

Thank you for purchasing the Syncro EX-6R. Before use, this on top of the check the necessary information in the "Getting Started Guide" please, please read the instruction manual of the (PDF file).

※Instruction manual is included on the supplied CD-ROM.

### Parts List :

Master Unit EX-6R .....	x1
Expert Grip Unit 2 (Assembled) .....	x1
Normal Stand (Assembled) .....	x1
Normal Extension Unit (with Soft Spring) .....	x1
LCDXpansion EXP-104S (Assembled) .....	x1
Wheel cap remover .....	x1
Startup Guide .....	x1
Instruction Manual (CD-ROM) .....	x1

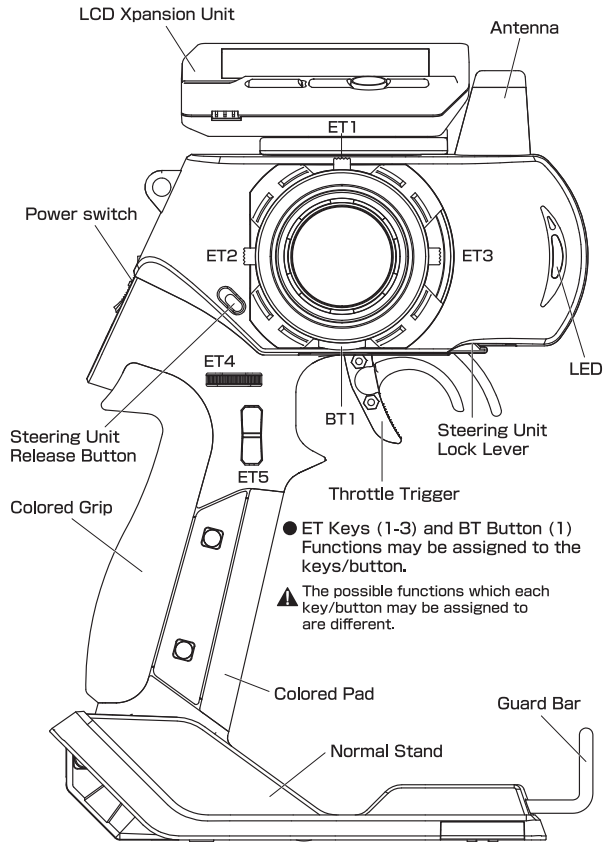
### Items that you should especially should pay attention to.

- 1) When the installation of each unit (Steering unit / Xpansion unit / Grip unit) or disassembling, please make sure that the power is switched off.
- 2) Operation alarm acts when leaving EX-6R unattended for three minutes. When an operation key is pressed the sound will stop.
- 3) When changing the model selection, the modulation mode changes are not linked. Refer to changing the modulation mode.

### Names of Parts

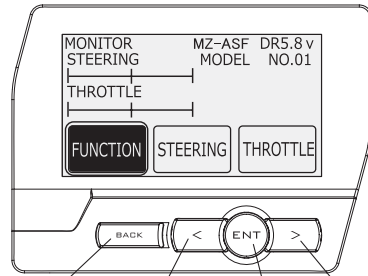
The company name or the brand name for each reference in the text is a registered trademark. Downloading the software from the attachment or from our homepage for this product and being used for the sole purpose of this product is accepted. Please do not use this for any other use. This product, software and the intellectual property rights are the legal rights of KYOSHO CORPORATION. The act of which breaks the law, can result in penal regulations and other applicable laws in the region that the violation takes place.

### Names of Parts



### Basic Operations to Change Settings

Controlling of the setting adjustments is done via the L(<) key, R(>)key, ENTER(ENT) key, and BACK key.



BACK key L (<) key ENT key R (>) key

#### ENT Key :

Selecting item to be modified; Confirming a change after a setting change.

#### L (<) Key :

Used to move cursor between menu choices and to change a setting value. Lowering a value (for L/R cases: raising toward L); Return to a previous menu item.

#### R (>) Key :

Used to move cursor between menu choices and to change a setting value. Raising value (for L/R cases: raising toward R); Proceed to next menu item.

