FUNCTION NAME   Function name can be changed

The name of the spare functions (AUXILIARY1-8) can be changed for the full name (10 characters) or for the abbreviated name (4 characters).

- Select [FUNCTION NAME] at the linkage menu and call the setup screen shown below by touching the RTN button.

- Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.

```
FUNCTION NAME              8.1V 1/2
1 AUXILIARY1  AUX1   ┌10 CHARACTERS┐
2 AUXILIARY2  AUX2   │AUXILIARY1   │
3 AUXILIARY3  AUX3   ┌DEFAULT┐
4 AUXILIARY4  AUX4   │AUXILIARY1   │
```

<SensorTouch™>
— Scrolling
• Moving cursor

LNK RTN MDL SYS S1

• To next page

Function name change method

1. Select [FUNCTION NAME] of the Linkage Menu and touch the RTN button.
2. The FUNCTION NAME setup screen is displayed.
3. When the function whose name is be change is selected and the RTN button is touched , a modification screen is displayed.
4. Select the function to be renamed and select [RENAME] and touch the RTN button. A character input screen is displayed. Input the function name.

```
FUNCTION NAME              7.5V 1/1
                    ┌10 CHARACTERS┐
  RENAME            │AUXILIARY1   │
  RESET             ┌10 CHARACTERS┐
                    │AUXILIARY1   │
```

```
FUNCTION NAME              7.5V 1/3
AUXILIARY1          ABCDEFGHIJ
AUXILIARY1          KLMNOPQRST
CANCEL  ENTER       UVWXYZabcd
                    efghijklmn
← →     DELETE      opqrstuvwx
                    yz !"#$%&?
```

5. When [RESET] is selected and the RTN button is held down, the function name is set to the initial state function name.

```
FUNCTION NAME              7.5V 1/1
                    ┌10 CHARACTERS┐
  RENAME            │AUXILIARY1   │
  RESET             ┌DEFAULT┐
                    │AUXILIARY1   │
RESET:TOUCH RTN BUTTON(1SEC)
```

6. The function name may be displayed in 10 characters or 4 characters, depending on the setup screen. For 4 characters, display, input the function name as required.

```
FUNCTION NAME              7.5V 1/2
1 AUXILIARY1  AUX1   ┌4 CHARACTERS┐
2 AUXILIARY2  AUX2   │AUX1        │
3 AUXILIARY3  AUX3   ┌DEFAULT┐
4 AUXILIARY4  AUX4   │AUX1        │
```

This screen displays your choice of data from the receiver.

Also warnings can be activated regarding other data from your aircraft. For example, if the receiver voltage drops, the user can be warned by an alarm (and vibration).
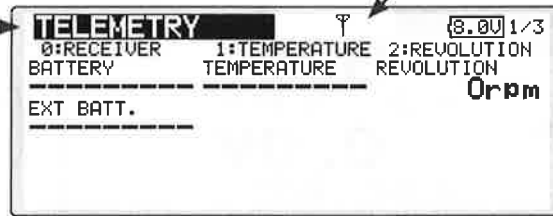
*It cannot be used in FASST mode and S-FHSS mode.

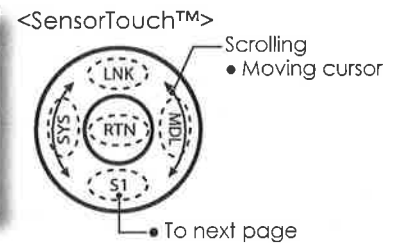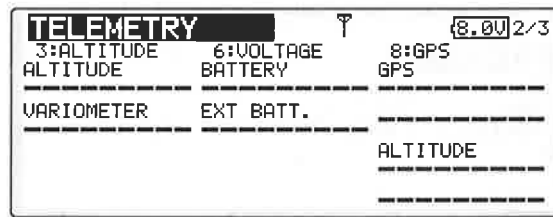*Only receiver voltage and EXT voltage can be used in FASSTest12CH mode.

*The FASSTest18CH mode can use all the telemetry functions.

- Select [TELEMETRY] in the Linkage menu and access the setup screen shown below by touching the RTN button.

• Receiver → Transmitter. The reception strength is shown.

• Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.

```
TELEMETRY                    ⟨8.0U⟩1/3
 0:RECEIVER   1:TEMPERATURE 2:REVOLUTION
BATTERY       TEMPERATURE   REVOLUTION
----------    ----------    0rpm
EXT BATT.
----------
```

<SensorTouch™>

Scrolling
• Moving cursor

• To next page

• Push S1 button to advance to next page.

```
TELEMETRY                    ⟨8.0U⟩2/3
 3:ALTITUDE   6:VOLTAGE     8:GPS
ALTITUDE      BATTERY       GPS
----------    ----------    ----------
VARIOMETER    EXT BATT.
----------    ----------
                            ALTITUDE
                            ----------
                            ----------
```

How to see telemetry date

1. Telemetry screen can be called select [TELEMETRY] in the Linkage menu and access the setup screen by touching the RTN button.

2. If each item is chosen and the RTN button is pushed, an alarm setup can be performed with the minimum/maximum after a transmitter is turned on.

*Receiver voltage can be checked immediately. An optional sensor will need to be attached to S.BUS2 of a receiver if you would like to see other information.

*No special setup is necessary if each sensor displayed is left as in the default setup. Separate sensor ID is also unnecessary. However, if two or more of one kind of sensor is used, setup is required in the "SENSOR" menu.

⚠ WARNING

🚫 Do not watch the transmitter screen during flight.

*You may loose sight of the aircraft during flight and this is extremely dangerous. Have an assistant on hand to check the screen for you. A pilot should NEVER take his eyes off his aircraft.

TELEMETRY : RECEIVER [BATTERY]

Displaying data from the receiver battery voltage

In this screen, the battery voltage of a receiver is displayed.

If it becomes higher or lower than the setting an alarm and/or vibration will alert you.

*It cannot be used in FASST mode and S-FHSS mode.

*Only receiver voltage and EXT voltage can be used in FASSTest12CH mode.

*The FASSTest18CH mode can use all the telemetry functions.

• Receiver battery voltage

• Select [Rx-BATT.] in the TELEMETRY screen and access the setup screen shown below by touching the RTN button.

• The maximum and the minimum when powering ON are shown. It will be preset, if a cursor is moved to this place and the RTN button is pushed for 1 second.

• Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.

• ↓The "down" arrow will indicate that an alarm will sound when the voltage drops to below the setting.

<SensorTouch™>
Scrolling
• Moving cursor

• Select [BATTERY] in the RECEIVER screen and access the setup screen shown below by touching the RTN button.

• ALARM is chosen from BUZZER, VOICE, and INHIBIT.

•A setup of the voltage on which the alarm operates.

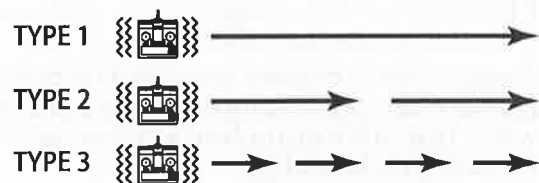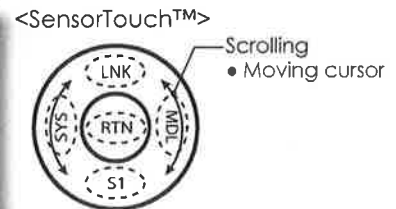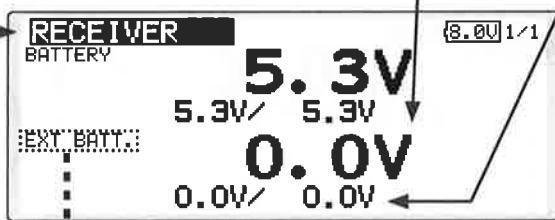• The ON/OFF switch of SPEECH is chosen.

Alarm set

1. Move the cursor to the ↓ALARM item, and it chooses from BUZZER, VOICE, INHIBIT, and pushes RTN.

2. When not operating vibrator, it is "VIBRATOR" to INHIBIT. TYPE1-3 will be chosen if it is made to operate.

3. Move the cursor to the LIMIT [4.0V] item and touch the RTN button to switch to the data input mode.

4. Ajust the rate by scrolling the touch sensor.

   Initial value: 4.0V

   Adjustment range: 0.0V~100.0V

*When the RTN button is touched for one second, the rate is reset to the initial value.

5. Touch the RTN button. (To terminate the input and return to the original state, touch the Home/Exit button.)

"VIBRATOR" type

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

TYPE 1

TYPE 2

TYPE 3

TELEMETRY : RECEIVER [EXT BATT.]

Displaying data from the EXT battery voltage port

The EXT-VOLT screen will display the data from the EXT-battery output from the FMR-01 receiver. In order to use this function, it is necessary to connect external voltage connector of the FMR-01 receiver to a CA-RVIN-700 (FUTM5551) or SBS-01V to the battery you desire to measure the voltage of the EXT-battery.

*CA-RVIN-700 must be installed in the aircraft.

You will be alerted by an alarm or vibration if the voltage set by you is exceeded.

*It cannot be used in FASST mode and S-FHSS mode.

*Only receiver voltage and EXT voltage will be received in the FASSTest12CH mode.

*The FASSTest18CH mode will display all telemetry data.

• Select [Rx-BATT.] in the TELEMETRY screen and access the setup screen shown below by touching the RTN button.

• EXT battery voltage

• The maximum and the minimum when powering ON are shown. It will be preset, if a cursor is moved to this place and the RTN button is pushed for 1 second.
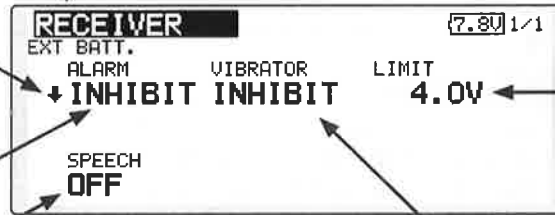
• Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.

RECEIVER
BATTERY
5.3V
5.3V/ 5.3V
EXT BATT.
0.0V
0.0V/ 0.0V
8.0U 1/1

<SensorTouch™>

Scrolling
• Moving cursor

LNK
SYS
RTN
MDL
S1

• ↓The "down" arrow will indicate that an alarm will sound when the voltage drops to below the setting.

• Select [EXT BATT.] in the RECEIVER screen and access the setup screen shown below by touching the RTN button.

RECEIVER
EXT BATT.
ALARM   VIBRATOR   LIMIT
↓INHIBIT INHIBIT   4.0V
SPEECH
OFF
7.8U 1/1

• ALARM is chosen from BUZZER, VOICE, and INHIBIT.

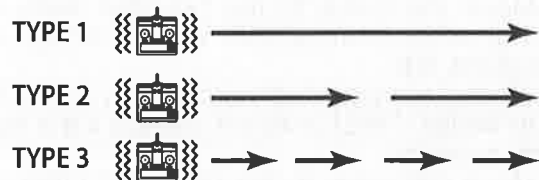•A setup of the voltage on which the alarm operates.

• The ON/OFF switch of SPEECH is chosen.

Alarm set

1. Move the cursor to the ↓ALARM item, and it chooses from BUZZER, VOICE, and INHIBIT, and pushes RTN.

2. When not operating vibrator, it is "VIBRATOR" to INHIBIT. TYPE1-3 will be chosen if it is made to operate.

3. Move the cursor to the LIMIT [4.0V] item and touch the RTN button to switch to the data input mode.

4. Ajust the rate by scrolling the touch sensor.
   Initial value: 4.0V
   Adjustment range: 0.0V~100.0V

*When the RTN button is touched for one second, the rate is reset to the initial value.

5. Touch the RTN button. (To terminate the input and return to the original state, touch the Home/Exit button.)

"VIBRATOR" type

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

TYPE 1 ⟨⟨📷⟩⟩ ─────────→

TYPE 2 ⟨⟨📷⟩⟩ ──→ ──→

TYPE 3 ⟨⟨📷⟩⟩ →→→→

TELEMETRY : TEMPERATURE

Displaying data from the temperature

*A temperature sensor must be installed in the aircraft.

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

The temperature of the model (engine, motor, battery, etc.) which is flying can be displayed.

If it becomes higher or lower than the setting an alarm and/or vibration will alert you.

*It cannot be used in FASST mode and S-FHSS mode.

*Only receiver voltage and EXT voltage can be used in FASSTest12CH mode.

*The FASSTest18CH mode can use all the telemetry functions.

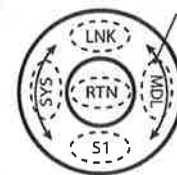● Select [TEMPERATURE] in the TELEMETRY screen and access the setup screen shown below by touching the RTN button.

● The maximum and the minimum when powering ON are shown. It will be preset, if a cursor is moved to this place and the RTN button is pushed for 1 second.

● Temperature

● Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.
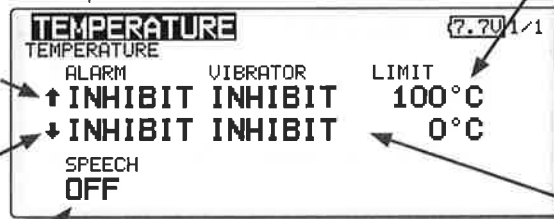

<SensorTouch™>
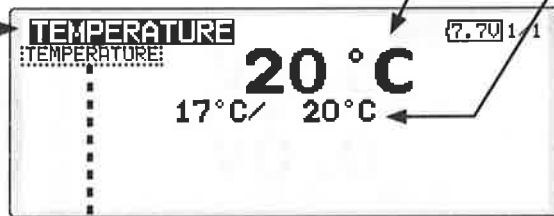
Scrolling
● Moving cursor

●Select [TEMPERATURE](small font display) in the TEMPERATURE screen and access the setup screen shown below by touching the RTN button.

●A setup of the temperature on which the alarm operates.

● ↑ An upward arrow will show that an alarm will sound when the temperature rises above the set value.

● ↓ A downward arrow will show that an alarm will sound when the temperature drops below the set value.

"VIBRATOR" type

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

TYPE 1

TYPE 2

TYPE 3
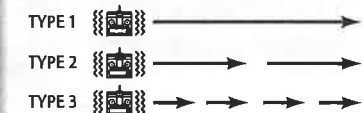
● The ON/OFF switch of SPEECH is chosen.

Alert set : Hot warning

1. Move the cursor to the ↑ALARM item, and it chooses from BUZZER, VOICE, INHIBIT, and pushes RTN.
2. When not operating vibrator, it is "VIBRATOR" to INHIBIT. TYPE1-3 will be chosen if it is made to operate.
3. Move the cursor to the LIMIT [℃] item and touch the RTN button to switch to the data input mode.
4. Ajust the rate by scrolling the touch sensor.
   Initial value: 100℃
   Adjustment range: 0℃ ~200℃
   (↑LIMIT ≧ ↓LIMIT)

*When the RTN button is touched for one second, the rate is reset to the initial value.

5. Touch the RTN button. (To terminate the input and return to the original state, touch the Home/Exit button.)

Alert set : Low-temperature warning

1. Move the cursor to the ↓ALARM item, and it chooses from BUZZER, VOICE, INHIBIT, and pushes RTN.
2. When not operating vibrator, it is "VIBRATOR" to INHIBIT. TYPE1-3 will be chosen if it is made to operate.
3. Move the cursor to the LIMIT [℃] item and touch the RTN button to switch to the data input mode.
4. Ajust the rate by scrolling the touch sensor.
   Initial value: 0℃
   Adjustment range: 0℃ ~200℃
   (↑LIMIT ≧ ↓LIMIT)

*When the RTN button is touched for one second, the rate is reset to the initial value.

5. Touch the RTN button. (To terminate the input and return to the original state, touch the Home/Exit button.)

TELEMETRY : RPM SENSOR
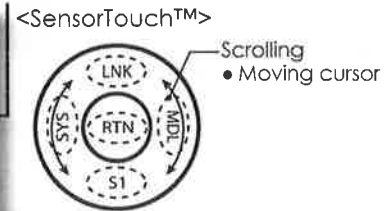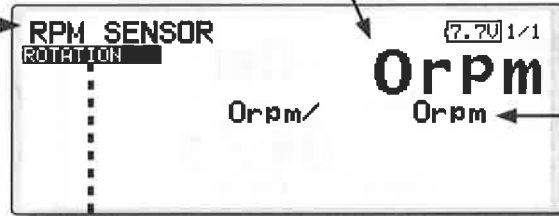
Displaying data from the RPM

RPM sensor is a screen which displays / sets up the rotation information from an optional RPM sensor.

The rotation of the model (engine, motor, etc.) which is flying can be shown.
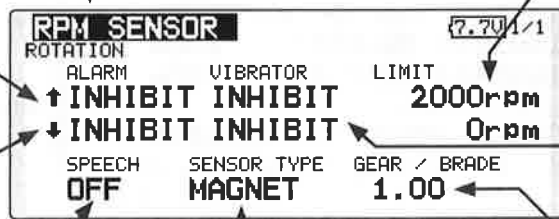
If it becomes higher or lower than the setting an

* Select [RPM sensor] in the TELEMETRY screen and access the setup screen shown below by touching the RTN button.

*A RPM sensor must be installed in the aircraft. alarm and/or vibration will alert you.

*It cannot be used in FASST mode and S-FHSS mode.
*Only receiver voltage and EXT voltage can be used in FASSTest12CH mode.
*The FASSTest18CH mode can use all the telemetry functions.

* The maximum and the minimum when powering ON are shown. It will be preset, if a cursor is moved to this place and the RTN button is pushed for 1 second.

* RPM

* Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.

```
RPM SENSOR              7.7V 1/1
ROTATION

                 Orpm
       Orpm/          Orpm
```

<SensorTouch™>
Scrolling
* Moving cursor

* Select [ROTATION](small font display) in the RPM sensor screen and access the setup screen shown below by touching the RTN button.

* A setup of the revolution on which the alarm operates.

* ↑An upward arrow indicates that the alarm will sound when the RPM rises above the set value.

* ↓A downward arrow indicates that the alarm will sound when the RPM falls below the set value.

```
RPM SENSOR              7.7V 1/1
ROTATION
   ALARM     VIBRATOR    LIMIT
↑ INHIBIT  INHIBIT       2000rpm
↓ INHIBIT  INHIBIT          Orpm
  SPEECH   SENSOR TYPE  GEAR / BRADE
   OFF      MAGNET        1.00
```

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

TYPE1
TYPE2
TYPE3

* The ON/OFF switch of SPEECH is chosen.

* "MAGNET" or "OPTICS" is set according to the sensor you use.
  SBS-01RM : MAGNET
  SBS-01RO : OPTICS
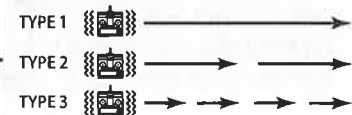
* In "MAGNET", the gear ratio of your engine (motor) you are using is entered.
* In "OPTICS", the number of blades of the propeller (r o t o r) your model is entered.

Alarm set : Over rotations

1. Move the cursor to the ↑ALARM item, and it chooses from BUZZER, VOICE, INHIBIT, and pushes RTN.
2. When not operating vibrator, it is "VIBRATOR" to INHIBIT. TYPE1-3 will be chosen if it is made to operate.
3. Move the cursor to the LIMIT [2,000rpm] item and touch the RTN button to switch to the data input mode.
4. Ajust the rate by scrolling the touch sensor.
   Initial value: 2,000rpm
   Adjustment range: 0rpm~150,000rpm
   (↑LIMIT ≧ ↓LIMIT)

*When the RTN button is touched for one second, the rate is reset to the initial value.

5. Touch the RTN button. (To terminate the input and return to the original state, touch the Home/Exit button.)

Alarm set : Under rotations

1. Move the cursor to the ↓ALARM item, and it chooses from BUZZER, VOICE, INHIBIT, and pushes RTN.
2. When not operating vibrator, it is "VIBRATOR" to INHIBIT. TYPE1-3 will be chosen if it is made to operate.
3. Move the cursor to the LIMIT [0rpm] item and touch the RTN button to switch to the data input mode.
4. Ajust the rate by scrolling the touch sensor.
   Initial value: 0rpm
   Adjustment range: 0rpm~150,000rpm
   (↑LIMIT ≧ ↓LIMIT)

*When the RTN button is touched for one second, the rate is reset to the initial value.

5. Touch the RTN button. (To terminate the input and return to the original state, touch the Home/Exit button.)

TELEMETRY : ALTITUDE   Displaying data from the altitude
*An altitude sensor or GPS sensor must be installed in the aircraft.

ALTITUDE is a screen which displays / sets up the altitude information from an optional altitude sensor or GPS sensor. The altitude of the model which is flying can be known. If it becomes higher (low) than preset altitude, you can be told by alarm. To show warning by vibration can also be chosen. Data when a power supply is turned on shall be 0 m, and it displays the altitude which changed from there. Even if the altitude of an airfield is high, that shall be 0 m and the altitude difference from an airfield is displayed.

This sensor calculates the altitude from atmospheric pressure. Atmospheric pressure will get lower as you go up in altitude, using this the sensor will estimate the altitude. Please understand that an exact advanced display cannot be performed if atmospheric pressure changes in a weather situation.

*It cannot be used in FASST mode and S-FHSS mode.
*Only receiver voltage and EXT voltage can be used in FASSTest12CH mode.
*The FASSTest18CH mode can use all the telemetry functions.

• Select [ALTITUDE] in the TELEMETRY screen and access the setup screen shown below by touching the RTN button.

• Altitude

• Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.

• The maximum and the minimum when powering ON are shown. It will be preset, if a cursor is moved to this place and the RTN button is pushed for 1 second.

```
ALTITUDE          [7.6U] 1/1
ALTITUDE
                      →Om
        Om/        1m ◄
VARIOMETER
              Om/s
        Om/s/      Om/s
```

<SensorTouch™>
Scrolling
• Moving cursor

•Select [ALTITUDE](small font display) in the TEMPERATURE screen and access the setup screen shown below by touching the RTN button.

• ↑ An upward arrow indicates the alarm will sound when the altitude reaches above your set value.

• ↓ A downward arrow indicates the alarm will sound when the altitude reaches below your set value.

```
ALTITUDE                   [7.6U] 1/1
ALTITUDE
   ALARM     VIBRATOR  ← LIMIT
↑ INHIBIT  INHIBIT     200m
↓ INHIBIT  INHIBIT     -50m
   SPEECH    REFERENCE   MELODY
   OFF       PRESET     INHIBIT ◄
```

•The ON/OFF switch of SPEECH is chosen.

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

TYPE 1 {🔲} ────────────→

TYPE 2 {🔲} ─────→ ─────→

TYPE 3 {🔲} ─→ ─→ ─→ ─→

•If this is set to MODE1-4, a rise and dive are told by a different melody.

MODE1: Little rise/dive → Melody changes (sensitively)
⋮
MODE4: Big rise/dive → Melody changes (insensible)

First, the set of a reference is required.

1. The model and transmitter to which the altitude sensor was connected are turned on.
2. Move the cursor to the [PRESET] of "REFERENCE" item.
3. Touch the RTN button is pushed for 1 second. (To terminate the input and return to the original state, touch the Home/Exit button.)

*Atmospheric pressure is changed according to the weather also at the same airfield. You should preset before a flight.

Alarm set : High side

1. Move the cursor to the ↑ALARM item, and it chooses from BUZZER, VOICE, INHIBIT, and pushes RTN.
2. When not operating vibrator, it is "VIBRATOR" to INHIBIT. TYPE1-3 will be chosen if it is made to operate.
3. Move the cursor to the LIMIT [m] item and touch the RTN button to switch to the data input mode.
4. Ajust the rate by scrolling the touch sensor.
   Initial value: 200m
   Adjustment range-500m~+3,000m
   (↑LIMIT ≧ ↓LIMIT)

*When the RTN button is touched for one second, the rate is reset to the initial value.

5. Touch the RTN button. (To terminate the input and return to the original state, touch the Home/Exit button.)

Alarm set : Low side

1. Move the cursor to the ↓ALARM item, and it chooses from BUZZER, VOICE, INHIBIT, and pushes RTN.
2. When not operating vibrator, it is "VIBRATOR" to INHIBIT. TYPE1-3 will be chosen if it is made to operate.
3. Move the cursor to the LIMIT [m] item and touch the RTN button to switch to the data input mode.
4. Ajust the rate by scrolling the touch sensor.
   Initial value: -50m
   Adjustment range-500m~+3,000m
   (↑LIMIT ≧ ↓LIMIT)

*When the RTN button is touched for one second, the rate is reset to the initial value.

5. Touch the RTN button. (To terminate the input and return to the original state, touch the Home/Exit button.)

TELEMETRY : ALTITUDE [VARIOMETER] Displaying data from the variometer
*An altitude sensor or GPS sensor must be installed in the aircraft.

VARIO is a screen which displays / sets up the variometer information from an optional altitude sensor or GPS sensor.

The variometer of the model which is flying can be known.

If it becomes higher or lower than the setting an alarm and/or vibration will alert you.

To ensure that the pilot is aware as to the model's status, the FMT-01 incorporates a different melody

for ascent and descent. Additionally, depending upon the rate of climb or descent, the tones vary to indicate whether or not the airplane is climbing or descending at a rapid rate.
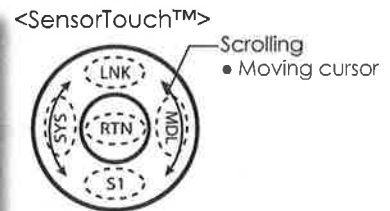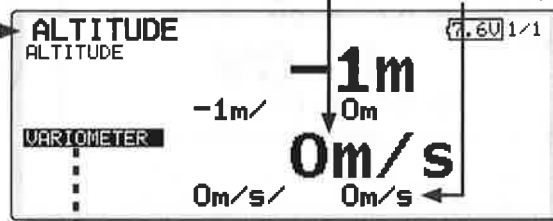
*It cannot be used in FASST mode and S-FHSS mode.
*Only receiver voltage and EXT voltage can be used in FASSTest12CH mode.
*The FASSTest18CH mode can use all the telemetry functions.

• Select [ALTITUDE] in the TELEMETRY screen and access the setup screen shown below by touching the RTN button.
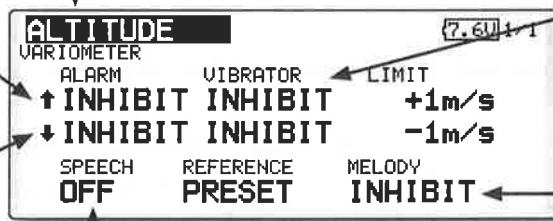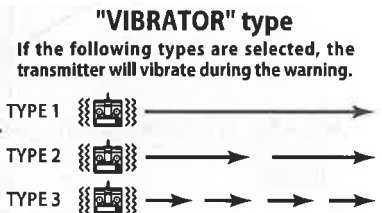
• Variometer
   • The maximum and the minimum when powering ON are shown. It will be preset, if a cursor is moved to this place and the RTN button is pushed for 1 second.

• Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.

<SensorTouch™>
Scrolling
• Moving cursor

•Select [VARIOMETER](small font display) in the TEMPERATURE screen and access the setup screen shown below by touching the RTN button.

• ↑ An upward arrow indicates the alarm will sound when the variometer reaches above your set value.

• ↓ A downward arrow indicates the alarm will sound when the variomete reaches below your set value.

•The ON/OFF switch of SPEECH is chosen.

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

TYPE 1
TYPE 2
TYPE 3

•If this is set to MODE1-4, a rise and dive are told by a different melody.

MODE1: Little rise/dive → Melody changes (sensitively)
⋮
MODE4: Big rise/dive → Melody changes (insensible)

Alert set : Rise side

1. Move the cursor to the ↑ALARM item, and it chooses from BUZZER, VOICE, INHIBIT, and pushes RTN.
2. When not operating vibrator, it is "VIBRATOR" to INHIBIT. TYPE1-3 will be chosen if it is made to operate.
3. Move the cursor to the LIMIT [m/s] item and touch the RTN button to switch to the data input mode.
4. Ajust the rate by scrolling the touch sensor.
   Initial value: +1m
   Adjustment range-50m/s~+50m/s
   (↑LIMIT ≧ ↓LIMIT)
*When the RTN button is touched for one second, the rate is reset to the initial value.
5. Touch the RTN button. (To terminate the input and return to the original state, touch the Home/Exit button.)

Alert set : Dive side

1. Move the cursor to the ↓ALARM item, and it chooses from BUZZER, VOICE, INHIBIT, and pushes RTN.
2. When not operating vibrator, it is "VIBRATOR" to INHIBIT. TYPE1-3 will be chosen if it is made to operate.
3. Move the cursor to the LIMIT [m/s] item and touch the RTN button to switch to the data input mode.
4. Ajust the rate by scrolling the touch sensor.
   Initial value: -1m
   Adjustment range-50m/s~+50m/s
   (↑LIMIT ≧ ↓LIMIT)
*When the RTN button is touched for one second, the rate is reset to the initial value.
5. Touch the RTN button. (To terminate the input and return to the original state, touch the Home/Exit button.)

TELEMETRY : VOLTAGE [BATTERY]

Displaying data from the battery voltage

*SBS-01V must be installed in the aircraft.

*It cannot be used in FASST mode and S-FHSS mode.

*Only receiver voltage and EXT voltage can be used in FASSTest12CH mode.

*The FASSTest18CH mode can use all the telemetry functions.

In this screen, the battery voltage is displayed. In order to use this function, it is necessary to connect External voltage connector of FMR-01 ⇔ SBS-01V ⇔ Battery

SBS-01V measures two batteries. The power battery connected to two lines is displayed on EXT-VOLT. The battery for receivers connected to 3P lines is displayed here.
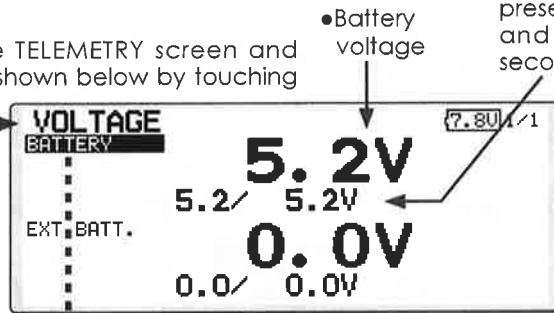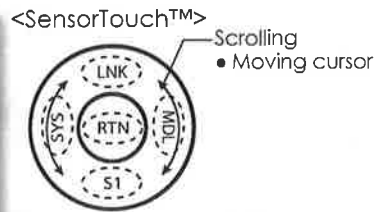
●Select [VOLTAGE] in the TELEMETRY screen and access the setup screen shown below by touching the RTN button.

 ● Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.

●↓The "down" arrow will indicate that an alarm will sound when the voltage drops to below the setting.
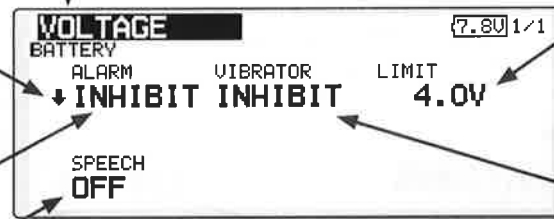
●Battery voltage

●The maximum and the minimum when powering ON are shown. It will be preset, if a cursor is moved to this place and the RTN button is pushed for 1 second.

<SensorTouch™>
Scrolling
● Moving cursor

```
VOLTAGE              (7.8V) 1/1
BATTERY
                    5.2V
             5.2/  5.2V
EXT.BATT.
                    0.0V
             0.0/  0.0V
```

●Select [BATTERY] in the VOLTAGE screen and access the setup screen shown below by touching the RTN button.

●A setup of the voltage on which the alarm operates.

●ALARM is chosen from BUZZER, VOICE, and INHIBIT.

```
VOLTAGE              (7.8V) 1/1
BATTERY
   ALARM      VIBRATOR    LIMIT
 ↓INHIBIT  INHIBIT      4.0V

   SPEECH
   OFF
```

●The ON/OFF switch of SPEECH is chosen.

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

TYPE 1 ———————————————→

TYPE 2 ——————→ ——————→
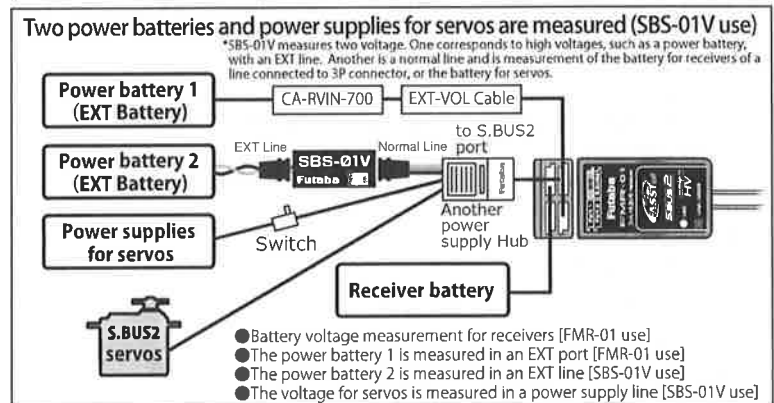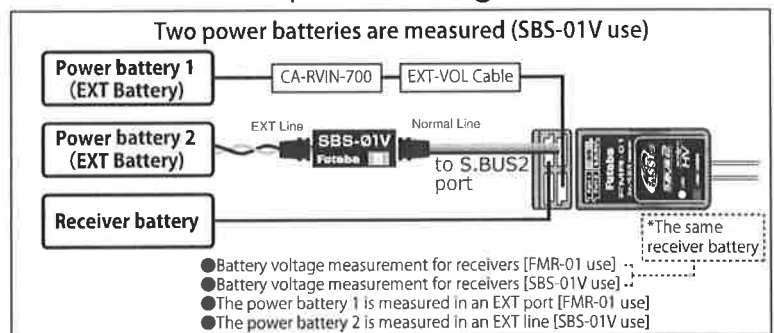
TYPE 3 —→ —→ —→ —→

Alarm set

1. Move the cursor to the ↓ALARM item, and it chooses from BUZZER, VOICE, INHIBIT, and pushes RTN.

2. When not operating vibrator, it is "VIBRATOR" to INHIBIT. TYPE1-3 will be chosen if it is made to operate.

3. Move the cursor to the LIMIT [4.0V] item and touch the RTN button to switch to the data input mode.

4. Ajust the rate by scrolling the touch sensor.

   Initial value: 4.0V

   Adjustment range: 0.0V~100.0V

*When the RTN button is touched for one second, the rate is reset to the initial value.

