

KO PROPO[®]
Digital Proportional System



EX-10 EURUS

Instruction manual

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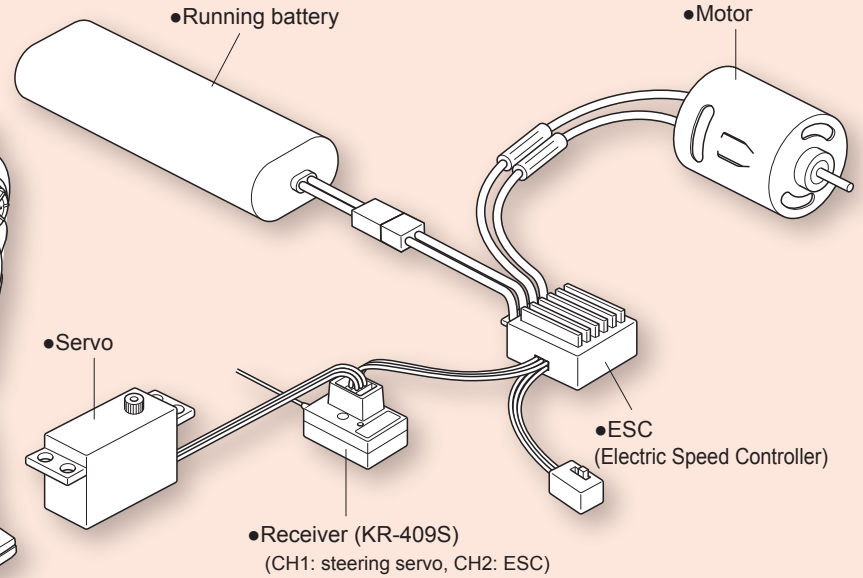
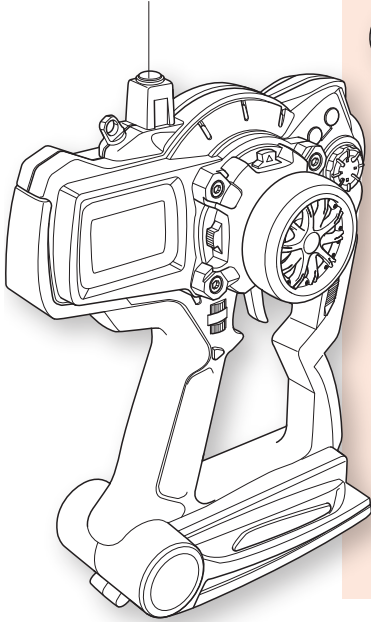
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Receiver installation



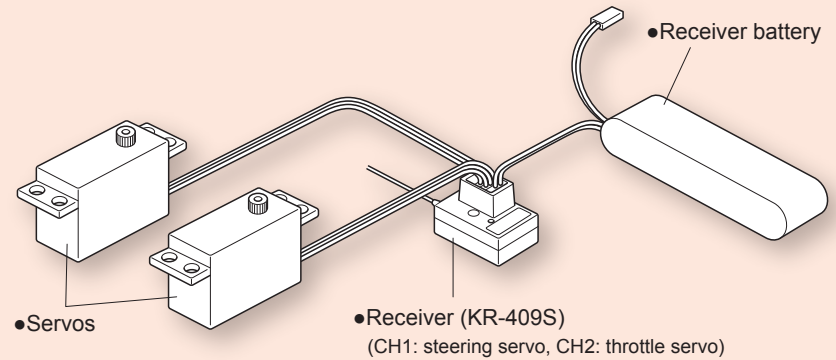
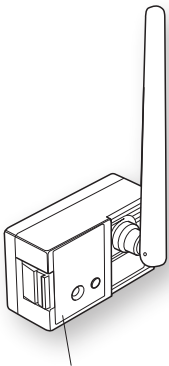
For electric cars

• Transmitter (EX-10 eurus)



For gas cars

• Module (RF-902S)




Caution! When using units not included in the set, be sure to use only compatible products.
Please refer to our website for details (www.kopropro.co.jp)

■ For safe operation

■ Read carefully and fully understand the following instructions for safety use.

With the nature of radio controlled model, improper usage may result in serious accidents. In order to avoid these circumstances, please read following contents before use. We cannot be held responsible for problems encountered when not complying with these cautions and notices.

 **Warning!** Failure to observe the matter discussed in such an item poses a serious threat of death or severe injury.

 **Caution!** Failure to observe the matter discussed in such an item poses a possibility of injury or damage to the equipment or property.

Caution when installing units

 **Warning!**
Prohibited matters

- Make sure metal parts do not come in direct contact to model (chassis/ship hull) by vibration.
Noise of metal parts may result in malfunction of receiver, and the model may run out of control.
- Do not cut nor bundle receiver antenna with other cables.
It may result in decreasing the sensitivity of receiver and may result in the model running out of control.
- Note polarity when installing batteries to transmitter and receiver.
It may damage R/C units.

 **Warning!**
Enforcement matters

- Be sure to connect receiver, servo and switch connectors correctly.
If connections are loosened by vibration, the model may run out of control.
- Attach receiver using thick double-sided tape to avoid direct contact with other parts.
Strong shock and vibration may result in the model running out of control.
- Operate servo to check that there are no unnecessary forces onto the push rod.
It may damage the servo or increase the consumption of batteries.
- Make sure to use rubber grommet to attach servo and be sure that the servo is not touching mechanism plate directly.
The vibration may damage the servo and the model may run out of control.
- Use genuine KO transmitter, receiver, servo, speed controller and optional parts.
We cannot be held responsible for problems encountered when using with other maker's products.

Notes on driving

 **Warning!**
Prohibited matters

- Do not use in thunderstorms.
There is possibility of lightning striking the antenna.
- Do not use in the rain or in a location where water might get in.
The unit may become wet in and run out of control.
- Do not use in the following places.
 1. Near to other radio control circuits (within 3km).
 2. Near to people or on the street.
 3. Near electric wires or communication facilities.In the case of the model running out of control, dangerous situations will occur.
- Do not run the model when you experience difficulties in concentration through tiredness, alcohol or medication.
The miss-judgment may result in accidents.

 **Warning!**
Prohibited matters

- Do not allow fuel or exhaust to touch plastic parts. It may attack plastic.

 **Warning!**
Enforcement matters

- Make sure that model memory is matched to the model currently running. Otherwise, it may cause car to run out of control.
- Make sure to stop engine (disconnect motor cables) before making function change.

 **Caution!**
Prohibited matters

- Do not touch engine, motor or speed controller immediately after running. They are hot and can cause burns.

 **Caution!**
Enforcement matters

- Always turn on the transmitter first, followed by the receiver. When turning off, turn off the receiver first, followed by the transmitter. If you don't follow the order, receiver may get interference and run out of control.
- Dismantling of transmitter is prohibited and it can be punished. Disassembly and modification of all units may cause accidents such as a short circuit. Also, repair service may not be accepted in this case.
- Do not use in aircraft, hospital or near electrical equipment such as fire alarm or medical equipment. It may cause malfunction and result in serious accidents. Turn off the transmitter immediately if it effects on other wireless or electric appliances.

Notes after driving

 **Warning!**
Enforcement matters

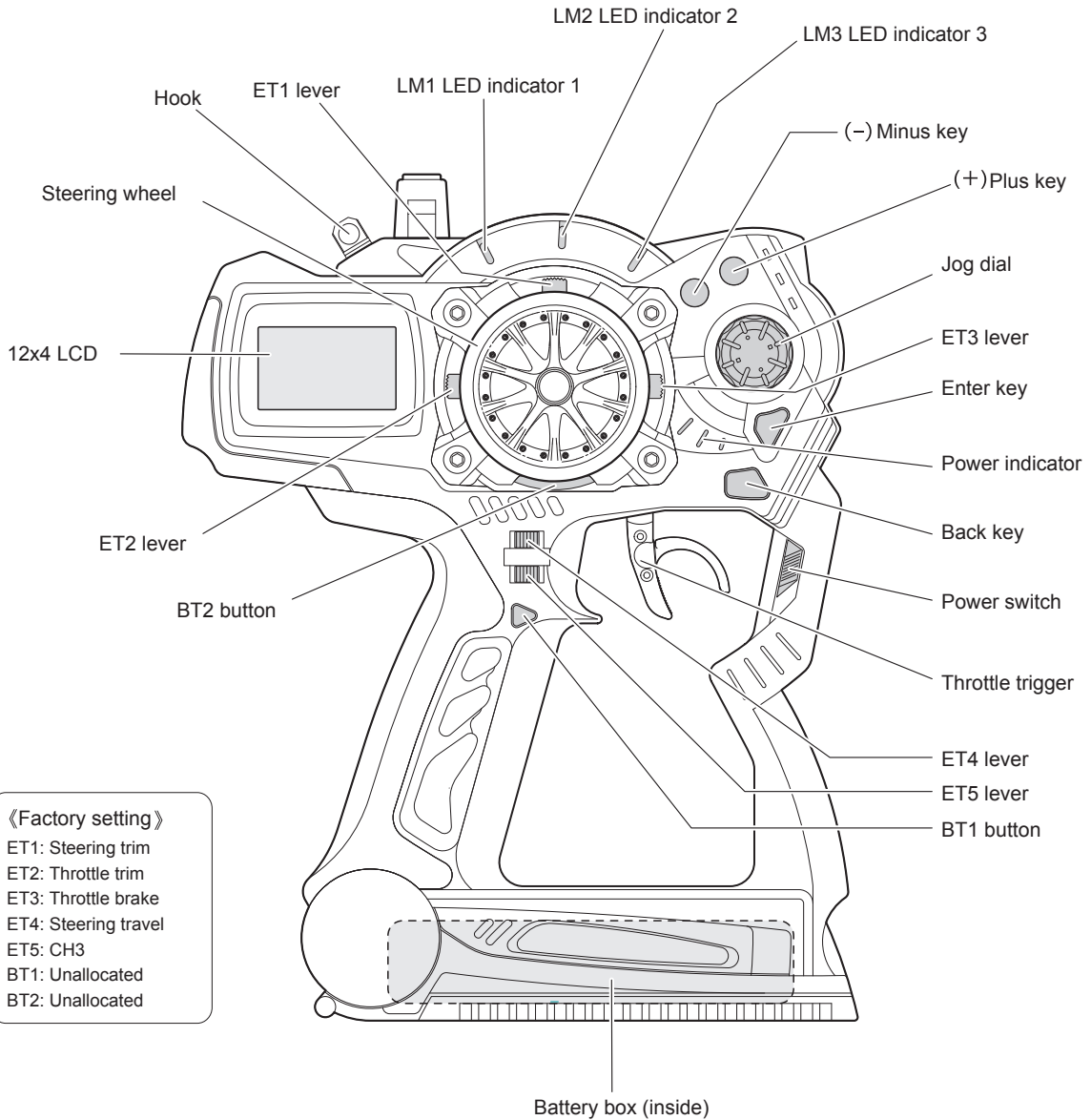
- When using with electric powered R/C car, make sure to remove batteries after running. If the power turns on accidentally, it may cause the model to run out of control or fire disaster.
- Keep transmitter, batteries and model out of reach of children. Chemical material may cause personal injury.

