■ LATEST LEADING RADIO CONTROL TECHNOLOGY

Anti Lock Brake System ■

Traction Control System ■

5Mode Aux Ch Systems ■

EX-11

4Channel ■

PRESTO

Operation manual

SUPER STEERING
FM PROPORTIONAL
SYSTEM

Auto Display ■

Steering Speed ■

⚠ Caution

- Be sure to read this manual carefully before use this unit.
- In order to make use of this manual anytime,please keep it carefully.

Direct Travel Set ■

KO PROPO®
DIGITAL PROPORTIONAL SYSTEM

3Model Memorys ■

Read First

Thank you for purchasing the EX-11 Presto.
Read this manual carefully in order to obtain
maximum performance from the unit and keep it carefully.

The auxiliary channels of this unit (ch3,4) can not be used with the included 2ch receiver (KR297).
It is necessary to purchase an additional channel adapter (optional).

How to find information in this manual.

Reference Page

Although every effort has been made to ensure the accuracy of the information containedin this manual, please contact us if you have any questions or if you find any errors.
We cannot assume any responsibility for any damage arising from the use of this product by the customer.
The contents of this manual are subject to future change without notice.

Contents

For the Safe Usage of this Unit.

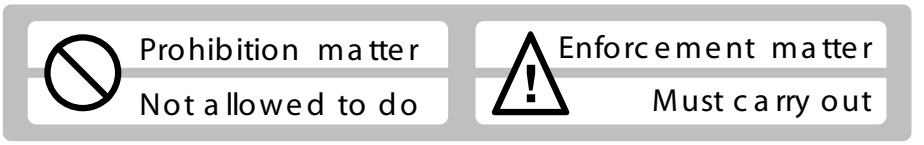
With the nature of radio controlled models, misoperation will result in danger. In order to avoid these circumstances and safe usage of this unit, please read the contents throughly.

Explanation of warnings and signs

In this manual, warnings are classified into three levels as follows, depending on the severity of the danger posed by failure to observe the proper procedure in

⚠ Danger	Failure to observe the matter discussed in such an item poses a serious threat of death or severe injury.
⚠ Warning	Failure to observe the mater discussed in such an item poses a possibility of death or severe injury, and a large likelihood of damage to the equipment or property.
⚠ Caution	Failure to observe the matter discussed in such an item poses a possibility of injury or damageto the equipment or property.

Meaning of picture indications



Notes before installation

Warning

⚠ Warning	⚠	Be certain to use only KO Propo genuine crystal sets (transmitter and receiver) *Never use crystals produced by other companies since such crystals may vary in frequency, which could lead to misoperation or out of control.
⚠ Warning	⊘	Prevent metal parts touching cause of vibration in the model (car, boat). *This could lead to misoperation of the receiver resulting in interference from noise of metal parts
⚠ Warning	⊘	This product is only designed for surface radio control models. Do not use for any other purpose.
⚠ Warning	⚠	If a nicad battery pack is used in the transmitter, be sure to charge properly before use. *If batteries are not fully charged, the model may run out of control.
⚠ Warning	⚠	Be sure to connect all equipment correctly. *If connections are loosened, the model may run out of control.
⚠ Warning	⚠	Be sure to install receiver with thicker double sided tapes. *Strong shock or vibration may result in the model running out of control.
⚠ Warning	⊘	Do not cut or bundle the aerial wire with other cords. *It may result in decreasing the sensitivity of the receiver and may result in the model running out of control.
⚠ Warning	⚠	In order that servo's operate correctly, check that there are no unnecessary forces on to the push rod. It may damage the servo or increase the consumption of batteries.
⚠ Warning	⚠	Be sure to use grommets and be sure that the servo is not touching any metal plates directly.*The vibrations may damage the servo and the model may run out of control.

Notes Before Installation

Caution

⚠ Caution	Be careful not to reverse the polarity of the transmitter and the receiver. Reverse polarity could damage the units.
⚠ Caution	Be sure to use genuine KO Propo products e.g. transmitter, receiver, ESC and other option parts. *We cannot assume any responsibility for the use of other companies products with this unit.

Notes on Driving (Sailing).

Warning

⚠ Warning	When turning on the power switch, be sure that the frequency band is available.*Other people's models using the same frequency will run out of control.
⚠ Warning	Do not use this unit in thunderstorms. *There is possibility of lightning striking the antenna.
⚠ Warning	Do not use the transmitter in the rain or in a location where water might get on it.*The unit may become wet in and run out of control.
⚠ Warning	Do not run the model in the following places. 1. Near to other radio control car circuits. (within 3km) 2. Near to people or on the road. 3. The surface of the water where actual boats are existence. 4. Near to electric wires, communication facilities. *In the case of the model running out of control, dangerous situations will occur.
⚠ Warning	Do not run the model when you experience difficulties in concentration through tiredness, alcohol or medication. *The mis-judgement may result in accidents.
⚠ Warning	Be sure to extend the aerial of the transmitter to full length. *Incorrect signals emitting will cause model run out of control.
⚠ Warning	Do not allow fuel or exhaust to touch plastic parts. *Doing so causes risk of damage.
⚠ Warning	Be sure to confirm that the model memory is matched to the models currently running. *Not doing so may cause vehicle to run out of control.
⚠ Warning	When you make function changes, be sure to stop the engine or disconnect the motor lead wire.

Caution

⚠ Caution	Always turn on the switch on the transmitter first, followed by the receiver.When turning off the switches, always turn off the receiver first, followed by the transmitter. *If you don't follow the correct order, receiver may get interference and run out of control.
⚠ Caution	Attach band plate when you operating the unit. *Display your frequency clearly to other people.
⚠ Caution	Do not touch the engine, motor, ESC where is generated heat is. *May result in burning.
⚠ Caution	Because the transmitter emits high-frequency energy, do not touch the antenna while the transmitter is in use.

Notes after Driving (Sailing)

Warning

Warning

In the case of electric car use, be sure to disconnect the nicad battery afterwards.
*It may cause fire or the model to run out of control in case of switch being left on.

Warning

When storing the transmitter, batteries and models, be sure to keep them out of the reach of children.
*It may resulting in damage by chemicals.

Caution

Caution

Be sure to disconnect the battery from the transmitter when not in use for a longtime.
*It may damage the transmitter if you leave the battery in the transmitter for a long time.

Caution

Do not store the transmitter in the following places.
1. Extremely hot or cold places (+40C, -10C).
2. Direct sunshine.
3. High humidity places.
4. Dusty places.
* If you store the unit under these circumstances, it may result in misoperationor damage to the unit.

Notes on Charging Nicad Battery and Hydropack (sold separately)

Danger

Danger

Do not short the battery terminals.
*It is dangerous because it may be the outbreak of fire or explosion .

Danger

Never incinerate the batteries.
*It is very dangerous because they may explode.

Danger

Be sure to use KO Propo charger and use the correct charging current.
*Avoid over charging the battery. Over charging not only damages the battery, but can cause excess heat to build-up and possibly cause fire, resulting in serious accidents.
*Do not use the Hydropack with rapid chargers from other companies, because there is a possibility that the auto cut-off function will fail to operate.

In the event of liquid leaking from battery, do not allow liquid to touch eyes or skin. Burns and blindness may occur.Apply large amounts of water and contact a doctor immediately for treatment.

Danger

Do not apply big shocks to the batteries. *It may damage the battery and result in short circuits and possibly a fire.

Danger

Do not dismantle or modify the battery.
*Dismantle the battery may cause liquid to leak out and it is very dangerous.

Danger

Do not wet batteries and do not charge wet batteries.

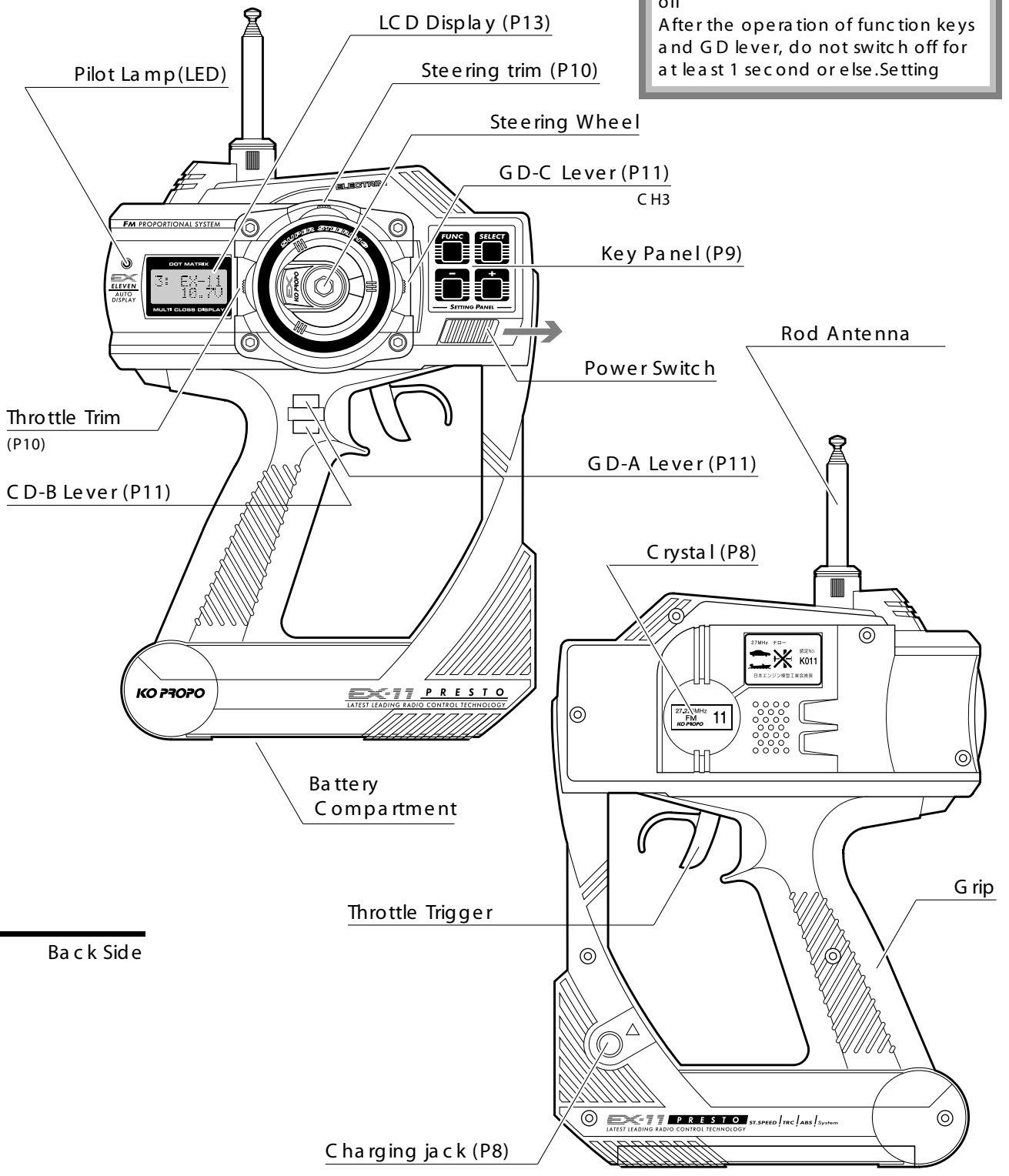
Nicad batteries are recyclable.

Please support recyc

Names of Parts of the Transmitter

Front side

Note on Switching Power Switch off
After the operation of function keys and GD lever, do not switch off for at least 1 second or else.Setting



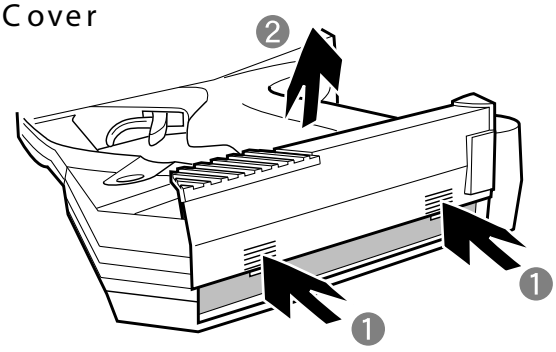
Back Side

How to Use the Transmitter

How to Open the Battery Cover

❶ Press down on the two points indicated by the arrows

❷ Slide the battery compartment cover off.



How to Insert Dry Cells (sold separately)

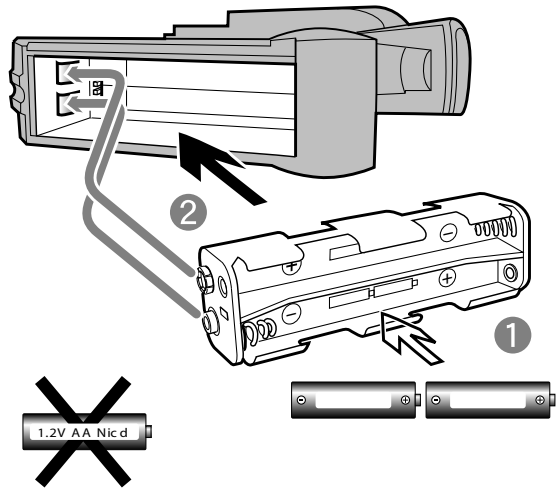
❶ 1. Insert eight size AA batteries into the battery box.。

⚠ Caution ⚠ Be very careful to load the positive and negative terminal of each battery properly!

