T26SZ
T16IZ
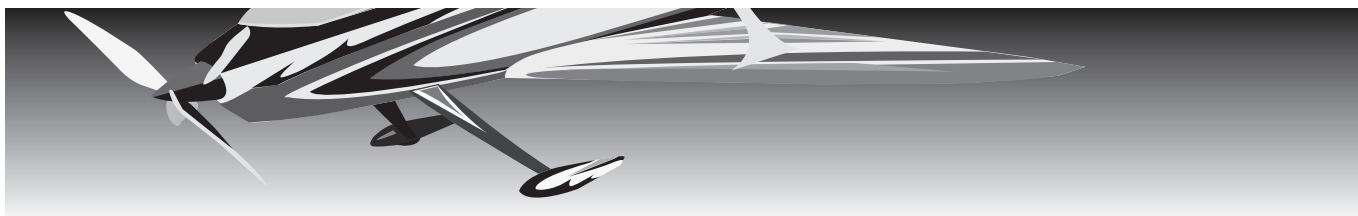## SUPER

GYA 553
GYA 573
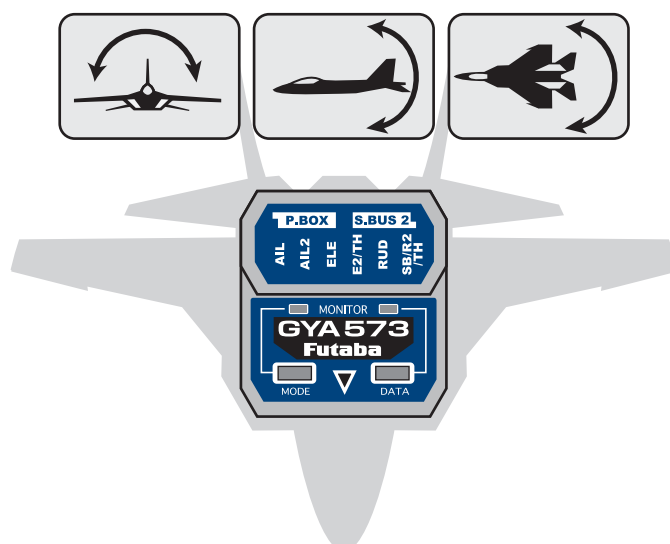
T26SZ,T16IZ(S)
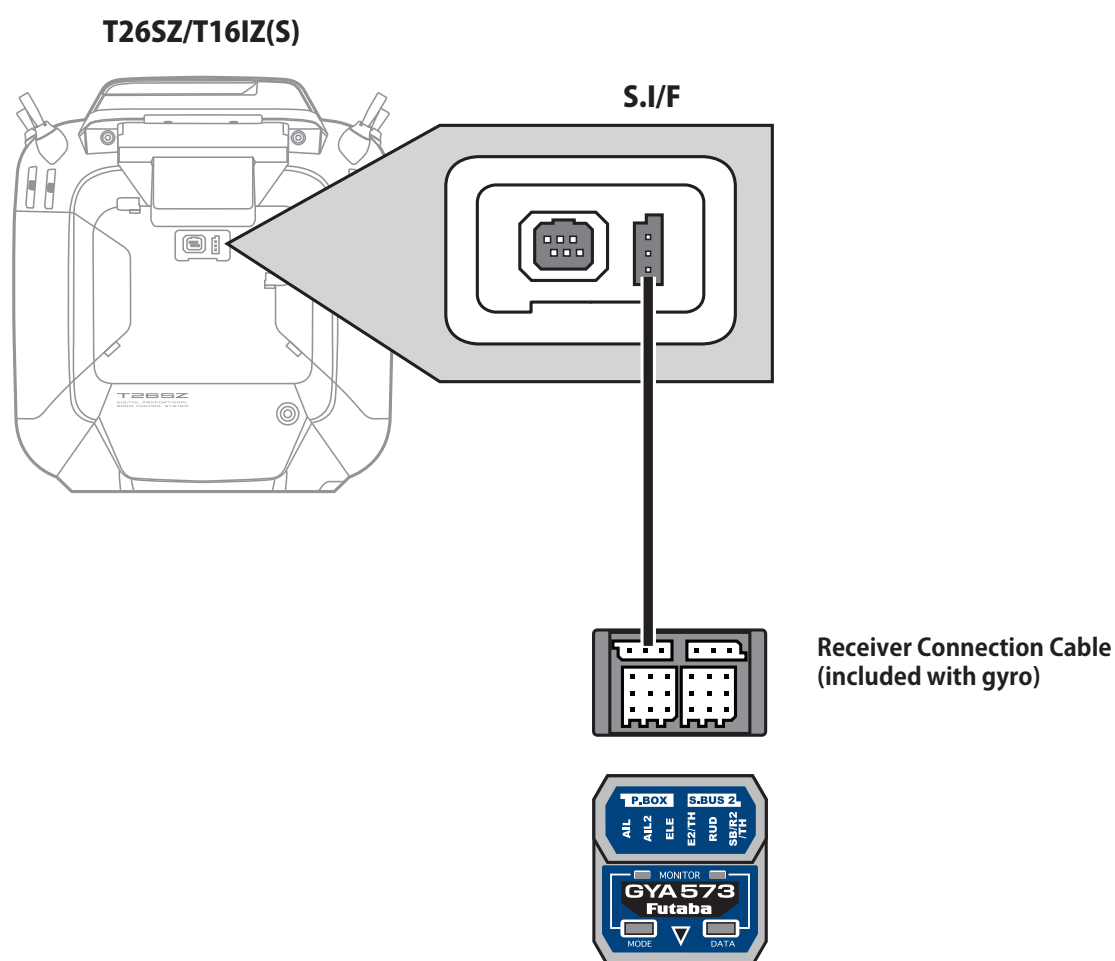
GYA553 Ver.3 ～ Ver.4
GYA573

Setting manual

By installing the latest software on the T26SZ/T16IZ(S), you can setting the airplane gyro GYA573 on the T26SZ/T16IZ(S).