 **Caution!**
Enforcement matters

- Remove batteries from transmitter when not in use for a long time. If you leave batteries in the transmitter, leakage may damage transmitter.
- Avoid storing transmitter and receiver in the following places.
 1. Extremely hot or cold places (+40□ or -10□).
 2. Under direct sunlight.
 3. High humidity places.
 4. Vibration.
 5. Dusty places.If you store the unit under these circumstances, it may result in deformation or damage to the unit.

■ Name of parts

● Transmitter (front)



《Factory setting》

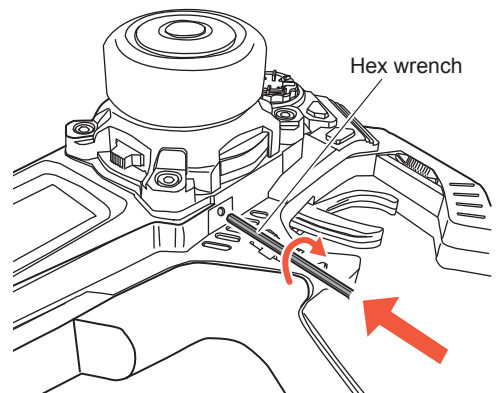
ET1: Steering trim
ET2: Throttle trim
ET3: Throttle brake
ET4: Steering travel
ET5: CH3
BT1: Unallocated
BT2: Unallocated

▶ Adjustment of steering tension

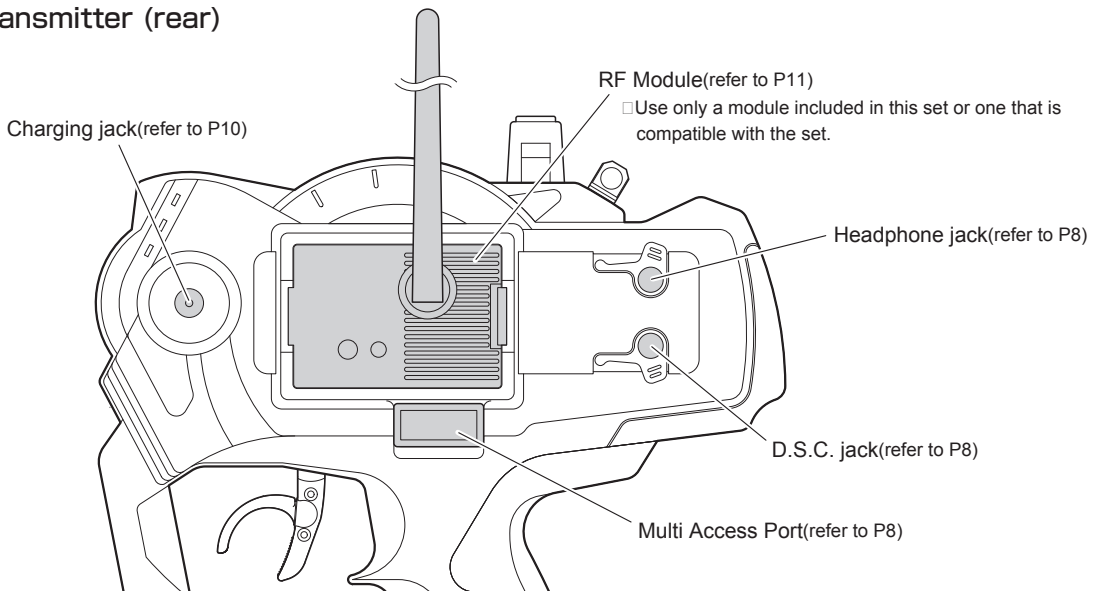
By changing spring damper in the steering wheel, steering tension can be adjusted.

《Tech tip》

Insert hex wrench (1.5mm) as shown and rotate it to the right (clockwise) for stronger tension. Rotate it to the left (counter-clockwise) for weaker tension.



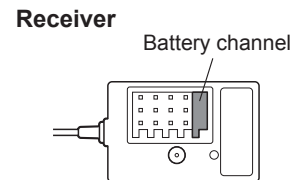
● Transmitter (rear)



□ D.S.C. jack

By connecting receiver and servo directly with transmitter using D.S.C. (Direct Servo Control), you can configure settings without transmitting radio wave in pit area or near R/C circuit (D.S.C. cable (optional available) required).

1. Turn off transmitter and remove rubber cover from D.S.C. jack. Connect D.S.C. cable (transmitter will be turned on automatically).
2. (For KR-409S receiver) Press both +/- keys to choose Digital mode (see P25).
(For PPM receivers) Choose response mode NORM, HSP or ADV (see P25).
3. Connect D.S.C. cable to battery channel in receiver.
Caution! Remove crystal from receiver before connecting.
4. Connect receiver with battery using the channel not employed (such as CH3).
5. Connect servo with receiver and set up.
6. Disconnect battery from receiver first, and then detach D.S.C. cable from transmitter.



□ Multi Access Port

Connecting Data Pack (optional available) or ICS Communication Adaptor/ICS USB Adaptor (optional available) using Multi Access Port will allow for more fine data management.

[Data Pack (optional available)] Extra 10 model memories are available (refer to P17).

[ICS Communication Adapter/ICS USB Adapter (optional available)]

Allows for fine data controlling using a PC.

□ Headphone jack

A jack for headphone/earphone (Φ3.5mm / separately available).

□ During headphone or earphone connected, beeps from transmitter are effective. Headphone jack is monaural output.

► Adjustment of steering wheel and throttle trigger

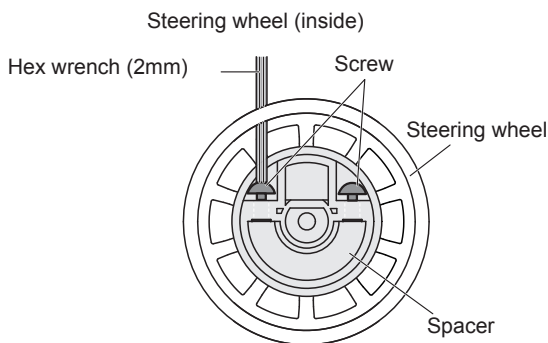
Steering wheel spacer

Reduces movable range of steering wheel.

Tech tip

1. Detach steering sponge from steering wheel.
2. Insert hex wrench (2mm) as shown. Tighten both right and left screws to adjust movable range.
3. Re-attach steering sponge.
4. Adjust steering angle using volume adjustment (see P26) to maintain maximum steering angle.

□ Initial setting: Tip of screw's face is flush with the inside of the spacer.



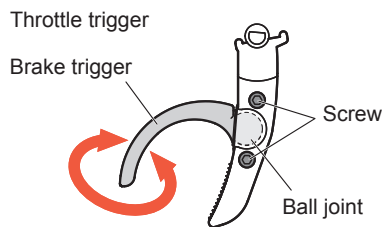
Multi-angle 3D adjustable trigger

Freely adjust brake and throttle trigger's position and angle.

Tech tip

1. Loosen screws using hex wrench (1.5mm).
2. Freely adjust brake trigger.
3. Tighten screws to fix brake trigger.

□ The trigger may be loosened by temperature, strong shock or after long use. To avoid the trigger loosened, gluing is also effective.



Steering wheel extension unit

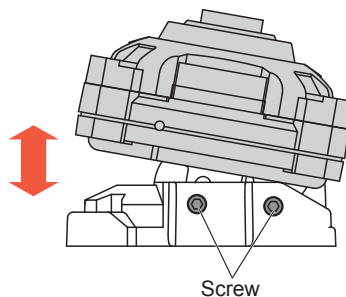
Mounting angle of steering wheel can be adjusted.

□ Attach on transmitter (refer to manual included in set for installation).

Tech tip

1. Loosen screws under steering wheel extension unit using hex wrench (3mm) as shown.
2. Adjust mounting angle.
3. Tighten screws to fix.

Steering wheel (under view)



■ Replacement of color pad and grip (option)

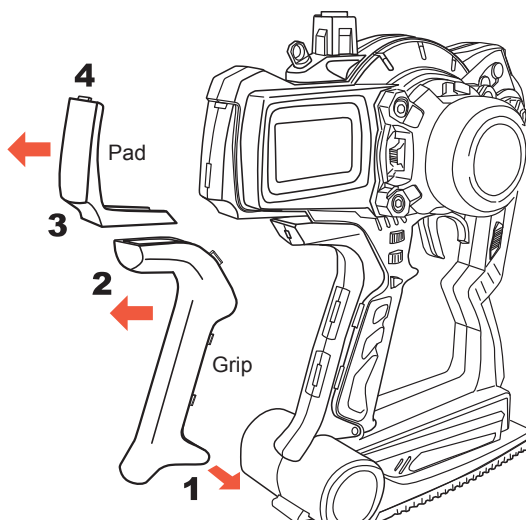
Color pad and grip are optional available.