5. Touch the RTN button. (To terminate the input and return to the original state, touch the Home/Exit button.)

< Two examples of wiring are shown >

Two power batteries are measured (SBS-01V use)

Power battery 1 (EXT Battery) — CA-RVIN-700 — EXT-VOL Cable

Power battery 2 (EXT Battery) — EXT Line — SBS-01V — Normal Line — to S.BUS2 port

Receiver battery

*The same receiver battery

●Battery voltage measurement for receivers [FMR-01 use]
●Battery voltage measurement for receivers [SBS-01V use]
●The power battery 1 is measured in an EXT port [FMR-01 use]
●The power battery 2 is measured in an EXT line [SBS-01V use]

Two power batteries and power supplies for servos are measured (SBS-01V use)
*SBS-01V measures two voltage. One corresponds to high voltages, such as a power battery, with an EXT line. Another is a normal line and is measurement of the battery for receivers of a line connected to 3P connector, or the battery for servos.

Power battery 1 (EXT Battery) — CA-RVIN-700 — EXT-VOL Cable — to S.BUS2 port

Power battery 2 (EXT Battery) — EXT Line — SBS-01V — Normal Line

Power supplies for servos — Switch — Another power supply Hub

Receiver battery

S.BUS2 servos

●Battery voltage measurement for receivers [FMR-01 use]
●The power battery 1 is measured in an EXT port [FMR-01 use]
●The power battery 2 is measured in an EXT line [SBS-01V use]
●The voltage for servos is measured in a power supply line [SBS-01V use]

*Refer to the manual of SBS-01V for the details of wiring.

TELEMETRY : VOLTAGE [EXT-VOLT] Displaying data from the EXT battery voltage port

In this screen, the EXT battery voltage is displayed. In order to use this function, it is necessary to connect External voltage connector of FMR-01 ⇔ SBS-01V ⇔ Battery

SBS-01V measures two batteries. The power battery connected to two lines is displayed on EXT-VOLT.

*SBS-01V must be installed in the aircraft.

*It cannot be used in FASST mode and S-FHSS mode.

*Only receiver voltage and EXT voltage will be received in the FASSTest12CH mode.

*The FASSTest18CH mode will display all telemetry data.

- EXT battery voltage

- The maximum and the minimum when powering ON are shown. It will be preset, if a cursor is moved to this place and the RTN button is pushed for 1 second.

- Select [VOLTAGE] in the TELEMETRY screen and access the setup screen shown below by touching the RTN button.

- Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.

```
VOLTAGE            (7.8V)1/1
BATTERY
               5.2V
         5.2/  5.2V
EXT BATT.
               0.0V
         0.0/  0.0V
```

<SensorTouch™>
Scrolling
- Moving cursor

- ↓The "down" arrow will indicate that an alarm will sound when the voltage drops to below the setting.

- Select [EXT BATT.] in the RECEIVER screen and access the setup screen shown below by touching the RTN button.

- ALARM is chosen from BUZZER, VOICE, and INHIBIT.

```
VOLTAGE            (7.8V)1/1
EXT BATT.
   ALARM    VIBRATOR    LIMIT
 ↓INHIBIT  INHIBIT      4.0V

SPEECH
OFF
```

- A setup of the voltage on which the alarm operates.

- The ON/OFF switch of SPEECH is chosen.

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

TYPE 1 ⟶
TYPE 2 ⟶ ⟶
TYPE 3 ⟶ ⟶ ⟶ ⟶

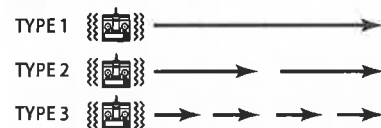## Alarm set

1. Move the cursor to the ↓ALARM item, and it chooses from BUZZER, VOICE, and INHIBIT, and pushes RTN.

2. When not operating vibrator, it is "VIBRATOR" to INHIBIT. TYPE1-3 will be chosen if it is made to operate.

3. Move the cursor to the LIMIT [4.0V] item and touch the RTN button to switch to the data input mode.

4. Ajust the rate by scrolling the touch sensor.

   Initial value: 4.0V

   Adjustment range: 0.0V~100.0V

*When the RTN button is touched for one second, the rate is reset to the initial value.

5. Touch the RTN button. (To terminate the input and return to the original state, touch the Home/Exit button.)

TELEMETRY : GPS [DISTANCE]

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

*A GPS sensor must be installed in the aircraft.

*The GPS sensor is necessary, and is sold separately. Mount and connect the sensor in accordance with the sensor instruction manual.

*It cannot be used in FASST mode and S-FHSS mode.

*Only receiver voltage and EXT voltage can be used in FASSTest12CH mode.

*The FASSTest18CH mode can use all the telemetry functions.

● Select [GPS] in the TELEMETRY screen and access the setup screen shown below by touching the RTN button.

● Distance

●This indicates the receiving accuracy from a GPS Satellite. When three bars are displayed, the GPS is ready for use.

● The maximum and the minimum when powering ON are shown. It will be preset, if a cursor is moved to this place and the RTN button is pushed for 1 second.

● Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.


```
GPS              Tıl  °ıl  (7.8U) 1/3
DISTANCE
                        1m
              1m/        1m
SPEED
                 0km/h
              0km/h/    0km/h
```

<SensorTouch™>
Scrolling
● Moving cursor

●Select [DISTANCE](small font display) in the TEMPERATURE screen and access the setup screen shown below by touching the RTN button.

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

TYPE 1
TYPE 2
TYPE 3

● ↑ An upward arrow indicates the alarm will sound when the distance reaches above your set value.

● ↓ A downward arrow indicates the alarm will sound when the distance reaches below your set value.

```
GPS              Tıl  °ıl  (7.8U) 1/1
DISTANCE
   ALARM     VIBRATOR     LIMIT
 ↑ INHIBIT   INHIBIT      1000m
 ↓ INHIBIT   INHIBIT        0m
   SPEECH    REFERENCE    DISTANCE MODE
   OFF       PRESET       SLANT
```

●The ON/OFF switch of SPEECH is chosen.

●Move the cursor to the [PRESET] of "REFERENCE" item. Touch the RTN button is pushed for 1 second. Sets the current aircraft position as the starting point.

*Positioning time of GPS

When powered up, the SBS-01G begins to acquire GPS satellite data. This process can take several minutes. Please do not move the model during this process. During acquisition, the LED on the SBS-01G will blink green; after the satellites signals have been acquired, the LED will become solid green, and the GPS signal strength display on the transmitter will show three bars.

Moving the model before the satellites are fully acquired will cause a delay in acquiring the satellite signal.

●Altitude calculated as either straight line distance (slant) or surface distance on a map can also be selected.

Slant

Altitude

Surface
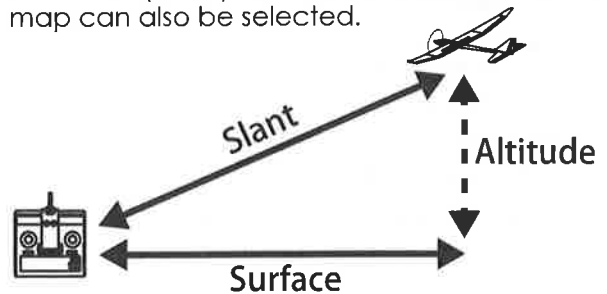
●Select <SLANT> <SURFACE> to "DISTANCE MODE", scroll either to the desired method and touch the RTN button.

First, the set of a reference is required.

1. The model and transmitter to which the GPS sensor was connected are turned on.
2. Move the cursor to the [PRESET] of "REFERENCE" item.
3. Touch the RTN button is pushed for 1 second. (To terminate the input and return to the original state, touch the Home/Exit button.)

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

Setting a "too far" alarm distance

1. Move the cursor to the ↑ALARM item, and it chooses from BUZZER, VOICE, INHIBIT, and pushes RTN.
2. When not operating vibrator, it is "VIBRATOR" to INHIBIT. TYPE1-3 will be chosen if it is made to operate.
3. Move the cursor to the LIMIT [m] item and touch the RTN button to switch to the data input mode.
4. Ajust the rate by scrolling the touch sensor.
   Initial value: 1,000m
   Adjustment range 0m~3,000m
   (↑LIMIT ≧ ↓LIMIT)

*When the RTN button is touched for one second, the rate is reset to the initial value.

5. Touch the RTN button. (To terminate the input and return to the original state, touch the Home/Exit button.)

Setting a "too close" alarm distance

1. Move the cursor to the ↓ALARM item, and it chooses from BUZZER, VOICE, INHIBIT, and pushes RTN.
2. When not operating vibrator, it is "VIBRATOR" to INHIBIT. TYPE1-3 will be chosen if it is made to operate.
3. Move the cursor to the LIMIT [m] item and touch the RTN button to switch to the data input mode.
4. Ajust the rate by scrolling the touch sensor.
   Initial value: 0m
   Adjustment range 0m~3,000m
   (↑LIMIT ≧ ↓LIMIT)

*When the RTN button is touched for one second, the rate is reset to the initial value.

5. Touch the RTN button. (To terminate the input and return to the original state, touch the Home/Exit button.)

Speed

position

Distance
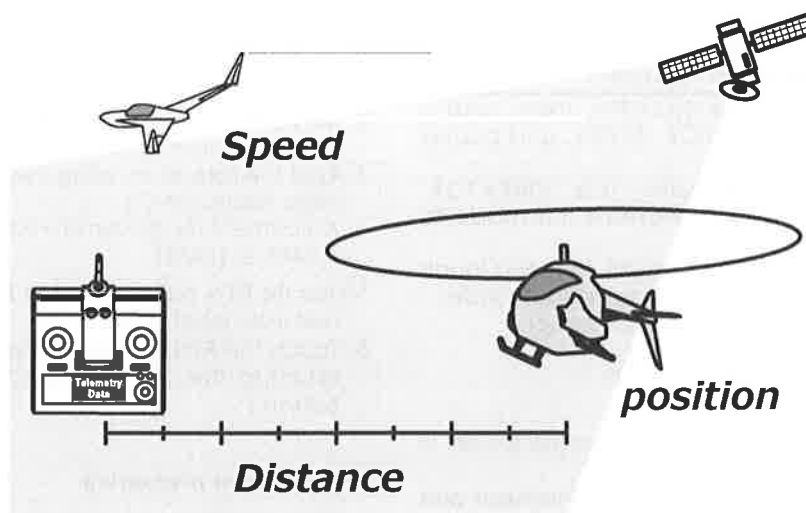
TELEMETRY : GPS [SPEED]

Displaying data from the speed
*A GPS sensor must be installed in the aircraft.

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

The speed of the aircraft during flight can be displayed. After flight, the maximum speed during flight can be viewed. Because this speed is based on position data from a GPS satellite, the ground speed is displayed instead of air speed. Consequently, with a head wind, the displayed speed decreases and with a tail wind, the displayed speed increases.

*The GPS sensor is necessary, and is sold separately. Mount and connect the sensor in accordance with the sensor instruction manual.
*It cannot be used in FASST mode and S-FHSS mode.
*Only receiver voltage and EXT voltage can be used in FASSTest12CH mode.
*The FASSTest18CH mode can use all the telemetry functions.

- The maximum and the minimum when powering ON are shown. It will be preset, if a cursor is moved to this place and the RTN button is pushed for 1 second.

- Select [GPS] in the TELEMETRY screen and access the setup screen shown below by touching the RTN button.
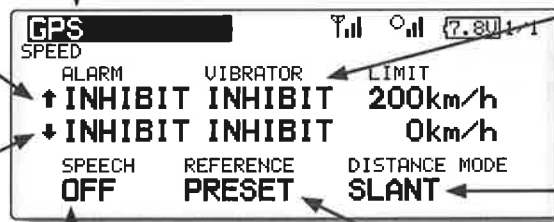
- Speed

- This indicates the receiving accuracy from a GPS Satellite. When three bars are displayed, the GPS is ready for use.

- Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.

<SensorTouch™>
- Scrolling
- Moving cursor

- Select [SPEED](small font display) in the TEMPERATURE screen and access the setup screen shown below by touching the RTN button.
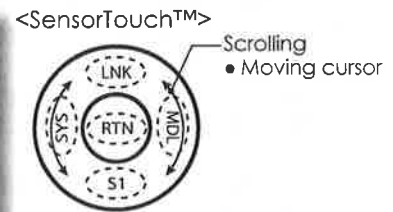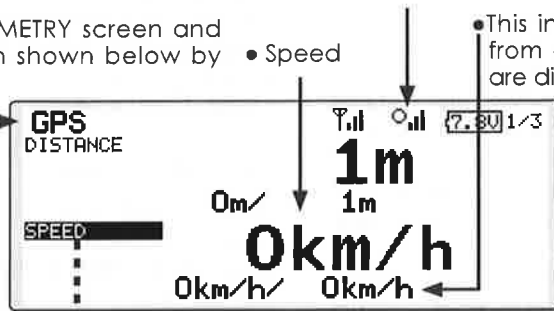
- ↑ An upward arrow indicates the alarm will sound when the speed reaches above your set value.

- ↓ A downward arrow indicates the alarm will sound when the speed reaches below your set value.
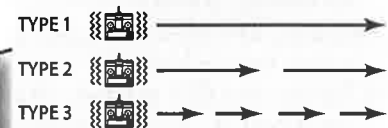
"VIBRATOR" type
If the following types are selected, the transmitter will vibrate during the warning.

TYPE 1
TYPE 2
TYPE 3

- It links with the "DISTACE" display.

- The ON/OFF switch of SPEECH is chosen.

- Pushing [PRESET] sets the current aircraft position as the starting point.

Alarm setting when speed increases

1. Move the cursor to the ↑ALARM item, and it chooses from BUZZER, VOICE, INHIBIT, and pushes RTN.
2. When not operating vibrator, it is "VIBRATOR" to INHIBIT. TYPE1-3 will be chosen if it is made to operate.
3. Move the cursor to the LIMIT [km/h] item and touch the RTN button to switch to the data input mode.
4. Ajust the rate by scrolling the touch sensor.
   Initial value: 200km/h
   Adjustment range 0km/h~500km/h
   (↑LIMIT ≧ ↓LIMIT)

*When the RTN button is touched for one second, the rate is reset to the initial value.

5. Touch the RTN button. (To terminate the input and return to the original state, touch the Home/Exit button.)

Alarm setting when speed decreases

1. Move the cursor to the ↓ALARM item, and it chooses from BUZZER, VOICE, INHIBIT, and pushes RTN.
2. When not operating vibrator, it is "VIBRATOR" to INHIBIT. TYPE1-3 will be chosen if it is made to operate.

3. Move the cursor to the LIMIT [km/h] item and touch the RTN button to switch to the data input mode.
4. Ajust the rate by scrolling the touch sensor.
   Initial value: 0km/h
   Adjustment range 0km/h~500km/h
   (↑LIMIT ≧ ↓LIMIT)

*When the RTN button is touched for one second, the rate is reset to the initial value.

5. Touch the RTN button. (To terminate the input and return to the original state, touch the Home/Exit button.)

*Speed alarm precaution

Since the GPS speed sensor displays the ground speed, it cannot be used as a stall alarm. For example, an aircraft that stalls at 50km/h will stall if the tailwind is 5km/h or greater even through 55km/h is displayed by ground speed. In addition, with an aircraft that will disintegrate in midflight at 400km/h at an over-speed alarm, when the headwind reaches 30km/h the airplane will disintegrate in midair due to over speeding even at a ground speed of 370km/h.

TELEMETRY : GPS [ALTITUDE, VARIOMETER, POSITION]

*A GPS sensor must be installed in the aircraft.

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

*The GPS sensor is necessary, and is sold separately. Mount and connect the sensor in accordance with the sensor instruction manual.

*It cannot be used in FASST mode and S-FHSS mode.

*Only receiver voltage and EXT voltage can be used in FASSTest12CH mode.

*The FASSTest18CH mode can use all the telemetry functions.

•This indicates the receiving accuracy from a GPS Satellite. When three bars are displayed, the GPS is ready for use.

• Select [GPS] in the TELEMETRY screen and access the setup screen shown below by touching the RTN button.

• Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.

```
GPS                          Y.il  O.il [7.9V]1/3
DISTANCE
                         1m
              0m/       1m
SPEED
             0km/h
         0km/h/    0km/h
```

<SensorTouch™>
Scrolling
• Moving cursor

LNK
SYS   RTN   MDL
S1

• To next page

• Push S1 button to advance to next page.

• Refer to the former page for a setup about ALTITUDE and VARIOMETER.

```
GPS                          Y.il  O.il [7.9V]2/3
ALTITUDE
                         1m
              0m/       1m
VARIOMETER
             0m/s
         0m/s/    0m/s
```

• Push S1 button to advance to next page.

```
GPS                          Y.il  O.il [7.9V]3/3
POSITION
N  35°24.7285
E140°19.5831
```

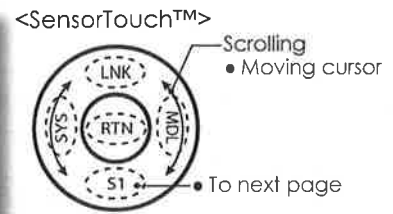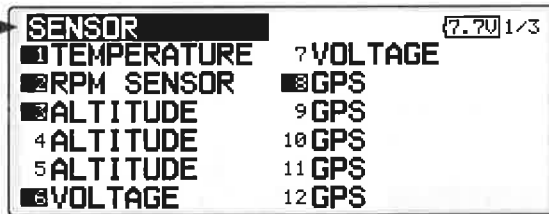• The position of the present model is displayed.

SENSOR

Various telemetry sensors setting

This screen registers the telemetry sensors used with the transmitter. When only one of a certain type of sensor is used, this setting is unnecessary and the sensor can be used by simply connecting it to the S.BUS2 port of the transmitter.

When using 2 or more of the same kind of sensor, they must be registered here.

[What is a slot?]

Servos are classified by CH, but **sensors** are classified in units called **"slot"**. There are **slots** from **No. 1** to **No. 31**.

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

Using a sensor which uses two or more slots, the required number of slots is automatically assigned by setting up a **start slot**.

When 2 or more of the same kind of sensor are used, the sensors themselves must allocate unused slots and memorize that slot.
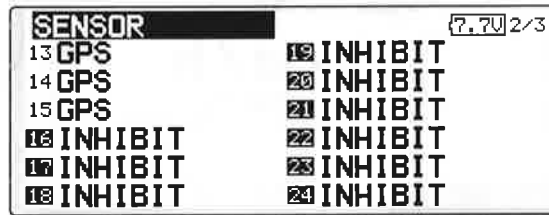
- Select [SENSOR] in the Linkage menu and access the setup screen shown below by touching the RTN button.

- Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.

```
SENSOR                    {7.7V}1/3
■1TEMPERATURE    7VOLTAGE
■2RPM SENSOR     ■8GPS
■3ALTITUDE        9GPS
 4ALTITUDE       10GPS
 5ALTITUDE       11GPS
■6VOLTAGE        12GPS
```

<SensorTouch™>
Scrolling
• Moving cursor

• To next page

*3 slots of altitude sensor are used.
*8 slots of GPS sensor are used.

• Push S1 button to advance to next page.

```
SENSOR                    {7.7V}2/3
13GPS            19INHIBIT
14GPS            20INHIBIT
15GPS            21INHIBIT
16INHIBIT        22INHIBIT
17INHIBIT        23INHIBIT
18INHIBIT        24INHIBIT
```

• Push S1 button to advance to next page.

```
SENSOR                    {7.7V}3/3
25INHIBIT        31INHIBIT
26INHIBIT        RELOAD
27INHIBIT        REGISTER
28INHIBIT        CHANGE SLOT
29INHIBIT
30INHIBIT
```

- As shown in the table below, an altimeter requires 3 contiguous slots and a GPS sensor requires 8 contiguous slots. In addition, since the GPS (SBS-01G) start slots are 8, 16, and 24.

< Assignable slot >

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

Sensor	The required number of slots	The number which can be used as a start slot	Selling area
TEMP (SBS-01T)	1 slot	1 ~ 31	
RPM (SBS01RM,SBS-01RO)	1 slot	1 ~ 31	
Voltage (SBS-01V)	2 slots	1,2,3,4,5,6,8,9,10,11,12,13,14,16,17,18,19,20,21,22,24,25,26,27,28,29,30	Global
Altitude (SBS-01A)	3 slots	1,2,3,4,5,8,9,10,11,12,13,16,17,18,19,20,21,24,25,26,27,28,29	
GPS (SBS-01G)	8 slots	8,16,24	
TEMP125-F1713	1 slot	1 ~ 31	
VARIO-F1712	2 slots	1,2,3,4,5,6,8,9,10,11,12,13,14,16,17,18,19,20,21,22,24,25,26,27,28,29,30	Europe
VARIO-F1672	2 slots	1,2,3,4,5,6,8,9,10,11,12,13,14,16,17,18,19,20,21,22,24,25,26,27,28,29,30	
GPS-F1675	8 slots	8,16,24	

SENSOR : RELOAD

When using multiple sensors of the same type the sensors must be registered in the transmitter. Connect all the sensors to be used to the FMT-01 as shown in the figure at the right and register them by the following procedure. The ID of each sensor is registered in the transmitter.

● Call page 3/3 by touching the S1 button 2 times from the [SENSOR] menu.

● Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.

FMT-01

3-way hub or Y-harnesses
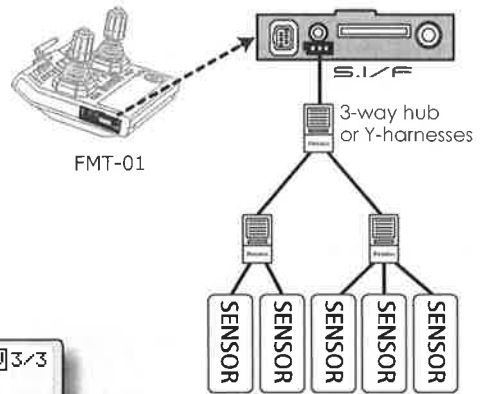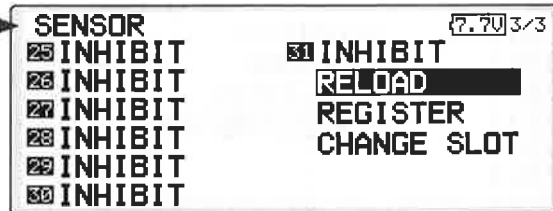
All the sensors to be used are connected.

*It is not necessary to carry out multiple connection of the battery like a T18MZ/T14SG.

(It will damage, if it connects.)

```
SENSOR                    {7.7U}3/3
25 INHIBIT      31 INHIBIT
26 INHIBIT         RELOAD
27 INHIBIT         REGISTER
28 INHIBIT         CHANGE SLOT
29 INHIBIT
30 INHIBIT
```

Reading all the sensors to be used

1. Connect all the sensors to be used to the FMT-01 through a hub as shown in the figure above.
2. Move the cursor to "RELORD" on page 3/3 of the [SENSOR] screen.
3. Touch the RTN button.
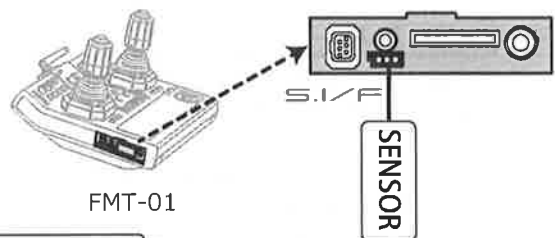   All the sensors are registered and can be used.

SENSOR : REGISTER

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

● Call page 3/3 by touching the S1 button 2 times from the [SENSOR] menu.

● Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.

FMT-01

*It is not necessary to carry out multiple connection of the battery like a T18MZ/T14SG.

(It will damage, if it connects.)

```
SENSOR                    {7.7U}3/3
25 INHIBIT      31 INHIBIT
26 INHIBIT         RELOAD
27 INHIBIT         REGISTER
28 INHIBIT         CHANGE SLOT
29 INHIBIT
30 INHIBIT
```
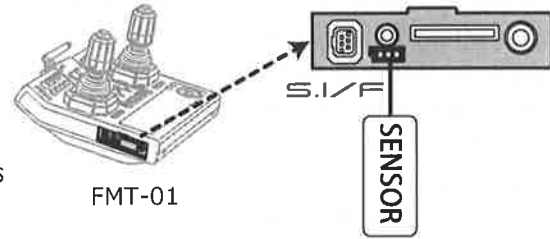
Additional sensor registration

1. Connect the sensor to be used to the FMT-01 through a hub as shown in the figure at the right.
2. Move the cursor to "REGISTER" on page 3/3 of the <Sensor> screen.
3. Touch the RTN button.
   The sensor is registered and can be used.

*When the number of slots needed in registration is insufficient, an error is displayed and registration cannot be performed. Disable unused slots or perform the following relocate.
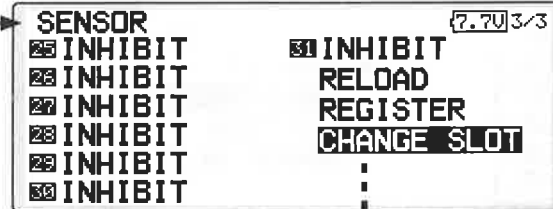
SENSOR : CHANGE SLOT

This page is set when using multiple telemetry sensors of the same type.

This procedure changes the slot No. of one registered sensor.
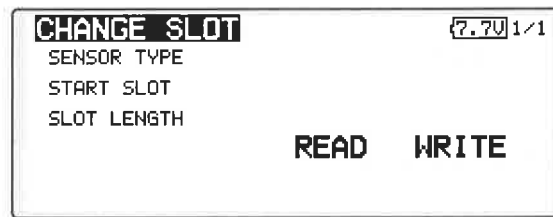
FMT-01

- Call page 3/3 by touching the S1 button 2 times from the [SENSOR] menu.

- Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.

```
SENSOR                    (7.7U)3/3
25 INHIBIT    31 INHIBIT
26 INHIBIT       RELOAD
27 INHIBIT       REGISTER
28 INHIBIT       CHANGE SLOT
29 INHIBIT
30 INHIBIT
```

*It is not necessary to carry out multiple connection of the battery like a T18MZ/T14SG.

(It will damage, if it connects.)

- Select [CHANGE SLOT] in the SENSOR screen and access the setup screen shown below by touching the RTN button.

```
CHANGE SLOT               (7.7U)1/1
 SENSOR TYPE
 START SLOT
 SLOT LENGTH
              READ   WRITE
```

Sensor slot change

1. Connect the sensor to be changed to the FMT-01 through a hub as shown in the figure above.

2. Move the cursor to "CHANGE SLOT" on page 3/3 of the <Sensor> screen.

3. Touch the RTN button. A sensor details screen appears.

4. Move the cursor to "READ" and touch the RTN button.

5. The current start slot is displayed. Move the cursor to the number of the start slot and change it to the desired value. (Cannot be set to a slot that cannot be allocated like the table of all pages.)

6. Move the cursor to "WRITE" and touch the RTN button.

TELE. SETTING

Speech interval set , data logging of telemetry.

The set of the speech interval of teremetry data, and a switch setup for carrying out logging of the teremetry data to SD card and a setup of a logging interval are carried out.

teremetry data can be checked with PC after a flight.

*The software which displays the logging data of SD card on PC has not been put on the market yet.

The set of the speech interval of teremetry data, and a switch setup for carrying out logging of the teremetry data to SD card and a setup of a logging interval are carried out.

teremetry data can be checked with PC after a flight.

*The software which displays the logging data of SD card on PC has not been put on the market yet.

- Select [TELE. SETTING] at the linkage menu and call the setup screen shown below by touching the RTN button.

- Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.

```
TELE. SETTING          (7.6V) 1/1

SPEECH INTERVAL          0

LOGGING SWITCH          OFF

LOGGING INTERVAL         0
```
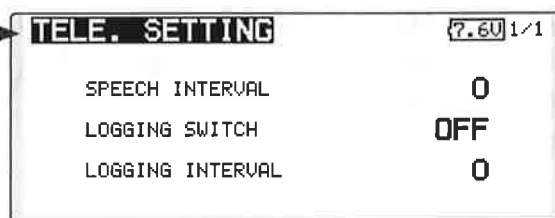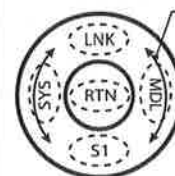
<SensorTouch™>
Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

Speech interval setting

1. Select the Linkage Menu [TELE. SETTING] and touch the RTN button.
2. The TELE. SETTING setup screen is displayed.
3. Select numerical value beside [SPEECH INTERVAL] and touch the RTN button.
4. Ajust the time by scrolling the touch sensor.
   Initial value: 0
   Adjustment range 0~30
5. Touch the RTN button.

Logging switch setting

1. Select the Linkage Menu [TELE. SETTING] and touch the RTN button.
2. The TELE. SETTING setup screen is displayed.
3. Select [OFF] beside [LOGGING SWITCH] and touch the RTN button.
4. Move the cursor to the [SWITCH] item and call the switch setup screen by touching the RTN button and select the switch and ON direction.

   (For a detailed description of the setting method, see [Switch Setting Method] at the end of this manual.)

Logging interval setting

1. Select the Linkage Menu [TELE. SETTING] and touch the RTN button.
2. The TELE. SETTING setup screen is displayed.
3. Select numerical value beside [LOGGING INTERVAL] and touch the RTN button.
4. Ajust the time by scrolling the touch sensor.
   Initial value: 0
   Adjustment range 0~100
5. Touch the RTN button.

The warning display at power ON can be turned ON/OFF for each function. Use by setting functions which may be dangerous if operated at power ON to ON. Initial setting is all ON.

● Select [WARNING] at the linkage menu and call the setup screen shown below by touch the RTN button.

● Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.

```
WARNING                    7.5V 1/1

CONDITION     ON      MOTOR       ON
THROTTLE CUT  ON      AIRBRAKE    ON
IDLE DOWN     ON      SNAP ROLL   ON
THR POSITION  ON
```

<SensorTouch™>

Scrolling
● Moving cursor
● Selecting mode

LNK
SYS   RTN   MDL
S1
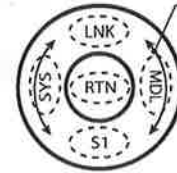
Warning ON/OFF setting

1. The settings can be changed individually. When set to [OFF], a warning is not displayed at power ON.

FMT-01 trainer system makes it possible for the instructor to chose which channels and operation modes that can be used in the students transmitter. The function and rate of each channel can be set, the training method can also be matched to the student's skill level. Two transmitters must be connected by an optional Trainer Cord, and the Instructors' transmitter should be programmed for trainer operation, as described below.

When the Instructor activates the trainer switch, the student has control of the aircraft (if MIX/FUNC/NORM mode is turned on, the Instructor can make corrections while the student has control). When the switch is released the Instructor regains control. This is very useful if the student gets the aircraft into an undesirable situation.

- Setting data are stored to model data.
- Student rate can be adjusted at MIX/FUNC/NORM mode.
- Activated student channels can be selected by switches.

NOTE: This trainer system can be used in the following manner;

1. With the FMT-01 transmitter and a conventional transmitter, if the channel order is different, it is necessary to match the channel order before using this function.

   You can select the channel of input data from student's transmitter in the "FUNC" or "MIX" mode.

2. When the FMT-01 is used as the instructor's transmitter, set the modulation mode of the student's transmitter to PPM.

   If being used as the student, FMT-01 can be connected to the instructor's transmitter which the PPM mode as the student's modulation mode is required. FMT-01 always sends PPM mode signal from the trainer jack.

   (In the case of student's transmitters other than 2.4 GHz)

3. Be sure that all channels work correctly in both transmitters before flying.

Corresponding types of transmitters and trainer mode settings:

| Types of transmitters | | Instructor's transmitter settings | | Student's transmitter settings | | | Trainer Cords |
Instructor	Student	System Type Mod. mode	Trainer setting CH mode	System Type Mod. mode	Trainer setting CH mode	Mod. mode	
FMT-01,FX-32 T14SG,T18MZ	FMT-01,FX-32 T14SG,T18MZ	Arbitrary	16CH	Arbitrary	16CH	-	
FMT-01	T14MZ, FX-40, T12Z, T12FG, FX-30	Arbitrary	12CH	PCM-G3 2.4G	12CH	PPM	T12FG (FUTM4405) and 9C (FUTM4415) Trainer Cords
FMT-01	T8FG, FX-20	Arbitrary	12CH	FASST-MLT2	-	-	
			8CH	FASST-MULT			
FMT-01	T10C, T9C, T7C,T6EX, T4EX	Arbitrary	8CH	PPM	-	-	T12FG (FUTM4405)
FMT-01	T10CG,T7C	Arbitrary	8CH	Arbitrary	-	-	T12FG (FUTM4405)
FMT-01	T8J,T6J	Arbitrary	8CH	Arbitrary	-	-	T12FG (FUTM4405) and 9C (FUTM4415) Trainer Cords
T14MZ, FX-40, T12Z, T12FG, FX-30	FMT-01	Arbitrary	12CH	Arbitrary	12CH	-	
T8FG, FX-20	FMT-01	Arbitrary	12CH	Arbitrary	12CH	-	
T10C, T10CG, T9C, T7C, T7C,T8J	FMT-01	Arbitrary	-	Arbitrary	8CH	-	

• Select [TRAINER] at the system menu and call the setup screen shown below by touching the RTN button.

• Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.

```
TRAINER                    {7.6U}1/1
  ACT/INH          INH
  TEACHER/STUDENT  STUD
  CHANNEL MODE     8CH
```

<SensorTouch™>

Scrolling
• Moving cursor
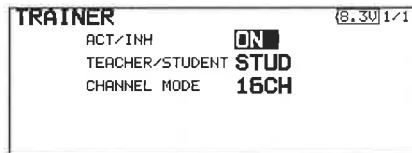• Selecting mode

When using at the student side

1. Select the mode.

  *When changing the mode, use the touch sensor to move to the item you want to change and touch the RTN button to switch to the data input mode and change the mode by turning the touch sensor to the left or right. The display blinks. Touch the RTN button to change the mode.

