

MC-8(Transmitter) / MR-8(Receiver) Series

Thank you for purchasing the MC-8/MR-8 series radio system. MC-8/MR-8 are a multi controller / Multi receiver for easy use of a RC car or original robot. This is a radio controlled devise with assigned servo motor or motor driver for 8 channels (A-H).

Instruction Manual

Ver.1.01

KONDO KAGAKU Co., Ltd.

Technical Information

Operating frequency : 2404-2476MHz
 Transmit power: 4.7dbm
 DoC document https://www.kopropropo.co.jp/CE/MC-8_DoC.pdf

For Safe Operation

Due to the nature of radio controlled models, improper handling may lead to dangerous situations. Therefore please read the following information carefully in order to ensure safe operation.

Please also understand that KO Propo 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

- Make sure metal parts on the model (car chassis/ship hull) 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.
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Notes for Usage

- 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.
- Do not allow glow engine fuel or engine exhaust to contact the product.
- These may attack the plastic and damage the product.

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.
 • Make sure to stop the engine (disconnect motor cables) before changing transmitter settings.

Caution Prohibited matter
 • Do not touch engine, motor, ESC, 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 receiver. 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-RR) is prohibited and is punishable by law.
 • Doing so may lead to accidents such as short circuits and KO Propo Customer Service Department may not accept dismantled/modified products for repair.

Caution Enforcement matters
 • 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

- In the case of an R/C car, 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.
- 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.

Explanation of product warranties

KondoKagaku co. ltd. guarantee after-sale service and others about this product. However, please understand that it cannot guarantee about the following points on the character of this product.

- 1) Breakage of the part by assembly.
- 2) Damage judged to be based on the operation after assembling.
- 3) When reconstruction of this product and analysis are conducted.

Explanation of Licensing

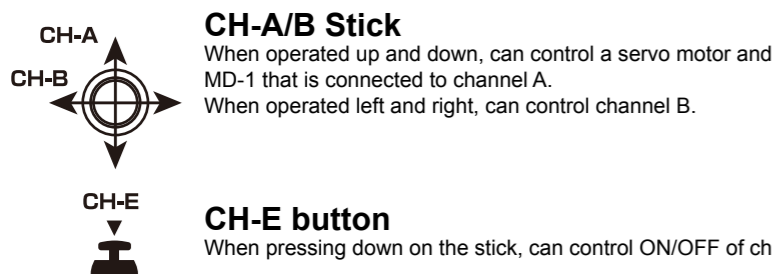
The company name or the brand name for each reference in the text is a registered trademark. Downloading the software from the attachment or from our homepage for this product and being used for the sole purpose of this product is accepted. Please do not use this for any other use. This product, software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

Contact information for repairing goods

Kondo Kagaku Co., Ltd.
 Service department
 ADDRESS : 4-17-7 Higashi-Nippori,
 Arakawa-ku Tokyo Japan 116-0014
 TEL : 03-3807-7648 (service)
 9:00 -12:00 & 13:00 -17:00
 Mon. - Fri. Except national holidays
 Latest information can be accessed here
www.kopropropo.co.jp

Names of Parts

MC-8



CH-G/H button When operated left and right for each button, can control channels G/H in 10 step increments.

Power Switch
 Long press to turn ON. To turn OFF, press for at least 1 second.

LED
 When LED is lit the power is ON.
 Slow flashing of the LED is pairing mode.
 LED blink with ringing buzzer means battery is low and needs to be replaced.

TRIM-A to D button Operation of each TRIM will change the neutral position (not the position of the operating stick) for each channel.

Can not be used when there are over 20 radios in the same field/ring/track.

If there is a lot of traffic, radio problems will happen. Please do not use when this situation occurs. MC-8 uses 2.4GHz radio wave that is a citizen band that is also used for other electrical equipment. Please understand in advance that a radio problem may happen even if there are less than 20 being used.

Compatible models

Servos: PDS / RSx / BSx Series
ESC: MD-1 / VFS-FR2 / VFS-FR2 PRO

MR-8

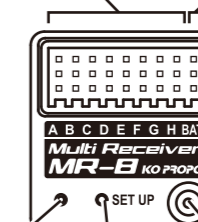
A to H channel connector
 Connect servo motors and MD-1 to connectors that you want to control.

Battery connector
 Connect to battery

LED
 LED is on when in communication.
 Blinks when searching for a paired transmitter.

