/AIL2
    
```

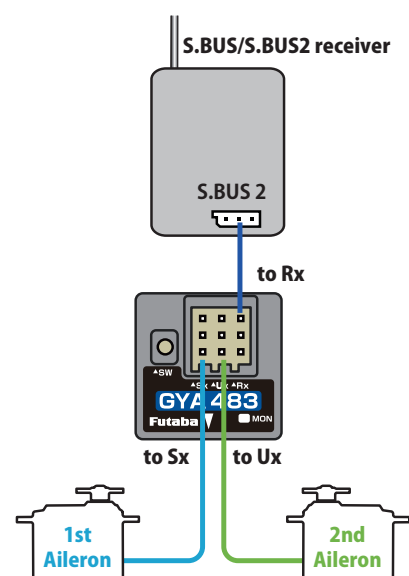
In the case of AIL/AIL2

### PWM connection with one aileron axis



• Example of controlling gain with CH5

### S.BUS connection with one aileron axis

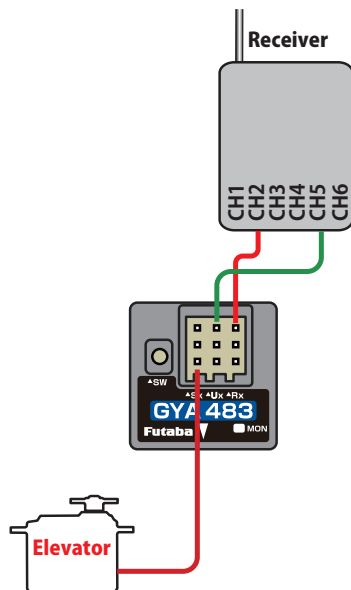


```

CONFIG 1/9
Gyro set Dir UP
WING NORMAL
TAIL NORMAL
servo Type AN: 70Hz
Gyro Mode 1 ELE/ELE2
    
```

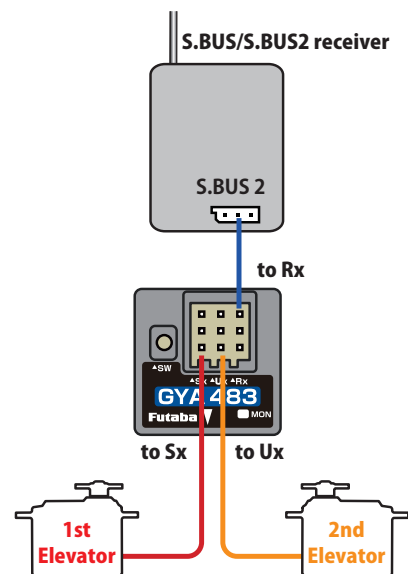
In the case of ELE/ELE2

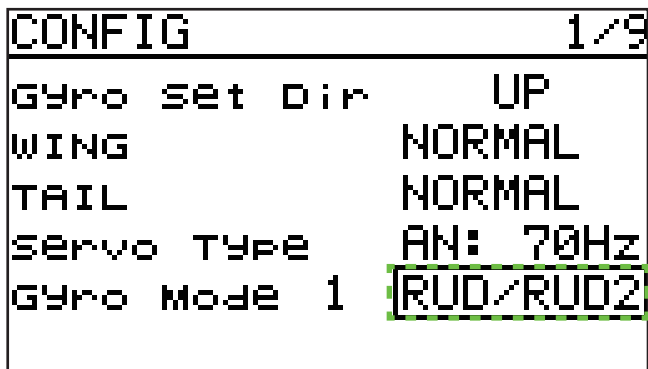
### PWM connection for one elevator axis



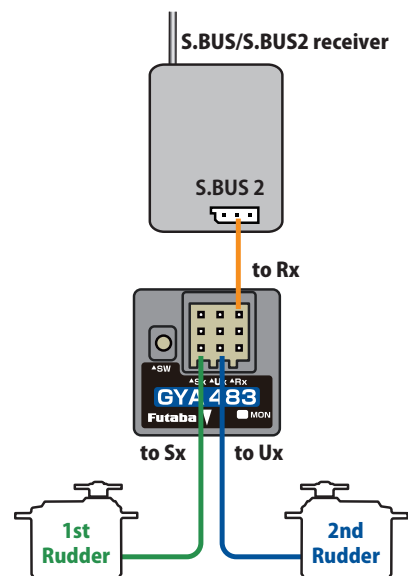
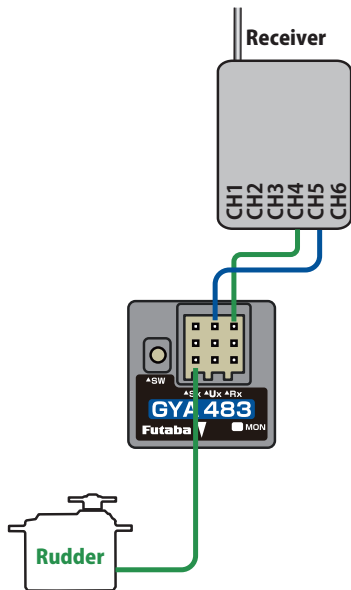
• Example of controlling gain with CH5

### S.BUS connection for one elevator axis





### In the case of RUD/RUD2



- **Example of controlling gain with CH5**

### 2-axis setting