❷ Insert the battery box matched with battery box terminals and transmitter terminals.

❸ Close the battery compartment with cover.

⚠ Caution ⃠ Do not use AA size nicad battery.It may cause corrosion inside the transmitter with gas when charging.



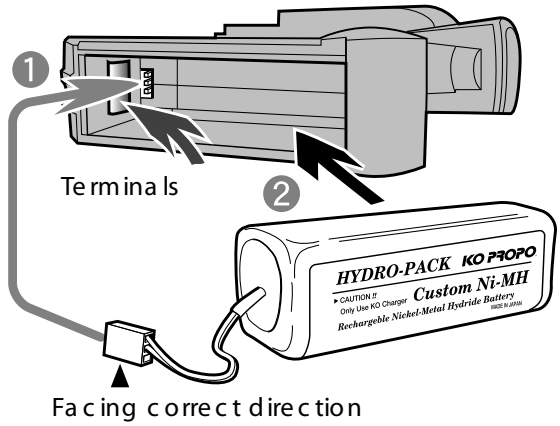
How to Insert a Nicad Battery or Hydropack (sold separately)

❶ Plug in the connector of a nicad battery pack.

❷ Insert nicad battery or hydropack correctly.

❸ Close the battery compartment with cover

Be sure not to catch battery lead in between compartment and cover.



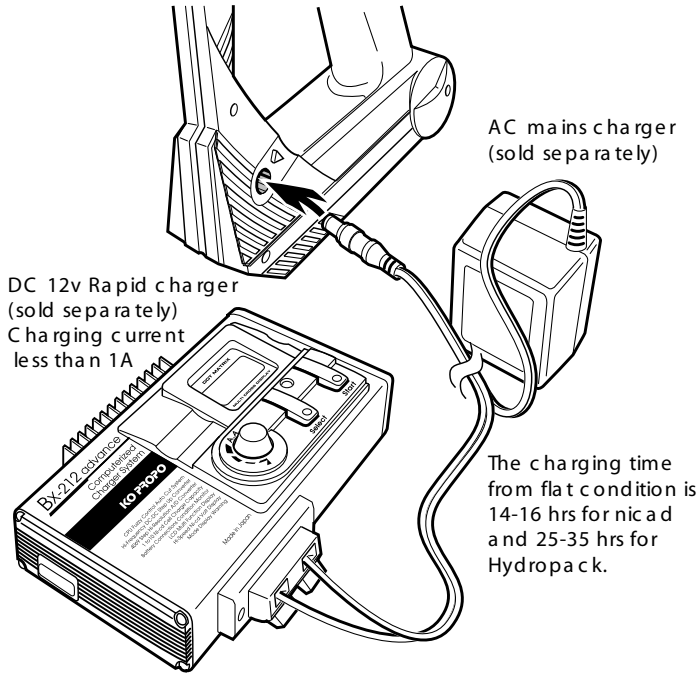
How to Use the Transmitter

Charging

Connect AC mains charger or DC 12v charger (KO Propo products) into the Tx charge jack and charge.

Warning In case of nicad batteries being used for transmitter or receiver, be sure to charge properly.If the batteries are not fully charged,the model may run out of control.

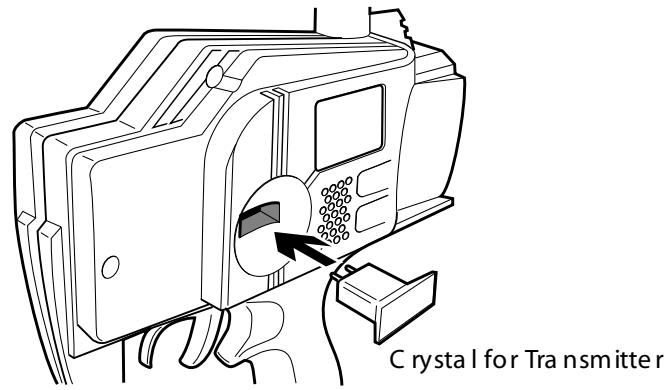
Caution Do not charge when using dry cells.If you charge dry cells, it could cause damage the transmitter.



Changing the Crystals (changing the frequencies)

Insert the crystal properly and be careful not to bend the pins.

Warning When changing the crystals, be sure to use genuine FM-type transceiver crystals from KO Propo. Crystals from other manufacturers may operate at slightly different frequencies, resulting in loss of control.

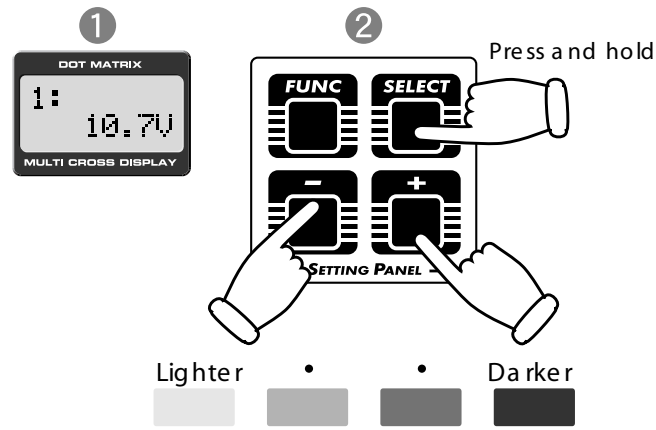


Adjust LCD Contrast

One of the characteristics of a dot matrix
LCD is change of contrast depending of
the temperature. Adjust the contrast

❶ so that the display is easy to see. (4 levels)

❷ Power switch on. (displayed initial screen)



How to Use the Transmitter

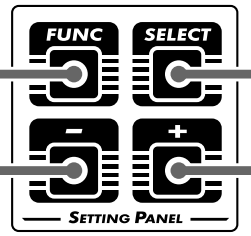
Key Panel

Function Key

Each LCD display (Function) changes in order

Select Key

Changing the LCD display (Function) except for figure data. (i.e. CH)



How to press the key

Press the middle of each keys with finger

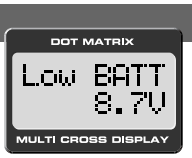
Do not use sharp material, it may damage the cover.

+, - , Key

Changing the LCD display (Function) of figure data. Press both keys at the same time will display default figure.
(except for some functions)

Warning display in the LCD

Battery alarm

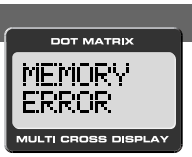


If the battery voltage drops to 8.7V or less whilst the transmitter is in operation, (Low Batt) will be displayed on the LCD screen. In this event, replace the batteries

Warning

If (Low Batt) sign appears collect the model immediately. *The radio signals will become weaker, which could cause a loss of control.

Memory Error



The LCD screen shown at left appears if something happens on the CPU and (Memory Error) will be displayed with alarm.

Warning

If (Memory Error) appears please ask for repair. It may result in misoperation.

How to Use Trim Lever (Adjusting the neutral of servo etc)

❶ When the steering wheel and throttle trigger are both in the neutral position by moving trim left or right (up or down),you able to adjust the neutral position.

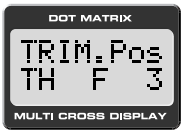
❷ At the same time the LCD display automatically indicates trim position screen.

(Auto display function)
After the operation, it will revert back to previous screen in approx. 5 seconds.
(does not apply when in System Mode)

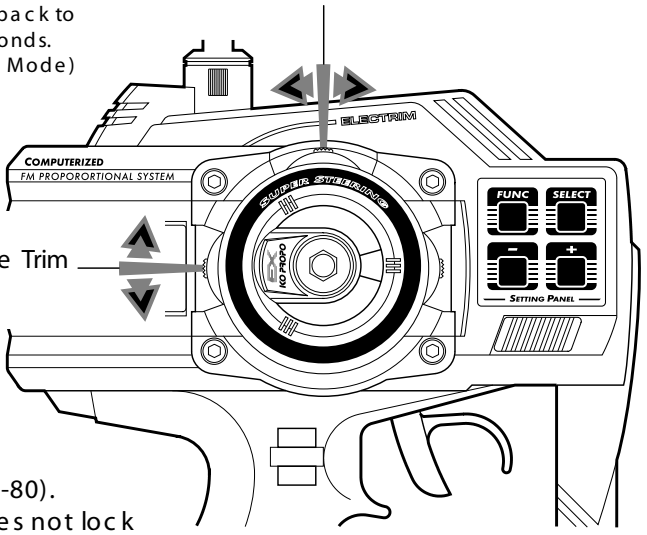
Trim position
(Steering)

Steering Trim

Trim position
(Throttle)



Throttle Trim



● Setting range is R/L 0-80, (F/B0-80). Make sure that the setting does not lock the linkage and cause excessive force to be applied to the servo.

(In the throttle trim, it does not move at high end. Only the maximum turning of braking will be effective by trim adjustment)

Advice

During the linkage process, adjust the trim close to 'o' position.

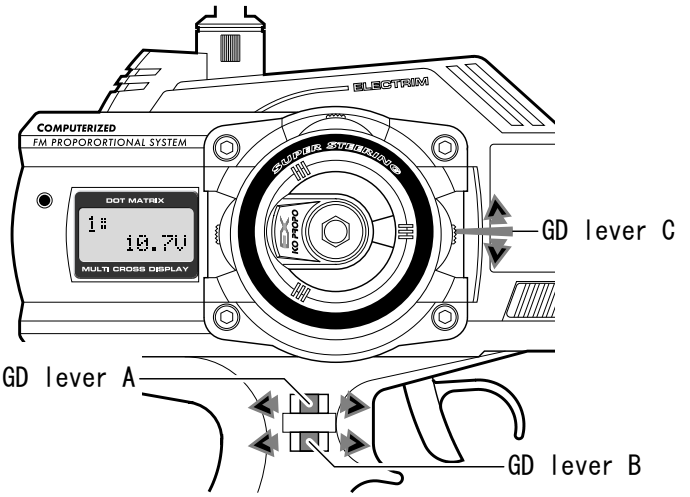
How to Use the GD Lever

GD lever A and B operates left and right.GD lever C operates up and down.

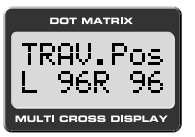
❶ GD lever A will adjust the steering travel (turning angle) During this operation, LCD display automatically changes to the travel position (does not apply when in System mode), and return to the previous screen display after approx. 5 seconds.

❷ GD lever B will adjust the brake travel (brake turning angle) During this operation, LCD display automatically changes to the brake position (does not apply when in System Mode), and return to the previous screen display after approx 5 seconds.

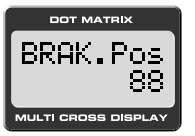
❸ GD lever C will operate CH3 feature.During this operation, LCD display automatically changes to the CH3 position (does not apply when in System Mode), and return to the previous screen display after apporx. 5 seconds. Please refer to page 27 for setting up each position.



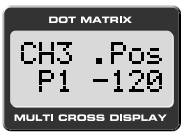
❶ GDA



❷ GDB



❸ GDC



Advice

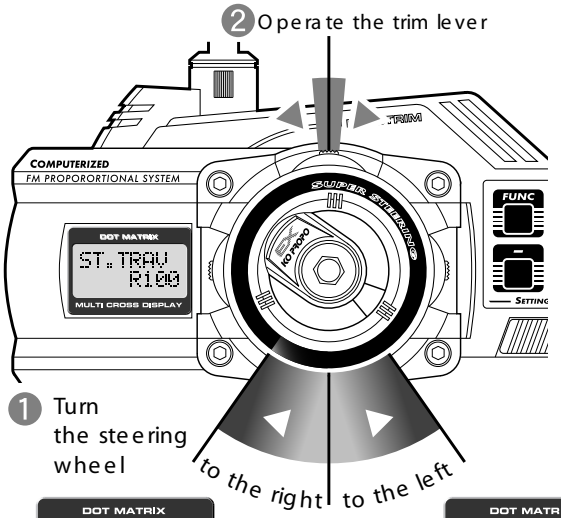
You can change each lever's function. (GD lever select, P28)

Simple Way to Adjust the Turning Angle of the Servo (Direct Set Function)

Steering

❶ Turn the wheel to the maximum position of left or right and you can adjust the turning angle of each direction by operating the steering trim lever.

❷ In addition to the trim setting, the LCD display will automatically change to the steering travel function display screen (does not apply when in System Mode), and return to the previous screen display after approx 5 seconds.
This setting can range from 0-130.

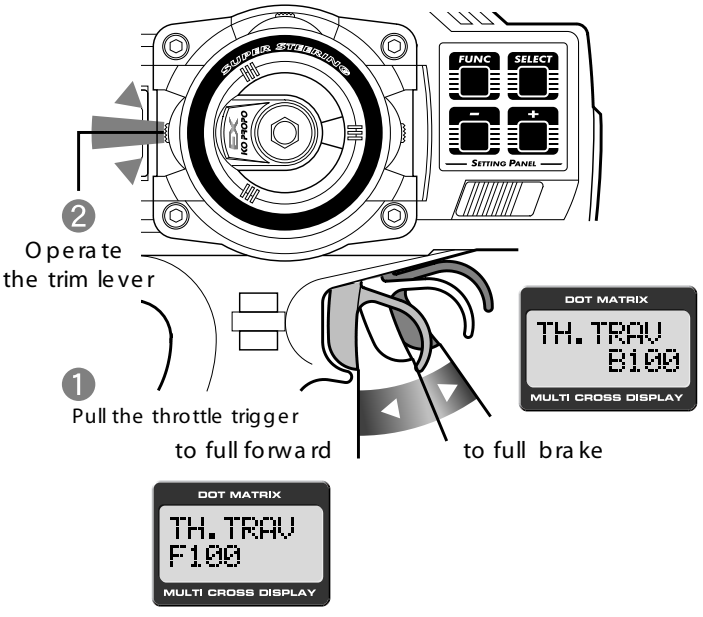


Operate the trim lever and this setting can range from 0-130.