#### BACK Key :

Returning to previous screen; Canceling change

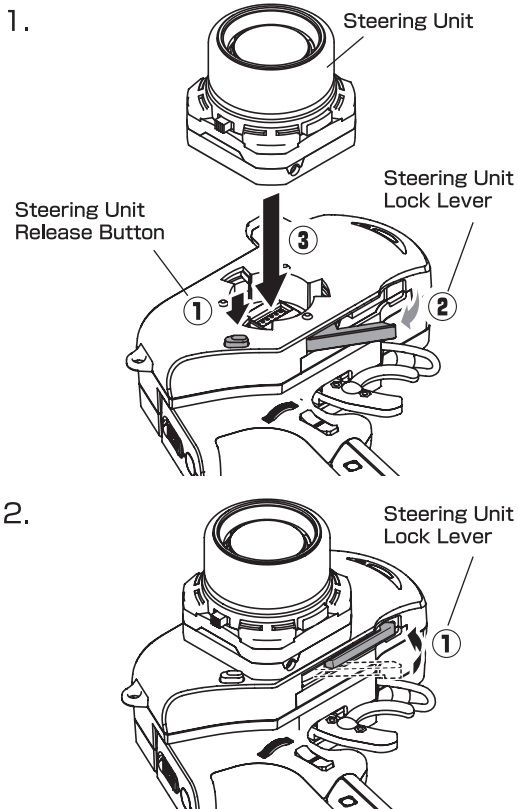
#### L (<) Key · R (>) Key Pressing simultaneously :

Resets the value to default setting.

※Please refer to the instruction manual for the detailed function and operation.

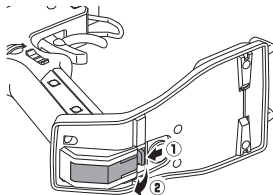
※Depending on the model, expansion unit has been installed at the factory.

## 1 Attach the Steering Unit.

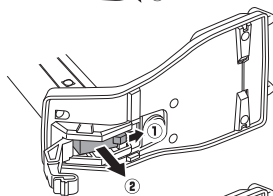


## 2 Battery Installation

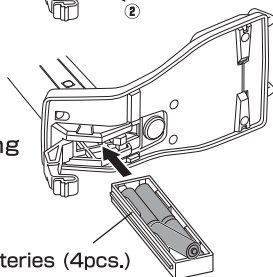
1. Press the tab ① on the bottom of the transmitter to open battery box cover.②



2. Remove the lock ① to pull out battery box②.



3. Install four R03/AAA/UM4 alkaline batteries while noting their polarity, then replace battery box.



⚠ Use batteries which have adequate remaining capacity. Weak batteries mean lower transmitting power and may result in malfunctions.

⚠ Do not install Ni-Cd or Ni-MH batteries in the battery box. (These may cause the battery connectors to corrode.)

### 3 VR information setting

Adjust the steering and throttle resistance information  
 ※Please perform the VR information configuration to calibrate your system.

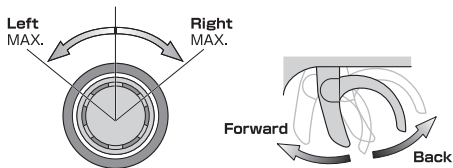
- When using EX-6R for the first time.
- When changing a steering unit for a different product or when putting it back together.
- When changing a grip unit for a different product or when putting it back together.
- When using and confusion has occurred in the positional information.

1. Select [FUNCTION] on the initial screen and push the ENTER key.
2. Select [SYSTEM] on the function screen and push the ENTER key.
3. Select [VR INFO] on the system screen and push the ENTER key.
4. Move the wheel slowly to the full left and right lock (numbers will change as the steering is moved) and release the wheel back to neutral.
5. Move the trigger slowly to the full throttle and full brake positions (numbers will change as the throttle is moved) and release the trigger back to neutral.
6. Then select YES (press ENTER) to adjust and save the settings.