```

CONFIG 1/9
Gyro set Dir UP
WING NORMAL
TAIL NORMAL
Servo Type AN: 70Hz
Gyro Mode 2 AIL/ELE
    
```

If using two axes, set Gyro mode to "2-axis".

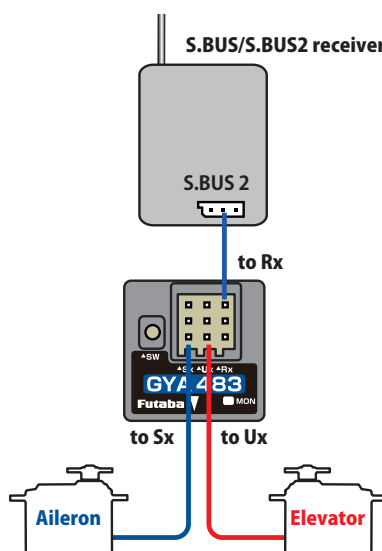
```

CONFIG 1/9
Gyro set Dir UP
WING NORMAL
TAIL NORMAL
Servo Type AN: 70Hz
Gyro Mode 2 AIL/ELE
    
```

In the case of AIL/ELE

PWM cannot be used when using two axes.

### Aileron/Elevator 2-axis S.BUS connection



### 2-axis setting

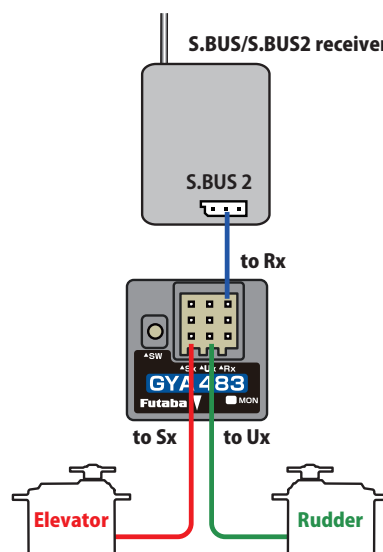
```

CONFIG 1/9
Gyro set dir  UP
WING         NORMAL
TAIL         NORMAL
Servo Type   AN: 70Hz
Gyro Mode 2  ELE/RUD
    
```

PWM cannot be used when using two axes.

In the case of ELE/RUD

### Aileron/Rudder 2-axis S.BUS connection



2-axis setting

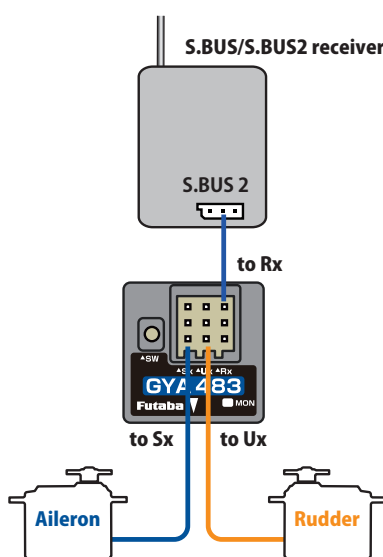
```

CONFIG 1/9
Gyro set Dir  UP
WING         NORMAL
TAIL         NORMAL
Servo Type   AN: 70Hz
Gyro Mode 2  AIL/RUD
    
```

PWM cannot be used when using two axes.

In the case of AIL/RUD

Aileron/Rudder 2-axis S.BUS connection



### 3-axis setting

```

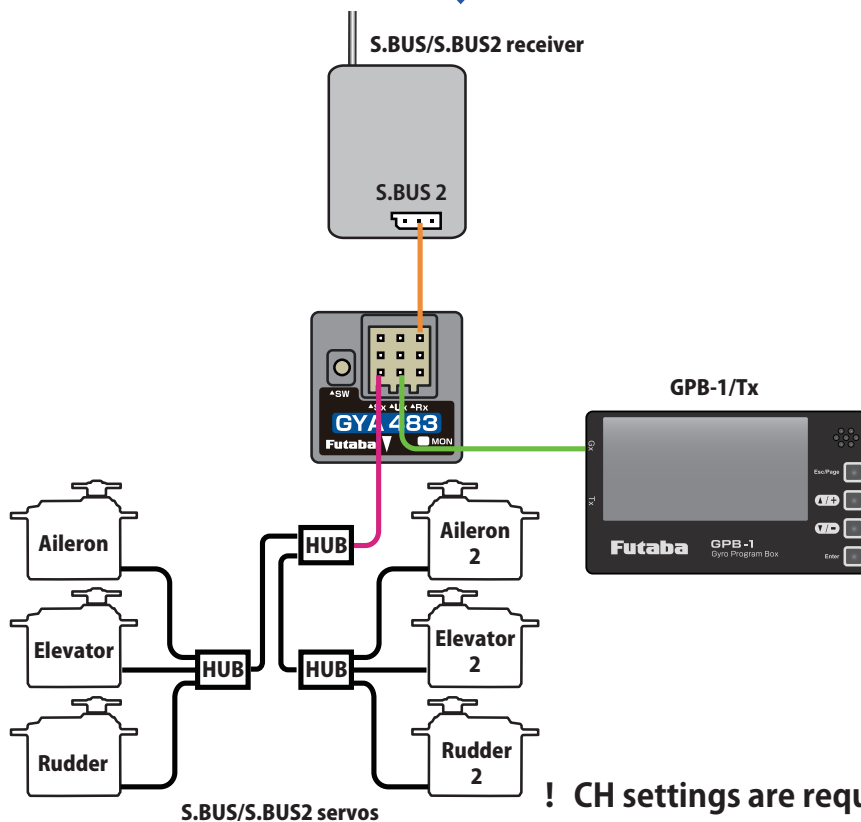
CONFIG 1/9
Gyro set Dir UP
WING NORMAL
TAIL NORMAL
Servo Type AN: 70Hz
Gyro Mode 3 S.B/Pbox
    
