

A New Radio-Control Era!!

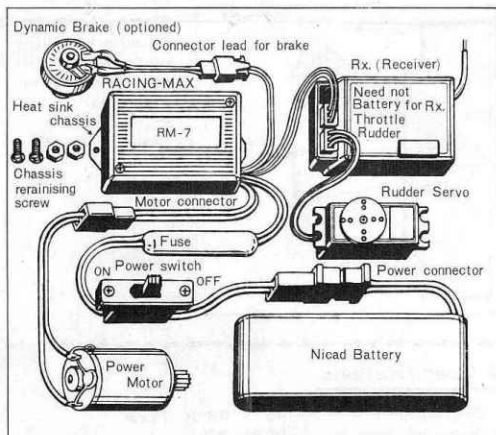
# "RACING-MAX RM-7"

- Silver Label (for 6 Volts)
- Gold Label (for 7.2-9.6 Volts)

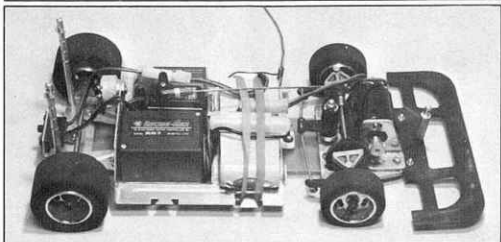
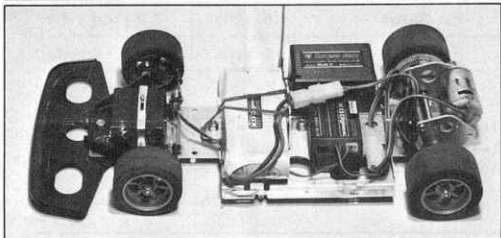
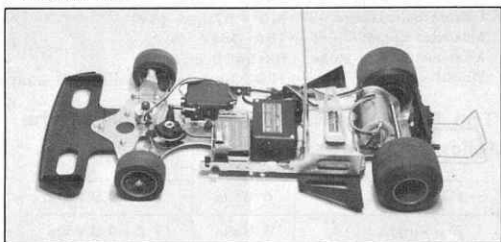
## HANDLING INSTRUCTION

### CONNECTING & OPERATING PARTS FOR RACING-MAX

FIG(1)



### ●EXAMPLE



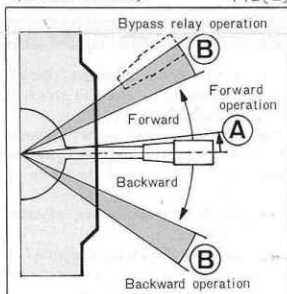
## 1. Precautions when mounting in model

Prior to mounting the controller on your machine, check that the supply voltage required for the controller (6V or 7.2-9.6V) agrees with your Nicad voltage. Also check that the model of your R/C system corresponds to that indicated on the controller box.

## 2. Installation of Controller and Testing

- ① First, decide the mounting position of the controller.
- ② Connect the lead wire from motor connector to the motor. (The lead should preferably be soldered. If it is not soldered, cover the connection with a vinyl tube or wrap vinyl tape around it to prevent shorts.)
- ③ Plug the receiver connector from the controller in the receiver, then plug the rudder servo connector to the receiver.
- ④ With the power switch OFF, connect the battery connector from the controller to the Nicad Battery.
- ⑤ Place the chassis on a stand to allow the wheels to rotate freely.
- ⑥ Turn the power ON (the motor will run momentarily). Next, move the transmitter engine control to the neutral position, then turn the transmitter switch ON. If, at this time, the motor starts running, adjust the engine control trim lever until the motor stops.
- ⑦ Slowly move the engine control stick upward (forward). The motor will start running, at the same time, the relay will be activated (a click can be heard), and the motor speed will be increased gradually. While the motor is running, confirm that the wheels are also running in the forward direction. If they are not, reverse the motor terminal connections. Next, move the stick downward (reverse); the motor will start running, (a click will not be heard from the relay). The wheels should run in the reverse direction.
- ⑧ Remove the motor connector and check that the bypass relay operates correctly.

FIG(2)



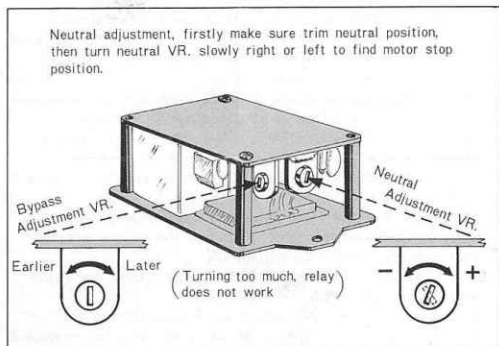
To perform this check, move the engine control stick 2/3 or 3/4 of the total range from the neutral point as shown in Fig. (2). The other relay will be activated (a fine click can be heard) at which time the bypass relay should operate and maximum motor speed obtained. The above steps complete all the checks. Turn the transmitter and receiver switches OFF and reconnect the motor connector.