3. Example before setting

VR INFOMATION		
ST- LEFT	X X X X	OK? YES
NUT	X X X X	
RIGHT	X X X X	
TH- HI	X X X X	
NUT	X X X X	
LOW	X X X X	

4.5. Move slowly to full stroke, then release.



6. Small window [Yes] comes active.

VR INFOMATION		
ST- LEFT	1765	OK? YES
NUT	◇	
RIGHT	-1749	
TH- HI	1204	
NUT	◇	
LOW	-565	

※When operating the VR INFORMATION and pressing the BACK key will cancel the operation.

### 4 How to change the Modulation mode

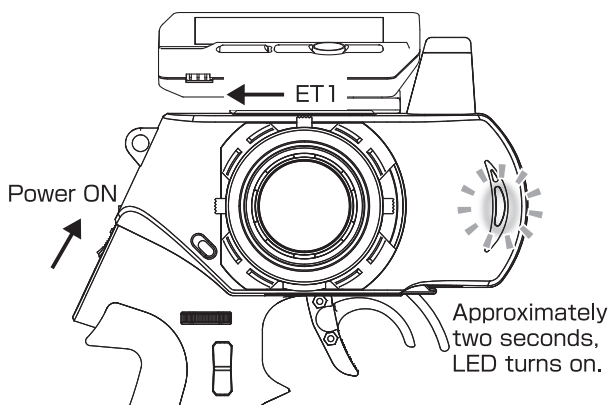
EX-6R has two Modulation modes.

《Functions》

- MINI-Z ASF mode : LED Solid  
ASF support of MINI-Z series is steerable.
- MINI-Z MHS mode : LED Flashing slowly  
Operating MINI-Z MHS mode. (MR-03 VE PRO)

⚠ Only MINI-Z with ASF/MHS system are operable.  
FHS (MINI-Z sports) cannot be controlled.

- ① Turn off EX-6R switch.
- ② Push the ET1 lever to the left and power on.
- ③ Hold ET1 lever until the buzzer sounds and the LED of EX-6R turns on (approximately two seconds).

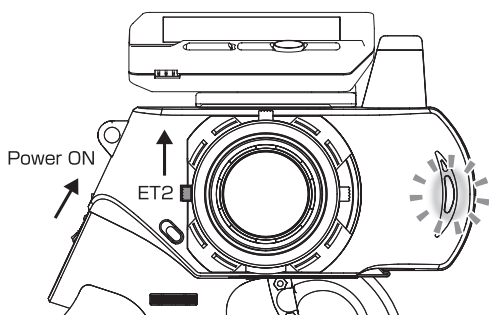


⚠ If the pilot LED is blinking fast, this is a warning that the battery voltage is low. Please change to new batteries or for a battery pack which has been charged.

## 5 Pairing

### 1. Preparing the Transmitter

- ① While pushing the ET2 lever up, power on. The pilot LED lights up, release ET2 lever.



< France mode pairing >

FRANCE mode pairing is possible when the ET2 lever is released after LED turns off. Please use this feature if the situation is needed.

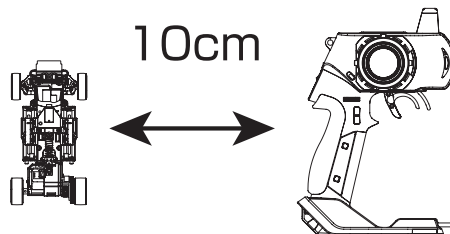
- ② When the ET2 lever is released, the LED turns off. ※Displays the initial screen, then pairing display is shown.



EX-6R LED lights up again (indicating transmitter is transmitting the pairing signal.)

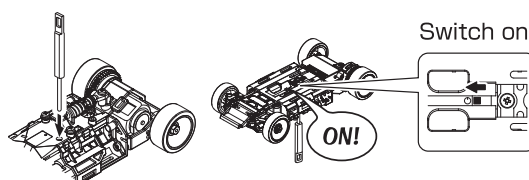
### 2. Preparing the MINI-Z

- ① Bring distance of EX-6R and MINI-Z close to about 10cm.