```

If using 3 axes, set Gyro mode to "3-axis."

```

CONFIG 1/9
Gyro set Dir UP
WING NORMAL
TAIL NORMAL
Servo Type AN: 70Hz
Gyro Mode 3 S.B/Pbox
    
```

In the case of S.B/PBOX



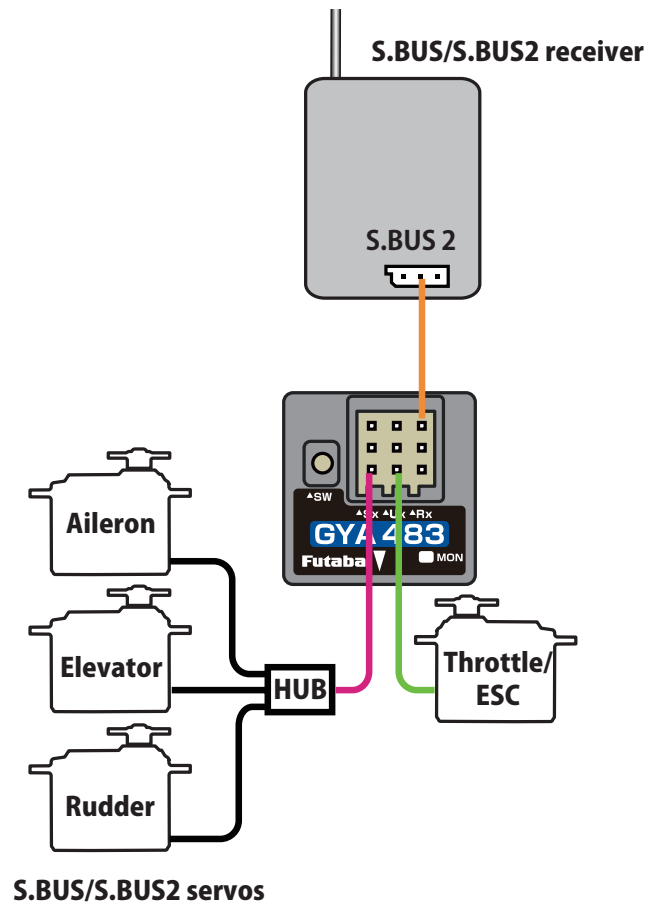
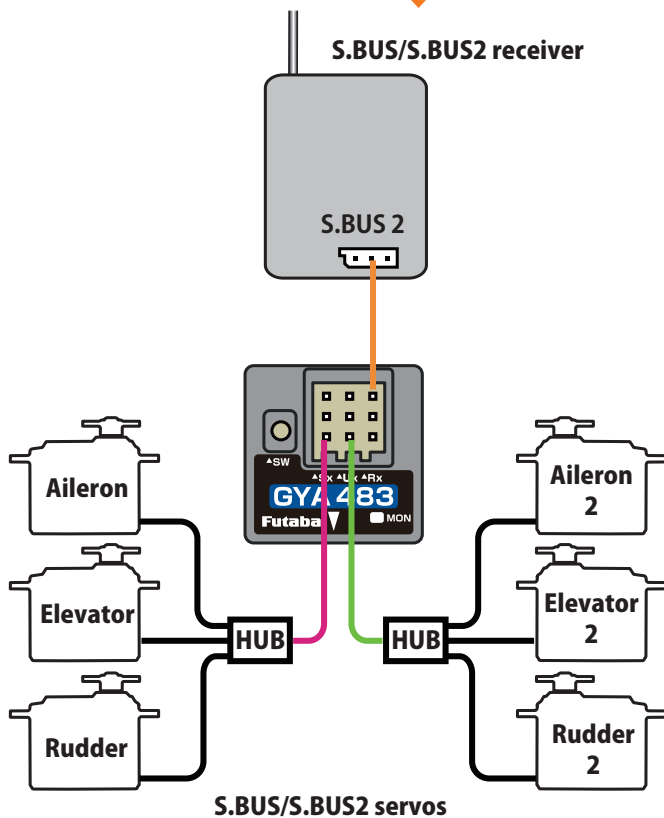
! CH settings are required for each S.BUS/S.BUS2 servo.

3-axis setting

CONFIG 1/9  
Gyro set Dir UP  
WING NORMAL  
TAIL NORMAL  
servo Type AN: 70Hz  
Gyro Mode 3 S.BUS/TH

CONFIG 1/9  
Gyro set Dir UP  
WING NORMAL  
TAIL NORMAL  
servo Type AN: 70Hz  
Gyro Mode 3 S.B/S.B

In the case of S.BUS/TH



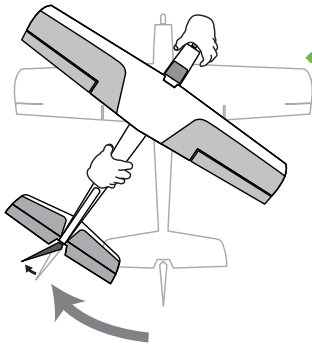
! CH settings are required for each S.BUS/S.BUS2 servo.

## Config 2/9 Gyro direction

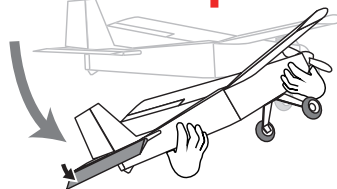
CONFIG		2/9
Gyro Dir		
AIL NORMAL	AI2 NORMAL	
ELE NORMAL	EL2 NORMAL	
RUD NORMAL	RD2 NORMAL	
AI3 NORMAL	AI4 NORMAL	

Key operation → How to operate each menu screen

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



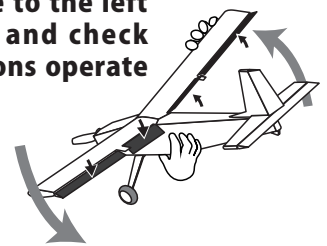
Raise the airplane with its nose upward and check that the elevator operates downward.



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 operates to the right.



