

Futaba

MOTOR CONTROL AMP (WITH REVERSE-RELAY) FOR RADIO CONTROL ELECTRIC CARS

FP-MC8 FOR ATTACK 2M, 2LR, 2LGX, 3EG, 3FG, 3EGX, 4WD
FP-MC108 FOR MAGNUM SERIES

Thank you for your purchase. When using your new radio control amplifier, read this manual and use it correctly.

FEATURES OF MC8 AND MC108

- **An internal thermal sensor prevents destruction of the power transistor by heat overload while running.**
When the amplifier is used unreasonably and the power transistor is abnormally heated, it is sensed by the internal thermal sensor and the motor circuit is turned off and destruction of the power transistor is prevented. When the temperature drops, the amplifier automatically returns to normal operation. However, there is no protection against shorting of the motor output cord and other momentary over-currents.
- **High performance reverse relay.** Long life of three or more times that of conventional relays. (Futaba products)
- **High performance regulator is built in.**
Because the steering servo can be operated immediately before an electric car stops moving, the vehicle can be safely recovered.
- **30 A momentary maximum current, 20 A continuous maximum current (when 7.2 V/1200 mA Nicd battery used)**
Large high performance power transistor used. Since a bypass relay is also used, the voltage loss from maximum slow to full throttle is minimized and long term running is possible.
- **Power switch.**
The power switch for electric buggies and other sealed type chassis can be mounted on the outside.
- **Neutral point, reverse point, and maximum speed point can be adjusted and set independently with three built-in trimmers.** The brake amount can also be checked by brake lamp.

MC8 AND MC108 RATINGS

MC8 is for ATTACK 2M, 2LR, 2LGX, 3DG, and 3ECX
4WD. 2PKA (U/S)
MC108 is for the MAGNUM series. (EXCEPT 2PKA U/S)

- **Voltage:** 7.2 V or 8.4 V/DC
- **Current:** Momentary maximum current 30 A, continuous maximum current 20 A
(when 7.2 V/1200 mA Nicd battery used)
- **Dimensions:** 1.45 x 2.67 x 0.89 in (36.8 x 67.9 x 22.7 mm)
- **Weight:** 3.03 oz (86 g)