  "TEACHER/STUDENT": Select [STUD] (student).

  "ACT/INH": Enable operation by changing to [ON].

  "16/12/8 CH": When the student uses the FMT-01,T14SG, T18MZ, select [16CH]. When the student uses the T14MZ, T12Z, T12FG or FX-40, select [12CH]. Otherwise select [8CH].

```
TRAINER                    {8.3U}1/1
  ACT/INH          ON
  TEACHER/STUDENT  STUD
  CHANNEL MODE     16CH
```

Note: In "student mode", only the teacher side can turn on and off the power to the student's transmitter. Keep the power switch always at off position.

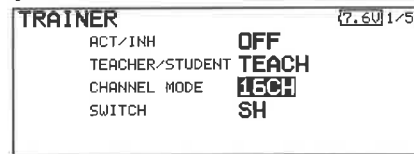## When using at the teacher side

1. Select the mode.

  *When changing the mode, use the touch sensor to move to the item you want to change and touch the RTN button to switch to the data input mode and change the mode by turning the touch sensor to the left or right. The display blinks. Touch the RTN button to change the mode.

  "TEACHER/STUDENT": Select [TEACH].

  "ACT/INH": Enable operation by changing to [OFF] or [ON].

  "16/12/8 CHANNEL": When the student uses the FMT-01 (including the T18MZ, T14SG)select [16CH]. Otherwise select [12CH]or[8CH].

```
TRAINER                    {7.6U}1/5
  ACT/INH          OFF
  TEACHER/STUDENT  TEACH
  CHANNEL MODE     16CH
  SWITCH           SH
```

2. Select the trainer switch.

  *When setting or changing the switch, use the touch sensor to move to the "SWITCH" item, call the switch setup screen by touching the RTN button and set the desired switch and ON/OFF direction.

  (See "Switch selection method" at the end of this manual for selection method details.)

  *The switch mode can also be selected when setting the ON position on the switch setup screen. When [NORM] is selected, normal ON/OFF operation is performed. When [ALTERNATE] is selected, the trainer function is alternately turned on and off each time the switch is operated. This allows alternate ON/OFF switching even when a momentary switch (SH) is used.

  Note: The trainer function won't be turned on unless the Instructor's transmitter receives signals from the student's transmitter. Be sure to confirm this after connecting your trainer cable.

3. Select the operating mode for each channel.

```
TRAINER                         {7.6U}2/5
CH FUNCTION     MODE   SW   RATE   STU.CH
 1 AILERON      FUNC   --   +100   CH1
 2 ELEVATOR     OFF    --
 3 THROTTLE     OFF    --
 4 RUDDER       OFF    --
```

*Use the touch sensor scrolling to move the cursor to the "MODE" item of the channel you want to change and touch the RTN button to switch to the data input mode and change the mode by turning the touch sensor to the left or right. The display blinks. Touch the RTN button to change the mode.

"NORM": The model is controlled by signals from the student transmitter.

"MIX" mode: The model is controlled by signals from the teacher and student transmitters. (Reset the student's model data to the default condition.)

"FUNC" mode (function mode):

The model is controlled by signals from the student transmitter with the teacher AFR setting. (Reset the student's model data to the default condition.)

"OFF": Only the teacher side operates.

*The setting above allows setting of the servo throw relative to the amount of student side operation when [MIX] or [FUNC] was selected.

When changing the rate, use the touch sensor scrolling to move the cursor to the [RATE] item of the channel you want to change and use the touch sensor to adjust the rate.

Setting range: -100~+100

Initial value: +100

Touch the RTN button to end adjustment and return to the cursor move mode.

*When the RTN button is touched for 1 second, the rate is reset to the initial value.

3. Set the switch of each channel.

*When setting the switch at each channel, use the touch sensor to move to the "SW" item of the channel you want to change, call the switch setup screen by touching the RTN button, and select the switch.

"--" : Always ON.

"SA"~"SH": The switch which enables student side operation can be selected. (See "Switch selection method" at the end of this manual for selection method details.)

TRAINER				7.6U 2/5
CH FUNCTION	MODE	SW	RATE	STU.CH
1 AILERON	FUNC	--	+100	CH1
2 ELEVATOR	OFF	--		
3 THROTTLE	OFF	--		
4 RUDDER	OFF	--		

Trainer student channel setting function

Which channel of the signal from the student's transmitter can be fetched as the instructor functions input signal when "FUNC" or "MIX" was set as the trainer function instructor's transmitter mode setting can be set. This makes trainer connection easy even when the instructor side and student side channel assignment is different.

*When the instructor's transmitter mode is set to "NORM". the signal of the same channel of the student's transmitter is output as is.(The same as before.)

DATA RESET

Model memory setting data reset. (by item)

This function is designed to allow you to reset selected portions or all of the settings saved in the active model memory. You may individually choose to reset the following sets of data;

T1~T6:

Reset the digital trim setting.

*All the conditions, or the condition currently being displayed (the entire group for group setting), can be selected.

*The trim step amount and trim rate are not reset.

Model menu setting:

Resets all the functions in the Model menu except condition select.

All model setting:

Resets all Linkage and Model menu functions except for frequency, model select, and model type.
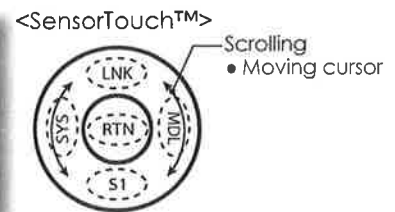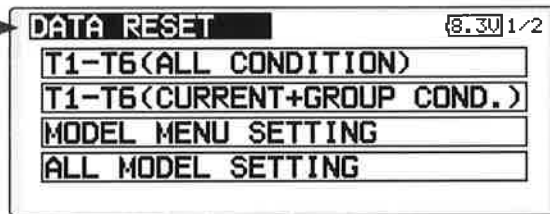
Function Name:

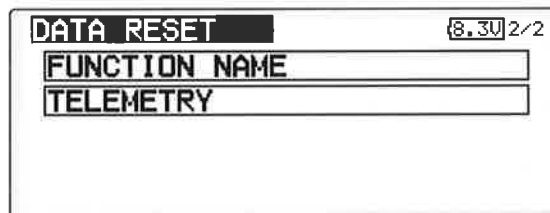A function name is reset.

Telemetry:

Reset the telemetry setting.

● Select [DATA RESET] at the linkage menu and call the setup screen shown below by touching the RTN button.

● Select the function name and return to the Linkage menu by touching the RTN button or pushing the Home/Exit button.

● Push S1 button to advance to next page.

Data resetting method

1. Move the cursor to the item you want to reset and touch the RTN button.

   *A confirmation message appears.

2. Execute reset by touching the RTN button again. (Operate touch sensor or S1 button to stop resetting.)

   [T1-T6 (ALL CONDITION)]: Resets only the T1-T6 (all conditions)

   [T1-T6(CURRNT+GROUP COND.)]: Resets only the data of T1-T6 (condition in use and all the conditions set to group mode)

   [MODEL MENU SETTING]: Resets all the functions in the model menu, except the condition selection functions.

   [ALL MODEL SETTING]: Resets all the functions in the linkage menu and model menu except the frequency, model select, and model type functions.

   [FUNCTION NAME]: Resets only the function name functions.

   [TELEMETRY]: Resets only the teremetry functions.

COND.HOLD

Condition hold function

This function may be used to fix the maximum speed of the engine so that you may adjust flight conditions when the engine is running. An alarm indicates that the function is operating. It will prevent the engine from racing dangerously when adjusting the idle-up settings.

While this function is active, the throttle servo position is fixed at the point where you operate when the function is activated. You must deactivate this function when you are through making adjustments.

The system will not allow you to activate/deactivate this function in either of the following states:

• When any of the flight condition switches are on.
• When the throttle stick is higher than the 1/3 point.

To activate/deactivate condition hold:

(Home screen)

1. Move the cursor to [CND HOLD].
2. Set the throttle stick lower than the 1/3 point.
3. Touch the RTN button to activate the condition hold function.

   *When this function is active, "IS ON" appears at the right of the [CND HOLD] display at the left bottom of the screen.

(LINKAGE menu/MODEL menu)

1. Move the cursor to [COND. HOLD].
2. Set the throttle stick lower than the 1/3 point.
3. Touch the RTN button to activate the condition hold function.

   *Operation is displayed at the bottom of the menu.

   Function ON: "CND HOLD IS ON" is displayed.

   Function OFF: "CND HOLD IS OFF" is displayed.

MODEL MENU (COMMON FUNCTIONS)

This section describes the AFR, program mixing, and other functions common to all model types.

Before setting the model data, use the Model Type function of the Linkage Menu to select the model type matched to the fuselage. When another model type is selected thereafter, the AFR, program mixing, and other setting data are reset.

The functions in the Model Menu can be set for each flight condition. When you want to use the system by switching the settings for each condition by switch, stick position, etc., use the Condition

- Select the [MODEL] at the home screen and call the model menu shown below by touching the RTN button.
- Use the touch sensor to select the function you want to set and call the setup screen by touching the RTN button.

Select function to add flight conditions. (Up to 8 conditions can be used)

Note: The FMT-01 is designed so that the airplane and glider (including EP glider) model types are compatible with aircraft of similar type wings. This section outlines the relationship between the functions common to airplanes and gliders, except some dedicated functions, and model type. The setting items depend on the number of servos and other differences according to the wing type used, but reread them. The setup screens in the instruction manual are typical examples.

(Model Menu screen example)

*The Model Menu screen depends on the model type. This screen is for model type 4AIL+4FLP.

- Select the [MODEL MENU] and return to the home screen by touching the RTN button or pushing the Home/Exit button.

MODEL MENU	CONDIT1 7.5U 1/3
SERVO MONITOR	PROG. MIXES
COND. SELECT	AIL DIFF.
AFR	FLAP SETTING
DUAL RATE	AIL→CAMB.FLP

<SensorTouch™>
Scrolling
• Moving cursor
• To next page

MODEL MENU	CONDIT1 7.5U 2/3
AIL→BRAKEFLP	ELE→CAMBER
AIL→RUD	CAMB.FLP→ELE
AIRBRAKE→ELE	RUD→AIL
CAMBER MIX	RUD→ELE

MODEL MENU	CONDIT1 7.5U 3/3
SNAP ROLL	MOTOR
AIRBRAKE	
GYRO	
AILEVATOR	

Model Menu functions (Common) list

●SERVO MONITOR

Servo test and servo position display (For a description of its functions, see the Linkage Menu section.)

●COND.SELECT

Flight conditions addition, deletion, copy, condition renaming, and condition delay can be set.

●AFR

Sets the angle and curve of all the operation functions.

●DUAL RATE

A D/R curve which can be switched with a switch, etc. can also be added.

●PROG. MIX

Program mixing which can be freely customized. Up to 10 mixes can be used for each condition.

CONDIT. SELECT

Flight condition's addition, deletion, copy, condition renaming, and condition delay can be set. [All model types]

The functions in the Model Menu can be used by switching the settings of up to 8 flight conditions by using the Condition Select function to add flight conditions. Add conditions, as required.

When you do not want to use the Condition Select function, this setting is unnecessary. In this case, use the flight conditions assigned at initial setting.

- Since switching by stick and lever position, in addition to ordinary toggle switch, is possible as the flight condition selector switch, this function can be linked with other operations.

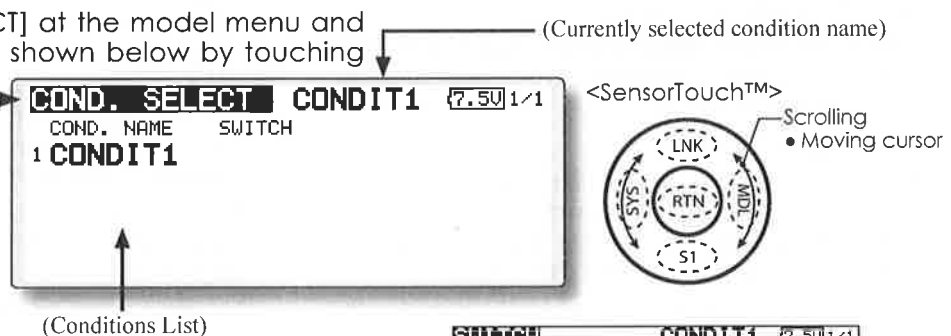- A Condition Delay function can be set. Unnecessary fuselage motion generated when there are sudden changes in the servo positions and when there are variations in the operating time between channels during condition switching can be suppressed. The delay can be set for each channel.

When setting the delay function at the switching destination condition, the related function changes after a delay corresponding to the set amount.

- When multiple conditions were set, their operation priority can be freely changed.

- The condition name can be changed. The selected condition name is displayed on the screen. When a condition has been added, give it a name which can be easily confirmed.

- Select [CONDIT. SELECT] at the model menu and call the setup screen shown below by touching the RTN button.

  - Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

(Currently selected condition name)

<SensorTouch™>
Scrolling
• Moving cursor

(Conditions List)

*Perform the settings below after using the touch sensor to move the cursor to the item you want to set.

(For a detailed description of the setting method, see [Switch Setting Method] at the back of this manual.)
*The data (except the condition name) of the condition currently being used is copied to the added condition.
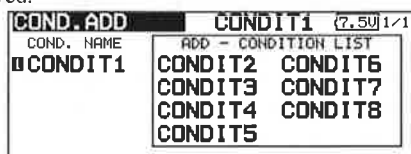
Condition addition

1. Use the touch sensor to move the cursor to any condition in the conditions list and touch the RTN button.

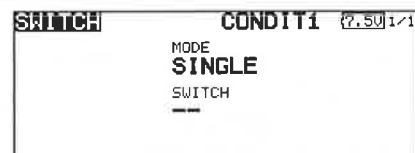   Move the cursor to the condition you want to add.

2. Move the cursor to [ADD] and touch the RTN button.

   *Only the No. of the conditions which can be added is displayed.

3. Add the condition by touching the RTN button again. Touch the RTN button to end adjustment and return to the cursol move mode.

4. Move the cursor to [SWITCH] item, call the switch setup screen by touching the RTN button, and select the switch and ON direction to be used in condition switching.

Condition deletion

1. Use the touch sensor to move the cursor to the condition you want to delete in the conditions list and touch the RTN button.

   *The number before the condition name become reverse-video to show that it is to be deleted.

2. Move the cursor to [REMOVE] and touch the RTN button.
   *A confirmation message is displayed.
   *Note that if initially operated up and down, the objective condition changes.

3. When the RTN button is touched again, the condition is deleted. (Operate the touch sensor or S1 button to stop deletion.)

   Touch the RTN button to end adjustment and return to the cursol move mode.

Condition name change

1. Use the touch sensor to move the cursor to the condition you want to change in the

conditions list.

*The number before the condition name become reverse-video to show that it is to be deleted.

2. Move the cursor to [RENAME] and touch the RTN button.

*The condition name setup screen appears.

```
COND. SELECT        (7.5V)1/3
CONDIT 1            ABCDEFGHIJ
[CONDIT  1]        KLMNOPQRST
CANCEL   ENTER     UVWXYZabcd
                  efghijklmn
← →      DELETE    opqrstuvwx
                  yz ! "#$%&'
```

3. Change the condition name as described below:

[Moving cursor in input box]

Select [←] or [→], and touch the RTN button.

[Deleting a character]

When [DELETE] is selected and the RTN button is touched, the character immediately after the cursor is deleted.

[Adding a character]

When a candidate character is selected from the character list and the RTN button is touched, that character is added at the position immediately after the cursor.

*A name of up to 8 characters long can be entered as the condition name. (A space is also counted as 1 character.)

5. At the end of input, select [ENTER] and touch the RTN button. (To terminate input and return to the original state, select [CANCEL] and touch the RTN button.)
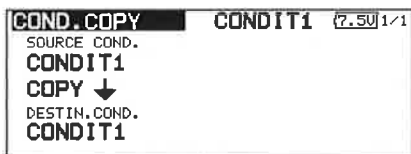
Condition copy

1. Use the touch sensor to move the cursor to any condition in the conditions list and touch the RTN button.

2. Use the touch sensor to move to [COPY].

3. Touch the RTN button.

*The copy screen appears.

```
COND.COPY   CONDIT1  (7.5V)1/1
SOURCE COND.
CONDIT1
COPY ↓
DESTIN.COND.
CONDIT1
```

4. Use the touch sensor to move the cursor to the "SOURCE COND." (copy source) item and touch the RTN button.

*The models already saved are displayed at the right side of the screen.

5. After using the touch sensor to move the cursor to the copy source condition, touch the RTN button.

*The copy source condition is displayed at the "SOURCE COND." position.

6. Use the touch sensor to move the cursor to "DESTIN.CND." (copy destination) and touch the RTN button.

*The models already saved are displayed at the right side of the screen.

7. After using the touch sensor to move the cursor to the copy destination condition, touch the RTN button.

*The copy destination conditions are displayed at the "DESTIN.COND." position.

8. Use the touch sensor to move the cursor to [COPY] and touch the RTN button.

9. When the RTN button is touched again, copy is executed.(Operate touch sensor or S1 button to stop copying.)

Touch the RTN button to end adjustment and return to the cursol move mode.

Priority change

1. Use the touch sensor to move the cursor to the condition whose priority you want to change in the condition list.

2. Move the cursor to [UP] or [DOWN] of [PRIORITY] and touch the RTN button. (The last condition becomes the highest priority.)

*The initial setting condition cannot be shifted. The priority is the lowest.

Condition delay setting

1. Use the touch sensor to move the cursor to the condition you want to change in the condition list and touch the RTN button.

2. Move the cursor to [DELAY] and touch the RTN button.

*The condition delay setup screen appears.

```
COND. DELAY    CONDIT1  (7.5V)1/4
CH    FUNCTION    DELAY  GROUP
CH1   ELEVATOR     0     GROUP
CH2   RUDDER       0     GROUP
CH3   THROTTLE     0     GROUP
CH4   AILERON      0     GROUP
```

3. Use the touch sensor to move the cursor to the "DELAY" item of the channel you want to set and touch the RTN button to switch to the data input mode.

Adjust the delay amount with the touch sensor.

Initial value: 0

Adjustment range: 0~27 (maximum delay)

Touch the RTN button to end adjustment and return to the cursol move mode.

● The setting mode (group [GROUP]/single [SINGLE] mode) can be switched.

(For more information, see the description at the back of this manual.)

AFR

The angle and curve of each operation function can be set. [All model types]

AFR function is used to adjust the throw and operation curve of the stick, lever, and switch functions for each flight condition. This is normally used after End Point has defined the maximum throw. When mixing is applied from one channel to another channel, both channels can be adjusted at the same time by adjusting the operation rate through the AFR function.

- Operation curve adjustment: Three types of curves (EXP1, EXP2, and POINT) can be selected. A maximum 17 points curve can be used for the point curve type. (Initial setting: 9 points) The number of points can also be increased and decreased and curves from complex curves to simple curves can be used.

- Operation speed adjustment: The operation speed of each function when the function is operated (including at flight condition switching) can be adjusted. The function operates smoothly at a constant speed corresponding to the set speed.

- Select [AFR] at the model menu and call the setup screen shown below by touching the RTN button.

[AFR/D/R]: Displays the currently selected rate (AFR/D/R).

(Currently selected condition name)

- Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

```
AFR (ELE )    CONDIT1  [7.5V]1/
+150    MODE      OFFSET    AFR
+100    EXP 1     +0.0
+50     RATE A    RATE B
0       +100.0    +100.0
-50     EXP A     EXP B
-100    +0.0      +0.0
-150
POS  +0.0 RATE  +0.0
```

<SensorTouch™>

Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

- To next page

●Operation curve setting

(For a description of the setting method, see the description at the back of this manual.)

```
AFR          CONDIT1  [7.5V]2/2
+150                       AFR
+100    FUNC.   ELE
+50     IN  MODE   OUT
0       SPEED  0 LIN.  0
-50     GROUP  GROUP
-100    ACTIVE
-150    D/R NO.
```

●Function selection

●Servo speed setting

(For a description of the setting method, see the description at the back of this manual.)

(Number of D/R curves set at the currently selected condition)

●Group/single mode switch (GROUP/SINGLEI)

(For more information, see the description at the back of this manual.)

Function selection method

1. Use the touch sensor to move the cursor to [FUNC.] and touch the RTN button to switch to the data input mode.

2. Select the desired function by scrolling the touch sensor to the left or right, touch the RTN button.

*The setting mode (group [GROUP]/single [SNGLE] mode) can be switched (For more information, see the description at the back of this manual.)
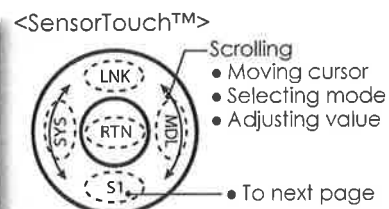
DUAL RATE

D/R curves which can be switched by switch, etc. can be added. The curve can be adjusted by the AFR function.

- Up to 6 rates can be added for each condition.
- D/R is set for each condition and is not reflected at other conditions.
- D/R at the top of the D/R list has priority.

- Select [DUAL RATE] at the model menu and call the setup screen shown below by touching the RTN button.

- Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

```
DUAL RATE        CONDIT1  7.5V 1/2
  D/R NAME  STATUS  FUNCTION      SWITCH
1 D/R 1     INH     AILERON       --
2 D/R 2     INH     AILERON       --
3 D/R 3     INH     AILERON       --
4 D/R 4     INH     AILERON       --
```

<SensorTouch™>

Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

- To next page

Dual rate adding

1. Move the cursor to the [INH] display of an unused D/R and touch the RTN button to switch to the data input mode.

   Turn it off by scrolling the touch sensor to the left and activate the D/R function by touching the RTN button.

2. Move the cursor to the "FUNCTION" item and touch the RTN button to switch to the data input mode.

   Select the function by scrolling the touch sensor and touch the RTN button.

3. Move the cursor to the [SWITCH] item and call the switch setup screen by touching the RTN button and select the switch and ON direction. Alternate mode can be assigned to dual rate switch.

   (For a detailed description of the setting method, see [Switch Setting Method] at the end of this manual.)

PROG. MIXES

Program mixing which can be freely customized. Up to 10 mixings can be used for each condition. [All model types]

Programmable mixing may be used to correct undesired tendencies of the aircraft, and it may also be used for unusual control configurations. Mixing means that the motion of a command channel, called the "master," is added to the motion of the mixed channel, called "slave."

You may choose to have the Master's trim added to the Slave channel response ("Trim" setting). The mixing curve can be changed so that the undesired tendencies can be corrected effectively by setting the EXP1/EXP2/POINT modes. The Delay function can be programmed for each rate. The Delay is used to change the rate smoothly when switching mixes. You may define Mixing ON/OFF switch, control or you may choose to have mixing remaining on all the time. Mixing ON/OFF delay time can be adjusted.
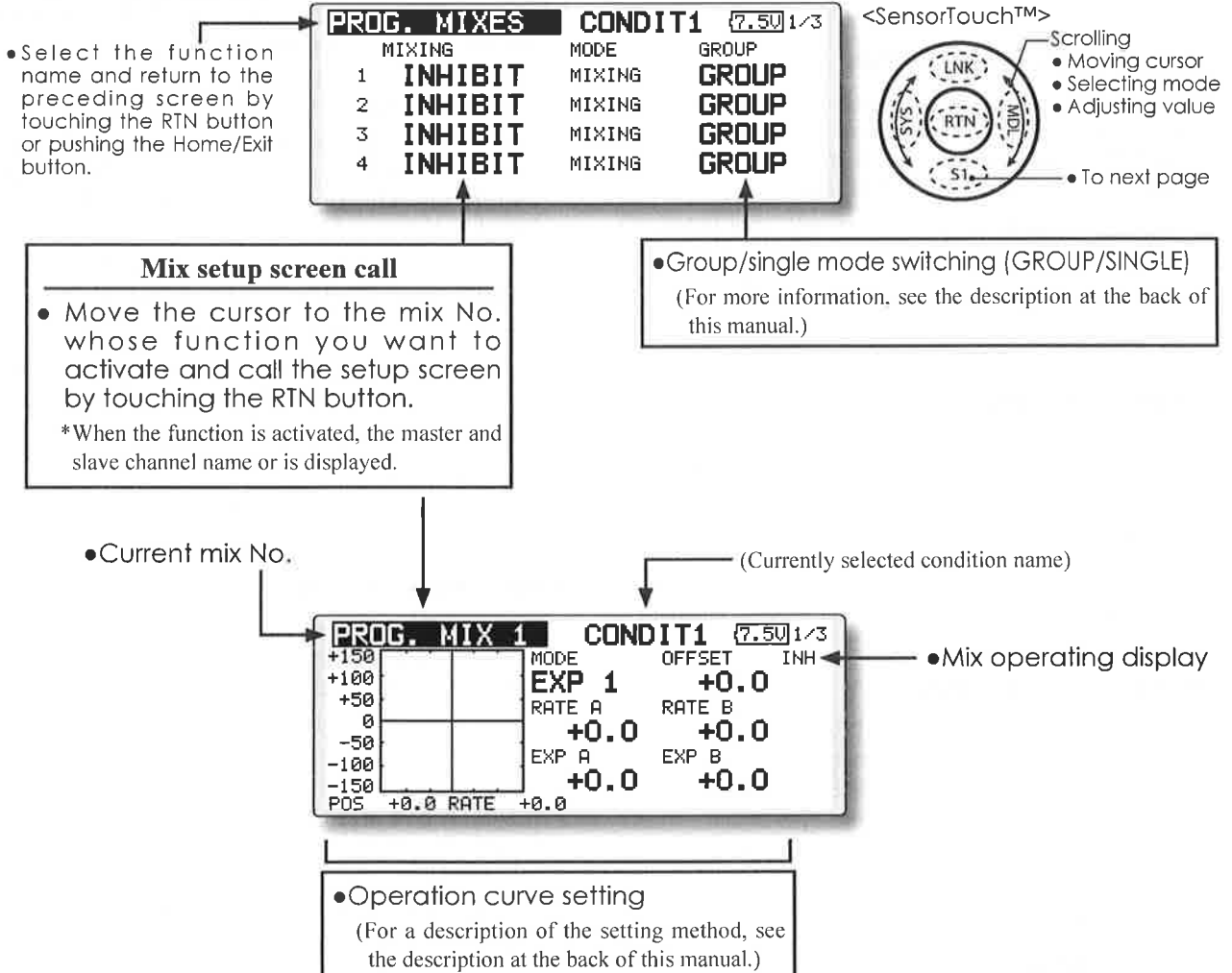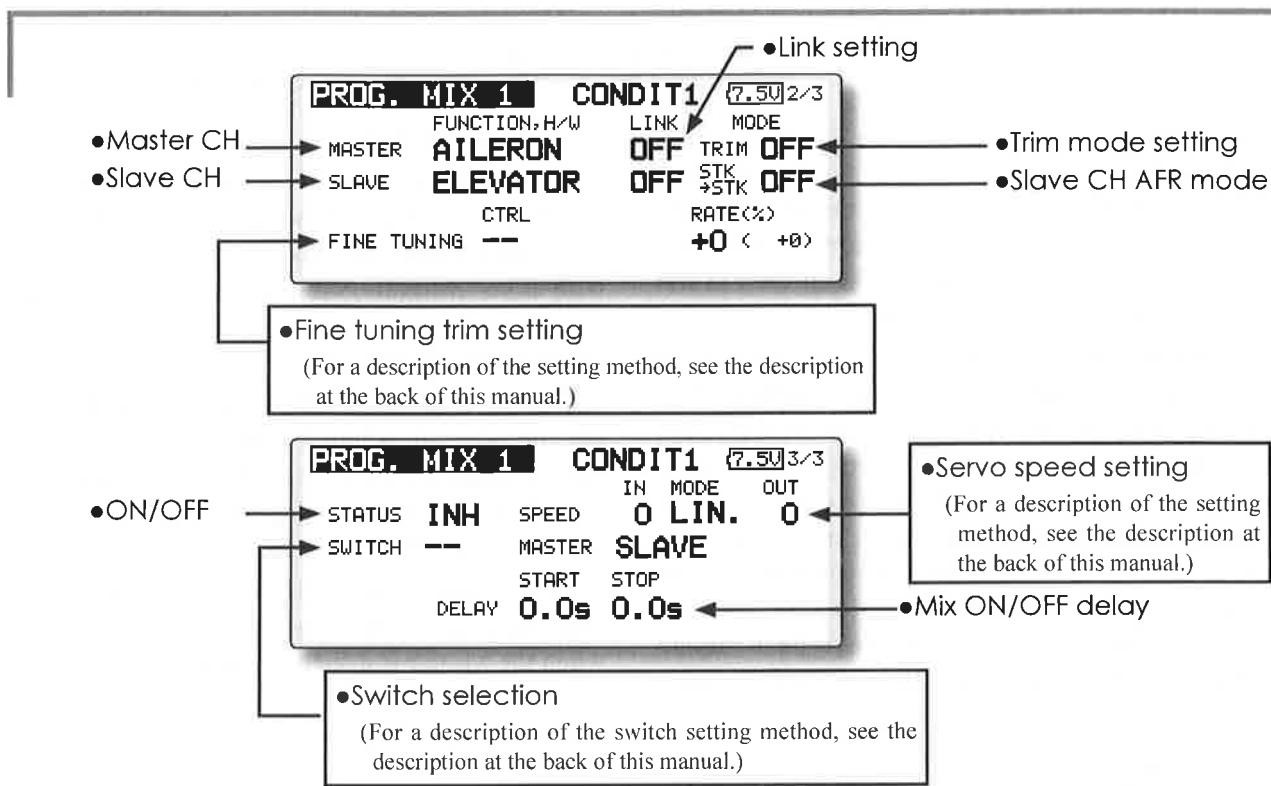
The Programmable mixing includes a powerful link function, which allows Programmable mixing to be linked with the special mixing functions, or with other programmable mixing functions. The link function can be set up for Master and Slave channel individually.

The slave channel AFR mode (STK-STK mode) may be selected, where the slave channel AFR and D/R settings are observed when Link function is set. The knob for fine tuning can be set up for every mixing circuit. (Fine tune function)

The programmable mixing (in mixing mode) STK to STK mixing function can be used even when the Master is a stick or other hardware.

- Select [PROG. MIXES] at the model menu and call the setup screen shown below by touching the RTN button.

- Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

```
PROG. MIXES   CONDIT1  [7.5V]1/3
     MIXING       MODE      GROUP
  1  INHIBIT     MIXING    GROUP
  2  INHIBIT     MIXING    GROUP
  3  INHIBIT     MIXING    GROUP
  4  INHIBIT     MIXING    GROUP
```

<SensorTouch™>

Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

- To next page

Mix setup screen call

- Move the cursor to the mix No. whose function you want to activate and call the setup screen by touching the RTN button.

*When the function is activated, the master and slave channel name or is displayed.

- Group/single mode switching (GROUP/SINGLE)
  (For more information, see the description at the back of this manual.)

- Current mix No.

(Currently selected condition name)

```
PROG. MIX 1   CONDIT1  [7.5V]1/3
+150          MODE      OFFSET    INH
+100          EXP 1      +0.0
+50           RATE A    RATE B
 0            +0.0      +0.0
-50           EXP A     EXP B
-100          +0.0      +0.0
-150
POS  +0.0 RATE  +0.0
```

- Mix operating display

- Operation curve setting
  (For a description of the setting method, see the description at the back of this manual.)

●Link setting

```
PROG. MIX 1   CONDIT1 (7.5V)2/3
              FUNCTION,H/W   LINK    MODE
●Master CH ──→ MASTER  AILERON    OFF  TRIM OFF ──→ ●Trim mode setting
●Slave CH ──→  SLAVE   ELEVATOR   OFF  STK  OFF ──→ ●Slave CH AFR mode
                                      →STK
                        CTRL          RATE(%)
            ──→ FINE TUNING ──         +0 ( +0)
```

●Fine tuning trim setting

(For a description of the setting method, see the description
at the back of this manual.)

```
PROG. MIX 1   CONDIT1 (7.5V)3/3
                       IN  MODE   OUT
●ON/OFF ──→ STATUS INH  SPEED  0 LIN.  0 ──→ ●Servo speed setting
         ──→ SWITCH  ──  MASTER SLAVE
                         START  STOP
                   DELAY 0.0s  0.0s ──→ ●Mix ON/OFF delay
```

●Servo speed setting

(For a description of the setting
method, see the description at
the back of this manual.)

●Switch selection

(For a description of the switch setting method, see the
description at the back of this manual.)

*Perform the settings below after using the touch sensor to move the cursor to the item you want to set.

●**Group/single mode selection**

1. When you want to activate functions for only selected conditions, move the cursor to the [GROUP] item and touch the RTN button to switch to the data input mode.

2. Turn the touch sensor to the left until [SINGLE] starts to blink and then touch the RTN button.

    *The mode changes to the single mode [SINGLE].

    *When using common settings at each conditions, remain in the [GROUP] mode.

●**Activate the function.**

1. Move the cursor to [INH] and touch the RTN button to switch to the data input mode.

2. Turn the touch sensor to the left until [ACT] starts to blink and then touch the RTN button.

    *The function is activated. (ON or OFF display)

    *ON/OFF switch and mix rate are not set even through the function is activated.

●**ON/OFF switch setting**

Move the cursor to the [SWITCH] item, call the switch setup screen by touching the RTN button, and select the switch and ON direction.

(For a description of the setting method, see [Switch Setting Method] at the back of this manual.)

*Always on when [--].

●**Master channel setting**

1. Move the cursor to the [FUNCTION.H/W] item of [MASTER] and touch the RTN button to switch to the data input mode.

Select the function by scrolling the touch sensor and touch the RTN button.

2. When you want to link this mixing with other mixes, move the cursor to the [LINK] item and touch the RTN button to switch to the data input mode.

Set the link mode to [+] or [-] by scrolling the touch sensor and touch the RTN button.

    *Check the direction by actual operation.

    *Master channel control can be set to simple operating amount of sticks and VR which do not include ATV, AFR, D/R, and mixing setting. In this case, the switch setup screen is displayed by touching the RTN button with "H/W" selected by function selection. Select master channel side control. (To terminate the "H/W" selection, select the [--] display and touch the RTN button.