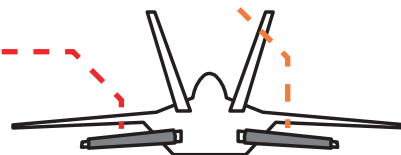
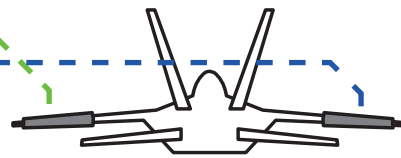
If the SB/R2 port output is set to "S.BUS(HS)" or "S.BUS(STD)", the setting menu will display AIL3 and AIL4 setting items.

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

## Config 3/9 Neutral offset

CONFIG		3/9
NEUTRAL OFFSET		
AIL +0	AI2 +0	
ELE +0	EL2 +0	
RUD +0	RD2 +0	
AI3 +0	AI4 +0	

Neutral position setting for each servo.

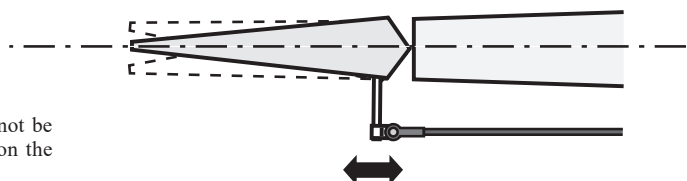


Key operation → How to operate each menu screen



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

CONFIG		4/9
SRV.Limit		
AIL	100 %	100 %
ELE	100 %	100 %
RUD	100 %	100 %
AI3	100 %	100 %

CONFIG		5/9
SRV.Limit		
AI2	100 %	100 %
EL2	100 %	100 %
RD2	100 %	100 %
AI4	100 %	100 %

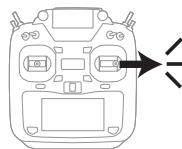
Key operation → How to operate each menu screen

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.

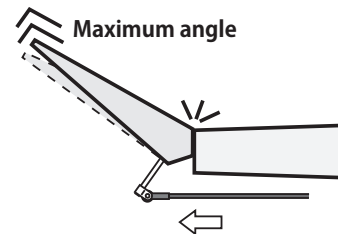
\* AIL3 and AIL4 settings cannot be set with the button settings on the GYA main unit.

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

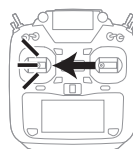
### Aileron example



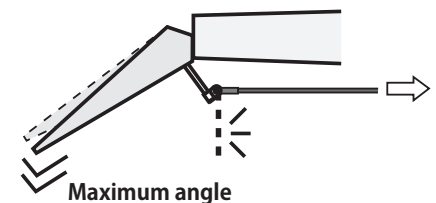