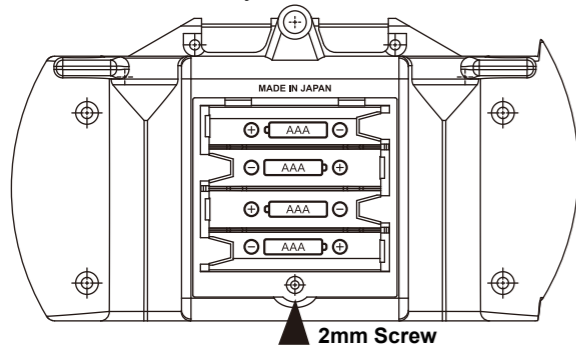
Antenna
 Please position vertically and as high as you can.

SET-UP switch
 Used when pairing.



1. MC-8 Insert battery to MC-8

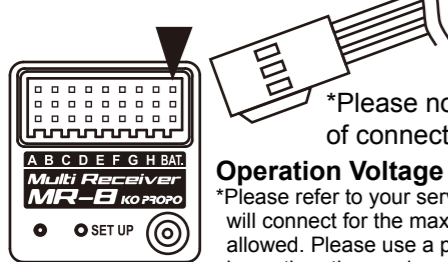
- 1 Please remove the 2mm screw in the back side of the MC-8 to remove the battery cover.



- 2 Insert AAA batteries according to the direction in the figure.
- 3 Re-install the battery cover and the screw.

2. MR-8 Connect power to MR-8(receiver).

- 1 Connect power to battery terminal.



*Please notice direction of connector.

Operation Voltage : 3.0V to 6.6V
*Please refer to your servo or motor that you will connect for the maximum voltage allowed. Please use a power source that is lower than the maximum voltage.

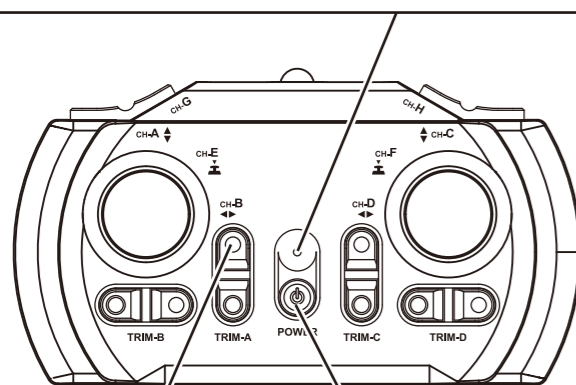
If you are using an ESC that is VFS-2FR, etc for RC cars, the ESC will supply power to the receiver.
When using an ESC for RC cars, do not connect power to BAT channel in the receiver.

- 2 Connect servos or ESC that you want controlled to channels A-H.

3. MC-8 MR-8 Pairing the MC-8 and MR-8.

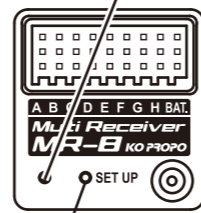
*Pairing is setting up communication between the transmitter and receiver to make a pair.

- 1 While pressing on the TRIM-A (upper button), turn on the power of the MC-8. The LED will start to blink.



Press while turning on. Turn on Power

- 2 While pressing on the SET-UP button on the MR-8, turn on the power to the MR-8. The MR-8 LED will turn on, release the SET-UP button and the LED will go off and then back on again.



Press while turning on power.

You will only need to pair both before first usage. Once pairing is done, usually the communication will only require turning on the power.

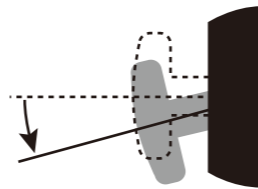
4. MC-8 MC-8 Working Mode Settings

There are 2 types of working mode settings at each CH A,B,C,D stick operations.

Quick mode

You can set 2 types of mode settings for CH A,B,C,D operation.

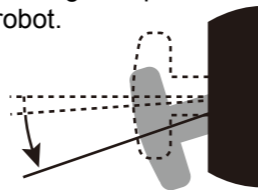
Work immediately when operating



Multi mode

Stick operation has some lag, so servos and ESC response has some delay when operating. This mode is recommended for operating multiple functions by the stick like when operating a robot.

Operates with a lag when moved. Some delay when operating.



- 1 Turn off the power in the MR-8 (receiver). This is for protection of the connected devices like servos, etc.
- 2 With the power off on the MC-8, press the TRIM C (upper) and then turn on the power of the MC-8.
- 3 While holding down the TRIM C (upper) wait for the LED light to go off then release the TRIM C (upper).
- 4 The initial setting of the MC-8 is quick mode. If you want to change the mode, please start from step 1 again.