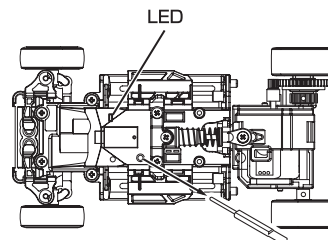


- ② Switch on MINI-Z while pushing the pairing button of MINI-Z.

Pushing pairing button



- ③ After the MINI-Z's LED has lit up, release the pairing button. Then check that the MINI-Z's LED lights up again. (indicating pairing completion)



### 3. Preparations for Operation

- ① Switch off MINI-Z.
- ② Switch off the EX-6R main power, then switch on EX-6R again.
- ③ Bring distance of EX-6R and MINI-Z close to about 30cm. Switch on the MINI-Z and check that the receiver LED is lit. If the LED flashes, the MINI-Z is not getting the EX-6R signal and the pairing procedure should be repeated.

⚠ Pairing procedures may not go smoothly if there are wireless LAN, microwave ovens, or other users conducting pairing procedures nearby. In this case, move some distance away or wait a while before attempting the pairing procedure again.

⚠ If the mode is changed (General or France), please conduct pairing procedures with the MINI-Z you are using again.

## 6 Gyro control setting for MINI-Z MHS

Using the signal of 3ch of EX-6R, the MINI-Z MHS (MR-03VE PRO) gyro control function is available.

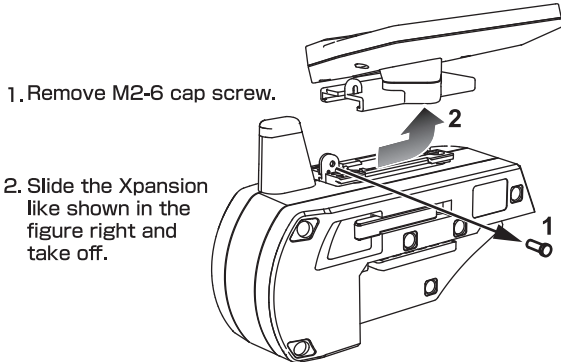
[Setting]

- ① Enter [Function] > [3, 4CH] > [3CH MODE] item then push the ENT key in [SET].
- ② In [3CH MODE: 5WAY] menu, set the KEY to ET3.
- ③ The effect of the steering gyro becomes strong when operating ET3 lever up.

## How to change Xpansion unit position

**Xpansion unit can be mounted in two different directions using the monitor base and bracket.**

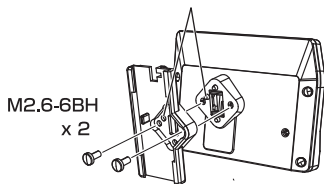
How to disassemble the Xpansion unit.



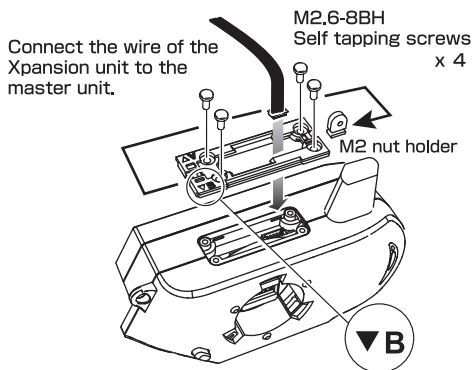
### ▼ B : when mounting sideways

- ① Attach the monitor base at a right angle to Xpansion Unit.  
※Different Factory setting.

Attention to the marker.



- ② Attach the monitor bracket to the master unit.  
※Apply [▼B] mark to the steering side.

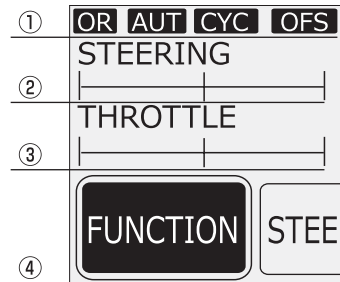


- ③ Attach expansion unit to a master unit. While matching the edge of the base with the dent of the bracket, slide it until the Xpansion unit locks.

