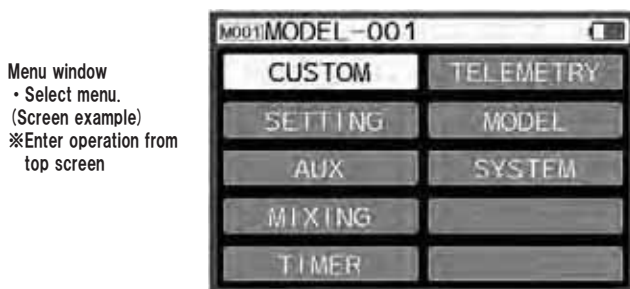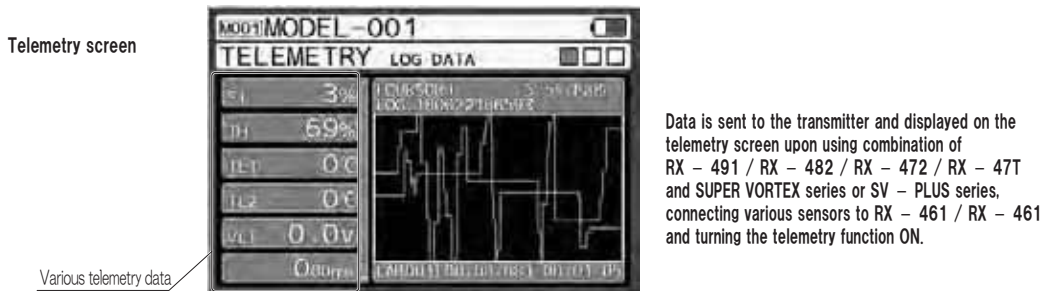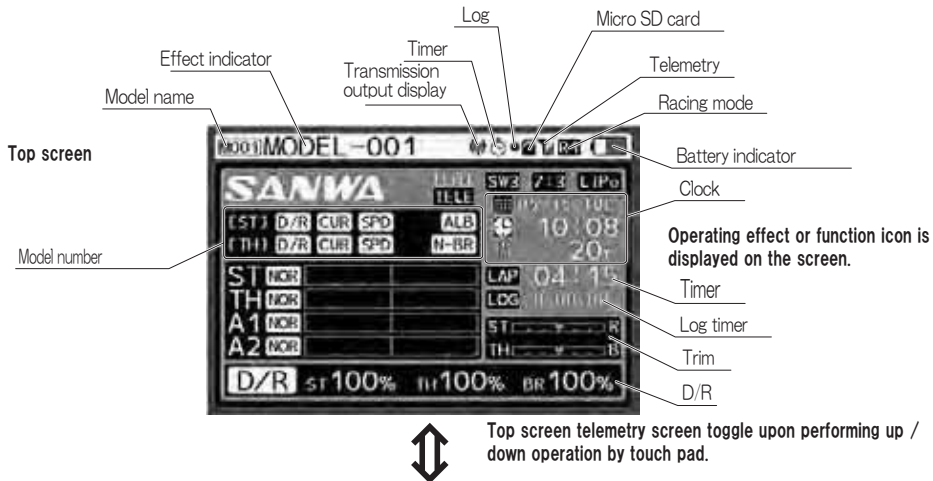# Display Panel

● Each of the functions of M17 can be directly selected by touchpad operation.
● Functions of each channel can be separately set.
● Upon switching the power switch ON, top screen appears after boot screen display (when the setting of the boot is DEMO).
In case of changing various settings, operate touchpad and select menu.

Top screen

Log
Timer
Micro SD card
Effect indicator
Transmission output display
Telemetry
Model name
Racing mode
Battery indicator
Clock

Model number

Operating effect or function icon is displayed on the screen.

Timer
Log timer
Trim
D/R

Top screen telemetry screen toggle upon performing up / down operation by touch pad.

Telemetry screen

Data is sent to the transmitter and displayed on the telemetry screen upon using combination of RX – 491 / RX – 482 / RX – 472 / RX – 47T and SUPER VORTEX series or SV – PLUS series, connecting various sensors to RX – 461 / RX – 461 and turning the telemetry function ON.

Various telemetry data

Menu window
 · **Select menu.**
 (Screen example)
 ※Enter operation from top screen

CUSTOM   TELEMETRY
SETTING   MODEL
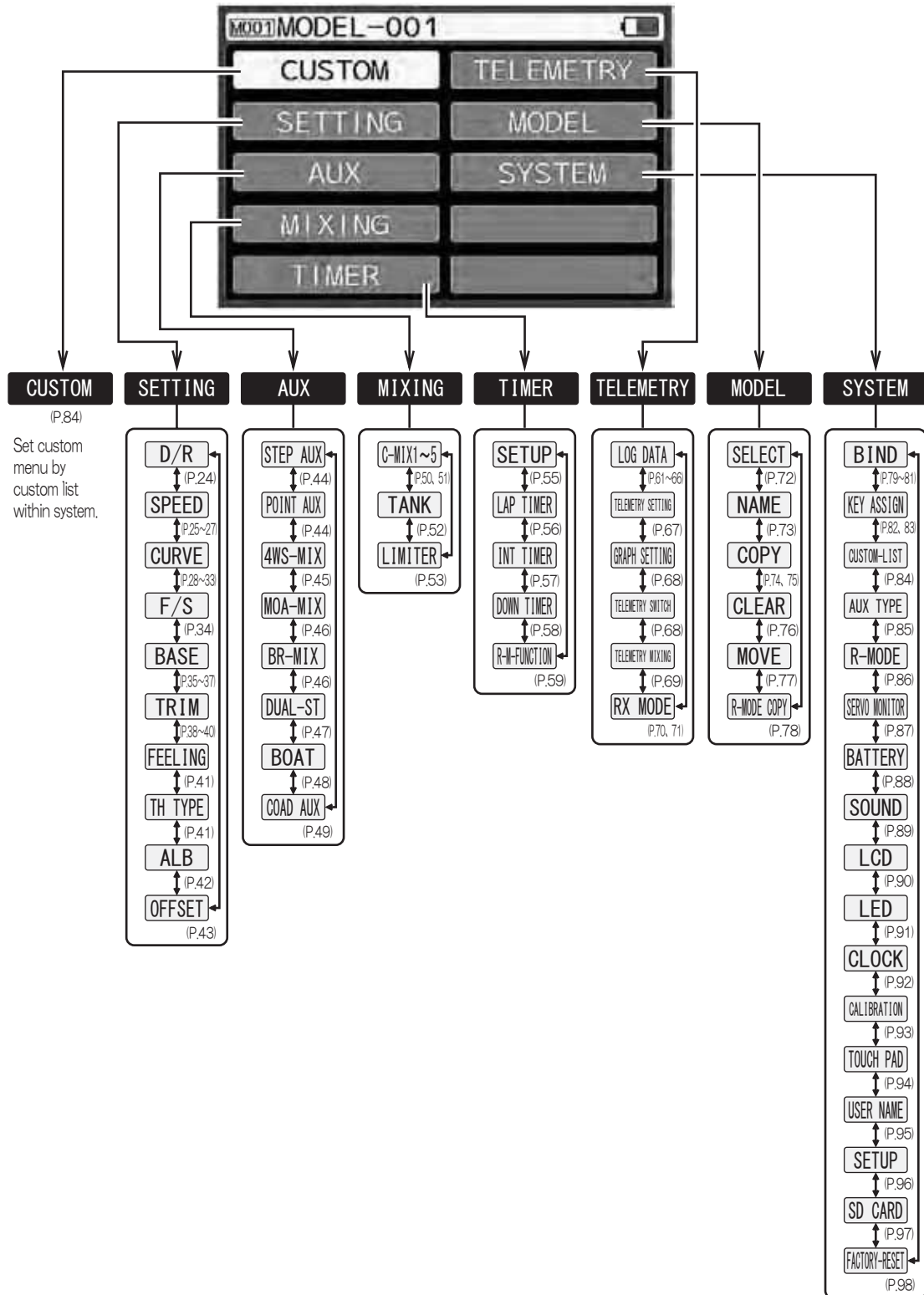AUX   SYSTEM
MIXING
TIMER

Power Supply Forget Alarm

● In M17, if steering wheel, throttle trigger or various switches are not operated for 10 minutes, "No Operation" is displayed based on warning alarm and turning off of LED light.
Warning is cancelled by operating steering wheel, throttle trigger or various switches. Switch OFF the power switch if not in use.
※ Setting can be changed by SETUP of SYSTEM. (Refer to P. 96)

No oPeration

D/R st100% tH100% BR 100%
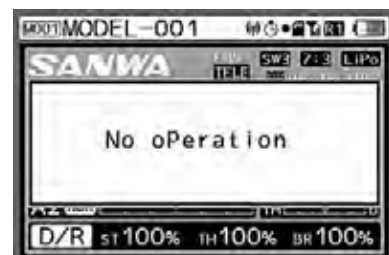
How to use each feature

Menu Structure

●Setting of functions, calling of model memory can be easily done by using respective keys.
●Menu consists of a menu of setting, AUX, model, timer, telemetry, system and it contains functions relating to respective menus.

MODEL-001	
CUSTOM	TELEMETRY
SETTING	MODEL
AUX	SYSTEM
MIXING	
TIMER	

CUSTOM
(P.84)

Set custom menu by custom list within system.

SETTING
- D/R (P.24)
- SPEED (P.25~27)
- CURVE (P.28~33)
- F/S (P.34)
- BASE (P.35~37)
- TRIM (P.38~40)
- FEELING (P.41)
- TH TYPE (P.41)
- ALB (P.42)
- OFFSET (P.43)

AUX
- STEP AUX (P.44)
- POINT AUX (P.44)
- 4WS-MIX (P.45)
- MOA-MIX (P.46)
- BR-MIX (P.46)
- DUAL-ST (P.47)
- BOAT (P.48)
- COAD AUX (P.49)

MIXING
- C-MIX1~5 (P.50, 51)
- TANK (P.52)
- LIMITER (P.53)

TIMER
- SETUP (P.55)
- LAP TIMER (P.56)
- INT TIMER (P.57)
- DOWN TIMER (P.58)
- R-M-FUNCTION (P.59)

TELEMETRY
- LOG DATA (P.61~66)
- TELEMETRY SETTING (P.67)
- GRAPH SETTING (P.68)
- TELEMETRY SWITCH (P.68)
- TELEMETRY MIXING (P.69)
- RX MODE (P.70, 71)

MODEL
- SELECT (P.72)
- NAME (P.73)
- COPY (P.74, 75)
- CLEAR (P.76)
- MOVE (P.77)
- R-MODE COPY (P.78)

SYSTEM
- BIND (P.79~81)
- KEY ASSIGN (P.82, 83)
- CUSTOM-LIST (P.84)
- AUX TYPE (P.85)
- R-MODE (P.86)
- SERVO MONITOR (P.87)
- BATTERY (P.88)
- SOUND (P.89)
- LCD (P.90)
- LED (P.91)
- CLOCK (P.92)
- CALIBRATION (P.93)
- TOUCH PAD (P.94)
- USER NAME (P.95)
- SETUP (P.96)
- SD CARD (P.97)
- FACTORY-RESET (P.98)

How to use each feature

20

Launcher

● M17 is provided with a function of starting launcher (shortcut menu) by performing key operation simultaneously at the time of operating power switch.
Launcher function starts upon switching ON the power switch while pressing [SW 2].
The launcher is provided with [Direct Model Select], [Quick Setup] and [RX Mode].
Direct model select is the function by which running model can be immediately selected and quick setup is a function by which various settings can be done by a simple operation such as at the time of setting up of new RC car.
RX mode becomes mode in which various settings can be changed without emitting electromagnetic waves and function of RX mode of telemetry can be used.

● In the quick setup function, the sequence in enter operation after starting is a model selection → type selection → model initialisation → RF mode selection → response mode selection → bind → base setting.

Direct Model Select <DIRECT MODEL SELECT>

● Direct Model Select
1) Turn the power switch ON while pressing SW2.
Select direct model select from LAUNCHER.

2) Selection of model
Select model to be called by the select function.

　○ Setting range M01 ~ M250

3) Upon moving the cursor to the model to be called and performing enter operation,
the message is displayed on the screen.
Select the model while it is being displayed.

①DIRECT MODEL Screen

Power switch ON

Push
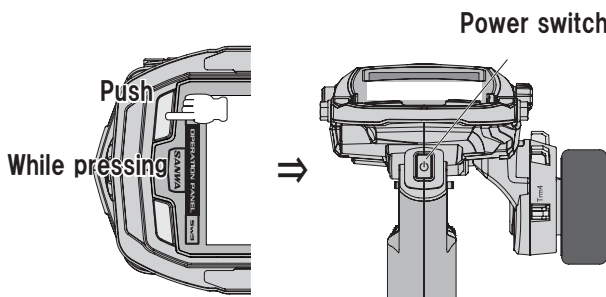
While pressing　⇒

ENTER ⬇ ⬆ BACK

②Check screen

Change destination model display
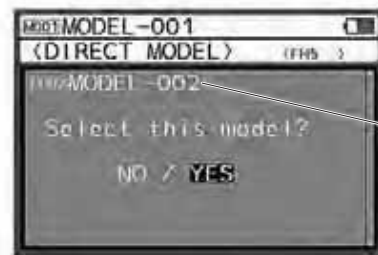
・NO →Back to ①
・YES→Change model, to TOP

LAUNCHER screen
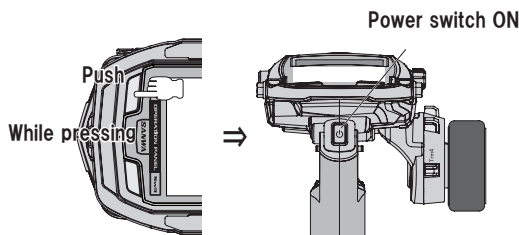
How to use each feature

Launcher

Quick Setup Wizard < QUICK SETUP WIZARD>

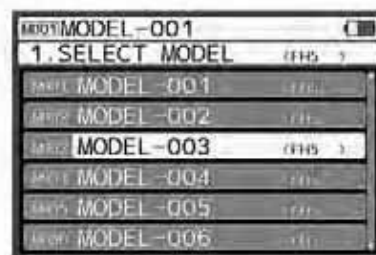● Quick Setup

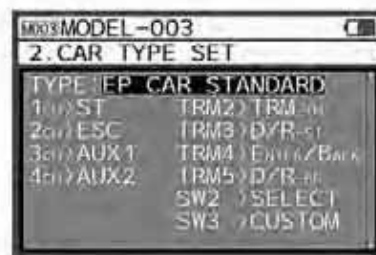1) Turn the power switch ON while pressing SW2. Select Quick Start Wizard from LAUNCHER.
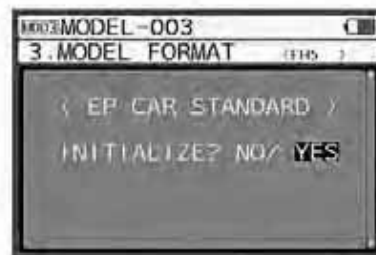
Power switch ON

Push

While pressing

⇒
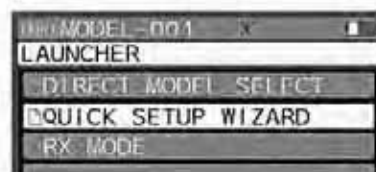
2) Quick setup screen is displayed.
Quick setup wizard starts upon performing enter operation.

3) Change to model select screen and select the model to be set by the select operation.
Decide by enter operation while defining the model to be set.

4) The screen changes to a car type select screen. Select car type by the select operation.
Decide by enter operation while defining the car type.

Type setting
○ Setting range   EP CAR (STANDARD)
                EP CAR (SVZ)
                EP CAR (SVD)
                EP CAR (SV-Gen2)
                EP CAR (SV-Gen2 PRO)
                GP CAR (ON ROAD)
                GP CAR (OFF ROAD)
                1/5 GP CAR (DUAL ST)
                1/5 GP CAR (DUAL BR)
                CRAWLER (4WS/MOA)
                TANK
                BOAT
○ Initial value   EP CAR STANDARD

※ In each type, channel operation is done as follows.

TYPE-wise channel operation specification

TYPE CH	EP CAR (STANDARD)	EP CAR (SVZ)	EP CAR (SVD)	EP CAR (SV-Gen2)	EP CAR (SV-Gen2 PRO)	GP CAR (ON ROAD)	GP CAR (OFF ROAD)	1/5 GP (DUAL ST)	1/5 GP (DUAL BR)	CRAWLER (4WS/MOA)	TANK	BOAT
CH1	Steering	Steering	Steering	Steering	Steering	Steering	Steering	Steering 1	Steering	Steering F	Throttle L	Radar
CH2	ESC	ESC	ESC	ESC	ESC	Throttle /Brake	Throttle /Brake	Throttle /Brake	Throttle	ESC F	Throttle R	Throttle
CH3	AUX1	CODE5	CODE5	CODE10	CODE10	AUX1	AUX1	Steering 2	Brake R	Steering R	AUX1	Plug
CH4	CODE10	CODE5	CODE5	CODE10	CODE10	CODE10	CODE10	Brake F	Brake F	ESC R	AUX2	AUX2

※ Select type matching with the RC to be used.

ENTER   BACK

ENTER   BACK

ENTER   BACK

ENTER   BACK

ENTER   BACK

5) If car type setting is decided by enter, it changes to initialise (model initialisation) screen.
Initialise as per message.

6) When initialise (model initialisation) completes, it changes to RF mode selection screen.
Set RF mode according to the receiver to be used by up / down and decide by enter operation.

   O Setting range   FH5/FH4T/FH3
   O Initial value   FH5

    · Compatible receiver   FH5   RX-491

                    FH4T
                    RX-482、RX-481WP、RX-481、RX-472、RX-471
                    Dual ID、RX-471W、RX-471、RX-47T、RX-462、
                    RX-461、SV-PLUS series

                    FH3
                    RX-451R、RX-451、RX-381、RX-380

7) Upon deciding RF mode that matches with the receiver, it changes to the response mode selection screen.
Set response mode of each channel that matches with the servo or device to be used.
Set by up / down and decide by enter operation.

   O Setting range   NOR (normal/analog servo)
                   SHR (high response / digital servo)
                   SSR (servo response / SRG servo)
                   SUR (ultra response / PGS servo) ※ Only FH5

   O Initial value   NOR (normal / analog servo)

8) Upon completing the setting of response mode, it changes to BIND (bind) setting screen.
Perform bind operation as per screen message.

9) Upon completing BIND (bind), it changes to the base setting screen. Do the setting of each channel. (Refer to P.35 ～ 37)

10) Upon completing base setting, the setup wizard completes.
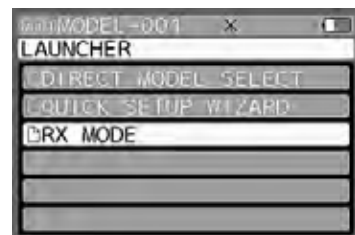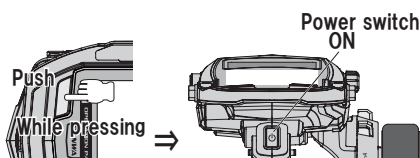Changes to the top screen by enter operation.
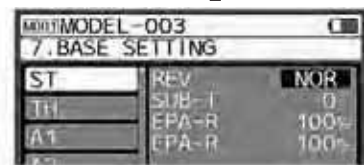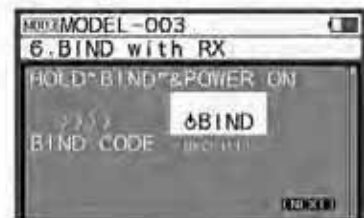
RX Mode <RX MODE>

● RX mode
1 Turn the power switch ON while pressing SW2.
Select RX mode from LAUNCHER.

In RX‑mode of LAUNCHER, various settings can be changed without emitting electromagnetic waves.
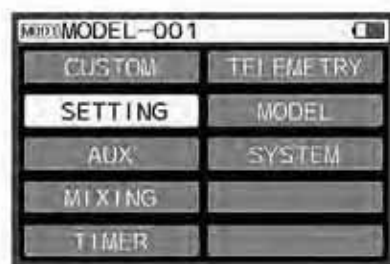
How to use each feature

Dual Rate [D/R]	SETTING

● You can adjust steering angle when operating the steering wheel and throttle trigger to their peak.
To correspond to the RC car or road condition, adjust the steering angle as you operate.
※ You can adjust steering for both right and left at the same time and throttle high and brake sides. You can also adjust the brake side more precisely than adjusting with EPA.
● Don't increase the setting rate of dual rates (D/R) from the condition in which the linkage locks by operating the steering wheel and throttle trigger.
● You can also adjust more precisely by adjusting dual rates of the throttle side.
※ When AUX1/AUX2 is set to CODE5/CODE10, setting change of D/R will not be reflected on them.
1) Determine the Enter operation and select the [SETTING] with the touch pad.

2) Select features [ST/TH (H, L)/AUX1/AUX2) to adjust with the Select key.

3) Adjust the values of DUAL RATE by multi-selector. The text is in red color when up/down selection is available, and blue color when wheel selection is available.

4) During operation, the steering dual rates can be adjusted with Trim 3, brake dual rates can be adjusted with Trim 4. It's possible to assign other features to Trim 3 and Trim 4 with the key assign trim feature (P.83).
※ When cancelling a selected feature, operate the Back button.

○ Setting range: ST/TH-H/AUX1/AUX2 : 0%~ 100%
　　　　　　　　　　　TH-L : 0% ~ 120%
○ Default: 　　　ST/TH/AUX1/AUX2 : 100%

Trim 4

Trim 3

※ Make sure that the servos do not lock to make clicking sound note!
(Note) Same for throttle.

MODEL-001
CUSTOM　　TELEMETRY
SETTING　　MODEL
AUX　　　SYSTEM
MIXING
TIMER

ENTER ⬇ ⬆ BACK

**Dual rate
Setting screen**
Select channel by select operation

MODEL-001
SETTING
D/R　Dual Rate 100%
SPEED
CURVE
F/S
BASE
TRIM

ENTER ⬇ ⬆ BACK

Steering dual rate setting screen

MODEL-001
SETTING
D/R　Dual Rate
SPEED
CURVE
F/S
BASE
TRIM

Invert
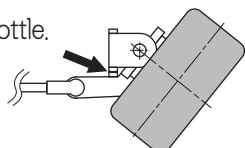
⚠ **Note**　● If the linkage is locked for a long period, it can cause the servo motor breakage.

Supplement　● Adjust the end point of the steering/throttle linkage before adjusting dual rates (P. 35).
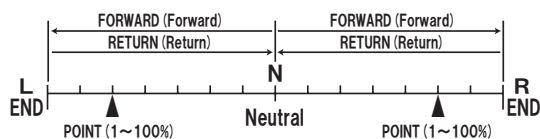
SPEED		SETTING

● Feature to control the speed of the servos used for steering/ throttle. By setting, the RC car is not affected even when doing sudden operation. Smooth cornering is possible at the steering side for stable exist from the corner and by smooth throttle work which save power at the throttle side.

※ When the AUX type is set to [CODE5/ CODE10], adjustment of the speed feature of the AUX channel does not have any effect.

※ In case of setting the speed of the AUX channel, use steering/ throttle as a reference.

Steering Speed

● Feature to delay the speed of the steering servos against the steering operation. The speed at the time of turning the steering (Forward) and the speed at the time of returning the steering (return) can be set individually. Speed Feature is not worked in the delay steering operation by default.

```
   ┌─── FORWARD (Forward) ───┐   ┌─── FORWARD (Forward) ───┐
   │  ┌── RETURN (Return) ──┐ │   │ ┌── RETURN (Return) ──┐ │
 L │  │                  N  │ │   │ │                     │ │ R
END┴──┴─────────────────────┴─┴───┴─┴─────────────────────┴─┴END
      ▲                  Neutral              ▲
  POINT (1~100%)                      POINT (1~100%)
```

※ Whether the function of speed operates on the inner side (IN) or outer side (OUT) point (POINT) can be set by doing the setting of IN / OUT.

1) Select [SPEED] by touchpad and decide by enter operation.
Select [ST (Steering)] by the SELECT operation.

2) Forward Side Setting (FORWARD)
Select [FORWARD] and adjust the setting value by the touch pad.

※ Please do the back operation in case of cancelling the selected Feature.
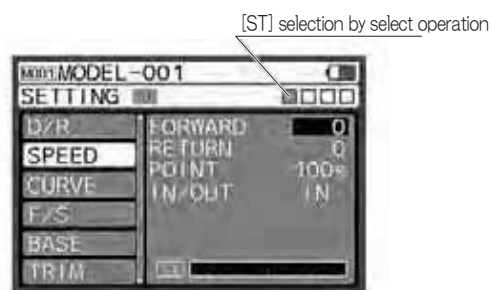
  O Setting Range   0 ~ 100
  O Default Value   0

3) Return Side Setting
Select [RETURN] and adjust the setting value by the touch pad.

  O Setting Range   0 ~ − 100
  O Initial Value   0

※ Do the adjustments during actual operation. In case of not using the feature, or when the setting value is not determined even after adjustment, set the setting value to 0% (linear).

4) Setting point (POINT)
Adjust set value by touchpad by selecting [POINT].

  O Setting range   1 ~ 100%
  O Initial value   100%

5) Setting of in / out (IN / OUT)
Set touchpad by selecting [IN / OUT].
Set [IN] in case of operating on the inner side then point and set [OUT] in case of operating on the outer side.

  O Setting range   IN / OUT
  O Initial value   IN

※ Adjust during the actual run. Set the set value to 0 % (linear) when not using the function or when the set value is not decided even after adjustment.

[ST] selection by select operation


```
MODEL-001
SETTING        □□□□
D/R      FORWARD      0
SPEED    RETURN       0
CURVE    POINT      100%
F/S      IN/OUT      IN
BASE
TRIM
```

Supplement
● For driving the RC car, the steering operation consistent with the movement of the RC car is important. Excessive operation is restricted. Steering speed suppresses the unnecessary operation, and enables the smooth corning.
● The effect is further enhanced if the steering speed and steering curve are used in combination.