Detachment

Extend grip end outward (1) and pull out (2). Pull out pad toward the arrowed direction (3), then detach tab (4).

Attachment

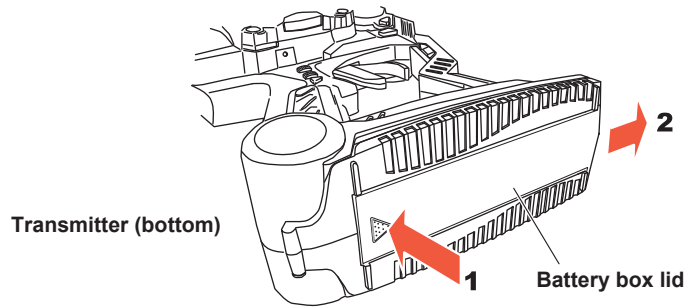
Attach pad and grip in the reverse procedures of detachment. Attach tab (4), then insert pad end (3). Attach grip by inserting tabs (2) and insert grip end (1).



Unit preparation

Battery installation

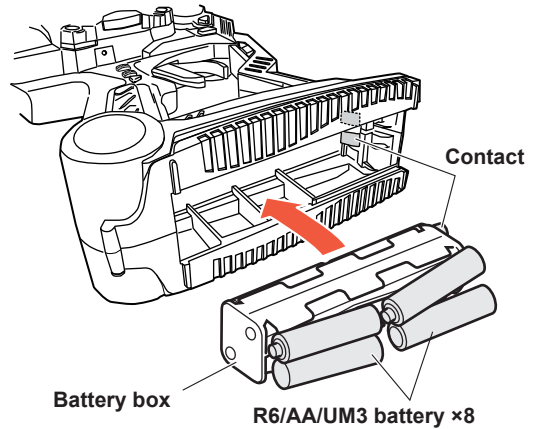
1. Slide battery box lid, pressing triangle on the lid.



2. Install R6/AA/UM3 batteries ×8 in the battery box. Note contact points.

Note polarity and use fresh batteries. Depleted batteries may deteriorate radio power and cause malfunction.

Caution! Do not use high voltage dry batteries (such as Lithium) because the voltage is too high and may damage the transmitter.



Battery Pack (optional available)

A chargeable battery pack (optional available)

Installation

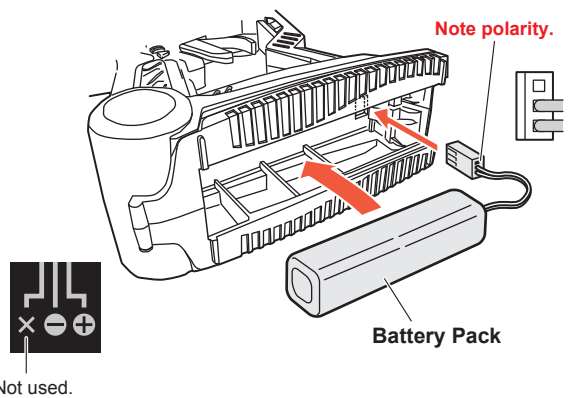
Connect battery cable and store it in transmitter.

Apply buffer sponge on battery box lid inside.

Caution!

Be sure not to miss polarity of battery pack.

Be sure to connect battery cable correctly when using battery pack other than KO genuine products. Always refer to the illustration in the manual before battery installation.



Charging

Connect KO genuine AC100V charger or DC12V quick charger with charging jack as shown.

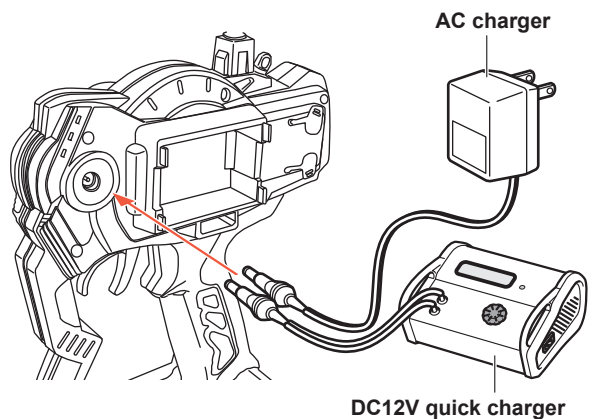
For AC100V charger, charge battery pack for 14-18 hours after discharged.

Caution! Never charge R6/AA/UM3 batteries through transmitter. It will occur leakage or burst, leading to serious damage of transmitter.

Caution! When discharging battery pack, always remove it from transmitter (do not discharge using charging jack).

Caution! Be careful that charging current does not exceed 1A.

Caution! Read carefully and fully understand instruction manual included in battery pack.



► Attachment and replacement of module

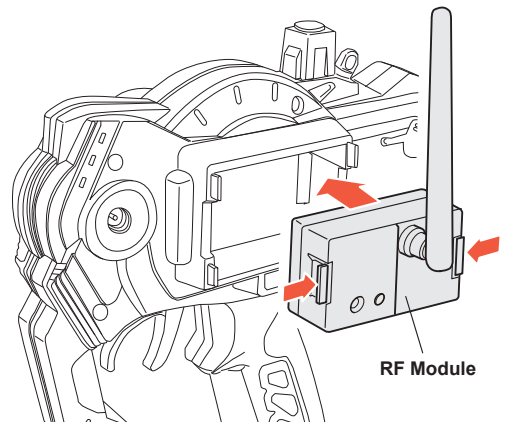
Attach module as shown. When detaching, press both side of tabs on the module and pull out module.

□ For frequency change (2.4GHz, 27MHz, 40MHz), replace module.

Caution! Turn off transmitter before module replacement.

Caution! Attach retractable antenna (optional available) when using frequency 27MHz or 40MHz.

Caution! Refer to instruction manual included in module.



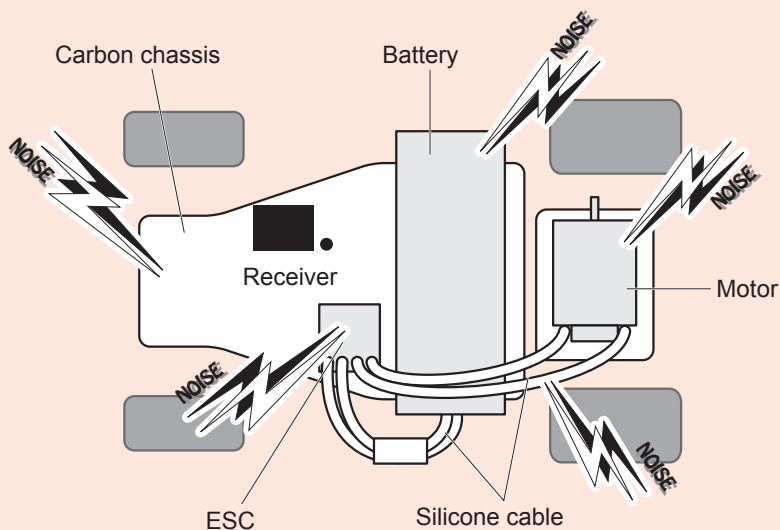
▣ Notes on installing receiver (anti-noise measures)

Keep antenna cable far away from noise source!

Be careful of noise!



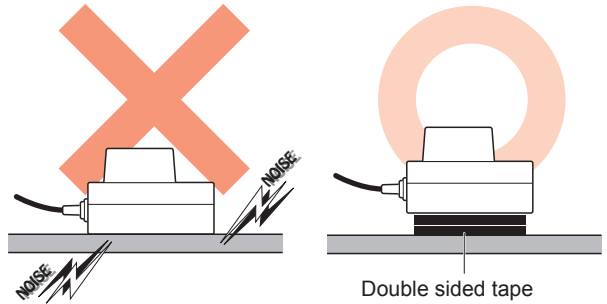
Assume that all areas where large currents are flowing are generating noise! Locate antenna cable and receiver as far away from the motor, ESC, silicone cables as possible (material such as metal or carbon chassis also conduct noise). R/C model is controlled by radio wave. Therefore, anti-noise measure is the most important factor. Take measures to ensure optimum performance of your R/C model and driving technique.



• Receiver installation on carbon chassis

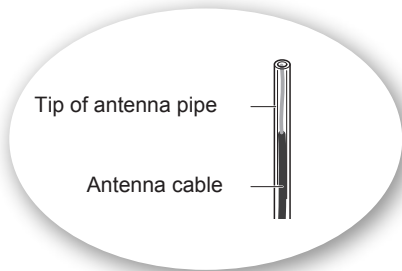
When fixing the receiver to the chassis or on the mechanism deck, use more than 2 layers of double-sided tape to avoid direct contact with chassis. Chassis and mechanism deck (especially carbon material) can also conduct noise. Making space between receiver with them is recommend to ensure protection against noise.

□ Note receiver's LED position when installing.