- ⑨ When mounting the controller, preferably secure it with screws. Attach the car chassis to the controller chassis and mark the positions of the mounting holes. Drill 2.6—3.0mm holes and secure the controller with screws. This protects the power transistors from damage due to overheating of the controller. Note that the RS-540S motor requires a large current which overheats the controller unless it is secured to the car chassis with screws, even though it is provided with a heat sink. Do not secure the controller with tape, as the tape tends to come off the controller because of vibration. To mount the controller, first drill holes in one side of the car chassis and hold the controller with screws utilizing the holes drilled, then mark the positions of mounting holes on the other side of the chassis and drill those holes. In this way, the controller can be aligned correctly on the car chassis. If a hand-drill is not available, remove the chassis and place it on a hard wooden block. Make holes in the chassis using a nail (2.5—3.0mm) and a hammer. After drilling, remove burrs using a file. To correct the drilled holes, use a round file. The brake unit "Dynamic Brake" (optional) should be mounted in a location which is easily accessible for adjustment. Make 10mm mounting holes using a hand-drill and around type file, and secure the unit with nuts. To adjust the brake, use the adjusting rod. Turning the rod clockwise will increase the braking force.

### 3. Neutral Adjustment & Bypass Adjustment

These two adjustments have been completed at the factory prior to shipment. However, if the neutral point cannot be set within the engine control trimming range, or the bypass relay operates too early or it fails to operate when the stick is moved fully upward or downward, remove the case from the controller and adjust the variable resistor, shown in the illustration below (FIG. [3]), using a flat-bladed screwdriver.

FIG. [3]



### 4. Cautions (Controller)

Do not attempt to disassemble the Nicad Battery connector. Note that if a reverse current flows into the connector, the controller, servo and receiver may be damaged.

When a power adaptor is connected, be sure that the battery polarity is correct.

### 5. Cautions (Operation)

- After the controller has been installed and adjusted, place the chassis on a stand. Rotate the wheels by hand to check that the rudder and engine control function correctly.
- The fuse in the fuse holder will blow if the motor is overloaded. When the fuse blows, both the motor and the rudder servo will stop. Replace the fuse with a new one of the same type (10 - 15A). Replacement fuses are available from model shops, electric appliance outlets or car parts dealers.
- The Racing-Max is designed so that the motor and other devices stop operating when the transmitter switch is turned OFF with the receiver switch left in the ON position. When the car collides with an object, is misoperated or it runs out of control, turn the transmitter switch OFF to stop the car immediately.
- The receiver operates without a battery, so the hole in the battery connector is not used. Plug this hole with a piece of sponge or paper to prevent entry of dust and rubber.

### \* Do Not Use Sudden Backward Brake So Often

While high speed running, when you use sudden brake by using stick backward, it will be caused quite large voltage in controller and may cut fuse to save both of controller and Nicad battery.

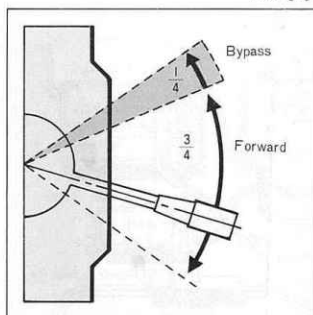
Please do not use sudden reverse current brake as possible as you can.

Also do not use over 15A fuse in order to save both of controller and Nicad battery.

### \* The Best Way To Use For The Above

- If you use down neutral position as shown FIG. [4], it may not cause to damage any of your equipment.

FIG. [4]



- Adjustment, firstly, set transmitter down neutral position then turn neutral VR up to motor stop as mentioned FIG. [3].

### \* Specifications

Dimension	45 × 63 × 34mm
Screw hole space	69mm 2.7φ
Operation	Positive pulse
Neutral Operation angle	1.0 - 2.2mS
Bypass Operation angle	240 - 730μs
Current consumption	8.0 - 370mA (6V)
Maximum output	15A (MAX. 20A)
Maximum fixable motor	·RX-540S class
Weight	120g (included connector and wire)

◎ The Racing-Max RM-7 is available in the following types:

For KO-DIGIACE	6 Volts	7.2 - 9.6 Volts
For Futaba	6 Volts	7.2 - 9.6 Volts
For Sanwa	6 Volts	7.2 - 9.6 Volts
For J. R.	6 Volts	7.2 - 9.6 Volts

U.S.A.: Kraft, Heath, Cannon, etc.

U.K.: Skyleader, McGreger, etc.

West Germany: Multiplex, Groupner, Simprop, etc.

(Patent and Utility Model pending)

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