Futaba

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

FP-MC6B FOR ATTACK 2NL, 2L, 2PKA, 3EG, 3FG, 3EGX & 4L
FP-MC106B FOR MAGNUM SERIES

Thank you for buying a Futaba motor control amp.
Please read this manual carefully and use your amp correctly.

FEATURES OF MC6B AND MC106B

- **Efficiency increased 12% by using an RF drive system**
  Efficiency has been increase by 12% over a conventional 50Hz switching system by using a 3kHz RF drive system. In addition, since the initial speed torque has been increased and the medium speed range control range has been widened by a pulse limiter circuit, there is less danger of the battery going dead during an eight-minute Heat races.
- **High-performance Reverse-relay used**
  Full Power Reverse-relay proven to last three times longer than those of other companies.
- **Complete mounting freedom by use of a small separate system**
  Since the controller and power amp. are separate, mounting is extremely Convenient. The 0.59 in (15mm) [controller] and 0.83in (21.1mm) [power amp.] are examples of ultra-thin and lightweight design. They weight 2.89 oz (82g) and are thinner than an NiCd battery.
- **Choice can be made from two lead wire holes**
  The lead wire can also be drawn from the power amp. using either of two holes at 90° to each other. This makes mounting even more simple.
- **Instantaneous maximum current 64A, continuous maximum current 40A (when 7.2V/1200mA NiCd battery used)**
  Eight low-power loss, high-performance transistors are used in the motor drive. Despite the miniature size, an effective internal heat sink provides high durability even in sprint and heat races. It is particularly ideal for eight-minute heat races.
- **Designed using high-performance transistors without bypass relays**
  Voltage loss has been minimized by connecting the eight high-performance transistors in parallel. Design has been made contactless and maintenance-free by eliminating the bypass relays.
- **Built-in power switch**
  Despite its miniature size, the receiver and servo-power switch is built-in.
- **The neutral point, brake amount and maximum speed point can be independently adjusted with the three separate, built-in trimmers. Also, the brake amount can be confirmed through the built-in brake lamp.**

MC6B AND MC106B SPECIFICATIONS

The MC6B is for the ATTACK 2NL, 2L, 2PKA, 3EG, 3FG, 3EGX & 4L.
The MC106B is for the Magnum Series.

- **Voltage:** 6V or 7.2V/DC
- **Current:** Instantaneous maximum current 64A, continuous maximum current 40A. (when 7.2V/1200mAH NiCd battery is used)
- **Dimensions:** Controller 0.59 x 2.04 x 1.02 in
  15 x 51.8 x 25.8mm
  Power amp. 0.84 x 1.97 x 1.44 (1.54) in
  21.4 x 50.0 x 36.6 (39.1)mm
  (The dimension in brackets includes the heat sink.)
- **Weight:** 2.89oz (82g)