Stick to full right



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



Stick to full left



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

## Config 6/9 Holding Power

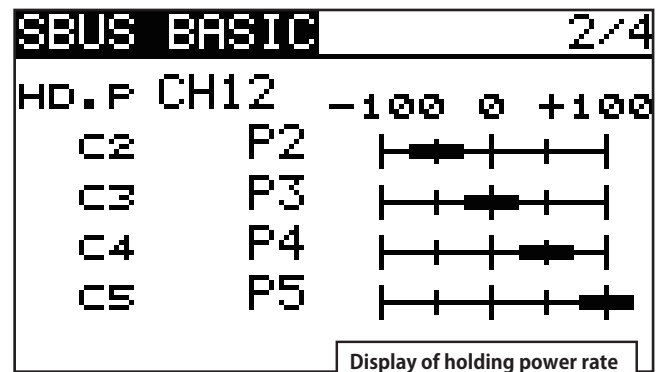
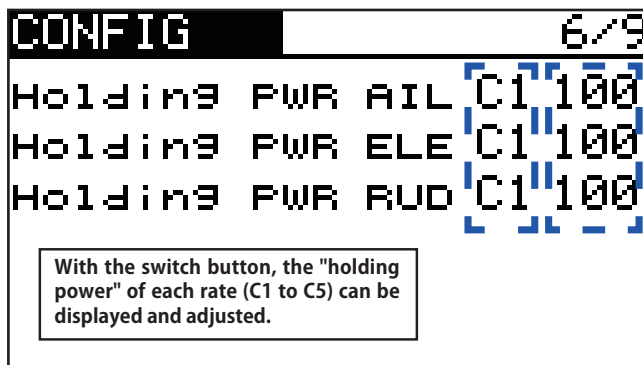
It is a function to adjust the posture holding force of the aircraft in AVCS mode.

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.

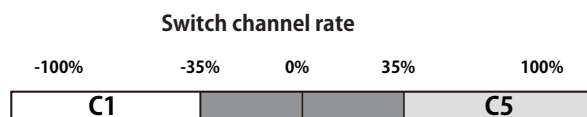
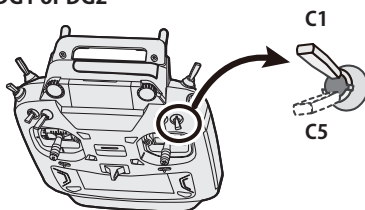
S.BUS Basic 2/3



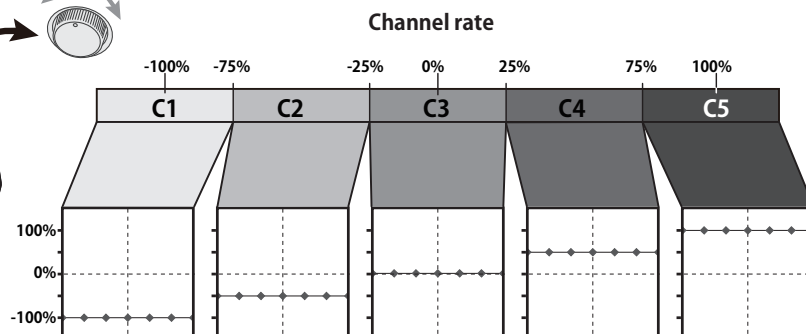
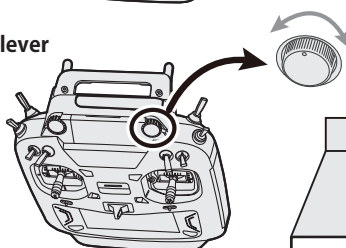
Key operation → How to operate each menu screen

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



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

CONFIG		7/9
4D F1ight	AIL	INH
4D F1ight	ELE	INH
4D F1ight	RUD	INH

S.BUS Basic 3/4

SBUS BASIC		3/4
4D	CH12	-100 0 +100
BK		

## 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		8/9
4D F1ight		
AET<BK>	12	AET<FW> 8
OPC	Inc 6 Dec 6	
OPC ELE	Inc 6 Dec 6	
OPC RUD	Inc 6 Dec 6	

-----  
 | The setting screen will not be displayed on GYA553 ~Ver.3. |  
Setting is possible on GYA553 Ver.4~/GYA573/GYA483.

## Config 9/9 Reset

Config 9/9