※When assembling or disassembling the Xpansion unit to EX-6R, please switch off the EX-6R.

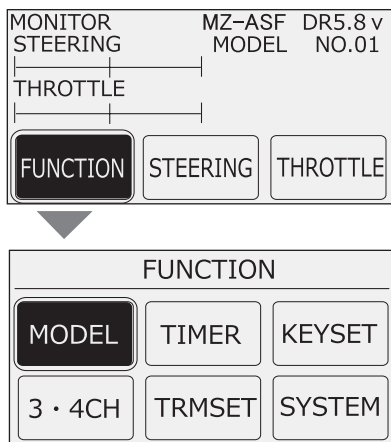
Initial screen

- ① Function Monitor : Functions that are active will be lit up.  
 OR : Steering and Brake travel Override  
 AUT : Throttle Auto Start  
 CYC : Cycle (Throttle Acceleration/Throttle ABS)  
 OFS : Offset (Neutral Brake/Idle Up)  
 ⚠ When the above-mentioned functions are disabled "MONITOR" displayed.
- ② Steering Trim Monitor : Displays the position of the steering trim.
- ③ Throttle Trim Monitor : Displays the position of the throttle trim.
- ④ Top menu : Display three kinds of setting items  
 FUNCTION Modify settings related to functions.  
 STEERING Modify settings related to the steering.  
 THROTTLE Modify settings related to the throttle.



MENU

FUNCTION



Model menu (MODEL)

Operations such as selecting or copying a model  
 ▶Model select, Model name, Model copy, Model reset

Timer menu (TIMER)

Operating timer-related functions  
 ▶Trigger start, Lap history, Alarm

Key set menu (KEY SET)

Modify system-related functions such as key assignment.  
 ▶ET1~5, BT1  
 ※ET4~5 are only available with the expert grip.  
 (optional: Kondo Kagaku Co., Ltd.)

3CH/4CH menu (3·4CH)

Modify settings related to 3CH and 4CH.  
 ▶MODE : OFF, 2WAY, 3WAY, 5WAY, ANALOG  
 GYRO, TWIN, 4WS, AMP, T-MIX

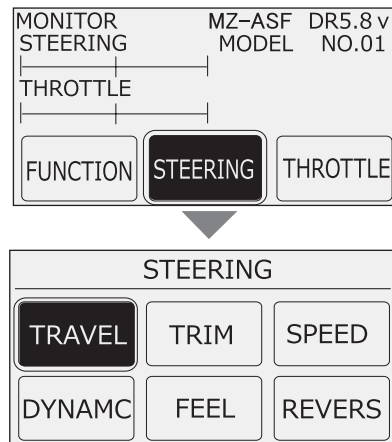
Trim set menu (TRIMSET)

Easy adjust function for steering trim and balance.  
 ▶Steering auto trim, Steering auto balance

System menu (SYSTEM)

Modify system-related functions such as VR information or calculator.  
 ▶Display, Battery, Calculator, VR information, Key speed

STEERING



Steering Travel

Modify the overall amount of steering movement.  
 ▶Steering travel, Steering balance

Steering Trim

Modify the neutral position of the steering angle.  
 ▶Steering trim, Steering subtrim, Steering trimrate

Steering Speed

Modify the speed of the steering's movement.  
 ▶Turn speed, Return speed

Steering Dynamics

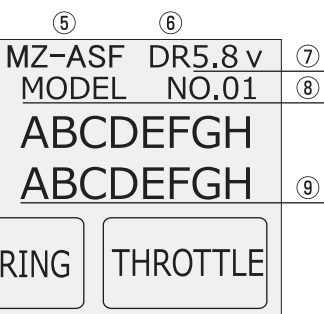
Modify the movement speed ratio which corresponds to steering angle and Modify how much the steering initially turns from neutral position.  
 ▶Steering curve, Steering punch

Steering Feel

Modify the feeling of the steering's movement.  
 ▶Steering Feel, Throttle Feel F / B