Throttle

❶ Move the trigger to the maximum position forward or backward and you can adjust the throttle angle by operating the throttle trim.

❷ In addition to the trim setting, the LCD display will automatically changes to the throttle travel function forward and brake (F.B) display screen. (does not apply when in System Mode) and return to the previous screen after approx. 5 seconds.This setting can the range from 0-130



Operate the trim lever and this setting can range from 0-130

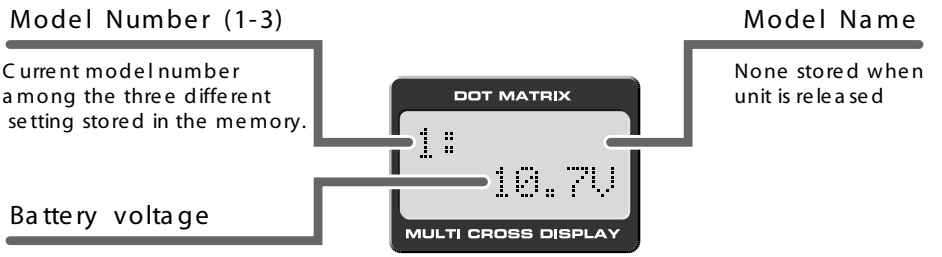
Advice

When adjusting the turning angle by direct set, release the trim lever and return to neutral position of wheel or trigger. If you release the trim in opposite direction, it may result in an incorrect trim setting.

About LCD Display

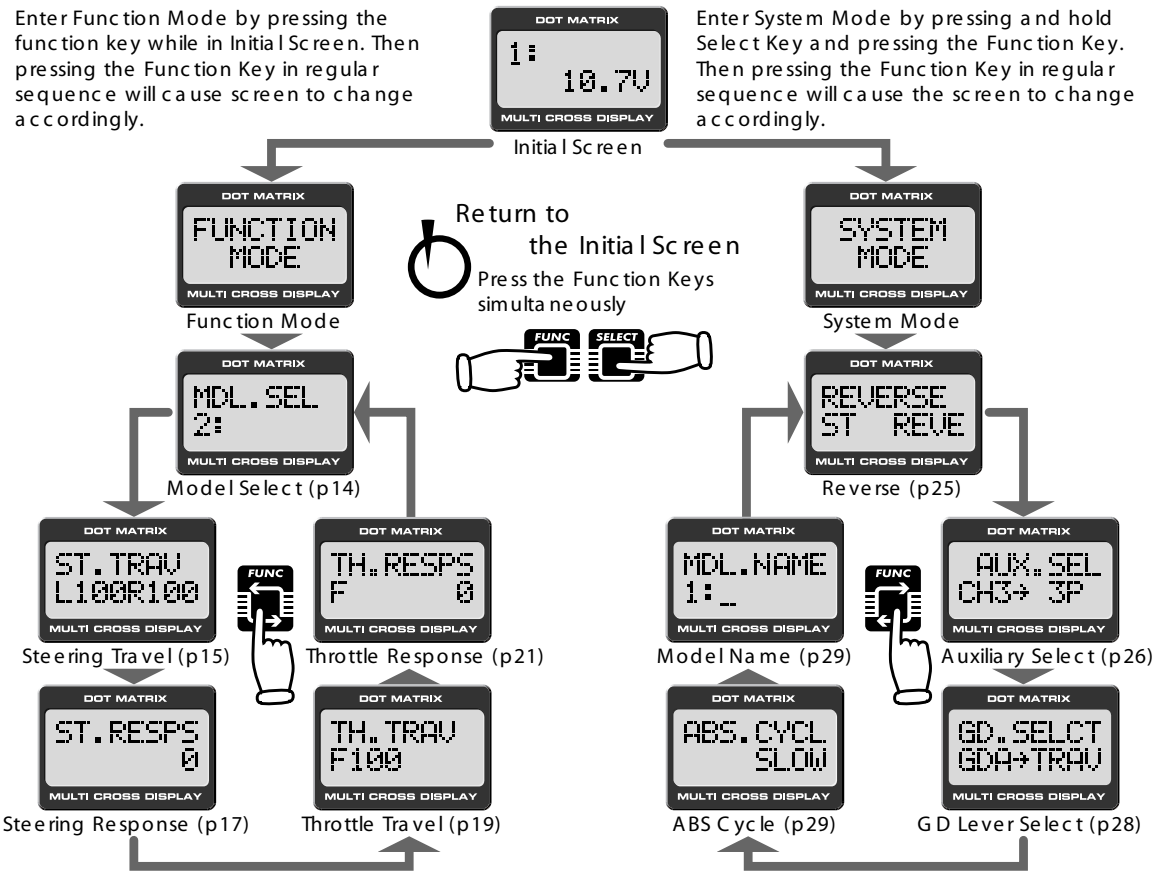
Initial Screen

- This Screen is Displayed When the Power is First Turned on.



Calling Up LCD Screen/LCD Map

- The LCD Screen used on this transmitter is divided into two modes (group). System Mode includes function screens that are used during linkage and that are not used during normal



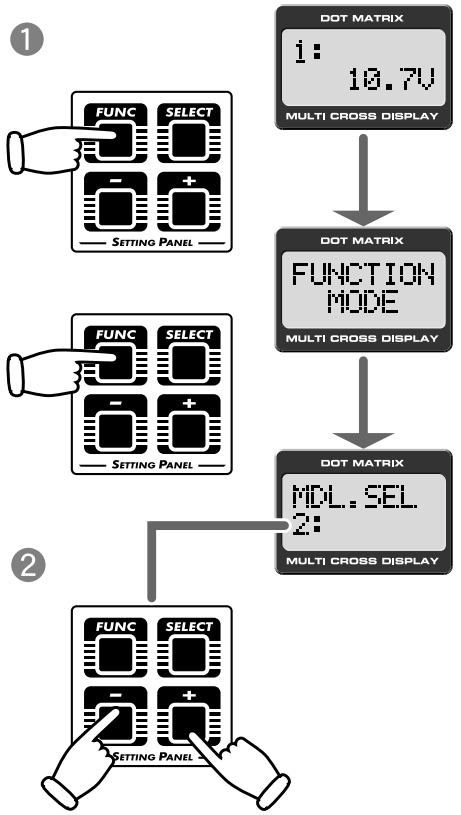
The Explanation of Each Function (Function Mode)

Changing the Model Memory (Model Select)

- This transmitter can store all settings for up to three cars. This function is used to switch among those settings.

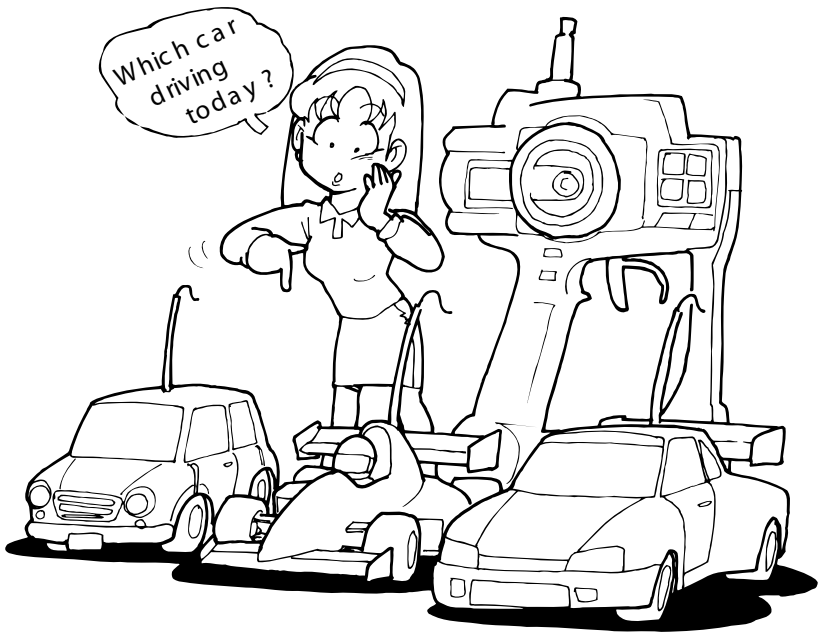
❶ Press the Function Key two times to switch to Model Memory screen.

❷ The model number can be changed by using the (+) and (-) keys.



⚠ Caution

⚠ Be sure to use Model Select and GD Select after you fully understand the functions.
*Incorrect operation may cause car to run out of control.



The Explanation of Each Function (Function Mode)

Adjusting the Turning Angle of the Steering Servo (Steering Travel).

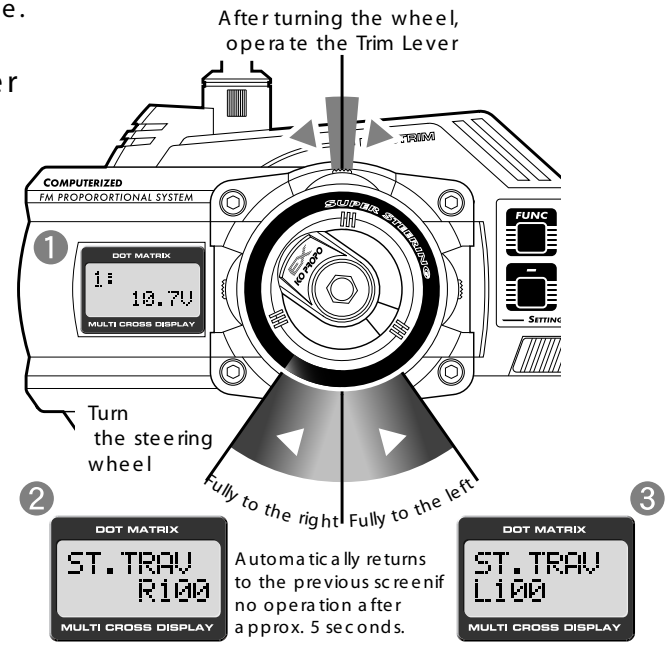
● Be sure to set the Travel Position of GD Lever A at a maximum value before adjusting the linkage.

☐ Adjusting by Trim Lever (Direct Set Function)

❶ Change the LCD display from the Initial Screen to the Function Mode. (refer to P13)

❷ Turn the steering wheel fully to the right and the LCD automatically displays the right wheel steering turning angle. Adjust angle by pressing the trim lever.

❸ Turn the steering wheel fully to the left and the LCD automatically displays the left wheel steering turning angle. Adjust angle by pressing the trim lever.



Operate the trim lever and this setting can range from 0-130.

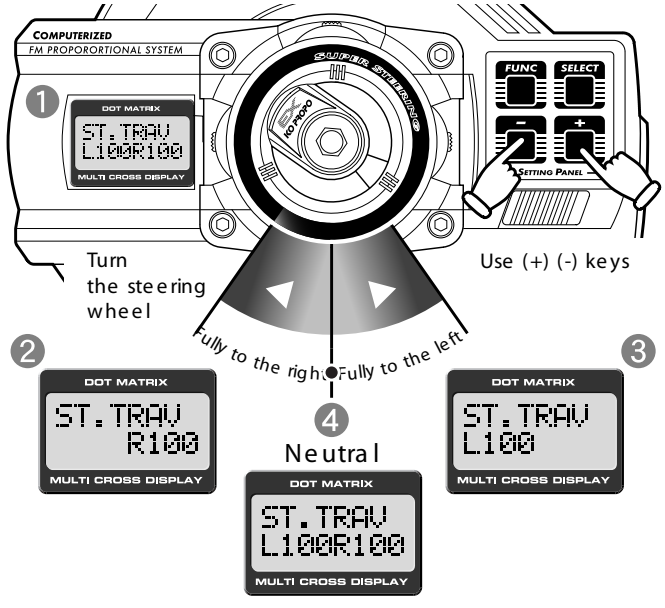
☐ Calling up the Screen and Adjusting

❶ Pressing the Function Key three times from the initial screen it displays the Steering Travel screen.

❷ Turn the steering wheel all the way to the right then adjust the right side turning angle by pressing the (+) (-) keys. (This setting the range from 0-130).

❸ Turning the steering wheel all the way to the left then adjust the left side turning angle by pressing the (+) (-) keys. (This setting the range from 0-130)

❹ When the steering wheel is in neutral position, you can adjust turning angle of both left and right at the same time by pressing (+) (-) keys.



The Explanation of Each Functions (Function Mode)

Adjusting the Turning Angle of the Steering Servo (Steering Travel)

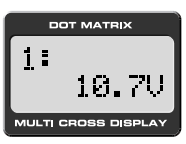
☐ Adjust by GD Lever

When set to Travel Position by GD Lever A, the turning angle can be adjusted assuming the value displayed on the screen as maximum value.