```
CONFIG 9/9
DATA RESET  RESET
```

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

```
CONFIG 9/9
ELE2 Port  ELE2
DATA RESET  RESET
```

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

```
CONFIG 9/9
ELE2 Port  CH3(THR)
DATA RESET  RESET
```

\*For GYA573 and GYA483, 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).

SBUS BASIC		1/4
AIL CH1	Gain	AIL CH5
ELE CH2	Gain	ELE CH7
	Gain	RUD CH8
RUD CH4	EL2	CH9
AI2 CH6	RD2	CH11

Move the cursor to each function to change the channel.

Key operation → How to operate each menu screen

SBUS BASIC		2/4
HD.P	INH	

Select CH

Key operation → How to operate each menu screen

SBUS BASIC		4/4
AI3	INH	
AI4	INH	
AutoRecovery.sw	CH10	
RESET	RESET	

Key operation → How to operate each menu screen

EXECUTE: "Enter" (1sec)	
AI3	INH
AI4	INH
AutoRecovery.sw	CH10
RESET	RESET

### ⚠ WARNING

① 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 GPB-1 must be connected.

Holding power rate display

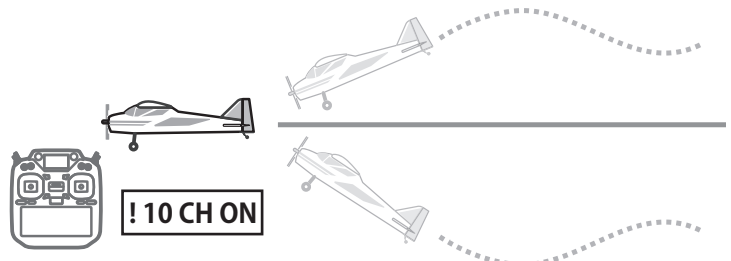
SBUS BASIC		2/4
HD.P	CH1	-100 0 +100
C2	P2	
C3	P3	
C4	P4	
C5	P5	

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.

ON-OFF channel for auto recovery.



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

1. Use the [▲/+] or [▼/-] key to move the cursor to the [RESET] on the screen and press the [Enter] key to enter the setting mode.
2. As shown on the left screen, [EXECUTE: "Enter" (1sec)] is displayed.
3. Press and hold the [Enter] key to reset.

SBUS BASIC		4/4
AI3	INH	
AI4	INH	
AutoRecovery.SW	CH10	
Roll Flat SW	INH	
RESET	RESET	

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° ).

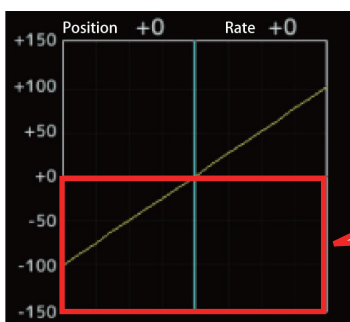