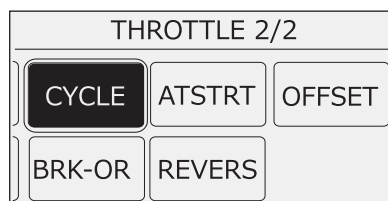
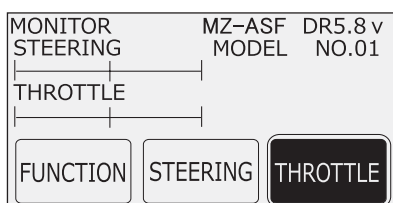
Steering Reverse

Modify the steering direction.  
 ▶Steering Reverse



- ⑤ Modulation Mode : Displays the currently selected modulation mode.  
MZ-ASF : ASF Mode      MzMHS G : Mini-Z MHS General Mode  
MzMHS F : Mini-Z MHS France Mode
- ⑥ Power Source Type : Displays the type of battery being used.  
L P : Li-po      D R : R03/AAA/UM4 Alkaline Batteries  
L F : Li-Fe      N I : Ni-MH  
(Notice) If you switch battery types, make sure to also change the [Battery Management] setting.
- ⑦ Voltage : Displays the current power source voltage.
- ⑧ Model Number: Displays the currently selected model number.
- ⑨ Model Name: Displays the name of the currently selected model number.

## THROTTLE



### Throttle Travel

Modify the maximum throttle movement.  
▶Throttle travel

### Throttle Trim

Modify the neutral position of the throttle.  
▶Throttle trim, Subtrim, Trimrate

### Throttle Speed

Modify the speed of the throttle's movement.  
▶Throttle speed, Return speed

### Throttle Dynamics

Modify the movement speed ratio which corresponds to throttle angle and Modify how much the throttle initially moves from the neutral position.  
▶Throttle curve F/B, Throttle punch F/B

### Throttle Feel

Modify the feeling of the throttle movement.  
▶Steering feel, Throttle feel F/B.

### Push

Modify the push control function.

### Throttle Cycle

Modify the amount of brake pumping and acceleration.  
▶Acceleration, ABS

### Throttle Auto-Start

Set the amount of automatic startup for the throttle.  
▶On/off, Trigger position, Forward

### Idle Up

Modify the neutral position of the throttle trigger or neutral braking.  
▶Brake on/off, Trigger position, Forward

### Brake Override

Modify the maximum amount of braking and steering travel assigned to a switch.  
▶Key, brake, Steering travel

### Throttle Reverse

Modify the throttle direction.  
▶Throttle reverse

## For Safe Operation

Improper handling may lead to dangerous situations. Therefore please read the following information carefully in order to ensure safe operation. Please also understand that Kyosho is not responsible for any injuries or damage which result from noncompliance of these cautions and notices.



### Warning

Improper handling/usage may lead to a high probability of material damage as well as a possibility of serious personal injury or even death.



### Caution

Improper handling/usage may lead to personal injury or material damage.

## When Installing Components



### Warning Prohibited matters

- Make sure metal parts on the model (car chassis) do not come into contact with each other.
- Contact between metal parts may result in noise, which could cause the receiver to malfunction and lead to an uncontrollable model.
- Do not cut or bundle the antenna cable.
- This may lower the receiver's sensitivity and lead to an uncontrollable model.
- Ensure correct polarity when installing transmitter and receiver batteries.
- Incorrect polarity may damage the product.
- Within Japan, this product is limited to usage with models which operate on the ground.
- Do not use for other non-designated purposes.



### Warning Enforcement matters

- Ensure that all connectors are connected securely.
- If connections become loose due to vibrations, it may lead to an uncontrollable model.
- Check servo operation to ensure the tie rod is not subject to excessive loads.
- Excessive loads may damage the servo or increase battery power consumption.
- MINI-Z body and other optional parts to use the Kyosho genuine.
- Kyosho Propo is not responsible for any damages or injuries which result from use of this product in combination with other manufacturer's products.