GYA553 Ver.4~ cannot be updated from GYA553 ~Ver.3.x
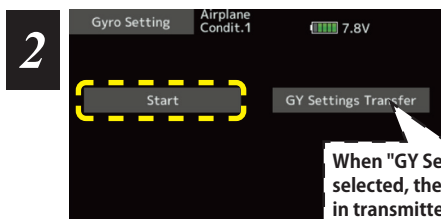
Connection T26SZ/T16IZ(S) and GYA

T26SZ/T16IZ(S)

S.I/F

Receiver Connection Cable (included with gyro)

⚠ CAUTION

❗ Be sure to connect and disconnect the GYA and Transmitter connection cable with the power off.

1

Model menu	Airplane Condit.1	7.8V	1/1
Servo monitor	Condition select	AFR	
Dual rate	Program. mixes	Aileron → Rudder	
Airbrake → ELE	Rudder → Aileron	Rudder → Elevator	
Snap roll	Air brake	Gyro	
Acceleration	Motor	Gyro Setting	
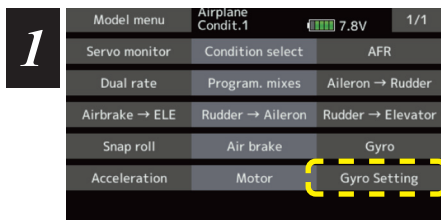
1. Select "Gyro setting" on the last page of Airplane Model Menu

2

Gyro Setting Airplane Condit.1 7.8V

Start   GY Settings Transfer

When "GY Settings Transfer" is selected, the gyro setting data saved in transmitter is written to the gyro.

2. Select "Start"

GYA DATA
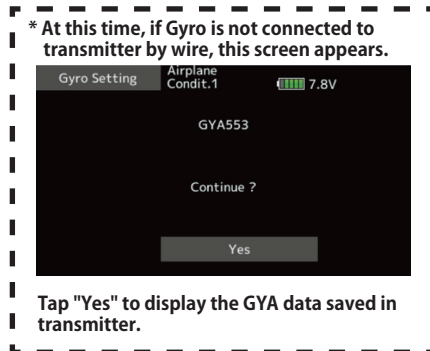
Select "Start"
This will download the gyro data to the transmitter.

***
* At this time, if Gyro is not connected to transmitter by wire, this screen appears.

Gyro Setting Airplane Condit.1 7.8V

GYA553

Continue ?

Yes

Tap "Yes" to display the GYA data saved in transmitter.
***

3

GYA573	Model1 Condit.1	7.8V
Holding Power C1 / FW	7.0V	
AIL Gyro	OFF	Basic Menu
ELE Gyro	OFF	
RUD Gyro	OFF	
Gyro Version	X.X	

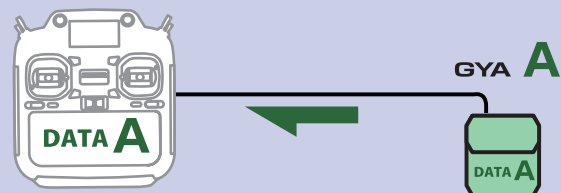→ **To Basic menu**

*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.

3. Home screen is displayed

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

Gyro Setting Airplane Condit.1 7.8V

Start   GY Settings Transfer

GYA A
DATA A
DATA A

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

Gyro Setting Airplane Condit.1 7.8V

Start   GY Settings Transfer

GYA B
DATA A
DATA A

If you press Start here, the B data will be download to the transmitter and the A data will be lost.
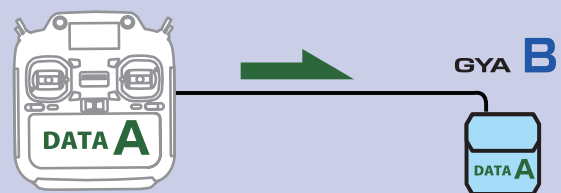
Connect Gyro B to transmitter and press [GY Settings Transfer]. (Put data on A into gyro B)

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

Model name display
Displays the model name (GYA553 or GYA573) of the loaded data.
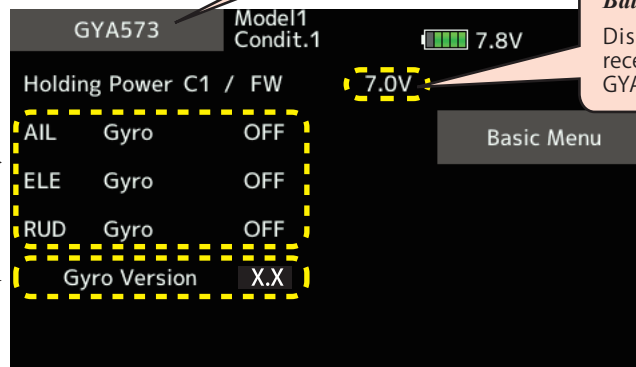
Battery voltage
Displays the voltage of the receiver battery connected to GYA.

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

GYA Software version
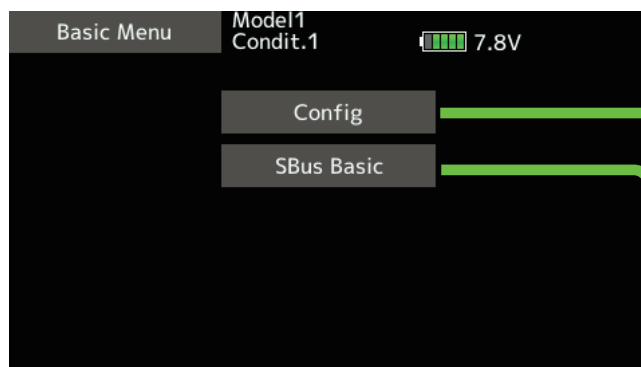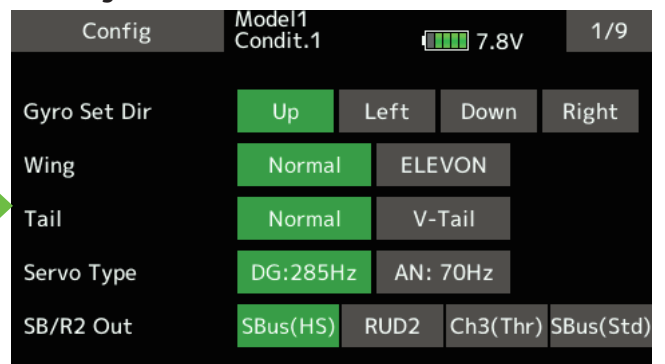The software version of the connected GYA is displayed.

```
GYA573          Model1                    IIII 7.8V
                Condit.1
Holding Power C1 / FW           7.0V
AIL     Gyro        OFF                  Basic Menu
ELE     Gyro        OFF
RUD     Gyro        OFF
        Gyro Version    X.X
```