When used during landing approach, it keeps the roll axis horizontal, making aileron operation easier and allowing you to concentrate on throttle and elevator operation, making landing easier. It also maintains horizontality during inverted flight. The roll angle at which the roll flat function turns 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  $\pm 60^\circ$  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  $\pm 25^\circ$

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  $\pm 25^\circ$  , the roll flat function is ON.

SBUS BASIC		4/4
AI3	INH	
AI4	INH	
AutoRecovery.SW	CH10	
Roll Flat SW	INH	
RESET	RESET	

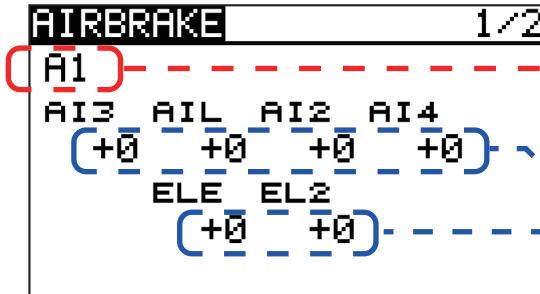
Reset the S.BUS basic items.  
After execution, the items will return to the factory default values.

Move the cursor to "Reset" and press the Enter key. Press and hold the Enter key for one second while in the screen on the left 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.)

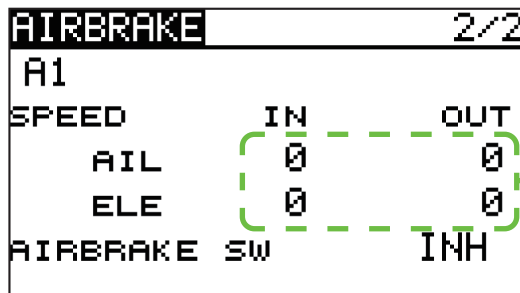
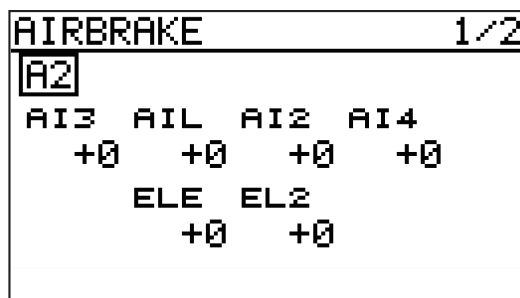
Roll Flat function works even when the air brake is on.



### Air brake mix rate No. display

The air brake can be set to two rates: A1 and A2.

Operation rate (-250 ~ 0 ~ +250)

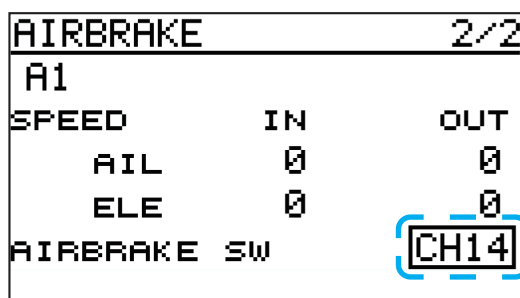


### Setting the operating speed of each servo

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.

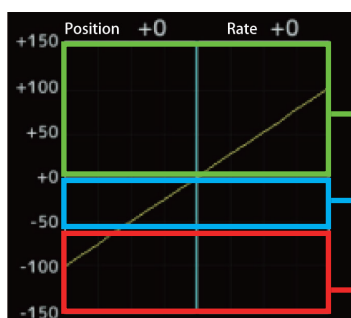


### Air brake Mix ON/OFF CH setting

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				
ACT	INH	sw		RATE
MASTER	INH			AIL
SPEED	IN	OUT		
AIL	0	0		ELE
ELE	0	0		

### Camber Mix ON/OFF setting

[Display]

**INH** : INH

**OFF** : Camber Mix is ACT, but Master CH is not set

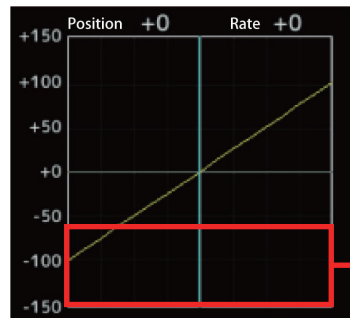
**ON** : Camber Mix is set to ACT and the master channel is also set, but the ON/OFF channel is not set (Mixing is active).

**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				
ACT ON	sw	INH		RATE
MASTER	CH16			AIL
SPEED	IN	OUT		
AIL	0	0		ELE
ELE	0	0		

### Camber Mix ON/OFF CH setting

**Range** : INH, CH1-CH16, DG1, DG2

CAMBER MIX				