●**Slave channel setting**

1. Move the cursor to the [FUNCTION.H/W] item of [SLAVE] and touch the RTN button to switch to the data input mode.

Select the function by scrolling the touch sensor and touch the RTN button.

2. When you want to link this mix with other mixes, move the cursor to the [LINK] item and touch the RTN button to switch to the data input mode.

Set the link mode to [+] or [-] by scrolling the touch sensor and touch the RTN button.

    *Check the direction by actual operation.

●Trim mode ON/OFF setting

1. When changing the trim mode, move the cursor to the [TRIM] item and touch the RTN button to switch to the data input mode.

   Select ON/OFF by scrolling the touch sensor and set the selection by touching the RTN button.

   *When mixing includes master side trim, select [ON] and when mixing does not include master trim, select [OFF].

   *Effective when a function is set at the master channel.

●Slave channel AFR mode setting (STK-STK)

1. Move the cursor to the [STK-STK] item, select the mode by scrolling the touch sensor, and change the mode by touching the RTN button.

   *When link is set at the slave side, and you want to add AFR (D/R) to the mixing rate, select [ON].

   *This is effective when the linkage is the same, but the travels are substantially different.

●Mixing curve setting

   (For a description of the curve setting method, see the description at the back of this manual.)

●Fine tuning trim setting

   Operation control [CTRL], operation mode [MODE], and rate [RATE] adjustment is possible by [FINE TUNING] item.

   (For a description of the fine tuning trim setting method, see the description at the back of this manual.)

●Servo speed setting

   Adjustment is possible with the [SPEED] item.

   (For a description of the servo speed setting method, see the description at the back of this manual).

●Mixing ON/OFF delay setting

   Delay time at mix ON [START] and delay time at mix OFF [STOP] adjustment is possible by [DELAY] item.

   *This function is inactive when a mixing switch is not set.

1. Move the [START] or [STOP] item and touch the RTN button to switch to the data input mode.

2. Adjust the delay time by scrolling the touch sensor.

   Initial value: 0.0 sec

   Adjustment range: 0~4 sec

   (When the RTN button is touched for 1 second, the delay time is reset to the initial value.)

Touch the RTN button to end adjustment and return to the cursol move mode.

●Offset mode setting

   Offset mode is function which allows simultaneous offset control of up 4 slave functions per circuit.

1. Use [MODE] setting to select the program mixing oparation mode. [MIXING] is the normal mixing mode and [OFFSET] is the offset mode.

2. Move the cursor to [INHIBIT] of the mixing No. set to the offset mode and touch the RTN button. The setup screen is displayed.

3. Press the S1 button. Page 5/5 is displayed.

4. Move the cursor to the [STATUS] item and switch to the date input mode by touching the RTN button.

5. Turn the dial to the left and right until [ACT] blinks, and then touch the RTN button. To deactivate the function, switch to [INH].

●ON/OFF switch selection

   Move the cursor to the page 5/5 [SWITCH] item, call the switch setup screen by touching the RTN button, and then select the switch and ON direction. (For a detailed description of the selection method, see [Switch Selection Method] at the back of the instruction manual.)

●Slave No. selection

   Setting of the slave No. from 1 to 4 at pages 1/5~4/5 is displayed. When the S1 button is pushed, the displayed slave No. is switched.

●Slave function setting

   Move the cursor to the [FUNCTION] item and switch to the date input mode by touching the RTN button. Select the function by scrolling the dial and then touch the RTN button.

●Offset rate setting

   The function operation offset amount when the mixing switch is ON and OFF can be set independently.

1. Move the cursor to the [ON] or [OFF] item and switch to the date input mode by touching the RTN button.

2. Turn the dial to the left and right and set the offset rate when the switch is ON or OFF.

   Initial setting : 0%

   Setting range : -300%~+300%

3. After setting, switch to the cursor move mode by touching the RTN button.

*At adjustment, the offset rate is reset to the initial value by touching the RTN button for 1 second.

● **Fine tuning trim setting**

Operation control [CTRL], operation mode [MODE], and rate [RATE] adjustment is possible by [FINE TUNING] item.

(For a description of the fine tuning trim setting method, refer to [Fine tuning trim setting] at the back of this manual.)

● **Operation mode setting**

The operation mode when the switch was operated is selected. Normal mode [NORM] or timer mode [TIME] can be selected.

[Normal mode]

After the switch is set to ON, mixing is turned ON after the time set by start delay ([START]) has elapsed. Similarly, after the switch was set to OFF, mixing is turned OFF after the time set by stop delay ([STOP]) has elapsed.

[Timer mode]

After the switch was set to ON, mixing is turned ON after the time set by start delay ([START]) has elapsed. Mixing is automatically turned OFF after the time set by stop delay ([STOP]) has elapsed. Examples of use are jet plane and scale model retractable landing gear and cover linked mixing, etc.

● **Servo speed setting**

The speed at function operation can be adjusted. (For a description of the setting method, refer to [Servo speed setting] at the back of the instruction manual.)

● **Delay setting**

Mixing operation at mixing switch ON ([START]) and OFF ([STOP]) can be delayed by [DELAY] item.(When switch is set.)

1. Move the cursor to the [START] or [STOP] item and switch to the date input mode by touching the RTN button.

2. Turn the dial to the left and right and set the mixing operation delay time at switch ON or OFF.

Initial setting : 0sec

Setting range : 0sec~35sec

3. After adjustment, switch to the cursor move mode by touching the RTN button.

*At adjustment, the delay time can be reset to the initial value by touching the RTN button for 1 second.

MODEL MENU (AIRPLANE/GLIDER FUNCTIONS)

The dedicated mixes, etc. usable when airplane or glider model type is selected are displayed in this Model Menu functions section. First use the Model Type function of the Linkage Menu to preset the model type, wing type, and tail type matched to the fuselage used. Other settings reset the data used in mixing function, etc.

These dedicated mixes can be set for each flight condition, as required. When you want to use the system by switching the settings for each condition by switch or stick position, use the

- Select the [MODEL] at the home screen and call the model menu shown below by touching the RTN button.
- Use the touch sensor to select the function you want to set and call the setup screen by touching the RTN button.
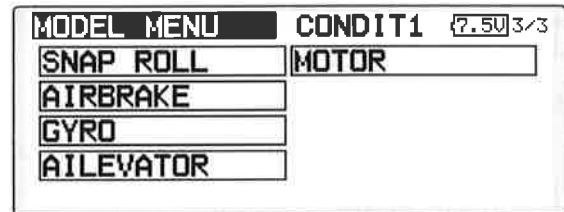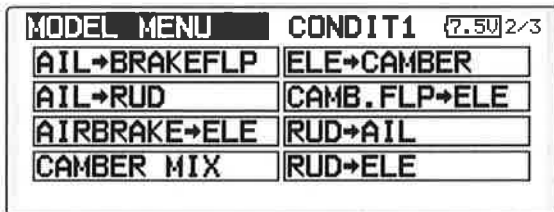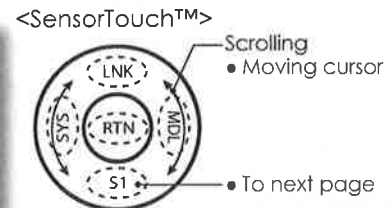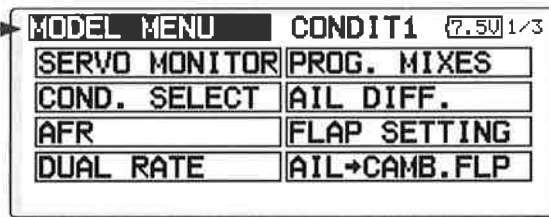
Condition Select function to add flight conditions. (Up to 8 conditions can be used)

Note: The FMT-01 is designed so that the airplane and glider model types can handle aircraft of the same wing type.

The functions common to airplanes and gliders, except some dedicated functions, are summarized without regard to the model type.

The setting items are different, depending on the number of servos, etc. according to the wing type used. The setup screens in the instruction manual are typical examples.

(Model Menu screen example)

*The Model Menu screen depends on the model type. This screen is for model type 4AIL+4FLP.

- Select the [MODEL MENU] and return to the home screen by touching the RTN button or pushing the Home/Exit button.

MODEL MENU	CONDIT1	7.5U 1/3
SERVO MONITOR	PROG. MIXES	
COND. SELECT	AIL DIFF.	
AFR	FLAP SETTING	
DUAL RATE	AIL→CAMB.FLP	

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Scrolling
- Moving cursor
- To next page

MODEL MENU	CONDIT1	7.5U 2/3
AIL→BRAKEFLP	ELE→CAMBER	
AIL→RUD	CAMB.FLP→ELE	
AIRBRAKE→ELE	RUD→AIL	
CAMBER MIX	RUD→ELE	

MODEL MENU	CONDIT1	7.5U 3/3
SNAP ROLL	MOTOR	
AIRBRAKE		
GYRO		
AILEVATOR		

Model Menu functions list

AIL DIFFERENTIAL

This function adjusts the left and right ailerons. Roll axis correction and fine tuning with a VR are also possible. This is convenient when making settings during flight.

[Airplane/glider, 2 ailerons or more]

FLAP SETTING

The flaps can be adjusted independently. For a 4 flaps model, the camber flaps can be mixed with the brake flaps. [Airplane/glider, 2 flaps or more]

AIL to CAMBERFLP

This mix operates the camber flaps in the aileron mode. It improves the operation characteristic of the roll axis. [Airplane/glider, 2 ailerons + 2 flaps or more]

AIL to BRAKEFLP

This mix operates the brake flaps in the aileron mode. It improves the operation characteristic of the roll axis. [Airplane/glider, 4 flaps or more]

AIL to RUD

This mix is used when you want to operate the rudder at aileron operation. Banking at a shallow bank angle is possible. [Airplane/glider, general]

AIRBRAKE to ELE

This mix is used to correct operation of the airbrakes (spoilers) when landing. [Airplane/glider, general]

RUD to AIL

This mix is used to correct roll maneuvers, knife edge, etc. of stunt planes. [Airplane/glider, general]

CAMBER Mix

This mix adjusts the camber and corrects the elevators. [Airplane/glider, 2 ailerons or more]

ELE to CAMBER

This mix is used when you want to the mix camber flaps with elevator operation. Lifting force can be increased at elevators up. [Airplane/glider, 2 ailerons or more]

CAMBERFLP to ELE

This mix is used to correct for attitude changes when the camber flaps are being used. [Airplane/glider, 2 ailerons + 1 flap or more]

BUTTERFLY (Crow)

This function is used when powerful brake operation is necessary. [Glider, 2 ailerons or more]

TRIM MIX 1/2

The ailerons, elevators, and flaps trim offset rate can be called by switch or condition selection. [Glider, 2 ailerons or more]

AIRBRAKE

This function is used when airbrakes are necessary when landing or when diving, etc. during flight. (Airplane, general)

GYRO

This is a dedicated mix when a GYA Series gyro is used. [Airplane/glider, general]

V-TAIL

This function adjusts the elevators and rudder of V-tail models. [Airplane/glider, V-tail specifications]

AILEVATOR

This function adjusts the elevators and ailerons of models with elevator specifications. [Airplane/glider, elevator specifications]

WINGLET

This function adjusts the left and right rudders of winglet models. [Airplane/glider, winglet specifications]

MOTOR

The operation speed when the motor of F5B and other EP gliders is started by switch can be set. [EP glider, general]

RUD to ELE

This function is used to correct roll maneuvers, knife edge, etc. of stunt planes. [Airplane, general]

SNAP ROLL

This function selects the snap roll switch and adjusts the steering angle of each rudder. Servo speed can also be adjusted. [Airplane general]

RUDDER 1
Winglet
(at Flying wing)
AIL 1 (Main Aileron)
FLP 3 (Brake Flap)
FLP 4 (Brake Flap)
AIL 2 (Main Aileron)
RUDDER 2
Winglet
(at Flying wing)

AIL 3 (Chip Aileron)
FLP 1 (Camber Flap)
FLP 2 (Camber Flap)
AIL 4 (Chip Aileron)

AIR BRAKE

V-TAIL
ELEVATOR (RUDDER 2)
RUDDER (ELEVATOR 2)

AILVATOR
ELEVATOR (AILERON 5)
ELEVATOR 2 (AILERON 6)
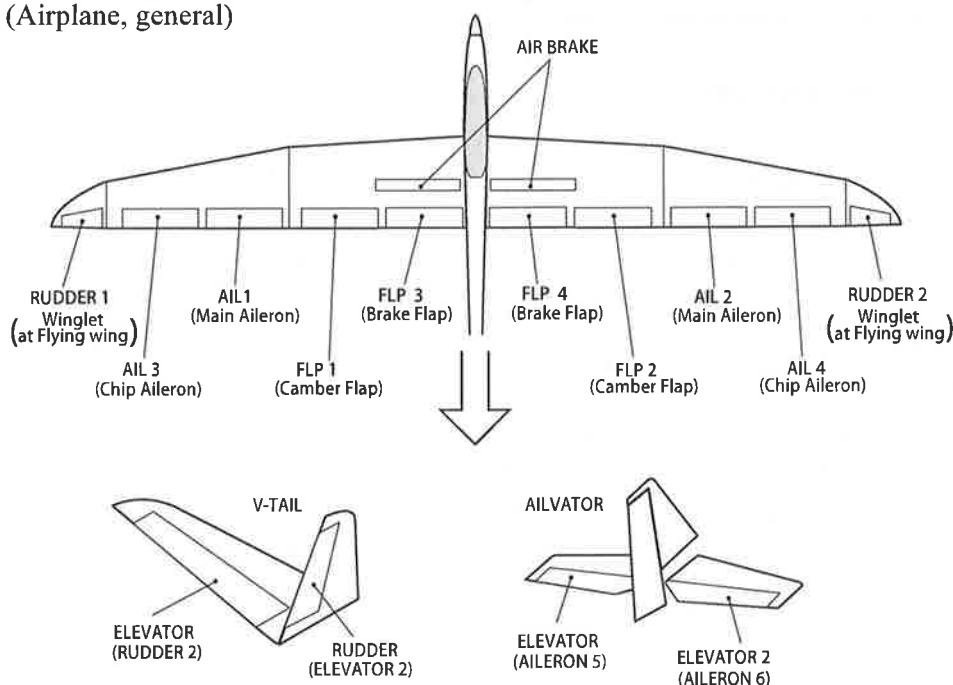
AIL DIFF.

[Airplane/glider, 2 ailerons or more]

The left and right aileron differential can be adjusted independently. The differential rate can also be adjusted according to the flying state by setting a fine tuning VR.

AIL 1 (Main Aileron)   AIL 2 (Main Aileron)
AIL 3 (Chip Aileron)   AIL 4 (Chip Aileron)
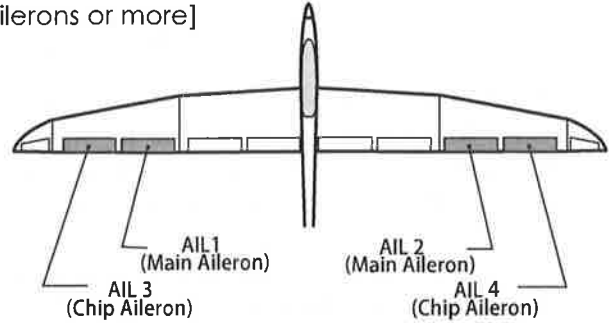
● Select [AIL DIFF.] at the model menu and call the setup screen shown below by touching the RTN button.

(Currently selected condition name)

● Group/single mode switching
(For more information, refer to the description at the back of this manual.)

●Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

```
AIL DIFF.      CONDIT1  [7.5U]1/1
              LEFT  RIGHT
AILERON      100%  100%    GROUP  GROUP
AILERON2     100%  100%    FINE    --
AILERON3     100%  100%    TUNING CURVE
AILERON4     100%  100%         AIL-AFR
```

<SensorTouch™>
Scrolling
● Moving cursor
● Selecting mode
● Adjusting value

● Aileron left/right adjustment

● Fine tuning VR setting
*The graph is operated by setting a VR, etc.

● Calls the AFR screen directly when adjusting aileron operation AFR.

● Overall adjustment by Rate A and Rate B.

```
AIL DIFF.      CONDIT1  [7.5U]1/1
+100          MODE      OFFSET
+50           EXP 1      +0.0
  0           RATE A    RATE B
-50           +100.0   +100.0
-100          EXP A     EXP B
POS +0.0 RATE +0.0  +0.0     +0.0
```

<Wing type: 4 ailerons screen>

*The display screen is an example. The actual screen depends on the Model Type.

Setting method

● Move the cursor to the aileron (AIL) 1~4 left (or right) setting item and touch the RTN button to switch to the data input mode.

Adjust the aileron angles when the stick is moved to the left (or right) end.

Touch the RTN button to end adjustment and return to the cursol move mode.

*The aileron AFR screen can be directly called from the AIL differential setup screen. ([AIL-AFR])

● When setting the fine tuning VR, move the cursor to the "--" item and touch the RTN button to call the selection screen, and then select the fine tuning VR.

Touch the RTN button to end adjustment and return to the cursol move mode.

● The fine tuning rate can be set by curve.

FLAP SETTING

[Corresponding model type]: Airplane/ glider, 2 flaps or more]
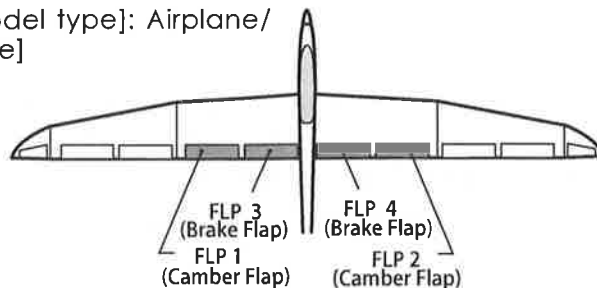
The up/down travel of each flap (camber flaps: FLP1/2, brake flaps: FLP3/4) can be adjusted independently at each servo according to the wing type.
- The operation reference point of each flap can be offset

The camber flaps of a 4-flap model can be mixed with the brake flaps. (Brake FLP to camber FLP)
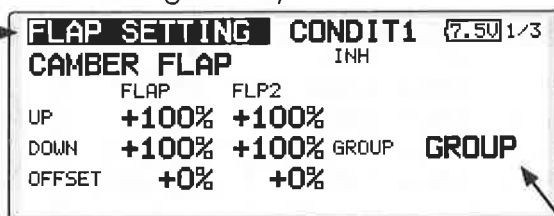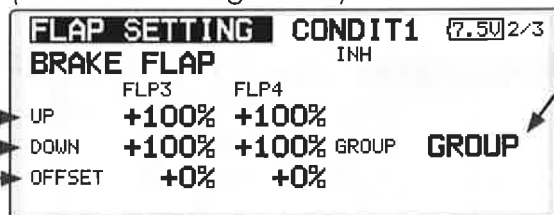- An ON/OFF switch can be set.

- Select [FLAP SETTING] at the model menu and call the setup screen shown below by touching the RTN button.

(CAMBER FLP setting screen)

<Wing type: 4 flaps screen>

FLP 3 (Brake Flap) FLP 4 (Brake Flap)
FLP 1 (Camber Flap) FLP 2 (Camber Flap)

*The display screen is an example. The actual screen depends on the model type.

- Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

```
FLAP SETTING  CONDIT1  7.5U 1/3
CAMBER FLAP         INH
              FLAP    FLP2
UP           +100%   +100%
DOWN         +100%   +100% GROUP  GROUP
OFFSET        +0%     +0%
```

<SensorTouch™>
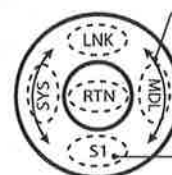
Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

- To next page

(BRAKE FLP setting screen)

```
FLAP SETTING  CONDIT1  7.5U 2/3
BRAKE FLAP          INH
              FLP3    FLP4
UP           +100%   +100%
DOWN         +100%   +100% GROUP  GROUP
OFFSET        +0%     +0%
```

- Up side/Down side adjustment
- Operation reference point offset

- Group/single mode switching
  (For more information, refer to the description at the back of this manual.)

(B.FLP to C.FLP setting screen)

```
FLAP SETTING  CONDIT1  7.5U 3/3
BRAKE FLAP → CAMBER FLAP

UP      +100%        ACT/INH INH
DOWN    +100%        GROUP   GROUP
OFFSET   +0%         SWITCH  --
```
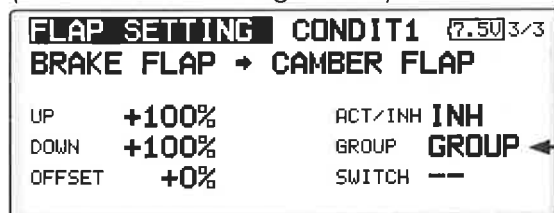
Setting method

- Move the cursor to the flap (FLP) 1~4 up or down item according to the wing type and touch the RTN button to switch to the data input mode.

  Adjust the travel independently.

- To offset the operation reference point of each flap, move the cursor to the corresponding offset item. Use the touch sensor to offset the reference point.

 Touch the RTN button to end adjustment and return to the cursol move mode.

- When using brake FLP to camber FLP mixing, move the cursor to the [ACT/INH] item and turn the touch sensor to the left and touch the RTN button. (ON is displayed.)

  When setting a switch, move the cursor to the [--] item of the switch and touch the RTN button to call the selection screen, and then select the switch and set its ON direction. (Always ON at "--" setting)

  (For a description of the switch selection method, see the description at the back of this manual.)

AIL to CAMB.FLP

[Corresponding model type]: Airplane/ glider, 2 ailerons + 2 flaps or more

This mix operates the camber flaps (FLP1/2) in the aileron mode. When the aileron stick is manipulated, the ailerons and camber flaps perform aileron operation simultaneously and the operation characteristic of the roll axis is improved.
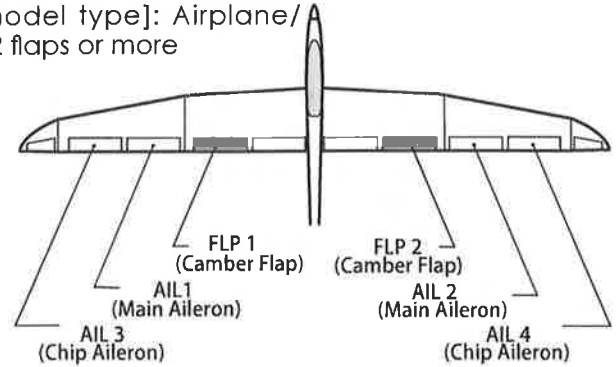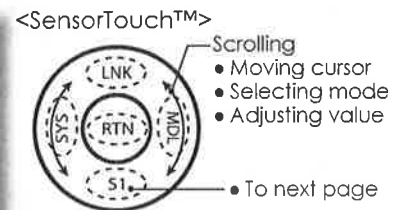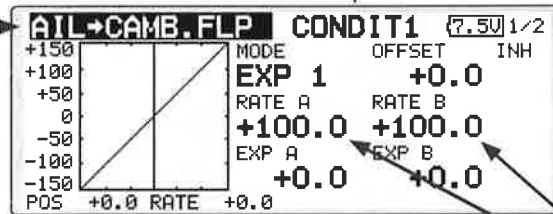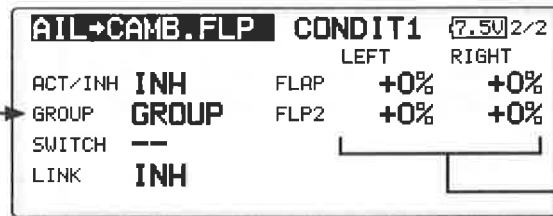
- The aileron left/right mixing rate of each flap servo can be fine-tuned.
- A mixing curve can be set.
- An ON/OFF switch can be set.
- Linking is possible: Link this mix to other mixes.

FLP 1 (Camber Flap)   FLP 2 (Camber Flap)
AIL1 (Main Aileron)   AIL 2 (Main Aileron)
AIL 3 (Chip Aileron)   AIL 4 (Chip Aileron)

*The display screen is an example. The actual screen depends on the model type.

- Select [AIL to CAMB.FLP] at the model menu and call the setup screen shown below by touching the RTN button.

(Currently selected condition name)

- Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

```
AIL→CAMB.FLP  CONDIT1  (7.5V)1/2
+150                MODE      OFFSET    INH
+100                EXP 1      +0.0
+50                 RATE A    RATE B
  0                 +100.0    +100.0
-50                 EXP A     EXP B
-100                +0.0      +0.0
-150
POS  +0.0 RATE  +0.0
```

<SensorTouch™>

Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

LNK
SYS   RTN   MDL
S1

- To next page

- Group/single mode switching

(For more information, refer to the description at the back of this manual.)

- Mixing curve setting
  *For a description of the curve setting method, see the description at the back of this manual.

- Left/right overall adjustment at Rate A and Rate B

```
AIL→CAMB.FLP  CONDIT1  (7.5V)2/2
                    LEFT    RIGHT
ACT/INH  INH    FLAP   +0%    +0%
GROUP    GROUP  FLP2   +0%    +0%
SWITCH   --
LINK     INH
```

- Adjustment of each flap servo

Setting method

- Move the cursor to the ACT/INH item and touch the RTN button to switch to the data input mode.

  Turn the touch sensor to the left and touch the RTN button. (ON is displayed.)

- When setting a switch, move the cursor to the [--] item of the switch and touch the RTN button to call the selection screen, and then select the switch and set its ON direction. (Always ON at "--" setting)

  (For a description of the switch selection method, see the description at the back of this manual.)

- Move the cursor to the left or right item of each flap servo and touch the RTN button to

switch to the data input mode.

Adjust the mixing rate with the touch sensor.

Touch the RTN button to end adjustment and return to the cursol move mode.

*When the mixing direction is reversed by the linkage, adjustments can be made by changing the mixing rate polarity (+ or -).
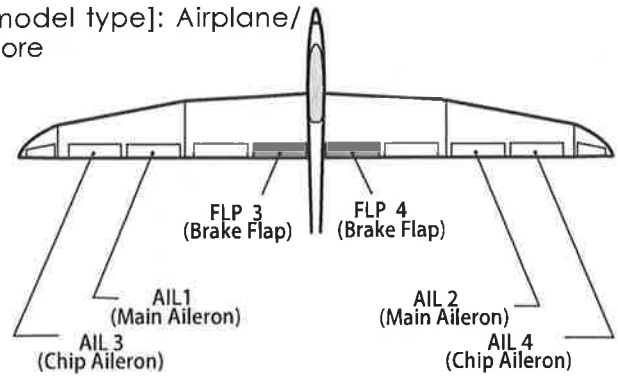
- A mixing curve can be set.

  (For a description of the mixing curve setting method, see the description at the back of this manual.)

- To set linking, move the cursor to the [LINK] item and touch the RTN button to switch to the data input mode.

- Set it to ON and touch the RTN button.

AIL to BRAKEFLP [Corresponding model type]: Airplane/glider, 4 flaps or more

This mix operates the brake flaps (FLP3/4) in the aileron mode. When the aileron stick is manipulated, the aileron and brake flaps perform the aileron operation simultaneously and the operation characteristic of the roll axis is improved.
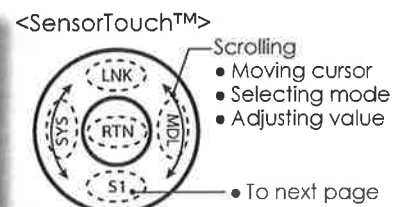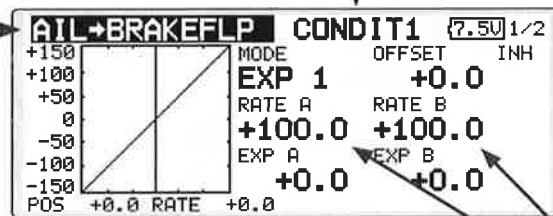
- The aileron left and right mixing rates can be adjusted for each flap servo.
- A mixing curve can be set.
- Mixing during flight can be turned ON/OFF by setting a switch. (Always ON at [--] setting)
- Linking can be set: Link this mix to other mixes.

FLP 3 (Brake Flap) FLP 4 (Brake Flap)

AIL1 (Main Aileron) AIL 2 (Main Aileron)
AIL 3 (Chip Aileron) AIL 4 (Chip Aileron)

*The display screen is an example. The actual screen depends on the model type.

- Select [AIL to BRAKEFLP] at the model menu and call the setup screen shown below by touching the RTN button.

(Currently selected condition name)

- Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

```
AIL→BRAKEFLP   CONDIT1  [7.5V]1/2
+150          MODE        OFFSET    INH
+100          EXP 1        +0.0
+50           RATE A      RATE B
0             +100.0      +100.0
-50           EXP A       EXP B
-100
-150                       +0.0    +0.0
POS  +0.0 RATE  +0.0
```

<SensorTouch™>
Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

LNK   MDL
SYS   RTN
S1

- To next page

- Group/single mode switching

(For more information, refer to the description at the back of this manual.)

- Mixing curve setting
  *For a description of the curve setting method, see the description at the back of this manual.

- Left/right overall adjustment at Rate A and Rate B

```
AIL→BRAKEFLP   CONDIT1  [7.5V]2/2
                        LEFT    RIGHT
ACT/INH  INH    FLP3    +0%     +0%
GROUP    GROUP  FLP4    +0%     +0%
SWITCH   --
LINK     INH
```

- Adjustment of each flap servo

●Setting method

- Move the cursor to the ACT/INH item and touch the RTN button to switch to the data input mode.

  Turn the touch sensor to the left and touch the RTN button. (ON is displayed.)

- When setting a switch, move the cursor to the [--] item of the switch and touch the RTN button to call the selection screen, and then select the switch and set its ON direction. (Always ON at "--" setting)

  (For a description of the switch selection method, see the description at the back of this manual.)

- Move the cursor to the left or right button of each flap servo and touch the RTN button to switch to the data input mode.

Adjust the mixing rate with the touch sensor.

Touch the RTN button to end adjustment and return to the cursol move mode.

*When the mixing direction is reversed by the linkage, adjustments can be made by reversing the mixing rate polarity (+ or -).
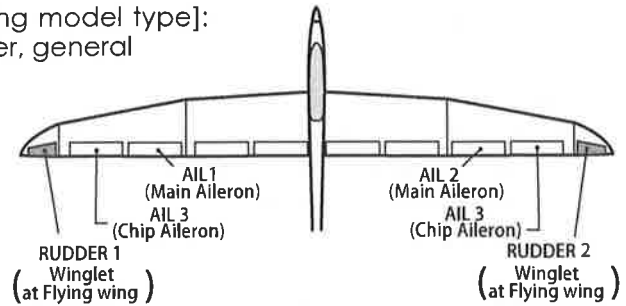
- A mixing curve can be set.

  (For a description of the curve setting method, see the description at the back of this manual.)

- To set linking, move the cursor to the Link item and touch the RTN button to switch to the data input mode.

  Set it to ON and touch the RTN button.

AIL to RUD

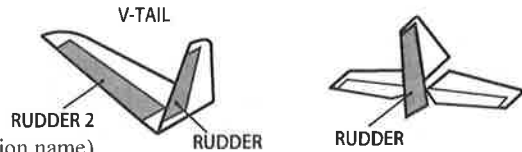[Corresponding model type]:
Airplane/glider, general

Use this mix when you want to mix the rudders with aileron operation.
- A mixing curve can be set.
- Mixing during flight can be turned ON/OFF by setting a switch. (Always ON at [--] setting)
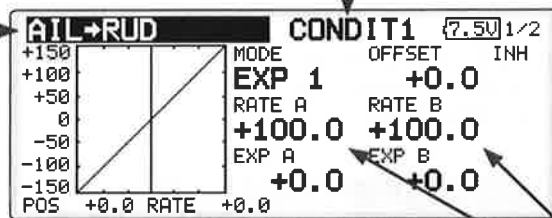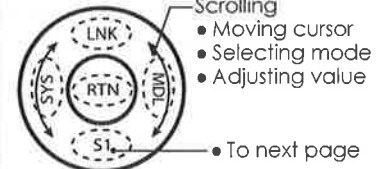- The mixing rate can be fine-tuned by setting a VR.

- Select [AIL to RUD] at the model menu and call the setup screen shown below by touching the RTN button.

(Currently selected condition name)

- Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

```
AIL→RUD        CONDIT1  7.5U 1/2
+150           MODE      OFFSET    INH
+100           EXP 1     +0.0
+50            RATE A    RATE B
0              +100.0    +100.0
-50            EXP A     EXP B
-100                     +0.0     +0.0
-150
POS  +0.0 RATE  +0.0
```

<SensorTouch™>
Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

- To next page

- Mixing curve setting
  *For a description of the curve setting method, see the description at the back of this manual.

- Left/right overall adjustment at Rate A and Rate B

- Group/single mode switching

(For more information, refer to the description at the back of this manual.)

*The display screen is an example. The actual screen depends on the model type.

```
AIL→RUD        CONDIT1  7.5U 2/2
               FINE TUNING
ACT/INH  INH   CONTROL  --
GROUP    GROUP
SWITCH   --    RATE      +0%
                       ( +0%)
```

- Fine tuning VR setting
- Operation mode
- Adjustment rate

Setting method

- Move the cursor to the ACT/INH item and touch the RTN button to switch to the data input mode.

  Turn the touch sensor to the left and touch the RTN button. (ON is displayed.)

- When setting a switch, move the cursor to the [--] item of the switch and touch the RTN button to call the selection screen, and then select the switch and set its ON direction. (Always ON at "--" setting)

  (For a description of the switch selection method, see the description at the back of this manual.

- When setting a VR, move the cursor to the Fine Tuning "--" item and touch the RTN button to call the selection screen, and then select the VR. The adjustment rate can be set. The VR operation mode can also be selected.

- A mixing curve can be set.

  (For a description of the curve setting method, see the description at the back of this manual.)

[Fine tuning VR operation mode]

[LIN.] Mixing rate 0% at center of VR. When the VR is turned clockwise and counterclockwise, the mixing rate increases and decreases, respectively.

[ATL+] Mixing rate 0% at left end of VR. When the VR is turned, the mixing rate increases.

[ATL-] Mixing rate 0% at right end of VR. When the VR is turned, the mixing rate increases.