How to use
each feature

How to use each feature

SPEED	SETTING

Throttle Speed

● Feature to slow down the throttle servo performance speed and delay the response of the speed controller against the throttle operation. The speed at the time of turning the throttle (Forward) and the speed at the time of returning the throttle (return) can be set individually. Speed Feature does not work with the throttle operation delayed by setting. ※ Only high side setting can be done. Setting at the brake side is not possible.
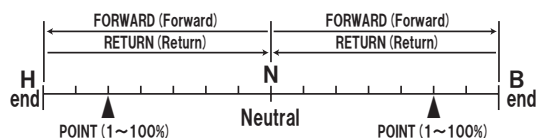
※ Whether the function of speed operates on the inner side (IN) or outer side (OUT) point (POINT) can be set by doing the setting of IN / OUT. H and B can be separately set.

1) Select [SPEED] by touchpad and decide by enter operation.
Select [TH (throttle)] by the SELECT Button.
2) Forward Side Setting (FORWARD)
Select [FORWARD] and adjust the setting value by the touch pad.
※ Please do the back operation in case of cancelling the selected feature.
　〇 Setting Range　0 ～ − 100
　〇 Default Value　　0
3) Return Side Setting
　Select [RETURN] and adjust the setting value by the touch pad.
　〇 Setting Range　0 ～ − 100
　〇 Default Value　　0

[TH] selection by select operation

※ Do the adjustments during actual operation. In case of not using the feature, or when the setting value is not determined even after adjustment, set the setting value to 0% (linear).
4) Setting of point (POINT)
Set POINT by the multi selector.

　〇 Setting range　　　　POINT H : 1 ～ 100%
　　　　　　　　　　　　POINT B : 1 ～ 100%
　〇 Initial value　　　　POINT H : 50%
　　　　　　　　　　　　POINT B : 50%

5) Setting in / out (IN / OUT)
Select [IN / OUT] and set touchpad.
　Set [IN] in case of operating on inner side point and
　set [OUT] in case of operating on the outer side.

　〇 Setting range　IN / OUT
　〇 Initial value　　IN

※ Adjust during the actual run. Set the set value to 0 % (linear) when not using the function or when the set value is not decided even after adjustment.

Supplement
● For driving the RC car, the steering operation consistent with the movement of the RC car is important. Excessive operation is restricted. Steering speed suppresses the unnecessary operation, and enables the smooth corning.
● The effect is further doubled if the steering speed and steering curve are used in combination.

| SPEED | SETTING |

AUX1／AUX2・Speed［AUX-SPEED］

● Function that slows down sped of the servo with respect to the operation of AUX1 / AUX2. Speed of forward and return can be separately set. Speed function does not work in slow operation according to the setting.
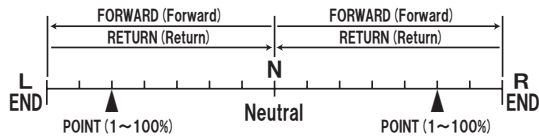
※ Whether the function of speed operates on the inner side (IN) or outer side (OUT) point (POINT) can be set by doing the setting of IN / OUT.

1) Select [SPEED] by touchpad and decide by enter operation and select [AUX1, AUX2] by the select operation.

2) Setting of forward side (FORWARD)
Select [FORWARD] and adjust the set value by touchpad.
※ Perform back operation in case of cancelling of the selected operation.

Channel selection by select operation

　○ Setting range　　　　0 ～ − 100
　○ Initial value　　　　　0

3) Setting of return side (RETURN)
Select [RETURN] and adjust the set value by touchpad.

　○ Setting range　　　　0 ～ − 100
　○ Initial value　　　　　0

4) Setting of point (POINT)
Select [POINT] and adjust the set value by touchpad.

　○ Setting range　　　　1 ～ 100%
　○ Initial value　　　　　100%

5) Setting of IN / OUT (IN / OUT)
Set touchpad by selecting [IN / OUT].
Set [IN] in case of operating on inner side point and
　set [OUT] in case of operating on the outer side.

　○ Setting range　　　　IN / OUT
　○ Initial value　　　　　IN

※ Adjust during the actual run. Set the set value to 0 % (linear) when not using the function or when the set value is not decided even after adjustment.

Supplement　● For driving of RC car, an operation that matches the motion of the RC car is important and over-operation is not permitted. AUX-speed suppresses unnecessary operation so that smooth operation can be realised.
● Efficiency doubles by combining AUX・speed and AUX・curve.

How to use
each feature

How to use each feature

CURVE	SETTING

● Function of making operation volume of servo variable with respect to the operation of the steering wheel, throttle trigger, AUX. It responds quickly when the set value is on plus (+) side whereas it responds mildly when the set value is on minus (-) side.

● Exponential (EXP) of curve operation and adjustable rate controller (ARC) of linear position, the operation of point curve (9 points) that operates by changing the set value for each point can be selected.

※ If the AUX type is set to [CODE], adjustment of the curve feature of the AUX channel does not affect the performance.

※ In case of adjustment of curve setting of the AUX channel, use the steering/ throttle as a reference.

· Exponential (EXP)
※ For throttle, high side (H) / brake side (B) can be separately set.
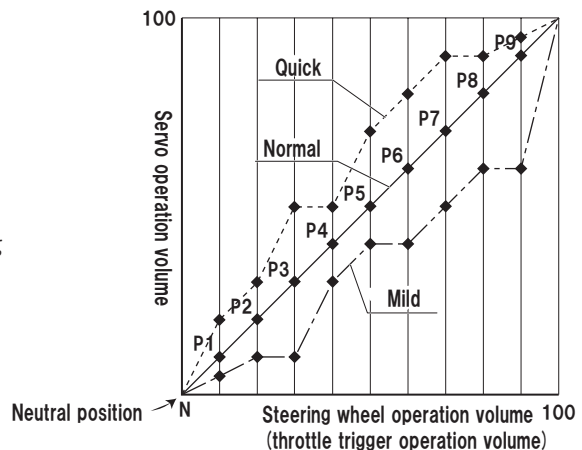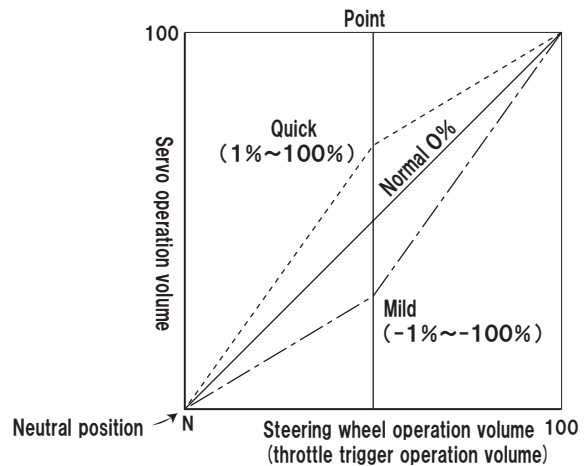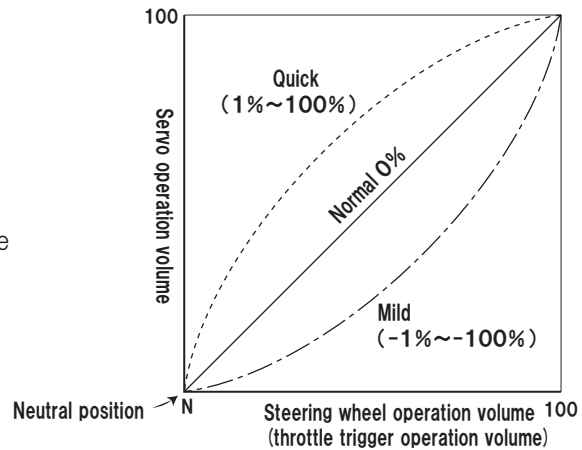
· Adjustable rate controller (ARC)
  Position at which operation is variable can be changed by adjusting the setting of POINT.
※ For throttle, high side (H) / brake (B) can be separately set.

· Point curve (CRV)
  The operation can be made variable by adjusting the set value of the point (P1 ~ P9).
※ For throttle, high side (H) / brake (B) can be separately set.

Steering Exponential [ST-EXP]

● Steering characteristics can vary from Mild ⇔ Linear ⇔ Quick. Generally, when the RC car senses the over-steer, the setting value is set to minus side, and when the RC car senses the under-steer, the numerical value is set to plus.
Steering exponential will do the L/R concurrent setting.

1) Select [CURVE] by touchpad and decide by enter operation.
Select ST by the SELECT Button, and set CURVE TYPE of ST to [EXP] by the touch pad.

2) Adjust the setting value by the touch pad

○ Setting Range   − 100% ~ 100%
○ Default Value   0%

※ Please do the back operation in case of cancelling the selected Feature.

Steering operation position

Throttle/ Exponential [TH-EXP]

● You can change the throttle characteristics from Mild ⇔ linear ⇔ Quick. In general, when operating on a slippery road or if you find overpowering, change the setting value to the minus side and when operating on a high grip road, or if you find lack of power in the power unit, change the setting value to the plus side.
You can set the High side/ brake side separately.
※ Selection of High side/ brake side can be done by trigger operation.
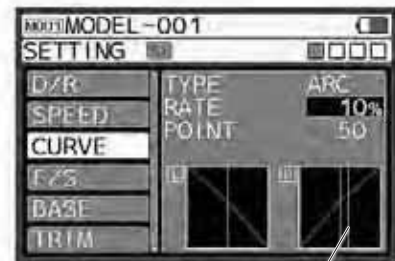
1) Select [CURVE] by touchpad and decide by enter operation
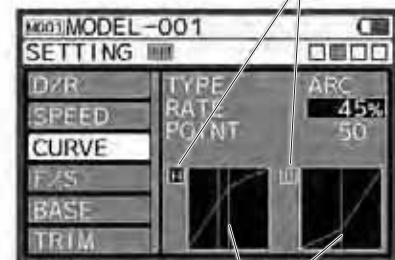Select TH with Select Button and select CURVE TYPE of TH to "EXP" with the touch pad.

2) Adjust the setting value with the touch pad.

○ Setting range: -100% ~ 100%
○ Default: 0%

Select H / B by trigger operation
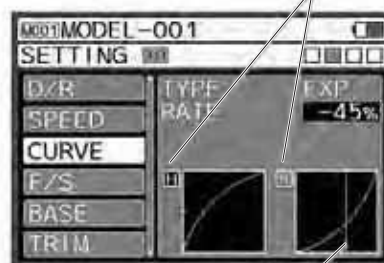
Throttle operation position

How to use each feature

- - - - - - - - - - - - - - - - - - - -

CURVE	SETTING

AUX1／ Exponential ［AUX1-EXP］

● You can change the operation feature of AUX1 from Mild ⇔ Linear ⇔ Quick.
You can set the High side and the Low side separately

※ When setting AUX1 to [CODE5/CODE10] AUX TYPE, changing the setting does not affect the performance.

1)Select [CURVE] by touchpad and decide by enter operation
Select AUX1 with the Select button and set CURVE TYPE of
  AUX1 to [EXP] with the touch pad.

2)Adjust the setting value with the touch pad.

　O Setting range:　-100%～100%
　O Default:　　　　0%
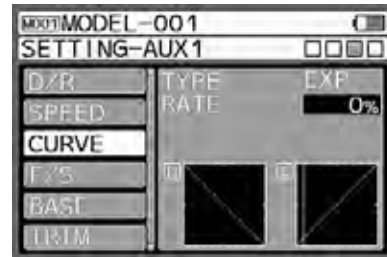
AUX2／ Exponential ［AUX2-EXP］

● You can change the operation feature of AUX2 from Mild ⇔ Linear ⇔ Quick.
You can set the High side/ Low side separately.

※ When setting AUX2 to [CODE5/COOE10] in AUX TYPE, changing the setting does not affect the performance.

1)Select [CURVE] by touchpad and decide by enter operation
Select AUX2 with the Select button and set CURVE TYPE of AUX2 to [EXP] with the touch pad.

2)Adjust the setting value with the touch pad.

　O Setting range:　-100%～100%
　O Default:　　　　0%

How to use
each feature
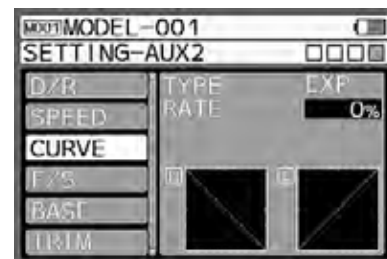
Steering Adjustable Rate Control ［ST-ARC］

● You can change the steering feature from Mild to Linear and to Quick. In general, if you find your RC car oversteering, change the setting to the minus side and if you find understeering, change to the plus side. Steering Adjustable Rate Control is the simultaneous setting for L/R.

1)Select [CURVE] by touchpad and decide by enter operation.
Select ST with the Select button and set CURVE TYPE of ST to [ARC] with the touchpad.

2) Setting Rate [RATE]
Select [RATE] with the touchpad and adjust the setting value.

   O Setting range　－100%～100%
   O Default　　　　0%

3) ﾎ Setting Point (POINT)
  Select [POINT] with the touchpad and adjust
  the setting value.

   O Setting range　1%～99%
   O Default　　　　50%

Steering operation position

※ When cancelling a selected feature, use the Back button.

Throttle Adjustable Rate Control ［TH-ARC］

● You can change the throttle feature from Mild to Linear and to Quick. In general, when operating on a slippery road or if you find over powering, change the setting to the minus side and when operating on a high grip road or if you find lack of power in the power unit, change to plus side. You can set the High side and the brake side separately.

※ Selection of High side and the brake side is done by trigger operation.

1)Select [CURVE] by touchpad and decide by enter operation.Select TH with Select button and set CURVE TYPE of TH to [ARC] with the touchpad.

2)Setting Rate [RATE]
Select [RATE] with the touchpad and adjust the setting value.

   O Setting range　－100%～100%
   O Default　　　　0%

3)Setting Point (POINT)
Select [POINT] with the touchpad and adjust the setting value

   O Setting range　1%～99%
   O Default　　　　50%

Select H / B by trigger operation

Point setting position

※ When cancelling a selected feature, use the Back button.

How to use each feature

CURVE	SETTING

AUX1 Adjustable Rate Control ［AUX1-ARC］

● You can change the AUX1 performance feature from Mild to Linear and to Quick.
You can set the High side and low side separately.
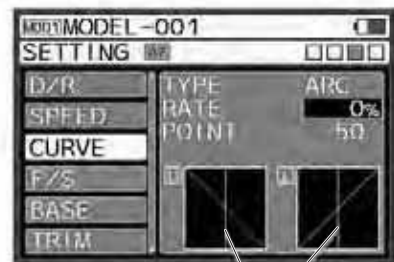※ When setting AUX1 to ″CODE5/CODE10″ in AUX TYPE, changing the setting does not affect the performance.

1)Select [CURVE] by touchpad and decide by enter operation.
Select AUX1 with the Select button and set CURVE TYPE of AUX1 to [ARC] with the touchpad.

2) Setting Rate [RATE]
Select [RATE] with the touchpad and adjust the setting value.

   ○ Setting range   -100% ～ 100%
   ○ Default   0%

3)Setting Point (POINT)
Select [POINT] with the touchpad and adjust the setting value.

   ○ Setting range   -1% ～ 99%
   ○ Default   50%

※ When cancelling a selected feature, use the Back button.

Point setting position

AUX2 Adjustable Rate Control ［AUX2-ARC］

● You can change the operation feature of AUX2 from Mild to Linear and to Quick.
You can set the High side and the Low side separately.
※ When setting AUX1 to [CODE5/CODE10] in AUX TYPE, changing the setting does not affect the performance.

1)Select [CURVE] by touchpad and decide by enter operation.
Select AUX2 with the Select button and set CURVE TYPE of AUX2 to [ARC] with the touchpad.

2) Setting Rate [RATE]
Select [RATE] with the touchpad and adjust the setting value.

   ○ Setting range   -100% ～ 100%
   ○ Default   0%

3)Setting Point (POINT)
Select [POINT] with the touchpad and adjust the setting value.

   ○ Setting range   -1% ～ 99%
   ○ Default   50%

※ When cancelling a selected feature, use the Back button.

Point setting position

How to use
each feature

CRV, Point Curve [ST / TH / AUX1 / AUX2 - CRV]

● Function of setting 9 points from controller such as steering, throttle, AUX to full throttle and making the operation variable by adjusting the set value for each point. For throttle, high side (H) / brake side (B) can be set separately.

1) Select < CURVE > by select operation. Decide by enter operation.

2) Select [CRV] by TYPE.
○ Setting range   EXP/ARC/CRV

3) Select channel to be set by the select operation.
○ Setting range   ST / TH / AUX1 / AUX2
※ Be careful as the name of each channel varies as per TYPE selection of quick setup wizard (TYPE).

4) Adjust the set value of each point of CRV by touchpad.

　○ Setting range   P1 ～ P9 : 0 ～ 100%

　○ Initial value　P1 : 10%
　　　　　　　　　P2 : 20%
　　　　　　　　　P3 : 30%
　　　　　　　　　P4 : 40%
　　　　　　　　　P5 : 50%
　　　　　　　　　P6 : 60%
　　　　　　　　　P7 : 70%
　　　　　　　　　P8 : 80%
　　　　　　　　　P9 : 90%

Channel selection

How to use each feature

- -

| Fail Safe [F/S] | SETTING |

● Fail Safe Operation is a feature to keep the servo in a predetermined position for each channel in the event that the receiver cannot receive a power from the transmitter. A feature to keep the servos in a predetermined position for the servo of the throttle channel (2ch) in the event that the battery voltage on the receiver side of an engine RC car goes below the set voltage is Battery Fail Safe Operation.
● Battery Fail Safe Operation cannot be set when the throttle channel (2ch) is set to FREE/HOLD.
(※ Battery Fail Safe Operation works only for the throttle channel.)
※ Do not use Battery Fail Safe Operation feature for electric RC cars.

1) Select [F/S] with the touchpad and select a channel (ST/AUX1/AUX2) to set fail safe with the Select operation.

F/S setting

2) Enter the set channel and operate the touchpad and thereby the failsafe mode setting changes in the order of FREE → FS → HOLD.

  O Setting range   FREE/FS(100% ～ -100%)/HOLD
  O Default   FREE

※ About each mode
  FREE (Free Mode)・・・When the receiver cannot receive the power from the transmitter, the signal output to the servo stops and the servo will be free.

  FS (Fail Safe Mode)・・・When the receiver cannot receive the power from the transmitter, the servo will be held in the set position.
  HOLD (Hold Mode)・・・・The last position before the power from the transmitter to the receiver is lost, will be held.
・When the power is received from the transmitter again, each mode of FREE/HOLD/FS is automatically released.

3) Setting the Fail Safe (FS)
  Move to the position where the Fail Safe Operation is used. When the position is determined, long press the touchpad to set the position when the Fail Safe Operation works.
※ For safety reason, we recommend setting the throttle channel on the brake side when setting the Fail Safe.

BATT − F/S setting   F/S setting

4) Setting the battery Fail Safe Operation
  After setting the throttle channel position, move the cursor to [B-F/S] to set the voltage.

  O Setting range   ・For FH3 : OFF、3.5v ～ 5.0v
                  (※ Not compatible with Li-Po Battery)
                  ・For FH5/FH4 : OFF、3.5v ～ 7.4v

BATT − F/S setting voltage
F/S setting position

※ The Battery Fail Safe Operation is a feature to activate Fail Safe Operation when the receiver battery voltage rises up to the set voltage on a GP car. Do not use the Battery Fail Safe feature on electric RC cars.

5) Checking the Fail Safe Function
  Turn off the power of the transmitter while the Fail Safe Operation is set and check if the servo moves to the position where the Fail Safe Operation is set.
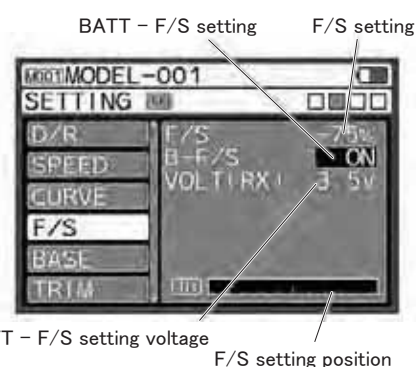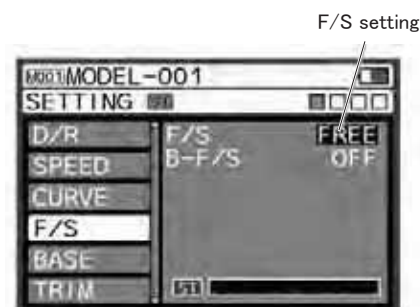
| Important | ● About the Fail Safe Operation
When the Fail Safe feature is on, check the setting of the Fail Safe before operating.
Do not change the setting of the Fail Safe during operation. |

How to use
each feature

BASE		SETTING

● Base [BASE] contains basic features such as Reverse that determines the direction of the servo of each channel and the speed controller according to a specific RC car, the Sub Trim that adjusts the neutral position and the End Point Adjustment [EPA] that sets the operating range into one feature (Base) to allow you to make a setting all at once.

End Point Adjustment [EPA]	BASE

● You can adjust the left and right operating range of the steering servo when operating the steering wheel/throttle trigger and operating range of the high side and brake side of throttle servo, and the servo operating range of AUX1, AUX2 (3ch, 4ch)

Steering End Point Adjustment [ST-EPA]

● The right and left cornering radius can be different due to the linkage or suspension and difference in tire diameter. In case of this, this feature adjusts the servo operating range at right and left side so that the right and left cornering radius can be the same.

[ST] selection by select operation

1) Before adjusting the Steering End Point Adjustment (ST-EPA), make a neutral adjustment of the servo (P. 37).
· Neutral adjustment is to align the center position with Sub Trim by switching ON the power and installing the servo horn in the approximate center position.

※Make sure the servos do not lock and make clicking sound.

2) Select either of [EPA-L/EPA-R with the touch pad and determine with Enter
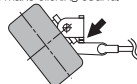
3) Select the operating range with the touch pad
※ When the cursor is on either of EPA-L/EPA-R, it is also possible to move the cursor by steering operation.

⚠ **Note** ● If the linkage is locked for a long period, it can cause the servo breakage.

O Setting range: L/R 0～150%
O Default: L/R 100%

Throttle End Point Adjustment [TH-EPA]

● It adjusts the high point of FET Speed Controller, Brake Point, carburettor of engine cars and the brake operating range.

[TH] selection by select operation

1) For an engine car, make a neutral adjustment of the servo (P.37) before adjusting the Throttle End Point Adjustment (TH-EPA).
· Neutral adjustment is to align the center position with Sub Trim by switching ON the power and installing the servo horn in the approximate center position.

2) Select [TH/Throttle] with the Select button.

3) Select either of [EPA-H/EPA-B] with the touch pad and determine with the Enter

4) Adjust the operating range with the touch pad.
When adjusting FET Speed Controller, normally set both the high side and the brake side to 100% and set neutral, high point and brake point on the FET Speed Controller side (the Setting method is different depending on the FET Speed Controller).
※ When the cursor is on either of EPA-H/EPA-B, it is also possible to move the cursor by trigger operation.

O Setting range: H/B 0～150%
O Default: H/B 100%

※Make sure the servos do not lock and make clicking sound
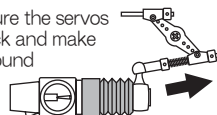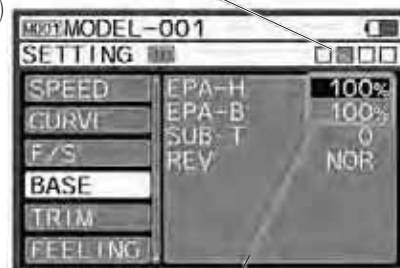
⚠ **Note** ● When EPA setting value is too large on the fully open side of the carburetor and the brake side for throttle linkage, the servo is locked, and it can cause the motor malfunction and runway.

How to use each feature

How to use each feature

- -
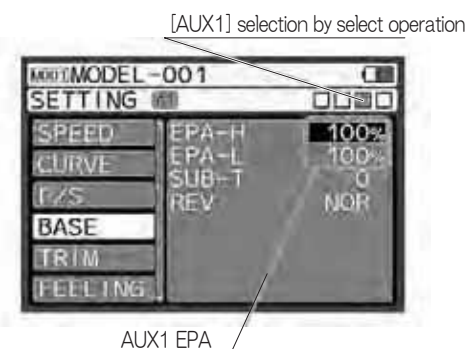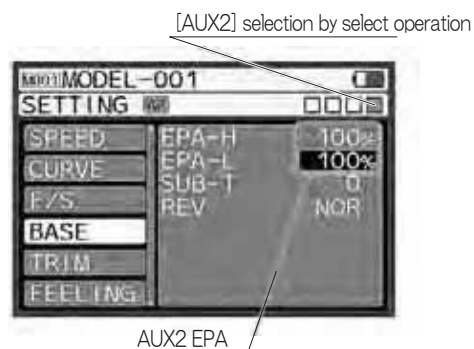
AUX1 End Point Adjustment

● You can use AUX1 for functions of accessories and adjust the maximum steering angle (operating range) with EPA. Since you can set H (High) /L (Low) separately, the precise adjustment is possible.
※ When setting AUX1 to [CODE5/ CODE 10] in AUX TYPE, the operation will not be reflected even by adjusting EPA.

1) Before adjusting AUX1 End Point Adjustment (AUX1-EPA), make a neutral adjustment of the servo (P.37).
· Neutral adjustment is to align the center position with Sub Trim by turning the power on and installing the servo horn in the approximate center position.

2) Select [AUX1] with the Select button, select either of [EPA-H/ EPA-L] with the touchpad and determine with the Enter.

3) Adjust the operating range with the touchpad.

O Setting range:　H/L 0～150%
O Default:　　　　H/L 100%

[AUX1] selection by select operation

MODEL-001
SETTING
SPEED | EPA-H | 100%
CURVE | EPA-L | 100%
F/S | SUB-T | 0
BASE | REV | NOR
TRIM
FEELING

AUX1 EPA

AUX2 End Point Adjustment

● You can use AUX2 for functions of accessories and adjust the maximum steering angle (operating range) with EPA. Since you can set H (High) /L (Low) separately, the precise adjustment is possible.
※ When setting AUX2 to [CODE5/ CODE 10] in AUX TYPE, the operation will not be reflected even by adjusting EPA.