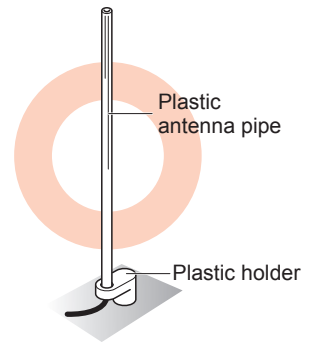
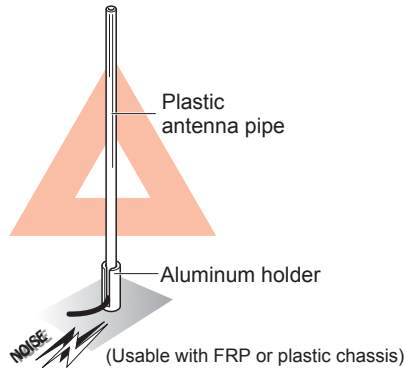
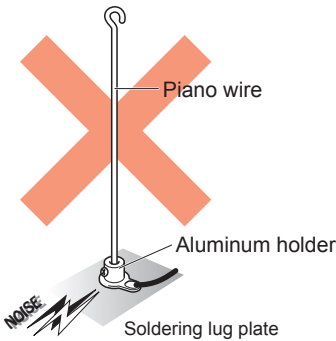
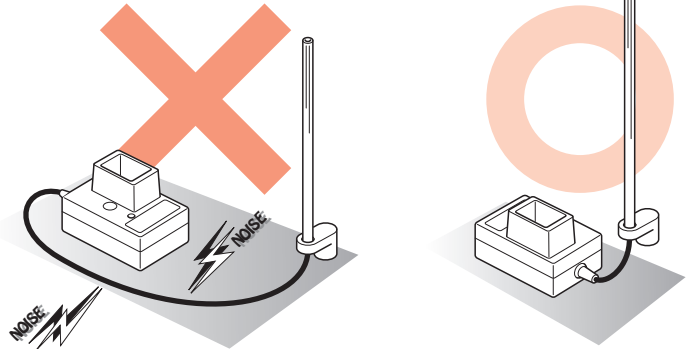


• Antenna installation

Raise antenna cable vertically and set as high as possible. Pass cable into antenna pipe to protect from damage. Make the tip of antenna cable aligned with antenna pipe end. Installing antenna holder far away from receiver may deteriorate radio sensitivity. Locate antenna holder as near to the receiver as possible. Make sure that the antenna cable does not come in direct contact with chassis, mechanism plate or other noise sources. Make sure to use plastic antenna pipe and mount. Do not use metal antenna mount as it easily conducts noise and may cause troubles.



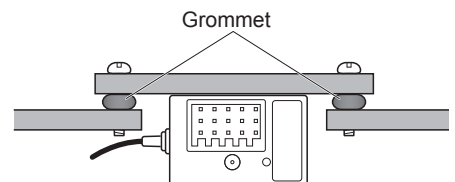
□ Do not cut or bundle antenna cable. (It may result in breaking of wire and deteriorate performance.)



• Attaching to a gas car

Engine vibration may damage the receiver. Make sure to attach grommet (receiver holder) to reduce vibration. Do not attach directly to chassis or mechanism plate using double-sided tape. The installation position should be as far as possible from heat from engine or exhaust.

□ Note receiver's LED position when installing.

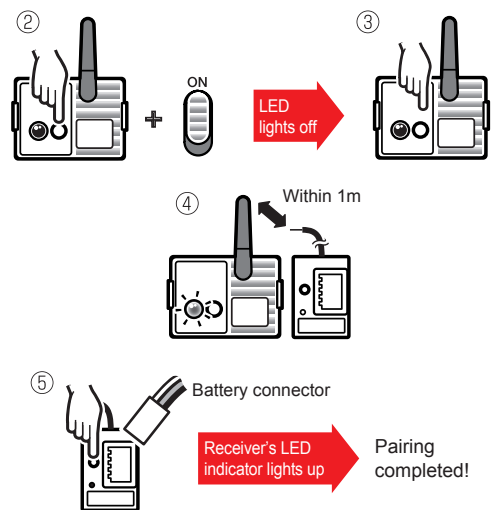


4 Installation and setting of R/C units

1. Install and connect receiver, servo and ESC (for electric car) to your R/C car.
Be careful and note the anti-noise measures (refer to P11).
 Read instruction manual included in servo and ESC carefully.
2. Install battery in transmitter and attach module (refer to P10-11). Then, install running battery for an electric car or install receiver battery for a gas car.
3. Register receiver to transmitter (pairing/see below).
 Before using a receiver for the first time, pairing is required.
If you several receivers for one transmitter, pair is also required for each receiver when used for the first time.
4. Adjust steering, throttle and brake (refer to P18-24).
5. Set fail-safe function (see below).
 If R/C model runs out of control (in case receiver loses radio wave from transmitter), the fail-safe function will keep throttle (CH2) to brake or neutral position for safety use.

How to pair

- 1 Attach module (RF-902S) to transmitter and raise antenna.
- 2 Keep pressing set button of the module and turn transmitter on (LED on module will light up).
- 3 After approx. 3 seconds, LED will light off. Then release set button (LED will be dim and ready for pairing).
- 4 Move receiver antenna close to transmitter (approx. within 1m).
- 5 Hold the set button of the receiver and turn the receiver power ON by either connecting the battery cable or turning on the ESC.
- 6 Release the set button and receiver's LED will be solid. Turn off the receiver and transmitter to save the pairing.



Operation check

Turn on transmitter and check if LED on module lights up. Then turn on receiver and check if receiver's LED lights up.

- Try pairing later or in another location if someone is pairing near by. WiFi and microwaves also affect pairing.

- Check operation by turning OFF the receiver, transmitter and then turning ON the transmitter and receiver.

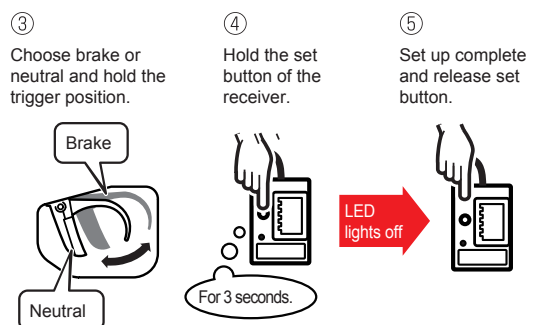
Setting fail-safe function

- 1 Turn on transmitter.
- 2 Turn on receiver. Check if servo operates correctly.
- 3 Keep throttle trigger in brake or neutral position.
- 4 Hold the set button on the receiver for 3 seconds.
- 5 After the receiver's LED indicator goes off, release the set button.

Operation check

Turn on transmitter and receiver. Then turn off transmitter and check if fail-safe function is effective.

- For safety use, please set fail-safe function.
 For gas car, reset fail-safe function if the brake linkage is changed. If not reset, the former setting will be used and may not be correct.



- Check operation by turning OFF the receiver, transmitter and then turning ON the transmitter and receiver.

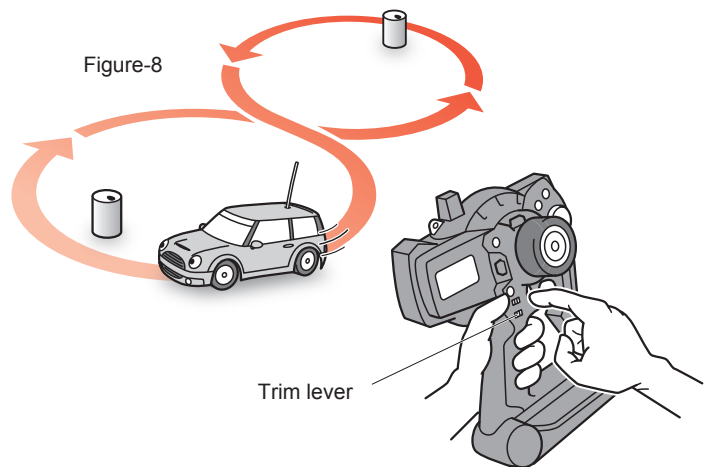
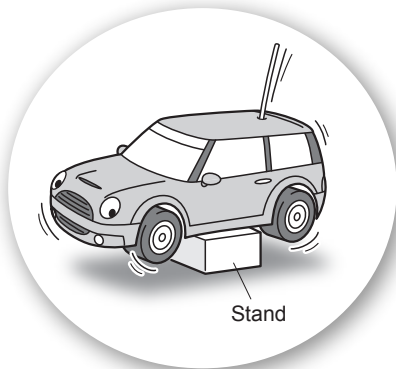
■ Procedure when running

1. Power on: Note surroundings and switch transmitter on, then switch receiver on.

- EX-10 eurus automatically finds unused frequency band after switching on. This function is called "carrier sense". To perform carrier sense effectively, switch the transmitter on around the running area as close as possible.

2. Checking model: Watch and check model to be used.

3. Checking movements: Raise wheels from ground and operate transmitter to check movements. Detail adjustment using steering/throttle trim lever should be done while running. Adjust steering balance by performing figure-8.



4. Power off: Turn OFF receiver, transmitter and remove car battery.

- Make sure to switch the transmitter on and off in an interval of at least 5 seconds.



Model menu

17

Model select	17
Model menu	17
Model copy	17
Model reset	17
Data pack format	17



Steering menu

18-20

Steering trim	18
Steering travel	18
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Steering sub trim	18
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Steering speed	19
Steering punch	19
Steering curve	19
Steering reverse	19
Dual rate	20



Throttle menu

21-24

Throttle trim	21
Throttle high point	21
Throttle brake	21
Throttle sub trim	21
Throttle trim rate	21
Throttle speed	22
Throttle punch	22
Throttle curve	22
Throttle reverse	22
Neutral brake	23
Auto start	23
ABS	23
Acceleration	24
Idling	24



Option menu

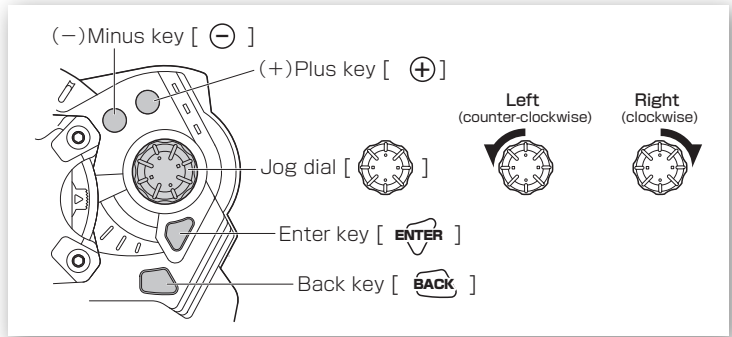
25-29

3CH · 4CH	25
Response	25
Input	26
Set up	26
Volume adjustment	26
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Stopwatch	29
Down timer	29

▶ Start menu

Start menu for each function setting.