[SYM.] When the VR is turned to the left or right of the neutral position, the mixing rate increases.

AIRBRAKE to ELE

[Corresponding model type]:
Airplane/glider, general

This mix is used when you want to mix the elevators with airbrake (spoiler) operation. It raises the elevators to correct for dropping of the nose during airbrake operation.

*This function does not operate when airbrake is not assigned at the Function menu in the Linkage Menu.
- The Rate 1 side/Rate 2 side mixing rate with the elevator servos can be adjusted.
- A mixing curve can be set.
- Mixing during flight can be turned ON/OFF by setting a switch. (Always ON at [--] setting)
- The mixing rate can be fine-tuned by setting a VR.
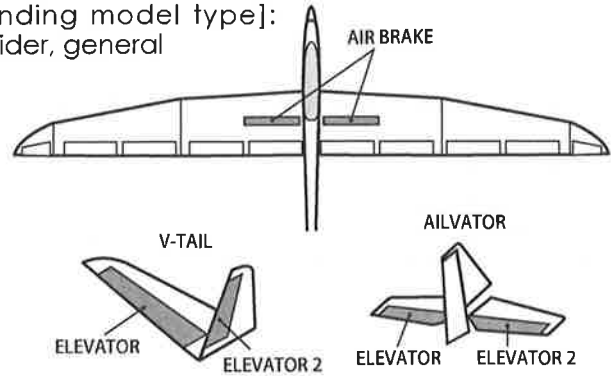
*The display screen is an example. The actual screen depends on the model type.

- Select [AIRBRAKE to ELE] at the model menu and call the setup screen shown below by touching the RTN button.

(Currently selected condition name)

- Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

```
AIRBRAKE→ELE  CONDIT1  (7.5V)1/3
+150                MODE      OFFSET    INH
+100                EXP 1      +0.0
+50                 RATE A    RATE B
0                   +100.0    +100.0
-50                 EXP A     EXP B
-100                          +0.0    +0.0
-150
POS  +0.0 RATE  +0.0
```

<SensorTouch™>
Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

- To next page

- Mixing curve setting
  *For a description of the curve setting method, see the description at the back of this manual.

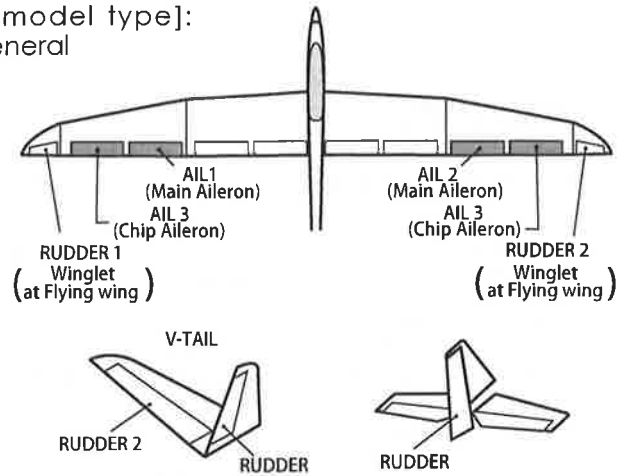- Group/single mode switching
  (For more information, refer to the description at the back of this manual.)

- Overall adjustment by Rate A and Rate B.

```
AIRBRAKE→ELE  CONDIT1  (7.5V)2/3
                    ┌FINE TUNING┐
ACT/INH  INH        CONTROL --
GROUP    GROUP
SWITCH   --         RATE      +0%
                         (  +0%)
```

- Fine tuning VR setting
- Operation mode
- Adjustment rate

- Adjustment of each elevator servo

```
AIRBRAKE→ELE  CONDIT1  (7.5V)3/3
INH   RATE1    RATE2
ELE   +0%      +0%
      (  +0%)  (  +0%)
ELE2  +0%      +0%
      (  +0%)  (  +0%)
```

Setting method

- Move the cursor to the ACT/INH item and touch the RTN button to switch to the data input mode.

  Turn the touch sensor to the left and touch the RTN button. (ON is displayed.)

- When setting a switch, move the cursor to the [--] item of the switch and touch the RTN button to call the selection screen, and then select the switch and set its ON direction. (Always ON at "--" setting)

  (For a description of the switch selection method, see the description at the back of this manual.

- When setting a VR, move the cursor to the Fine tuning "--" item and touch the RTN button to call the selection screen, and then select the VR. The adjustment rate can be set. The VR operation mode can also be set.

  (For a description of the fine tuning VR setting method, see the description at the back of this manual.)

- A mixing curve can be set.

  (For a description of the curve setting method, see the description at the back of this manual.)

[Fine tuning VR operation mode]

[LIN.] Mixing rate 0% at center of VR. When the VR is turned clockwise and counterclockwise, the mixing rate increases and decreases, respectively.

[ATL+] Mixing rate 0% at left end of VR. When the VR is turned, the mixing rate increases.

[ATL-] Mixing rate 0% at right end of VR. When the VR is turned, the mixing rate increases.

[SYM.] When the VR is turned to the left or right of the neutral position, the mixing rate increases.

RUD to AIL

[Corresponding model type]:
Airplane/glider, general

This function is used when you want to mix the ailerons with rudder operation. It is used when rudder is applied during roll maneuvers, knife edge, etc. of stunt planes. It can be used to bank scale models, large models, etc. like a full size plane.

- A mixing curve can be set.
- Mixing during flight can be turned ON/OFF by setting a switch. (Always ON at [--] setting)
- Linking can be set: Link this mix to other mixes.
- The mixing rate can be fine-tune by setting a VR.

AIL1 (Main Aileron)
AIL 3 (Chip Aileron)
RUDDER 1 (Winglet at Flying wing)

AIL 2 (Main Aileron)
AIL 3 (Chip Aileron)
RUDDER 2 (Winglet at Flying wing)

V-TAIL
RUDDER 2
RUDDER
RUDDER

- Select [RUD to AIL] at the model menu and call the setup screen shown below by touching the RTN button.

(Currently selected condition name)

- Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

```
RUD→AIL        CONDIT1  [7.5U]1/2
+150            MODE       OFFSET    INH
+100            EXP 1       +0.0
+50             RATE A     RATE B
0                +0.0       +0.0
-50             EXP A      EXP B
-100             +0.0       +0.0
-150
POS  +0.0 RATE  +0.0
```

<SensorTouch™>

Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

LNK
SYS RTN MDL
S1

- To next page

- Group/single mode switching

(For more information, refer to the description at the back of this manual.)

- Mixing curve setting
  *For a description of the curve setting method, see the description at the back of this manual.

```
RUD→AIL        CONDIT1  [7.5U]2/2
                FINE TUNING
ACT/INH  INH   CONTROL  --
GROUP    GROUP
SWITCH   --
LINK     INH   RATE      +0%
                        (  +0%)
```

- Left/right overall adjustment at Rate A and Rate B
- Fine tuning VR setting
- Operation mode
- Adjustment rate

*The display screen is an example. The actual screen depends on the model type.

Setting method

- Move the cursor to the ACT/INH item and touch the RTN button to switch to the data input mode.

  Turn the touch sensor to the left and touch the RTN button. (ON is displayed.)

- When setting a switch, move the cursor to the [--] item of the switch and touch the RTN button to call the selection screen, and then select the switch and set its ON direction. (Always ON at "--" setting)

  (For a description of the switch selection method, see the description at the back of this manual.

- When setting a VR, move the cursor to the Fine tuning "--" item and touch the RTN button to call the selection screen and then select the VR. The adjustment rate can be set,.

  The VR operation mode can also be set.

  (For a description of the fine tuning VR setting method, see the description at the back of this manual.)

- A mixing curve can be set.

  (For a description of the curve setting method, see the description at the back of this manual.)

- When linking: move the cursor to the [LINK] item and touch the RTN button to switch to the data input mode. Turn the touch sensor to the left and touch the RTN button. (ON is displayed.)

[Fine tuning VR operation mode]

[LIN.] Mixing rate 0% at center of VR. When the VR is turned clockwise and counterclockwise, the mixing rate increases and decreases, respectively.

[ATL+] Mixing rate 0% at left end of VR. When the VR is turned, the mixing rate increases.

[ATL-] Mixing rate 0% at right end of VR. When the VR is turned, the mixing rate increases.

[SYM.] When the VR is turned to the left or right of the neutral position, the mixing rate increases.
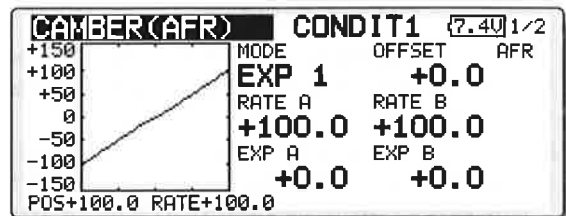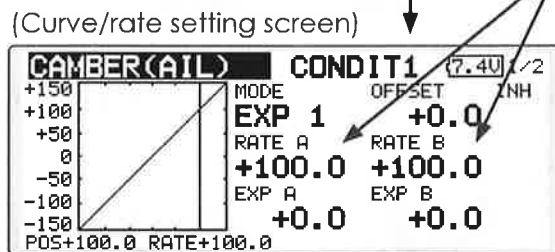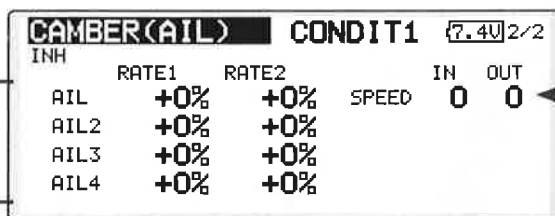
CAMBER MIX

[Corresponding model type]: Airplane/glider, 2 ailerons or more

This function adjusts the AFR (D/R) rate of camber operation which operates the wing camber (ailerons, camber flaps, brake flaps) in the negative and positive directions. The aileron, flap, and elevator rates can also be adjusted independently by curve, and attitude changes caused by camber operation can be corrected.

*Initial setting assigns camber operation to side lever LS.
• The up/down side rates of the aileron, flap, and elevator servos can be adjusted by curve. When the mixing direction is reversed by the linkage, adjustments can be made by changing the mixing rate polarity (+ or -).

• Mixing during flight can be turned ON/OFF by setting a switch. (Always ON at [--] setting)
• A delay can be set for each condition. A cut switch which can turn OFF the delay function can be set.
• The speed of the aileron, flap, and elevator servos can be set. (IN side/OUT side)

• Select [CAMBER MIX] at the model menu and call the setup screen shown below by touching the RTN button.

(Currently selected condition name)

• Camber AFR (D/R) setup screen call
  (For a description of the setting method, refer to the AFR function.)

• Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.
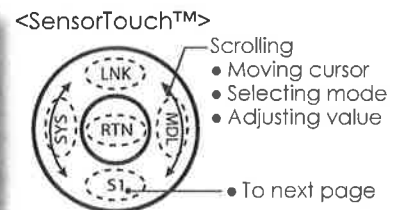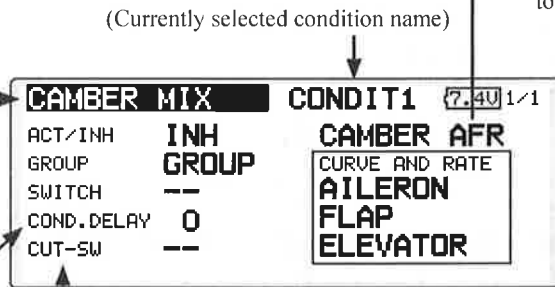
• Condition delay setting

• Condition delay cut switch

<SensorTouch™>
Scrolling
• Moving cursor
• Selecting mode
• Adjusting value

• To next page

• Overall adjustment by Rate A and Rate B

(Curve/rate setting screen)

• Mixing curve setting
  *For a description of the curve setting method, see the description at the back of this manual.

• Aileron rate adjustment

• Servo speed setting
  (For a description of the setting method, see the description at the back of this manual.)

*The display screen is an example. The actual screen depends on the model type.

Setting method

- Move the cursor to the ACT/INH item and touch the RTN button to switch to the data input mode.

  Turn the touch sensor to the left and touch the RTN button. (ON is displayed.)

- When setting a switch, move the cursor to the [--] item of the switch and touch the RTN button to call the selection screen, and then select the switch and set its ON direction. (Always ON at "--" setting)

  (For a description of the switch selection method, see the description at the back of this manual.)

- When setting a condition delay, move the cursor to the [COND.DELAY] item and touch the RTN button to switch to the data input mode.

  Set the delay with the touch sensor.

  Touch the RTN button to end adjustment and return to the cursol move mode.

  When setting a cut switch, move the cursor to [CUT-SW] item and touch the RTN button to call the selection screen, and then select the switch and set its ON direction. (Always ON at [--] setting)

  (For a description of the condition delay function, see the description at the back of this manual.)

- Camber AFR(D/R) screen call

  Move the cursor to the Camber AFR item and touch the RTN button to call the setup screen. (For a description of the setup method, see the description at the back of this manual.)

(Curve/rate setup screen)

- The curve and rate are adjusted by calling the aileron, flap, and elevator curve/rate screens.

  The rate and curve of each servo can be set by calling each screen. (For a description of the curve setting method, see the description at the back of this manual.)

  The servo speed can also be adjusted.

FLP 3
(Brake Flap)
FLP 4
(Brake Flap)
FLP 1
(Camber Flap)
FLP 2
(Camber Flap)
AIL1
(Main Aileron)
AIL 2
(Main Aileron)
AIL 3
(Chip Aileron)
AIL 4
(Chip Aileron)

V-TAIL
ELEVATOR
ELEVATOR 2

AILVATOR
ELEVATOR
ELEVATOR 2
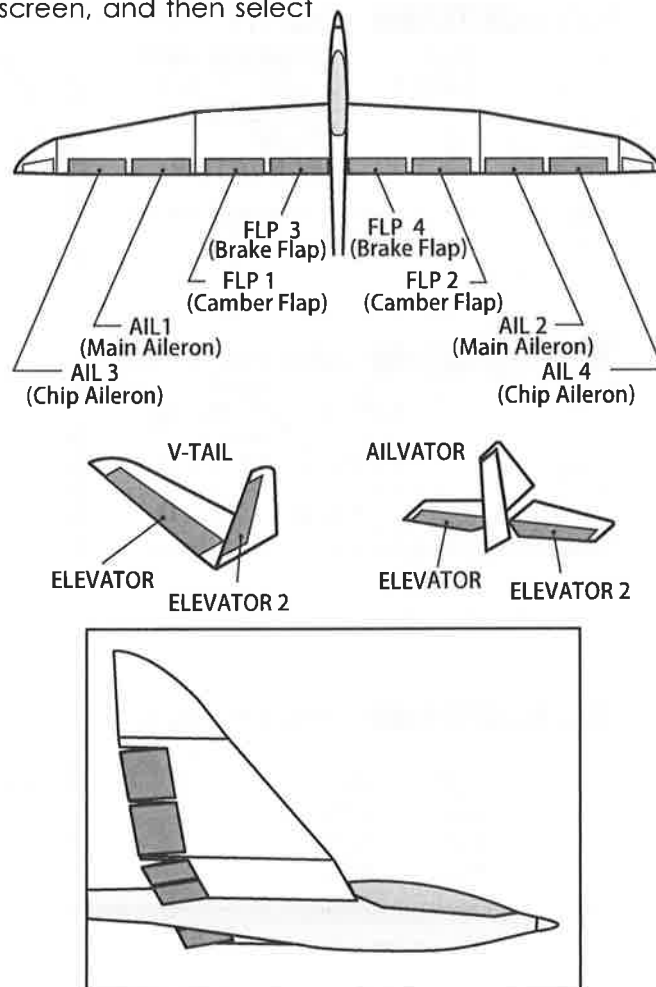
ELE to CAMBER [Corresponding model type]: Airplane/glider, 2 ailerons or more

This function is used when you want to mix the camber flaps with elevator operation. When used, the flaps are lowered by up elevator, and lift can be increased.

- Select [ELE to CAMBER] at the model menu and call the setup screen shown below by touching the RTN button.

• Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

- Mixing curve setting
  *For a description of the curve setting method, see the description at the back of this manual.

Note: Tailless wing elevator can be operated when this mix is activated.
- A mixing curve can be set.
- Mixing during flight can be turned ON/OFF by setting a switch. (Always ON at [--] setting)
- The mixing rate can be fine-tuned by setting a VR.

— (Currently selected condition name)

```
ELE→CAMBER      CONDIT1  7.4U 1/4
+150          MODE        OFFSET   INH
+100          EXP 1       +0.0
+50           RATE A      RATE B
0             +100.0      +100.0
-50           EXP A       EXP B
-100          +0.0        +0.0
-150
POS  +0.0 RATE  +0.0
```

<SensorTouch™>
Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

- To next page

- Overall adjustment by Rate A and Rate B.

```
ELE→CAMBER      CONDIT1  7.5U 2/4
INH    AIL3      AIL      AIL2     AIL4
RATE1  +0%       +0%      +0%      +0%
      ( +0%)    ( +0%)   ( +0%)   ( +0%)
RATE2  +0%       +0%      +0%      +0%
      ( +0%)    ( +0%)   ( +0%)   ( +0%)
```

- Ailerons and flaps rate adjustment

1. Select the rate box and touch the RTN button to switch to the data input mode.

```
ELE→CAMBER      CONDIT1  7.5U 3/4
INH    FLP3      FLAP     FLP2     FLP4
RATE1  +0%       +0%      +0%      +0%
      ( +0%)    ( +0%)   ( +0%)   ( +0%)
RATE2  +0%       +0%      +0%      +0%
      ( +0%)    ( +0%)   ( +0%)   ( +0%)
```

2. Adjust the rates by scrolling the touch sensor.

3. Touch the RTN button to end adjustment and return to the cursol move mode.

*The display screen is an example. The actual screen depends on the model type.

- Group/single mode switching

(For more information, refer to the description at the back of this manual.)

```
ELE→CAMBER      CONDIT1  7.4U 4/4
              FINE TUNING
ACT/INH INH   CONTROL --
GROUP   GROUP
SWITCH  --    RATE        +0%
                         ( +0%)
```

- Fine tuning VR setting
- Operation mode
- Adjustment rate

Setting method

- Move the cursor to the ACT/INH item and touch the RTN button to switch to the data input mode.

  Turn the touch sensor to the left and touch the RTN button. (ON is displayed.)

- When setting a switch, move the cursor to the [--] item of the switch and touch the RTN button to call the selection screen, and then select the switch and set its ON direction. (Always ON at "--" setting)

  (For a description of the switch selection method, see the description at the back of this manual.)

- When setting a VR, move the cursor to the Fine tuning "--" item and touch the RTN button to call the selection screen, and then select the VR. The adjustment rate can be set.

  The VR operation mode can also be selected.

- A mixing curve can also be set.

  (For a description of the curve setting method, see the description at the back of this manual.)

CAMB.FLP to ELE

[Corresponding model type]: Airplane/glider, 2 ailerons + 1 flap or more

This mixing is used to correct changes (elevator direction) generated when the camber flaps (speed flaps) are used.

- The elevator servos up side/down side rate can be adjusted. When the mixing direction is reversed by the linkage, adjustments can be made by changing the mixing rate polarity (+ or –).
- A mixing curve can be set.
- Mixing during flight can be turned ON/OFF by setting a switch. (Always ON at [--] setting)
- The mixing rate can be fine-tuned by setting a VR.

FLP 1 (Camber Flap)   FLP 2 (Camber Flap)

V-TAIL   AILVATOR

ELEVATOR   ELEVATOR 2   ELEVATOR   ELEVATOR 2
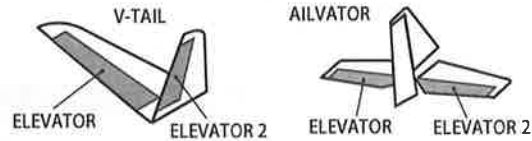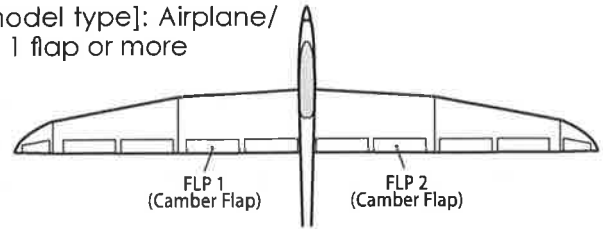
- Select [CAMB.FLP to ELE] at the model menu and call the setup screen shown below by touching the RTN button.

(Currently selected condition name)
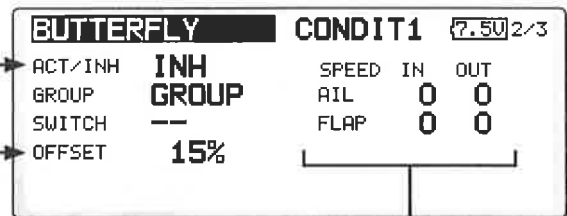
- Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

```
CAMB.FLP→ELE  CONDIT1  7.4V 1/3
+150                MODE      OFFSET    INH
+100                EXP 1      +0.0
+50                 RATE A    RATE B
0                   +100.0    +100.0
-50                 EXP A      EXP B
-100                +0.0       +0.0
-150
POS+100.0 RATE+100.0
```

<SensorTouch™>
Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

LNK   MDL
SYS   RTN
S1

- To next page

- Group/single mode switching

(For more information, refer to the description at the back of this manual.)

- Mixing curve setting
*For a description of the curve setting method, see the description at the back of this manual.

- Overall adjustment by Rate A and Rate B.

```
CAMB.FLP→ELE  CONDIT1  7.4V 2/3
                    FINE TUNING
ACT/INH  INH        CONTROL  --
GROUP    GROUP
SWITCH   --         RATE      +0%
                         ( +0%)
```

- Fine tuning VR setting
- Operation mode
- Adjustment rate

- Elevator rate adjustment

```
CAMB.FLP→ELE  CONDIT1  7.5V 3/3
INH    RATE1    RATE2
ELE    +0%      +0%
     ( +0%)   ( +0%)

ELE2   +0%      +0%
     ( +0%)   ( +0%)
```

*The display screen is an example. The actual screen depends on the model type.

Setting method

- Move the cursor to the ACT/INH item and touch the RTN button to switch to the data input mode.

  Turn the touch sensor to the left and touch the RTN button. (ON is displayed.)

- When setting a switch, move the cursor to the [--] item of the switch and touch the RTN button to call the selection screen, and then select the switch and set its ON direction. (Always ON at "--" setting)

  (For a description of the switch selection method, see the description at the back of this manual.

- Move the cursor to the elevator servos left and right item and touch the RTN button to switch to the data input mode. Adjust the mixing rate with the touch sensor.

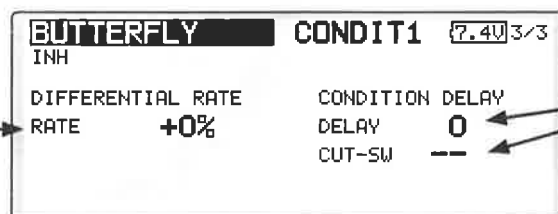 Touch the RTN button to end adjustment and return to the cursol move mode.

  *When the mixing direction is reversed by the linkage, adjustments can be made by changing the mixing rate polarity (+ or –).

- When setting a VR, move the cursor to the Fine tuning "--" item and touch the RTN button to call the selection screen, and then select the VR. The VR operation mode can be selected.

- A mixing curve can be set.

  (For a description of the curve setting method, see the description at the back of this manual.)

BUTTERFLY

This function allows powerful brake operation by simultaneously raising the left and right ailerons and lowering the flaps (camber flap, brake flap).

This setting will allow the ailerons to be raised while the flaps are simultaneously lowered. Butterfly (crow) produces an extremely efficient landing configuration by accomplishing the following:

1. Slow the aircraft's velocity.
2. Provide washout at the wing tips to reduce the tendency to tip stall.
3. Create more lift toward the center of the wing allowing it to fly at a slower speed

- Select [BUTTERFLY] at the model menu and call the setup screen shown below by touching the RTN button.

- Mixing during flight can be turned ON/OFF by setting a switch. (Always ON at [--] setting)
- The butterfly operation reference point can be offset. When the RTN button is touched with the offset item selected when operated to the position to be changed, the reference point is offset. If the reference point is offset too much, unexpected operation may be performed.
- The ailerons and flaps operation speed can be adjusted. (IN side/OUT side)
- A delay can be set for each condition. A cut switch which can turn OFF the delay function can also be set.
- The differential rate can be adjusted.

*When servo binding occurs when setting the ailerons and flaps in butterfly mixing, use the AFR function to adjust the rudder angle.

*The display screen is an example. The actual screen depends on the model type.

(Currently selected condition name)

- Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

```
BUTTERFLY        CONDIT1  7.4U 1/3
INH
AIL3    AIL     AIL2    AIL4
+0%    +0%    +0%    +0%
FLP3    FLAP    FLP2    FLP4
+0%    +0%    +0%    +0%
BUTTERFLY AFR  ELE  SETTING
```

<SensorTouch™>
Scrolling
- Moving cursor
- Adjusting value

- To next page
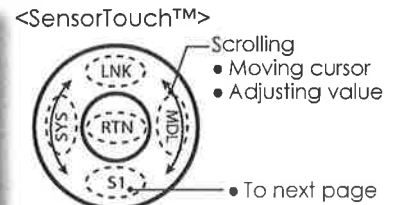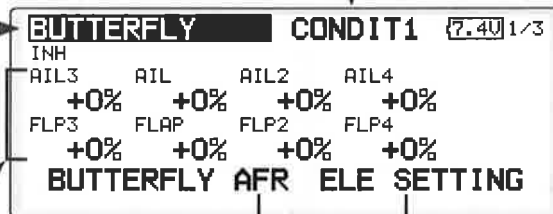
- Select the Mixing Rate AIL and FLP box and touch the RTN button to switch to the data input mode. Adjust the mixing rates.

  Touch the RTN button to end adjustment and return to the cursol move mode.

- When using this function, move the cursor to the [ACT/INH] item and touch the RTN button to switch to the data input mode. Turn the touch sensor to the left and touch the RTN button. (ON is displayed.)

- Group/single mode switching

  (For more information, see the description at the back of this manual.)

- When setting a switch, select the SWITCH [--] box and touch the RTN button to switch to the data input mode. Press the EDIT button to call the selection screen, and then select the switch and set its ON direction.

- To elevator correction setup screen
- Calls the Butterfly AFR (D/R) setup screen

  (For a description of the setting method, see the description at the back of this manual.)

```
BUTTERFLY        CONDIT1  7.5U 2/3
ACT/INH   INH         SPEED  IN  OUT
GROUP     GROUP       AIL     0   0
SWITCH    --          FLAP    0   0
OFFSET    15%
```

- Aileron and flap servos speed setting

  (For a description of the setting method, see the description at the back of this manual.)

- When offsetting the butterfly operation reference point, operate to the point you want to change and then press the EDIT button for 1 second. "INITIALIZE ELEVATOR CURVE?" is displayed. Please choose whether to initialize by YES, or not to initialize by NO.

```
BUTTERFLY        CONDIT1  7.4U 3/3
INH
DIFFERENTIAL RATE    CONDITION DELAY
RATE    +0%          DELAY     0
                     CUT-SW    --
```
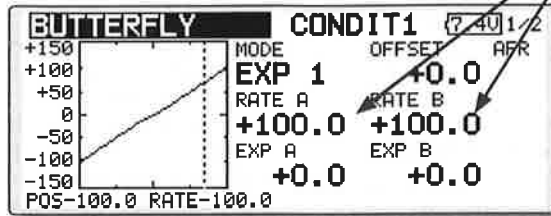
- Differential rate adjustment

- Condition delay setting and cut switch setting

  (For a description of the setting method, see the description at the back of this manual.)
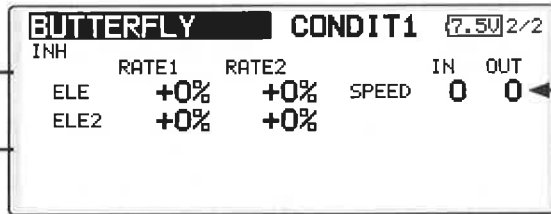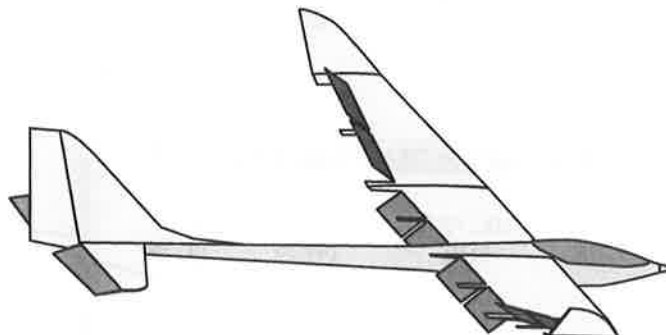
(Elevator correction rate setup screen)

● Overall adjustment by Rate A and Rate B

```
BUTTERFLY      CONDIT1  7.4U 1/2
+150   MODE        OFFSET    APR
+100   EXP 1       +0.0
+50    RATE A      RATE B
0      +100.0 +100.0
-50    EXP A       EXP B
-100
-150           +0.0    +0.0
POS-100.0 RATE-100.0
```
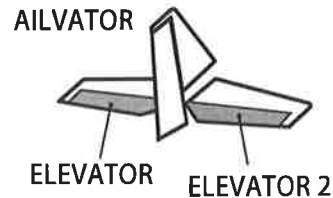
● Mixing curve setting
  *For a description of the curve setting method, see the description at the back of this manual.

● Elevator rate adjustment

```
BUTTERFLY      CONDIT1  7.5U 2/2
INH
       RATE1  RATE2        IN  OUT
ELE    +0%    +0%    SPEED  0   0
ELE2   +0%    +0%
```

● Servo speed setting
(For a description of the setting method, see the description at the back of this manual.)

FLP 3
(Brake Flap)

FLP 4
(Brake Flap)

FLP 1
(Camber Flap)

FLP 2
(Camber Flap)

AIL1
(Main Aileron)

AIL 2
(Main Aileron)

AIL 3
(Chip Aileron)

AIL 4
(Chip Aileron)

V-TAIL

AILVATOR
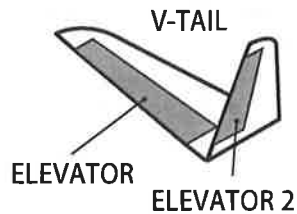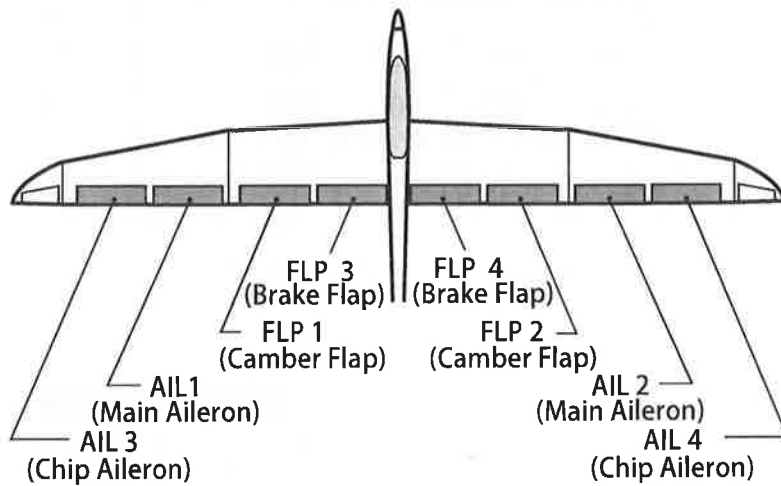
ELEVATOR

ELEVATOR 2

ELEVATOR

ELEVATOR 2

These functions call the ailerons, elevators, and flaps (camber flaps, brake flaps) trim offset rates preset according to the flight state.

The amount of ailerons, elevator, and flaps (camber flap, brake flap) trim offset can be set to a switch.

As an example **Trim Mix 1** can be set up for launching, with speed flaps and ailerons dropped, and a slight amount of up elevator. **Trim mix 2** can be used for high speed flying, with both ailerons and speed flaps reflexed slightly, and a bit of down elevator.

The trim functions can be activated during flight by setting a switch. To prevent sudden trim changes when switching flight conditions, a delay can be set to provide a smooth transition between the two. Trim Mix 2 will have priority over Trim Mix 1.

Example
1. Move to the ACT/INH item and touch the RTN button to switch to the data input mode. Set the trim mix function to [ON]. *When separating the settings for each condition, move to the [GROUP] item and set it to [Single]. 2. Select the ON/OFF switch. 3. Select the [Manual] or [Auto] mode. In the [Auto] mode, also select an auto SW. This switch can be linked to a stick, etc. <Speed> In: The operation speed at switch ON can be set. Out: The return speed at switch OFF can be set. <Fine Tuning> The offset rate can be varied in the Fine Tuning numeric range set at screen [5/5] by VR, etc. selection. <Condition Delay> When flight conditions are set, the operation speed can be set for each condition. Condition delay operation can be interrupted and each rudder quickly returned to its original position by selecting a cut switch.

*The display screen is an example. The actual screen depends on the model type.

- Select [TRIM MIX1 or 2] at the model menu and call the setup screen shown below by touching the RTN button.

(Currently selected condition name)

- Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

<SensorTouch™>
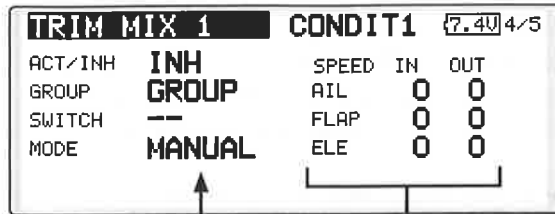Scrolling
- Moving cursor
- Adjusting value

- To next page

The ailerons, flaps, and elevators offset rate can be adjusted.

Move the cursor to the corresponding setting item and touch the RTN button to switch to the data input mode. Adjust the rate with the touch sensor.

Touch the RTN button to end adjustment and return to the cursol move mode.

- When a fine tuning VR is set on the next page, the ailerons flaps and elevators trim rates can be adjusted.

Move the cursor to the corresponding setting item and touch the RTN button to switch to the data input mode. adjust the rate with the touch sensor.