❶ Change the LCD display from the initial screen to the Function Mode.

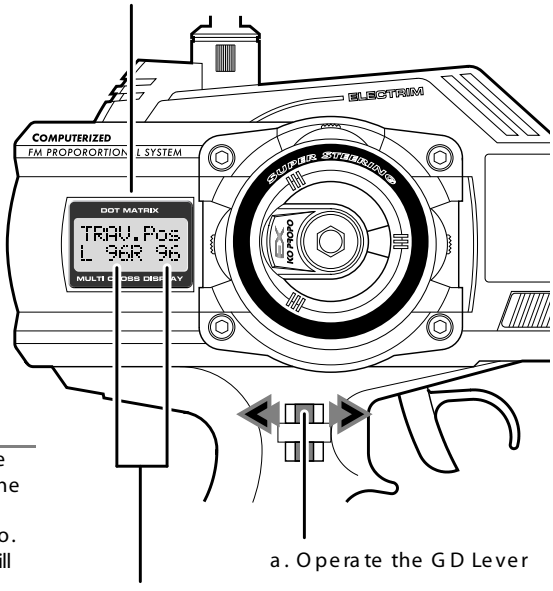
❷ Operate the GD Lever A, LCD will be automatically displayed and the turning angle in both the left and right directions can be adjusted simultaneously.

● *The setting range is 0 ~ The



Initial Screen

❷ b. Displays automatically

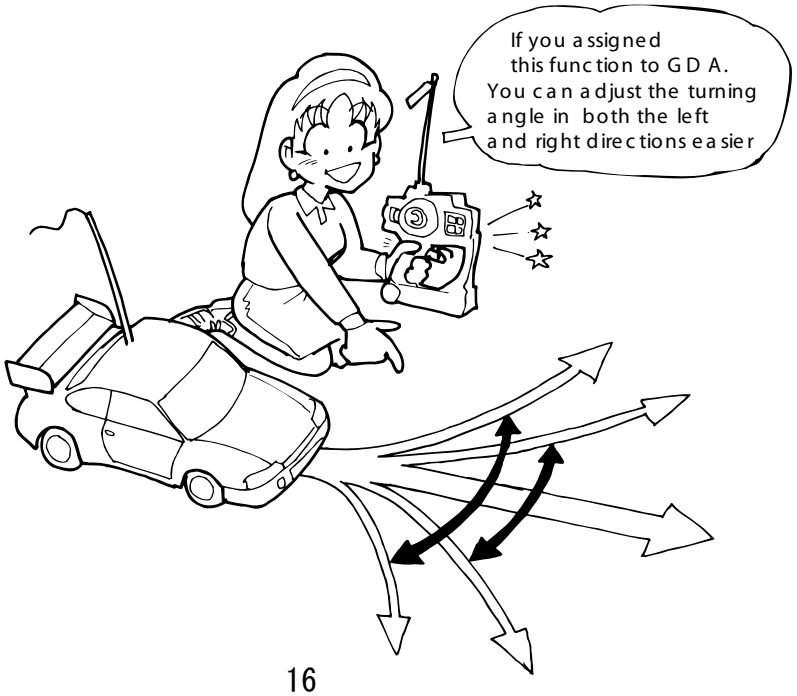


a. Operate the GD Lever

c. The turning angle in both the left and right directions can be adjusted simultaneously

⚠ Caution

⚠ After the linkage process, make sure the setting does not lock the linkage and cause excessive force to be applied to the servo. *Excessive force to the servo will result in damage and loss of control.



Adjusting the Steering Response Characteristics (Steering Response)

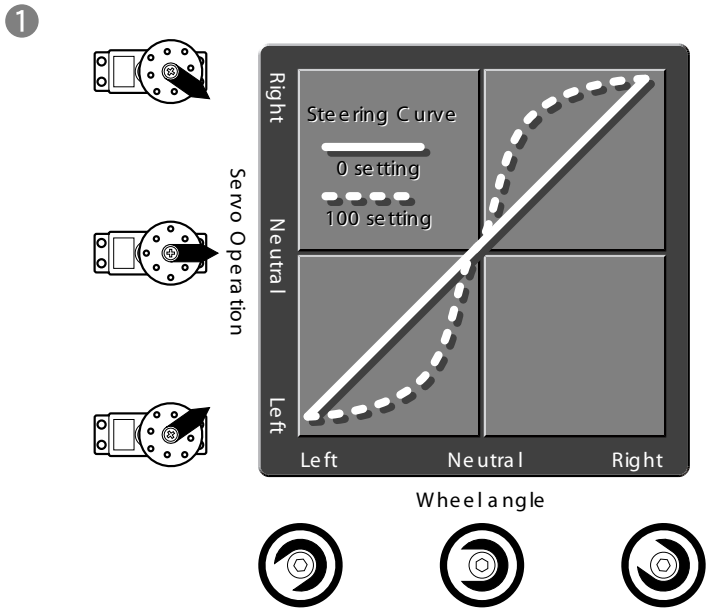
Can be adjustable into two different characteristics.

☐ Steering Curve

❶ As shown in the graph, change the angle so that the servo moves quickly in response to the angle the steering wheel is turned,

❷ Press the Function Key four times from the initial screen, to change to the Steering Response screen.

❸ Adjust the Steering Curve (setting range +1~+100) by pressing the (+) (-) keys. Positive values yield quicker response.

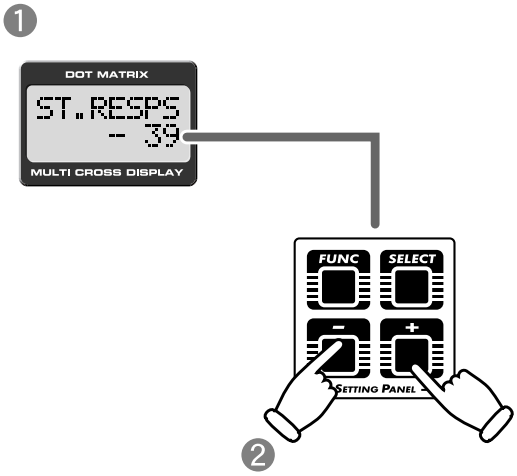


Advice

This function is effective for cars less sensitive near the neutral position.

Adjusting the Steering Response Characteristics (Steering Response)

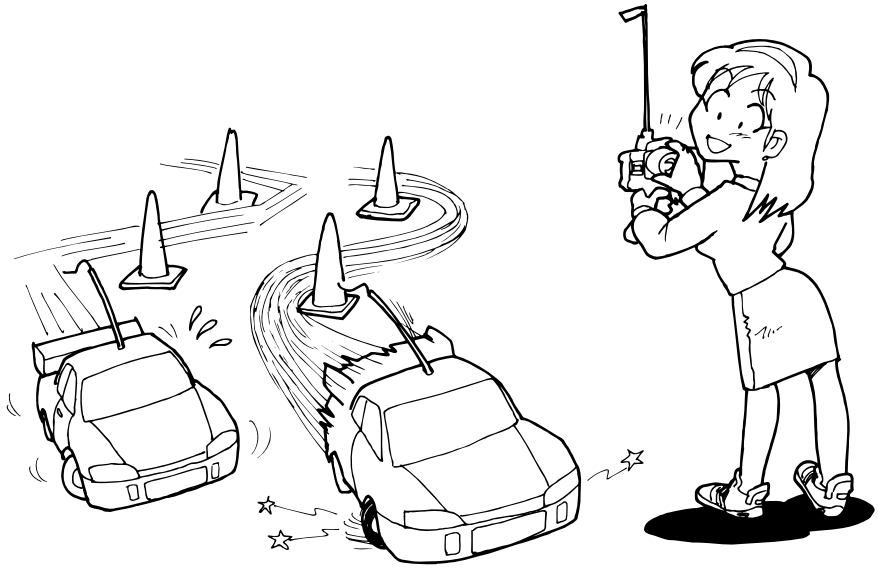
☐ Steering Speed



This function limits the maximum turning speed of the steering servo.
If wheel operation is slower than the set speed, the operation of the servo is not limited by the setting.

❶ Press the Function Key four times from the initial screen, to change to the Steering Response screen.

❷ Negative values (-) yield slower turning speed. The setting range is (0~100), with a -100 setting applying maximum limit.



Advice

The setting up of the car is of course very important for turning the car smoothly. However rough steering work is just a result in loss of grip in the front tyres. Using the Steering Speed controls the rough steering work and results in more grip. Just like an expert driver you are able to drive in a calm and steady way even though driving with rough steering work.

The Explanation of Each Function (Function Mode)

Adjusting the Throttle Servo Movement (Throttle Travel)

- This function allows you to adjust the amount of servo movement individually for forward and brake.There are three ways to adjust.

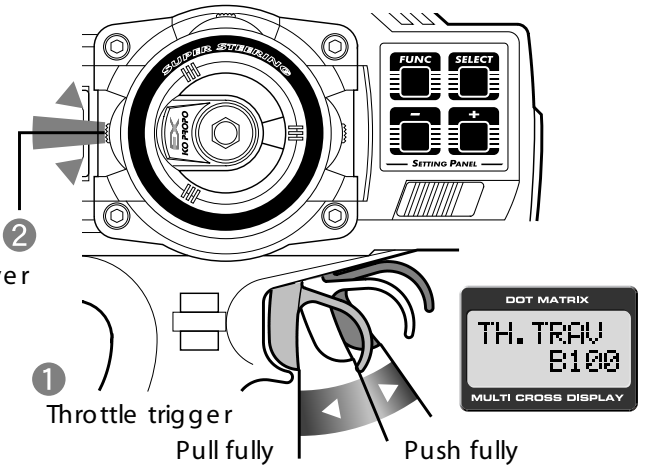
Before the linkage adjustment,Set the brake position of the GD Lever B at maximum value.

☐ Adjusting by Trim Lever (Direct Set Function)

- Call up the LCD display of initial screen or function mode screen.

Adjusting Forward Direction (F).

- Operating the throttle trim lever whilst the trigger is pulled fully, the LCD screen changes to the forward direction (F) automatically then can be adjusted.



Adjusting Brake Direction (B)

- Operate the throttle trim lever whilst the trigger is pushed fully,the LCD screen changes to the brake direction (B) automatically then can be adjusted.

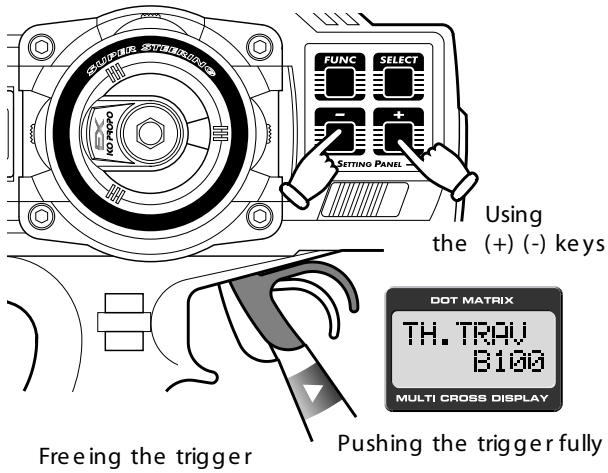
Operate the trim lever and this setting can range from 0-130.

(reverts back to previous screen in approx. 5 seconds.)

The Explanation of Each Function (Function Mode)

☐ Adjusting by Calling up the Screen

● Press function key 5 times from the initial screen to changes to the Throttle Travel screen.



Adjusting the forward direction (F)

❶ 1. LCD screen indicates forward direction (F) when the throttle trigger is freed.

❷ Use the (+) (-) key to adjust turning angle.

Adjusting the Brake Direction (B)

❶ When the trigger is pushed fully, the LCD screen displays brake direction (B).

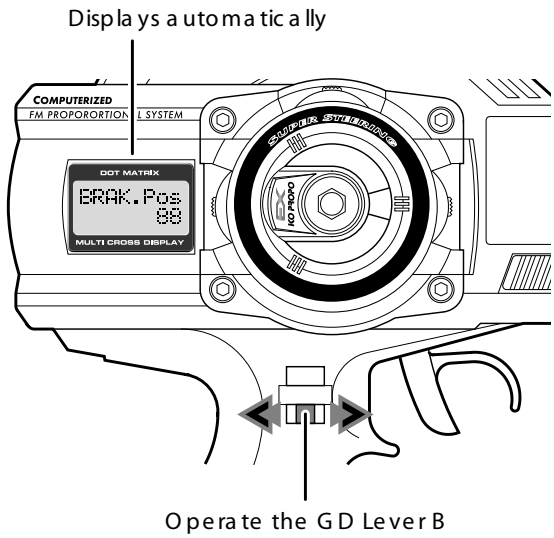
❷ Keep this position and use the (+) (-) keys to adjust the maximum brake rate.

☐ Adjusting the Brake by GD Lever.

At the position of GD lever B, you can set the brake turning angle as maximum value of the Throttle Travel screen. It also allows you to adjust it while you are controlling the model.

● Change the LCD display to the initial screen or Function Mode screen.