Power ON!



01: [Ⓐ] 000000 [Ⓑ]
 BATT 12.5v [Ⓒ]
 EX-10 EURUS [Ⓓ]

[Start menu]

- Ⓐ: Current model memory' s number
- Ⓑ: Current model memory' s name
- Ⓒ: Voltage ※"LOW BATT" blinked when under 9.0V.
- Ⓓ: Optional function (refer to P27).



01: 000000
 BATT 12.5v
 >MD ST TH OP

[Model menu] (P.17)



>SELECT
 NAME
 COPY
 ModelMenu

Model control functions.
 The model indicates a program with proper settings for each condition.



01: 000000
 BATT 12.5v
 MD >ST TH OP

[Steering menu] (P.18~20)



>TRIM 0
 TRAVEL 100
 BALANCE >
 ST:|.....+

Steering control functions.



01: 000000
 BATT 12.5v
 MD ST >TH OP

[Throttle menu] (P.21~24)



>TRIM 0
 HPOINT F100
 BRAKE B100
 TH:|.....+

Throttle control functions.



01: 000000
 BATT 12.5v
 MD ST TH >OP

[Option menu] (P.25~29)



>CH3
 CH4
 RSP NORMAL
 OptionMenu

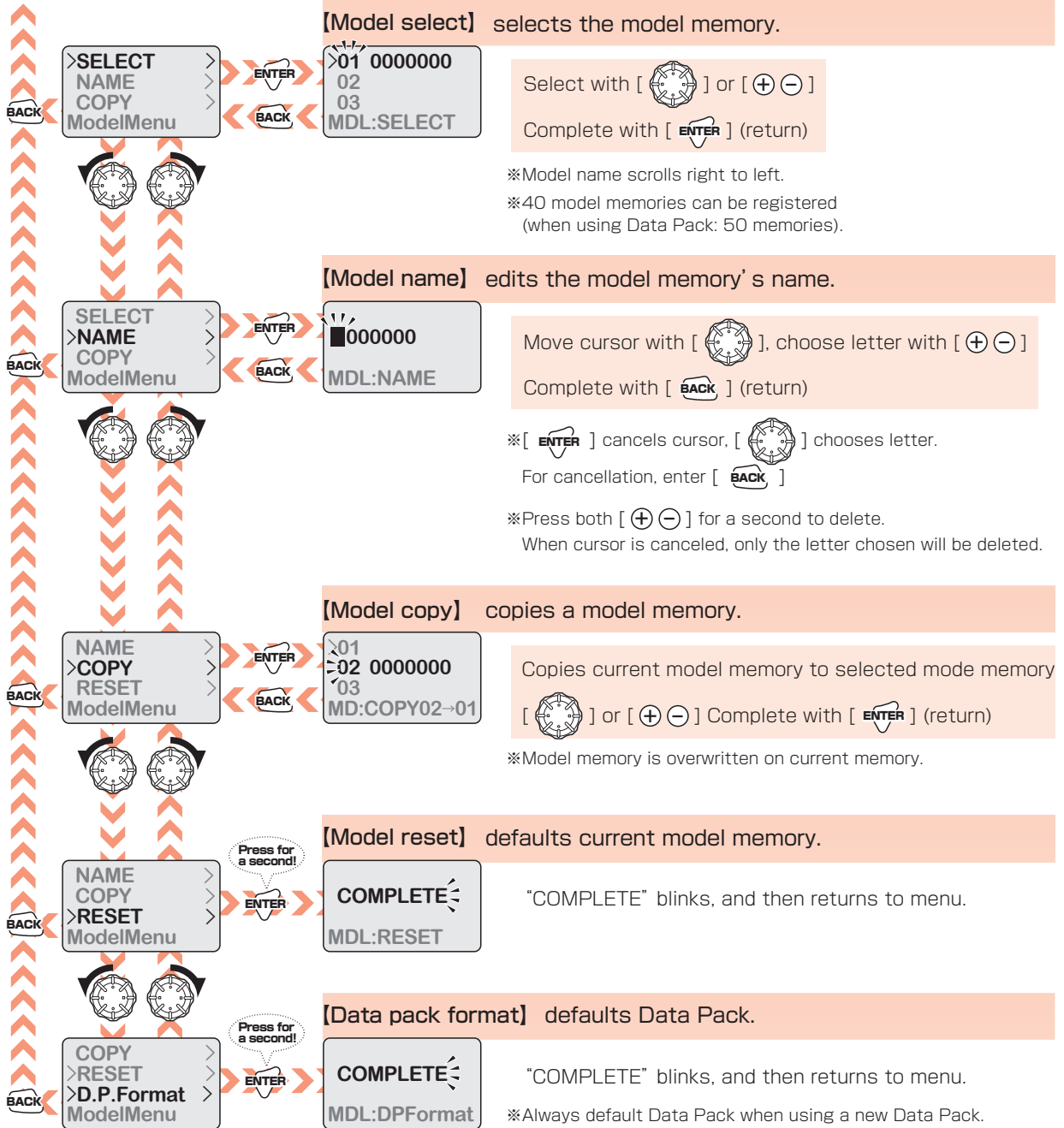
Other optional setting functions.



▶ Model menu

Model control functions. The model indicates a program with proper settings for each condition.

Start menu (P.16)



[Notes on using Data Pack (optional available)]

By employing Data Pack (optional available), extra 10 model memories are available in addition to inner 40 memories (model memories will be numbered from 41-50).

《Connecting Data Pack》

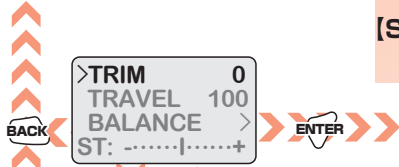
- Connect Data Pack with Multi Access Port (refer to P8).
- Be sure to attach/detach Data Pack while transmitter turned off.
- If the Data Pack is removed while the transmitter is turned on, alarm sounds and model menu switches to "model select". Choose inner model memory (1-40) immediately.



Steering menu

Steering control functions.

Start menu (P.16)

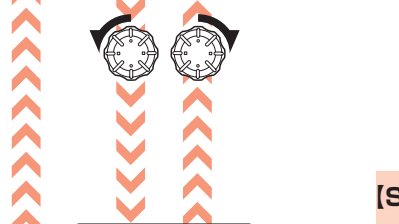


[Steering trim] sets neutral position (L50~0~R50)

Set with [] or [+ -]

Complete with [] (return)

To reset values press both [+ -] for a second



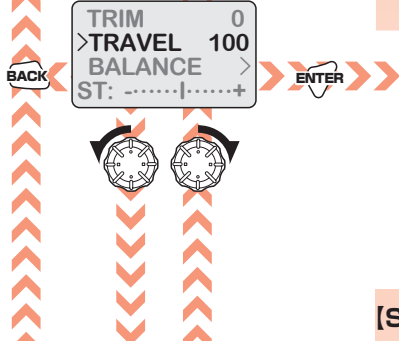
[Steering travel] sets left and right movable angles (0~150)

Set with [] or [+ -]

Complete with [] (return)

To reset values press both [+ -] for a second

※Also refer to **[Dual rate (P20)]**



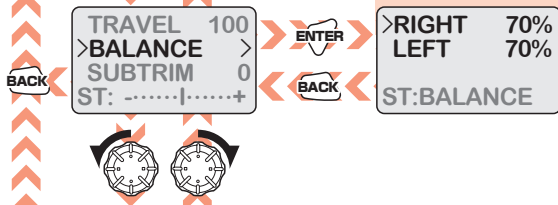
[Steering balance] sets left and right maximum movable angles >40~100%

Choose left or right with [], set with [+ -]

To reset values press both [+ -] for a second

※% here indicates the ratio against movable angles set at **[Steering travel]** .

※Also refer to **[Dual rate (P20)]**



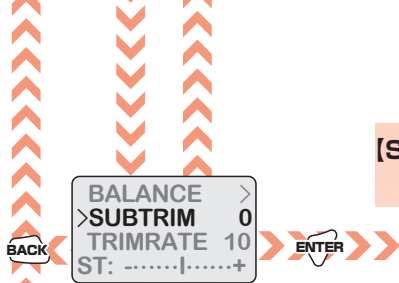
[Steering sub trim] adjusts neutral position by shifting steering movable range (L80~0~R80)

Set with [] or [+ -]

Complete with [] (return)

To reset values press both [+ -] for a second

To reset values press both [+ -] for a second

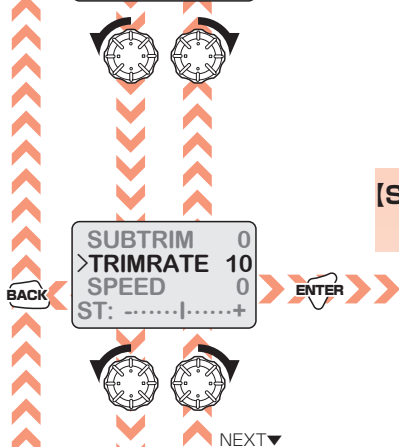


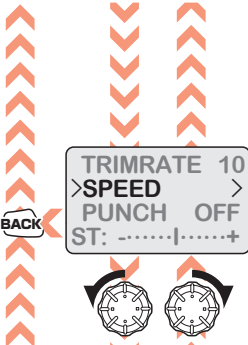
[Steering trim rate] changes sensitivity of steering trim (1~10)

Set with [] or [+ -]

Complete with [] (return)

To reset values press both [+ -] for a second





[Steering speed]

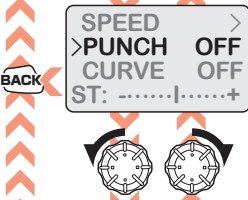
sets servo's working speed.
 >T.Pos / R.Pos : 1~100%
 >Turn / Return : 1 (slow)~100 (quick)

>T.Pos	50%
Turn1	100
Turn2	100
R.Pos	50%
Return1	100
Return2	100
ST:SPEED	

This function allows for steering speed adjustment in first part (Turn1/Return1) and later part (Turn2/Return2) separately. Timing of switching first/later part also can be adjusted (T.Pos/R.Pos).