1) Before adjusting AUX2 End Point Adjustment (AUX2-EPA), make a neutral adjustment of the servo (P.37).
· Neutral adjustment is to align the center position with Sub Trim by turning the power on and installing the servo horn in the approximate center position.

2) Select [AUX2] with the Select button, select either of [EPA-H/ EPA-L] with the touchpad and determine with the Enter.

3) Adjust the operating range with the touchpad.

O Setting range:　H/L 0～150%
O Default:　　　　H/L 100%

[AUX2] selection by select operation

MODEL-001
SETTING
SPEED | EPA-H | 100%
CURVE | EPA-L | 100%
F/S | SUB-T | 0
BASE | REV | NOR
TRIM
FEELING

AUX2 EPA

How to use
each feature

36

Sub Trim [SUB-T]　　BASE

● Using the Sub Trim feature, correct the neutral (center) of Steering / Throttle / AUX 1 / AUX 2 so that trim can be used in the center position. When installing a servo on to an RC car, center the servo with Sub Trim first before adjusting End Point Adjustment.

1) Before starting, set each main trim at the center (0) before use.

2) Select [SUB - T] with the touchpad and select a channel (ST/ TH/AUX1/AUX2) to adjust Sub Trim by the select operation.

3) Determine by Enter operation in the channel to be set.

4) Install the servo horn (servo saver horn) at the place nearest to the center position.
※ For installation position of the servo horn, follow the instruction manual of the RC car side.

5) Use the touchpad to adjust the center.

○ Setting Range　L150～R150(ST)、
　　　　　　　　　H150～B150(TH)、
　　　　　　　　　H150～L150(AUX1、AUX2)
○ Default　　　　0

⚠ **Note**
● When installing the servo horn on the servo, fix the servo horn as close to the center as possible and center it with Sub Trim. If Sub Trim and the transmitter main trim are off to one side, it causes dead band (the area where the servo does not move) to the steering wheel and the throttle trigger.

SUB - T setting

Adjust centre position
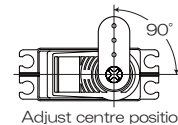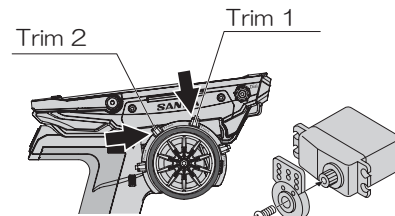
Important

● About Trim and Sub trim
Trim is a feature for adjusting the neutral (center) position of the servo. When your car does not run straight after installing the steering servo onto the car body, Trim adjusts the main trim of the steering. Also, the neutral position of the carburetor in the engine RC car needs neutral adjustment of the throttle servo along with linkage adjustment after installing the servo. Neutral position adjustment is necessary not only after installing the servo but for changes that happen during running such as tire wear and chassis twist. M17 Trim features two types of Trim including Center Trim that adjusts only the neutral position without changing the end of the operating angle and Parallel Trim that moves the end of the operating angle and the neutral position simultaneously. Sub Trim that adjusts the neutral (center) position before fixing the servo horn is the parallel trim and the main trim is Center Trim.

○ Center trim (Main Trim)
Even if you move the neutral position with Trim, the end of the operation angle does not move.

○ Parallel trim (Sub Trim)
When you move the neutral position with Trim, the end of the operation angle also moves. When Sub Trim is adjusted after linkage is completed, readjustment of End Point Adjustment (EPA) will be necessary.
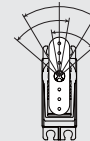
Reverse [REV]　　BASE

● This is used when the operation and the movement of the servo are reversed for Steering / Throttle / AUX 1 / AUX 2.

1) Select [BASE] with the touch pad and select a channel to set (ST / TH / AUX 1 / AUX 2) by the select operation.

2) If you operate the touchpad by enter operation with the channels to be set, the reverse setting will be changed.
※ When cancelling a selected feature, use the back operation.

○ Setting range　NOR/REV
○ Default　　　　NOR

REV setting

How to use each feature

How to use each feature

TRIM	SETTING

● Trim can adjust the trim of each channel and set the trim action (centre/parallel).

TRIM

● Use the trim to correct the neutral (centre) of each channel (ST / TH / AUX 1 / AUX 2).
● In the initial setting, steering is set to trim 1 (TRM 1), and the throttle is set to trim 2 (TRM 2).

1) Select the channel (ST / TH / AUX 1 / AUX 2) for trim adjustment by SELECT operation.

Channel selection by select operation

2) Confirm with the ENTER operation n and adjust with the touchpad.

O Setting Range   ST : L100 ～ R100
                 TH : H100 ～ B100
                 AUX1 : H100 ～ L100
                 AUX2 : H100 ～ L100

O Initial Value   ST : 0
                TH : 0
                AUX1 : 0
                AUX2 : 0

※ During operation, adjust the trim adjustment with TRM1 (ST), TRM2 (TH). The position of the trim lever can be changed with the key assignment trim function. (P.83)

Trim 2

Trim 1
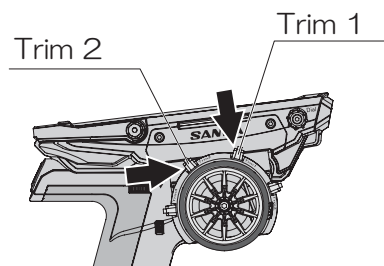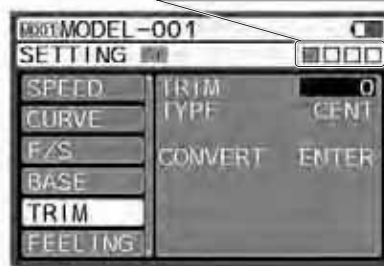
Important   ● About TRIM
Trim is the function to adjust the neutral (centre) position of the servo. After installing the steering servo on the car body, adjust it with trim while it is running and do not go straight ahead. Adjustment of neutral position is necessary not only for servo installation but also for dealing with changes during running such as tire wear and tear and twisting of chassis.
● The sub trim adjusts the centre position when adjusting the linkage. (P.37)

How to use each feature

TRIM TYPE

● The trim operation of each channel can be set to centre trim (CENT) and parallel trim (PARA).
● In the initial setting, steering is set to Trim 1 (TRM 1), and the throttle is set to Trim 2 (TRM 2).
1) Select [TRIM] by touchpad and define by enter operation
Select the channel (ST / TH / AUX 1 / AUX to be set with the SELECT operation.

Channel selection by select operation

2) Confirm with ENTER operation and adjust with the touch pad.

○ Setting range   CENT (centre trim) / PARA (parallel trim)
○ Initial value   CENT (centre trim)
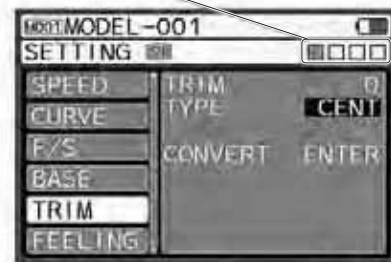
Important	● About centre trim and parallel trim

There are two kinds of trims: one is centre trim, which during trim operation adjusts only the neutral position while keeping the end of the motion angle intact and the other is parallel trim, which move end of motion angle and neutral position together during trim operation. The parallel trim is sub trim that adjusts the neutral (centre) position before confirming the sub horn and the main trim is the selection formula of centre trim and parallel trim. Please set according to the use.

○ Centre Trim
Even if you move the neutral position with trim, the end of the operating angle will not move.
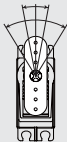
○ Parallel Trim
When you move the neutral position with trim, the end of the operating angle also moves together.
If the sub trim is adjusted after linkage is performed, it is necessary to readjust the end-point adjustment (EPA).

How to use each feature

‑ ‑ ‑ ‑ ‑ ‑ ‑ ‑ ‑ ‑ ‑ ‑ ‑ ‑ ‑ ‑ ‑ ‑ ‑

CONVERT

●It converts the trim adjusted for each channel to sub trim and EPA and corrects trim to centre.
Depending on the setting, the conversion may not be possible.

1) Select [TRIM] by touchpad and define by enter operation.
Select the channel (ST / TH / AUX 1 / AUX 2) to convert by the select operation.

2) After the channel to be set is decided, convert function is operated by ENTER operation.

3) As an example, if the conversion function is used when the steering trim is [L20] and the EPA is 100% each, it will be as the flow in the right figure. The trim becomes centre (0), the trim movement is converted to sub trim and EPA.

※Convert can be set for each channel.

Channel selection by select operation

ENTER ⬇ ⬆ BACK
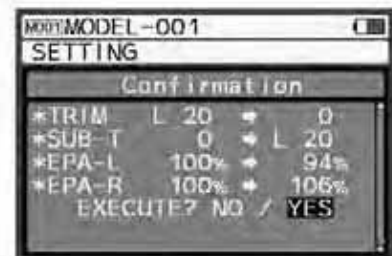
ENTER ⬇ ⬆ BACK
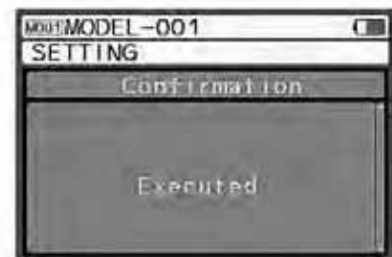
Conversion complete ⬇⬇

How to use each feature
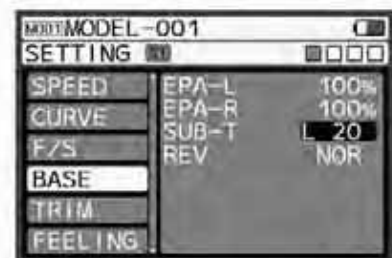
FEELING | SETTING

● The Feeling function allows you to adjust the Response Time of the Steering and Throttle channels to fine-tune the sensitivity of these controls.

1) Select [FEELING] with the touchpad and confirm with the enter operation.
2) Select the channel (ST / TH) for setting FEELING by scrolling left or right, and confirm with the enter operation.
3) After selecting the channel to set up, press enter operation again, and adjust the setting by scrolling up or down.

Channel selection by select operation

○ Setting Range   ST : 7S ∼ 1S
                        TH : 7S ∼ 1S
○ Initial Value   ST : 7S
                        TH : 7S

※ Select 7S for the fastest response.
  Adjust between 7S to 1S to fine tune the desired response feeling.Select 1S will result in slowest response and rough operation.
※ You do not need to re-BIND even if you change the setting.
※ The Response Mode selected during BIND operation will not be affect by this function.
※ FEELING setting is only available for Steering and Throttle.
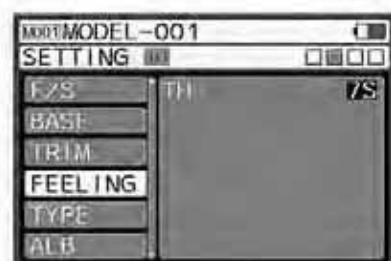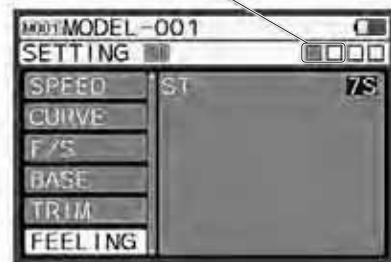
THROTTLE TYPE [TH TYPE] | SETTING

● By moving the neutral position of the throttle, you can set the operation ratio between the forward side and the brake (reverse) side to either 7: 3 or 5: 5.
※ Please set the throttle type which is suitable for your speed controller.

1) Select [TYPE] with the touchpad and confirm with enter.
※ TYPE is not displayed unless the throttle channel is selected.

2) Throttle type setting (TH TYPE)
Set the throttle type with the touchpad.

○ Setting Range   F 7 : B 3/F 5 : B 5
○ Initial Value   F 7 : B 3

※ If you change the TH TYPE, a confirmation screen will pop up and a message will be displayed on the screen. Select YES to confirm your new setting.

ENTER ⬇ ⬆ BACK

How to use each feature

41
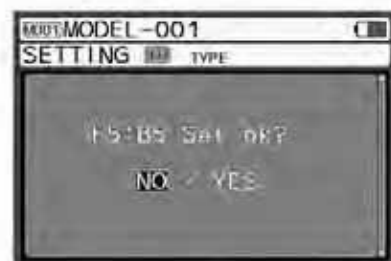
How to use each feature

● Anti-lock brakes make it possible to achieve stable braking on a low grip surface.
● Since the braking is stable, you can trace the cornering line as desired.

1) Select [ALB] by touchpad and define by enter operation.
※ ALB is not displayed unless the throttle channel is selected.

2) Setting of STROKE
Set the ALB stroke with the touchpad.
The stroke is the amount of brake reduction applied during the
 "OFF" time of ALB braking.¥
 ○ Setting Range　OFF、0 ~ 100%
 ○ Initial Value 　　OFF　※ When OFF, ALB will not operate.

3) Setting of POINT
Set the ALB point with the touchpad.
Point is the starting brake point when ALB is activated.
 ○ Setting Range　5% ~ 100%
 ○ Initial Value 　　80%

4) Setting of LAG
Set ALB lag with the touchpad.
LAG is the time delay (in second) until ALB start to operate.
 ○ Setting Range　0.00s ~ 1.00s
 ○ Initial Value 　　0.00s

5) Setting of Cycle
Set the ALB cycle with the touchpad.
CYCLE is the period (in second) for each alternating cycle of ON /
 OFF braking during ALB.
 ○ Setting Range　0.01s ~ 1.00s
 ○ Initial Value 　　0.03s

6) Setting of DUTY
Set duty of ALB with the touch pad.
DUTY is the ratio of ON / OFF braking during ALB.
 ○ Setting Range　20 ~ 100%
 ○ Initial Value 　　50%
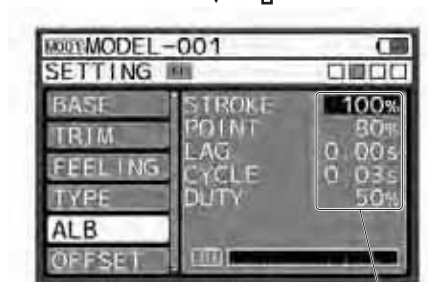
※ The function LED blinks during the anti-lock brake operation.

ENTER　⬇　⬆　BACK

Set each parameter

Full brake
Position of point
Neutral
※Operate ALB when operating from position of point to full brake.

Servo operation
Neutral
Lag
Point
Cycle
B | A Duty
(ratio of A and B)
Stroke
Brake operation
Duty A: brake ON
Duty B: brake OFF

Supplement
● Adjust the brake such that the tire of the RC car does not lose the grip force (does not slide), so that the brake is strengthened and the anti-lock brake will work just before the tire locks and slides.
● If ALB is set by using the speed controller with the back of the electric RC car, the back operation may become impossible. To use back operation, please turn off ALB.

How to use
each feature

OFFSET | SETTING

● The Throttle Offset function allows you to temporarily shift the Neutral Point of the Throttle to help in GP car's engine start up.
● The Neutral Point of the Throttle can be raised so that the engine does not stop during refueling of the car. [I-UP]
● The Neutral Point of the Throttle can be locked to a low position to stop the engine. For example, when trying shut down engine for GP boat. [TH CUT]
● The Neutral Point of the Throttle can be shifted to a low position to apply neutral brake (drag brake) for EP cars. [N-BR]
● The ON/OFF toggle of Throttle Offset function is not assigned to any switch or button by default. When using this function, please assign it in Key Assignment. (Page 82, 83)

1)Select [OFFSET] with the touchpad and confirm with enter
※ OFFSET is not displayed unless the throttle channel is selected.

2)Offset setting
set the offset function ON / OFF with the touch pad.

  O Setting Range   ON/OFF
  O Initial Value   OFF

3)Setting of TYPE
Set the offset type with the touchpad.

  O Setting Range   I-UP (Idle Up) / N-BR (Neutral Brake) /
                       TH CUT (Throttle Cut)
  O Initial Value   I-UP

4)Setting of POINT
Set the offset point with the touchpad.

  O Setting Range   0% ～ 100%
  O Initial Value   0%

5)Setting of BEEP
Set offset operation alarm (BEEP)

  O Setting Range   ON/OFF
  O Initial Value   ON

※ The function LED blinks during offset function operation.
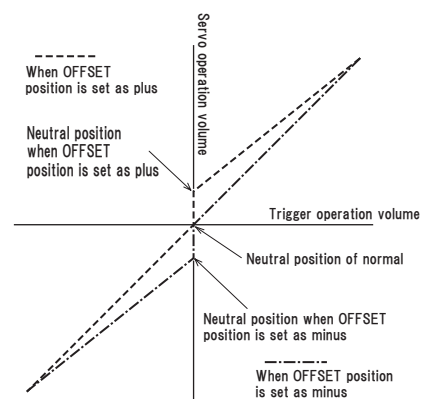
How to use each feature

AUX

● AUX is a function to set the operation of AUX 1, AUX 2 (3 ch, 4 ch). You can choose from STEP AUX (STEP), POINT AUX (POINT), 4WS (4 wheel steering: same phase, opposite phase), MOA (Front and rear drive), Brake mixing (BR-MIX), Dual Steering (Dual STEERING) and Code AUX.
※ Set the AUX TYPE by the system menu. Please set according to the application to use.

STEP AUX | AUX

● By setting the step AUX function, the motion amount can be set by the operation of the assigned trim or switch.
● During factory shipment, the AUX function is set to step AUX.

1)Select [AUX] with the touchpad and confirm with the enter operation.

2)Confirm the [CH] movement through operation of STEP AUX setting (STEP AUX) and set the motion position with the touchpad.

※ The motion amount can also be set in EPA (end-point adjustment P.36).
※ Please use the function by assigning trim or dial by key assignment according to usage.

ENTER ⬇ ⬆ BACK
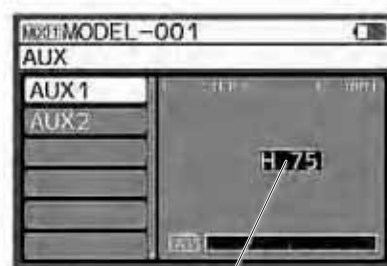
Operation position display

POINT AUX | AUX

● By setting POINT AUX, it is possible to move the servo to the point set by assigning the operation of AUX 1 / AUX 2 (3ch / 4 ch) to the switch or trim.
Since you can set the moved point with EPA (end-point adjustment), adjust the point position according to the usage.
※ The number of points will be 2 to 6 points and shall be set with AUX TYPE.

1)Select [AUX] with touch pad and confirm with ENTER operation.

2)Confirm the [CH] moved by the select operation of Point Aux Setting (POINT AUX) and set the motion point with the touchpad.

※ Please set to [POINT AUX] with [AUX TYPE] of [SYSTEM] according to usage.
※ Assign functions to dials and trims by key assignment or please operate with the touch pad.

ENTER ⬇ ⬆ BACK

How to use each feature
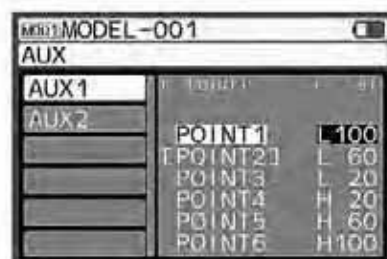
4 Wheel steering （4 wheel steering: same phase/opposite phase [4 WS]）　　　AUX

● The operation of 4 wheel steering (4 wheel steering) is controlled by the operation of the assigned trim and switch.

1)Select [AUX] with touch pad and confirm with enter operation.

2)Motion mode setting
Set the 4WS motion mode with the touchpad.
Set the motion mode according to usage.
※ When using while running please assign the function of motion mode to trim or switch.

[Steering Operation Image]

F − ST
(F steer)
< L side operation>　<Neutral>　< R side operation>

REV
(reverse phase)
< L side operation>　<Neutral>　< R side operation>

NOR
(same phase)
< L side operation>　<Neutral>　< R side operation>

R−ST
(R steer)
< L side operation>　<Neutral>　< R side operation>

MODEL−001
CUSTOM	TELEMETRY
SETTING	MODEL
AUX	SYSTEM
MIXING	
TIMER	

ENTER ⬇　⬆ BACK

MODEL−001
AUX
AUX1
AUX2

Servo monitor

Switch-over of operation mode

How to use
each feature

45
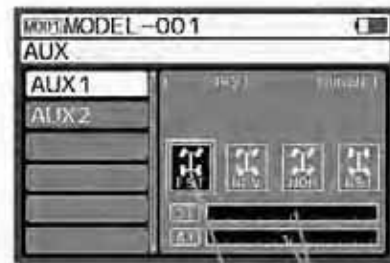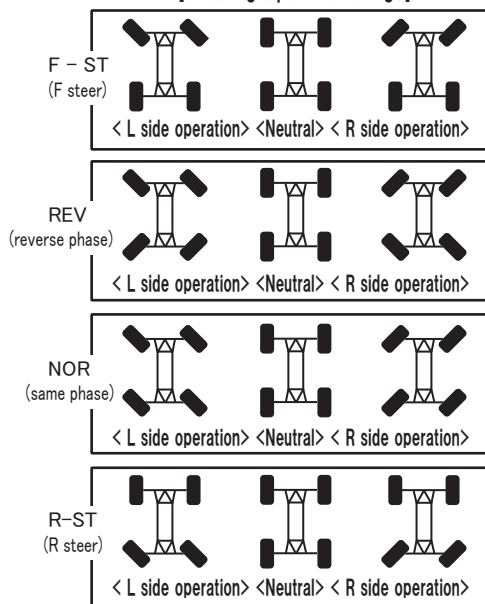
How to use each feature

MOTOR ON AXLE ［MOA］ （Front and rear drive）		AUX

● By setting motor on the axle (MOA), front rear drive ratio can be adjusted with front and rear 2 motor specification body.

1)Select ［AUX］ with the touchpad and confirm with the enter operation.
2)Motion Mode Setting
Set the MOA motion with the touchpad.
※ Set step setting for changing front and rear drive distribution with ［MODE］ of ［AUX TYPE］ of ［SYSTEM］.
※ When using, assign the function to trim, dial, or operate with the touch pad. (Key Assignment Page 82, 83)
※ Connect the speed controller that controls the rear motor to the channel (AUX 1 / AUX 2) where TYPE is set to MOA.

```
M001 MODEL-001
  CUSTOM      TELEMETRY
  SETTING       MODEL
   AUX          SYSTEM
  MIXING
  TIMER
```

ENTER ⬇ ⬆ BACK

```
M001 MODEL-001
AUX
 AUX1         MOA        TRET
 AUX2
              F100:R100
```

Front – rear driving ratio
Servo monitor

[MOA operation image]

   100:0   100:100   0:100

Front driving — Rear driving OFF
Front driving — Rear driving
Front driving OFF — Rear driving
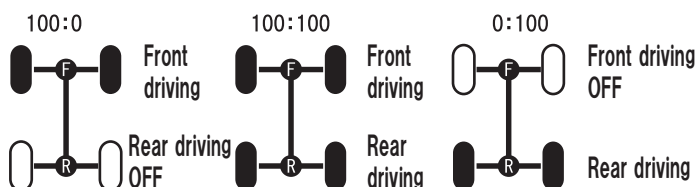
※The front and rear driving ratio can be adjusted by changing the ratio.

Brake mixing ［BR-MIX］		AUX

● It is a function that adjusts the operation timing when the brakes are operating when the front and rear brakes of 1/5 scale engine RC car are controlled by servo other than throttle servo.

1)Select ［BR-MIX］ using the touch pad and confirm it by Enter operation.

2)Setting brake delay (BR-DELAY)
Set BR operation timing using the touchpad.

  O Setting range 0 to 100%
  O Initial value 0%

3)Brake 2 delay setting (BR2-DERAY)
Set BR2 operation timing using the touch pad.

  O Setting range 0 to 100%
  O Initial value 0%

```
M001 MODEL-001
  CUSTOM      TELEMETRY
  SETTING       MODEL
   AUX          SYSTEM
  MIXING
  TIMER
```

ENTER ⬇ ⬆ BACK

```
M001 MODEL-001
AUX
 AUX1
 AUX2        RATE      100%
```
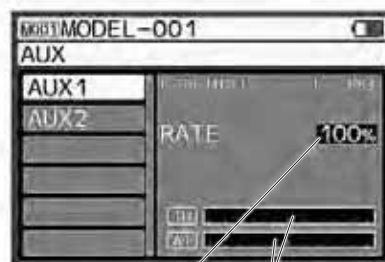
Displays brake operation
Setting of mixing rate

Dual Steering [DUAL STEERING]　　　AUX [AUX]

● Operation volume of left and right can be separately adjusted by loading 2 steering servos.
● Smooth cornering can be realised by adjustment of Ackerman function.

1) Select [AUX] by touchpad and define by enter operation.

2) Setting of dual steering (DUAL ST)
Decide items to be set by select operation and set DUAL ST by the operation of the touchpad.
※ Set the left-right servo operation volume by EPA. (Endpoint adjust P.36, 37)

3) Setting of Ackerman (ACKERMAN)
Set cornering characteristics by the setting of Ackerman.
※ Always do the adjustment of Ackerman after completing adjustment of left-right servo operation.
　　O Setting range　＋100 〜 0 〜 −100
　　O Initial value　　0

4) Setting of dual rate (DUAL RATE)
Adjust steering operation volume at the time of performing maximum steering operation.
　　O Setting range　0 〜 150%
　　O Initial value　　100%

5) Setting of steering L (ST - L)
Set the operation volume of steering left side.
　　O Setting range　0 〜 150%
　　O Initial value　　100%

6) Setting of steering R (ST - R)
Set the operation volume of steering right side.
　　O Setting range　0 〜 150%
　　O Initial value　　100%

7) Setting of centre (Centre) and toe (TOE)
Set centre and toe of the steering.
　　O Setting range　　　　Centre (CENTRE) L100 〜 0 〜 R100
　　　　　　　　　　　　　　Toe (TOE)　＋100 〜 0 〜 −100
　　O Initial value　　　　Centre　0
　　　　　　　　　　　　　　Toe　　　0

※ Do the adjustment of operation volume of left and right servo by EPA in SETTING BASE (endpoint adjust).