Basic menu for GYA553

Home screen

```
GYA553          Model1                    IIII 7.8V
                Condit.1
Holding Power C1 / FW           7.0V
AIL     Gyro        OFF                  Basic Menu
ELE     Gyro        OFF
RUD     Gyro        OFF
        Gyro Version    X.X
```

Basic menu

```
Basic Menu      Model1                    IIII 7.8V
                Condit.1
                Config
                SBus Basic
```

◆ **Config**

```
Config          Model1          IIII 7.8V      1/9
                Condit.1
Gyro Set Dir    Up      Left    Down    Right
Wing            Normal  ELEVON
Tail            Normal  V-Tail
Servo Type      DG:285Hz  AN: 70Hz
SB/R2 Out       SBus(HS)  RUD2  Ch3(Thr)  SBus(Std)
```

◆ **S.BUS basic**

```
SBus Basic      Model1          IIII 7.8V      1/4
                Condit.1
AIL     CH1     Gain AIL    CH5
ELE     CH2     Gain ELE    CH7
                Gain RUD    CH8
RUD     CH4     ELE2        CH9
AIL2    CH6     RUD2        CH11
```

Home screen

GYA573	Model1 Condit.1	🔋 7.8V

Holding Power C1 / FW   7.0V

AIL   Gyro   OFF

ELE   Gyro   OFF   Basic Menu

RUD   Gyro   OFF

Gyro Version   X.X

Basic menu

Basic Menu	Model1 Condit.1	🔋 7.8V

Config

Air brake → **P15**

Camber mixing → **P16**

SBus Basic

◆ Config

Config	Model1 Condit.1	🔋 7.8V	1/9

Gyro Set Dir	Up	Left	Down	Right
Wing	Normal	ELEVON		
Tail	Normal	V-Tail		
Servo Type	DG:285Hz	AN: 70Hz		
SB/R2 Out	SBus(HS)	RUD2	Ch3(Thr)	SBus(Std)

◆ S.BUS basic

SBus Basic	Model1 Condit.1	🔋 7.8V	1/4

AIL	CH1	Gain AIL	CH5
ELE	CH2	Gain ELE	CH7
		Gain RUD	CH8
RUD	CH4	ELE2	CH9
AIL2	CH6	RUD2	CH11

Config   1/9   Gyro set mounting direction

Config	Model1 Condit.1		7.8V	1/9
Gyro Set Dir	Up	Left	Down	Right
Wing	Normal	ELEVON		
Tail	Normal	V-Tail		
Servo Type	DG:285Hz	AN: 70Hz		
SB/R2 Out	SBus(HS)	RUD2	Ch3(Thr)	SBus(Std)

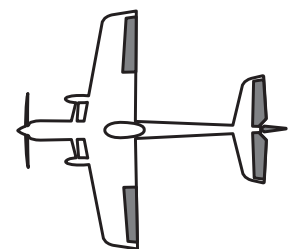Set the mounting direction of GYA. Set mounting direction with reference to figure below.
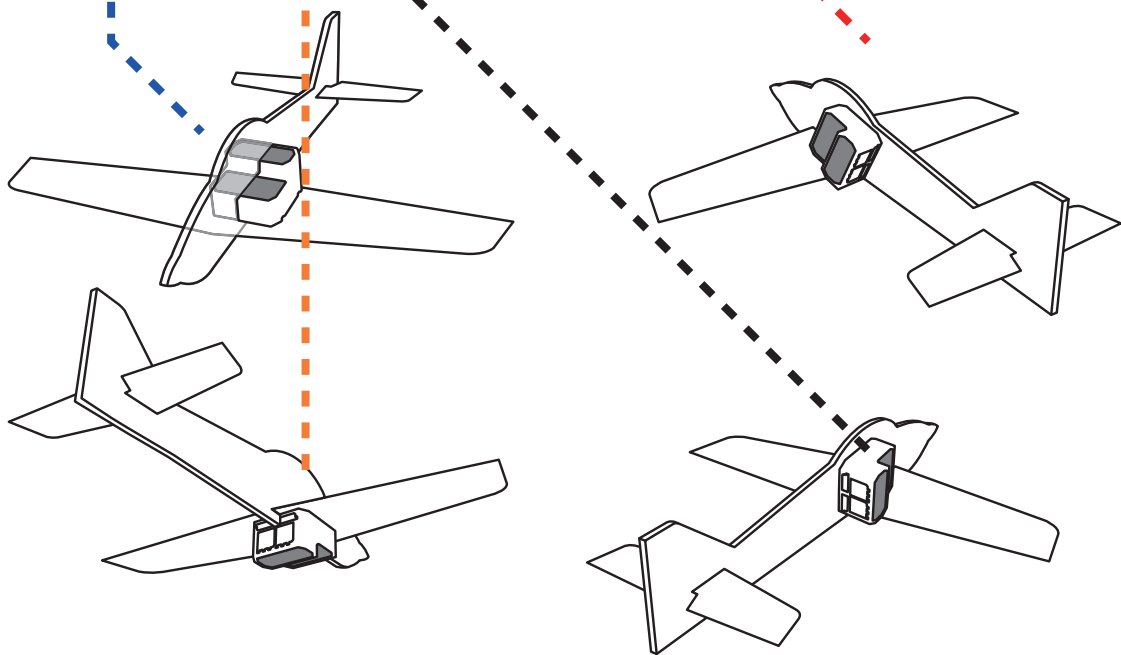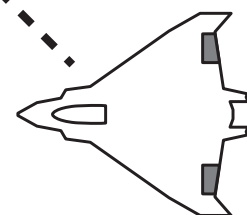

Config   1/9   WING/TAIL

Set with the wing type/tail type of 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	Model1 Condit.1		7.8V	1/9
Gyro Set Dir	Up	Left	Down	Right
Wing	Normal	ELEVON		
Tail	Normal	V-Tail		
Servo Type	DG:285Hz	AN: 70Hz		
SB/R2 Out	SBus(HS)	RUD2	Ch3(Thr)	SBus(Std)