Choose with [], set with [+ -]

To reset values press both [+ -] for a second
 ※Setting effect varies according to [Response (P25)].



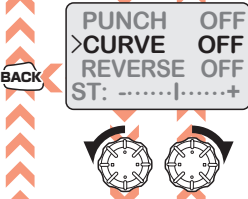
[Steering punch]

sets steering output from 1% (right and left) position from center (OFF ~80%)

Set with [] or [+ -]

Complete with [ENTER] (return)

To reset values press both [+ -] for a second



[Steering curve]

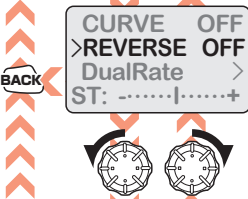
sets change ratio of steering speed (-100%~ OFF ~+100%)

-100% : first part (slow) / later part (quick)
 +100% : first part (quick) / later part (slow)

Set with [] or [+ -]

Complete with [ENTER] (return)

To reset values press both [+ -] for a second

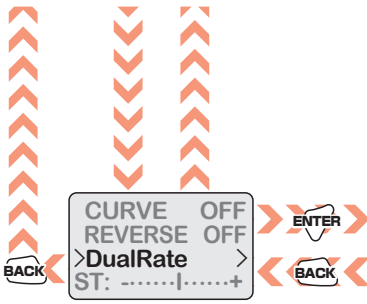


[Steering reverse]

changes the direction of servo movement (OFF, ON)

(Example) Direction of steering and servo is opposite due to servo installation.

Set with [+ -] or [ENTER]



[Dual rate]

changes steering travel and balance while running.

>KEY	OFF
>BUTTON	TGLE
>TRAVEL	100
>BLC.L	70%
>BLC.R	70%
ST: DualRate	

>KEY (allocates function key) : OFF, ET1 ~ 5, BT1, BT2

>BUTTON :

TGLE (switches [dual rate] by pressing function key),

PUSH ([dual rate] is effective during holding function key)

>TRAVEL : 0 ~ 150

>BLC.L (for left balance) : 40 ~ 100%

>BLC.R (for right balance) : 40 ~ 100%

(Example) Straight (smaller TRAVEL), low speed corner (larger TRAVEL).

Choose with [], set with [ ]

To reset values press both [ ] for a second

※ Press or hold function key while running.

※ Also refer to **[Steering travel (P18)]**
and **[Steering balance (P18)]** .



▶ Throttle menu


Throttle control functions.

Start menu (P.16)



[Throttle trim] sets throttle output in neutral position (B(reverse)50~0~F(forward)50)

Set with [] or [+ -]

Complete with [] (return)

To reset values press both [+ -] for a second

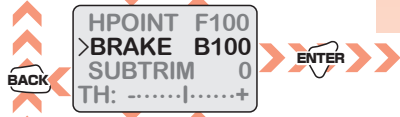


[Throttle high point] sets maximum throttle output (forward) in the highest throttle point (FO~F150)

Set with [] or [+ -]


Complete with [] (return)

To reset values press both [+ -] for a second



[Throttle brake] sets maximum reverse output (BO~B150)

Set with [] or [+ -]


Complete with [] (return)

To reset values press both [+ -] for a second



[Throttle sub trim] adjusts neutral position by shifting throttle range (B80~0~F80)

Set with [] or [+ -]

Complete with [] (return)

To reset values press both [+ -] for a second



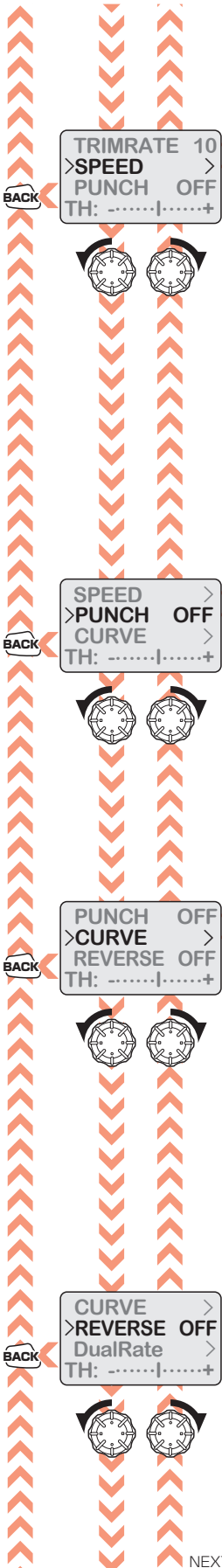
[Throttle trim rate] changes sensitivity of throttle trim (1~10)

Set with [] or [+ -]

Complete with [] (return)

To reset values press both [+ -] for a second

NEXT ▼



[Throttle speed] sets throttle response (forward).
 >Tr.L→M 30%
 >Tr.M→H 80%
 >TurnL 100
 TurnM 100
 TurnH 100
 Rt.H→M 80%
 Rt.M→L 30%
 ReturnH 100
 ReturnM 100
 ReturnL 100
 TH:SPEED

This function allows for throttle response adjustment (forward) in slow range (TurnL/ReturnL), mid range (TurnM/ReturnM) and high range (TurnH/ReturnH) independently. Switching point (Tr.L→M/ Rt.M→L) and (Tr.M→H/ Rt.M→H) are also adjustable. (Turn: acceleration, Return: deceleration)

Choose with [], set with [+ -]

To reset values press both [+ -] for a second

[Throttle punch] adjust throttle response around neutral position.
 >FWD BACK OFF OFF
 TH:PUNCH

Choose with [], set with [+ -]

To reset values press both [+ -] for a second

[Throttle curve] sets change ratio of throttle speed.
 >FWD BACK OFF OFF
 TH:CURVE

-100% : first part (slow) / later part (quick)
 +100% : first part (quick) / later part (slow)

Choose with [], set with [+ -]

To reset values press both [+ -] for a second

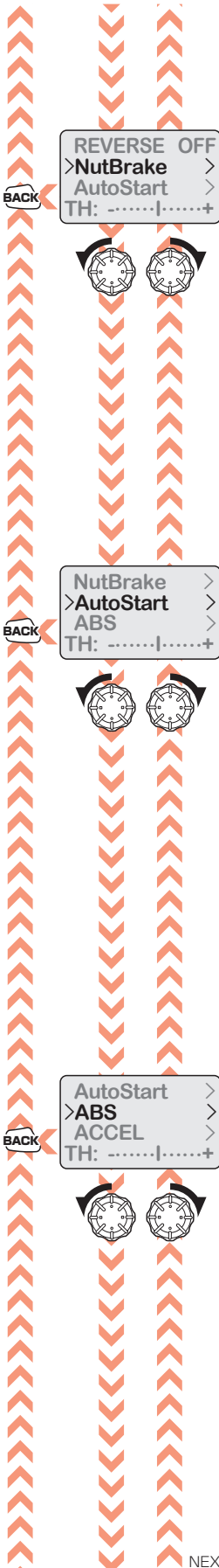
※[Throttle punch] and [Throttle curve] have synergistic effect.

[Throttle reverse] changes the direction of throttle movement (OFF, ON)

(Example) Direction of throttle and servo is opposite due to servo installation.

Set with [+ -] or []

NEXT ▾



[Neutral brake] sets brake effect in neutral position.

- >KEY (allocates function key) : OFF, ET1~5, BT1, BT2
- >BUTTON :
 - TGLE (switches [Neutral brake] by pressing function key),
 - PUSH ([Neutral brake] is effective during holding function key)
- >BRAKE (brake effect) : OFF ~50%

Example Brake can be applied like a real car's engine braking.

Choose with [], set with []

To reset values press both [] for a second

※ Press or hold function key while running.

[Auto start] applies preset output when throttle trigger reaches to preset position.

- >KEY (allocates function key) : OFF, ET1~5, BT1, BT2
- >TRG.P (sets trigger position of [Auto start] applied) : OFF, 5~100%
- >FWD (sets throttle output) : OFF ~100%

Example Effective in a situation such as rocket start.

Choose with [], set with []

To reset values press both [] for a second

※ Press or hold function key while running.

※ [Auto start] will be canceled when releasing throttle trigger.

[ABS] applies pumping brake after brake trigger reaches to preset position.

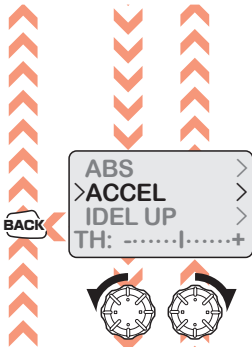
- >WIDTH (sets brake effect) : OFF ~100%
- >TRG.P B (sets trigger position of [ABS] applied) : 5~100%
- >CYCLE (sets pumping speed) : 1~30
- >DLAY (sets timing [ABS] applied after brake trigger reaches to preset position) : 1~100
- >DUTY (sets pump braking effect) : 10~90%

Example Brake can be applied like a real car's ABS.

Choose with [], set with []

To reset values press both [] for a second

NEXT ▼



[Acceleration] increases throttle by pumping while throttle trigger is in preset range.

- >WIDTH OFF
- >TRG.L F 5%
- >TRG.H F 50%
- >CYCLE 28
- TH:ABS

(Example) Increases throttle automatically to avoid deceleration.

Choose with [], set with [+ -]

To reset values press both [+ -] for a second



[Idling] adjusts throttle output in neutral position.

- >KEY OFF
- >BUTTON PUSH
- >C.TRM OFF
- TH:IDEL UP

(Example) Effective for a gas car when fueling.