MODEL-001

CUSTOM	TELEMETRY
SETTING	MODEL
AUX	SYSTEM
MIXING	
TIMER	

ENTER　↓　⇧　BACK

Setting of Ackerman　　　Setting of dual rate operation

MODEL-001
AUX

| AUX1 | |
| AUX2 | |

Setting of steering L / R
Setting of centre
Setting of toe
Displays steering operation

How to use each feature

- -

| **Boat 〔BOAT〕** | **AUX 〔AUX〕** |

● Function of mixing from throttle to flap by setting boat AUX.

1) Select 〔AUX〕 by touchpad and define by enter operation.

2) Setting of the boat 〔BOAT〕
Decide the function to be operated by select operation and set operation volume and mixing volume by the touchpad.

O Setting range   FLAP   L100〜0〜H100
                    Throttle→FLAP   -100〜0〜100

O Initial value   FLAP   0
                    Throttle→FLAP   0

ENTER   ⬇   ⬆   BACK

Setting of flap operation volume

Setting of mixing rate

CODE AUX	AUX

● Two Code type is available depending on the type of equipment you use. CODE 5 has 5 codes available , and CODE 10 has 10 codes available.

● The Code AUX function is used with SSL-compatible accessories, such as a Super Vortex series ESC, PGS series Servos, and SGS series Gyros, whose Programming Parameters can be changed directly via the transmitter.

※ Code 10 compatible equipment is PGS servo, SUPER VORTEX Gen 2 PRO / Gen 2, SUPER VORTEX Stock.

● Settings of two systems CODE AUX 1 and CODE AUX 2 are available.

※ CODE AUX is only available when you have selected CODE 5 or CODE 10 in AUX TYPE setting. (Refer to Page 85) If you set the [MODE] setting to [USER], you can customize the respective code's display name

※ When using the AUX channel as CODE AUX, be sure to set the AUX1 / AUX2 response mode type to [SHR] in [BIND] setting. (Refer to Page 79-81)

※ When using CODE AUX, never connect servos to CH3 and CH4 of the receiver to be used.

※ When using CODE AUX, assign the function to trim or dial with key assignment, or operate with the touch pad.

1) Select [AUX] with touch pad and confirm with enter operation.

2) Setting of code AUX (CODE AUX)
(CODE 01 ~ CODE 05 / CODE 01 ~ CODE 10)
Select AUX1 / AUX2 with the enter operation, and adjust the setting value with touch pad.

O Setting range　　AUX TYPE: CODE 5　CODE 01~05 : -100 to 100
　　　　　　　　　AUX TYPE: CODE 10　CODE 01~10: -100 to 100

O Initial value　　AUX TYPE: CODE 5　CODE 01~05 : 0
　　　　　　　　　AUX TYPE: CODE 10　CODE 01~10 : 0

※ Please set each parameter according to the equipment to be used.

※ When AUX TYPE is set to CODE 5 / CODE 10, the CODE AUX setting status will be displayed as shown below on the servo monitor display.
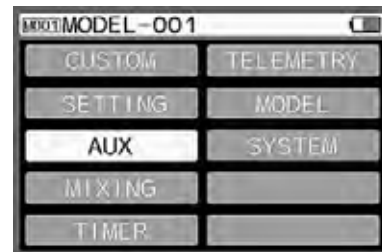
ENTER　⬇　⬆　BACK
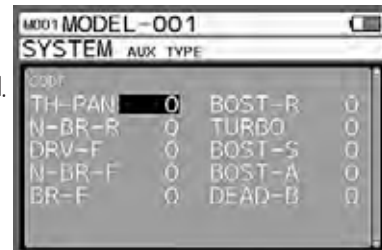
When TYPE setting is [CODE 10] and MODE setting is [SV – STK]
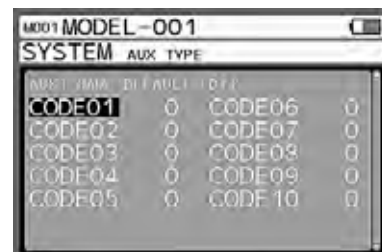
When MODE setting is [USER]

Bar display when AUX TYPE = CODE AUX
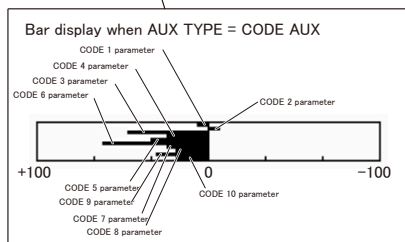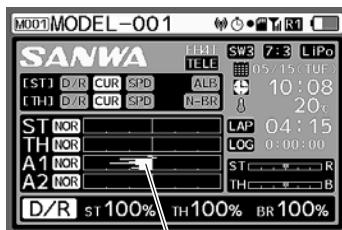
How to use each feature

- - - - - - - - - - - - - - - - - -

MIXING

● Mixing between channels and mixing with a single channel is possible.
● Other than C-MIX 1 ~ 5, it includes tank (TANK), limiter function.

C-MIX1 ~ 5 (compensation mixing1 ~ 5)　　Mixing ［MIXING］

● Master channel can select either direct data or data containing calculation and trim (#ST etc.).
● C-MIX is a combination of 5 systems of C-MIX 1 ~ C-MIX5 which can be simultaneously operated.
● It has offset function and base point of master mixing can be moved.
● Easy-to-understand graph display can be set.

Example) MASTER: ST1, L10 %, R10 %, SLAVE: TH, OFFSET: O
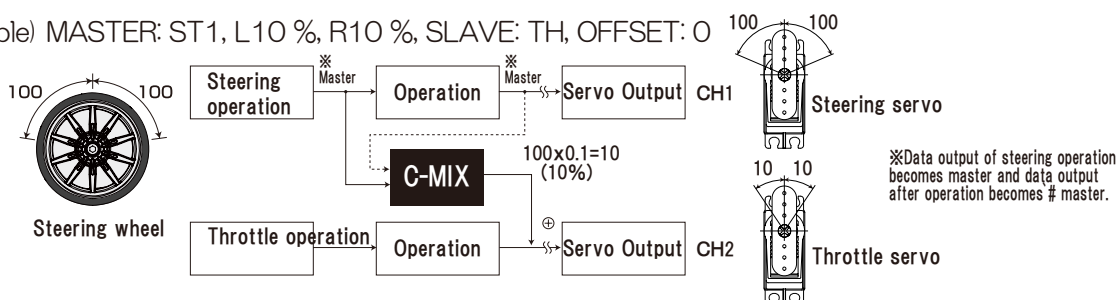
Supplement
Control of steering is generally steering operation ″operation″ servo output (CH1).
In the function of C-MIX, when steering is moved 100 as shown in the above figure, servo of CH1 moves 100 and simultaneously, 10 % (10) of the steering operation and servo of CH2 are operated.
Steering of this time (CH1) is called as master (MASTER) and CH2 that operated 10 % is called as a slave (SLAVE).

Setting	Name	Output data content
S T	Steering	Steering operation data
S T#1	Steering #1	Operation in steering that includes SPEED, CURVE
S T#2	Steering #2	Operation in steering that includes SPEED, CURVE, D/R, EPA
TH	Throttle	Throttle operation data
TH#1	Throttle #1	Operation in the throttle that includes SPEED, CURVE, OFFSET
TH#2	Throttle #2	Operation in the throttle that includes SPEED, CURVE, OFFSET, D/R, EPA, ALB
AUX1	AUX1	AUX1 operation data
AUX1#1	AUX1#1	Operation in AUX1 that includes SPEED, CURVE, OFFSET (when OFFSET is MOA / BR)
AUX1#2	AUX1#2	Operation in AUX1 that includes SPEED, CURVE, OFFSET, D/R, EPA, ALB (when OFFSET and ALB are MOA / BR)
AUX2	AUX2	AUX2 operation data
AUX2#1	AUX2#1	Operation in AUX2 that includes SPEED, CURVE, OFFSET (when OFFSET is MOA / BR)
AUX2#2	AUX2#2	Operation in AUX2 that includes SPEED, CURVE, OFFSET, D/R, EPA, ALB (when OFFSET and ALB are MOA / BR)

1) Select 〈C-MIX1 ～ C-MIX5〉 of C-MIX by touchpad.

2) Setting of the master (MASTER)
   Select the function of setting to master by touchpad.

   ○ Setting range　　　　ST、#ST、#L-ST、#F/ST、TH、#TH、#F/TH、AUX1(AUX)、BR、BR2、#AUX1、#BR、#BR2、#R-ST、#R/ST、#R/TH、AUX2、#AUX2

3) Setting of a slave (SLAVE)
   Select the function of setting to the slave by the touchpad.

   ○ Setting range　ST、TH、AUX1(AUX)、BR、BR2、AUX2

4) Setting of mixing (RATE1 / RATE2)
   Set the mixing volume of rate1 and rate 2 by the touchpad.

   ○ Setting range　RATE1 : -150%～150%
   　　　　　　　　　RATE2 : -150%～150%

   ○ Initial value　　RATE1 : 0%
   　　　　　　　　　RATE2 : 0%

5) Setting of OFFSET (OFFSET)
   In case of selecting function of the master with #, compensate the "gap" of trim by the function of offset.
   ○ Setting range　-150～150
   ○ Initial value　　0

ENTER ↓ ⇧ BACK

RATE1　RATE2
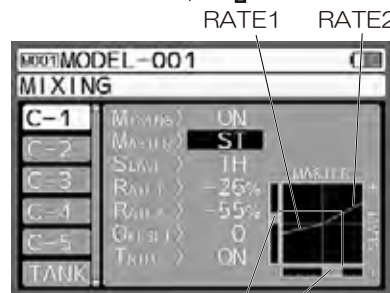
Bar graph of mixing volume with slave

Bar graph of the master operation

R side - % graph display | R side - % graph display

R — L

L side + % graph display | L side + % graph display
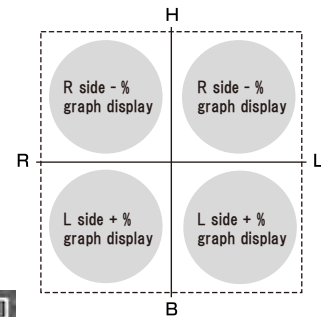
① Case of compensating "gap" of trim by offset when the master is #ST
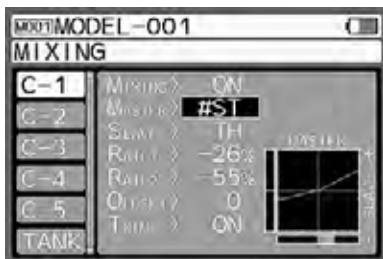
●Case wherein steering is at the neutral position, there is a "gap" in the bar graph as shown in the above figure in trim etc.
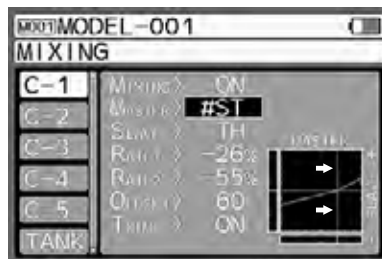
●Value of offset is adjusted to + side, the vertical axis is moved to left and "gap" of the bar graph is cancelled.

② Case wherein mixing is maximum when turning fully to right regardless of mixing at the time of turning fully to left by dial (AUX) etc. in case of changing base point of mixing of master

Mixing　Mixing

0 — MAX

Dial (DIAL)
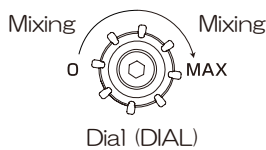
Can be 0 % as the offset is 100 and there is no operation on L side
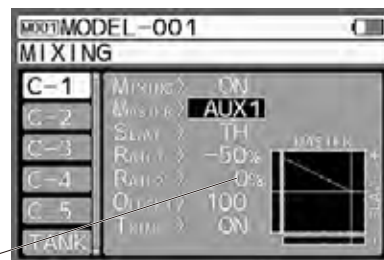
●When the master is AUX1, the operation does not exceed 100. Hence, the value of offset can be 100.

How to use each feature

51

How to use each feature

Tank [TANK]	Mixing [MIXING]

● Function of operating infinite railroad track installed with caterpillar for tanks by setting TANK (tank). Sway turning, and super sway turning is possible by steering/throttle operation based on mixing steering and throttle channel.
● When TANK function is set, the case of only steering function becomes super sway turning and when combined with throttle operation, turning radius at the time of sway turning changes.

1)Select ＜ TANK ＞ of MIXING by touchpad.

2) Setting of tank
Set function of the tank by touchpad.

　　O Setting range　　　　Tank : ON/OFF
　　　　　　　　　　　　　Forward : 0 ～ 100
　　　　　　　　　　　　　Reverse : 0 ～ 100
　　　　　　　　　　　　　Left : 0 ～ 100
　　　　　　　　　　　　　Right : 0 ～ 100

　　O Initial value　　　　Tank : OFF
　　　　　　　　　　　　　Forward : 100
　　　　　　　　　　　　　Reverse : 100
　　　　　　　　　　　　　Left : 100
　　　　　　　　　　　　　Right : 100
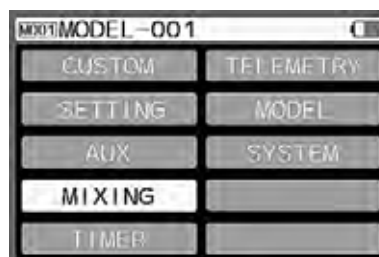
Limiter [LIMITER]　　Mixing [MIXING]

● Function of setting a limit (position above which operation is not performed) in servo operation.
Used if servo operation volume exceeds due to duplication of mixing or for preventing damage to the linkage.

1)Select < LIMITER > of MIXING by touchpad.

2) Setting of the channel (CHANNEL LIMIT)
Select channel for which limiter is to be set by touchpad.

O Setting range
ST L : 0 ～ 150(OFF)
ST R : 0 ～ 150(OFF)
TH H : 0 ～ 150(OFF)
TH B : 0 ～ 150(OFF)
AUX1 H : 0 ～ 150(OFF)
AUX1 L : 0 ～ 150(OFF)
AUX2 H : 0 ～ 150(OFF)
AUX2 L : 0 ～ 150(OFF)

O Initial value
ST L : OFF
ST R : OFF
TH H : OFF
TH B : OFF
AUX1 H : OFF
AUX1 L : OFF
AUX2 H : OFF
AUX2 L : OFF

ENTER ⬇　⬆ BACK

How to use
each feature

53
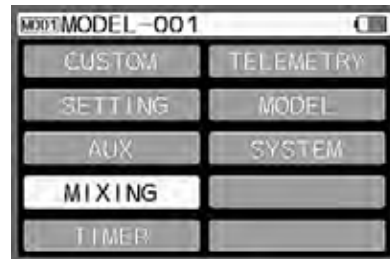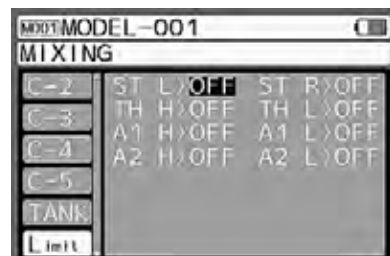
How to use each feature

● Three timer functions of lap timer, interval timer, down timer are provided.
● Select timer and operate the select button then it will switch between the timer screen and the setting screen.
※ The function LED blinks during timer operation.

LED

MODEL-001
CUSTOM	TELEMETRY
SETTING	MODEL
AUX	SYSTEM
MIXING	
TIMER	

● Measured lap time can be checked by the LAP TIMER screen.
● When the ENTER operation is carried out with the lap timer running/stopped, the lap time display is switched.
　Each lap time can be checked by touch pad operation.

ENTER ⬇ ⬆ BACK

MODEL-001
TIMER
LAP	00:00.0
INT1	(1:00)
INT2	GOAL-TIME 05:00
DOWN	LAP--- --:--.--
	LAP--- --:--.--
	BEST-LAP --:--.--

⬌ Select operation

MODEL-001
TIMER SET-UP
GOAL-TIME	05:00
INTERVAL-1	--:--
INTERVAL-2	--:--
DOWN-TIME	--:--
DATA-LOG	ON(1s)
START	TRIGGER

⬍ Select operation

MODEL-001
TIMER LAP-LIST
TOTAL	--:--.--
BEST	--:--.-- (01)
AVERAGE	--:--.--
LAP001	--:--.--
LAP002	--:--.--
LAP003	--:--.--

⬌ Select operation

MODEL-001
TIMER SWITCH
R-MODE TIMER	OFF
MODE	DOWN
INTERVAL	--:--.--

SETUP	TIMER

● Set various timers in the setup menu.

1)GOAL TIME SETTING
   The alarm will be activated by setting the goal time.

   ○ Setting Range   00 : 00 ～ 99 : 59   (00 : 01 unit)
   ○ Initial Value   5 : 00

2)Setting of INTERVAL (Interval) [INT1/INT2]
Operate alarm for the set time at the time of running and use it as a criterion for target time.

   ○ Setting Range   00 : 00～99 : 59 : 99
   ○ Initial Value   01 : 00

3)Setting of DOWN TIME (Downtime)
Becomes criterion for running time of electric RC car or calculation of fuel consumption in engine RC car.
Can be set up to 99:59 in the unit of 1 second.
Can be changed over to up timer after completion of down timer and time passed after completion can be checked.

   ○ Setting Range   00 : 00～99 : 59
   ○ Initial Value   05 : 00

4) Setting of lap function (LAP FUNCTION)
Configure log (records) of telemetry data in conjunction with the timer.

   ○ Setting Range   OFF/ON(1s)/ON(10ms)/VOICE
   ○ Initial Value   ON(1S)

※ Link LAP FUNCTION to lap timer.

5)Setting of SYNC ・ START (sync start)
Can be started by linking the respective timer function as per setting.
(Only at the time of start)

Setting items   LAP/INT 1 /INT2/DOWN
Initial value   LAP、INT 1、INT 2

ENTER ⬇ ⬆ BACK

Select operation ⇕
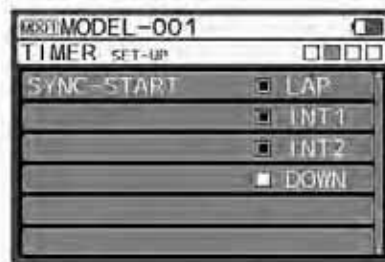
How to use
each feature

How to use each feature

● Each lap can be measured and recorded up to 999 laps. (Common to models)
● The pre-alarm (PRE-ALM) is loaded and the alarm rings automatically before the goal.

1) Select [TIMER] with the touchpad and confirm with ENTER operation.

2) Timer start
The switch of the timer is set to SW1 with an initial value. When you press and hold SW1 for a long time, the timer enters the start standby state, and when you press SW1 again or operate the throttle trigger, measurement starts.

3) Lap time is measured each time SW1 is operated.
The switch does not work for 3 seconds after operating SW1.

4) End measurement
Press and hold SW1 to end the measurement.
※ The lap time measured on the LAP TIMER screen can be checked. When the enter operation is performed while the lap timer is operating/stopped on the LAP TIMER screen, the lap time display is switched. Each lap time can be checked by touch pad operation. (Not available on SETUP screen)

5) Check of various lap time
Lap time measured can be checked in the LAP LIST. If engine operation is performed while lap timer is being operated/stopped, it changes to lap time display. Each lap time can be checked by operation of touchpad. Total time, best lap, average lap can be displayed and lap time for each round can be checked. (Not possible on SETUP screen)

※ When the power switch is turned off with the timer running, the timer is reset.
※ If a timer is set in SW1 / SW2 and it is long pressed and held even other than the timer-setting screen, it enters the start standby state.

Switch 1

Interval timer 1/2 [INT TIMER 1/2] | TIMER |

● Activate the alarm at the time set during driving, and use it as a guide for the target time.
● There are 2 systems in interval timer namely INT1 and INT2 and these can be operated simultaneously.

1)Select [TIMER] with the touchpad and confirm with enter.

2)TYPE Setting
Operate the select button and select [INT] with [TYPE].

3)INTERVAL Setting (INTERVAL)
Set the interval timer, using [INTERVAL].

4)Interval Timer Start
The switch of the timer is set to SW1 with the initial value.
When you press and hold SW1 for a long time, the timer enters the start standby state, and when you press SW1 again or operate the throttle trigger, measurement starts.

5)Each time SW1 is operated, the interval timer is reset.

6)End Measurement
Press and hold SW1 to end the measurement.
※ When the power switch is turned OFF with the timer running, the timer is reset.
※ If a timer is set in SW1 / SW2 and it is long pressed and held even other than the timer setting screen, it enters the start standby state.

ENTER ⬇ ⬆ BACK
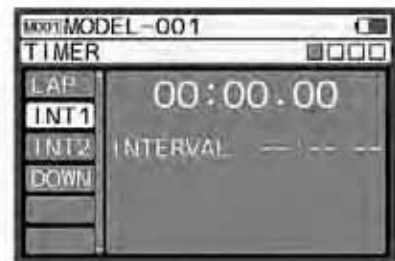
Switch 1

How to use each feature

DOWN TIMER	TIMER

● It is a measure of the fuel efficiency in the running time of the electric RC car and the engine RC car.
● 1-second units until 99: 59 can be set.
● After the down timer ends, it switches to the up timer and the elapsed time after the end can be checked.

1)Select [TIMER] with the touchpad and confirm the operation with enter.

2)TYPE Setting
Operate the select button and select [DOWN] with [TYPE].
※ Please set the down timer with [GOAL - TIME] of SETUP.

3)Down Timer Start
The switch of the timer is set to SW1 by the initial value.
When you press and hold SW1 for a long time, the timer enters the start standby state, and when you press SW1 again or operate the throttle trigger, measurement starts.

4)Each time SW1 is operated, the down timer is reset.

5)End Measurement
Press and hold SW1 to end the measurement.
※ When the power switch is turned off with the timer running, the timer is reset.
※ If a timer is set in SW1 and it is long pressed and held even other than the timer setting screen, it enters the start standby state.

MODEL-001

CUSTOM	TELEMETRY
SETTING	MODEL
AUX	SYSTEM
MIXING	
TIMER	

ENTER ⬇ ⬆ BACK

MODEL-001
TIMER
LAP
INT1   00:00.00
INT2   DOWN-TIME 05:00
DOWN

Switch 1

Racing Mode Function [R-MODE FUNCTION]   TIMER

● Do setting of R-MODE linked by timer by racing mode function.

1)Setting of MODE (Mode)
Link with timer and change setting of R-MODE (racing mode).

  O Setting range   R-MODE UP/R-MODE DOWN/OFF
  O Initial value   OFF

※ R-MODE UP   Setting of R-MODE increases with the passage of the set time
R-MODE DOWN   Setting of R-MODE lowers with the passage of the set time
OFF   Setting is set to OFF.

2)Setting of START TIME (start time)
Operate function of function after the passage of the time set in
START TIME.

  O Setting range   00 : 00~00 : 00
  O Initial value   ―― : ――

3)Setting of INTERVAL (interval)
  Setting of R-MODE changes at the time set in INTERVAL.

  O Setting range   00 : 00~00 : 00
  O Initial value   ―― : ――

※ According to the setting of R - MODE UP / DOWN, racing mode
changes as 1 → 2 → 3 → 4 → 5 and 5 → 4 → 3 → 2 → 1 after the
passage of time. however, it stops at the upper or lower limit.
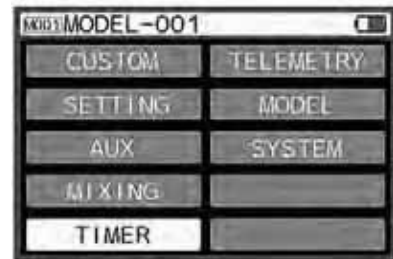
ENTER ⬇ ⬆ BACK

Select operation ⬍
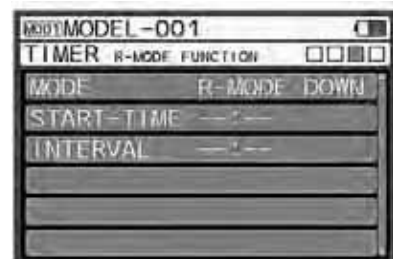
How to use
each feature

How to use each feature

TELEMETRY

● Menu for setting LOG DATA, TELEMETRY SETTING, GRAPH SETTING, TELEMETRY SWITCH, TELEMETRY MIXING, RX MODE associated with telemetry.
● For using telemetry function, it can be made compatible by using a compatible receiver, sensor, PGS servo, SUPER VORTEX series, SV-PLUS series.
● In telemetry, data such as temperature 2 systems, battery voltage, number of rotations can be checked by using the transmitter.

・ LOG DATA: Menu that manages the recorded log data.
・ TELEMETRY SETTING: Various settings of telemetry functions.
・ GRAPH SETTING: Setting at the time of displaying telemetry data as a graph.
・ TELEMETRY SWITCH: Various settings of switch that operates based on telemetry data.
・ TELEMETRY MIXING: Various settings for mixing telemetry data or data obtained from the sensor with each channel.
・ RX MODE: Function by which M17 transmitter becomes telemetry logger based on binding the compatible telemetry transmitter (M12S/EXZES ZZ/M12/EXZES Z/MT-44/MT-4S/MT-4/M11X/EXZES X/MX-3X/GEMINI X).
※ In case of FH3 of M11X / EXZES X / MX-3X/GEMINI X, only operation data is monitored.

ENTER ⬇ ⬆ BACK

How to use each feature

LOG DATA
● It is a function to manage log data such as reading logged data, graphing it, saving it to micro SD card, erasing log data and so on.

1) Select [LOGGER] with the touchpad and confirm with enter.

2) Select [LOG DATA] and confirm with enter.

3) Select the saved log data with the touchpad.
As you press enter the menu will be displayed, so select the menu and confirm by enter operation.

· VIEW DATA: Read logged data and graph it.
· DATA NAME: Edit file name of log data.
· EXPORT [CSV]: Convert to CSV format and save to micro SD.
· PROTECT: Conserve log data by protecting it.
· DELETE: Delete the log data.