Select wing type

Select tail type

Config   1/9   Servo type

Config	Model1 Condit.1	7.8V	1/9

| Gyro Set Dir | Up | Left | Down | Right |
Wing	Normal	ELEVON		
Tail	Normal	V-Tail		
Servo Type	DG:285Hz	AN: 70Hz		
SB/R2 Out	SBus(HS)	RUD2	Ch3(Thr)	SBus(Std)
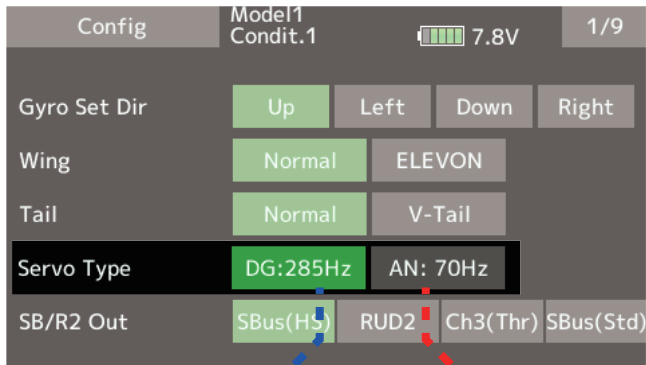
Digital servo   Analog servo

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

Config	Model1 Condit.1	7.8V	1/9

Gyro Set Dir	Up	Left	Down	Right
Wing	Normal	ELEVON		
Tail	Normal	V-Tail		
Servo Type	DG:285Hz	AN: 70Hz		
SB/R2 Out	SBus(HS)	RUD2	Ch3(Thr)	SBus(Std)
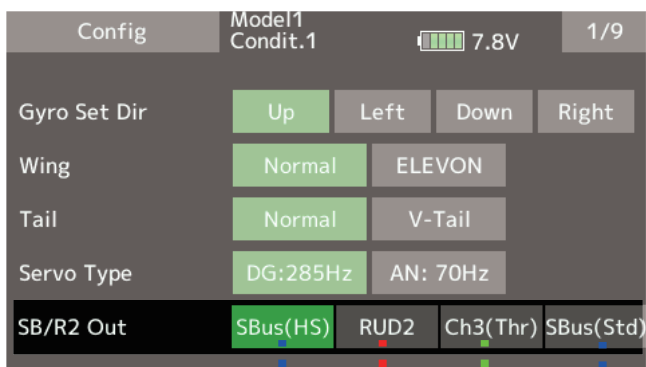
Select the SB/R2 port.

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

Program box   S.BUS 2

MODE LED   DATA LED

MODE SW   DATA SW

P.BOX   S.BUS 2

AIL AIL2 ELE E2/TH RUD SB/R2/TH

MONITOR

GYA 573
Futaba

MODE   DATA

Head direction mark

Aileron   S.BUS/Rudder 2
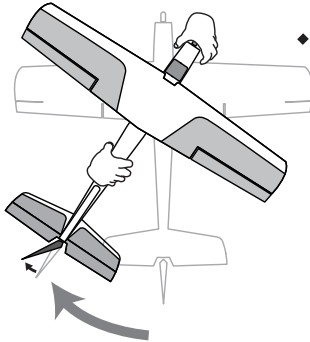Aileron 2   Rudder
Elevator   Elevator 2
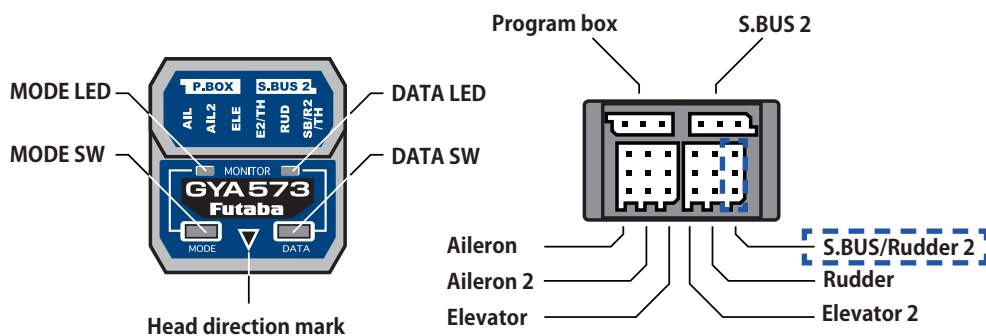
Config 2/9 Gyro direction

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.

Config	Model1 Condit.1	7.8V	2/9
Gyro Dir			
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-ailerons operate to the right.
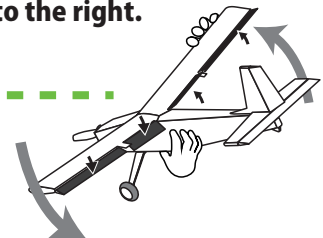
Turn the airplane to the right on the ground and check that the rudder operates to the left.

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.
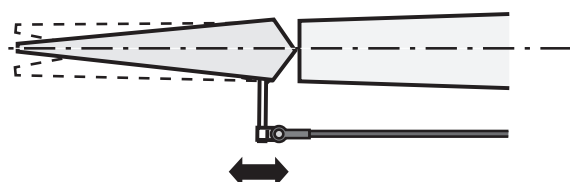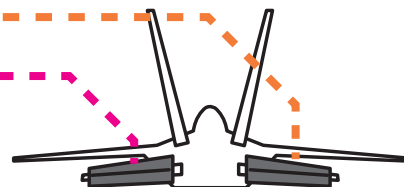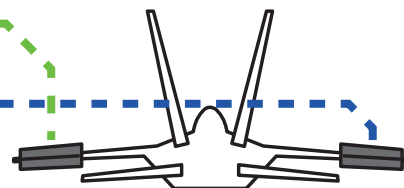
Raise the airplane with its nose upward and check that the elevator operates downward.
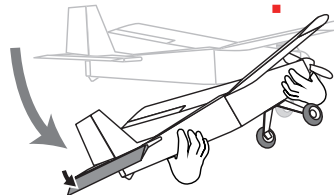
Config 3/9 Neutral offset

Neutral position setting for each servo.

Config	Model1 Condit.1	7.8V	3/9
Neutral Offset			
AIL	+0	AIL2	+0
ELE	+0	ELE2	+0
RUD	+0	RUD2	+0
AIL3	+0	AIL4	+0

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.

This will move the neutral to the desired position.