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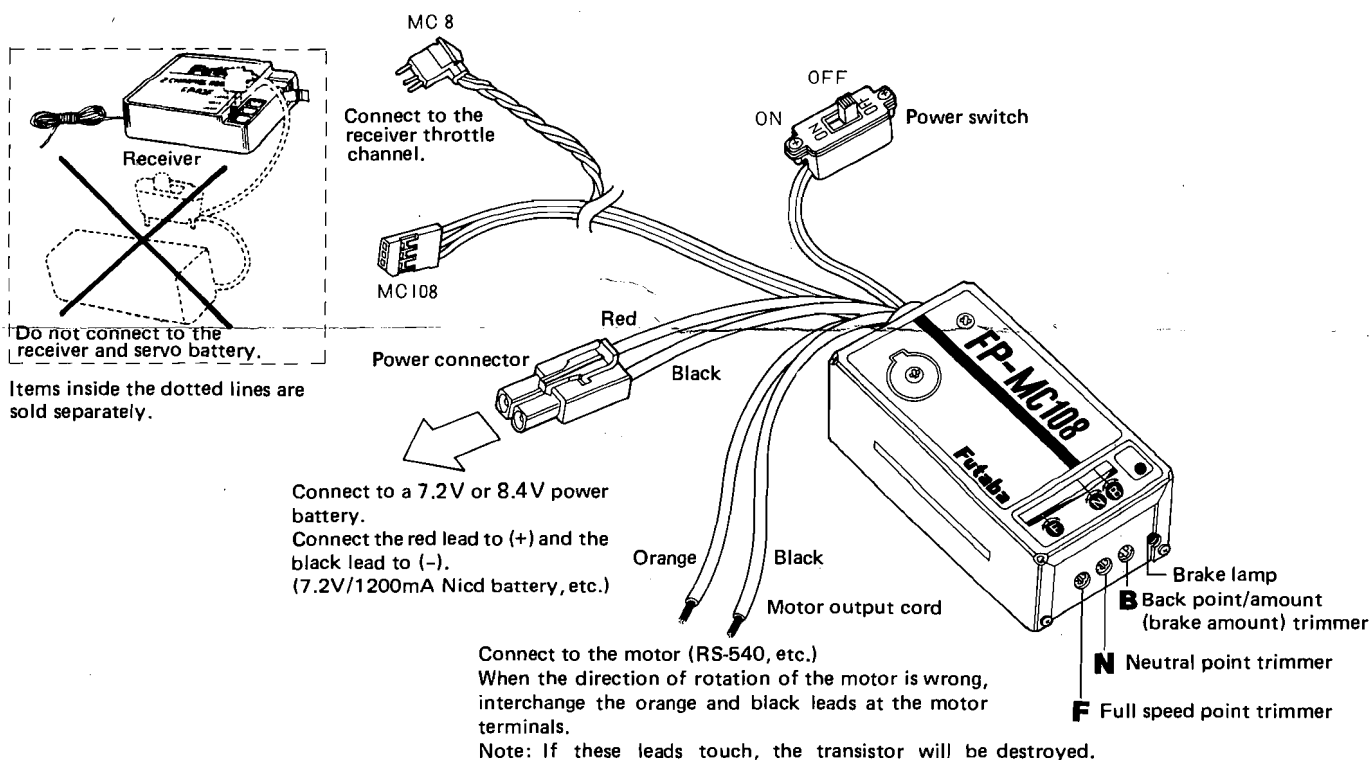
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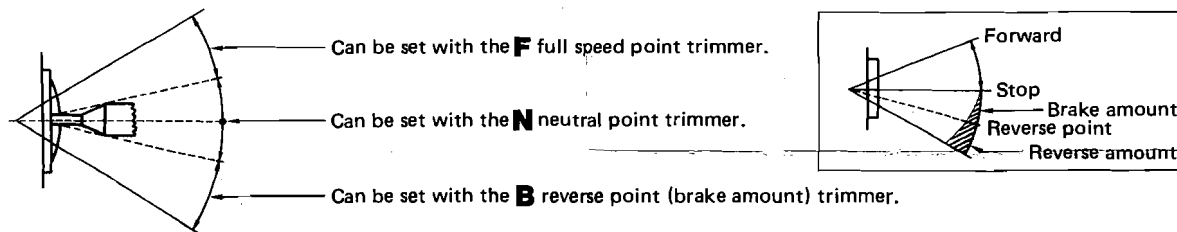
MC8 AND MC108 USE AND PRECAUTIONS

NAME AND CONNECTION OF EACH PART



USE AND PRECAUTIONS

- To keep the body as cool as possible, install in a well ventilated place.
Install where the trimmers can be adjusted from the outside with a Phillips screwdriver.
- Connect the connectors as shown in the figure.
Pay special attention to the polarity of the power battery.
If the (+) and (-) polarities are reversed, the amplifier will be destroyed. (To reverse the direction of rotation of the motor, interchange the connections to the motor terminals.)
- As shown in the figure, the receiver and servo battery is not used. Power is supplied from the internal regulator.
- **Trimmers adjustment order**
 - Turn the **B** reverse point trimmer fully clockwise.
 - Next, adjust the place where the motor (drive wheels) stops with the **N** neutral point trimmer. At this time, set the full speed point with the **T** full speed point trimmer while listening to the rotating sound. Smoothly accelerate from medium low speed to full speed.
 - Adjust the reverse point and brake amount with the **B** reverse point/amount (brake amount) trimmer. Immediately before the reverse point, the brake amount becomes maximum and speed control from reverse point to full reverse is possible. When application of the brake begins, the brake lamp comes on.



- **Other handling precautions**
 - As shown in the figure, the power switch is ON at the lead wire side and OFF at the outside. When the switch is OFF, the receiver and servo power is turned OFF, but the power section remains ON. However, since the current consumed by the power section is small, it can be ignored, but for safety, disconnect the power battery connector during storage. Note that the motor turns the instant the switch is turned on.
 - When the small stones, etc. get stuck in the gears or the gears strike an obstruction, do not run the vehicle. Since the motor is locked and an overcurrent occurs, the thermal sensor will operate and the vehicle will not move.
 - When the power Nicd battery voltage drops, the brake lamp will come on even through the brakes are not applied. Recharge the battery.
 - Pay careful attention to waterproofing. Water drops inside the amplifier or on the connectors will cause trouble.
 - Always install a noise killer capacitor to the motor.

Futaba products are manufactured and shipped under stringent quality control. If you are not satisfied with your amplifier, contact the shop where you purchased it or your nearest Futaba radio control service center.