ENTER ↓ ⇧ BACK

ENTER ↓ ⇧ BACK

How to use
each feature

61
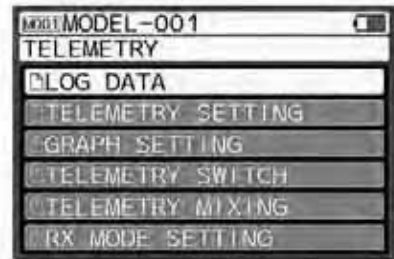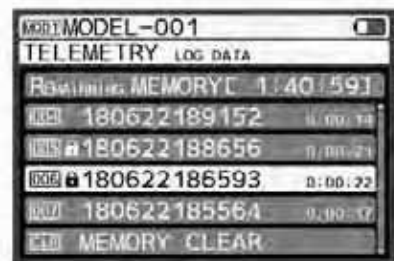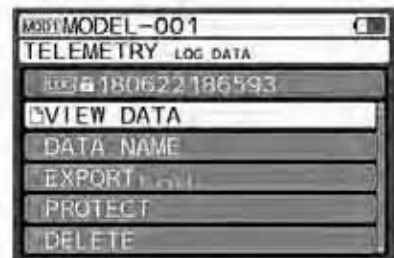
How to use each feature

VIEW DATA	TELEMETRY

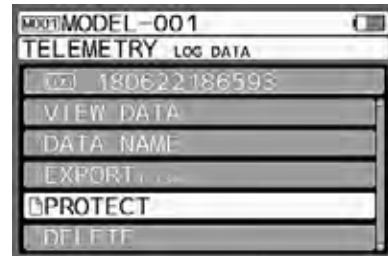● It is a menu to read recorded log data and graph it.

1) Select [LOG DATA] with the touchpad and confirm with enter.

2) Select the log data to graph and confirm with enter operation.

3) When log data is selected, a menu will be displayed, so [VIEW DATA] is selected, the log data will be graphed and displayed.

4) Display size setting
When processing a graph while it is being displayed, the displayed size becomes the setting.
※ The setting of page 1 depends on the setting of DATA-LOG of TIMER SETUP.

　O Setting range:

　　2.75s /PAGE : 1 page/2.75s
　　5.5s/PAGE : 1 page/5.5s
　　11s/PAGE : 1 page/11s
　　22s/PAGE : 1 page/22s
　　44s/PAGE : 1 page/44s
　　88s/PAGE : 1 page/88s

　　4.5m/PAGE : 1 page/4.5min
　　9.1m/PAGE : 11 page/9.1min
　　18.3m/PAGE : 1 page/18.3min
　　36.6m/PAGE : 1 page/36.6min
　　73.3m/PAGE : 1 page/73.3min
　　146.6m/PAGE : 1 page/146.6min

　O Default value:　　4.5m/PAGE

Setting of display size

5) Method of moving pages
If the select operation is carried out while graphing display page movement method can also be set.

　O Setting range: Cursor / Page / Wrap

　O Default: Cursor

※ If enter operation is carried out on the graphing screen, it moves to the lap list.
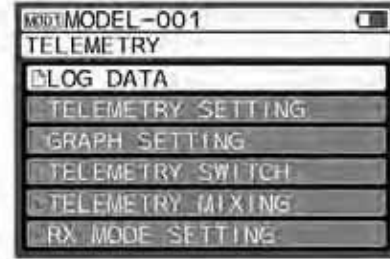
ENTER　↓　⇧　BACK
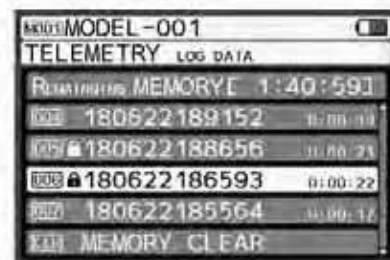
ENTER　↓　⇧　BACK
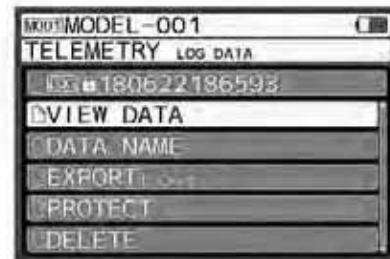
ENTER　↓　⇧　BACK
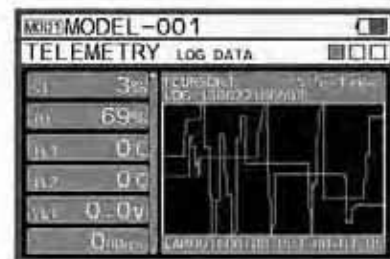
DATA NAME	TELEMETRY

● This function changes the file name of the selected log data.
● The alphabet and symbols can be used in the file names.

1)Select [LOG DATA] with the touchpad and determine with Enter

2)Select the log data to change the file name determine with Enter.

3)Setting of the data name
Move the cursor "_" to the position where the characters are to be input using the touchpad.
When the cursor position is determined, it will shift to the selection of the input character.
※ Determination of input characters.

4)Select the characters to enter with the touchpad.
When the input characters are determined, input with enter operation.

　O Setting range: A～Z、0～9

※ When changing the selected character or moving the cursor of character input, cancel the operation by back operation.

5)When the character input is completed, the data name is switched by enter operation for [CHANGE] next to the data name.
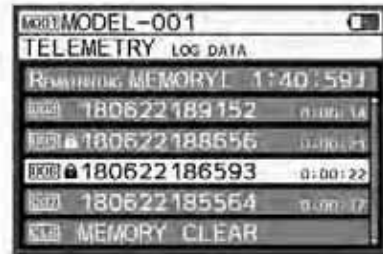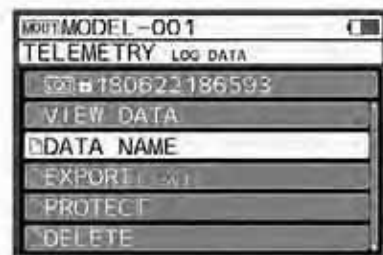
MODEL-001
TELEMETRY LOG DATA
Remaining MEMORY 1:40:59
180622189152
180622188656
180622186593　0:00:22
180622185564
MEMORY CLEAR

ENTER ⬇ ⬆ BACK

MODEL-001
TELEMETRY LOG DATA
180622186593
VIEW DATA
DATA NAME
EXPORT
PROTECT
DELETE

ENTER ⬇ ⬆ BACK

Click [CHANGE] after completing the character input

MODEL-001
TELEMETRY LOG DATA
180622186593
ABCDEFGHIJKLMNOPQRSTUV
WXYZ
abcdefghijklmnopqrstuv
wxyz
123456789
#$%&'()+,-.;=@[]^_{}~

Character position cursor
(blinks when the cursor is moved)

Input character selection cursor

How to use each feature

How to use each feature

EXPORT 〔.CSV〕	TELEMETRY

● This function converts the selected log data so that it can be graphed with spreadsheet software etc. of PC (personal computer).
● Please note that the data converted by the export function cannot be graphed by the transmitter.
● To use the export function, a micro SD card is required.

1) Select the touch pad [LOG DATA] and confirm with enter.

2) Select log data to be exported and confirm with enter operation.
※ Enter operation will shift to CSV file name (file name change).

3) CSV File Name Setting
While changing the format file name can also be changed.
Character input is the same as the method of data name, so please refer to that.

4) Conversion to CSV File format
Move the cursor to [SAVE], and confirm by enter operation.
※ Conversion work can be cancelled by back operation during data conversion.
※ After the data conversion, move the data to the PC via the micro SD card and display the graph.

ENTER ⬇ ⬆ BACK

ENTER ⬇ ⬆ BACK

ENTER ⬇

How to use
each feature
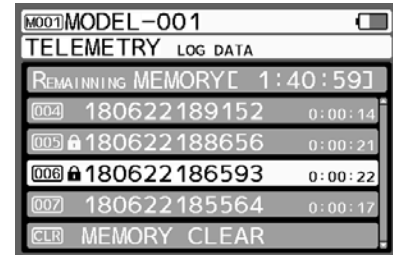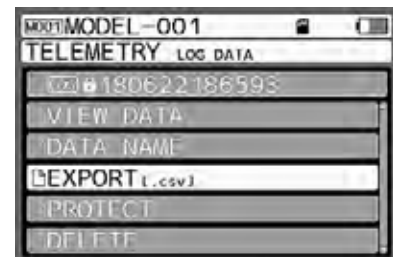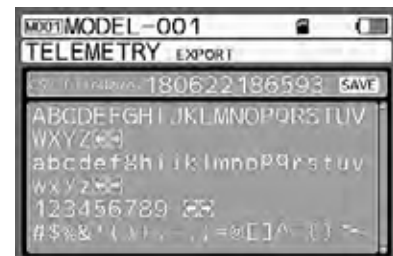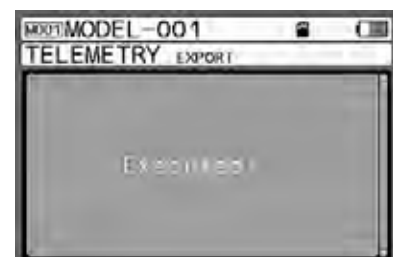
PROTECT	TELEMETRY

● It protects (protects) log data so that it is not deleted by mistake.

1) Select [LOG DATA] with the touchpad and confirm with enter.

2) Select the log data to protected and confirm with enter operation.
※ Protection is enabled/disabled each time the enter operation is performed.
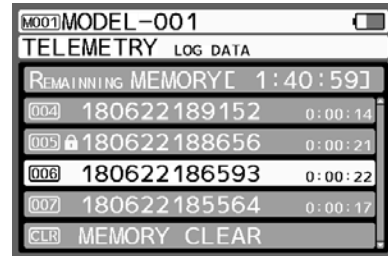
ENTER ⬇   ⬆ BACK

ENTE ⬇
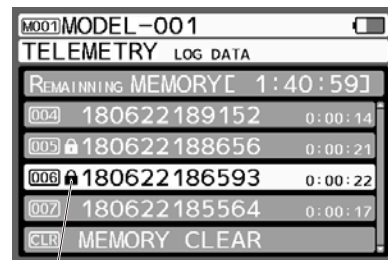
Protect mark

How to use each feature

DELETE	TELEMETRY

● This function deletes log data.
● Protected log data cannot be deleted.

1) Select [LOG DATA] with the touchpad and confirm with enter.

2) Select the log data to delete and confirm with enter operation.
A confirmation screen will be displayed, so please operate according to the screen display.

⚠ **Warning** ● Since log data cannot be restored once deleted, care should be taken while handling the data.
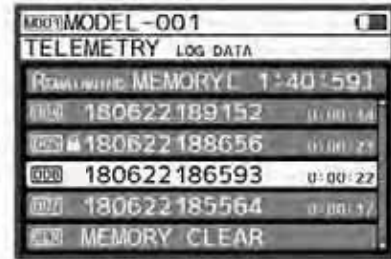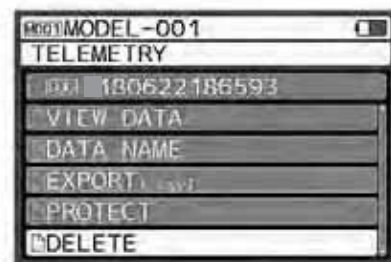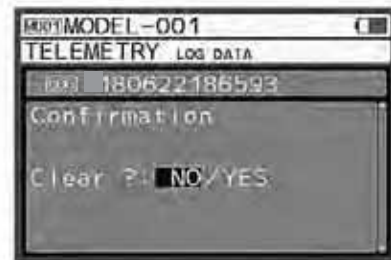
● Set each function of telemetry. Select the function which is to be set with the select operation.

・SETTING TLM1/TLM2: Data name of setting [NAME] TEMP1/TEMP2 of temperature/speed telemetry data can be changed up to 3 characters. [UNIT] Switching of temperature settings and speed display (℃ / F/ KM [unit of speed can be changed])
[MAX] Graph upper limit setting when displaying data in the graph
[ALERT] Operate the alarm at the set temperature.
※ Alarm OFF can also be set. (※ It cannot be set when displaying the speed)
[MIN] Setting of graph lower limit value when the data was displayed in a graph

・SETTING RPM: Setting of frequency data and the speed calculated from frequency data.
[UNIT] Switch between frequency and speed display (RPM, km/h, mph)
[MAX SCALE] Setting of graph upper limit value when data was displayed in the graph.

・RATIO: RATIO (Ratio) when the optional rotation sensor is installed in the subtracted position, the rotation speed of the motor and the engine can be inversely calculated and displayed.
　　　　　O Setting range　0.001～64.999
　　　　　O Default setting:　1.000

・10 COUNT DIST: Measure the moving distance when the motor rotates 10 times at the time of setting to speed display of [10 count distances], calculate the speed by setting that value and display it.
　　　　　O Setting range　1cm～255cm
　　　　　O Default setting:　30cm

・VOLT: The alarm operates at the set voltage according to the telemetry data, and the LED also blinks.
[MAX VOLT] Setting of maximum voltage when displaying the graph
　　　　　O Setting range　3.0V～9.0V、OFF
　　　　　O Default setting:　8.4V

[ALERT VOLT] Setting of alarm operating voltage
　　　　　O Setting range　OFF/3.0V～9.0V
　　　　　O Default setting:　3.8V

[HOLD TIME] Setting of hold time
※ It is a function to ensure that the alarm is not operated in case of the instantaneous voltage drop of throttle operation etc., in order to set the HOLD TIME.
　　　　　O Setting range　0.0sec～5.0sec
　　　　　O Default setting:　1.0sec

[MIN VOLT] Setting of minimum voltage when the graph is displayed
　　　　　O Setting range　0.0V～8.9V
　　　　　O Default setting:　3.0V

[VOICE] Setting of reading function when an alert occurs
　　O Setting range　ON/OFF
　　O Default setting:　OFF

・TELEMETRY: The telemetry function can be turned ON / OFF even after BIND.
　(※ It is possible to switch ON/ OFF with ON setting of BIND TELEMETRY by only FH 5 function.)
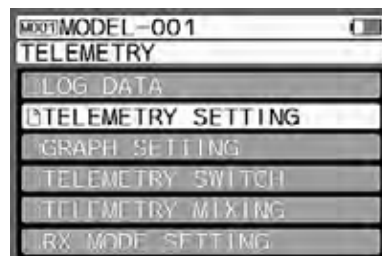
ENTER ↓　↑ **BACK**
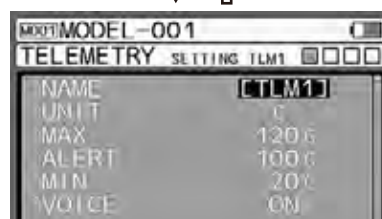
Select operation ⇊
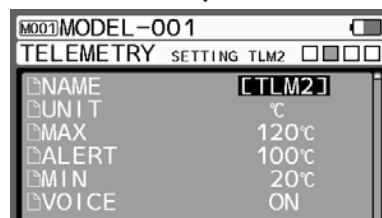
Select operation ⇊
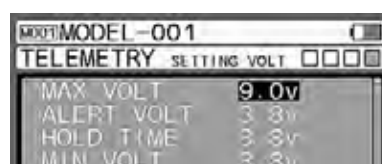
Select operation ⇊

Select operation ⇊
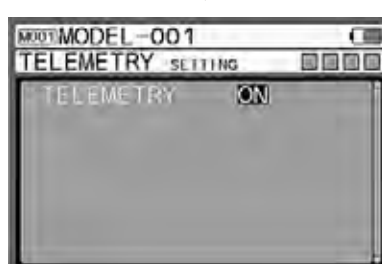
How to use
each feature

How to use each feature

GRAPH SETTING		TELEMETRY

● It is a function to select 3 items to display a graph when telemetry data is displayed in the graph.

1)Select [Telemetry] with the touchpad and enter with enter.
2)GRAPH SETTING
Select [GRAPH SETTING] with the touchpad and confirm with enter.
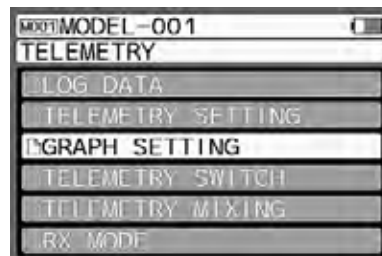
    ○ Setting range   ST/TH/TL1/TL2/RPM/VLT
                          ST: Steering operation data
                          TH: throttle operation data
                          TL1: Telemetry data 1
                          TL2: Telemetry data 2
                          VLT: Receiver input voltage
                          RPM: Frequency data

    ○ Default value   LINE1: ST (steering data)
                          LINE2: TH (throttle data)
                          LINE3: TL1 (telemetry data 1)
                          LINE4: TL2 (telemetry data 2)
                          LINE5: VLT (receiver input voltage)
                          LINE6: RPM (frequency data)
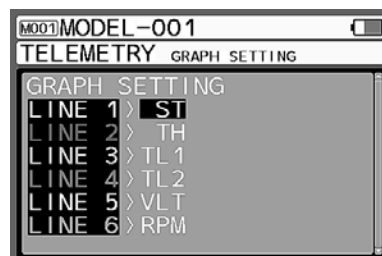
※ In the graph, LINE1 is white, LINE2 is blue, LINE3 is green, LINE4 is displayed in yellow, LINE5 in orange, and LINE6 in pink.

TELEMETRY SWITCH		TELEMETRY

● It is a function that can operate the switch with the data based on the change of the telemetry data.

· TRIGGER: Selects data as the basis of switch operation.
· BORDER: It becomes the setting of the operation standard such as temperature and voltage.
· FUNCTION: Assigns movement.

1)Select [Telemetry] with the touchpad and confirm with enter.
2)TELEMETRY SWITCH SETTING
Select [TELEMETRY SWITCH] with the touchpad and confirm with enter.
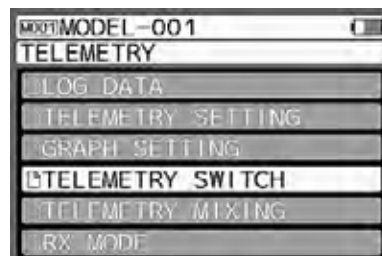
    ○ Setting Range   TRIGGER: OFF/TEMP1/TEMP2/VOLT
                        BORDER: For temperature setting 0 to150℃
                                    For voltage setting 3.0 to 9.0 V
                        ACTIVE : Setting of operating range with respect to the BORDER (Hi/Low)
                        FUNCTION: TIMER ON/OFF
                                          RACING MODE
                                          TH RATE
                        MODE: TOGGLE/ONE SHOT

    ○ Default   TRIGGER : OFF
                        BORDER : ――― (OFF)
                        ACTIVE : ―――
                        FUNCTION : ――― (OFF)
                        MODE : ――― (OFF)
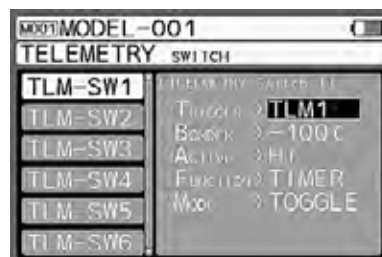
Example)   TRIGGER : TL1   For the operation set in such a way,
                BORDER : 60℃   when the telemetry temperature
                ACTIVE : Hi   of TL1 exceeds 60 ° C, throttle
     FUNCTION : TH 50%   divergence is limited to 50% When
            MODE : ONE WAY   MODE is ONE WAY, even if the
                                  temperature falls below 60 ° C, it is
                                not released.

⚠ **Precaution**   ● Since the telemetry switch can also cancel setting by the 3 systems of TLM-SW 1 ~ 3, depending on the setting, care should be taken for the setting contents.

TELEMETRY MIXING　　　TELEMETRY

● Telemetry data and data obtained from the sensor can be mixed into each channel.
● The master channel can be selected from TLM 1/2 (telemetry data 1/2), VOLT (voltage), RPM (frequency) data.
● T-MIX has 3 systems of T-MIX 1 ~ T-MIX 3 and it can operated simultaneously.
● It has an offset function and the base point of the master can be moved.
● Easy to understand setting can be done by graph display.
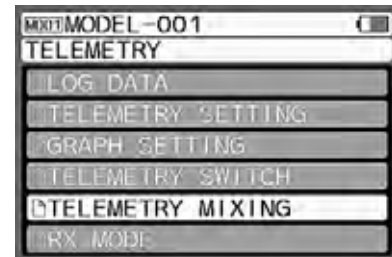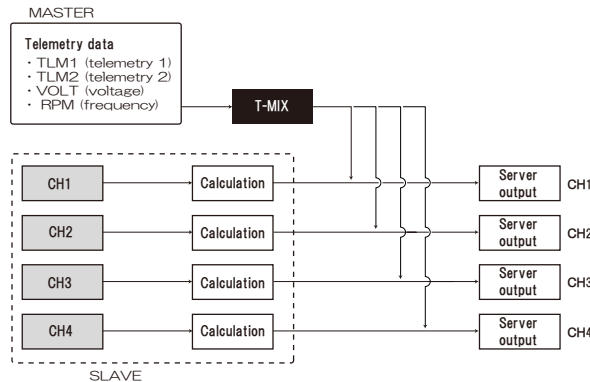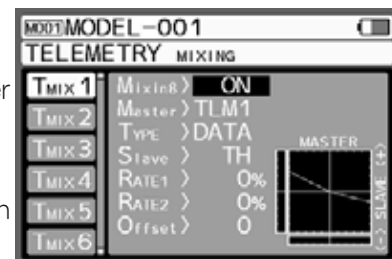
1) Select [Telemetry] with the touchpad and determine with enter operation

2) Setting of TELEMETRY MIXING
Select [TELEMETRY MIXING] with the touchpad and determine with enter operation

· MIXING (Mixing): Function ON / OFF
· MASTER (Master): Master setting of mixing operation
· TYPE (type): Master data setting
· SLAVE (slave): Slave setting of mixing operation
· RATE1 / RATE2: Mixing amount setting
· OFFSET: Changing the starting point of the master

　○ Setting range
　　MIXING : ON/OFF
　　MASTER : TLM1、TLM2、VOLT、RPM
　　TYPE : DATA/ALERT
　　SLAVE : ST、TH、L-ST、R-ST、R/ST、F/ST、F/TH、R/TH、
　　　　　　AUX1、BR、BR2、AUX2
　　RATE1 : -150%~150%
　　RATE2 : -150%~150%
　　OFFSET : -150~150

　○ Default value
　　MIXING : OFF
　　MASTER : TLM1
　　TYPE : DATA
　　SLAVE : TH
　　RATE1 : 0
　　RATE2 : 0
　　OFFSET : 0

ENTER ⬇ ⬆ BACK

※DATA: Mix the telemetry raw data to the slave as the master value
ALERT: Mix telemetry alert ON / OFF to the slave as the master value

How to use each feature

RX MODE SETTING | TELEMETRY

● By setting RX MODE SETTING (and BIND setting), the M17 transmitter can be used as a telemetry logger to monitor the operation and telemetry data from another compatible transmitter (M17 / M12S / EXZES ZZ / MT-44 / MT-S / MT-4S / MT-4 / M11X / EXZES X / MX-3X / GEMINI X).
※ For FH 3 transmitters (M11X / EXZES X / MX-3X / GEMINI X), only monitor of operation data is available.

1)Select [TELEMETRY] with the touchpad and confirm with enter.
2)Setting of RX Mode Setting (RX MODE SETTING).
Select [RX MODE SETTING] with the touch pad and confirm with enter.
3)Set [MODULATION] according to the transmitter type to be monitored.

 ○ Setting range   FH5 / FH4T / FH3
 ○ Default value   FH5

※ Transmitter type   FH5: M17

         FH4T: M12S, M12RS, EXZES ZZ, MT-44, MT-S, M12, EXZES Z, MT-4S, MT-4

         FH3: M11X, EXZES X, MX-3X, GEMINI X

4)BIND with the transmitter to be monitored.
Put the transmitter to be monitored in the BIND state, then tap [ENTER] on the touch pad. The [ENTER] will flashes and then stop blinking when binding is complete.
※ Please note that STEERING POINT / THROTTLE POINT cannot be set unless BIND is completed.

5) Reading the steering operation amount
Select [STEERING POINT] by scrolling left or right on the touch pad. Keep the transmitter to be monitor in neutral, and press enter to set the neutral point. Then, turn the steering wheel to the maximum left and then maximum right. When it is within range, [OK] will be displayed next to the value of NEUTRAL / LEFT END / RIGHT END, please follow the instructions on the screen.
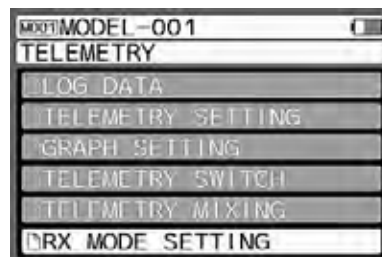
ENTER ↓ ⬆ BACK
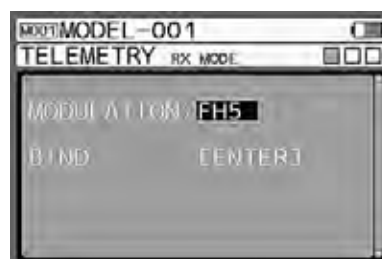
Select steering with touch pad

Turn steering wheel
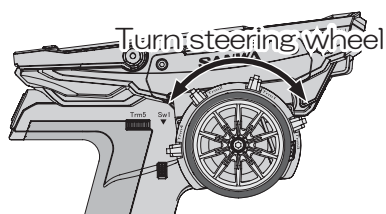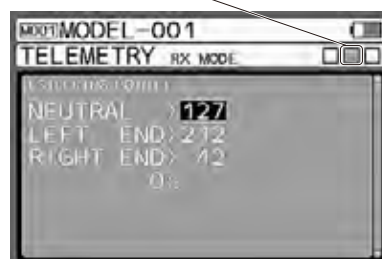
6) Reading the throttle operation amount

Select [THROTTLE POINT] by scrolling left or right on the touch pad. Keep the transmitter to be monitor in neutral, and press enter to set the neutral point. Then, move the throttle trigger to the maximum throttle and then maximum brake. When it is within range, [OK] will be displayed next to the value, please follow the instructions on the screen.