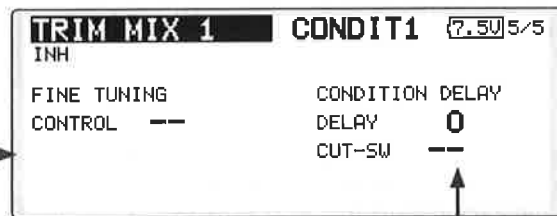Touch the RTN button to end adjustment and return to the cursol move mode.

- When using this function, move the cursor to the [ACT/INH] item and touch the RTN button to switch to the data input mode. Turn the touch sensor to the left and touch the RTN button. (ON is displayed.)

- Group/single mode switching

  (For more information, see the description at the back of this manual.)
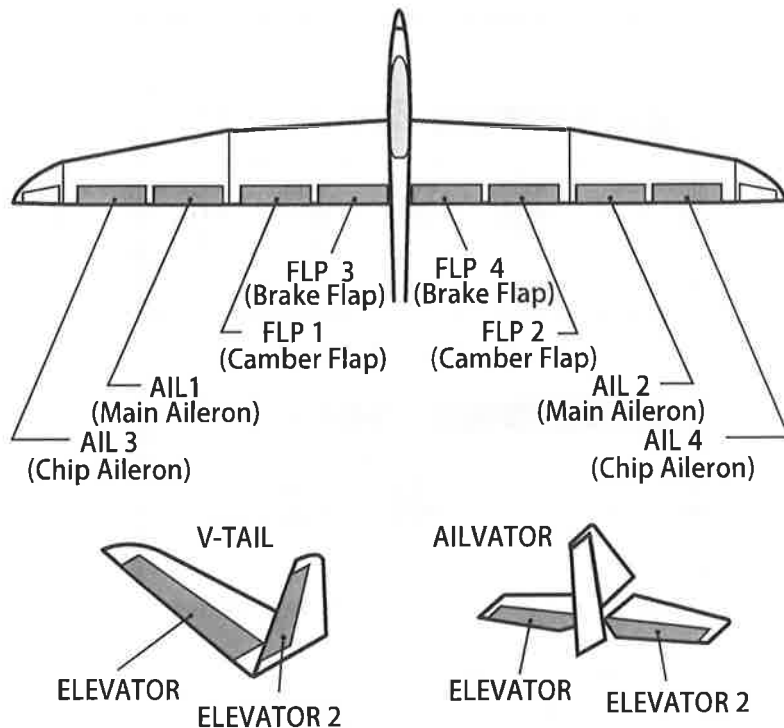
```
TRIM MIX 1    CONDIT1  7.4V 4/5
ACT/INH   INH        SPEED  IN   OUT
GROUP     GROUP      AIL    0    0
SWITCH    --         FLAP   0    0
MODE      MANUAL     ELE    0    0
```

- Ailerons, flaps, an elevators servo speed setting

  (For a description of the setting method, see the description at the back of this manual.)

- Manual/Auto mode selection
  Manual: Switches the function ON/OFF by switch
  Auto: Trim mix function call can be linked to a stick, etc. A stick switch, etc. separate from the function ON/OFF switch is set.

```
TRIM MIX 1    CONDIT1  7.5V 5/5
INH

FINE TUNING        CONDITION DELAY
CONTROL   --       DELAY     0
                   CUT-SW    --
```

- When using a fine tuning VR, move the cursor to this item and touch the RTN button to call the selection screen.

  Select the VR and touch the RTN button.

- Condition delay setting (for a description of the setting method, see the description at the back of this manual) and cut switch setting.

FLP 3
(Brake Flap)

FLP 4
(Brake Flap)

FLP 1
(Camber Flap)

FLP 2
(Camber Flap)

AIL1
(Main Aileron)

AIL 2
(Main Aileron)

AIL 3
(Chip Aileron)

AIL 4
(Chip Aileron)

V-TAIL

AILVATOR

ELEVATOR

ELEVATOR 2

ELEVATOR

ELEVATOR 2

AIRBRAKE

[Corresponding model type]: Airplane, general

This function is used when an air brake is necessary when landing or diving, etc.

The preset elevators and flaps (camber flap, brake flap) offset amount can be activated by a switch.

The offset amount of the aileron, elevator, and flap servos can be adjusted as needed. Also the speed of the aileron, elevator, and flap servos can be adjusted. (IN side/OUT side) A delay can be set for each condition, and a Cut switch which will turn OFF the delay can be chosen. Trim amounts can be fine-tuned by setting a VR You can also set the Auto Mode, which will link Airbrake to a stick, switch, or dial. A separate stick switch or dial can also be set as the ON/OFF switch.

Setting example for F3A and other flaperon specifications
(When 2 ailerons model type selected)
Offset rate:
AIL: [-35~-45%], AIL2: [-35~-45%], ELE: [+5~7%]
Note: The input numerics are examples. Adjust the travel to match the aircraft.
Mode setting:
ACT: [ON]
Group: [Single]
Switch: [SW-C]
Mode: [Manual]
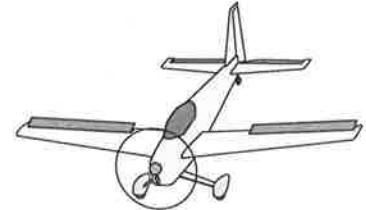
*The display screen is an example. The actual screen depends on the model type.

- Select [AIRBRAKE] at the model menu and call the setup screen shown below by touching the RTN button.

(Currently selected condition name)

- Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

```
AIRBRAKE        CONDIT1  [7.5U]1/5
INH
        AIL3    AIL    AIL2   AIL4
OFFSET  +0%    +0%    +0%    +0%
TUNING  +0%    +0%    +0%    +0%
      ( +0%) ( +0%) ( +0%) ( +0%)
```

<SensorTouch™>
Scrolling
- Moving cursor
- Adjusting value

- To next page

```
AIRBRAKE        CONDIT1  [7.5U]2/5
INH
        FLP3   FLAP    FLP2   FLP4
OFFSET  +0%    +0%    +0%    +0%
TUNING  +0%    +0%    +0%    +0%
      ( +0%) ( +0%) ( +0%) ( +0%)
```

- The ailerons, flaps, and elevators offset rate can be adjusted.

Move the cursor to the corresponding setting item and touch the RTN button to switch to the data input mode. Adjust the rate with the touch sensor.
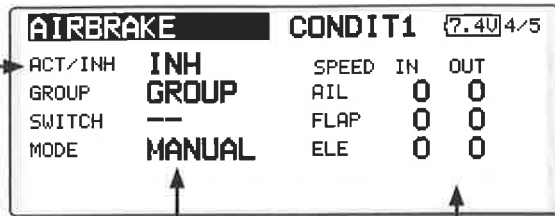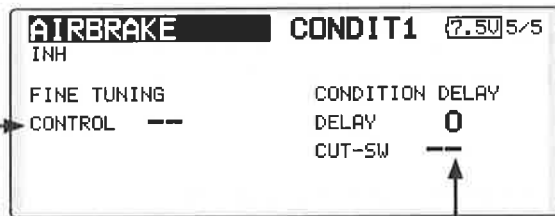
Touch the RTN button to end adjustment and return to the cursol move mode.

```
AIRBRAKE        CONDIT1  [7.5U]3/5
INH
              ELE    ELE2
OFFSET       +0%    +0%
TUNING       +0%    +0%
           ( +0%) ( +0%)
```

- When a fine tuning VR is set on the next page, the ailerons', flaps', and elevators' trim rates can be adjusted.

Move the cursor to the corresponding setting item and touch the RTN button to switch to the data input mode. Adjust the rate with the touch sensor.

Touch the RTN button to end adjustment and return to the cursol move mode.

< **Model Menu (Airplane/Glider Functions)** > 139

- When using this function, move the cursor to the [ACT/INH] item and turn the touch sensor to the left and touch the RTN button. (ON is displayed.)
- Group/single mode switching

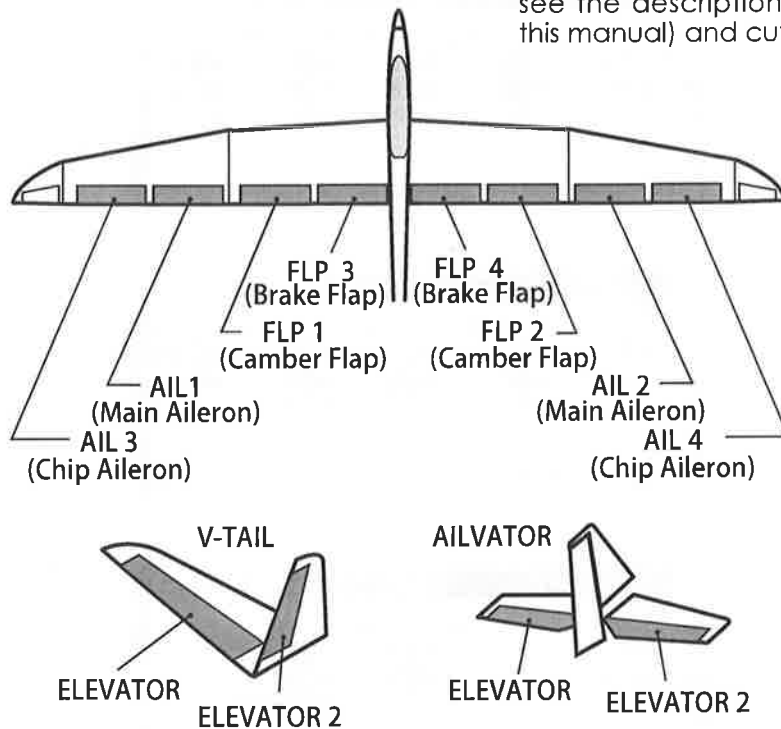 (For more information, see the description at the back of this manual.)

```
AIRBRAKE        CONDIT1  (7.4V)4/5
ACT/INH  INH        SPEED  IN   OUT
GROUP    GROUP      AIL     0    0
SWITCH   --         FLAP    0    0
MODE     MANUAL     ELE     0    0
```

- Manual/Auto mode selection
  Manual: Switches the function ON/OFF by switch
  Auto: Trim mix function call can be linked to a stick, etc. A stick switch, etc. separate from the function ON/OFF switch is set.

- Ailerons, flaps, an elevators servo speed setting

  (For a description of the setting method, see the description at the back of this manual.)

```
AIRBRAKE        CONDIT1  (7.5V)5/5
INH

FINE TUNING        CONDITION DELAY
CONTROL   --       DELAY    0
                   CUT-SW   --
```

- When using a fine tuning VR, move the cursor to this setting item and press the EDIT button to call the selection screen.

  Select the VR and touch the RTN button.

- Condition delay setting (for a description of the setting method, see the description at the back of this manual) and cut switch setting.

FLP 3
(Brake Flap)   FLP 4
               (Brake Flap)
FLP 1   FLP 2
(Camber Flap) (Camber Flap)
AIL1   AIL 2
(Main Aileron) (Main Aileron)
AIL 3   AIL 4
(Chip Aileron) (Chip Aileron)

V-TAIL   AILVATOR

ELEVATOR   ELEVATOR
ELEVATOR 2   ELEVATOR 2

GYRO

[Corresponding model type]: Airplane/glider, general

This function is used when a GYA Series gyro is used to stabilize the aircraft's attitude. The sensitivity and operation mode (Normal mode/GY mode) can be switched with a switch.

- Three rates (Rate 1/Rate 2/Rate 3) can be switched.
- Up to 3 axes (Gyro/Gyro 2/Gyro 3) can be simultaneously controlled.

*Initial setting does not assign a sensitivity channel. Use the Function menu of the Linkage Menu to assign the sensitivity channel (Gyro/Gyro2/Gyro3) used to a vacant channel beforehand.

Set [Control] and [Trim] other than Function to [--].

- Select [GYRO] at the model menu and call the setup screen shown below by touching the RTN button.

(Currently selected condition name)

- Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

GYRO	RATE 123	CONDIT1	7.4V 1/3
ACT/INH	**INH**	MODE	RATE
TYPE	**GY**	GYRO **AVCS**	0%
SWITCH	**--**	GYRO2 **AVCS**	0%
GROUP	**GRP**	GYRO3 **AVCS**	0%
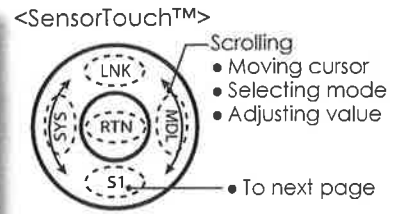
<SensorTouch™>

Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

- To next page

- Group/single mode switching

(For more information, see the description at the back of this manual.)

- The operation mode (AVCS/NOR) and sensitivity of the 3 axes Gyro/Gyro2/Gyro3 can be set.

- Three rates (Rate 1/Rate 2/Rate 3) can be used.

  Move the cursor to the [RATE] item and touch the RTN button to switch to the data input mode. Adjust the rate by scrolling the touch sensor.

- When using this function, move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode. Turn the touch sensor to the left and touch the RTN button.

- When a Futaba GYA gyro is used, when [GY] type is selected, the sensitivity set value is directly read in both the AVCS and NORM modes.

- When setting a switch, move the cursor to the SWITCH item and press the EDIT button to call the selection screen, and then select the switch and set its ON direction.

  (For a description of the switch selection method, see the description at the end of this manual.)

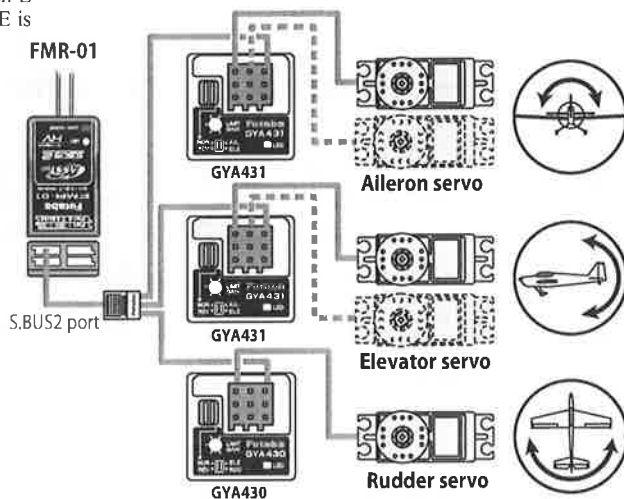## (Example) Setting three axis using a GYA430 and GYA431 (2)

- Wing type: Aileron 2 servos mounted fuselage selected
- Set **5CH → GYRO** (GYA431AIL), **7CH → GYRO2** (GYA431ELE), **8CH → GYRO3** (GYA430RUD), **Control and Trim → NULL** : at the Function menu of the Linkage menu.
- GYRO setting of the Model menu.

Rate	ACT	Type	Switch	GYRO	GYRO 2	GYRO 3
1	OFF/ON	GY	SE	AVCS : 60%	AVCS : 60%	AVCS : 60%
2	INH					
3	ON/OFF	GY	SE	NORM : 60%	NORM : 60%	NORM : 60%

*Set so that Rate 1 is turned on at the back position of switch E and Rate 3 is turned ON at the front position. Since switch E is turned OFF at the center, Rate 2 remains [INH].
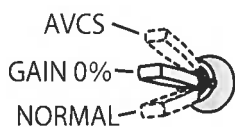
AVCS
GAIN 0%
NORMAL

When AVCS is used we recommend that the sensitivity CH be set to the 3-position.

FMR-01

S.BUS2 port

GYA431 — Aileron servo

GYA431 — Elevator servo

GYA430 — Rudder servo

V-TAIL

This function let's you adjust for left and right rudder angle changes at elevator and rudder operation of a V-tail airplane.

V-tail is when 2 servos are used together to control rudder movement as elevators. In addition to each rudder side moving up and down together, each side moves in opposite directions when moving as elevators. On a V-tail, this is also known as a ruddervator, as they can serve the same purpose.

ELEVATOR (RUDDER 2)

RUDDER (ELEVATOR 2)
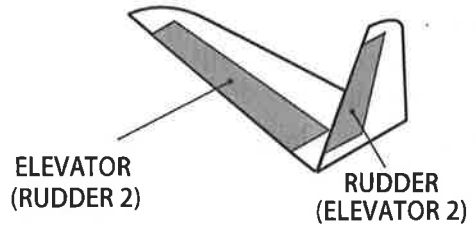
● Select [V-TAIL] at the model menu and call the setup screen shown below by touching the RTN button.

● Group/single mode switching
(For more information, see the description at the back of this manual.)

(Currently selected condition name)

● Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

V-TAIL	CONDIT1	7.4U 1/1
GROUP	**GROUP**	

FUNCTION	ELEVATOR DOWN UP	RUDDER LEFT RIGHT
ELE (RUD2)	+50% +50%	+50% +50%
RUD (ELE2)	+50% +50%	+50% +50%

<SensorTouch™>

Scrolling
● Moving cursor
● Selecting mode
● Adjusting value

(Elevator function)
Up and down travel adjustment at CH1 and CH2 elevator operation

(Rudder function)
Left and right travel adjustment at CH1 and CH2 rudder operation

● Travel adjustment

Move the cursor to the item you want to adjust and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Touch the RTN button to end adjustment and return to the cursol move mode.

*If the mixing direction is reversed by the linkage, adjustments can be made by changing the mixing rate polarity (+ or -).
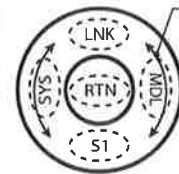
*If a large value of travel is specified, when the sticks are moved at the same time, the controls may bind or run out of travel. Decrease the travel until no binding occurs.

AILEVATOR

[Corresponding model type]: Airplane/glider, V-Tail
(Effective only when 2 servos used at the elevators)

This function improves the operating performance of the roll axis by operating the elevators as ailerons.

Ailevator is where each elevator in a standard (conventional) or v-tail moves independently, like ailerons on a wing. In addition to each elevator side moving up and down together, each side moves in opposite directions when moving as an ailevator. On a V-tail, this is also known as a ruddervator, as they can serve the same purpose. Typically, both ailevator and ailerons are coupled together to maximize roll performance, especially on larger wingspan planes.

ELEVATOR (AILERON 5)   **ELEVATOR 2 (AILERON 6)**
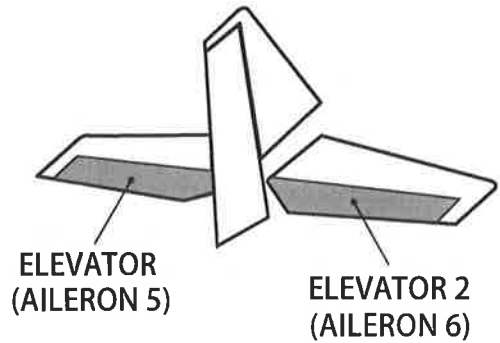
Note: Select ailevator as the Model type at the Model type screen. This changes the output channel. Check the Function menu.

● Select [AILEVATOR] at the model menu and call the setup screen shown below by touching the RTN button.

● Group/single mode switching
(For more information, see the description at the back of this manual.)

— (Currently selected condition name)

●Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

AILEVATOR		CONDIT1 7.4V 1/1
GROUP	**GROUP**	

FUNCTION	ELEVATOR DOWN UP	AILERON LEFT RIGHT
ELE (AIL5)	+100% +100%	+0% +0%
ELE2(AIL6)	+100% +100%	+0% +0%

<SensorTouch™>
Scrolling
● Moving cursor
● Selecting mode
● Adjusting value

(Elevator function)
● The up and down rate of the left and right elevators when the elevator stick is manipulated can be individually adjusted.

(Aileron function)
● When the elevators are used as ailerons, aileron travel of the left and right elevators can be adjusted.

● Travel adjustment

Move the cursor to the item you want to adjust and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Touch the RTN button to end adjustment and return to the cursol move mode.

*If the mixing direction is reversed by the linkage, adjustments can be made by changing the mixing rate polarity (+ or -).

*If a large value of travel is specified, when the sticks are moved at the same time, the controls may bind or run out of travel. Decrease the travel until no binding occurs.
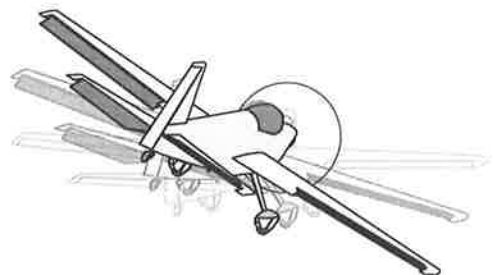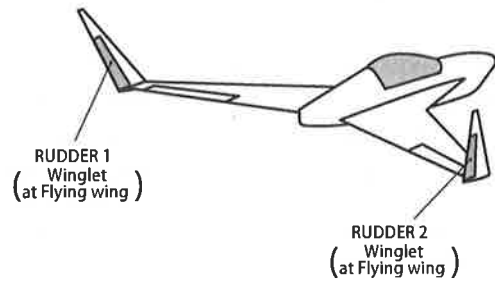
WINGLET

[Corresponding model type]: Airplane/glider, winglet

This function adjusts the left and right rudder angles of airplanes with winglets.

Winglets are used to improve the efficiency of aircraft lowering the lift-induced drag caused by wingtip vortices. The winglet is a vertical or angled extension at the tips of each wing.

Winglets work by increasing the effective aspect ratio wing without adding greatly to the structural stress and hence necessary weight of its structure - an extension of wing span would also permit lowering of induced drag, though it would cause parasitic drag and would require boosting the strength of the wing and hence its weight - there would come a point at which no overall useful saving would be made. A winglet helps to solve this by effectively increasing the aspect ratio without adding to the span of the wing.

RUDDER 1
(Winglet
at Flying wing)

RUDDER 2
(Winglet
at Flying wing)

● Select [WINGLET] at the model menu and call the setup screen shown below by touching the RTN button.

● Group/single mode switching
(For more information, see the description at the back of this manual.)

(Currently selected condition name)

●Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

WINGLET		CONDIT1	7.4U 1/1
GROUP	**GROUP**		
FUNCTION	RUDDER		
	LEFT	RIGHT	
RUDDER	+100%	+100%	
RUDDER2	+100%	+100%	

<SensorTouch™>

Scrolling
● Moving cursor
● Selecting mode
● Adjusting value

(Rudder 1/2)

● The travel at rudder stick left and right operation can be individually set.

● Travel adjustment

Move the cursor to the item you want to adjust and touch the RTN button to switch to the data input mode.

Adjust the rate by scrolling the touch sensor.

Touch the RTN button to end adjustment and return to the cursol move mode.

*If the mixing direction is reversed by the linkage, adjustments can be made by changing the mixing rate polarity (+ or -).

MOTOR

[Corresponding model type]: EP glider, general

This function lets you set the operation speed when the motor of a F5B or other EP glider is started by switch. The operation speed can be set in 2 ranges of slow speed flight and high speed flight (Speed 1/Speed 2). This function can also be operated as a safety function by setting 2 switches.

- The in side and out side operating speeds can be adjusted independently in 2 ranges (Speed 1/ Speed 2).
- The boundary between the 2 ranges can be set. (From speed 1 to speed 2)
- The set operation speed operation can be activated at initial operation only. (1 time operation) However, operation can be repeated

by setting the switch to OFF before operation is finished. When you want to reset 1 time operation, set the ACT/INH item to [INH] and then reset it to [ON].
- The motor (CH3) is controlled by SW-G. (Initial setting) When changing the switch or stick which controls the motor, first change Function of the Linkage Menu.
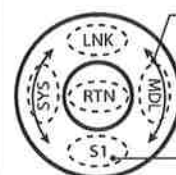
Note: When using this function, always check initial operation with the propeller removed.

- Select [MOTOR] at the model menu and call the setup screen shown below by touching the RTN button.

(Currently selected condition name)

- Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

<SensorTouch™>
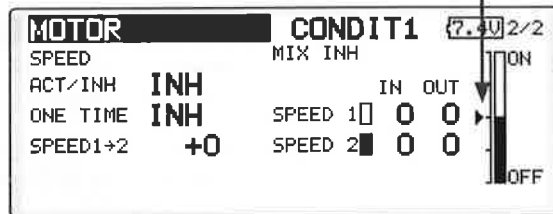Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

- To next page

- Move the cursor by set switch or VR.
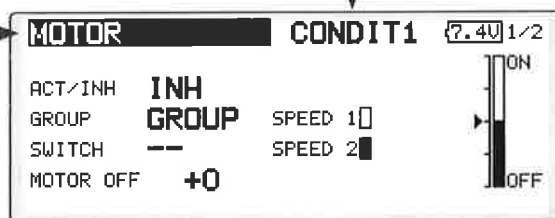
- When using this function, move the cursor to the [ACT/INH] item and touch the RTN button to switch to the data input mode. Turn the touch sensor to the left and touch the RTN button.
- Group/single mode switching
  (For more information, see the description at the back of this manual.)
- Switch
  A switch that turns the function itself ON/OFF can be selected.
- Motor off position
  Press the EDIT button for 1 second when [SW-G] is in the motor OFF position you want to set. The direction of the motor switch is memorized. The screen graph display OFF direction also changes.

Notes
- First decide the motor OFF direction, and then set the speed. When you want to reset the motor OFF direction, also reset the speed.
- We recommend that motor OFF be set in combination with F/S.
- Set the basic operation direction with the reverse function to match the ESC used.
- Always set the motor OFF position.

- When using this function, move the cursor to the [ACT/INH] item and touch the RTN button to switch to the data input mode. Turn the touch sensor to the left and touch the RTN button.
- When you want to set the "One time mode", move the cursor to the [ONE TIME] item and turn the touch sensor to the left and touch the RTN button.
- Speed 1 to 2
  The speed 1 and speed 2 region boundary can be changed,
- Operation speed adjustment
  The speed when speed 1 and speed 2 are ON (In) and OFF (Out) can be adjusted.

ACCELERATION [Corresponding model type]: Glider, general

Acceleration setting can be performed at elevator, ELE to Camber and AIL to RUD.(Glider and EP glider only)

- This setting is divided into elevator setting and camber setting. The setting method is the same.
- Camber setting sets the acceleration function for ELE to camber mixing. Setting is not performed when ELE to camber mixing is INH.
- The acceleration function can be set for both the up side and down side.

- Function ON/OFF switch setting is performed for AIL to RUD setting only.
- AIL to RUD setting is acceleration function setting for AIL to RUD mixing. It is not performed when AIL to RUD mixing is INH.
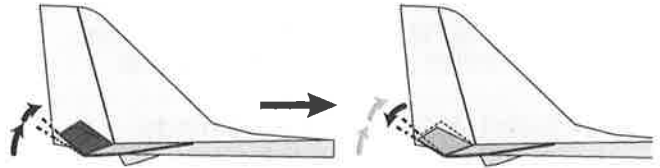
- Select [ACCELERATION] at the model menu and call the setup screen shown below by touching the RTN button.

- (Currently selected condition name)

- Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

- 1/3 Elevator setting

<SensorTouch™>
Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

- To next page

- 2/3 Elevator → Camber setting

- 3/3 Aileron → Rudder setting

- Act position
- Current position

Setting method

- Acceleration rate setting (Rate)
- The return time after operation (Dumping) can be set.
- The operation point at acceleration and deceleration can be set. When an operation point is exceeded, acceleration is performed.

Note: When using the acceleration funtion, since the servo stroke is large, make your settings so there is no binding of your linkage.

RUD to ELE
[Corresponding model type]: Airplane, general

This function is used when you want to mix elevator operation with rudder operation. It is used to correct undesirable tendencies when rudder is applied in roll maneuvers, knife edge, etc. of stunt planes.
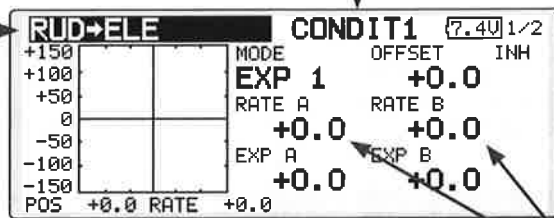- A mixing curve can be set.
- Mixing during flight can be turned ON/OFF by setting a switch. (Always ON at [--] setting)

- Link can be set: Links this mixing to other mixings.
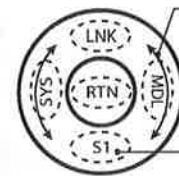- The mixing rate can be fine-tuned by setting a VR. (Fine tuning)

- Select [RUD to ELE] at the model menu and call the setup screen shown below by touching the RTN button.

(Currently selected condition name)

- Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

```
RUD→ELE        CONDIT1  7.4V 1/2
+150                MODE      OFFSET   INH
+100                EXP 1       +0.0
+50                 RATE A    RATE B
  0                 +0.0       +0.0
-50                 EXP A     EXP B
-100                +0.0       +0.0
-150
POS  +0.0 RATE +0.0
```

<SensorTouch™>
Scrolling
- Moving cursor
- Selecting mode
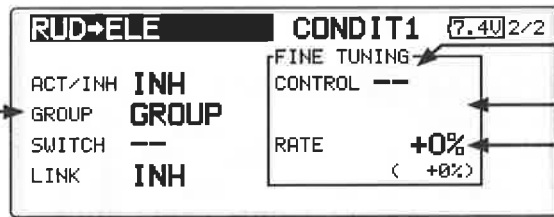- Adjusting value

- To next page

- Mixing curve setting
  *For a description of the curve setting method, see the description at the back of this manual.

- Left/right overall adjustment at rate A and rate B

- Group/single mode switching

(For more information, refer to the description at the back of this manual.)

*The display screen is an example. The actual screen depends on the model type.

```
RUD→ELE        CONDIT1  7.4V 2/2
                    ┌FINE TUNING┐
ACT/INH  INH        CONTROL --
GROUP    GROUP
SWITCH   --         RATE       +0%
LINK     INH                 ( +0%)
```

- Fine tuning VR setting
- Operation mode
- Adjustment rate

Setting method

- Move the cursor to the ACT/INH item and touch the RTN button to switch to the data input mode. Turn the touch sensor to the left and touch the RTN button. (ON is displayed.)

- When setting a switch, move. the cursor to the [--] item of the switch and touch the RTN button to call the selection screen, and then select the switch and set its ON direction. (Always ON at "--" setting)

(For a description of the switch selection method, see the description at the back of this manual.)

- When setting a VR, move the cursor to the Fine Tuning "--" item and touch the RTN button to call the selection screen, and then select the VR. The fine tuning rate can be set.

The VR operation mode can also be set.

(For a description of the fine tuning VR setting method, see the description at the back of this manual.)

- When setting Link, move the cursor to the Link item and touch the RTN button to switch to the data input mode. Set it to ON.

[Fine tuning VR operation mode]

[LIN.] Mixing rate 0% at center of VR. When the VR is turned clockwise and counterclockwise, the mixing rate increases and decreases, respectively.

[ATL+] Mixing rate 0% at left end of VR. When the VR is turned, the mixing rate increases.

[ATL-] Mixing rate 0% at right end of VR. When the VR is turned, the mixing rate increases.

[SYM.] When the VR is turned to the left or right of the neutral position, the mixing rate increases.

SNAP ROLL   [Corresponding model type]: Airplane, general

This function selects the switch and rate adjustment of each rudder, (ailerons, elevators, or flaps) when a snap roll is performed.
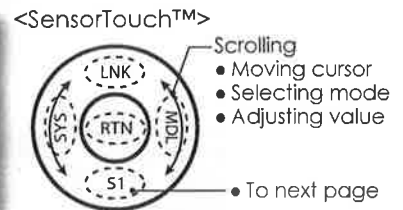
- Four snap roll directions can be set. (Right/up, right/down, left/up, left/down)
- Operation mode: When [Master] mode is selected, the Snap Roll function is turned ON/OFF by master switch in the state in which the direction switch was switched to the direction in which you want to snap roll. When [Single] mode is selected, snap roll in each direction can be executed by means of independent switches.
- A safety switch can be set. As a safety measure, the switch can be set so that snap roll is not executed when, for instance, the landing gear is lowered, even if the switch is turned on accidentally. The snap roll switch is activated only when the safety switch is ON.
- The operation speed of the aileron, elevator, and flap servos can be adjusted for each snap roll direction. (In side/out side)

- Select [SNAP ROLL] at the model menu and call the setup screen shown below by touching the RTN button.

(Example) Setting example for F3A

- Mode: [Master]
- Safety SW: [SW-G] (Safety measure)
- Master SW: [SW-H] (Main switch for executing snap roll)
- Direction switches:
  *The snap roll up side left and right and down side left and right direction switches are selected here.
  Right/Up: OFF [SW-D]
  Right/Down: OFF [SW-D]
  Left/Up: OFF [SW-A]
  Left/Down: OFF [SW-A]
- Speed adjustment
  The operation speed of each control surface when the snap switch is ON can be changed and snap roll executed by stick while there is switch operation can be performed.

- Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

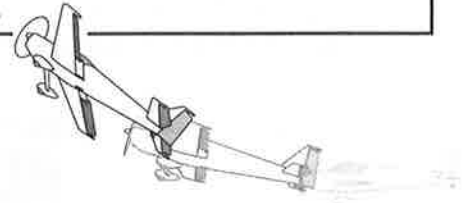(Currently selected condition name)

```
SNAP ROLL      CONDIT1   7.4V 1/4
RATE           AIL      ELE      RUD
RIGHT/UP      +100%    +100%    +100%
RIGHT/DOWN    +100%    -100%    -100%
LEFT/UP       -100%    +100%    -100%
LEFT/DOWN     -100%    -100%    +100%
```

<SensorTouch™>
Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

- To next page

```
SNAP ROLL      CONDIT1   7.4V 2/4

MODE        MASTER
MASTER-SW   --
SAFETY-SW   --
GROUP       GROUP
```

- Rate adjustment
1. Move the cursor to the item you want to adjust and touch the RTN button to switch to the data input mode.
2. Adjust rate by scrolling the touch sensor.
3. Touch the RTN button to end adjustment and return to the cursol move mode.
- Group/single mode switching
  (For more information, see the description at the back of this manual.)

```
SNAP ROLL      CONDIT1   7.4V 3/4

              ACT   SWITCH
RIGHT/UP      OFF   --
RIGHT/DOWN    OFF   --
LEFT/UP       OFF   --
LEFT/DOWN     OFF   --
```

- Direction switches

```
SNAP ROLL      CONDIT1   7.4V 4/4
SPEED       AIL       ELE       RUD
           IN  OUT   IN  OUT   IN  OUT
RIGHT/UP    0    0    0    0    0    0
RIGHT/DOWN  0    0    0    0    0    0
LEFT/UP     0    0    0    0    0    0
LEFT/DOWN   0    0    0    0    0    0
```

- Adjustment of the servo speed of each rudder
  (For a description of the setting method, see the description at the back of this manual.)