LCD screen will display automatically by operating the GD Lever B which then allows the brake turning angle to be set.
The setting range is 0~(the value of the brake travel on the screen)



⚠ Caution ⚠ After the linkage process, be sure to avoid exerting excessive pressure on the servo when full throttle or brakes are applied.
*Excessive pressure on the servo will cause damage and loss of control

Throttle Response

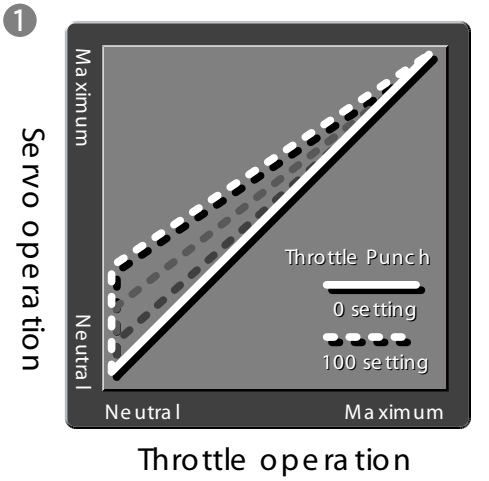
In the Throttle Response, the characteristics for forward direction and brake direction can be adjusted in two ways. Throttle Punch or TRC for the forward direction, Brake Punch or ABS for the brake

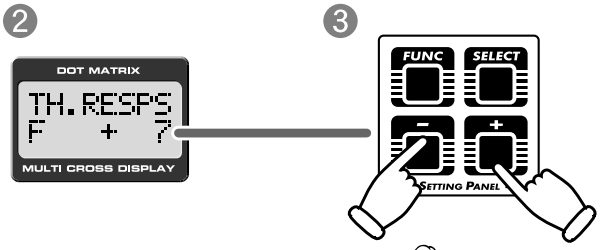
Throttle Punch

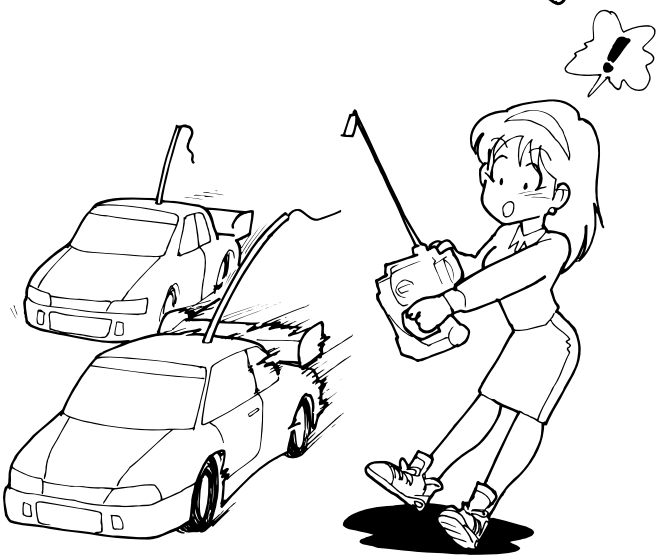
❶ Set up an offset (as shown in the graph) for the effect of trigger operation. In other words, improve the initial effect of throttle response.

❷ Press function key six times from the initial screen to change to the Throttle Response screen. LCD displays forward direction (F) when the trigger is released

❸ Positive value (+) settings in the screen applies the Throttle Punch feature. The setting can range from 0~+100.







Advice

This function can eliminate the time lag before the clutch engages in a gasoline-powered car or can be used to control the initial application of power in an electric car. The greater the value of the setting the larger movement of the throttle operation at the initial stage.

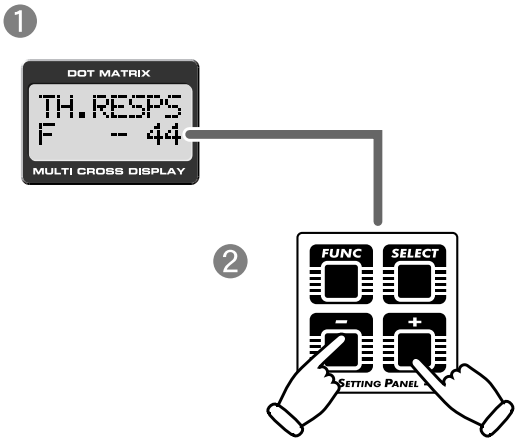
The Explanation of Each Function (Function Mode)

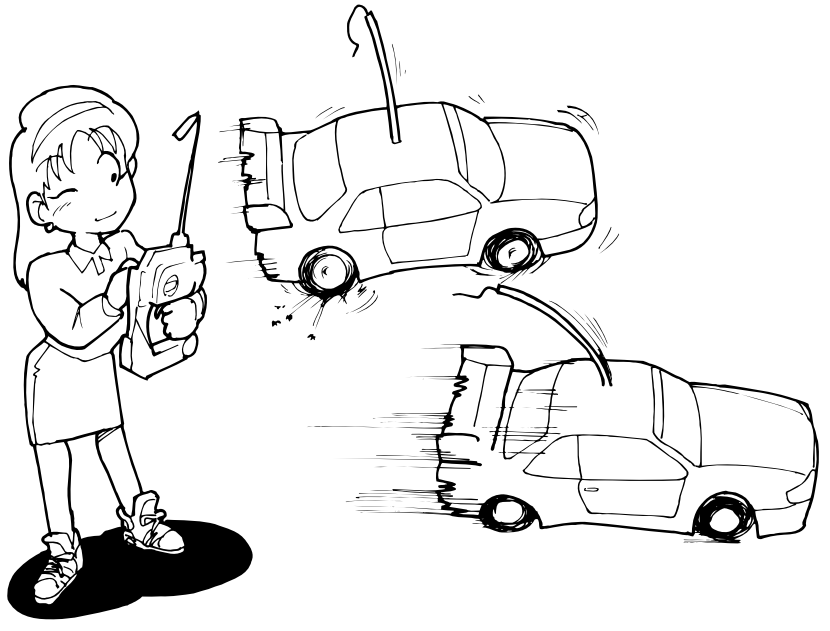
TRC (Traction Control)

Save power by controlling a delay in the power on direction when the trigger is pulled.

❶ Press Function Key six times from the initial screen to the Throttle Response screen. LCD displays forward direction (F) when freeing the trigger.

❷ Negative value (-) settings applies TRC feature.The setting can range from 1~-100. Maximum save is -100.





Advice

More than necessary rough application of the power will not improve your lap time.Wasting energy result in higher consumption of your nicad batteries. Expert drivers apply the power without wasting the energy and means smooth acceleration .Using the TRC means that you can pull back the throttle quickly.

The Explanation of Each Function (Function Mode)

Brake Punch

Set up and offset (as shown in the graph) for the effect of initial brake operation. In other words, improve the initial effect of brake response.

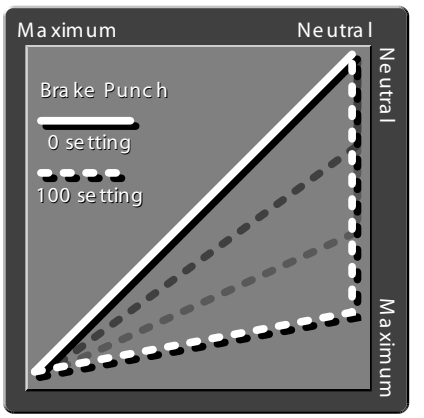
❶ Press function key six times from the initial screen to change to the Throttle Response screen.

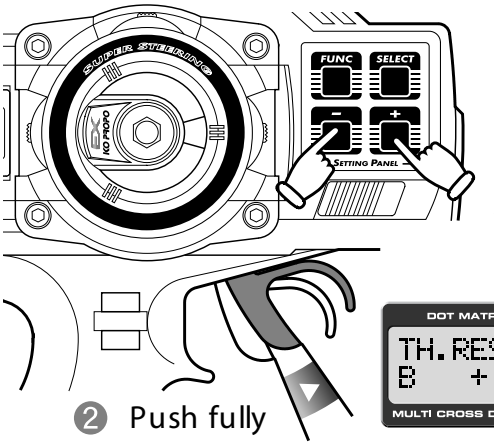
❷ LCD displays brake direction (B) when trigger fully pushed.

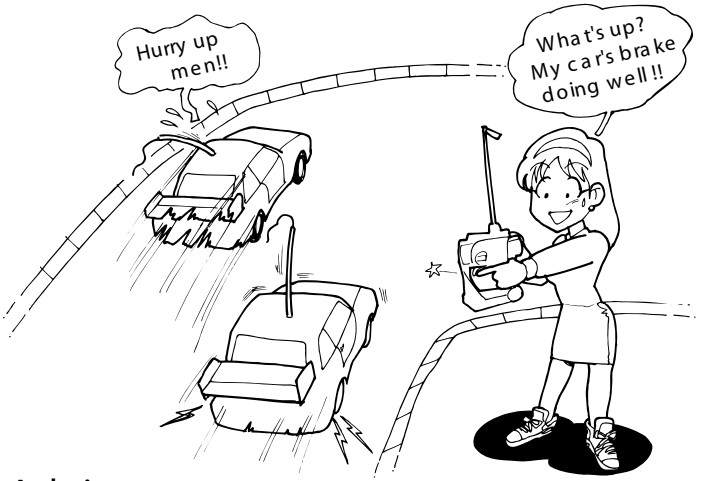
❸ Positive value (+) settings in the screen applies Throttle Punch feature whilst punching the trigger fully.
The setting can range from +1~+100.

※ *If the setting value is too big, the servo simply operates in a fashion similar to a switch.

Brake operation







Advice

This function can be used to adjust the initial effect of braking, especially for electric cars in that the initial effect of braking is not sufficient in ESC or a loose linkage setup of gasoline-powered cars.

The Explanation of Each Function (Function Mode)

ABS (Active Braking System)

Whilst in braking operation, applying the intermittent movement automatically and performing pumping brake effect.

❶ Press the function key six times from the initial screen to change to the Throttle Response screen.

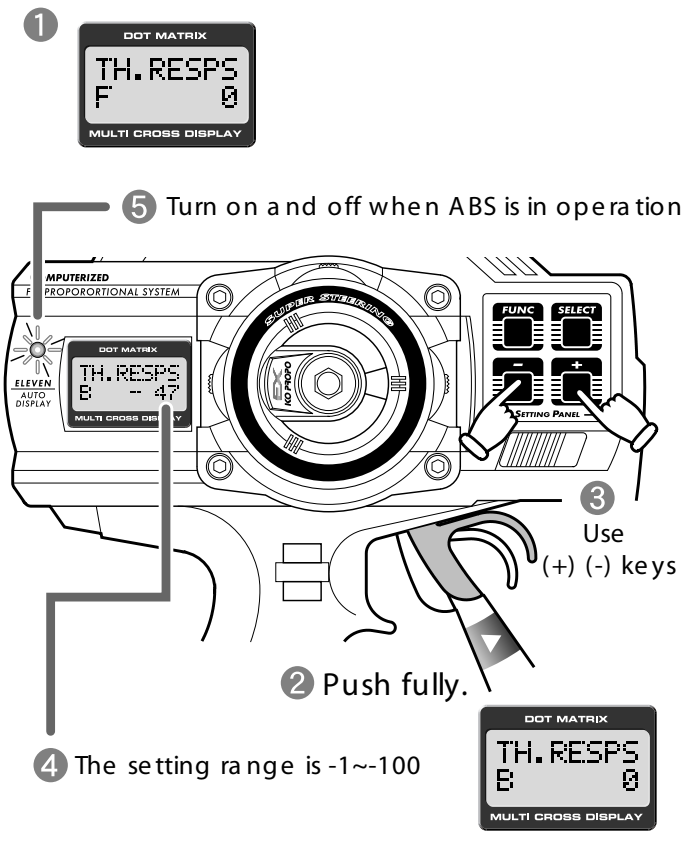
❷ LCD displays brake direction (B) when the trigger is pushed fully.

❸ Negative value (-) setting applies ABS feature.

❹ Adjust the amount of brake by changing the value on the screen.The setting can range from -1~-100.

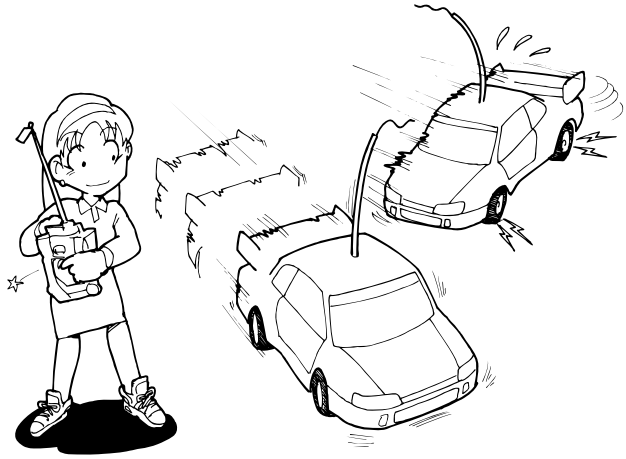
❺ The pilot lamp will turn on and off when the ABS function is in operation.

● If the pumping cycle is too fast or too slow, the cycle can be adjusted in the ABS cycle screen (p29).



⚠ Caution

When ABS is in operation and the throttle trim is set towards the brake direction and still more the brake travel is setting to a large value, there is a possibility that ABS movement will be left out. If this happens be sure to set the brake trim near to the 0 value.