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

Config   4/9   5/9   Servo limit

| Config	Model1 Condit.1	7.8V	4/9
Srv.Limit			
AIL	100 %	100 %	
ELE	100 %	100 %	
RUD	100 %	100 %	
AIL3	100 %	100 %	

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

Config	Model1 Condit.1	7.8V	5/9
Srv.Limit			
AIL2	100 %	100 %	
ELE2	100 %	100 %	
RUD2	100 %	100 %	
AIL4	100 %	100 %	

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.
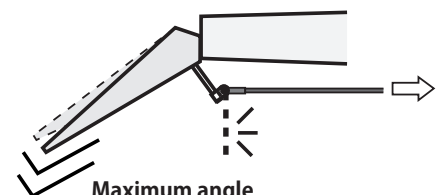
Aileron example
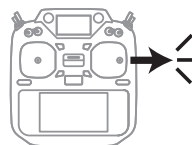
Maximum angle

Stick to full right

Adjust the value (%) to reach the maximum operating position
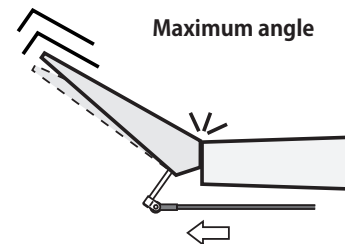
Stick to full left

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.
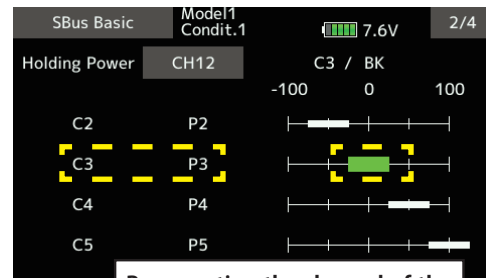
Config 6/9

| Config | Model1 Condit.1 | 7.8V | 6/9 |

Holding Power C1 / FW

AIL	100	C1
ELE	100	C1
RUD	100	C1
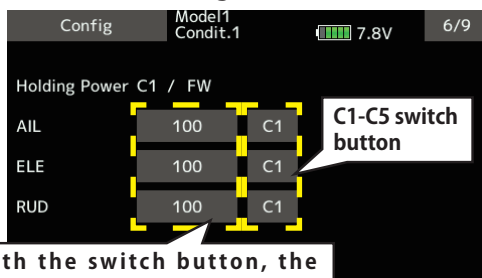
C1-C5 switch button

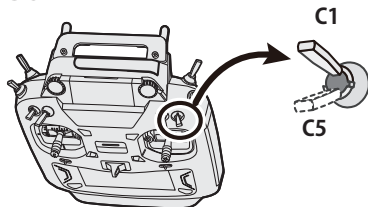With the switch button, the "holding power" of each rate (C1 to C5) can be displayed and adjusted.

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

S.BUS Basic 2/3

| SBus Basic | Model1 Condit.1 | 7.6V | 2/4 |

Holding Power CH12   C3 / BK

-100   0   100

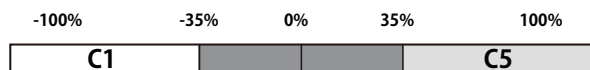| C2 | P2 |
C3	P3
C4	P4
C5	P5

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

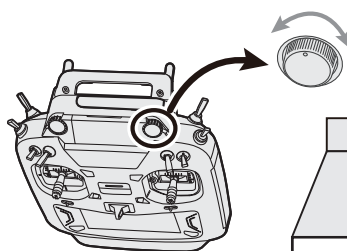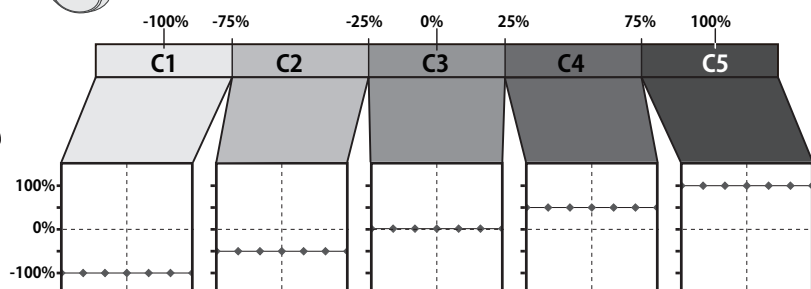**When set to SW of DG1 or DG2**