MODEL MENU (HELICOPTER)

This section contains information on the commands that apply to helicopters only. For instructions on airplanes and sailplanes, refer to the sections pertaining to those aircraft.

Use the Model Type function in the Linkage Menu to select the swash type matched to the fuselage beforehand.

Also, add flight conditions at the Condition Select screen if necessary before setting the model

- Select the [MODEL] at the home screen and call the model menu shown below by touching the RTN button.
- Use the touch sensor to select the function you want to set and call the setup screen by touching the RTN button.

data at each function. (Up to 8 conditions can be used)

The AFR function, dual rate function and other functions common to all model types, are described in a separate section.

•Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

```
MODEL MENU        NORMAL    {7.4U}1/2
SERVO MONITOR PROG. MIXES
COND. SELECT  PIT CURVE
AFR           THR CURVE
DUAL RATE     ACCELERATION
COND.HOLD IS OFF
```

<SensorTouch™>
- Scrolling
  • Moving cursor
  • To next page

```
MODEL MENU        IDLEUP3   {7.5U}2/2
THR HOLD      PIT→RUD
SWASH MIX     GYRO
THROTTLE MIX  GOVERNOR
PIT→NEEDLE    COND.HOLD ◄
COND.HOLD IS OFF ◄
```

*Condition hold operation is displayed.

To activate/deactivate Condition Hold:

1. Move the cursor to [COND. HOLD].
2. Set the throttle stick lower than the 1/3 point and touch the RTN button to activate/deactivate the condition hold function.

*Refer to for condition hold function details.

Model Menu functions (helicopter) list

PIT CURVE: Adjusts response in different flight conditions

THR CURVE: Throttle curve and hovering trim adjustment

ACCELERATION: Allows a brief "overload" in response to sudden throttle and pitch commands

THR HOLD: Moves the throttle to idle during autorotation

SWASH MIX: Compensates for each control response

THROTTLE MIX: Compensates for power loss when cyclic applied

PIT to NEEDLE: Adjusts response curve in different flight conditions

PIT to RUD: Handles torque changes from pitch angle inputs

GYRO: Used to switch gyro sensitivity

GOVERNOR: Used to switch RPM of the helicopter's head

PIT CURVE/PIT TRIM

PIT Curve

This function adjusts the pitch operation curve for each flight condition for the optimal flight state relative to movement of the throttle stick.
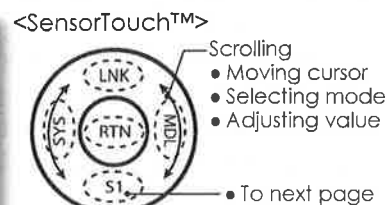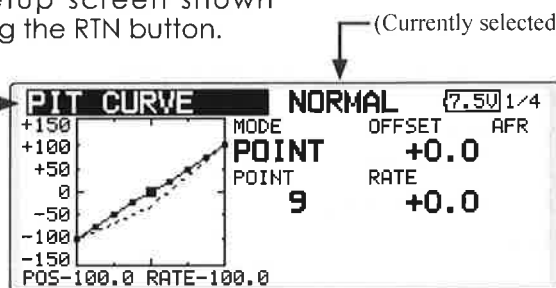
*Up to 17 points can be set for the point curve types. However, when using the 3 points or 5 points specified to create a curve, a simple curve can be created by reducing the number of input points to 3 or 5, and then entering the specified value at the corresponding points that you created a curve.

- Select [PIT CURVE] at the model menu and call the setup screen shown below by touching the RTN button.

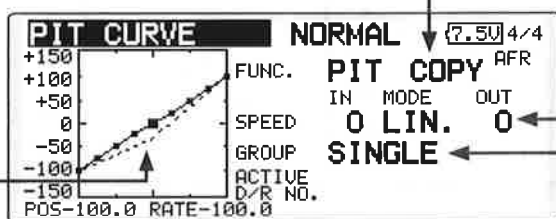- Point curve type is 9 points (initial), but for simple use, 4~5 points are sufficient.

(Currently selected condition name)

- Select the function name and return to the preceding screenby touching the RTN button or pushing the Home/Exit button.

```
PIT CURVE   NORMAL   (7.5U)1/4
+150          MODE      OFFSET    AFR
+100         POINT      +0.0
+50          POINT      RATE
  0            9        +0.0
-50
-100
-150
POS-100.0 RATE-100.0
```

<SensorTouch™>

Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

- To next page

- Mixing curve setting
  *For a description of the curve setting method, see the description at the back of this manual.

- Pitch trim copy

```
PIT CURVE   NORMAL   (7.5U)4/4
+150          FUNC.    PIT COPY  AFR
+100                   IN  MODE  OUT
+50          SPEED     0 LIN.  0
  0          GROUP     SINGLE
-50
-100         ACTIVE
-150         D/R NO.
POS-100.0 RATE-100.0
```

- Pitch trim operating position (dotted line)

- Pitch servo speed setting
  (For a description of the setting method, see the description at the back of this manual.)

- Group/single mode switching
  (For more information, refer to the description at the back of this manual.)

Normal curve adjustment
- For normal curve, usually use [POINT] type and create a basic pitch curve centered about hovering. Use this function together with the THR curve (normal) function and adjust the curve so that up/down control is best at a constant engine speed.

Idle up curve adjustment
- For the high side pitch curve, set the maximum pitch which does overload the engine. For the low side pitch curve, create curves matched to loop, roll, 3D, and other purposes and use the idle up curves according to the performance.

Throttle hold curve adjustment
- The throttle hold curve is used when executing auto rotation dives.

Operation precautions

⚠ WARNING

⊘ When actually starting the engine and flying, always set the idle up condition switch to OFF and start the engine in the idling state.

Setting method

- Group/Single item: When you also want to input the same setting contents at other conditions, perform setting in the group mode. In this case, the same contents are input to the other conditions set in the group mode. When you want to set each condition independently, select the single mode (initial setting). Other conditions can be set independently.

- Pit trim copy (Hover/high/low)

  The pitch trim operating position can be copied to the pitch curve.

  Move the cursor to the [COPY] item and touch the RTN button.

  After copying, return the pitch trim to the center to call the last operating position.

Curve setting examples

The screens shown below are curves created by entering the pitch rate at low, center, and high side (3 points or 5 points) at each condition. When actually creating a curve, input the rate specified at the fuselage (or the reference value).

*For a description of the curve setting method, see the description at the back of this manual.

●Pitch Curve (Example)

| Normal Curve | Idle-up 1 Curve | Idle-up 2 Curve | Hold Curve |
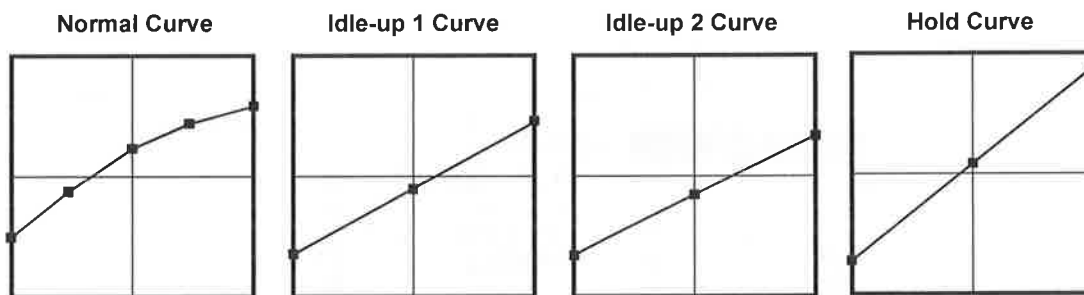
Pitch Trim (Hovering pitch, high pitch, low pitch)

The hovering pitch, low pitch, and high pitch trim setup screen can be called from the PIT curve setup screen.

- Hovering pitch trim setting

```
PIT CURVE      NORMAL   (7.5V)2/4
HOVER
ACT/INH ON          MODE   CTRM
GROUP   SINGLE      RANGE  100%
CONTROL LD
RATE    +30% (-30%)
```

- Low/high pitch trim setting

```
PIT CURVE      NORMAL   (7.5V)3/4
LOW PITCH          HIGH PITCH
ACT/INH INH        ACT/INH INH
GROUP   SINGLE     GROUP   SINGLE
CONTROL --         CONTROL --
RATE    +30% ( +0%) RATE   -30% ( +0%)
```

Hovering pitch trim

The Hovering Pitch trim function trims the pitch near the hovering point. Normally, it is used with the hovering condition. The hovering pitch can be fine tuned for changes in rotor speed accompanying changes in temperature, humidity, and other flight conditions. Adjust the hovering pitch so that rotor speed is constant. This function can be used together with the hovering Throttle Trim function for more delicate operation.

Setting method

- When using only the hovering (normal) condition, switch the group mode to the single mode (initial setting) before setting.
- Set the function to ACT [ON].
- Select the adjustment knob.
  Selection example: LD
- The trim operation mode (Mode: CTRM/NORM) can be selected.
  CTRM mode: Maximum amount of change near center by center trim operation (recommended)
  NORM mode: Normal trim (parallel movement trim) operation. The advantage of using this mode is that the hovering pitch can be adjusted without changing the curve.
- Trim adjustment range (Range) setting
  When this value is made small, trim can only be used near the center.
- The trim rate can be adjusted and the operation direction can be changed.

High Pitch/Low Pitch Trim

High Pitch/Low Pitch Trim is the pitch servo high side and low side trim function.

Setting method

- When setting the adjustment knobs common to all the conditions, set them in the group mode.
- Set the function to ACT (ON).
- Select the adjustment knobs.
  Selection example: LS (high side), RS (low side)
- The trim rate can be adjusted and the operation direction can be changed.
- Trim acts as high side or low side trim with the center as the standard.

THR CURVE/THROTTLE HOVER TRIM
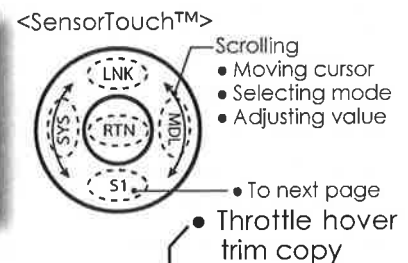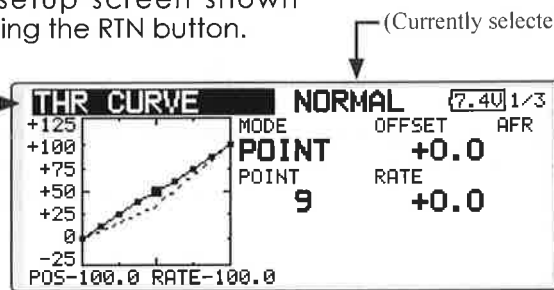
THR Curve

This function adjusts the throttle operation curve for each condition for optimum engine speed to throttle stick movement.

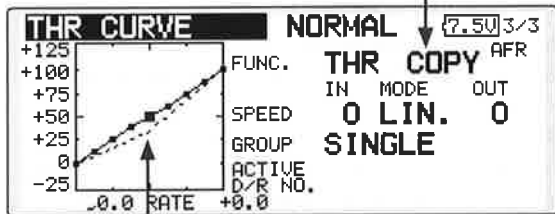Up to 17 curve points can be set for the point curve type, however, when the 5 points and other point data is used, a simple curve can be easily created by reducing the number of input points of the curve to 5 and entering the specified value at the corresponding points.

● Select [THR CURVE] at the model menu and call the setup screen shown below by touching the RTN button.

─(Currently selected condition name)

●Select the function name and return to the preceding screenby touching the RTN button or pushing the Home/Exit button.

```
THR CURVE    NORMAL   (7.4U)1/3
+125                MODE    OFFSET   AFR
+100                POINT    +0.0
+75                 POINT    RATE
+50                 9        +0.0
+25
0
-25
POS-100.0 RATE-100.0
```

<SensorTouch™>

Scrolling
● Moving cursor
● Selecting mode
● Adjusting value

● To next page

● Mixing curve setting
*For a description of the curve setting method, see the description at the back of this manual.

```
THR CURVE    NORMAL   (7.5U)3/3
+125                         AFR
+100    FUNC.   THR COPY
+75             IN  MODE  OUT
+50     SPEED   0 LIN.  0
+25     GROUP   SINGLE
0       ACTIVE
-25     D/R NO.
.0.0 RATE  +0.0
```

● Throttle hover trim copy

● Throttle hover trim operating position (dotted line)

Normal curve adjustment

● Normal curve creates a basic curve centered around hovering. Use it along with the normal pitch curve and adjust so that up/down control at a constant engine speed is easiest.

Idle up curve adjustment

● Set a idle up curve that maintains a constant speed at all times, even during operation which reduces the pitch performed in flight. Create a curve matched to loop, roll, 3D, or other purposes and the idle up curve according to the performance.

Operation precautions

⚠ WARNING

🛑 When actually starting the engine and flying, always set the idle up condition switch to OFF and start the engine in the idling mode.

Setting method

● Group/single item: When you want to simultaneously enter the same settings to other functions, make the settings in the group mode. In this case, the same setting contents are entered to the all conditions. When you want to set each condition independently, make the settings after selecting the single mode (Initial setting).

● Throttle hover trim copy

The throttle hover trim operating position can be copied to the throttle curve.

Move the cursor to the [COPY] item and touch the RTN button.

After copying, return the pitch trim to the center to call the last operating position.

Curve setting examples

The curves shown below are created by using the point curve type and inputting the data of the 5 points 0% (low side), 25%, 50% (center), 75%, 100% (high) side at each condition. They are created by reducing the number points of the line to 5. When actually creating a curve, enter the data specified per the aircraft (or the reference value).

*For a description of the curve creation method. see the description at the back of this manual.

●Throttle Curve (Example)

| Normal Curve | Idle-up 1 Curve | Idle-up 2 Curve |
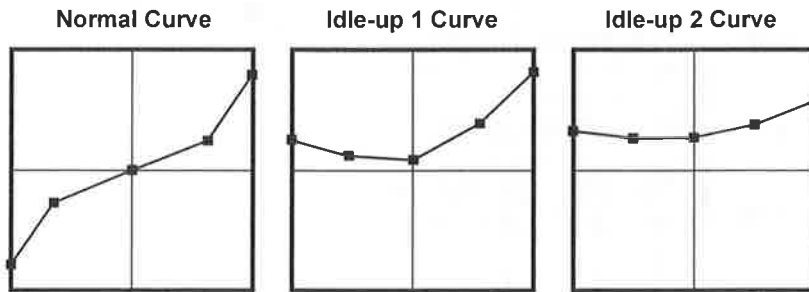
Throttle Hover trim

The Throttle Hover trim setup screen can be called from the THR Curve setup screen.

●Sets the dial used.

The Throttle Hover function trims the throttle near the hovering point. Normally, use it with hovering conditions. Changes in rotor speed accompanying changes in the temperature, humidity, and other flight conditions can be trimmed. Adjust the throttle so that rotor rotation is most stable. More delicate trimming is also possible by using this function along with the Hover Pitch function.

Setting method

● When using the hovering (normal) condition only, switch the group mode to the single mode (initial setting) and make the settings.
● Set the function to ACT ([ON]).
● Select the adjustment knob.
  Selection example: RD
● The trim operation mode (Mode: CTRM/

NORM) can be selected.
  CTRM mode: Maximum rate of change near center by center trim operation (recommended)
  NORM mode: Normal trim (horizontal movement trim) operation.
● Trim adjustment range (Range) setting
  When the value is made small, trim acts only near the center.
● The trim rate can be adjusted and the operation direction can be set.

Throttle Limiter

This function limits throttle operation to within a certain range. Control which adjusts the operating range during flight can be set. (Effective only when the model type is helicopter.)
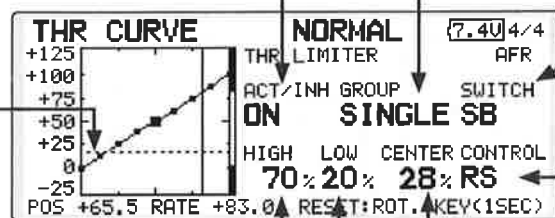
*When the limiter operation range adjustment control is NULL, the throttle limiter function is not activated.

- Open the THR CURVE setup screen. Push S1 button to advance to next page and display page4.

- Throttle limiter activation position

- Throttle limiter function ACT/INH

- Condition group/single

- Mixing ON/OFF switch

THR CURVE   NORMAL   [7.4V]4/4
+125   THR LIMITER   AFR
+100   ACT/INH GROUP   SWITCH
+75   ON   SINGLE SB
+50
+25   HIGH LOW CENTER CONTROL
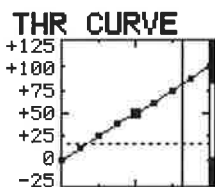0   70%20% 28%RS
-25
POS +65.5 RATE +83.0▲ RESET:ROT.▲KEY(1SEC)

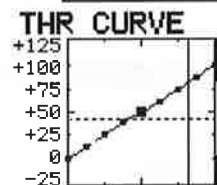- Limiter activation position adjustment control

- High side operation range

- Low side operation range

- The limit value at the operation hardware neutral position can be adjusted using the throttle limiter.
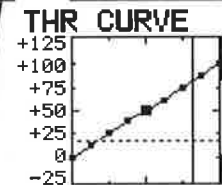
THR CURVE
+125
+100
+75
+50
+25
0
-25

The high side of a throttle can restrict to this range by CONTROL.

The neutral position of CONTROL

THR CURVE
+125
+100
+75
+50
+25
0
-25

- When CENTER is INH. The motion with the equal upper and lower sides is carried out.

The neutral position of CONTROL

THR CURVE
+125
+100
+75
+50
+25
0
-25

- When CENTER is 28%. The amount of operations above CONTROL increases.

Setting method

- Activate the function
1. Select "ACT/INH" and touch the RTN button.
2. Scrolling the touch sensor and switch the display to [INH] or [ACT].
3. Touch the RTN button.
- Group/single mode selection.
1. Select "GROUP" and touch the RTN button.
2. Scrolling the touch sensor and switch the display to [GROUP] or [SINGLE].
3. Touch the RTN button.
- ON/OFF switch setting
1. Select "SWITCH" and touch the RTN button.
2. A hardware selection screen is displayed. Select the hardware and touch the RTN button.
- Hight side operation range setting
1. Select "HIGH" and touch the RTN button.
2. Scrolling the touch sensor and adjust the high

side operation range.
3. Touch the RTN button.
- Low side operation range setting
1. Select "LOW" and touch the RTN button.
2. Scrolling the touch sensor and adjust the low side operation range.
3. Touch the RTN button.
- The neutral position of "CONTROL" setting
1. Select "CENTER" and touch the RTN button.
2. Scrolling the touch sensor and adjust the neutral position.
3. Touch the RTN button.
- Limiter activation position adjustment control setting
1. Select "CONTROL" and touch the RTN button.
2. A hardware selection screen is displayed. Select the hardware and touch the RTN button.

ACCELERATION

This function is used to adjust the pitch and the throttle rise characteristic at acceleration/deceleration operation. An acceleration function which temporarily increases the pitch and throttle operations at throttle stick acceleration/deceleration operation can be set.

<table>
<tr><td>Example of acceleration function use</td></tr>
<tr><td>●When used at pitch, the acceleration function is effective when you want to quicken the response of the fuselage at 3D flight flip, etc.
When used, high pitch temporarily exceeds maximum pitch, but immediately returns to maximum pitch.</td></tr>
</table>

● Select [ACCELERATION] at the model menu and call the setup screen shown below by touching the RTN button.

●Select the function name and return to the preceding screenby touching the RTN button or pushing the Home/Exit button.

● Pitch setting

● Throttle setting

┌(Currently selected condition name)

```
ACCELERATION  NORMAL    7.5U 1/2
PITCH                 LOW   HIGH  100%
ACT/INH INH    RATE    0%    0%
GROUP   SNGL   DUMPING    0%
               ACT POS  25%   75%
                                 0%
```

```
ACCELERATION  NORMAL    7.5U 2/2
THROTTLE             CLOSE  OPEN  100%
ACT/INH INH    RATE    0%    0%
GROUP   SNGL   DUMPING    0%
               ACT POS  25%   75%
                                 0%
```

<SensorTouch™>
Scrolling
● Moving cursor
● Selecting mode
● Adjusting value

● To next page

● Act position
●Current position

Setting method

● Acceleration can be set at both setting at acceleration (high) and setting at deceleration (low).

(The operation point is displayed on a graph.)

● Acceleration rate setting (Rate)

● The return time after operation (Dumping) can be set.

● The operation point at acceleration and deceleration can be set. When an operation point is exceeded, acceleration is performed.

Note: When using the acceleration funtion, since the pitch stroke is large, make your settings so there is no binding of your linkage.

THR HOLD

This function sets the throttle cut position for auto rotation. The throttle position can also be set to an idling position. Setting of these 2 positions can be selected by switch. This allows use for switching during training.

Example of use

● Since throttle hold has 2 modes (Cut) and (Idle), using it in the Idling mode during training and in the Cut mode when stopping the engine at meets, etc. is convenient.

Note: When throttle hold is set to ON in the normal condition, throttle hold acts and the throttle servo is deactivated. Always set throttle hold to ON in the hold condition.

● Select [THR HOLD] at the model menu and call the setup screen shown below by touching the RTN button.

(Currently selected condition name)

●Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

```
THR HOLD        HOLD        {7.5U}1/2
CUT MODE               MODE    MANUAL   100%
ACT/INH ON
GROUP    SINGLE    HOLD POS.    17%
SWITCH   --        SPEED        0      0%
```

<SensorTouch™>

Scrolling
● Moving cursor
● Selecting mode
● Adjusting value

● To next page

●Set to the engine stop position.

```
THR HOLD        HOLD        {7.5U}2/2
IDLE MODE              MODE    MANUAL
ACT/INH INH
GROUP    SINGLE    IDLE OFFS    +0
SWITCH   --        SPEED        0
```

●Set to the idling position.

●Hold position
●Current position

Setting method

● Operation mode selection

Manual mode(MANUAL): The throttle hold function is operated by switch operation only.

Auto mode(AUTO): The throttle hold function operation is linked to the throttle stick position.

Auto position setting: When the auto mode is selected, the throttle position (auto position) can be selected. Move the throttle stick to the position you want to set and touch the RTN button. (Auto position is displayed.)

● Hold position adjustment

Throttle Hold (Cut) sets the throttle cut position. Adjust it so that the carburetor is full close.

Throttle Hold (Idle): Make this adjustment to maintain idling for training. Adjustments can be made based on the throttle curve idle position.

● The throttle servo operating speed can be adjusted. (Speed)

● Throttle cut or training function can be switched by hold function selector switch.

Operation precautions

⚠ WARNING

● When starting the engine, confirm that the idle up condition and throttle hold condition are OFF.

SWASH MIX

The swash mix function is used to correct the swash plate in the aileron (roll) direction and elevator (cyclic pitch) corresponding to each operation of each condition.

Adjustment by independent curve for aileron, elevator, and pitch operations is possible. The operation can be smoothly adjusted by calling up the "Curve setup" screen by touching the EDIT button with moving the cursor to the mixing item that corresponds to the mixing and direction which needs correction.

Example of use
• As an example, use swash mixing to correct undesirable tendencies in the roll direction
• For a condition which uses AIL to ELE, set this function to ON. When raising the nose at a right roll, when the Rate B side is input and the right aileron is operated, the elevator moves to the down side. Tune by adjusting the Rate. For right roll, adjust to the rate A side.

• Select [SWASH MIX] at the model menu and call the setup screen shown below by touching the RTN button.

— (Currently selected condition name)

• Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

```
SWASH MIX        NORMAL    7.5U 1/1
MIXING     ACT  SWITCH TRIM  GROUP
AIL→ELE   INH  --     OFF   SINGLE
ELE→AIL   INH  --     OFF   SINGLE
PIT→AIL   INH  --           SINGLE
PIT→ELE   INH  --           SINGLE
```
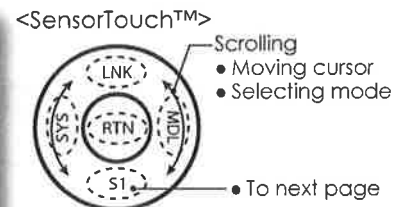
<SensorTouch™>
Scrolling
• Moving cursor
• Selecting mode

• To next page

• Group/single mode switching

(For more information, refer to the description at the back of this manual.)

```
AIL→ELE          NORMAL    7.4U 1/1
+150          MODE       OFFSET    INH
+100          EXP 1       +0.0
+50           RATE A     RATE B
0              +0.0       +0.0
-50           EXP A      EXP B
-100           +0.0       +0.0
-150
POS  +0.0 RATE  +0.0
```

• Mixing curve setting
  *For a description of the curve setting method, see the description at the back of this manual.

Setting method

• When using this function, move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode. Turn the touch sensor to the left and touch the RTN button. (ON is displayed.)

• When you want to set the same contents at other conditions, select the group mode. When you want to set the selected condition only, select the single mode (initial setting).

• The correction rate can be set by curve.

• A switch can be set.
  When [[--]] is set, the swash mixing function is operated by merely selecting the condition.
  When setting an [ON]/[OFF] switch, move

the cursor to the [--] item and touch the RTN button to call the selection screen and set the switch and its ON position.

THROTTLE MIX

This function corrects slowing of engine speed caused by swash plate operation during aileron or elevator operation. The method of applying clockwise or counterclockwise torque when pirouetting can also be corrected.

An acceleration function which temporarily increases the throttle side correction rate relative to rapid stick operation can also be set.

- Select [THROTTLE MIX] at the model menu and call the setup screen shown below by touching the RTN button.

When correction is necessary, move the cursor to the mixing item corresponding to the mixing that needs correction and touch the RTN button to call the curve setup screen, and then correct the slowing.
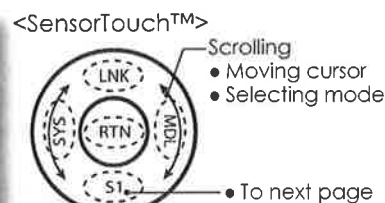
Setting example
● AIL to THR applies a load to the engine and corrects slowing of the engine speed when the aileron stick was operated. Engine racing can be adjusted independently at the right aileron and left aileron by Rates A and B.

●Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

- Mixing curve setting
  *For a description of the curve setting method, see the description at the back of this manual.

(Currently selected condition name)

<SensorTouch™>
- Scrolling
  ● Moving cursor
  ● Selecting mode
- To next page
- Group/single mode switching
  (For more information, refer to the description at the back of this manual.)

●Acceleration settings

Setting method

- When using this function, move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode. Turn the touch sensor to the left and touch the RTN button. (ON is displayed.)
- When you want to set the same contents at other conditions, select the group mode.

  When you want to set the selected condition only, select the single mode (initial setting).
- The correction rate can be set by curve.
- A switch can be set.

  When [[--]] is set, the swash mixing function is operated by merely selecting the condition.

  When setting an [ON]/[OFF] switch, move the cursor to the [--] item and touch the RTN button to call the selection screen and set the switch and its ON position.

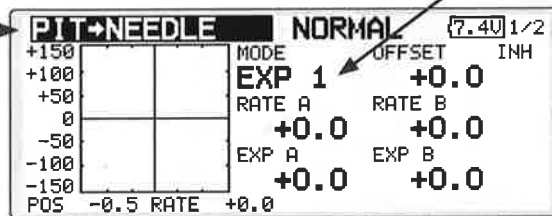| <Acceleration function setting> |
| --- |
| ● Acceleration can be set for both settings (Left) and (Right) |
| ● Acceleration rate setting (Rate) |
| ● The return time (Dumping) after operation can be set. |
| ● The operation point when the correction rate is increased and decreased can be set independently. When an operation point is exceeded, acceleration operation is performed. |

PIT to NEEDLE mixing

This mixing is used when the engine is equipped with needle control or other fuel-air mixture adjustment. A needle curve can be set.

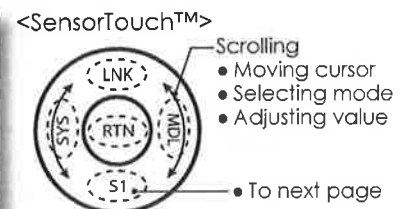An acceleration function which temporarily increases needle operation at throttle stick acceleration/deceleration operation can be set. The rise characteristic of the needle servo at acceleration and deceleration operation can be adjusted.

- Select [PIT to NEEDLE] at the model menu and call the setup screen shown below by touching the RTN button.

- Normally, use [POINT] type.

- Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.
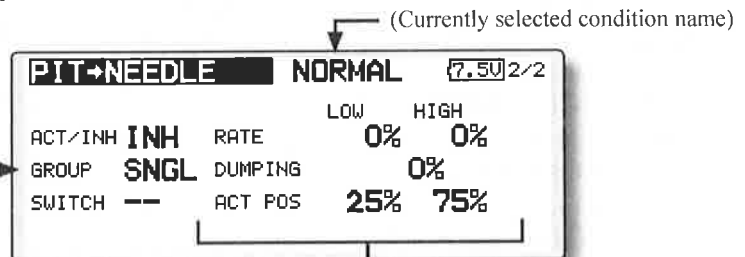
```
PIT→NEEDLE    NORMAL   7.4U 1/2
+150          MODE      OFFSET    INH
+100          EXP 1     +0.0
+50           RATE A    RATE B
0             +0.0      +0.0
-50           EXP A     EXP B
-100          +0.0      +0.0
-150
POS  -0.5 RATE  +0.0
```

<SensorTouch™>

Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

- To next page

- Mixing curve setting
  *For a description of the curve setting method, see the description at the back of this manual.

(Currently selected condition name)

- Group/single mode switching
  (For more information, refer to the description at the back of this manual.)

```
PIT→NEEDLE    NORMAL   7.5U 2/2
                       LOW    HIGH
ACT/INH  INH  RATE      0%     0%
GROUP    SNGL DUMPING        0%
SWITCH   --   ACT POS   25%    75%
```

- Acceleration settings

Setting method

- When using this function, move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode. Turn the touch sensor to the left and touch the RTN button. (ON is displayed.)
- When you want to set the same contents at other conditions, select the group mode.
  When you want to set the selected condition only, select the single mode (initial setting).
- A needle curve can be set.
- A switch can be set.
  When [[--]] is set, the mixing function is operated by merely selecting the condition.
  When setting an [ON]/[OFF] switch, move the cursor to the [--] item and touch the RTN button to switch to the data input mode. Touch the RTN button to call the selection screen and set the switch and its ON position.

< Acceleration function setting>

- Acceleration can be set at both setting at acceleration (high) and setting at deceleration (low).
- The acceleration rate (rate) and the return time after operation (dumping) can be set.
- An operation point (act pos) at acceleration and deceleration can be set. When an operation point was exceeded, acceleration operation is performed.

PIT to RUD mixing (Revolution mixing)

Use this mix when you want to suppress the reaction torque generated by main rotor pitch and speed changes during pitch operation. Adjust so that the nose does not move in the rudder direction.
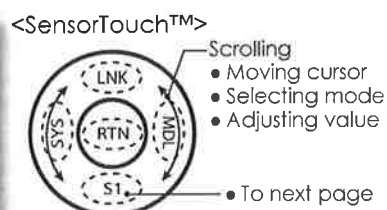
An acceleration function which temporarily increases the correction rate at throttle stick acceleration/deceleration operation can be set. The mixing rate at acceleration/deceleration can be set.

However, when a GY Series or other heading hold gyro is used, since correction is performed by the gyro, this mix is not used. If this function is used when the gyro operation mode is the AVCS mode, the neutral position will change.

- Select [PIT to RUD] at the model menu and call the setup screen shown below by touching the RTN button.

- Normally, use [POINT] type.

- Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

```
PIT→RUD        NORMAL   (7.4U)1/2
+150                MODE    OFFSET   INH
+100                EXP 1     +0.0
 +50                RATE A   RATE B
   0                 +0.0     +0.0
 -50                EXP A    EXP B
-100                 +0.0     +0.0
-150
POS  -0.5 RATE  +0.0
```

<SensorTouch™>
Scrolling
- Moving cursor
- Selecting mode
- Adjusting value

LNK · SYS · RTN · MDL · S1

- To next page

(Currently selected condition name)

```
PIT→RUD        NORMAL   (7.5U)2/2
                      LOW    HIGH
ACT/INH INH  RATE      0%     0%
GROUP  SNGL  DUMPING       0%
             ACT POS   25%    75%
```

- Acceleration settings

Setting method

- When using this function, move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode. Turn the touch sensor to the left and touch the RTN button. (ON is displayed.)

- When you want to set the same contents at other conditions, select the group mode.

  When you want to set the selected condition only, select the single mode (initial setting).

- A mixing curve is set.

<Normal condition mixing curve>

The mixing curve rate starts from a small value.

For a rotor with a clockwise operation direction (polarity), when pitch was operated at the plus side, set so that mixing is in the clockwise direction. First, trim at hovering and then adjust the neutral position.

1. Adjustment between slow and hovering

   Repeatedly hover from take off and land from hovering at a constant rate matched to your own rhythm, and adjust the pitch so the nose does not deflect when the throttle is raised and lowered.

2. Throttle high side (climbing and diving from hovering)

   Repeat climbing and diving from hovering at a constant rate matched to your own rhythm and adjust the pitch so that the nose does not deflect when the throttle is raised and lowered.

<Idle up condition mixing curve>

Set the mixing rate so that the rudder direction at high-speed flight is straight ahead. Adjust for each condition used.

<Acceleration function setting>

- Acceleration operation can be performed for both setting at acceleration (high) and setting at deceleration (low).
- Acceleration rate setting (rate)
- The return time after operation (dumping) can be set.
- An operation point (act pos) at acceleration and deceleration can be set independently. When an operation point was exceeded, acceleration operation is performed.