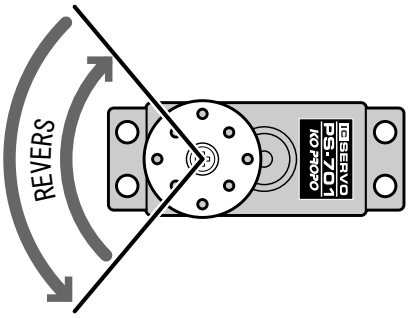
Advice

When more brake power is required or when the car cannot be set up well, this is an extremely effective feature. Firstly using the Brake Travel feature, set up so that maximum braking power can be gained without getting wheel lock. It may require several attempts to find the point at which maximum braking power can be gained without wheel lock.

The Explanation of Each Function (System Mode)

Determine the Direction of Servo and ESC Movement (Reverse)

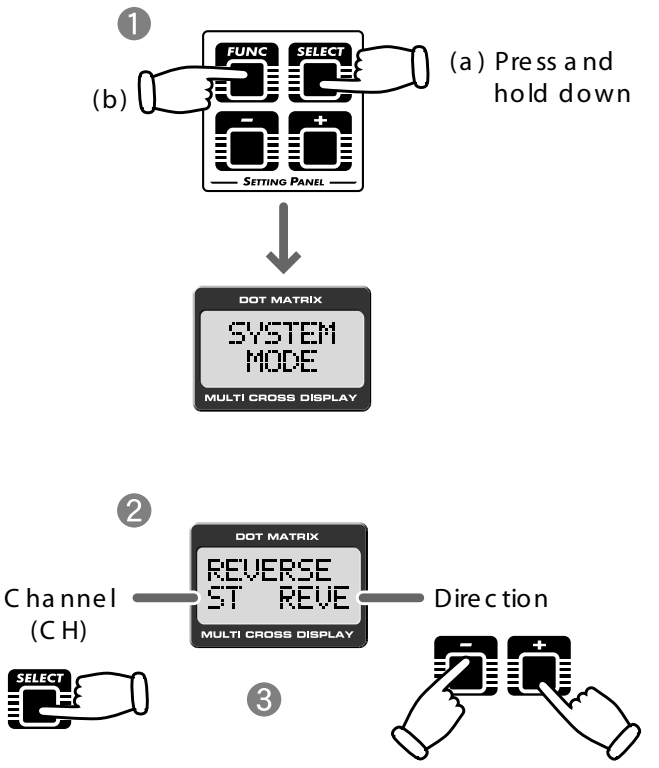
Use this function when the direction of servo and wheel, trigger operation is in reverse. It will be able to change the direction of servo for Steering (CH1) and Throttle (CH2).
CH3 and the auxiliary channel can set the operation direction in the reverse way.
Use auxiliary CH position (p27) if you want to determine the direction of servo to the reverse.



❶ Press and hold down Select Key from the initial screen then press the Function Key, it will change to the System Mode screen.

❷ Press the Function Key once from the System Mode screen to change to the Reverse screen.

❸ Use Select Key to change the channel (CH) and the direction can be set by (+) (-) keys.



The Explanation of Each Function (System Mode)

Select the Movement of Auxiliary Channel (CH3) (CH4). (Auxiliary CH Select)

There are five different way to select the auxiliary channel (CH3)

1P Position movement
Performs like a push button operation
When the lever is released (P1). When the lever is operated (P2).
It is useful for EG Remote Control Unit.

2P Position movement
Performs like a toggle switch.
(P1) and (P2) switches by lever operation.

3P Position movement
Performs like a three position switch.
(P1), (P2) and (P3) switches by lever operation.
It is useful for EP trailer gear shift change

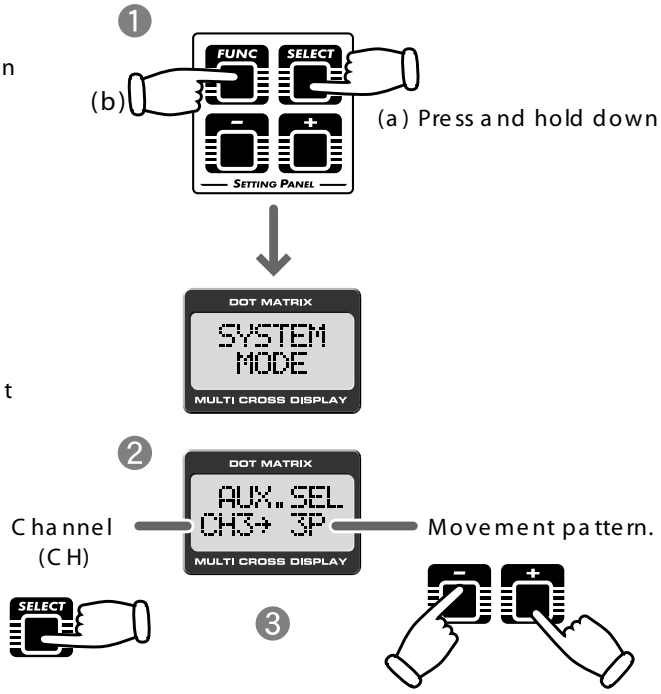
4P Position movement
By lever operation, it can be switched four positions

LIN movement
By lever operation, it performs a maximum of 240 steps movement.
It is useful for the mechanism which requires the

❶ Press and hold down Select Key from the initial screen then press the Function Key, it will change to the System Mode.

❷ Press the Function key two times from the System Mode screen to change to the Auxiliary Channel screen.

❸ Use Select Key to change the channel (CH) and the movement pattern can be set by (+) (-) keys.



The Explanation of Each Function (System Mode)

How to set up the Auxiliary Channel Position (Turning angle)

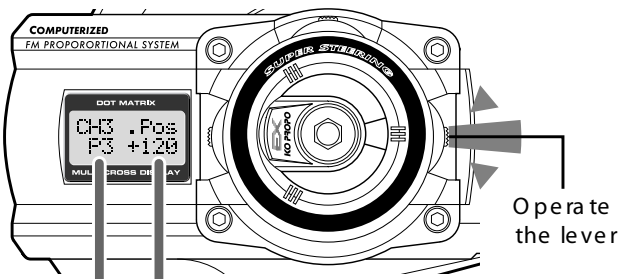
Adjust the each position of the servo in the GD lever selections.
Change the LCD screen to the initial screen of the Function

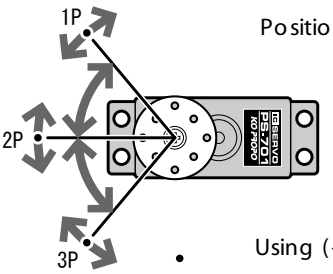
In the Case of 1P Position ~ 4P Position

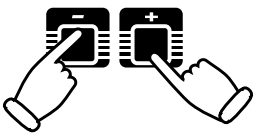
❶ By operating the lever in which an auxiliary channel has been set displays each position on LCD.

❷ Whilst the position is displayed, use (+) (-) keys to adjust.

(For example) 3P Position setting by GD Lever



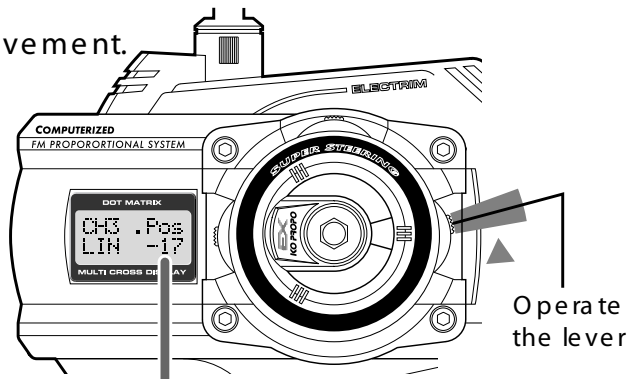


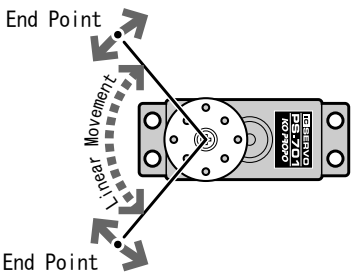


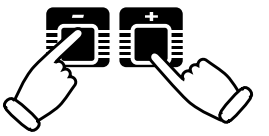
Using (+) (-) key to adjust each Position

In the Case of LINear Movement.

Operate the lever to the direction you want and the beeper sounds will be changed to the set turning angle.







•Using (+) (-) key to adjust each end position

The Explanation of Each Function (System Mode)

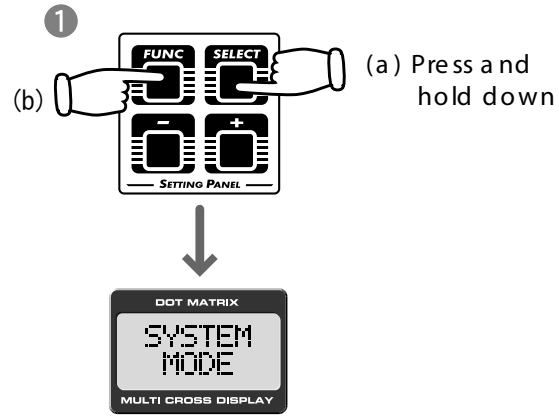
Assigning Various Functions to the GD lever (GD Lever Select)

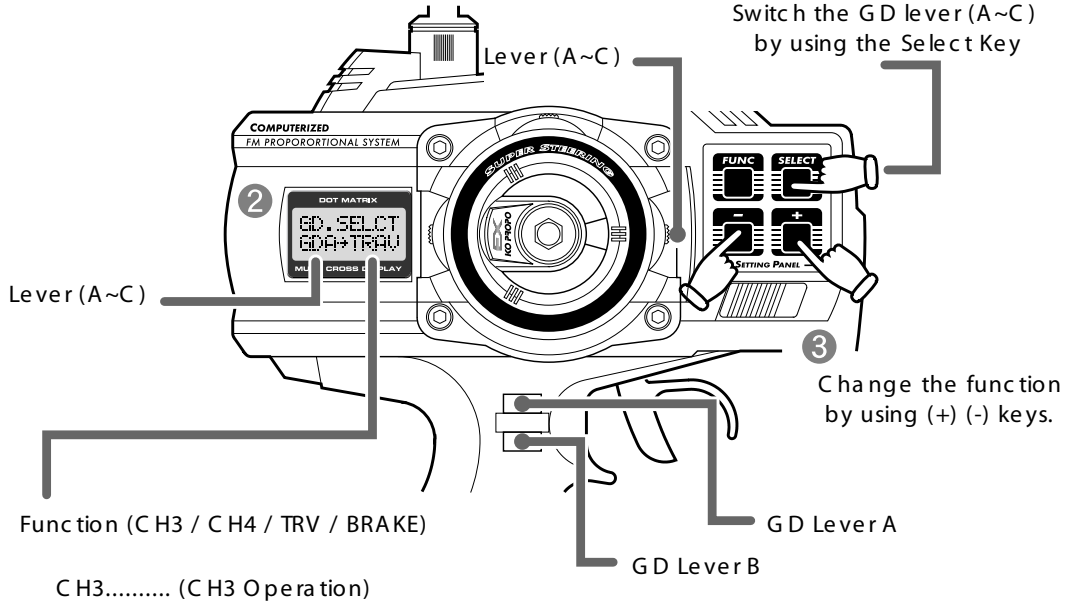
Allows function to be assigned to the GD lever

❶ Press and hold down the Select Key and then press the Function Key to change to the System Mode screen.

❷ Press the Function Key three times from the System Mode screen to change to the GD Lever Select screen.

❸ Use the Select Key to select the control that a function is to be assigned to GD lever A~C. Then use the (+) (-) keys to select the function to be assigned.The function setting can be repeated so please be careful.





CH3..... (CH3 Operation)
CH4..... (CH4 Operation)
TRAV (Steering Travel position)
.....(Current steering turning angle)
BRAKE (Brake position)
.....(Current brake amount)

⚠ Caution ⚠ Please use Model Select, GD Select after you fully understand the functions. *Incorrect setting can cause loss of control.