C1

C5

Switch channel rate

-100%   -35%   0%   35%   100%

| C1 | | | C5 |

When set to dial or lever

Channel rate

-100% -75%   -25% 0% 25%   75% 100%

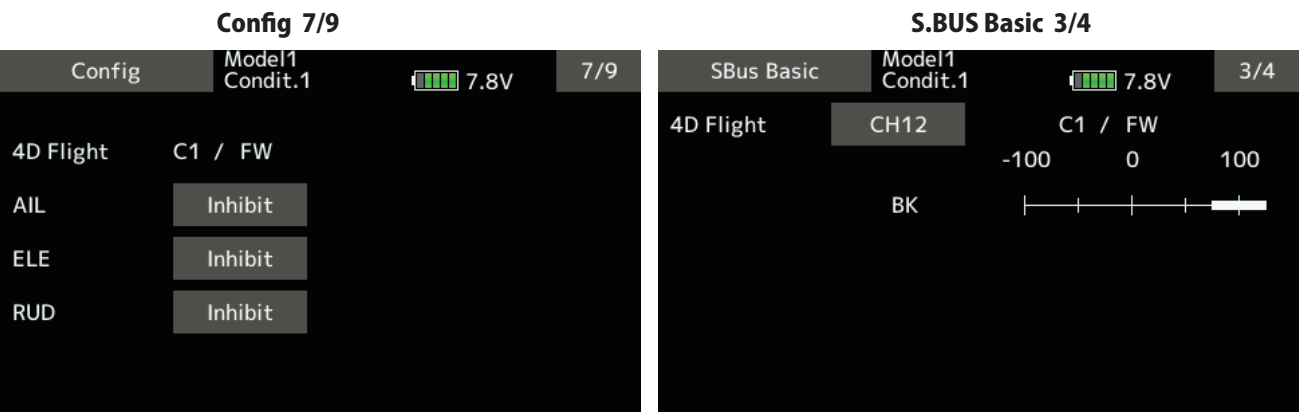| C1 | C2 | C3 | C4 | C5 |

100%
0%
-100%

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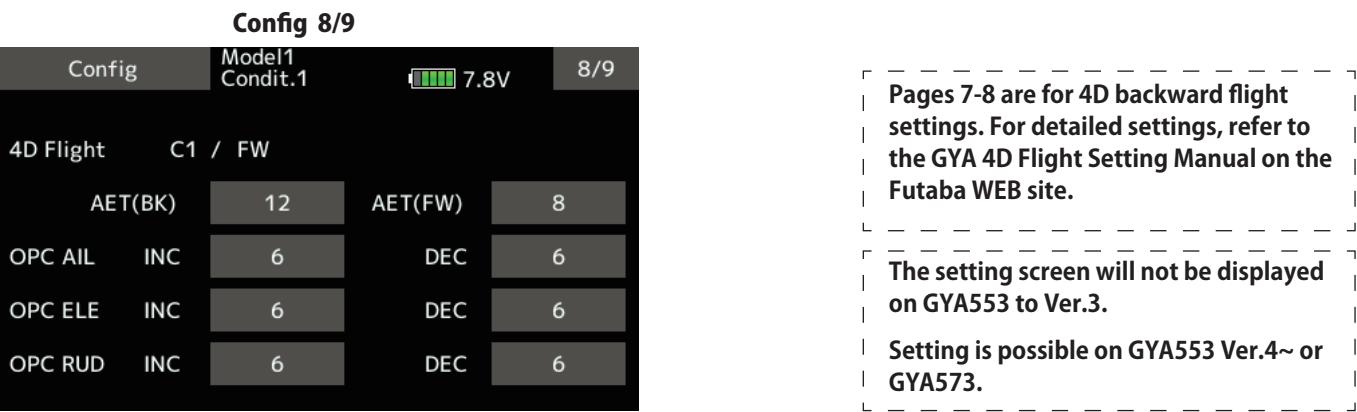
For details on setting the switching point, please refer to the transmitter settings.

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	Model1 Condit.1		7.8V	7/9
4D Flight	C1 / FW			
AIL	Inhibit			
ELE	Inhibit			
RUD	Inhibit			

S.BUS Basic 3/4

SBus Basic	Model1 Condit.1		7.8V	3/4
4D Flight	CH12	C1 / FW		
		-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.
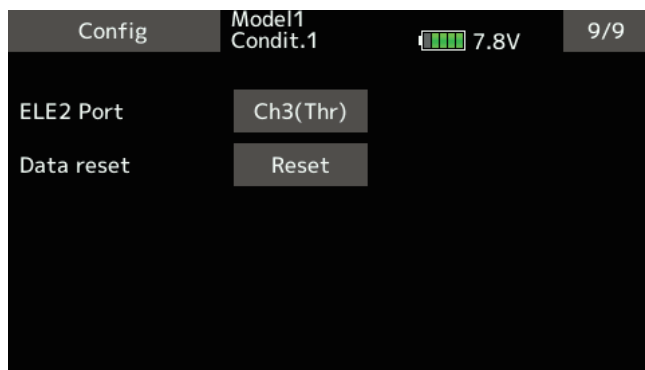
Config 8/9

Config	Model1 Condit.1		7.8V	8/9
4D Flight	C1 / FW			
AET(BK)	12	AET(FW)	8	
OPC AIL INC	6	DEC	6	
OPC ELE INC	6	DEC	6	
OPC RUD INC	6	DEC	6	

> **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.**

> **The setting screen will not be displayed on GYA553 to Ver.3.**
>
> **Setting is possible on GYA553 Ver.4~ or GYA573.**

For GYA553

Config	Model1 Condit.1	7.8V	9/9
Data reset	Reset		

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

For GYA573

Config	Model1 Condit.1	7.8V	9/9
ELE2 Port	ELE2		
Data reset	Reset		

For GYA573, the E2/TH port can be set to ELE2 output or CH3 (THR) output.

Config	Model1 Condit.1	7.8V	9/9
ELE2 Port	Ch3(Thr)		
Data reset	Reset		

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

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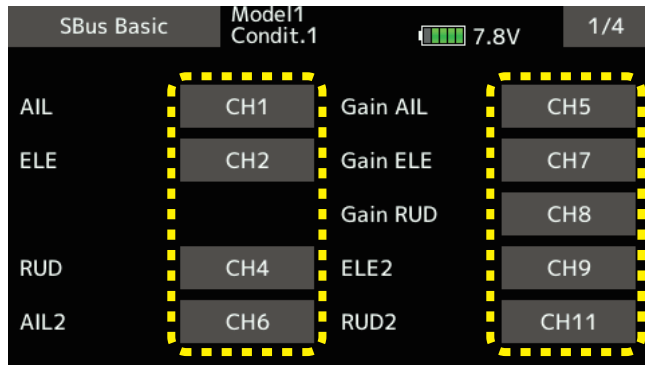
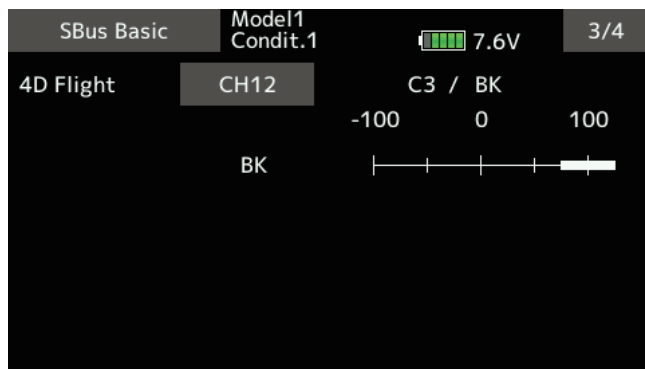The channel of each function can be changed.