GYRO mixing

This function used to adjust gyro sensitivity. The sensitivity and operation mode (Normal mode/AVCS mode) can be set for each condition.

The gyro sensitivity can be switched with each condition or the switch. (5 sensitivities)

*Compatible with 3 axis gyro(CGY750).

Note: When using the [Gyro2]/[Gyro3] function, assign [Gyro2]/[Gyro3] to any channel on the function screen.

Always set to [--] both (control) and (trim) for the [Gyro] function at the Function menu in the Linkage menu.

● Select [GYRO] at the model menu and call the setup screen shown below by touching the RTN button.

● Select the function name and return to the preceding screen by touching the RTN button or pushing the Home/Exit button.

```
GYRO          NORMAL    [7.5U]1/1
  GYRO(RUD)      GYRO2(AIL)      GYRO3(ELE)
1 AVCS 80%     AVCS 50%      AVCS 50%
  ON ( +80%)     ON ( +50%)      ON ( +50%)
2 AVCS 80%     AVCS 50%      AVCS 50%
  INH( +80%)     INH( +50%)      INH( +50%)
3 AVCS 80%     AVCS 50%      AVCS 50%
  INH( +80%)     INH( +50%)      INH( +50%)
```

<SensorTouch™>

Scrolling
● Moving cursor
● Selecting mode
● Adjusting value

● To next page

● When the GYRO function button is selected, each GYRO detailed setting screen appears.

(Rate No. display)   (Currently selected condition name)

```
GYR(RUD) RATE 123 NORMAL   [7.5U]1/3
    RATE 1 IS ON  MODE      RATE
ACT/INH  ON       AVCS      50%   ( +50%)
TYPE     GY     ┌FINE TUNING
SWITCH   --     │CONTROL  --
GROUP    SNGL   │RATE     +0%   ( +0%)
```

●Gyro type selection: [GY]/[NORM]

●Mode selection: [AVCS]/[NORM]

●Gyro sensitivity adjustment

●Fine tuning VR settings

Setting method

● When using this function, move the cursor to the [ACT] item and touch the RTN button to switch to the data input mode. Turn the touch sensor to the left and touch the RTN button. (ON is displayed.)

● When you want to set the same contents at other conditions, select the group mode.

When you want to set the selected condition only, select the single mode (initial setting).

● Three rates can be switched for each condition. (Rate 1/Rate 2/Rate 3)

● A fine tuning VR can be set.

GOVERNOR mixing

When using a Futaba governor, this function is used to switch the RPM of the helicopters head. Up to 3 rates can be set for each condition.

*The governor is used by connecting the governor speed setting channel to CH7 (initial setting).

*When using an independent governor [ON]/[OFF] switch, connect the AUX([ON]/[OFF]) connector of the governor to CH8 (initial setting) and set the switch to CH8 (Governor2) at the Function menu of the Linkage Menu.

● Select [GOVERNOR] at the model menu and call the setup screen shown below by touching the RTN button.

●Select the function name and return to the preceding screenby touching the RTN button or pushing the Home/Exit button.

*When using the Fuel Mixture function, the mixture servo is controlled from the governor. When transmitting the mixture curve data from the transmitter to the governor, the governor AUX (m.trm) connector must be connected to CH8 (initial setting) and governor side setting performed. See the governor instruction manual.

Note: Always set (Control) and (Trim) to [--] for [Governor] and [Governor 2] of the Function menu of the Linkage menu.

―(Currently selected condition name)

<SensorTouch™>

Scrolling
● Moving cursor
● Selecting mode
● Adjusting value

● To next page

●Unit display selection: [%]/[rpm]

●Fine tuning VR settings

●RPM adjustment

Setting method

●Activate the mixing

When using this function, move the cursor to the [INH] item and touch the RTN button to switch to the data input mode.
Select the ACT mode by scrolling the touch sensor.

*The display blinks.

Touch the RTN button to activate the mixing and return to the cursor mode. (ON is displayed.)

When the Governor is changed from the default inhibited (INH) state to the active (ACT) state, the endpoint menu will be displayed and it is possible to utilize the endpoints for this given condition.

*When the function is set ON/OFF at the governor setup screen, the governor rpm setting channel end point servo travel and limit point are now initialized.

*When changed from INH to ACT (ON), the servo travel is initialized to 100 and the limit point is initialized to 155.

*When operation is changed to INH at all conditions, the servo travel is initialized to 100 and the limit point is initialized to 135.

●RPM adjustment

Move the cursor to the rate item and touch the RTN button to switch to the data input mode.
Adjust the rpm by scrolling the touch sensor.
Initial value: 50% (1500rpm)
Adjustment range: OFF, 0~110% (OFF, 700~3500rpm)

*When the RTN button is touched for one second, the sensitivity is reset to the initial value.)

Touch the RTN button to return to the cursor mode.

●Unit diplay selection

Move the cursor to the UNIT item and touch the RTN button to switch to the data input mode. Select the unit by scrolling the touch sensor.
Touch the RTN button to change the operation mode and return to the cursor mode.

●Diplay mode selection

*When [rpm] mode is selected above setting, the display mode can be selected.

*There is no change in the transmitter output even when the "MODE" is changed. Calibration should be performed via the governor.

*In order to use the Governor function of the FMT-01, it is necessary to change the settings on the governor for the low side 700 rpm mode.

When the MODE of the Governor screen's model menu is changed, the change is also indicated on-screen.

The chart below indicates the mode percentage and the corresponding RPM.
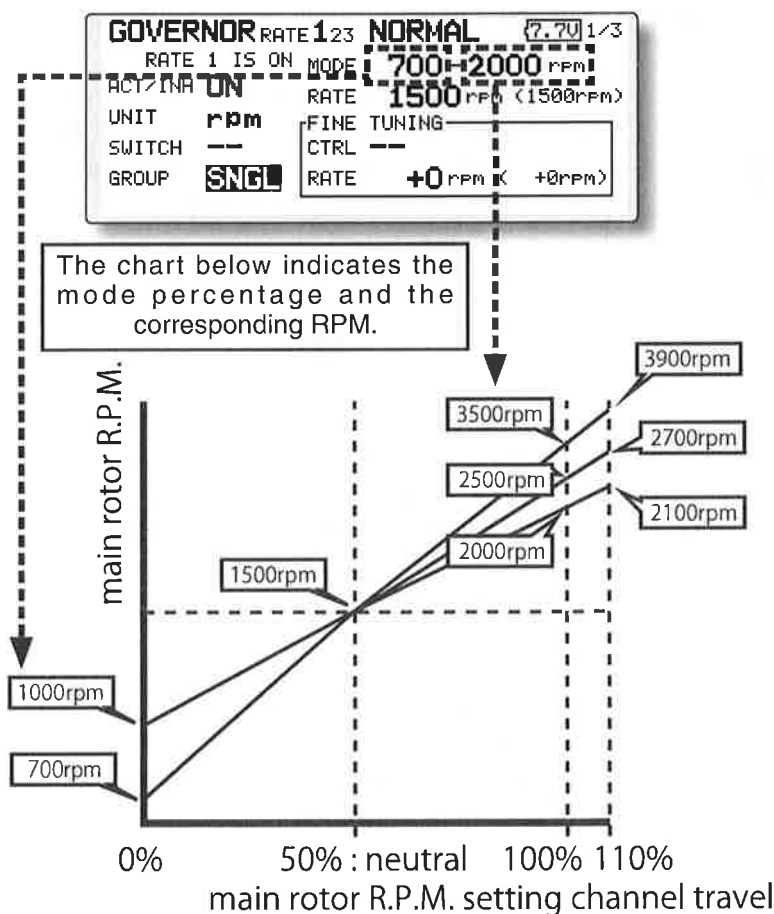
●Fine tuning VR settings

Move the cursor to the [--] item and touch the RTN button to access the selection screen. Select the control.

*For a description of the switch selection method, see the description at the back of this manual.

Move the cursor to the rate item and touch the RTN button to switch to the data input mode.

Adjust the trim rate by scrolling the touch sensor.

Initial value: 0% (0rpm)

Adjustment range: -20~+20% (-800~+800rpm)

*When the RTN button is touched for one second, the sensitivity is reset to the initial value.)

Touch the RTN button to return to the cursor mode.

Common operations used in function setup screen

This section describes the functions often used at the function setup screen. Refer to it when setting each function.

Operations related to flight conditions

Group/single mode switching (GROUP/SINGLE)

When setting multiple flight conditions, linking the setting contents with all conditions (group mode) or setting independently (single mode) can be selected. The mode can be changed at the [GROUP] item on each setup screen.

[Group/single mode switching]

GROUP   GROUP

GROUP ⇄ **SINGLE**

1. Use the touch sensor to move the cursor (reverse-video) to the [GROUP] item on the setup screen and touch the RTN button to switch to the data input mode.
2. Turn the touch sensor to the left until switch [SINGLE] starts to blink.
   *At this point, the mode has still not been changed.
   *When changing from [SINGLE] to [GROUP], turn the touch sensor to the right.
3. Change the mode by touching the RTN button.
●Group mode (GROUP)
   The same setting contents are set to all the flight conditions.
●Single mode (SINGLE)
   Set this mode when the setting contents are not linked with other conditions.

Condition delay setting

Unnecessary fuselage motion generated when there are sudden changes in the servo position and variations in the operating time between channels can be suppressed by using the condition delay function of the condition select function [COND. SELECT].

When the delay function is set at the switching destination condition, a delay corresponding to that amount is applied and the related functions change smoothly.
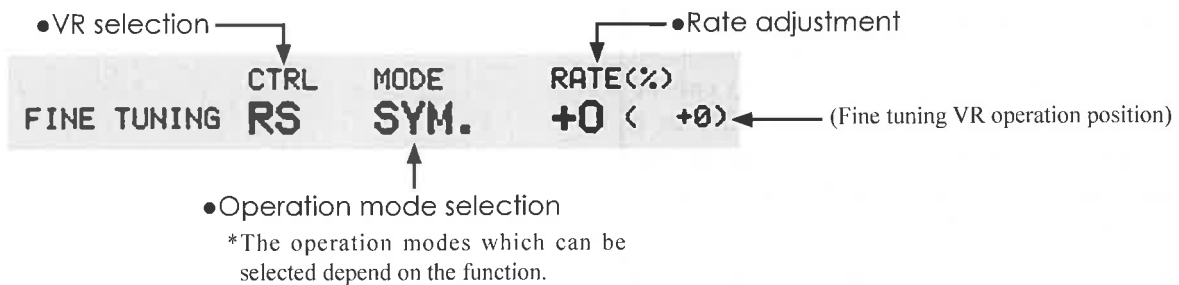
[Setting method]

DELAY
0

*At the condition delay setup screen [COND.DELAY], move the cursor to the [DELAY] item of the channel you want to set and perform the following settings:

1. Switch to the condition you want to set and touch the RTN button to switch to the data input mode.
2. Set the delay by turning the touch sensor.
   Initial value: 0
   Adjustment range: 0~27 (maximum delay)
   (When the RTN button is touched for 1 second, the delay is reset to the initial value.)
3. Touch the RTN button to end adjustment and return to the cursol move mode.

Operations related to fine tuning VR

●VR selection ─────┐   ┌──●Rate adjustment

```
              CTRL   MODE     RATE(%)
FINE TUNING   RS     SYM.     +0 (  +0) ◄─────── (Fine tuning VR operation position)
```

●Operation mode selection

*The operation modes which can be
selected depend on the function.

[Setting method]

1. Control selection

   Use the touch sensor to move the cursor (reverse-video) to the [CTRL] item and touch the RTN button to call the selection screen.

   Move to the control you want to set by turning the touch sensor to the left or right and touch the RTN button.

2. Mode selection

   Use the touch sensor to move the cursor to the [MODE] item and touch the RTN button to switch to the data input mode.

   Turn the touch sensor to the left or right and switch to the operation mode ([LIN.], [ATL+], [ATL-], or [SYM.]) corresponding to the set control and touch the RTN button.

3. Rate adjustment

   Move the cursor to the [RATE] item and touch the RTN button to switch to the data input mode.

   Turn the touch sensor to the left or right and set the rate.

   Initial value: 0%

   Adjustment range: -100%~+100%

   (When the RTN button is touched for 1 second, the rate is reset to the initial value.)

   Touch the RTN button to end adjustment and return to the cursol move mode.

[Fine tuning VR operation mode]

[LIN.] Mixing rate 0% at center of VR. When the VR is turned clockwise and counterclockwise, the mixing rate increases and decreases, respectively.

[ATL+] Mixing rate 0% at left end of VR. When the VR is turned, the mixing rate increases.

[ATL-] Mixing rate 0% at right end of VR. When the VR is turned, the mixing rate increases.

[SYM.] When the VR is turned to the left or right of the neutral position, the mixing rate increases.

Operations related to servo speed

Servo speed setting

The servo speed at each function operation (including flight condition switching) can be adjusted. The servos operate smoothly at a fixed speed corresponding to the set speed. The operating speed (IN side) and return speed (OUT side) can be set individually.

Switch the operation mode according to the set function.

"SYM." mode: Used with ailerons and other self neutral functions.

"LIN." mode: Used with functions which hold the operation position of the throttle and switch channel, etc.

[Setting method]

```
          IN    MODE    OUT
SPEED    ▉0  LIN.     0
```

1. Use the touch sensor to move the cursor (reverse-video) to the [MODE] item and touch the RTN button to switch to the data input mode.

   Turn the touch sensor to the left or right and switch to the operation mode ("SYM." or "LIN.") corresponding to the set function and touch the RTN button.

2. Move the cursor to the direction ([IN] or [OUT]) item you want to set and touch the RTN button to switch to the data input mode.

   Turn the touch sensor to the left or right and set the speed.

   Initial value: 0

   Adjustment range: 0~27 (maximum delay)

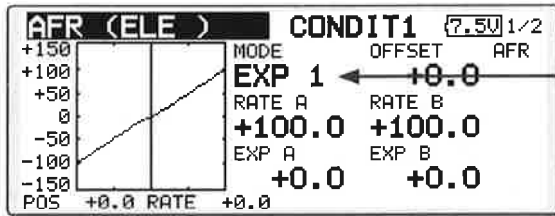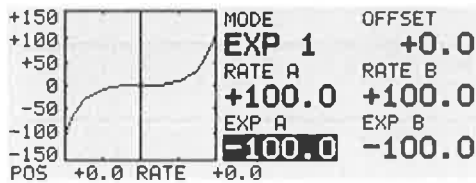   (When the RTN button is touched for 1 second, the servo speed is reset to the initial value.)

   Touch the RTN button to end adjustment and return to the edit mode.

Curve setting operation

This section describes the setting procedure of curves which are used with the AFR function and each mixing function.

Curve type selection

Three types of curves (EXP1, EXP2 and POINT) can be selected.

```
AFR (ELE )    CONDIT1  7.5V 1/2
+150              MODE    OFFSET   AFR
+100              EXP 1 ◄ +0.0
+50
  0               RATE A   RATE B
-50               +100.0  +100.0
-100              EXP A    EXP B
-150                 +0.0    +0.0
POS  +0.0 RATE  +0.0
```

Setting by curve type

When the curve type is selected as described above, adjustment items corresponding to the curve type appear on the screen. Adjust each curve as described below.
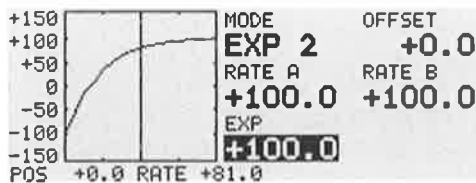
EXP1/EXP2 curve adjustment

(EXP1 curve)

```
+150              MODE    OFFSET
+100              EXP 1    +0.0
+50
  0               RATE A   RATE B
-50               +100.0  +100.0
-100              EXP A    EXP B
-150              -100.0  -100.0
POS  +0.0 RATE  +0.0
```

Using the EXP1 curve is effective in smoothing starting of the ailerons, elevator, rudder, etc.

(EXP2 curve)

```
+150              MODE    OFFSET
+100              EXP 2    +0.0
+50
  0               RATE A   RATE B
-50               +100.0  +100.0
-100              EXP
-150              +100.0
POS  +0.0 RATE +81.0
```

Using the EXP2 curve is effective in engine rise and other engine control.

The curve left and right rates ([RATE A], [RATE B]) and EXP curve rate ([EXP A], [EXP B]) can be adjusted individually. ([EXP] for EXP2)

The curve can also be offset horizontally ([OFFSET]) in the vertical direction.

[Rate setting]
1. Use the touch sensor to move the cursor (reverse-video) to the [RATE A], [RATE B], [EXP A], or [EXP B] setting item and touch the RTN button to switch to the data input mode.
2. Set the rate by turning the touch sensor to the left or right.

Initial value: +100.0% (rate)/+0.0% (EXP rate)

*Initial value differs depending on function.

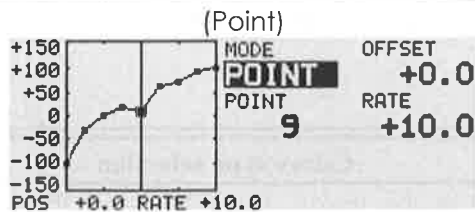Adjustment range: -200.0~+200.0% (rate)/-100.0~+100.0% (EXP rate)

(When the RTN button is touched for 1 second, the rate is reset to the initial value.)

Touch the RTN button to end adjustment and return to the cursol move mode.

[Offsetting the curve horizontally in the vertical direction]
1. Use the touch sensor to move the cursor (reverse-video) to the [OFFSET] setting item and touch the RTN button to switch to the data input mode.
2. Move the curve in the vertical direction by turning the touch sensor to the left or right.

Initial value: +0.0%

(When the RTN button is touched for 1 second, the rate is reset to the initial value.)

Touch the RTN button to end adjustment and return to the cursol move mode.

Point curve (POINT) adjustment

(Point)

```
+150  ┌─────────┐  MODE        OFFSET
+100  │         │  ▐POINT▌      +0.0
 +50  │      ___│  POINT        RATE
   0  │    _/   │     9        +10.0
 -50  │   /     │
-100  │  /      │
-150  └─────────┘
POS   +0.0 RATE +10.0
```

Up to 11 or 17 points curve can be used. (differs with functuion)

Initial point number: 9 points (17 points curve), 11 points (11 points curve)

*The set points can be freely increased, decreased, and offset.

[Rate adjustment of each point]

1. Use the touch sensor to move the cursor (reverse-display) to the [POINT] or [RATE] item and touch the RTN button to switch to the curve setting mode.

   *It is changed from the reverse-display to the square box display.

   *In this mode, touch the RTN button to switch the [POINT] item and [RATE] item alternately.

2. Move the cursor (square box) to the [POINT] item by touching the RTN button.

3. Turn the touch sensor to the left or right and select the point whose rate you want to set.

   *The mark ■ on the curve shows the currently selected point. The mark □ on the curve shows the currently deleted point.

4. Move the cursor (square box) to the [RATE] item by touching the RTN button and set the rate by turning the touch sensor to the left or right.

   Repeat steps 2 through 5 and adjust the curve.

   Push the S1 button to end adjustment and return to the cursor move mode.

[Point addition]

1. In the curve setting mode, touch the RTN button to move the cursor to the [POINT] item and turn the touch sensor to the left or right and move the cursor on the curve to the position (mark □) you want to add.

2. When the RTN button is touched for 1 second, the point is added.

[Point deletion]

1. In the curve setting mode, touch the RTN

button to move the cursor to the [POINT] item and turn the touch sensor to the left or right and move the cursor on the curve to the position (mark ■) you want to delete.

2. When the RTN button is touched for 1 second, the point is deleted.

[Offsetting the curve horizontally in the vertical direction]

1. Use the touch sensor to move the cursor (reverse-video) to the [OFFSET] item.

2. Move the curve in the vertical direction by turning the touch sensor to the left or right.

   Initial value: +0.0%

   (When the RTN button is touched for 1 second, the curve is reset to the initial value.)

   Touch the RTN button to end adjustment and return to the cursol move mode.

Switch selection method

The various functions used in the FMT-01 can be selected by switch. The switch (including when stick, trim lever, or VR are used as a switch) setting method is common to all functions.

Switch selection

When a switch is selected at a mixing function, etc., the selection screen shown below is called.

(Switch selection screen example)

```
HARDWARE SEL.  CONDIT1  [7.4V]1/1
┌─ HARDWARE LIST ─────────────────┐
  J1  SA  SE  LD  T1  T5
  J2  SB  SF  RD  T2  T6
  J3  SC  SG  LS  T3  ▆▆      ON/OFF
  J4  SD  SH  RS  T4
```

Switch selection

1. Use the touch sensor to move the cursor (highlights) to the switch you want to select and touch the RTN button.

   *The switch blinks.

2. To return to the preceeding screen, move the cursor to the [HARDWARE SEL.] at the top of the screen and touch the RTN button.

   Or, move the cursor to the [ON/OFF] and call the ON/OFF position setting screen by touching the RTN button.

When switch was selected

When switch was selected, ON/OFF position setting is also performed.

```
ON/OFF          CONDIT 1 [7.5V]1/1
 SA
        ▶OFF
         OFF
         ON
                ALTERNATE NORMAL
```

*The ON/OFF setting state of each position is displayed.

1. When you want to change the ON/OFF setting, use the touch sensor to move the cursor and touch the RTN button to switch to the data input mode. Switch the ON/Off display by turning the touch sensor to the left or right.
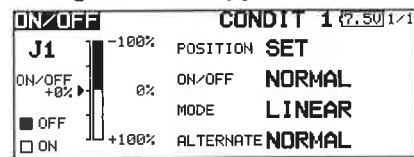
   *ON/OFF display blinks.

3. When the EDIT button is pressed, the ON/OFF setting is changed. (Operate the touch sensor or S1 button to stop the change.)

4. To return to the preceeding screen, move the cursor to the [ON/OFF] at the top of the screen and touch the RTN button.

When stick, trim lever, or knob selected

When a stick, trim lever, or knob is used as a switch, four operation modes can be selected by the following mode and type combination:

```
ON/OFF              CONDIT 1 [7.5V]1/1
 J1        ┃-100%   POSITION  SET
ON/OFF     ┃        ON/OFF    NORMAL
 +0%▶      ┃ 0%     MODE      LINEAR
■ OFF      ┃        ALTERNATE NORMAL
□ ON       ┃+100%
```

1. When you want to change the mode, move the cursor to [MODE] and touch the RTN button to switch to the data input mode. Switch the display to the mode you want to change by turning the touch sensor to the left or right and then make the change by touching the RTN button.

   ●Mode: [LINEAR]/[SYMMETRY]

   *Set the ON/Off point by the method described on the next page.

Alternate mode setting

   ●Mode: [NORMAL]/[ALTERNATE]

1. Move the cursor to the [ALTERNATE] item and touch the RTN button to switch to the data input mode.

2. Change to the mode you want to set by turning the touch sensor to the left or right.
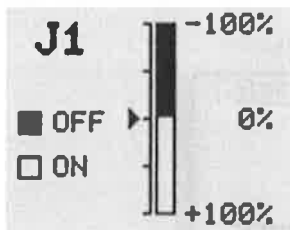
   *The mode display blinks.

3. Touch the RTN button. (Operate the touch sensor or S1 button to stop the change.)

4. To return to the preceeding screen, move the cursor to the [ON/OFF] at the top of the screen and touch the RTN button.

Operation modes

The operation modes when stick, trim lever, or knob was selected are described below.

Linear mode

```
J1            -100%

 ■ OFF ▶       0%
 ☐ ON
              +100%
```

This mode sets ON/OFF at the left or right (up or down) with the set point as the reference.

Symmetrical mode

```
J1            -100%

 ■ OFF ▶       0%
 ☐ ON
              +100%
```
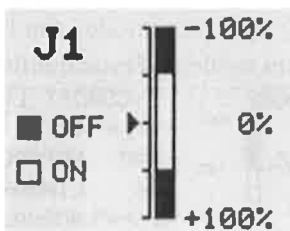
Left and right (up and down) operations are symmetrical about the neutral position. For instance, when you want to switch DR1 with the aileron stick, when the stick is moved to the left or right, DR1 can be turned on at the same left and right position.

Shifting the ON/Off point

The ON/OFF point can be shifted. ON/OFF at a free position can be changed.

```
ON/OFF            CONDIT1  (7.5U)1/1
J1      ▮-100%  POSITION  SET
ON/OFF   0%     ON/OFF    NORMAL
 +0%▶
 ■ OFF         MODE      LINEAR
 ☐ ON  ▮+100%  ALTERNATE NORMAL
```
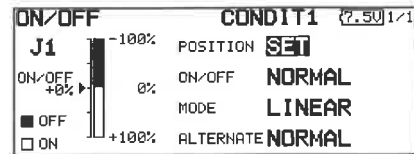
- ●Black range: OFF range
- ●White range: ON range

[Setting method]
1. First, use the touch sensor to move the cursor to the [POSITION] item.
2. Move the stick, trim lever, or knob to the point you want to change and touch the RTN button. The point is shifted.
3. To return to the preceeding screen, move the cursor to the [ON/OFF] at the top of the screen and touch the RTN button.

Logic switch (Condition Select function only)

The logic switch function lets you turn operation on and off by combining two switches. For instance, the condition is activated when 2 switches are turned on.

Logic mode

AND: When both switches are ON, the condition is ON.

OR: When either switche is ON, the condition is ON.

EOR: When the two switches are in different states, the condition is ON.

```
SWITCH          CONDIT1  (7.50)1/1
              MODE
              SINGLE
              SWITCH
              --
```
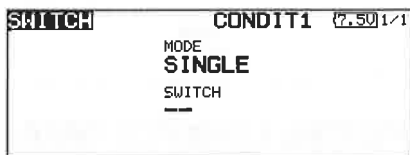
Switch mode selection

1. Move the cursor to the [MODE] item and touch the RTN button to switch to the data input mode.
2. Turn the touch sensor to the left and select the [LOGIC].

*[LOGIC] display blinks.

3. Touch the RTN button to change to the logic switch mode.

(Logic switch setting screen)

```
SWITCH          CONDIT2  (7.40)1/1
              MODE
              LOGIC
   SWITCH A   LOGIC      SWITCH B
   --         AND        --
```
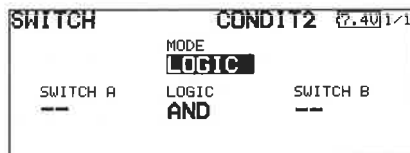
Swich selection

1. Select the switch A and B. (Refer to the description at the previous page.)

Logic mode selection

1. Move the cursor to the [LOGIC] item and touch the RTN button to switch to the data input mode.
2. Turn the touch sensor to the left or right and select the logic mode.

*The mode display blinks.

3. Touch the RTN button to change to the logic mode.

4. To return to the preceeding screen, move the cursor to the [SWITCH] at the top of the screen and touch the RTN button.

UPDATING

Your Futaba FMT-01 transmitter programming can be updated easily online. When functions are added or improved, the update file can be downloaded from our website. Copy the update files to the SD card and then use the following procedure to update the program.

Check our web site for the FAQ regarding updating for more information.
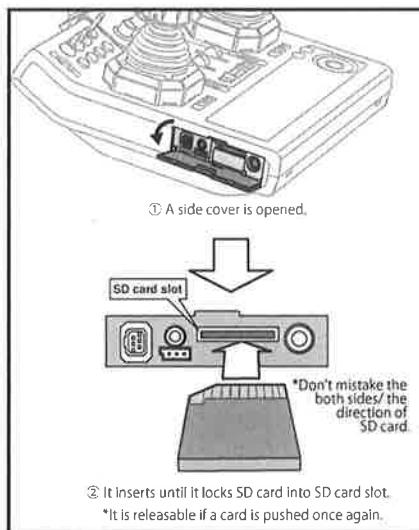
Updating procedure

Note: If the battery fully discharges during program updating, updating will fail. When the remaining battery capacity is 50% or less, always recharge the battery before updating.

Note: The model data in the transmitter can be used unchanged after updating, but to be safe, back up the model data before updating.
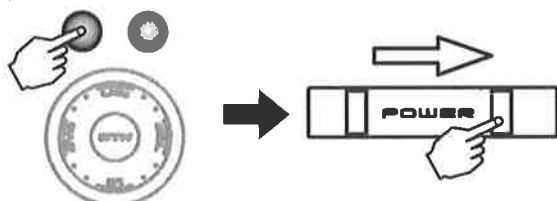
1. Copy update files to a SD card. Typical structure of folders of the card for update are following.


2. Attach the SD card into the SD slot of the FMT-01.

① A side cover is opened.

SD card slot

*Don't mistake the both sides/ the direction of SD card.

② It inserts until it locks SD card into SD card slot.
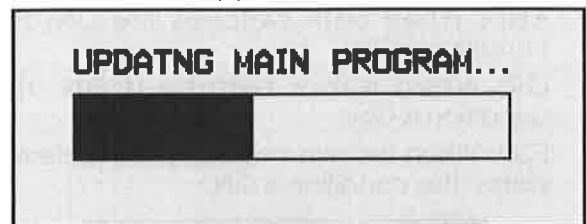*It is releasable if a card is pushed once again.

3. Press the Home/Exit switch and turn on the power switch, and FMT-01 should begin to update.

4. When updating is complete, the screen shown below appears.

UPDATNG MAIN PROGRAM...

UPDATNG RESOURCE DATA...

UPDATNG SUB PROGRAM...
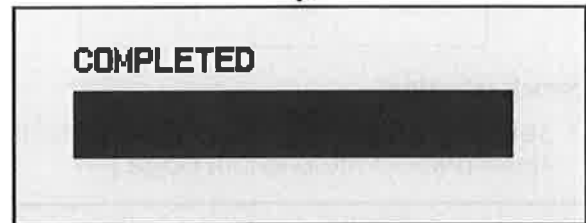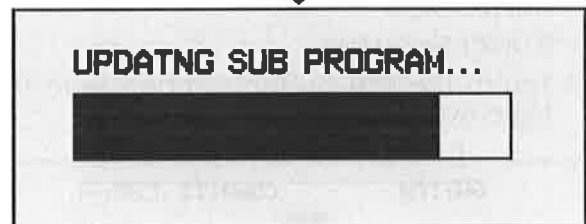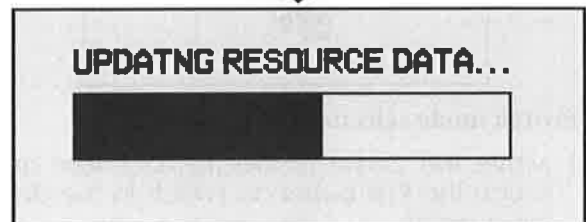
COMPLETED

5. Turn off the power switch. After the monitor LED goes off, switch the update switch in the down direction.

After the updating above has been completed, turn on the power and then check the system program version at the system menu information screen.

6. If writing goes wrong, the following error message will come out.

"LOW BATTERY"
"UPDATE FILE NOT FOUND"
"BROKEN FILE"
"WRITE ERROR"

FX-30/T12FG →FMT-01 MODEL DATA CONVERSION

The model data (only latest version) of FX-30/T12FG can be copied to FMT-01.

* The card reader of a personal computer, SD card, and CF card is required.
* The model data of FMT-01 cannot be copied to FX-30/T12FG.

[Model data conversion method]

1. Attach a SD card that contains model data of T12FG or FX-30 to the SD slot of a FMT-01.

2. Turn on the power switch, and the Data Converter should run.

```
DATA CONVERTER          1/1
 MODEL 1
```

3. The converter shows a list of model data in the card. Select a model data that you want to convert and push "RTN" key, and the converter should begin converting data.

4. If the convert succeeds, the converter will show the following message. The converted data are copied to the internal memory of the FMT-01. Hence, if the FMT-01 does not have free spaces of its internal memory, converts must fail.

```
DATA CONVERTER          1/1
 MODEL 1
```

5. The converter can accept model data made by T12FG or FX-30 with the latest software (Ver.3.0) only. If you try to convert model data made by old version software, the converter must fail to convert and show the following error message. If this message is shown, do the following procedure to update the model data in order to avoid this limitation.

(a) First, update a T12FG or FX-30 to the latest software (Ver. 3.0).

(b) Load the model data failed to convert into the T12FG or FX-30 with the latest software, and the model data should be updated to the latest format.

(c) Save the updated model data to a SD card.

(d) Retry to convert the updated model data on a FMT-01.

```
DATA CONVERTER          1/1
 MODEL 1
 MODEL  -1   OBSOLETE FORMAT
            PLEASE UPDATE THIS DATA
            TO THE LATEST FORMAT AND
            READ THE MANUAL.
```

* When SD card cannot be recognized, it may be able to be used if it reformats by SD formatter offered from SD Association. SD formatter is downloadable from SD Association (https://www.sdcard.org/).

(As of January, 2013)

⚠ CAUTION

❗After the completion of a data copy should fully perform a check of operation on the model to be used.

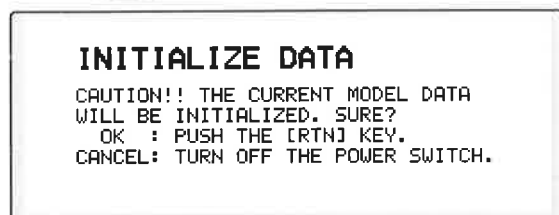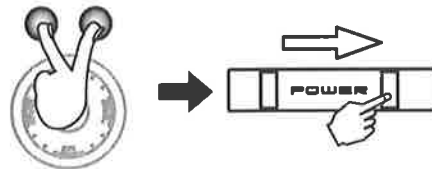❗Check well all the directions of operation and all the operation switches.

Compulsive reset of data *Usually, it is not used.

Operation will become unusual if imperfect model data should be read.

In that case, the forcible reset of the model data can be carried out by the following method.

[Model data compulsive reset method]

1. First, "HOME/Exit" and "U.menu/Mon" are pushed. The power supply of FMT-01 is then turned on.

```
INITIALIZE DATA
CAUTION!! THE CURRENT MODEL DATA
WILL BE INITIALIZED. SURE?
  OK  : PUSH THE [RTN] KEY.
CANCEL: TURN OFF THE POWER SWITCH.
```

2. A "INITIALIZE DATE" screen comes out. "RTN" will be pushed if forcible reset is carried out. In a stop, a power supply is turned off.