ACT ACT	sw	CH15		RATE
MASTER	CH16			AIL
SPEED	IN	OUT		
AIL	0	0		ELE
ELE	0	0		

CAMBER MIX				
ACT ACT	sw	CH15		RATE
MASTER	CH16			AIL
SPEED	IN	OUT		
AIL	0	0		ELE
ELE	0	0		

### AIL setting screen transition button

CMB (AIL)			
	RATE1	RATE2	ACT
AIL	+0%	+0%	
AI2	+0%	+0%	
AI3	+0%	+0%	
AI4	+0%	+0%	

### ELE setting screen transition button

CMB (ELE)			
	RATE1	RATE2	ACT
ELE	+0%	+0%	
EL2	+0%	+0%	

**AIL Operation Rate** (-200 ~ 0 ~ +200)

Up and down sides can be set separately

**ELE Operation Rate** (-200 ~ 0 ~ +200)

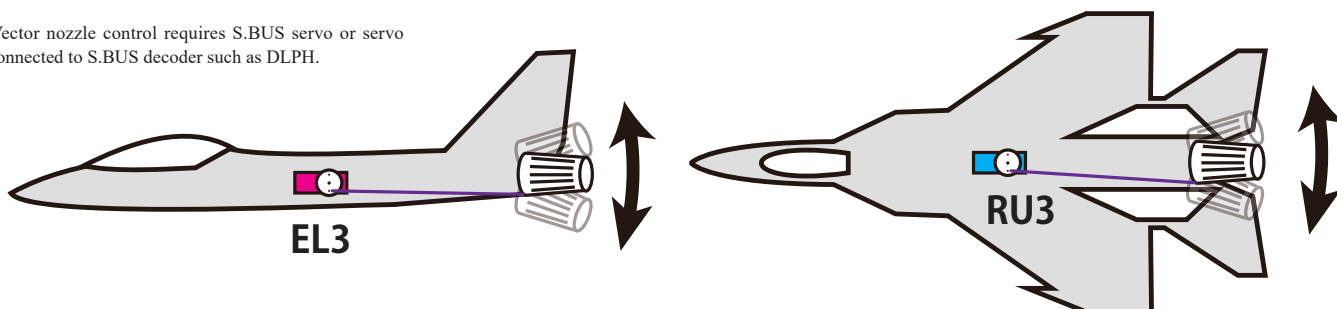
Up and down sides can be set separately

## Vector nozzle function settings

\* Only GYA573 can be set, GYA483/GYA553 cannot be set

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.



Vector Nozzle		1/4
Gyro Dir		
EL3	(NORMAL)	RU3 (NORMAL)
NEUTRAL OFFSET		
EL3	(+0)	RU3 (+0)

This sets the direction of EL3 gyro.

This sets the direction of RU3 gyro.

Neutral position adjustment of EL3.

Neutral position adjustment of RU3.

Vector Nozzle		2/4
Srv.Limit		
EL3	100%	100%
RU3	100%	100%

Adjustment of maximum operating EL3 servo position.

Adjustment of maximum operating RU3 servo position.

Vector Nozzle		3/4
Holding PWR	EL3	(C1) 100
Holding PWR	RU3	(C1) 100

EL3 holding power.

RU3 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.

Vector Nozzle		4/4
SBUS CH		
EL3	CH2	Gain (EL3) CH15
RU3	CH4	Gain (RU3) CH16

Sets the operation channel for EL3.

Sets the operation channel for RU3.

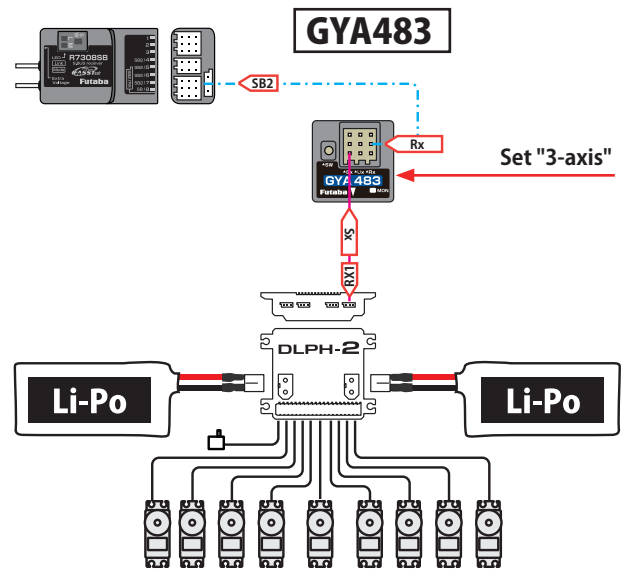
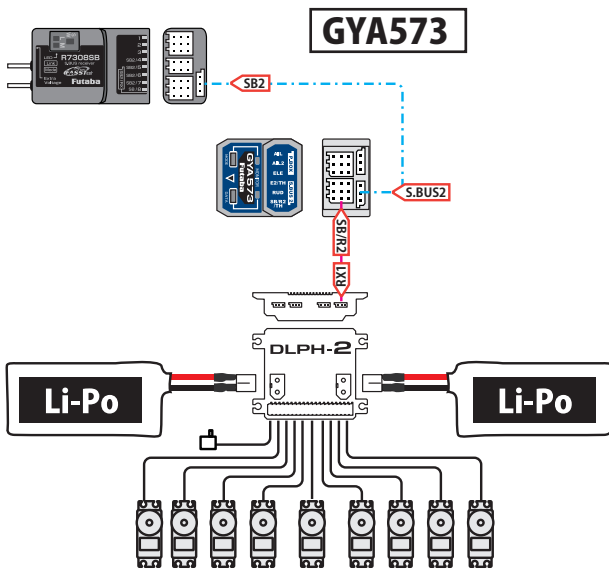
Sets the gyro gain setting channel for EL3.

Sets the gyro gain setting channel for RU3.

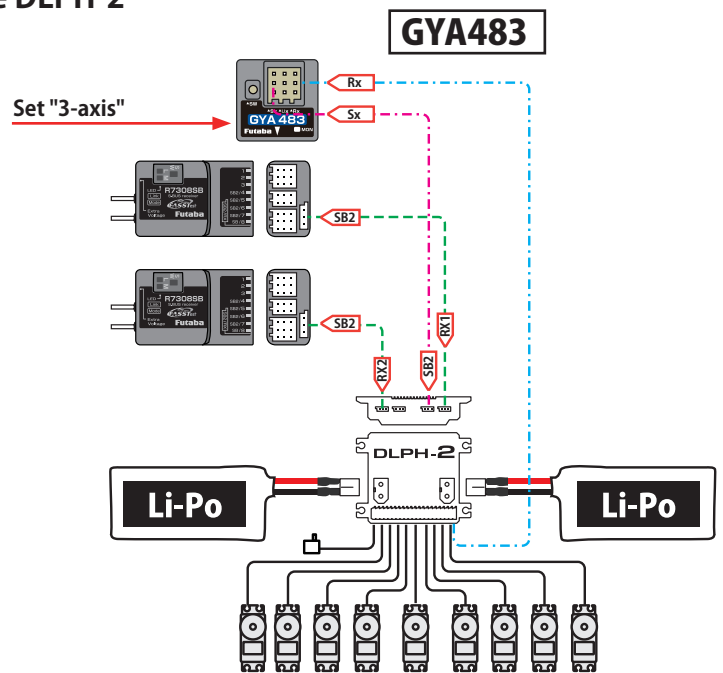
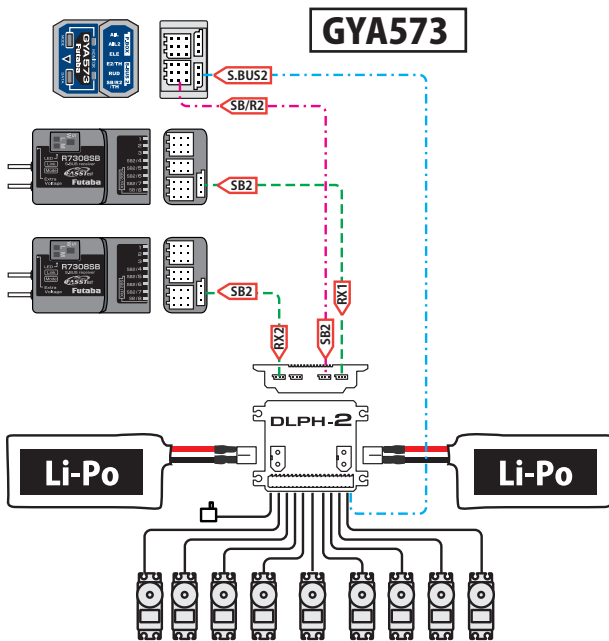
Setting CH: CH1 to CH16, DG1,2

## Connection example using Power Hub DLPH

### 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.