## Notes for Usage



### Warning Prohibited matters

- Do not use when there is thunder.
- It is possible for lightning to strike the antenna.
- Do not use in the rain or in areas where water has accumulated.
- If water enters the product it may lead to an uncontrollable model.
- Do not use in the following locations:
  1. Near R/C circuits (within 3km)
  2. Near crowds, on streets, or near actual vehicles or ships.
  3. Near high-voltage power lines or communication facilities.
- If signal interference, etc. causes an uncontrollable model, a serious accident may result.
- Do not use when your concentration levels are compromised by tiredness, alcohol, medication, etc.
- Mistakes in judgment may result in serious accidents.



### Warning Enforcement matters

- Check to ensure that the selected model memory matches the model to be controlled.
- Using an incorrect memory may lead to an uncontrollable model.



### Caution Prohibited matters

- Do not touch motor, etc. immediately after use as they may be hot.
- Doing so may lead to burns.



### Caution Enforcement matters

- When switching on, always turn on the transmitter first, followed by the MINI-Z. Follow the reverse order when switching off.
- If the wrong order is followed, it may lead to an uncontrollable model.
- Dismantling or modifying the RF Module (internalized in the case of the EX-6) is prohibited and is punishable by law.
- Disassemble or modify all of the product will cause a short circuit other accidents. Also, you may want to refuse acceptance of repair in the user consultation room.
- Do not use this product in aircraft, hospitals, or near fire alarms or medical equipment.
- This may lead to malfunctions and result in serious accidents. Also, by law you must cease operation if the product affects other wireless or electrical devices.
- 2.4GHz transmitters must be registered with the Japan Radio Control Safety Association.
- The transmitter which you have purchases is already registered. Products which do not have proof of registration are illegal.

## Notes After Usage



### Warning Enforcement matters

- Make sure to remove the battery pack after driving.
- If the car is switched on accidentally, it may lead to a fire or an uncontrollable model.
- Keep transmitters, batteries, and models away from small children.
- Chemical agents and the items themselves may cause personal injury.



### Caution Enforcement matters

- Remove batteries from transmitter if it will not be used for a considerable time.
- If batteries are left in the transmitter, battery leakage may result in damage.
- Do not store transmitter/receiver in the following conditions:
  1. Extremely hot (over 40°C) or cold (below 10°C) temperatures.
  2. Locations in direct sunlight.
  3. Locations with high humidity.
  4. Locations subject to vibrations.
  5. Locations with lots of dust.
- These conditions may cause the case to deform and damage the product.

## Transmitter Battery Handling and Charging (separately available option: Kondo Kagaku Co., Ltd.)



### Danger Enforcement matters

- Never short-circuit the battery connector.
- This may lead to a fire or explosion.
- Do not dispose batteries in fires.
- This is very dangerous and may lead to an explosion.
- Use KO Propo chargers to charge the battery and use the correct current (under 1A).
- Incorrect current may lead to battery damage, overheating, or leakage.
- Other manufacturer's chargers may not have a automatic cutoff function.



### Danger Prohibited matters

- Do not subject the battery to strong shocks.
- This may damage the battery and cause leakage or a short circuit.
- Do not dismantle or modify the battery.
- This may cause dangerous leakage of battery fluids.
- Keep away from water. Do not charge a wet battery.
- This may cause overheating and damage.
- Do not charge alkaline batteries.
- Alkaline and other single-use batteries cannot be recharged. Doing so may lead to fire and damage.
- Do not use wet hands when plugging in the charger's AC Adapter.
- This may result in electrical shocks.

\* If there is battery fluid leakage, avoid contact with eyes as it may result in blindness. If contact with eyes occur, flush with large amounts of water and seek medical attention immediately.

\* When disposing batteries, Ni-Cd, Ni-MH, Li-Po, and Li-Fe batteries should be recycled in order to help protect the environment.

## Contact information for repairing goods

### \* KYOSHO CORPORATION

ADDRESS : 153 Funako Atsugi, Kanagawa  
Zip code 243-0034, Japan

[www.kyosho.com](http://www.kyosho.com)