Choose with [], set with [+ -]

To reset values press both [+ -] for a second

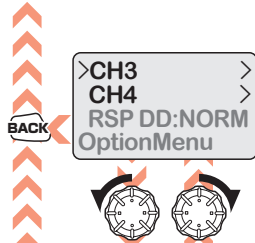
※Press or hold function key while fueling.



Option menu

Other optional setting functions.

Start menu (P.16)



[CH3, CH4]

```

>TYPE      PUSH
SUBTRIM    0
REVERSE    OFF
POS1       -100%
POS2        0%
POS3       +100%
POS4        0%
POS5        0%
C3:  -.....|.....+
  
```

settings for 3 and 4 channel radio control.

>TYPE :

PUSH(*1), 2~5WAY (switches POS by pressing), STmix (for steering mixing *2), THmix (for throttle mixing *2)

>SUBTRIM : -80~ OFF ~+80

>REVERSE : OFF, ON

>POS1~5 (*3) :-100~ OFF ~+100

- *1. POS2 and POS3 will be applied during holding function key allocated with "3.POS". POS1 will be applied while not holding "3.POS". If BT key is allocated, press BT key to apply POS2.
- *2. STmix adjusts neutral position.
- *3. When STmix is applied, LCD indicates RIGHT, TRIM and LEFT. When THmix is applied, LCD indicates BRAKE, TRIM and HPOINT.

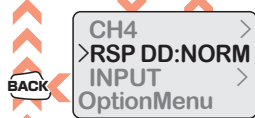
Choose with [], set with [+ -]

To reset values press both [+ -] for a second

- *If setting is changed during TYPE: PUSH and/or 2-5WAY, POS1 will be applied.
- *Before allocating function key (refer to [Set up] in P26) and TYPE: PUSH and/or 2-5WAY is applied, neutral pulse is generated. Please be careful when installing servo.

Mixing (STmix / THmix)

1. Set [Response] in DD:NORM or PP:NORM.
2. Set THmix (OP>CH3>TYPE). Throttle trigger mixing will be applied.
3. Set CH3 (OP>CH3>SUBTRIM).
4. Set maximum brake output of throttle trigger (OP>CH3>BRAKE).
5. Set neutral output of throttle trigger (OP>CH3>TRIM). (Keep TRIM between BRAKE and HPOINT.)
6. Set maximum throttle output (forward) of throttle trigger (OP>CH3>HPOINT).
7. Set neutral output of throttle trigger (OP>CH3>TRIM). (Keep TRIM between BRAKE and HPOINT.)



[Response]

chooses response mode. (NORM, HSP, ADV, Mini-z, Digital)

Choose with [], set with [+ -]

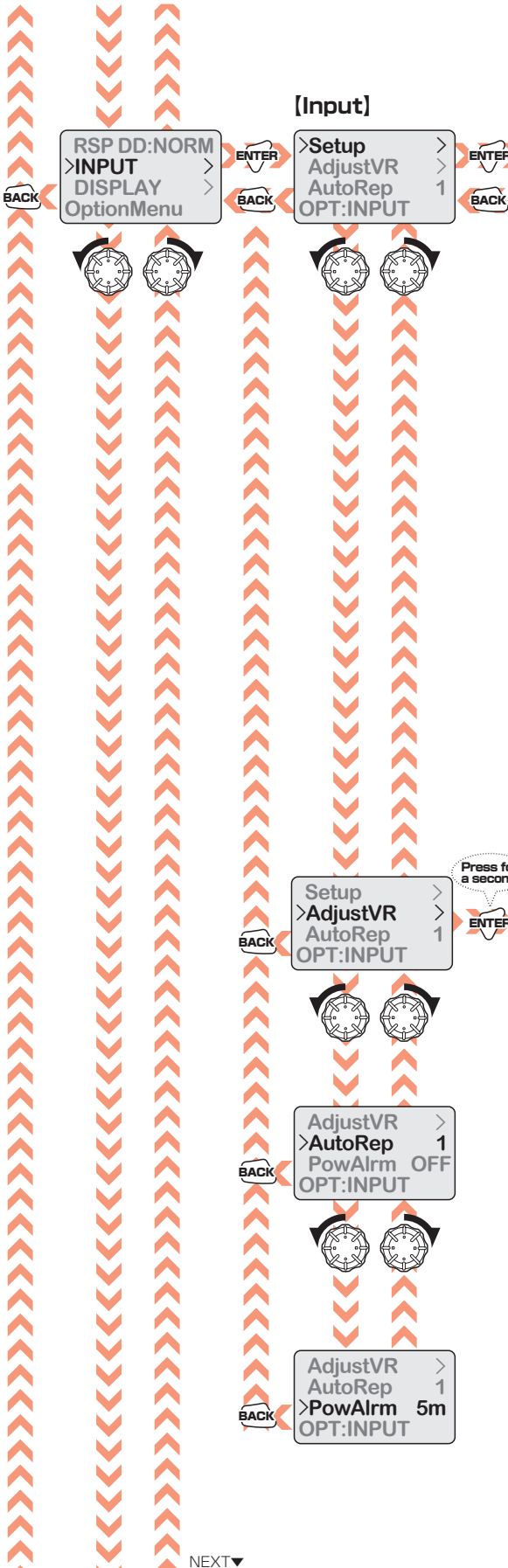
Complete with [ENTER] (return)

Module	Option
D.D.(Direct Digital) compatible modules (RF-902S)	DD:NORM / DD:HSP / DD:ADV
D.D.(Direct Digital) compatible modules for Mini-z (RF-902SM)	Mini-z
Other modules (for Helios module, etc.)	PP:NORM / PP:HSPD / PP:ADV / Digital*

*Press both [+ -] keys to choose Digital mode.

Caution! CH3 and CH4 are not available when choosing DD:HSPD or DD:ADV.

NEXT ▼



NEXT ▼

[Setup] allocates functions to function keys.
 >E(ET lever) 1~5, B(BT button) 1~2

- >E1 S:TRIM
- E2 T:TRIM
- E3 T:BRAKE
- E4 S:TRAVEL
- E5 3:POS
- B1 OFF
- B2 OFF
- OPT:Setup

- (Set up)**
- OFF OFF
 - S:TRIM Steering trim
 - S:TRAVEL Steering travel
 - S:SUBTRM Steering sub trim
 - S:TRIMRAT Steering trim rate
 - S:REVERS Steering reverse
 - S:PUNCH Steering punch
 - S:CURVE Steering curve
 - S:D.RATE Dual rate
 - T:TRIM Throttle trim
 - T:HPOINT Throttle high point
 - T:BRAKE Throttle brake
 - T:SUBTRM Throttle sub trim
 - T:TRMRAT Throttle trim rate
 - T:REVERS Throttle reverse
 - T:PNC.F Throttle punch (forward)
 - T:PNC.B Throttle punch (reverse)
 - T:CRV.F Throttle curve (forward)
 - T:CRV.B Throttle curve (reverse)
 - T:NutBrk Throttle neutral brake
 - T:IdleUP Idling
 - T:AutoSt Auto start
 - 3:Pos CH3 switching
 - 3:SUBTRM CH3 sub trim
 - 3:REVERS CH3 reverse
 - 3:mixB/R CH3 mixing brake/balance (right)
 - 3:mixTRM CH3 mixing trim
 - 3:mixF/L CH3 mixing high point/balance (left)
 - 4:Pos CH4 switching
 - 4:SUBTRM CH4 sub trim
 - 4:REVERS CH4 reverse
 - 4:mixB/R CH4 mixing brake/balance (right)
 - 4:mixTRM CH4 mixing trim
 - 4:mixF/L CH4 mixing high point/balance (left)
 - StopWatc Stopwatch
 - LapTime Lap time
 - DownTime Down timer

Choose with []

Set with [+ -]

To reset values press both [+ -] for a second

[Volume adjustment] recalibrates potention meters.

- Left 175
- Center 120
- Right 100
- OPT:ADJ.ST

- Forward 150
- Neutral 120
- Back 120
- OPT:ADJ.TH

Complete!

Turn steering wheel left/right, then release.

Fully pull/press throttle trigger, then release.

※ [OK] blinks.

※ [OK] blinks.

※ COMPLETE blinks.

[Auto repeat] adjusts LCD scrolling speed.
 (1 (quick) ~ 8 (slow))

LCD scrolling speed can be adjusted.

Set with [+ -]

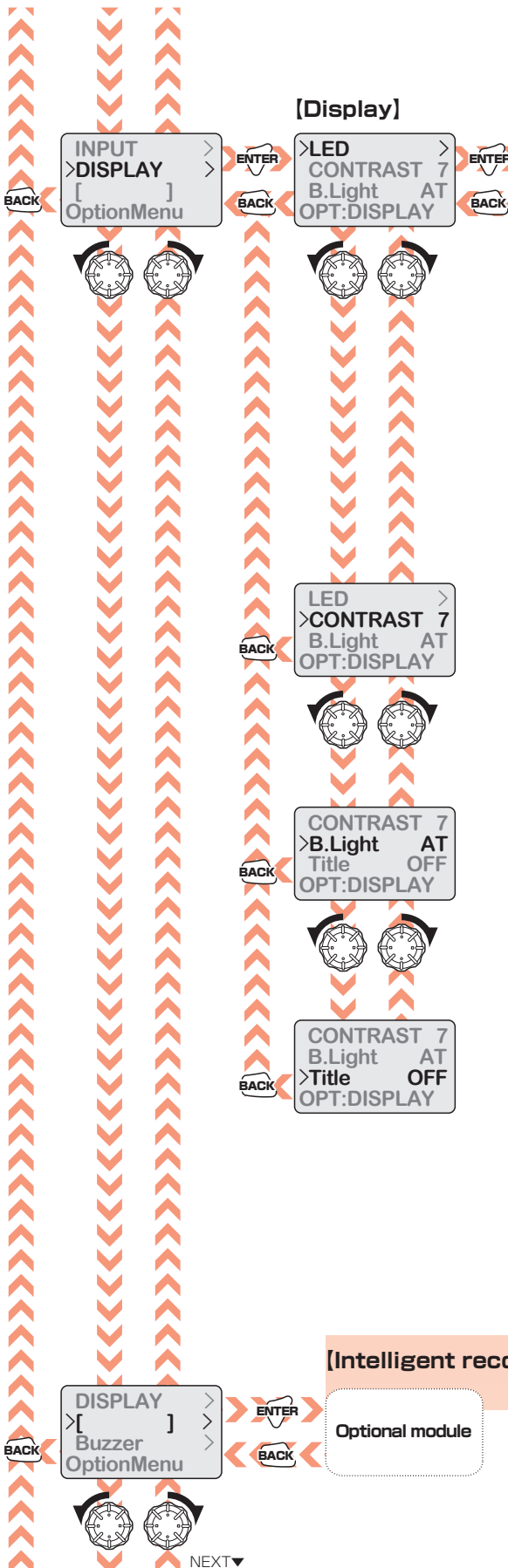
To reset values press both [+ -] for a second

[Power alarm] alerts to avoid leaving transmitter power on. (OFF, 1 ~ 5min)

This function alerts when transmitter is left switched on after preset time.