The Explanation of Each Function (System Mode)

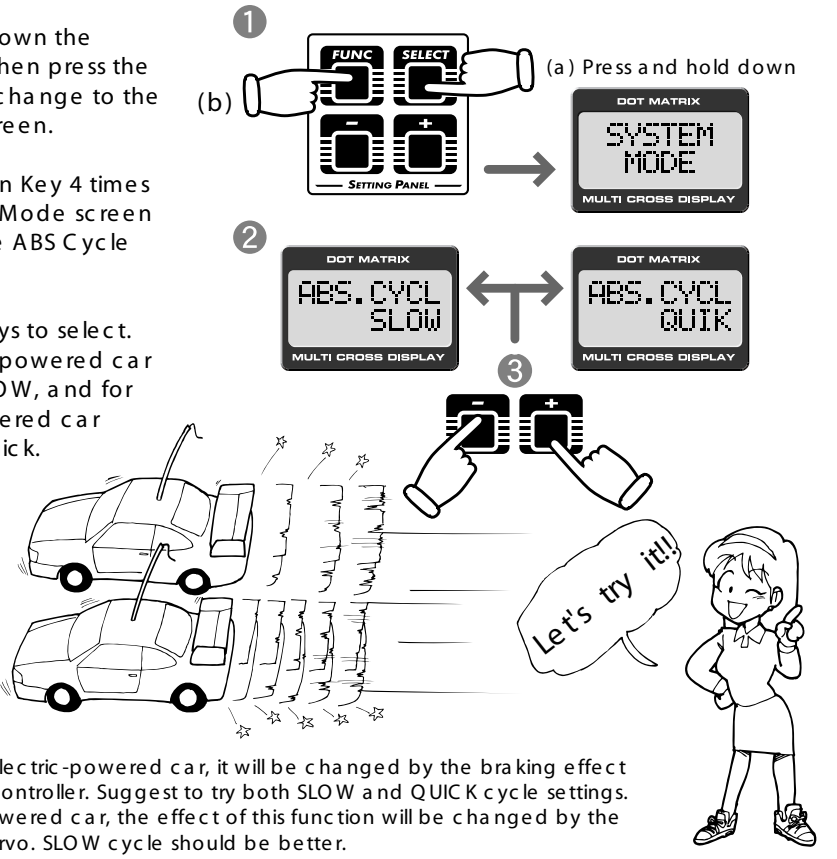
Changing the Pumping Cycle of ABS Brake (ABS Cycle)

Two different pumping cycles (intervals) of ABS Brake can be set.

❶ Press and hold down the Select Key and then press the Function Key to change to the System Mode screen.

❷ Press the Function Key 4 times from the System Mode screen to change to the ABS Cycle screen.

❸ Use the (+) (-) keys to select. For the gasoline-powered car should be set SLOW, and for the electric-powered car should be set Quick.



Advice

For the ESC in the electric-powered car, it will be changed by the braking effect of installed speed controller. Suggest to try both SLOW and QUICK cycle settings. For the gasoline-powered car, the effect of this function will be changed by the speed of throttle servo. SLOW cycle should be better.

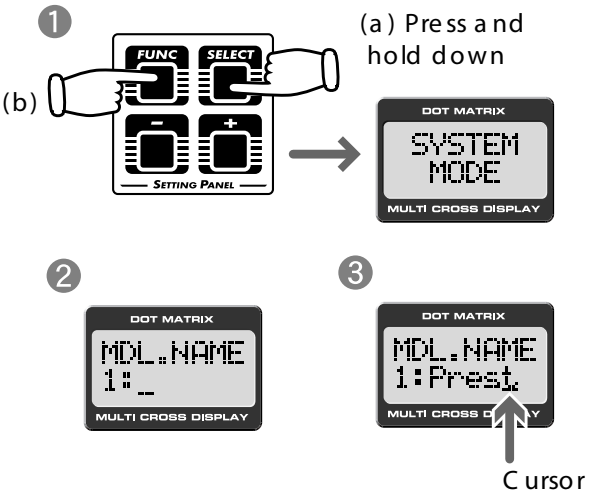
To Input, Change and Delete the Names in the Model Memory (Model Name)

For up to six letters or symbols can be stored in each

❶ Press and hold down the Select Key and then press the Function Key to change to the System Mode screen.

❷ Press the Function Key five times from the System Mode screen to change to the Model Name screen.

❸ Use the Select Key to move the cursor. And the (+) (-) keys to select the characters.



Connecting the Receiver

Warning Be certain to use only KO Propo genuine FM crystal sets(transmitter and receiver). Never use crystals produced by other companies since such crystals may vary in frequency, which could lead to misoperation or out of control

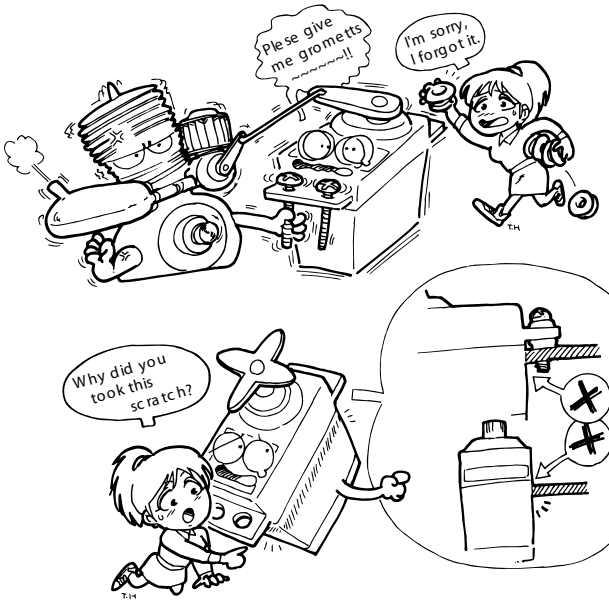
Warning Be sure to connect all equipment correctly.If connections are loosened by vibration,the model may run out of control.

Warning Do not cut or bundle the aerial wire with other cords. It may result in decreasing the sensitivity of the receiver and may result in the model running out of control.

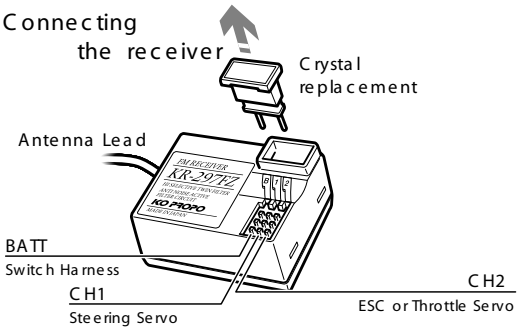
Caution Be careful not to reverse the polarity of the transmitter and the receiver. Reverse polarity could damage the units.

Caution Be sure to use genuine KO Propo products e.g. transmitter,receiver, ESC and other option parts. * We cannot assume any responsibility for the use of other companies products with this unit.

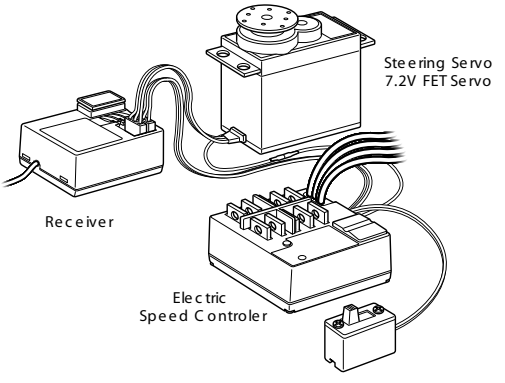
Warning Be sure to use grommets and be sure that the servo is not touching any metal plates directly. * The vibrations may damage the servo and the model may run out of control.



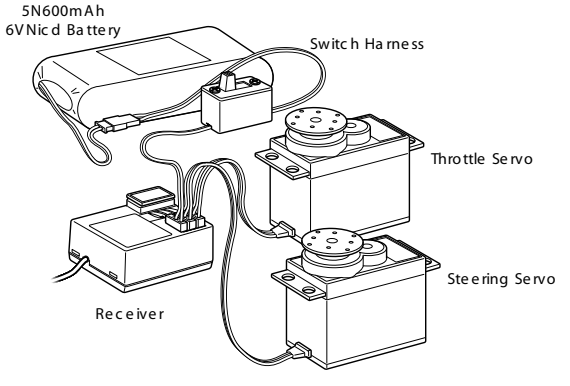
● Connecting the receiver



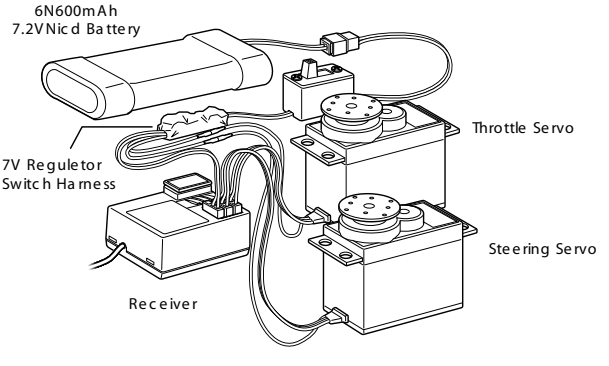
● For an electric-powered car (FET servo + FET



● For a gasoline-powered car (6V FET servos)



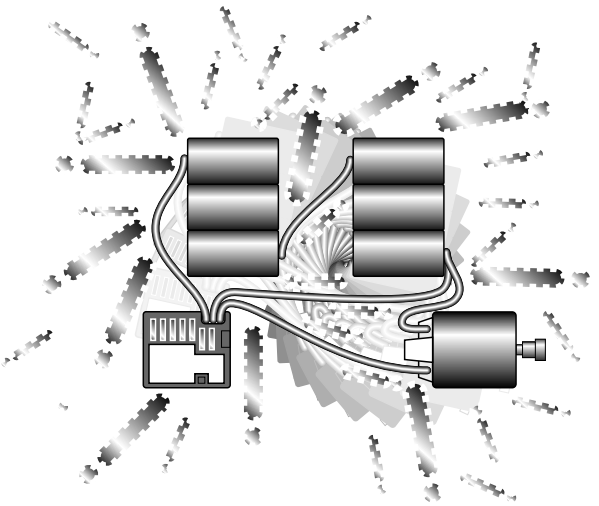
● For a gasoline-powered car (7.2V FET

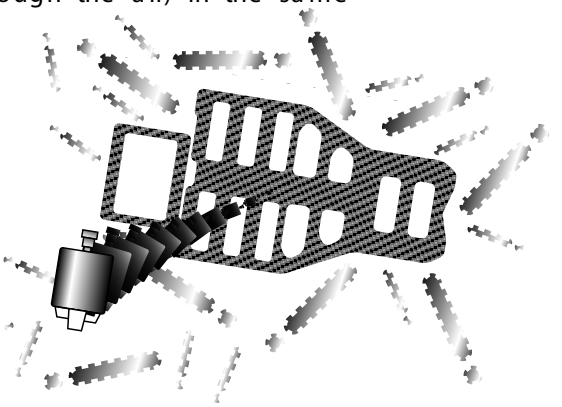


Notes on Receiver Usage

The Source of Noise and Electromagnetic Induction (Electric-powered car)

- Assume that all areas where large currents are flowing are generating noise!
  Locate antenna wires and receivers as far away from the motor, ESC, nicad batteries,and silicone wire as possible. Noise is a type of radio wave, and therefore is radiated (travel through the air) in the same

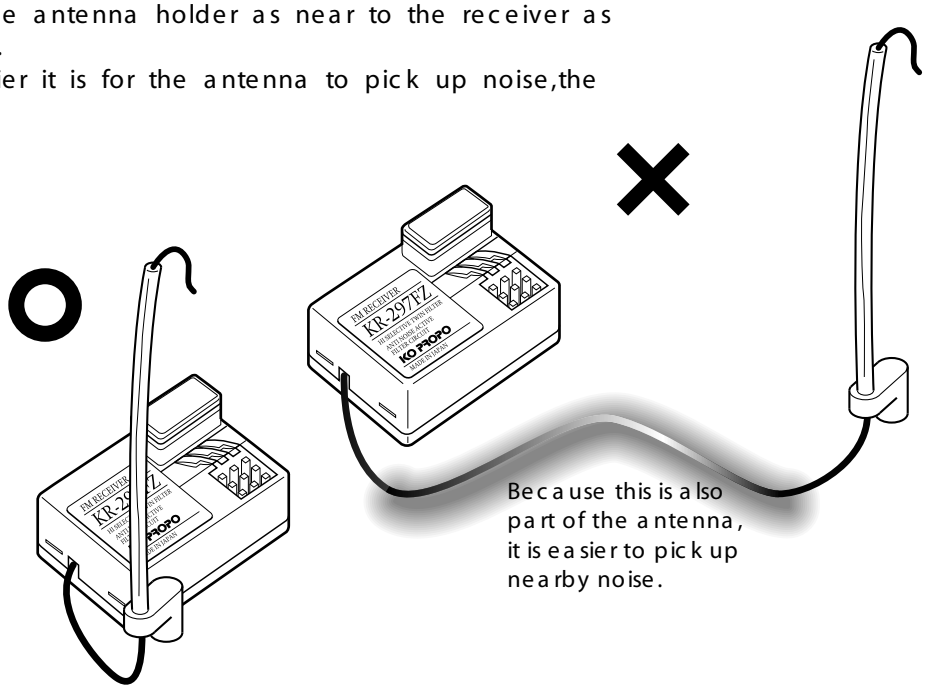




Metals and carbon can also conduct noise. As a result, you should never closely attach the antenna wire to the plate and carbon chassis.

Distance Between the Receiver and Antenna Holder

- Install the antenna holder as near to the receiver as possible.
  The easier it is for the antenna to pick up noise,the



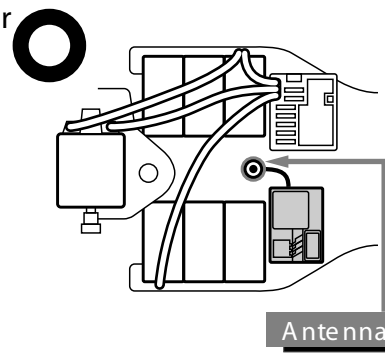
Notes on Receiver Usage

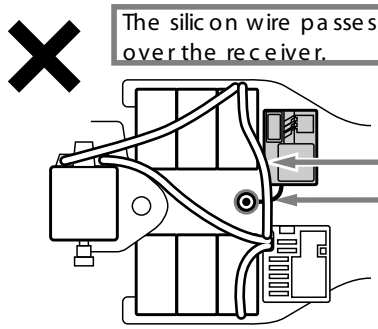
Notes on Installing the Receiver

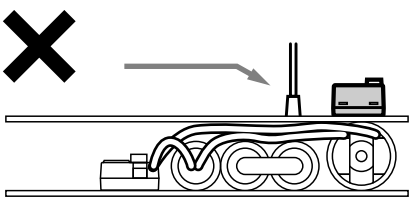
- The installation position should be as far as possible from the motor, ESC, nicad batteries, silicone wires or other noise sources.