Select throttle with touch pad
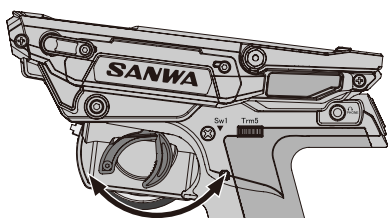
Move throttle trigger
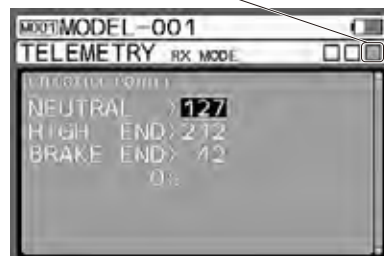
O If the setting of RX MODE SETTING is correctly done, the data of transmitter being monitored will be displayed on the logger screen.

⚠ **Warning** ● RX-MODE SETTING function is only available when transmitter is put in RX-MODE in LAUNCHER menu (Refer to Page 23).

How to use each feature

MODEL

● Functions for model select, model name, model copy, model clear can be set.
● High-capacity EEPROM is built in and, it can store data of 250 models, M 01 ～ M 250.

MODEL SELECT	MODEL

● Stored model data of M 01 ～ M 250 can be easily recalled.

1)Select [MODEL] with the touchpad and confirm with enter.

2)Model select setting (MODEL SELECT)
Select [MODEL SELECT] with the touchpad and confirm with enter.

3)Model Selection
Select the model you want to recall with the touchpad.

　　O Setting range M01 ～ M250

4)As the cursor is moved to the model to be recalled and confirmed with the enter operation, a message will be displayed on the screen, so please operate according to the display and perform model selection.
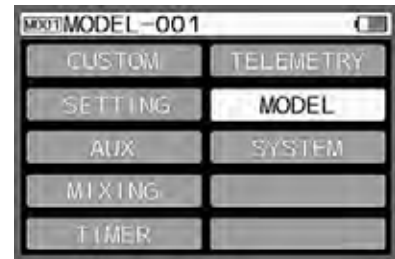
ENTER　　BACK

Current model display
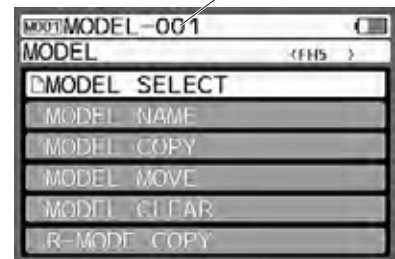
①Model screen

ENTER　　BACK

RF MODE display
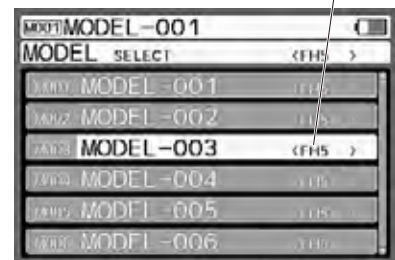
②MODEL SELECT Screen

ENTER　　　　BACK
Model Select completion　　①To model screen

MODEL NAME — MODEL

● A model with the model name of up to 12 characters that contain alphabets, numbers, syllables and symbols can be registered.

1) Select 'Model' using the touchpad and confirm by using the Enter operation.

2) Setting MODEL NAME
Select 'MODEL NAME' using the touchpad and confirm by using the Enter operation.

3) Setting model
Using the touchpad, move the cursor "_" to the position where character "_" is to be input. Once the position is decided, confirm the cursor position by touching enter.

4) By using the touchpad, select the characters to be input. Once the characters to be input are determined, use the Enter operation and input them. Changing the alphabet/lower case/symbol/katakana is done by using the select button.

※ When the selected character is to be changed or position of the cursor where the character is to be input is to be moved, cancel the action using back operation.

○ Setting range A to Z, a to z, 0 to 9, aa to un
aa to tsu, symbols and spaces

5) Repeat 3), 4) and input the characters.

6) When the character input is completed, model name is switched by enter operation for [CHANGE] next to the model name.

Alphabet, lowercase letters, symbols

Katakana

MODEL-001

MODEL

ENTER ⬇ ⬆ BACK

MODEL-001

MODEL   〈FH5 〉
MODEL SELECT
MODEL NAME
MODEL COPY
MODEL MOVE
MODEL CLEAR
R-MODE COPY

ENTER ⬇ ⬆ BACK

MODEL-001

MODEL NAME
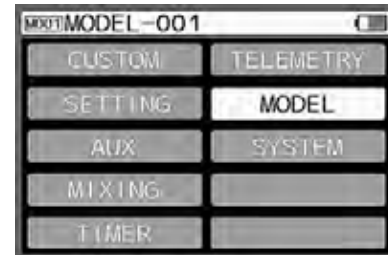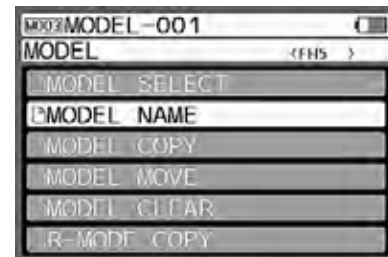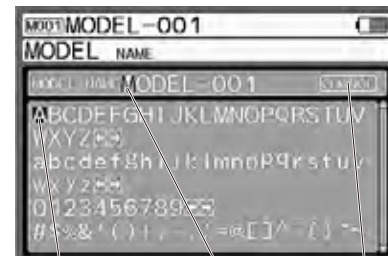
Input character selection cursor

Character position cursor (blinks when the cursor is moved)

Click the [CHANGE] after completing the character input

How to use each feature

MODEL COPY	MODEL

● The data of the selected model can be copied to another model.

1) Select 'Model' using the touchpad and confirm by using the Enter operation.

2) Model copy setting
Select 'MODEL COPY' using the touchpad and confirm by using the Enter operation.

3) Select a model for 'copying to'
Select a model in which data is to be copied using the touchpad.

※ A model from which data is to be copied can be selected.
※ Micro SD card can also be selected for 'copy to' and 'copy from' models. When the micro SD card is selected in 'copy from' model and there is no model data in micro SD card, then nothing is copied.

4) When enter operation is performed, a message is displayed on the screen. Therefore, operate according to the display and copy the model.

● About model copy mode
・ FULL
All the settings in the model data are copied.

・ SYSTEM
Select the contents of SYSTEM of model data and copy them

・ MODEL
Only the settings and set value of TH function AUX in model data are copied.
Select the model copy mode according to the application.

MX01 MODEL-001
CUSTOM   TELEMETRY
SETTING   MODEL
AUX   SYSTEM
MIXING
TIMER

ENTER ⬇ ⬆ BACK

MX03 MODEL-001
MODEL   〈FH5 〉
MODEL SELECT
MODEL NAME
MODEL COPY
MODEL MOVE
MODEL CLEAR
R-MODE COPY

ENTER ⬇ ⬆ BACK

M001 MODEL-001
MODEL COPY
MODE   FULL
FROM M020 MODEL-020
└TO   M001 MODEL-001
                 COPY
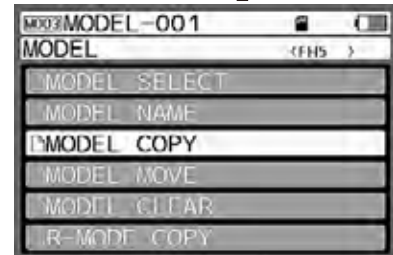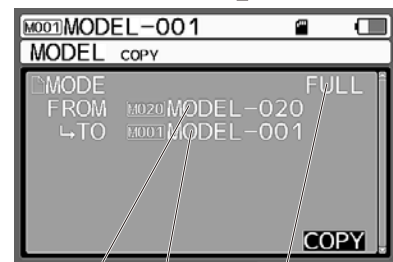
① Copy destination selection

Copy source model   Copy destination model   Copy mode selection

M001 MODEL-001
MODEL COPY
M020 MODEL-020
CoPy to this model?
NO / YES
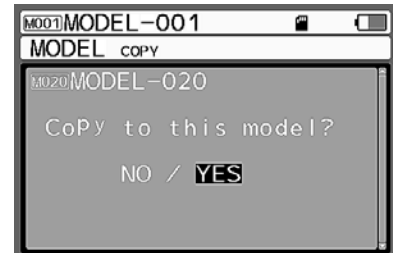
② Copy confirmation screen

ENTER ⬇   NO → Return to ①
・YES→ Switch over to ③
(Execute copy)

MX01 MODEL-001
MODEL COPY   〈FH5 〉
Executed!

③ Copying

Return to ① after copying

● Regarding copy from micro SD card
When copying the model, the main memory and micro SD card can select the specification of the copy source and copy destination.
It is can be selected by a Select operation when selecting a model on the copy destination selection screen.

1) When the model is selected, the specification of the copy source and copy destination can be selected other than from the main memory.
It switches according to Select operation.

・ MEMORY (Main memory): 250 Memory
・ SD CARD (Micro SD card): 250 Memory

Enter operation

MEMORY
(Main)
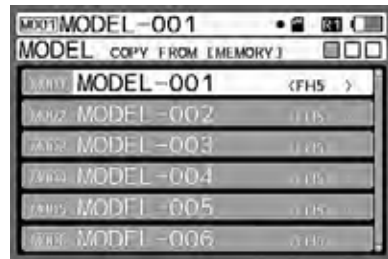
SD CARD
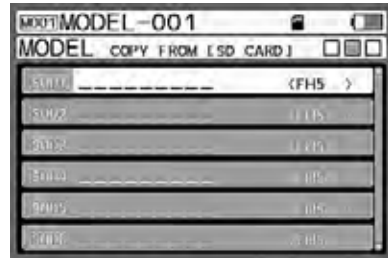
How to use
each feature

How to use each feature

MODEL CLEAR	MODEL

● It is the function of clearing (initialisation) the set data of the model.

1) Select the 'MODEL' using a touchpad and confirm by using the Enter operation.

2) Setting MODEL CLEAR
Select 'MODEL CLEAR' using the touchpad and confirm by using the Enter operation.

3) Select model data for performing MODEL CLEAR.
Model data in main memory and micro SD can be selected by using the Select operation.

4) When Enter operation is performed, a message is displayed on the screen; perform model clear according to the displayed message.

● About MODEL CLEAR mode
・FULL
   All the settings in the model data are cleared.

・SYSTEM
   Select the contents of SYSTEM of model data and clear them.

・MODEL
   Only the settings and set value of TH function AUX in model data are cleared.
Select it according to the application.

   Select according to the application.
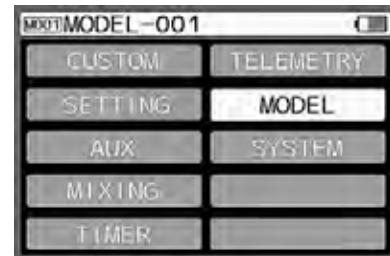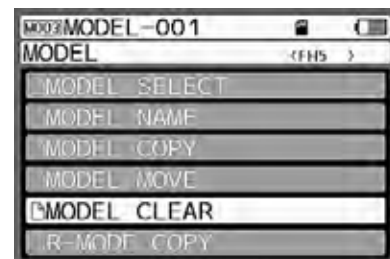
① Confirmation screen
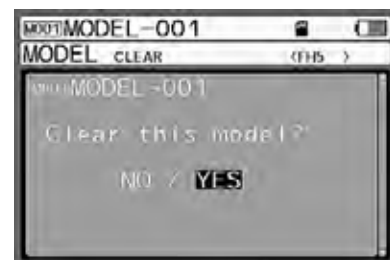
・NO → Return to MODEL screen
・YES→ Clear execution To ②

② Clear processing

Return to the <MODEL> screen after displaying flash twice

How to use each feature

● The order in which model data is arranged can be switched by switching the selected model data to another model data

1) Select [MOVE] with the touchpad and determine with enter operation

2) Setting of Move (MOVE)
Select [MOVE] with the touchpad and determine with enter operation

3) Selection of move
Select the model to be switched by the touchpad.

O Setting range M01 ～ M250

4) Move the cursor to the model to be switched and perform the enter operation. Since a message is displayed on the screen, operate according to the display and select the model.

ENTER ↓ ⇧ BACK
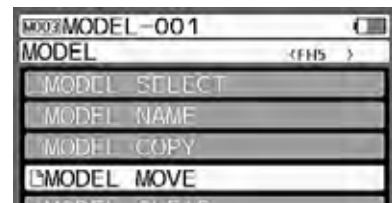
ENTER ↓ ⇧ BACK

Move model selection

ENTER ↓ ⇧ BACK
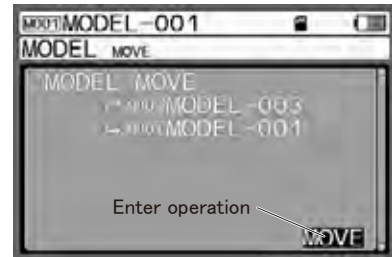
①Move model decision

Enter operation

ENTER ↓ ⇧ BACK

③Move being executed

②Move confirmation screen

← ENTER

・NO →Back to①
・YES→③Move Execute

How to use each feature

How to use each feature

● This function copies the racing mode setting data to another racing mode.

1) Select the touch pad [MODEL] and confirm with enter.

2) Racing mode copy setting (R-MODE COPY)
Select [R-MODE COPY] with the touchpad and confirm with enter.

3) Select copy destination racing mode.
Select the destination racing mode with the touchpad.

4) When ENTER operation is performed a message will be displayed on the screen, so please copy the racing mode according to the display.

<div style="float:right">

MODEL-001

CUSTOM	TELEMETRY
SETTING	MODEL
AUX	SYSTEM
MIXING	
TIMER	

ENTER ⬇ ⇧ **BACK**

MODEL-001　　　〈FH5　〉
MODEL

MODEL SELECT
MODEL NAME
MODEL COPY
MODEL MOVE
MODEL CLEAR
R-MODE COPY
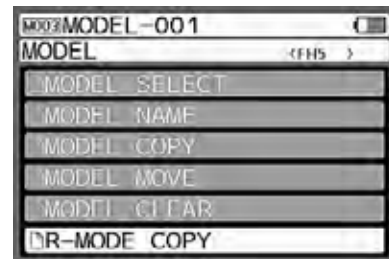
ENTER ⬇ ⇧ **BACK**

Copy source model　　Copy destination model

MODEL-001
MODEL R-MODE COPY

R-MODE　▪ 2
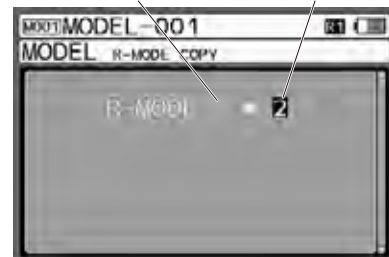
① Copy destination selection

ENTER ⬇ ⇧ **BACK**

MODEL-001
MODEL R-MODE COPY

R-MODE 1 ▸ 2
Copy to this R-MODE
NO　**YES**
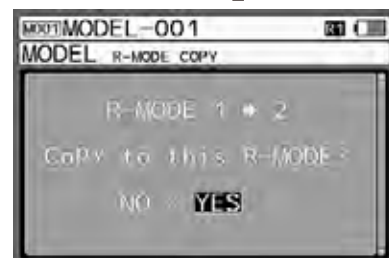
② Copy confirmation screen

ENTER ⬇　▪NO → Return to ①
　　　　　　▪YES→ Transfer to ③
　　　　　　　　(Copy execution)

MODEL-001
MODEL R-MODE COPY

Executed

③ Copying

▪Return to ① after copying

</div>

How to use
each feature
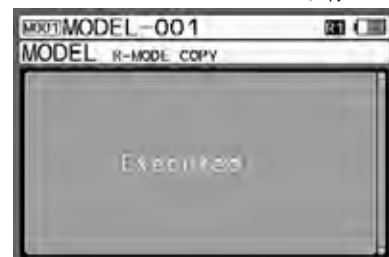
SYSTEM

It is a function to set the transmitter system such as BIND, KEY ASSIGNING, CUSTOM LIST, AUX TYPE, R-MODE (racing mode), SET UP.

BIND	SYSTEM

● Selects the output method according to the receiver to be used, and set the mode and bind the transmitter and receiver according to the servo (analog/digital) and the speed controller to be used.

1) Select [SYSTEM] with the touchpad and confirm with enter.

2) Select [BIND] with the touchpad and confirm with enter.

3) RF MODE setting (RF MODE: radio wave output method)
Set the output method with the touch pad.
　○ Output Method
　　・FH5 : RX-491

　　・FH4T : Mode for RX-482, RX-481, RX-472, RX-471, RX-47T,
　　　　　　RX-462, RX-461, SV-PLUS series

　　・FH3 : Mode for RX-451R, RX-451, RX-381, RX-380

　　○ Default FH5

Confirmation screen

※ If you change the output method, a message will be displayed on the screen, please operate according to the display.

4) TELEMETRY RETURN Setting (telemetry return)
[※ Can be set only with FH 5]
○ When using a receiver compatible with FH 5, set the transmission (return data) of telemetry data from the receiver with the touch pad.
　○ Setting range ON/OFF
　○ Default ON
※ TELEMETRY RETURN available receiver : RX-491
※ If you change the setting of TELEMETRY RETURN after BIND, please BIND again.

5) SAFETY LINK Setting
Set the SAFETY LINK with the multi selector.
　○ Setting range　　　　　01 ～ 50
　○ Default　　　　　　　　01
※ If you change SAFETY LINK setting after BIND, please BIND again.
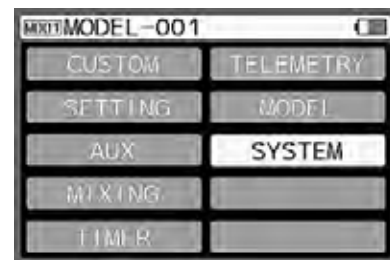
ENTER ↓ ⇧ BACK
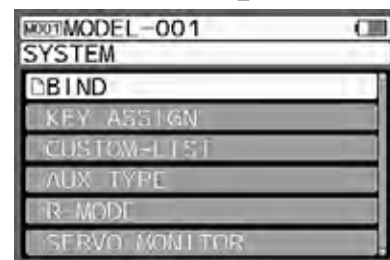
ENTER ↓ ⇧ BACK
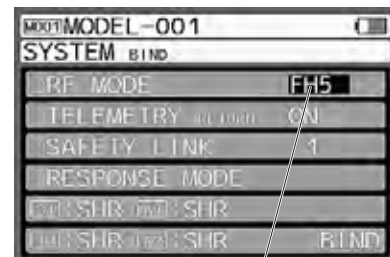
Output method

Supplement	● It is a function to prevent runaway etc. due to model select error. LINK Number can be set for each model. ● When model copy (FULL) is done, LINK Number is also copied. ● The Default is set to [01]. If you do not change the LINK Number, the BIND receiver will operate on all models. ● Safety link is effective only with [FH 4 T / F H 5].

How to use
each feature

How to use each feature

BIND		SYSTEM

6) Response Mode Setting

Set the response mode of each channel with the touchpad.

※ Set the response mode of each channel according to the equipment to be used.

・Response mode can be set for each channel.

　　○ Setting Range　　　NOR (Normal)
　　　　　　　　　　　　　　SHR (High Response)
　　　　　　　　　　　　　　SSR (Super Response)
　　　　　　　　　　　　　　SUR (Ultra Response)
　　○ Default　　　　　　SHR
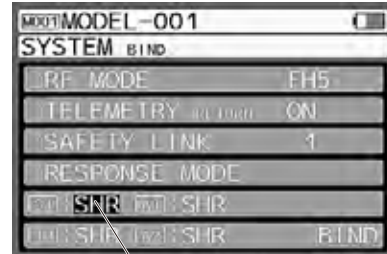
Response Mode

※ Response mode of SUR is displayed only when setting FH5, response mode of SSR is displayed only when setting FH4T or FH5.

> **Important**
> ● Please note that the analog servo does not work in SUR / SSR / SHR mode. If the analog servo is used in SUR / SSR / SHR mode by mistake it will not work properly and the servo will be broken so never use the analog servo in SUR / SSR / SHR mode. For digital servo (ERB, ERS series, Digital ERG series), it operates in NOR / SHR mode.
> ● The PGS servo operates in all response modes, and the SRG servo operates in SSR / SHR / NOR mode.
> ● The SUPER VORTEX / SV - PLUS series, HV - 12 STOCK SPECIAL, HV - 01 operate in SSR / SHR / NOR mode.
> ● In SUR / SSR / SHR mode, BL - RACER, BL - FORCE, F2000, F2200, F3000, F3300, SBL - 01, 02, 03CL does not operate Ensure to use NOR mode.
> ● SV - 08, HV - 10, HV - 12, F 2500 operate in NOR / SHR mode.

7) BIND SETTING

● What is BIND: The M17 transmitter has a unique ID (individual identification) number and that ID number is stored in the receiver. It works only with a set of bound transmitter and receiver.

1]After finishing the settings in the BIND menu, set the BIND using the touchpad.

2]Move the cursor to [ENTER] in the BIND menu and with enter operation, the transmitter will be in BIND mode.

3]Connect the BIND plug to the receiver and turn on the power of the receiver.

※ **PERFORM BIND WORK BY CONNECTING THE POWER SUPPLY TO THE CONNECTOR AVAILABLE AT THE TIME OF BIND. (CONNECT THE SPEED CONTROLLER TO CH2 IN CASE OF EP CAR.)**

ENTER

ENTER

Flash　　Inverted

BIND plug

Switch ON the power supply!

Connect BIND plug to receiver

Switch ON the power supply of receiver/ FET speed controller.
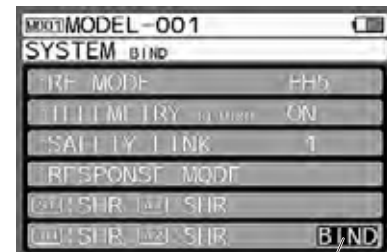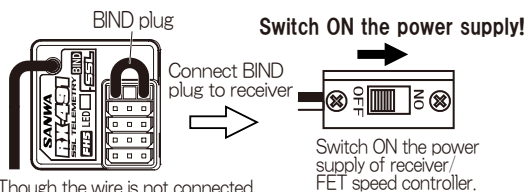
Note) Though the wire is not connected to the above-mentioned receiver, keep the servo and FET speed controller (excluding motor), battery in connected state.
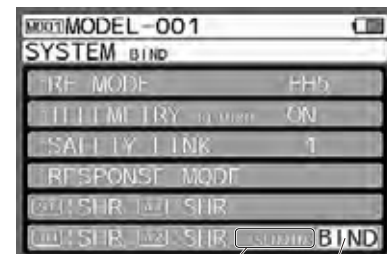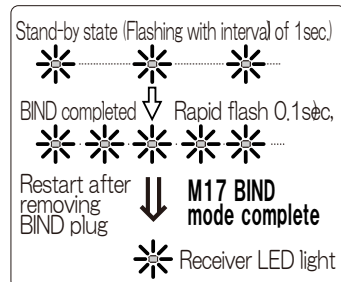
4]If BIND is performed correctly, LED of the receiver starts flashing slowly then rapidly and then the LED turns OFF.
Once the LED of the receiver turns OFF, end the BIND operation of the transmitter using enter operation on the touchpad.
If BIND is performed correctly receiver LED glows.
Once the receiver LED glows confirm that the BIND operation has ended, by operating the servo etc.
※ If BIND operation cannot be performed correctly then redo from operation 2.

Receiver LED state

Stand-by state (Flashing with interval of 1sec.)

BIND completed ⇩ Rapid flash 0.1sec.

Restart after removing BIND plug ⇩ **M17 BIND mode complete**

Receiver LED light

⚠ **Warning**

● BIND is not performed at the time of shipment. Always perform BIND with RX-491 receiver before using.
● When the receiver is purchased newly, always perform BIND in transmitter and receiver.
● When performing BIND for RX-482, RC-481, RX-472, RX-471, RX-47T, RX-462, RX-461 do it by setting RF MODE (output method) as FH4T.
● When performing BIND for RX-451, RX-451R, RX-381, RX-380 do it by setting RF MODE (output method) as FH3.
● If the type of receiver and MODULATION setting is wrong, BIND setting cannot be done hence take care.
● RX-481 and RX-471 operate in any of the modes FH4T and FH3 but in order to exhibit the future performance of receiver use it in FH4T.
● When settings in BIND menu and response mode settings (SUR/SSR/SHR/NOR) of the channel are done after performing BIND, perform BIND again. If re-BIND is not performed the settings changes are not reflected.

● RX-491 Dual ID
・Only 1 receiver ID (Identification number) can be stored in the conventional receiver of 2.4GHz. However, it is possible to store 2 IDs in RX-491.It is possible to combine M17 in which the driver is matched with the settings and position of individual preference like endurance race etc.
It is possible to operate with 2 bound receivers by storing (BIND) the ID of 2 peculiar transmitters to the receivers. (Note: 2 transmitters cannot be simultaneously operated.) The corresponding transmitter is M17 only.
・The neutral position of the throttle and operation amount may vary depending on individual transmitter. The setting values of the transmitter may not be the same depending on the combination of the bound transmitter. Adjust with each transmitter according to the linkage of the car body.
・Always perform fail-safe setting with each transmitter.
・For all RF MODE and response mode of two M17 to be bound, it should be the same. If it is not the same setting, then it is not possible to perform BIND with 2 transmitters.
※ If the transmitter of a different setting is bound as the second transmitter, the ID (identification number) of M17 that was bound to the first unit is erased, and it is overwritten.
※ When BIND of the third machine is performed, the ID of the first M17 is erased.

1]Regarding BIND setting of the second M 17
The basic operation method is the same as the operation which is bound to the first machine.
Set the RF MODE and response mode as the same setting

2] When the cursor is moved to [BIND] in the BIND menu and enter operation is performed, the transmitter is in the BIND mode.
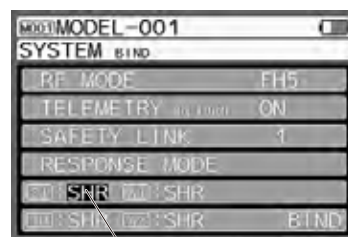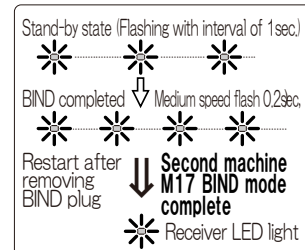
3] Connect the BIND/ SSL port plug to the receiver and turn on the power of the receiver.