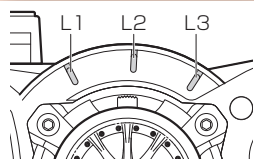
Set with [+ -]

To reset values press both [+ -] for a second



[LED] allocates functions to LED indicators
>L1, L2, L3 (as shown)

(項目名)	OFF	OFF
S: SPEED	Steering speed	
T: SPEED	Throttle speed	
T: ABS	ABS	
T: ACCEL	Acceleration	
T: NutBrk	Neutral brake	
StopWatc	Stop watch	
DownTime	Down timer	



※LED blinks when a function is working or turned on.

Choose with [], set with []

To reset values press both [] for a second

[Contrast] adjusts LCD contrast.
(1 (light) ~ 8 (dark))

Set with []

To reset values press both [] for a second

[Backlight] sets LCD back illumination.
(OFF, AT(automatically turned off), ON)

Set with []

To reset values press both [] for a second

[Title] shows functions in start menu.

(Functions)	OFF	OFF
01: 000000	ST	Steering monitor
BATT 12.5v	TH	Throttle monitor
ST: -.....+	CH3	CH3 monitor
EX-10 EURUS	CH4	CH4 monitor
	RSP	Response

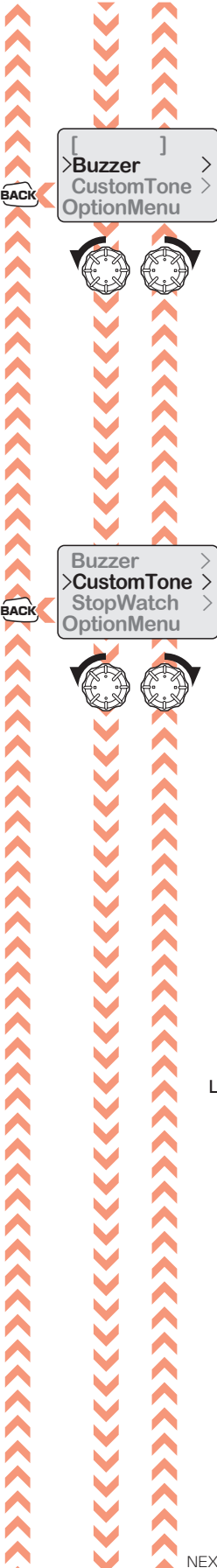
Set with []

To reset values press both [] for a second

[Intelligent recognition module] allows for fine data adjustment using optional module.

Module is automatically indicated in [] (use compatible module with this transmitter only).

※Please refer to instruction manual included in module.



[Buzzer]

allocates beep sound to functions.
(T01~20(Custom tone), Mut(mute), DEF(default))

>Click	DEF
S.Alarm	DEF
S.PAlm	DEF
S.Navi	DEF
LapTim	DEF
D.Alarm	DEF
D.PAlm	DEF
PowAlrm	DEF
LowBatt	DEF
StartUp	DEF
OPT:Buzzer	

《Function》	
Click	Click
S.Alarm	Stop watch alarm
S.PAlm	Stop watch pre-alarm
S.Navi	Stop watch navi
LapTim	Lap time
D.Alarm	Down timer alarm
D.PAlm	Down timer pre-alarm
PowAlrm	Power alarm
LowBatt	Low battery
StartUp	Start up

Choose with [], set with [+ -]

To reset values press both [+ -] for a second

[Custom tone]

create an original beep sound.
>T01~20, EDT(edit), PLY(play)

>T01 EDT PLY
.....
000000000000
OPT:TONE

Choose with [], set with [+ -]

(Set with [ENTER] for EDT and PLY)

[edit]

T01 >EDT PLY
.....
000000000000
OPT:TONE

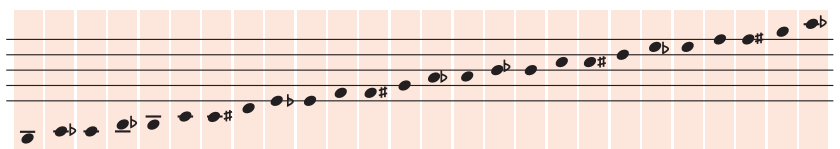
Ⓐ: A, b, B, c, C, d, D, E, f, F, g, G, H, i, l, j, J, k, K, L, m, M, n,N, O, p (tone), , →, ↶, |, •

Ⓑ: 0 ~ 7 (length)

Choose with [], set with [+ -], return with [BACK]

To reset values press both [+ -] for a second

《Tone》



Letter notation : G A♭ A B♭ B C C♯ D E♭ E F F♯ G A♭ A B♭ B C C♯ D E♭ E F F♯ G A♭

LCD : A b B c C d D E f F g G H i l j J k K L m M n N O p

Symbols: → Continues to next tone ↶ Back to beginning | Stop • Rest

《Length》



Note LCD 0 1 2 3 4 5 6 7

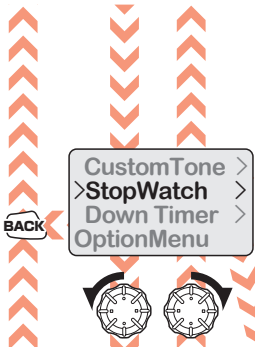
※Tempo of =120

《Example》



T01 >EDT PLY
FHJ•FHJ.....
444444440000
OPT:TONE

NEXT▼



[Stop watch]

```

>KEY OFF
>LAP.KEY OFF
>TH.Start >
>LAPTIME ※1 ※2
>ALARM OFF
>P.ALM OFF
>Navi OFF
OP:StopWatch
  
```

stop-watch and lap time record function.

- >KEY (allocates stop-watch function key) : OFF, ET1~5, BT1~2
- >LAP.KEY (allocates lap time function key) : OFF, ET1~5, BT1~2
- >TH.Start (starts timing with throttle on.)
- >LAPTIME (indicates lap time) : with [ENTER]
- >ALARM (alarm) : OFF, 0~99min
- >P.ALM (pre-alarm) : OFF, 1~30sec
- >Navi (periodical timer) : OFF, 00m01s~99m59s

Choose with [], set with [+ -]

To reset values press both [+ -] for a second

[Stop watch]

```

CustomTone >
>S 00'00'00 >
Down Timer >
OptionMenu
  
```

- [+] starts and restarts
- [-] stops
- [-] resets (press for a second)

[TH.Start]

※1 [ENTER] →

```

LAP.KEY OFF
* READY
LAPTIME
OP:StopWatch
  
```

- Starts timing with throttle on
- [-] stops
- [-] resets (press for a second)

[LAPTIME]

※2 [ENTER] →

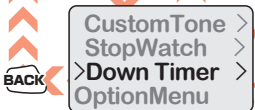
```

TH.Start >
>LAPTIME >
ALARM OFF
OP:StopWatch
  
```

Lap time can be recorded by pressing allocated key with LAP.KEY while stop-watch function is working.

- [ENTER] indicates lap time
- [BACK] returns
- To reset values press both [+ -] for a second

※ 100 lap times can be recorded.



[Down timer]

```

>Time 5m00s
>KEY OFF
>P.ALM OFF
OP:Down Timer
  
```

sets countdown timer function.

- >Time (starts countdown from) : OFF, 00m01s~99m59s
- >KEY (allocates function key) : OFF, ET1~5, BT1~2
- >P.ALM (pre-alarm) : OFF, 1~30sec

Choose with [], set with [+ -]

To reset values press both [+ -] for a second

[Down timer]

```

CustomTone >
StopWatch >
>D 00'00'00 >
OptionMenu
  
```

- [+] starts and restarts
- [-] stops
- [-] resets (press for a second)

■ Transmitter : KT-409H

Operating system : steering wheel & throttle trigger

Number of channels : 4

Transmit frequency band : entire frequency band (using high frequency module)

Neutral pulse : 1.5mSec

Power source : R6/AA/UM3 battery x 8, or 8 cell battery pack

Current consumption : approx. 80mAh (excl. high frequency band)

■ High frequency module : RF-902S

Modulation : DS-SS

Transmit frequency : 2.4GHz

■ Receiver : KR-409S

Modulation : DS-SS

Number of channels : 4

Received frequency : 2.4GHz

Operating voltage : 4.8V-7.4V

Dimensions : 28×18.3×18.5mm

Weight : 7.5g

Manufacturer :

KONDO KAGAKU CO.,LTD.

116-0014

4-17-7 Higashi-Nippori, Arakawa-ku, Tokyo Japan

EX-10 EURUS

If you have any problem, please contact to our distributor in your country. The distributor in your country is listed on our web site under the English information page.

www.kopro.co.jp

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DIGITAL PROPORTIONAL SYSTEM

A thick, solid orange horizontal bar spans the width of the page, positioned below the main text.