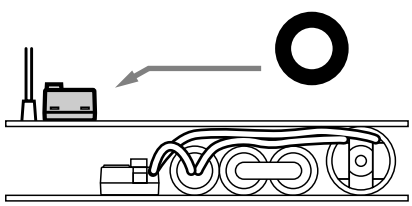
  Especially, do not route the silicone wires next to the receiver. (must not be near to the crystal)

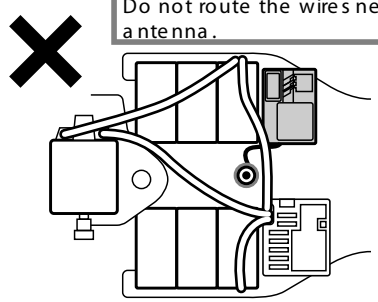
  FET servo blue wire (7.2V wire) and switches can also generate noise, position them as far away as possible from the receiver





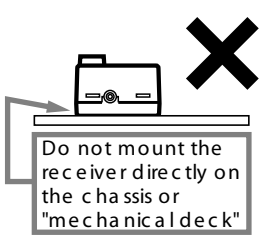


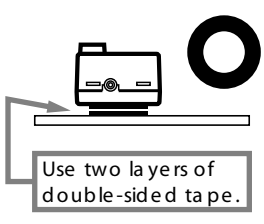


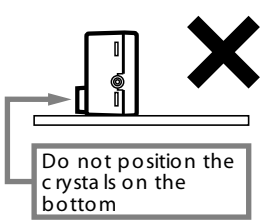


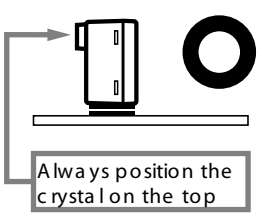
Mounting the Receiver (Electric-powered car)

- When fixing the receiver in place on the chassis or on the "mech use two pieces of do one on top of the other, as that the receiver is cushioned somewhat.





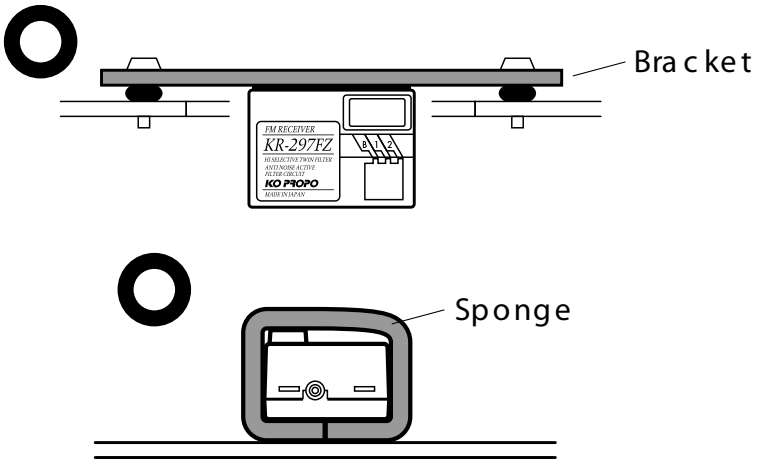




Notes on Installing the Receiver

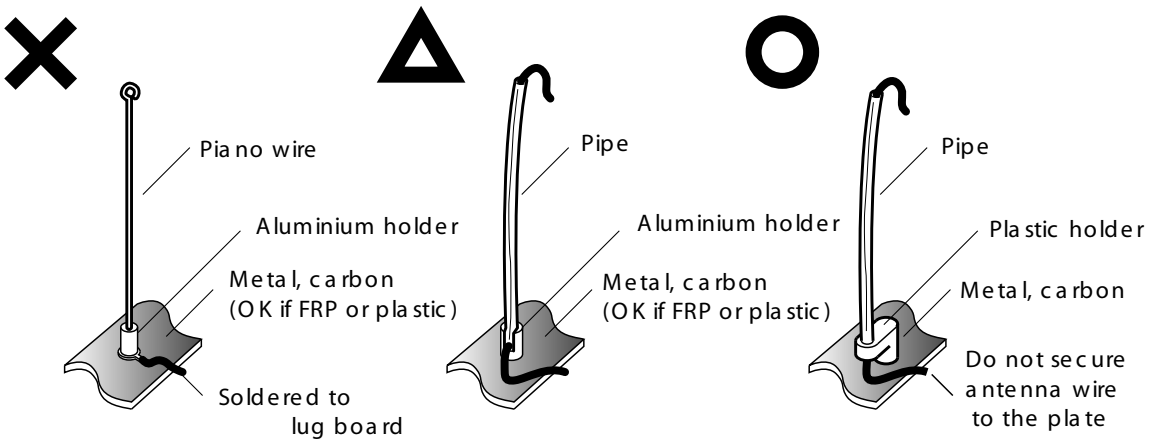
Notes on Installing the Receiver (Gasoline-powered car)

- Do not secure the receiver on the chassis or the "mechanical deck". Vibrations will cause the receiver to misfunction and may even cause internal damage to the receiver.Either use the bracket (receiver holder) provided with the kit, or else cushion the receiver with a sponge like

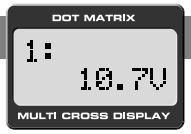
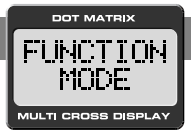
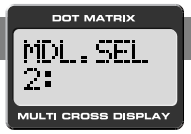


Notes on Antenna Installation

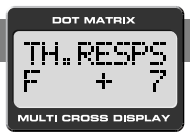
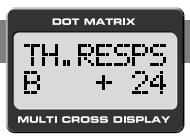
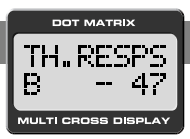
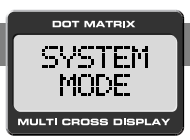
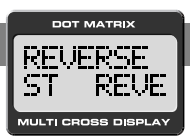
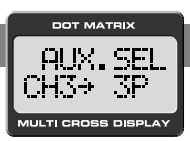
- Please follow the instruction as in the illustration below when you mount the antenna holder to the metal or carbon chassis.When using on FRP or carbon hollow antenna on a racing car, etc., do not pass the antenna wire through the pipe, allow it to trail away loosely outside.



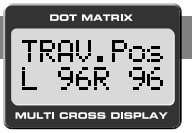
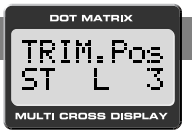
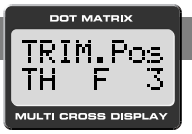
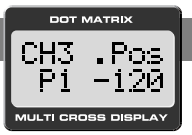
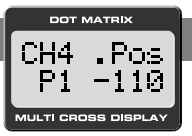
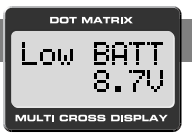
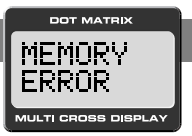
LCD Screen Table

LCD Screen	Name of Function	Explanation	Refer to:
	Initial screen	Screen display when the power is first turned on.	P13
	Function Mode screen	Displays when entering in the Function Mode.	P13
	Steering Travel	Adjusting overall steering servo turning angle.	P15
	Steering Travel L	Adjusting left steering turning angle.	P12,15
	Steering Travel R	Adjusting right steering turning angle.	P12,15
	Model Select	Changing the model memory.	P14
	Steering Response	Adjusting the steering response characteristics.	P17
	Steering Response (-)	Steering Speed. Steering characteristics of the car become "mild".	P18
	Steering Response (+)	Steering Curve. Steering characteristics of the car become "Quick".	P17

LCD Screen Table

LCD Screen	Name of Function	Explanation	Refer to:
	Throttle Travel (F)	Adjusting turning angle of forward direction.	P19,20
	Throttle Travel (B)	Adjusting turning angle of brake direction.	P19,20
	Throttle Response (+)	Throttle Punch. The initial effect of throttle response becomes "Quick"	P21
	Throttle Response F (-)	Throttle Traction Control. Save the power on acceleration when the trigger is pulled.	P22
	Throttle Response B (+)	Brake Punch. The initial effect of brake response becomes "Quick"	P23
	Throttle Response B (+)	ABS (Active Braking System) The intermittent movement will be automatically applied and performing pumping brake effect.	P24
	System Mode Screen	Displays when entering in System Mode	P13
	Servo Reverse	Determine the direction of servo	P25
	Auxiliary Channel Select	Select the movement of auxiliary channel.	P26
	GD Lever Select	Assigning various functions to the GD lever.	P28

LCD Screen Table

LCD Screen	Name of Function	Explanation	Refer to:
	ABS Cycle	Changing the pumping cycle of ABS brake.	P29
	Model Name	Input name in Model Memory.	P29
	Travel Position	Displays the current Steering Travel (turning angle).	P16
	Brake Position	Displays the current Brake Travel (turning angle).	P20
	Trim Position (steering)	Displays the current position of Steering Trim.	P10
	Trim Position (throttle)	Displays the current position of Throttle Trim.	P10
	CH3 Position	Displays the current position of CH3.	P27
	CH4 Position	Displays the current position of CH4.	P27
	Low Battery	Battery voltage is dropping.	P9
	Memory Error	Something happening on the CPU memory data.	P9

Index

Description Terminology used in Radio Control Model usage.

A	AC Charger	The charger gets power supplied by AC mains.
	Alarm	Audible warning sounds from the transmitter.
	AM (amplitude modulation)	A method of encoding data by varying the amplitude of a constant carrier.
B	Band Plate	Display plate which indicates current frequency.
C	Channel	The number allocated to each servo,ect.
	Computer(CPU)	Central processor unit. The part of a computer which controls all other parts.
	Connector	Detachable electric terminal unit.
	Crystals	Interchangeable item which changes the frequency of the transmitter/receiver.
D	DC Charger	The charger gets power supplied by 12V batteries or constant power supply unit.
	Dischager	The device which discharges the remaining energy from nicad batteries.
E	ESC	Electric speed controller which controls the RPM of the motor for electric powered models.
F	FET Servo	The high class servo using FET transistor that increases the power output of the unit.
	FM (frequency modulation)	A method of encoding data by varying the frequency of a constant carrier.
	40Mhz	One of the wave bands allowed for use in radio control models.
G	Grommets	Rubber material to prevent the vibration of the servo. Attach them to the servo mounts.
H	High Frequency ESC	The speed controller that controls the motor with a fast cycle of frequency. High efficiency and smooth control.
	Hydropack	Assembled rechargeable nickel metal battery pack with higher capacity than a nicad battery.
L	LCD	Liquid crystal display.
	LED	Light emitting diode.Type of diode that emits light when current passed through it.
	Linkage	Joint mechanism between servo and the model.
M	Mechanical	Plate The plate where the servo or receiver is installed in the chassis.
	Memory	The device that can hold data in machine readable format.
N	Neutral	The position of the servo when releasing the stick or wheel of the transmitter.
	Nicad Pack	Assembled rechargeable nickel cadmium battery which is different from dry battery cells.
O	Oversteer	The phenomenon that is caused by the model over reacting to the teering input.
P	Push Rod	Resulting in sharper turning angle than required.Stick type of parts using in linkage.
R	Rapid Charger	The charger which charges the nicad battery very quickly.
	Regulator	The device that stabilises the input voltage to the necessary level.
S	Servo	The part which changes the transmitted signals into the rotation movement.
	Servo Saver Horn	The shock absorbing device that is installed or in place of servo horn.
T	Transmitter(TX)	The hand set that transmits signals.
	Trigger	The mechanism that control the throttle pulling like a gun trigger in
	Turning Angle(Travel)	Turning angle of the servo horn.
	27Mhz	One of the wave bands allowed for use in radio control models.
U	Understeer	The phenomenon that is caused by the model under reacting to the steering input.Resulting in wider turning angle than required.
W	Wheel	The part that controls the steering in the transmitter.

ling.

MEMO

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MEMO

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MEMO

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EX-11 PRESTO

Main Specifications

Transmitter KT-497FH

Operation method	Wheel and gun grip
Number of channels	4 Channels
Transmission frequency	Any band by changing crystal within the frequency range
Modulation method	FM-PPM
Neutral pulse	1.5mSec
Memory	EEPROM
Supply voltage	9.6V (Nicad, Hydropack) or 12V (8x AA size dry cell)
Current consumption	Less 250mA

Receiver KR-297FZ

Reception method	FM-PPM
Number of channels	2 Channels
Reception frequency	Any band by changing crystal within the frequency range
IF frequency	455 KHz
Supply voltage	3.5~6.5V
Dimensions	36.6 x 26 x 15.5 mm (excluding protrusions)

KO PROPO®

LATEST LEADING RADIO CONTROL TECHNOLOGY

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EX-11
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