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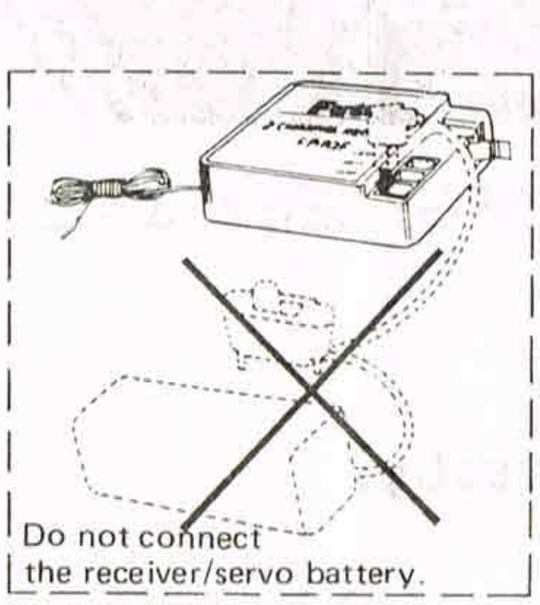
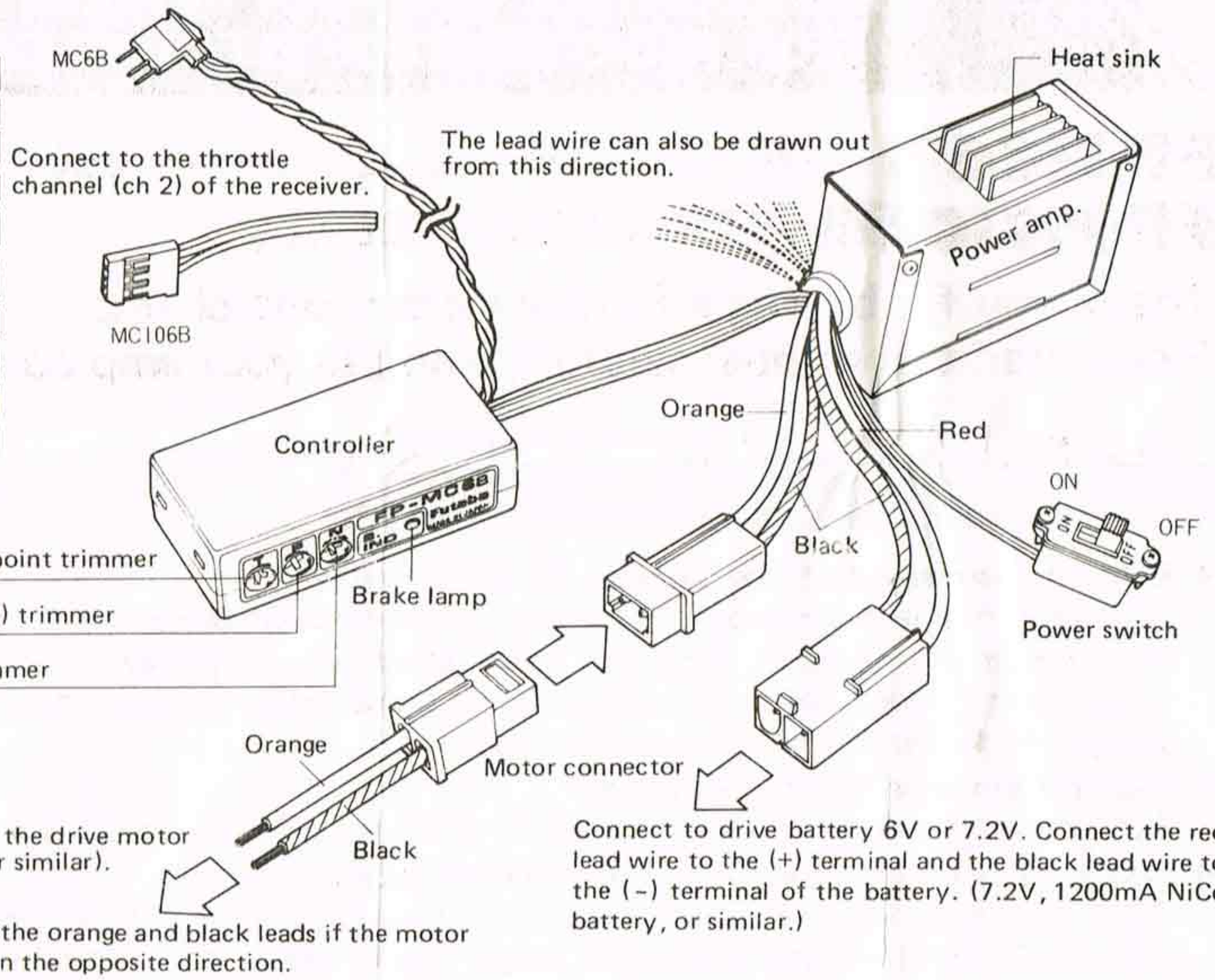
MC6B AND MC106B USAGE AND CAUTIONS

NAME OF EACH PART AND CONNECTION METHOD



Do not connect
the receiver/servo battery.

Items within the box must
be purchased separately.