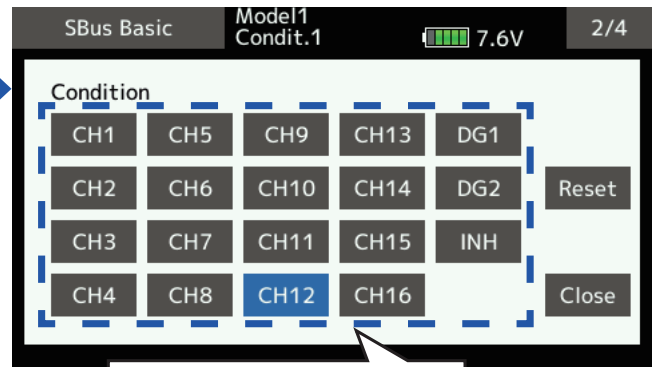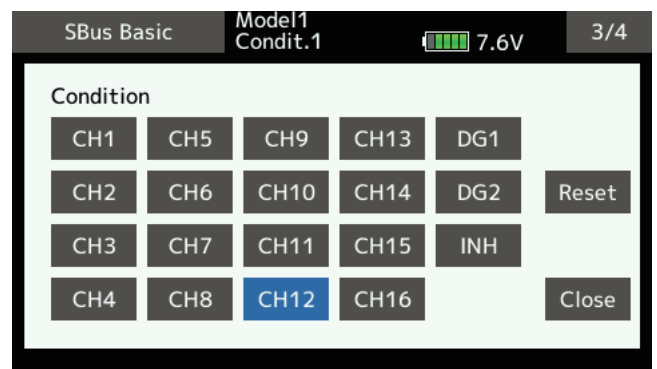**Tap to move to the rate switching CH setting page.**

Holding Power C2 to C5

Tap the CH used for rate switching to select it.
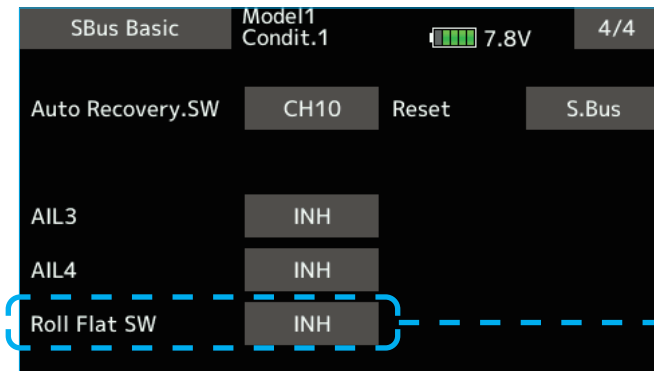

Reset each S.BUS function. It returns to the initial value.

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.

ON-OFF channel for auto recovery

13

For GYA573

SBus Basic	Model1 Condit.1		7.8V	4/4

Auto Recovery.SW	CH10	Reset	S.Bus

AIL3	INH
AIL4	INH
Roll Flat SW	INH

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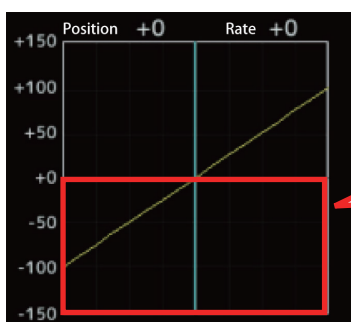
When the roll flat switch channel is in the - rate side from neutral, the roll flat function becomes ACT.

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.

SBus Basic	Model1 Condit.1		7.8V	4/4

Auto Recovery.SW		S.Bus

? Sure?

| AIL3	
AIL4	Yes	No
Roll Flat SW	INH
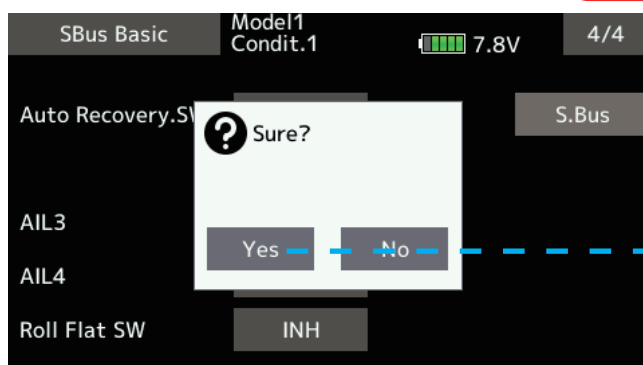
Reset the S.BUS basic items. After execution, the items will return to the factory default values.

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

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.)
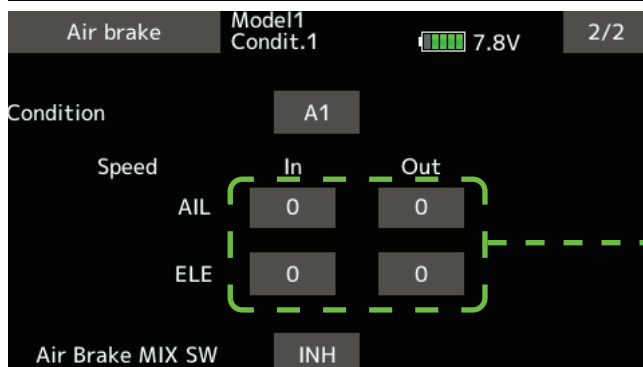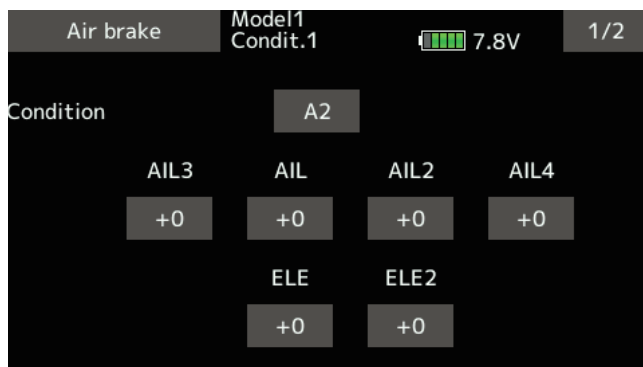
Roll Flat function works even when the air brake is on.
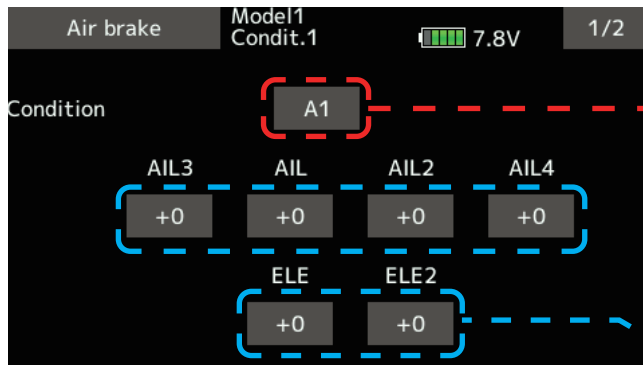
Air brake mix rate No. display
The air brake can be set to two rates: A1 and A2.
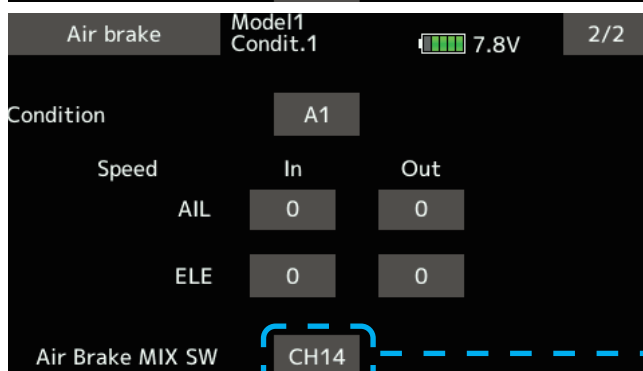
Operation rate (-250 ～ 0 ～ +250)