4] When BIND is done correctly, the slow blinking of the LED receiver changes to medium speed blinking. When it changes to medium speed blinking, unplug the BIND plug, exit the BIND mode of the receiver and then reboot the receiver. Exit the BIND mode of the transmitter with the enter operation of the touch pad/ back operation. When BIND is correctly done, the LED receiver will turn on. When the LED receiver turns on, confirm the exit of the BIND by operating the servo and the like
※ If BIND cannot be performed properly, try again from the 2] operation.

MODEL−001
SYSTEM BIND
RF MODE FH5
TELEMETRY ON
SAFETY LINK 1
RESPONSE MODE
SNR SHR
SHR SHR BIND

Response Mode

Receiver LED state

Stand-by state (Flashing with interval of 1sec.)

BIND completed ⇩ Medium speed flash 0.2sec.

Restart after removing BIND plug ⇩ **Second machine M17 BIND mode complete**

Receiver LED light

# How to use each feature

● Function and trim (increase or decrease in the set value of the function) can be assigned to switch (SW 1 to 3), trim (TRM 1 to 5) and DIAL of the transmitter, the function can be switched ON/OFF and set value can be changed while it is operating.

Function that are assigned to switch and trim at the time factory shipment
TRIM1: Steering trim (TRM-ST)
TRIM2: Throttle trim (TRM TH)
TRIM3: Dual rate ST (D/R-ST)
TRIM4: (ENTER/BACK)
TRIM5: Dual rate BR (D/R-BR)
SW1: Timer (TIMER)
SW2: Custom (CUSTOM)
SW3: (CUSTOM)
DIAL: Cursor

Switch 2
Switch 3

Trim 5   Trim 2   Trim 1
Trim 4   Trim 3
Dial
Switch 1
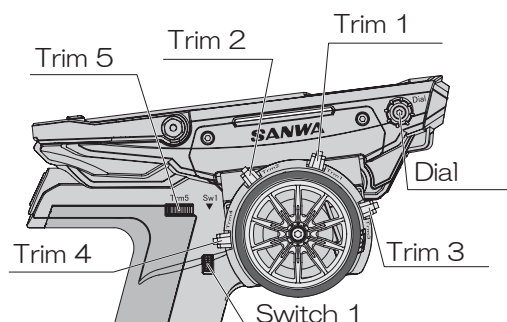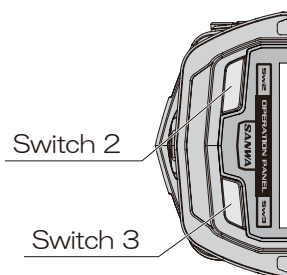
KEY ASSIGN SW

● Function can be assigned to transmitter switches (SW1, SW2, SW3) and function can be switched ON/OFF while it is operating.

1) Select 'System' using the touchpad and confirm it by Enter operation.
2) Select 'KEY ASSIGN' using the touchpad and confirm it by Enter operation.
3) Setting the switch (SW1/SW2/SW3)
Perform enter operation in 'SW' and set the function to be assigned to the switch by using up/down operation.
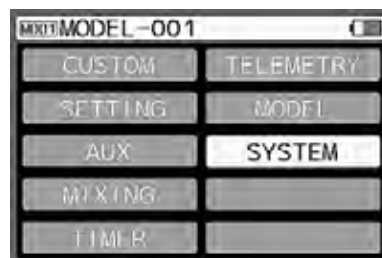
O Setting Range

Switch	Assignable functions
SW1 SW2	OFF、ALB、OFFSET、AUX1、AUX2、LAP、INT1、INT2、DOWN、C-MIX、C-MIX1～5、VOICE、SELECT、CUSTOM、R-MODE
SW3	OFF、ALB、OFFSET、AUX1、AUX2、C-MIX、C-MIX1～5、KEYLOCK、CUSTOM、ALTERNATE
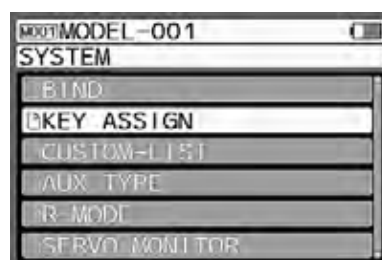
O Default value   SW1 : LAP
                  SW2 : SELECT
                  SW3 : CUSTOM

4) Setting the Mode (only SW1 and SW2)
You can set the switch operation, but in some cases, you cannot perform the settings according to the function to be assigned.

O Setting Range   TOGGLE (Switch to ON/OFF whenever it is pressed)
                  PUSH (ON only when it is pressed)
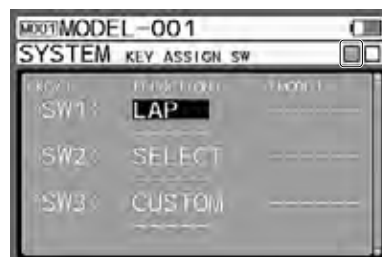
※ You can assign another function to SW1/SW2 by setting [ALTERNATE] to SW3. You can switch the assigned function by the operation of SW3.

MODEL-001
CUSTOM   TELEMETRY
SETTING   MODEL
AUX   SYSTEM
MIXING
TIMER

ENTER ↓   ⇧ BACK

MODEL-001
SYSTEM
BIND
KEY ASSIGN
CUSTOM-LIST
AUX TYPE
R-MODE
SERVO MONITOR

ENTER ↓   ⇧ BACK

MODEL-001
SYSTEM KEY ASSIGN SW
SW1 LAP
SW2 SELECT
SW3 CUSTOM

How to use each feature

KEY ASSIGN TRIM

● Set value of each function can be changed between trim 1 to trim 5 using dial.
● In STEP setting the setting of the variation width can be set by one time trim operation and operation direction can also be set by setting REV.

1) Select 'System' using the touchpad and confirm it by Enter operation.
2) Select 'KEY ASSIGN' using the touchpad, switch to 'TRIM' by the select operation, select the item to be set and confirm it by enter operation.
3) TRIM setting (TRM1/TRM2/TRM3/TRM4/TRM5)
Select 'TRIM' whose setting is to be changed and set the function to be assigned, using touchpad operation.
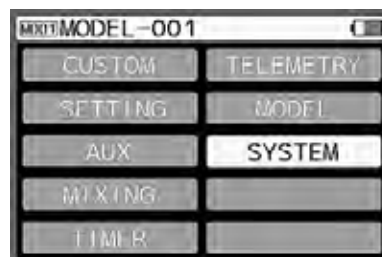
○ Setting Range

Trim	Functions which can be assigned
TRIM1 TRIM2 TRIM3 TRIM4 TRIM5 DIAL	OFF、TRIM-ST、TRIM-TH、TRIM-A1、TRIM-A2、D/R-ST、D/R-TH、D/R-BR、D/R-A1H、D/R-A1L、D/R-A2H、D/R-A2L、SPD-ST-FWD、SPD-ST-RTN、SPD-ST-PNT、SPD-TH-FWD、SPD-TH-RTN、SPD-TH-PNT、SPD-BR-FWD、SPD-BR-RTN、SPD-BR-PNT、SPD-A1-FWD、SPD-A1-RTN、SPD-A1-PNT、SPD-A2-FWD、SPD-A2-RTN、SPD-A2-PNT、CRV-ST-RATE、CRV-ST-PNT、CRV-TH-RATE、CRV-TH-PNT、CRV-BR-RATE、CRV-BR-PNT、CRV-A1-RATE、CRV-A1-PNT、CRV-A2-RATE、CRV-A2-PNT、ALB-POINT、ALB-STROKE、ALB-LAG、ALB-CYCLE、ALB-DUTY、OFFSET-PNT、CM1-RATE1、CM1-RATE2、CM1-OFFSET、CM2-RATE1、CM2-RATE2、CM2-OFFSET、CM3-RATE1、CM3-RATE2、CM3-OFFSET、CM4-RATE1、CM4-RATE2、CM4-OFFSET、CM5-RATE1、CM5-RATE2、CM5-OFFSET、AUX1、AUX2、AUX1-ACKER、AUX1-D/R、AUX1-LEFT、AUX1-RIGHT、AUX1-CENT、AUX1-TOE、AUX2-ACKER、AUX2-D/R、AUX2-LEFT、AUX2-RIGHT、AUX2-CENT、AUX2-TOE、AUX-1-FLAP、AUX1-TH-FL、AUX2-FLAP、AUX2-TH-FL、AUX1-CODE1~5、AUX2-CODE1~5、AUX1-CODE1~10、AUX2-CODE1~10、R-MODE、ALB-SW、OFFSET-SW、CM1-SW、CM2-SW、CM3-SW、CM4-SW、CM5-SW、LAP-SW、INT1-SW、INT2-SW、DOWN-SW、CUSTOM、VOICE-REQ、CURSOR、ENTER/BACK、SELECT、INC/DEC

○ Initial value　　　TR1: TRM-ST (Steering trim)
　　　　　　　　　　　TR2: TRM-TH (Throttle trim)
　　　　　　　　　　　TR3: D/R-ST (Steering dual rate)
　　　　　　　　　　　TR4: ENTER/BACK (Enter/Back)
　　　　　　　　　　　TR5: D/R-BR (Brake dual rate)
　　　　　　　　　　　DIAL: CURSOR (Cursor)
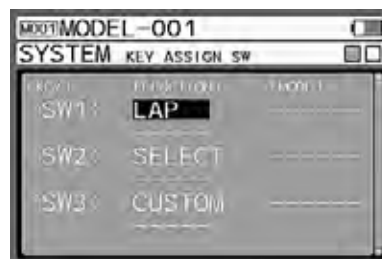
4) Setting the step (STEP)
Set the variation that operates by the one-time trim operation.
Select the 'STEP' using the touchpad, confirm it by enter operation and set the variation.
　○ Setting range　　　　　1 ～ 100
　○ Initial value　　　　　　5

5) Setting the operation direction
Set the operation direction when the trim operation is done.
Select 'REV' using touchpad, confirm it by Enter operation and set the operation direction.
　○ Setting range　　　　　NOR/REV
　○ Initial value　　　　　　NOR
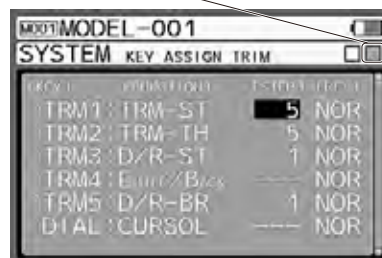
Note) Possibility of adding a new function to KEY ASSIGN TRIM

※ You can assign another function to TRIM1 ～ TRIM5, DIAL by using the [ALTERNATE] function. You can switch the assigned function by the operation of SW3.

ENTER　⬇　⬆ BACK

ENTER　⬇　⬆ BACK

Select TRIM by scrolling to the right on the touch pad

How to use each feature

- -

CUSTOM-LIST	SYSTEM

● Desired menu can be built by setting in the custom list the menu that is to be used frequently.
Custom list can be created in each model memory and a list of 4 pages can be created.
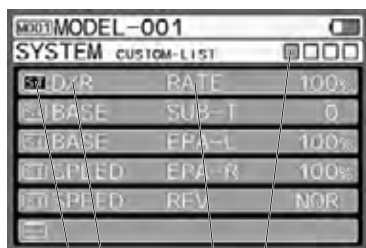● Menu that is set in the custom list can be used in custom.

1)Select 'SYSTEM' using the touch pad and confirm it by Enter operation.
2)Select 'CUSTOM-LIST' using the touch pad and confirm it by Enter operation.
3)Setting the custom list
Do the settings of channel/function/item using touch pad operation.
6 functions are assigned in 1 page.
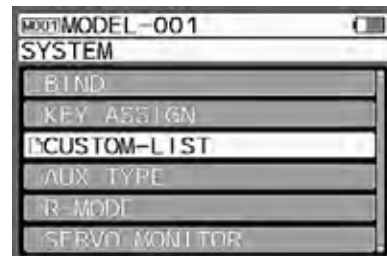
Channel selection Item selection Page selection
Function selection (Select button)

※ Custom list is set beforehand according to the type. Customise the custom list as desired.
※ Depending on the function/item there are things that cannot be set in a custom list, hence take care.
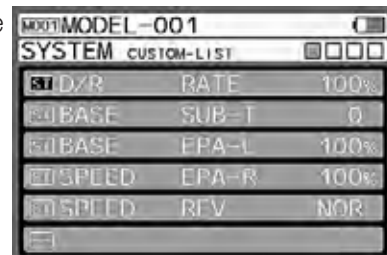
ENTER ⬇ ⬆ BACK

ENTER ⬇ ⬆ BACK

Custom list setting ⬇
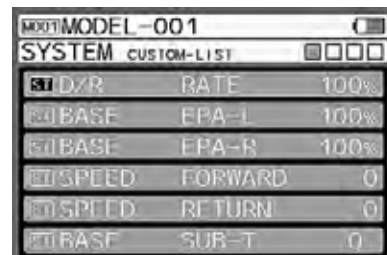
ENTER ⬇ ⬆ BACK
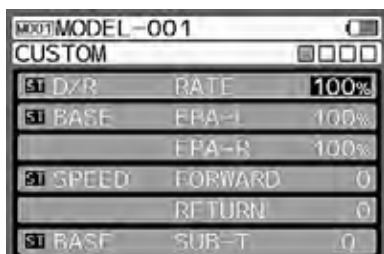
SYSTEM

● It is a function for setting the operation of AUX1, AUX2 (3ch, 4ch).

1) Select 'System' using the touch pad and confirm it by Enter operation.
2) Select 'AUX TYPE' using the touch pad and confirm it by Enter operation.
3) Setting of AUX TYPE is done using the touch pad

○ Setting range

TYPE	MODE
STEP	1/2/5/10/20/25/50/100
POINT	2/3/4/5/6
4WS	2mode/3mode/4mode
MOA	1/2/5/10/20/25/50/100
BR-MIX	---
DUAL-ST	---
BOAT	---
CODE5	USER/SVZ/SVD
CODE10	USER/GEN2/PGS

○ Initial value   AUX1: STEP   MODE: 5
                  AUX2: STEP   MODE: 5

※ Operation image of 4WS mode setting

ENTER ⬇ ⬆ BACK

ENTER ⬇ ⬆ BACK
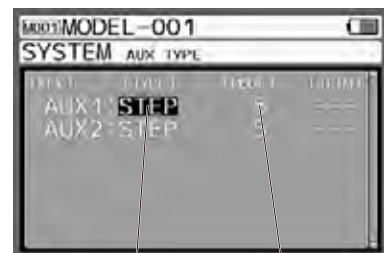
Type switching   Mode setting
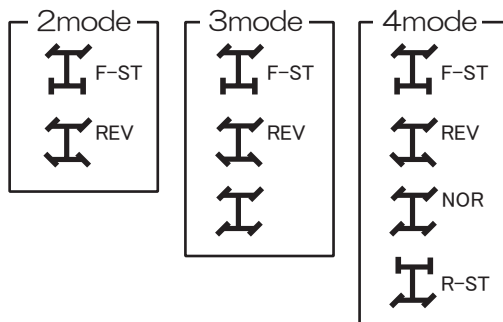
※ When you set AUX TYPE to CODE 5/CODE 10, you can change the settings of the corresponding device from the transmitter. Speed controllers and SGS-01C/SGS-01D such as SUPER VORTEX ZERO/TYPE-D and SV-PLUS ZERO/TYPE-D series will be changed to equipment compatible with CODE 5, and PGS servo/SUPER VORTEX Gen 2 PRO/Gen 2/STOCK will be changed to equipment compatible with CODE 10.
※ When the AUX TYPE setting is set to CODE 5/CODE 10, do not connect any other device which is not corresponding to AUX 1, AUX 2 (3ch, 4ch) of the receiver. If you connect any non-compatible device, the device will be damaged.
※ When the MODE is set to USER with CODE5/CODE10, you can register the name of each item freely.

How to use each feature

Racing mode [R-MODE] | **SYSTEM**

● It is a function to adjust the running characteristics of the RC car by switching the racing mode so that the function corresponding to the racing mode can respond to the changes in the RC car and the road conditions.
● For each model memory, the function corresponding to the racing mode may have the set values for R1 to R5 separately, and it can be switched to the switch assigned while traveling.
● In the default setting, ON/OFF operation of the R-MODE is not assigned to the switch.

1) Select [SYSTEM] using the touch pad and confirm by enter operation.

2) Select [R-MODE] using the touch pad and confirm by enter operation.
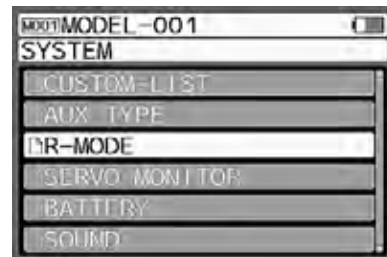
3) Perform the racing mode operation and setting of the corresponding function by touch pad
Select the channel by select operation.

○ Setting Range R-MODE : OFF/2/3/4/5
       Corresponding function: Each function ON/OFF
       R-DERAY 0 ~ 100%
○ Default settings R-MODE : OFF
       Corresponding function: Each function OFF
       R-DERAY 0%
○ Corresponding function
       ST/TH: D/R, SPEED, CURVE, TRIM, R-DERAY
       AUX: D/R, SPEED, CURVE, TRIM, AUX, R-DERAY
       MIXING: MIXING

4) Set the function of the R-MODE to the switch so that you can switch the racing mode by making operations during traveling.
It is possible to change to trim lever or switch using Assign function. (P82, 83)
※ Set in accordance with the changing the SUPER VORTEX settings, tire wear and changes in the road conditions.

ENTER / BACK
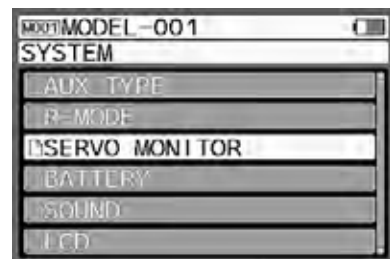

ENTER / BACK

Channel selection
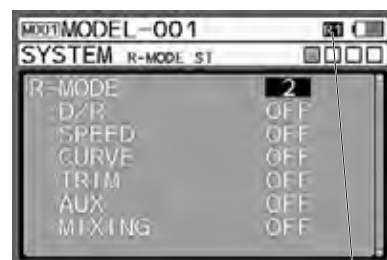
Racing mode indication
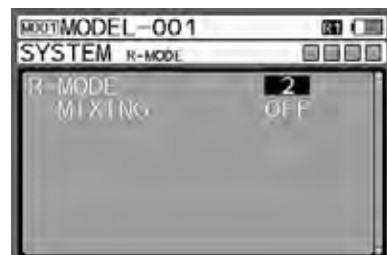
● The servo output operation of each channel is displayed as a bar graph, and the servo operation can be virtually confirmed.
● The operating condition will be easy to understand while setting functions such as exponential and ARC by using this function.
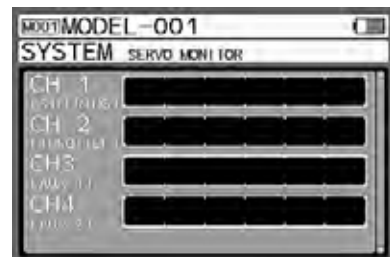
1)Select [SYSTEM] with the touchpad and confirm with enter.

2)Select [SERVO MONITOR] with the touchpad and confirm with enter.

3)Since the operation display screen is displayed with the enter operation, verify the operation with the bar graph.

ENTER ⬇ ⬆ BACK

ENTER ⬇ ⬆ BACK

How to use
each feature

How to use each feature

BATTERY	SYSTEM

● You can change the voltage settings of transmitter battery alarm.
● The alarm settings can simply be carried out by selecting the Type [Li-Pox1 (Lithium polymer), CUSTOM (Custom)].
※ When you select custom by Type, you can set the ALERT VOLT for setting the voltage at which the alarm starts and LIMIT VOLT for lower limit voltage.
● TH SLOW (Throttle slow) is a function that puts a limit on the operation quantity on the throttle high side (80%) when battery voltage of transmitter reaches the voltage of LIMIT VOLT. (Fail safe function)

1) Select [SYSTEM] using touch pad and decide by Enter operation.

2) Select [BATTERY] using touch pad and decide by Enter operation.

3) Type settings (TYPE)
Set the Type (TYPE) corresponding to the battery used by touch pad.

   O Setting range Li-Pox1 (Lithium polymer)
                          CUSTOM (Custom)： ALERT VOLT 3.0～5.0v
                                        LIMIT VOLT 2.7～5.0v

   O Default value Li-Pox1 (Lithium polymer)

> ⚠ **Caution** ● At the time of using Li-Po cell, if the ALERT VOLT and LIMIT VOLT are lowered and used by Custom, there is possibility of Li-Po battery getting damaged. Do not use the Custom function when you use an original Li-Po battery of Sanwa.
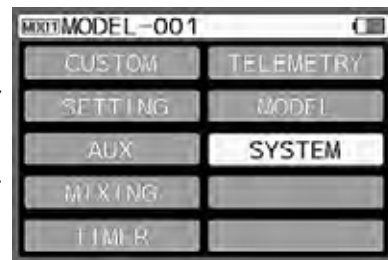
ENTER ⬇ ⬆ BACK
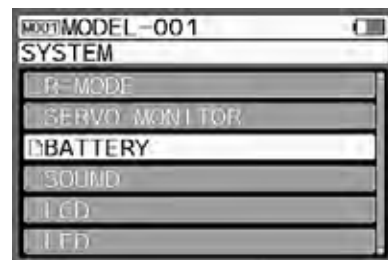
ENTER ⬇ ⬆ BACK
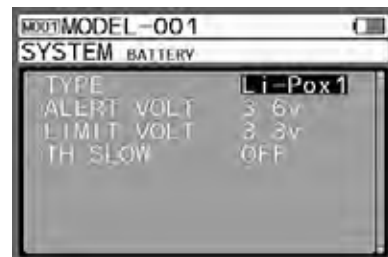
● You can set the key operation, trim, operating sound of switch, performance of the vibrator during operation.

1) Select [SYSTEM] using touch pad and decide by Enter operation.

2) Select [SOUND] using touch pad and decide by Enter operation.

3) Sound and volume, vibrator settings
You can switch sound (sound quality) and volume (sound volume), parameter with Select operation.
Select the items for which the settings are to be changed and then adjust.

O Set Items   KEY-CLICK
                    TLM1
                    TLM2
                    VOLT
                    LAP
                    INT1
                    INT2
                    DOWN
                    OFFSET
                    TH-HOLD
                    WARNNING
                    VOICE

O Setting Range   SOUND : 1～7
                    VOLUME : 0～5
                    VIBRATION : 0～5

O Default value   KEY-CLICK : SOUND 1/VOL 4/VIB 3
                    TLM1 : SOUND 1/VOL 4/VIB 0
                    TLM2 : SOUND 1/VOL 4/VIB 0
                    VOLT : SOUND 1/VOL 4/VIB 0
                    LAP : SOUND 1/VOL 4/VIB 0
                    INT1 : SOUND 1/VOL 4/VIB 0
                    INT2 : SOUND 1/VOL 4/VIB 0
                    DOWN : SOUND 1/VOL 4/VIB 0
                    OFFSET : SOUND 1/VOL 4/VIB 0
                    TH-HOLD : SOUND 1/VOL 4/VIB 0
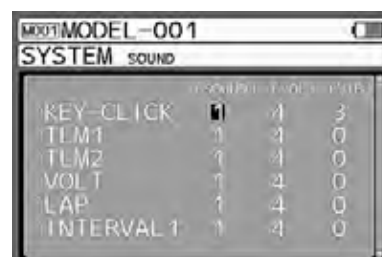   WARNNING : SOUND 1/VOL 4/VIB 0
                    VOICE : SOUND --/VOL 4/VIB --

※ Voice settings are only for VOLUME.
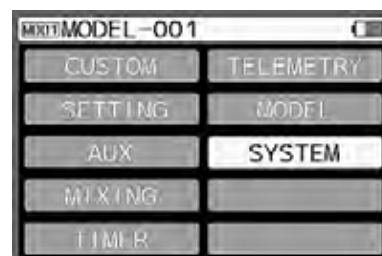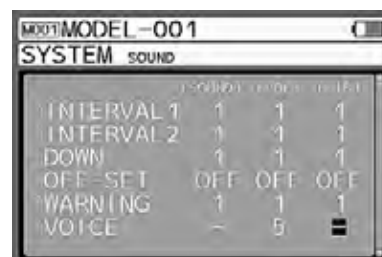
How to use
each feature

How to use each feature

LCD	SYSTEM

● You can set the brightness (light/ dark) of LCD (liquid crystal) and the light mode of backlight.

1) Select [SYSTEM] using touch pad and decide by Enter operation.

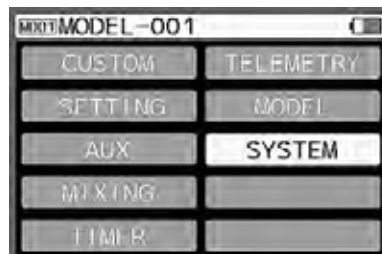2) Select [LCD] using touch pad and decide by Enter operation.

3) Set the brightness (light/ dark) of LCD (liquid crystal) and the light mode (lighting time) of backlight.

○ Set Items   BRIGHT (Brightness of liquid crystal)
                 LIGHT-MODE (Backlight light mode)
                 LIGHT-TIME (Backlight light time)

○ Setting Range   BRIGHT: 1 ～ 10
                   LIGHT-MODE: KEY-ON/ALWAYS
                   LIGHT-TIME: 1 ～ 30sec

○ Default value   BRIGHT: 8
                   LIGHT-MODE: KEY-ON
                   LIGHT-TIME: 10sec

※ [MOTION] of LIGHT-MODE sets the backlight ON by sensing of the motion sensor in-built in the transmitter and key operation.
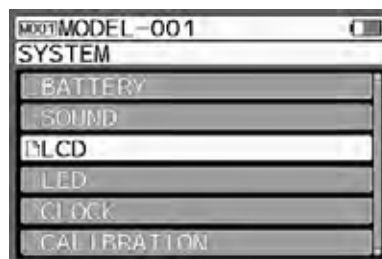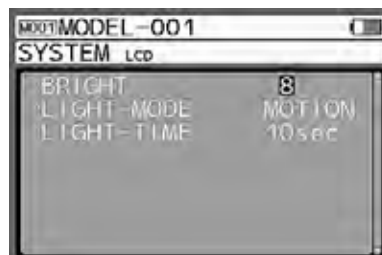
LED	**SYSTEM**

● To perform the operation mode of LED and brightness (light/ dark) settings.