5. MC-8 MC-8 start and end.

- 1 When the Power switch is held for longer than 0.5sec, the MC-8 is started.
- 2 When the MC-8 is on and the Power switch is held for over 1sec the MC-8 is turned off.

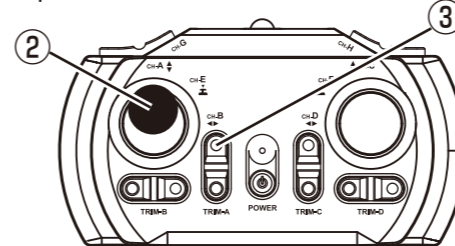
If there is no operational use of the MC-8 for over 5 minutes, the MC-8 will ring the buzzer alarm. If there is continuously no operation for 5 more minutes the MC-8 will turn off automatically.

6. MC-8 CH A-D Reverse Setting

CH A,B,C,D output signal direction can be reversed (operate in a reverse direction).

Ex. Reverse CH A.

- 1 Turn off the power in the MR-8 (receiver). This is for protection of the connected devices like servos, etc.
- 2 Turn on the power of the MC-8 and hold the stick in the full up position (up for A and C). For B and D hold in the full left position.
- 3 Hold the stick in the full position and press and hold the TRIM (same direction button as the stick). You will hear a 'blip' when pressing the TRIM and while continuing to hold it you will hear another 'blip' about 1sec later and release the TRIM.



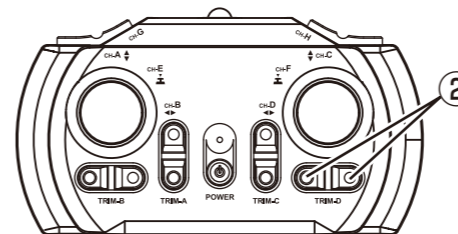
- 4 Please check the operation by turning on the power of the MR-8.

This is used when the steering operation is wrong, etc. *Please only set the channel that needs the change. Holding the stick in the full direction and pressing the TRIM (same direction as the stick) is the same operation method for channels A-D.

7. MC-8 Trim Setting for CH A-D.

Neutral position (operation center position) can be set for channels A-D.

- 1 With the MC-8 power on, press the trim button in the direction you want it to change to.
- 2 Please adjust the setting value according to each model.



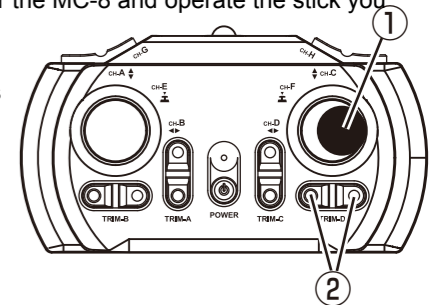
The steering neutral position can be set when the car will not run straight. *Please only adjust the setting for the channel that is needed.

8. MC-8 End point setting at the CH A-D.

The maximum operation range (angle) can be set for channels A-D.

Ex. Change the operation range for the right direction for channel C.

- 1 Turn on the power for the MC-8 and operate the stick you want to change.
- 2 Hold the stick in the full position and press the trim button to change the value.
- 3 Please adjust the setting value for each model.



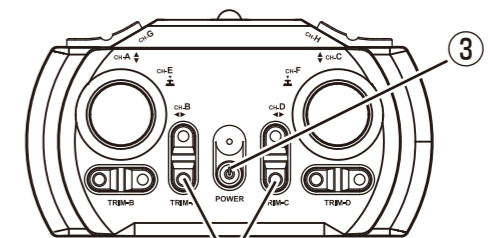
You can change the setting value when the maximum operational movement of the stick allows for the tire to touch the chassis of the car. *Please only change the channel that needs change. The operation method is the same for channels A-D.

9. MC-8 Reset MC-8 to factory default setting.

You can reset the MC-8 to factory settings if you don't know the setting values.

- 1 Turn off the power in the MR-8 (receiver). This is for protection of the connected devices like servos, etc.
- 2 Turn off the MC-8. While pressing and holding TRIM A (down side) and TRIM C (down side), turn on the power.
- 3 Please wait after release power Button but hold pushing TRIM-A(down side) and TRIM-C(down-side),After 1 sec later LED is light off.

Release TRIM A (down side) and TRIM C (down side) after the LED light goes off. The MC-8 will be in factory default settings.



2 Pushing button until light off LED.

***If you perform this, all information of the MC-8 except the pairing are reset to factory settings. Also steps 4 'Mode Setting' to 8 'End Point Setting' will be factory default. Please set these again.**

FCC statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.