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.
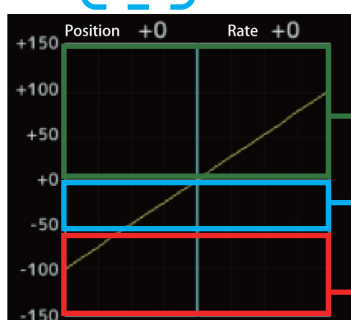
Air brake Mix ON/OFF CH setting
Setting range: INH, CH1-CH16, DG1, DG2
A1 and A2 rates change with the pulse width of the same CH
Set with AFR on the transmitter
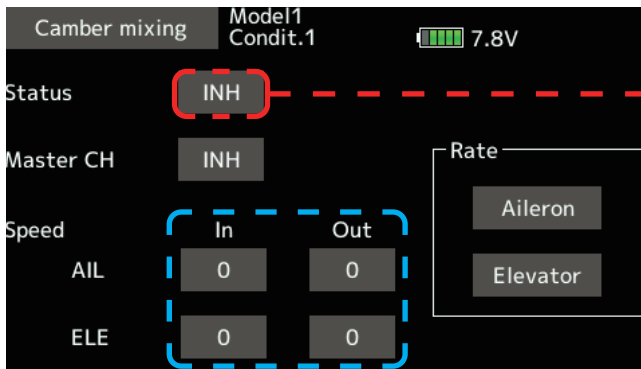
A1 and A2 are in the OFF region (neutral to +rate side)

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 mixing	Model1 Condit.1	7.8V
Status	INH	
Master CH	INH	
Speed	In Out	Rate
AIL	0 0	Aileron
ELE	0 0	Elevator

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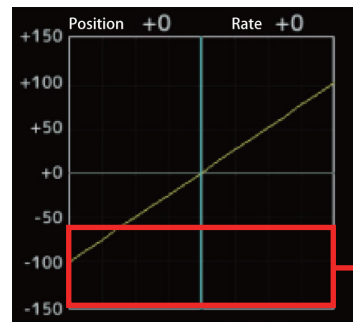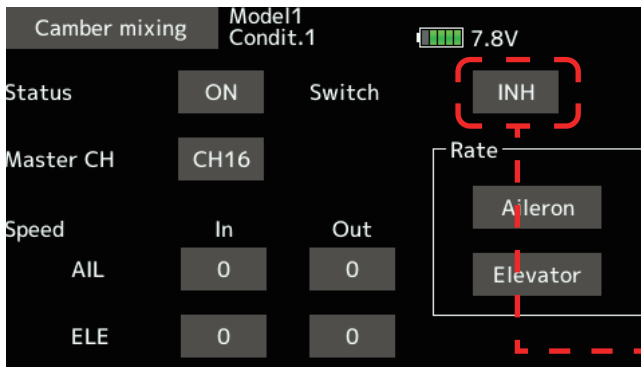**OFF：** Camber Mix is ACT, but Master CH is not set
ON： Camber Mix is set to ACT and the master channel is also set, but the ON/OFF channel is not set (Mixing is active).
ACT： Camber Mix is set to ACT with both the master channel and the ON/OFF channel set.

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.
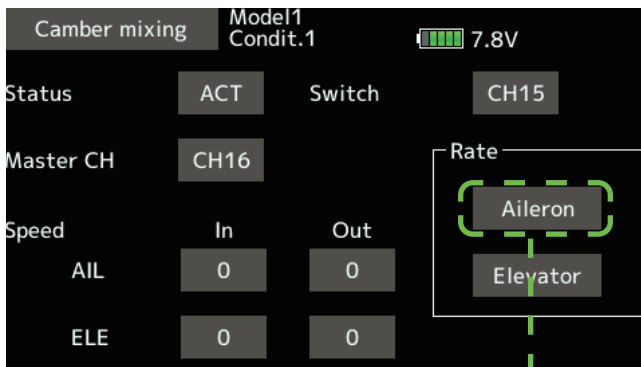**Mixing ON ⇒** When OFF, it operates at the OUT side rate

Camber mixing	Model1 Condit.1	7.8V
Status	ON	Switch INH
Master CH	CH16	Rate
Speed	In Out	Aileron
AIL	0 0	Elevator
ELE	0 0	

Position +0   Rate +0

+150
+100
+50
+0
-50
-100
-150

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

Camber Mix ON/OFF CH setting
Range： INH, CH1-CH16, DG1, DG2

Camber mixing	Model1 Condit.1	7.8V
Status	ACT	Switch CH15
Master CH	CH16	Rate
Speed	In Out	Aileron
AIL	0 0	Elevator
ELE	0 0	

Camber mixing	Model1 Condit.1	7.8V
Status	ACT	Switch CH15
Master CH	CH16	Rate
Speed	In Out	Aileron
AIL	0 0	Elevator
ELE	0 0	

AIL setting screen transition button

ELE setting screen transition button

Camber(AIL)	Model1 Condit.1		7.8V
	Rate 1	Rate 2	
AIL	+0 %	+0 %	
AIL2	+0 %	+0 %	
AIL3	+0 %	+0 %	
AIL4	+0 %	+0 %	

Camber(ELE)	Model1 Condit.1		7.8V
	Rate 1	Rate 2	
ELE	+0 %	+0 %	
ELE2	+0 %	+0 %	

AIL Operation Rate (-100 ～ 0 ～ +100)
Up and down sides can be set separately

ELE Operation Rate (-100 ～ 0 ～ +100)
Up and down sides can be set separately