1) Select [SYSTEM] using touch pad and decide by Enter operation.

2) Select [LED] using touch pad and decide by Enter operation.

3) Set LED to operation mode and brightness (light/ dark).

    ○ Set Items   MODE (Operation mode)
                                         BRIGHT (LED brightness)

    ○ Setting Range   MODE: WAVE/ALWAYS/OFF
                                           BRIGHT: 1~10
                                           ※BRIGHT setting refer to brightness for
                                           ALWAYS setting

    ○ Default value   MODE: WAVE

LED

ENTER ⬇ ⬆ **BACK**
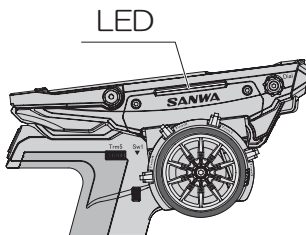
ENTER ⬇ ⬆ **BACK**

※ Normally, LED emits light according to the settings of LED MODE. However, function LED blinks by synchronising with various functions during operation such as ALB or OFFSET etc or Low battery or telemetry alert.
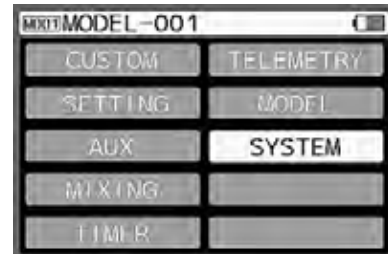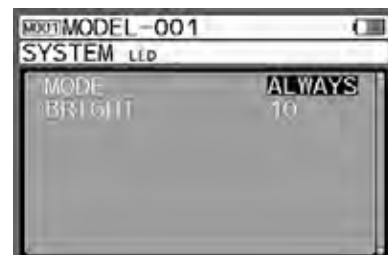
# How to use each feature

---

CLOCK	SYSTEM

● It is the menu to manage the calendar, clock display and the usage time on the top screen.
● There is [ON TIME1] which is replacement time for battery or the resettable time for charging and [ON TIME 2] which is aims for overhaul of the main body.

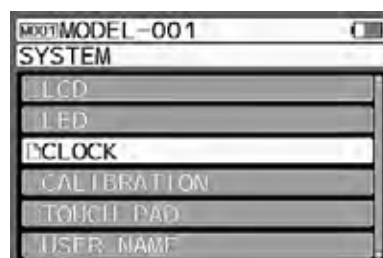1) Select [SYSTEM] using touch pad and decide by Enter operation.

2) Select [CLOCK] using touch pad and decide by Enter operation.
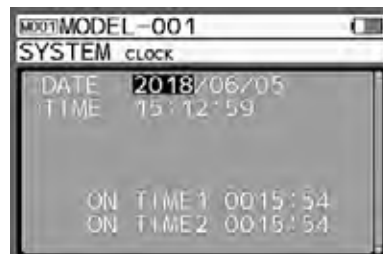
3) Set the CLOCK function using touch pad.
The settings for calendar and clock are performed. However, do the settings without fail since the clock settings are needed even for management of log data etc.
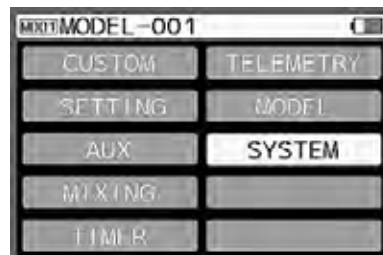
ENTER ⬇ ⬆ BACK

ENTER ⬇ ⬆ BACK

CALIBRATION	SYSTEM

● In some cases, the neutral position or operation angle might be deviated by wear and tear of internal mechanical parts due to usage time. In such cases, correction of neutral position and operating angle of the steering and throttle can be corrected by calibration.

※ When the rudder angle adjustment function of the steering wheel is used, calibrate the steering wheel without fail.

※ When calibration is carried out, confirm the setting of the neutral position, EPA of all the model memory.

1) Select [SYSTEM] using the touchpad and decide by enter operation.

2) Select [CALIBRATION] using the touchpad and decide by enter operation.

3) Select the channel to be calibrated using the touchpad and decide by enter.

4) When [STEERING] is selected, the steering wheel is fully operated to the left side, right side after the enter operation in the neutral state.

5) Since [OK] is displayed in the numerical width of NEUT/LEFT/RIGHT entered within the correction range, operate according to the screen display.

6) When calibration is completed, [Executed] will be displayed

7) If calibration is necessary for the throttle side also, set by referring to calibration of the steering.

Note) Do not set the calibration except in the cases when it is necessary. In some cases, it is not possible to set correctly and operate normally.

Supplement

● Rudder angle adjustment of the steering wheel

Remove the wide steering pad from the steering wheel. The hollow set screw attached to the hexagonal socket supplied in the holes (2 places) of the steering wheel is fixed with screw using a hexagonal wrench driver (1.5 mm) and the angle adjustment is carried out. (※ Tighten evenly to right and left side).

※ When rudder angle of the steering wheel is adjusted, carry out the calibration without fail.

● If not returned to normal operation even if calibration is carried out, carry out the calibration again and return the setting from [USER] to [FACTORY] of factory shipping. If the problem is still not solved, contact Sanwa Services.

● If the rudder angle of the steering wheel is too narrow, the normal operation might not be possible even if calibration is carried out. Therefore, be careful not to tighten the hollow set screw attached to the hexagonal socket too much.

● To adjust the rudder angle of the steering wheel so that it returns to the initial state, set the hollow set screw attached to the hexagonal socket in a state so that the bis terminal does not come out from the hole of wheel adapter. Carry out the calibration at the time of returning to the initial state also.
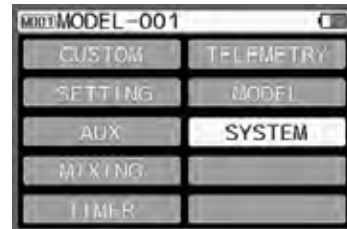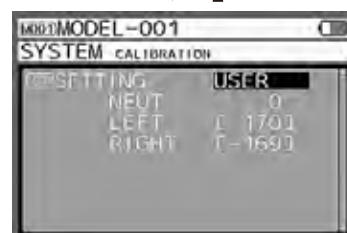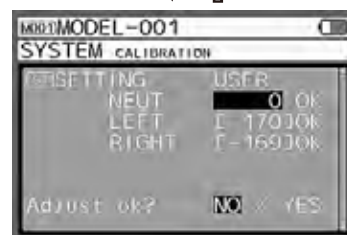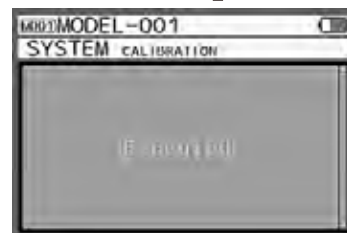
ENTER ↓ ⇧ BACK
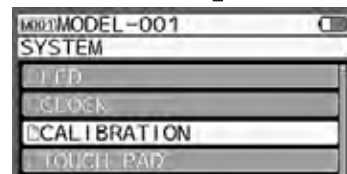
ENTER ↓ ⇧ BACK
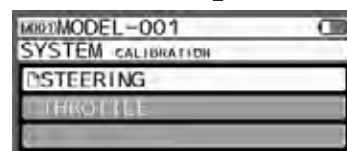
ENTER ↓ ⇧ BACK

ENTER ↓ ⇧ BACK

ENTER ↓ ⇧ BACK

ENTER ↓ ⇧ BACK

How to use each feature

How to use each feature

- -

TOUCH PAD		SYSTEM

● It is a function to adjust the sensitivity (a level that can be sensed by the finger) at the time of operating the touchpad.

● In case of occurrence of any malfunction or in the case when working at a place with high humidity, lower the sensitivity.

When working in low humidity places or when the touchpad does not respond if not pressed hard and when the touchpad does not respond to the operation, increase the sensitivity.

1) Select [SYSTEM] using the touchpad and decide by enter operation.

2) Select [TOUCH PAD] using the touchpad and decide by enter operation.

3) Setting of sensitivity adjustment
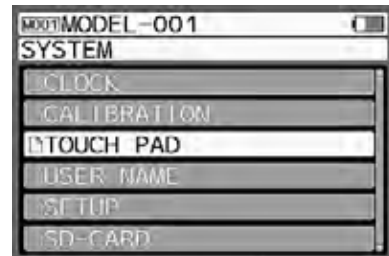Adjust the sensitivity by up/down of the touchpad.

   O Scope of setting : 1 ～ 10
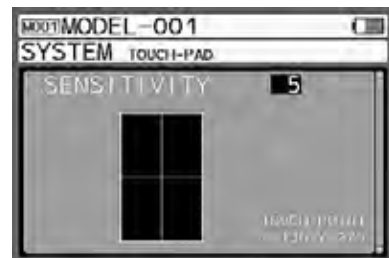
   O Initial value : 5

※ The touchpad has very weak characteristics against moisture and dirt. When the response of the touchpad is bad even after sensitivity adjustment, remove dirt on the touchpad using a wet tissue and wipe the moisture using a dry cloth.

MODEL-001

CUSTOM	TELEMETRY
SETTING	MODEL
AUX	SYSTEM
MIXING	
TIMER	

ENTER (Enter) ⬇ ⬆ BACK (Back)

MODEL-001
SYSTEM
- CLOCK
- CALIBRATION
- TOUCH PAD
- USER NAME
- SETUP
- SD-CARD

ENTER (Enter) ⬇ ⬆ BACK (Back)

MODEL-001
SYSTEM TOUCH-PAD

SENSITIVITY 5

USER NAME	SYSTEM

● Username can be registered in the transmitter up to 12 characters such as alphabets, numerical characters, kana, symbols.
● Registered user name is displayed on the opening screen displayed when the power supply is turned on.

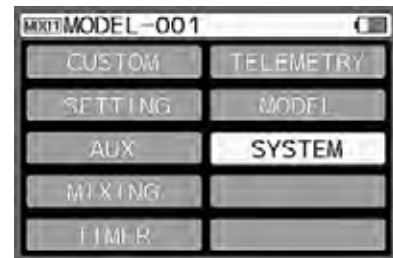1) Select [SYSTEM] using the touchpad and decide by enter operation.

2) Select [USER NAME] using the touchpad and decide by enter operation.

3) Setting of username
Move the cursor ″_″ to the position where characters are to be input by operating the touchpad.
When the position is to be decided, decide the cursor position by enter operation.

4) Enter the username
Enter the characters to be input by touchpad.
When the characters to be input are to be decided, input by enter operation. Select the alphabets/small letters/symbols/katakana by operating the touchpad.
※When the selected character is to be changed or when the cursor on the decided character input position is to be moved, cancel the operation by back operation.

　　O Setting scope　A ～ Z、a ～ z、0 ～ 9、Japanese characters, Japanese characters (small katakana), symbols, space

5) When you finish entering characters, tap on [CHANGE] next to the user name to save the new user name.

ENTER ⬇ ⬆ BACK

Click [CHANGE] after completing the character input

How to use each feature

SETUP	SYSTEM

● In Setup, a unit of temperature display of telemetry data, settings such as display settings of the opening logo when the power switch is set ON, operation settings when rearranged to left-handedness, username settings are carried out.

1) Select [SYSTEM] using the touchpad and decide by Enter operation.

2) Select [SETUP] using the touchpad and decide by Enter operation.

3) Select the items to be set using the touchpad and do the adjustment.

O Set Items
UNIT (Temperature unit of telemetry data): ° C/° F
BOOT (Opening logo when the power supply is ON): DEMO/NONE
RESUME (Resume): OFF/ON
HANDEDNESS (Switching left/right): RIGHT/LEFT
NO OPE WARN (No operation alarm): OFF/1 ~ 30min
AUTO OFF: OFF/5 ~ 10min

O Default Settings   UNIT : ℃
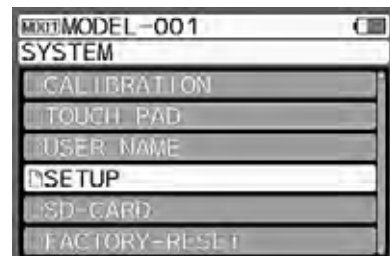   BOOT : DEMO
                          RESUME : OFF
                          HANDEDNES : RIGHT
                          NO OPE WARN : 10min
                          AUTO OFF : OFF

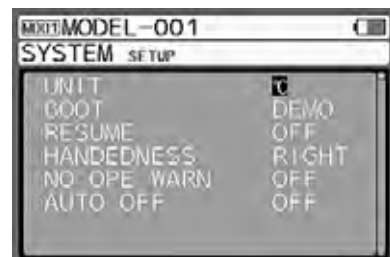※ When RESUME is set ON, the menu at the time of turning OFF the power supply is stored.
※ We recommend to keep AUTO OFF function setting to OFF.

SD CARD	SYSTEM

● Carry out version confirmation and updating of firmware mounted on the transmitter, confirmation of language file, management of the voice data used by the read-aloud function.

1) Select [SYSTEM] using touchpad and decide by enter operation.

2) Select [SD CARD] using touchpad and decide by enter operation.

3) Select the items to be set by touchpad and then set.

  ○ Set items

  FIRMWARE (Firmware): Verify transmitter firmware version and update it.
  LANGUAGE (Language file): Manage language files.
 VOICE DATA (Voice data): Manage voice data.

4) When updating the firmware, language file or voice data, download the data file from our company homepage into the micro SD card and insert it in the transmitter.
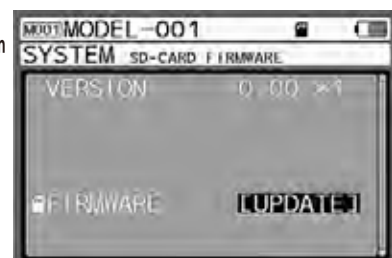
※ About firmware update
・Download the latest firmware form Sanwa home page to the micro SD card. Insert it into micro SD slot of M17.

・When you enter [UPDATE] on the firmware confirmation screen, it will switch to the update confirmation screen. Follow the message displayed on the screen to update.

※ The procedure to update LANGUAGE and VOICE DATA is same as FIRMWARE, please follow the message displayed on the screen.

ENTER ⬇ ⬆ BACK

ENTER ⬇ ⬆ BACK
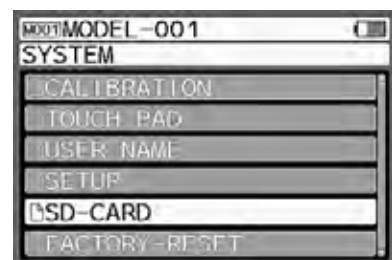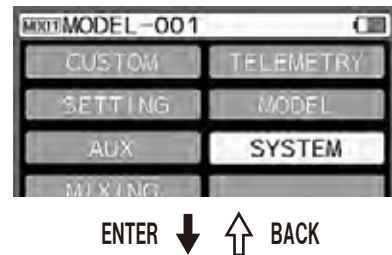
① Firmware select by enter operation

ENTER ⬇ ⬆ BACK

② Current firmware version is displayed on screen
※Insert SD card before updating

ENTER ⬇ ⬆ BACK

④ Update execution

③ Update confirmation screen

← ENTER

・NO → Return to ②
・YES→ ④ Update execution

How to use each feature

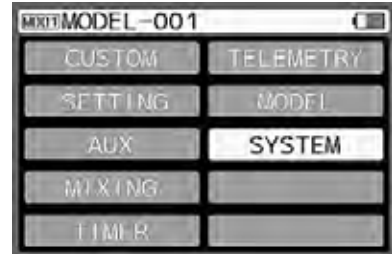# How to use each feature

FACTORY -RESET	SYSTEM

● Reset to factory state by clearing all settings of model data and setting of key assignment etc.
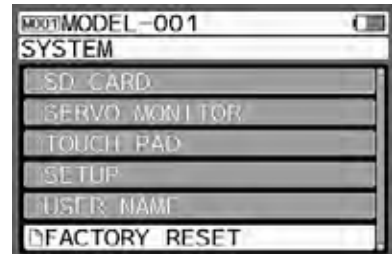
1) Select [SYSTEM] using touchpad and decide by enter operation.

2) Select [FACTORY-RESET] using touchpad and decide by enter operation.

3) When you perform the enter operation, a message will be displayed on the screen, please follow the message displayed to reset.
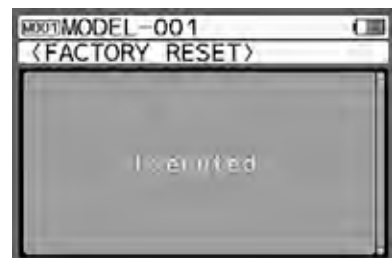

ENTER ↓   ⇧ BACK

ENTER ↓   ⇧ BACK

①Confirmation screen

・NO →FACTORY RESET selection screen
・YES→Factory reset execution ②

②Executing reset

⚠ **Warning**   ● Please be aware that all model data will be erased when performing Factory Reset. As a precaution we recommend that you save the model data on an SD card before performing a factory reset.

Assign Function List

Screen	Function name
OFF	--- (No Function Assigned)
TRIM-ST	Steering Trim
TRIM-TH	Throttle Trim
TRIM-A1	AUX1 Trim
TRIM-A2	AUX2 Trim
D/R-ST	Steering Dual Rate
D/R-TH	Throttle Dual Rate
D/R-BR	Brake Dual Rate
D/R-A1H	AUX 1 Hi Dual Rate
D/R-A1L	AUX 1 Lo Dual Rate
D/R-A2H	AUX 2 Hi Dual Rate
SPD-ST-FWD	Steering Speed Forward
SPD-ST-RTN	Steering Speed Return
SPD-ST-PNT	Steering Speed Point
SPD-TH-FWD	Throttle Speed Forward
SPD-TH-RTN	Throttle Speed Return
SPD-TH-PNT	Throttle Speed Point
SPD-BR-FWD	Brake Speed Forward
SPD-BR-RTN	Brake Speed Return
SPD-BR-PNT	Brake Speed Point
SPD-A1-FWD	AUX 1 Speed Forward
SPD-A1-RTN	AUX 1 Speed Return
SPD-A1-PNT	AUX 1 Speed Point
SPD-A2-FWD	AUX 2 Speed Forward
SPD-A2-RTN	AUX 2 Speed Return
SPD-A2-PNT	AUX 2 Speed Point
CRV-ST-RATE	Steering Curve Rate
CRV-ST-PNT	Steering Curve Point
CRV-TH-RATE	Throttle Curve Rate
CRV-TH-PNT	Throttle Curve Point
CRV-BR-RATE	Brake Curve Rate
CRV-BR-PNT	Brake Curve Point
CRV-A1-RATE	AUX 1 Curve Rate
CRV-A1-PNT	AUX 1 Curve Point
CRV-A2-RATE	AUX 2 Curve Rate
CRV-A2-PNT	AUX 2 Curve Point
ALB-POINT	Anti Lock Brake Point
ALB-STROKE	Anti Lock Brake Stroke
ALB-LAG	Anti Lock Brake Lag
ALB-CYCLE	Anti Lock Brake Cycle
ALB-DUTY	Anti Lock Brake Duty
OFFSET-PNT	Offset Point
CM1-RATE1	Compensation Mixinging 1 Rate 1
CM1-RATE2	Compensation Mixinging 1 Rate 2
CM1-OFFSET	Compensation Mixinging 1 Offset
CM2-RATE1	Compensation Mixinging 2 Rate 1
CM2-RATE2	Compensation Mixinging 2 Rate 2
CM2-OFFSET	Compensation Mixinging 2 Offset
CM3-RATE1	Compensation Mixinging 3 Rate 1
CM3-RATE2	Compensation Mixinging 3 Rate 2
CM3-OFFSET	Compensation Mixinging 3 Offset
CM4-RATE1	Compensation Mixinging 4 Rate 1
CM4-RATE2	Compensation Mixinging 4 Rate 4
CM4-OFFSET	Compensation Mixinging 4 Offset
CM5-RATE1	Compensation Mixinging 5 Rate 1
CM5-RATE2	Compensation Mixinging 5 Rate 2
CM5-OFFSET	Compensation Mixinging 5 Offset

Screen	Function name
AUX1	AUX1
AUX2	AUX2
AUX1-ACKER	AUX 1 Ackerman
AUX1-D/R	AUX 1 Ackerman Dual Rate
AUX1-LEFT	AUX 1 Ackerman Left
AUX1-RIGHT	AUX 1 Ackerman Right
AUX1-CENT	AUX 1 Ackerman Center
AUX1-TOE	AUX 1 Ackerman Toe
AUX2-ACKER	AUX 2 Ackerman
AUX2-D/R	AUX 2 Ackerman Dual Rate
AUX2-LEFT	AUX 2 Ackerman Left
AUX2-RIGHT	AUX 2 Ackerman Right
AUX2-CENT	AUX 2 Ackerman Center
AUX2-TOE	AUX 2 Ackerman Toe
AUX1-FLAP	AUX 1 Flap
AUX1-TH-FL	AUX 1 Throttle Flap
AUX2-FLAP	AUX 2 Flap
AUX2-TH-FL	AUX 2 Throttle Flap
AUX1-CODE1	AUX 1 Code 1
AUX1-CODE2	AUX 1 Code 2
AUX1-CODE3	AUX 1 Code 3
AUX1-CODE4	AUX 1 Code 4
AUX1-CODE5	AUX 1 Code 5
AUX1-CODE6	AUX 1 Code 6
AUX1-CODE7	AUX 1 Code 7
AUX1-CODE8	AUX 1 Code 8
AUX1-CODE9	AUX 1 Code 9
AUX1-CODE10	AUX 1 Code 10
AUX2-CODE1	AUX 2 Code 1
AUX2-CODE2	AUX 2 Code 2
AUX2-CODE3	AUX 2 Code 3
AUX2-CODE4	AUX 2 Code 4
AUX2-CODE5	AUX 2 Code 5
AUX2-CODE6	AUX 2 Code 6
AUX2-CODE7	AUX 2 Code 7
AUX2-CODE8	AUX 2 Code 8
AUX2-CODE9	AUX 2 Code 9
AUX2-CODE10	AUX 2 Code 10
R-MODE	Racing Mode
ALB-SW	Anti Lock Brake Switch
OFFSET-SW	Offset Switch
CM1-SW	Compensation Mixing 1 Switch
CM2-SW	Compensation Mixing 2 Switch
CM3-SW	Compensation Mixing 3 Switch
CM4-SW	Compensation Mixing 4 Switch
CM5-SW	Compensation Mixing 5 Switch
LAP-SW	Lap Timing Switch
INT1-SW	Interval Time 1 Switch
INT2-SW	Interval Time 2 Switch
DOWN-SW	Down Timing Switch
CUSTOM	Custom
VOICE-REQ	Voice Request
CURSOR	Cursor
ENTER/BACK	Enter / Back
SELECT	Select
INC/DEC	Increase / Decrease (Plus / Minus)

INDEX

INDEX

Trouble Shooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
Transmitter does not power on.	Battery voltage too low.	Please charge the battery. (P. 7)
Sometimes power off unexpectedly.	Battery connector bad contact.	Please contact Sanwa service.
Alarm sound continuosuly.	Battery connector bad contact.	Please charge the battery. (P. 7)
There is no sound when operating one of the keys.	The KEY-CLICK volume is set to OFF (0) in SOUND setting.	Please check the SOUND function (P. 89)
Servo speed is slow.	The setting is negative with SPEED (speed) function.	Please check the SPEED (speed) function (P.25 - 27)
	Receiver battery voltage is too low.	Please charge or replace with a charged battery.
	The loading on the servo linkage in the car is too high.	Please check servo linkage in the car is smooth.
Lap timer or internval timer does not work.	The timer function is OFF.	Turn on the timer function. (P.54 - 59)
The left and right travel angle of servo does not match.	Neutral position of servo is not adjusted properly.	Please adjust the Trim and EPA. (P.35, 37, 38)
The servo linkage bind.	D/R or EPA travel angle setting is too high.	Please adjust setting value to 100% or lower. (P.24, 35-37)
Servo does not move when using Trim Switch.	Trim is outside of operational range.	Center Trim Switches to '0', center the servo horn and control linkages. (P. 38)
Inadequate transmitting range.	Low transmitter battery voltage.	Replace or recharge transmitter battery. (P. 7)
	Low receiver battery voltage.	Replace or recharge receiver batteries.
	Receiver antenna not mounted correctly.	Mount receiver antenna as recommended.

SERVICE AND SUPPORT

This is warranted against manufacture defects in materials and workmanship, at the original data of purchase. This warranty does not cover components worn by use or damage caused by improper voltage, tempering, modification, misuse, abuse, improper writing, reverse polarity, moisture or using outside its intended scope of use.

Terms of this warranty can vary by region. Please read the warranty card included with your radio control system for specific warranty information.

If you require further help that cannot be solved using The Trouble shooting Guide, or if you have technical questions, please contact SANWA distributor in your region.

For a complete list of distributors in your region, please visit www.sanwa-denshi.com/rc/distributors.html.

Factory Service:
Sanwa Electronic Instrument CO., LTD.

1-2-50 Yoshida-Honmachi
Higashiosaka, Osaka, 578-0982 Japan
Telephone: +81-729-62-1277
Fax: +81-729-64-2831
E-mail: rcintl@sanwa-denshi.co.jp

Product features and specifications can vary by region. Not all products are legal for use in all regions.

FCC COMPLIANCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the operating instructions, may cause harmful
interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment OFF and ON, the user is encouraged to try to correct
the interference by one or more of the following measures:
 • Reorient or relocate the receiving antenna.
 • Increase the separation between the equipment and the receiver.
 • Connect the equipment into an outlet on a circuit different from that to
    which the receiver is connected.
 • Consult the dealer or an experienced technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
1) This device may not cause harmful interference, and....
2) This device must accept any interference received, including interference that may cause undesired operation

⚠ Changes or modifications made to this equipment not expressly approved by SANWA
    may void the FCC authorization to operate this equipment.

RF Exposure Statement:
This transmitter has been tested and meets the FCC RF exposure guidelines when used with the SANWA accessories supplied or designated for this product.