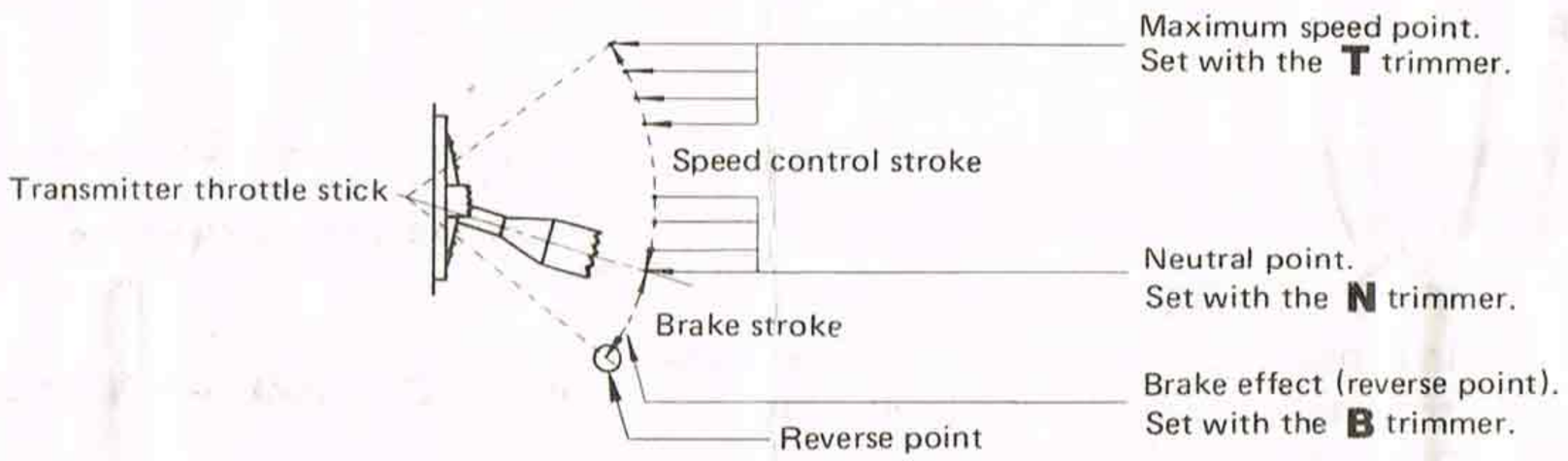


USAGE AND CAUTIONS

- For maximum cooling, install the power amp. Where it is well ventilated.
  Install the controller where the trimmers can be adjusted from outside using a Phillips screwdriver.
- Securely connect the connectors as shown in the figure. Pay special attention to the polarity of the drive battery. The amp. will be damaged if the (+) and (–) sides are connected in reverse. (Reverse the orange and black leads if the motor rotates in the opposite direction.)
- As shown in the figure, a receiver and a servo-battery are unnecessary. Power is supplied by an internal voltage regulator.

★ CONTROLLER ADJUSTMENT PROCEDURE

- Fully turn the **B** brake adjustment trimmer in a clockwise direction for the weakest braking effect. The brake lamp will go out.
- Next, adjust the **N** neutral point trimmer to the point at which the drive motor (wheel) stops.
- Run the drive motor by setting the transmitter throttle (engine control) stick to maximum speed (engine control high), and set the maximum speed point with the **T** maximum speed point trimmer while the motor is running. Accelerate smoothly from medium low speed to high speed.
- Finally, adjust the braking amount and the reverse point with the **B** brake (back point) trimmer. The point where the back point operates will become the point of full back.



- The power switch is OFF at the inside, and is ON at the outside as shown in the figure. When the switch is OFF, the receiver and servo-power is turned off, but the power amp. remains on. However, the power amp. current drain is so low that it can be ignored. However, to be safe, disconnect the drive battery connector during storage. Also note that the motor starts to rotate as soon as the switch is turned on.
- Do not run the vehicle if pebbles or anything else is obstructing the gears. The drive motor will lock and the power amp. will be damaged by an overcurrent.
- Pay careful attention to waterproofing. Water droplets inside the amp. or on the connector will cause trouble.
- Always install a noise-killing capacitor to the drive motor.

FUTABA products are manufactured and shipped under stringent quality control. If you are dissatisfied in any way, please contact our radio control service center rather than your dealer.