

GENERAL

The KENROTOR KR-250 antenna rotator is designed to support and rotate TV and FM antenna. Directional control and indication is provided by an automatic control unit. When it is necessary to mount more than 0.5 meter above the rotator, KS-050 thrust bearing is recommended, and it is used to prevent side thrust overload to the rotator upper mast support. For large TV/FM antenna or heavy duty service, we recommend one of KENROTORS KR-400, KR-600 or KR-2000.

When installing antenna, follow the instructions given carefully for highly dependable long-life performance.

Careless or erroneous mounting might result in poor durability.

SPECIFICATIONS

Input Voltage	117/230VAC 50/60 Hz.
Power Consumption	37VA Split Phase.
Motor Voltage	24VAC
Rotation Time	Approx. 52 sec./50Hz. 43 sec./60Hz.
End-of-Rotation Stopper.	Mechanical
Rotation Torque	200kg - cm. (170 lbs. - in.)
Stationary Brake Torque	600kg - cm. (520 lbs. - in.)
Rated Continuty Operation Time	5 minutes
Permissible Mast Size	25~38mm diameter. (1-1½inch diameter)
Cable	6 conductor cable
Dimensions	Control Box : 176x85x315mm Rotator : 315mm (H) x142mm diameter (Max.)
Weight	Control Box : 1.1 kg. Rotator : 1.8 kg.

PACKING CONTENT

Rotator Unit	1
Controller Unit	1
Mast Clamp	2
"U" Bolt	4
Hex. Nut M6	8
Spring Washer	8
Washer	8
Hex. Bolt M6 (w/Washer & Spring Washer)	8
Guy Bracket	2
Instruction Manual	1

OPERATION LAMP

PILOT LAMP



COMPASS KNOB

POWER SWITCH



INSTALLATION

Prepare 6 conductor control cable as occasion demand and push in the cable to the hole of lower mast clamp as illustrated Fig. 1.

Connect wires to each corresponding terminals of the rotator and controller. Prior to mounting the rotator on the mast, it is well to check the operation of both rotator and controller box wired for each of the six connections using the recommended wire size and length.

RECOMMENDED WIRE SIZE IS AWG 24 AT LESS 100 FEET LENGTH. AND IF NECESSARY LENGTH MORE THAN 100 FEET, MORE BIGGER WIRE THAN AWG 24 IS RECOMMENDED.

Fig.1

CABLE CONNECTION MUST BE CONNECT TO SAME TERMINALS NUMBERS BETWEEN ROTATOR AND CONTROLLER.

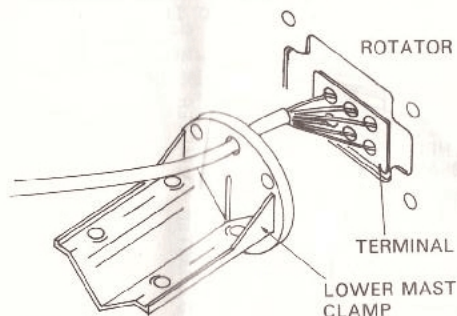
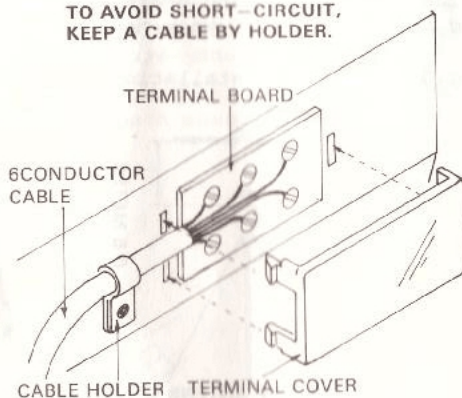


Fig.2

TO AVOID SHORT-CIRCUIT, KEEP A CABLE BY HOLDER.



After assuring that operation is correct, return rotator to full North counter-clockwise. Also, assuring that control cable has been tightly connected with terminals of the rotator, tied up lower mast clamp to the rotator and fix a mast with the clamp by "U" bolt. On that occasion, don't foreget to install guy bracket for tall mast installation. In the same manner to the installation of lower clamp, fix the upper mast clamp to the rotator and mount an antenna.

In mounting the antenna, be certain that receiving side of the antenna is pointed to compass North and sufficient slack is provided in the lead-in to allow 360° rotation from North through West, South, East and back to North. It is suggested that a stand-off insulator be placed as illustrated in Fig.4.

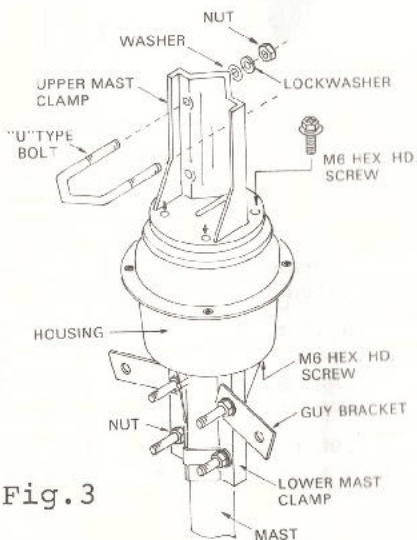


Fig.3

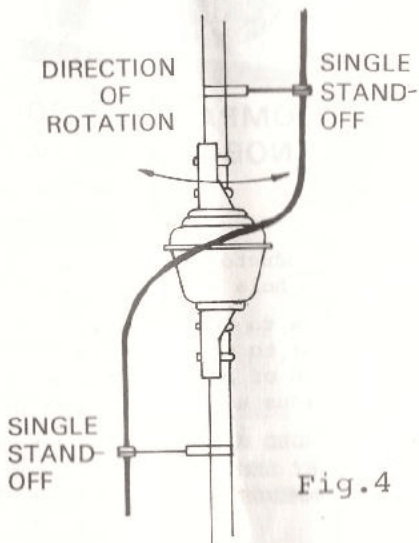


Fig.4

Illustrated in Fig.5 and 6 are the result of our long field experience and accumulation of know-how.

Fig.5 Mast-Top Installation

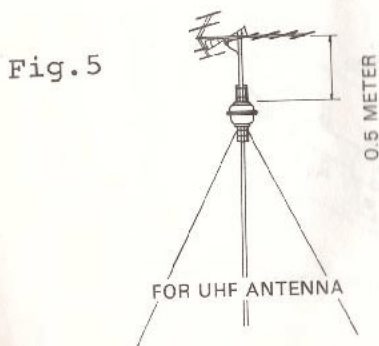


Fig.5

Fig.6 Inside Tower Installation

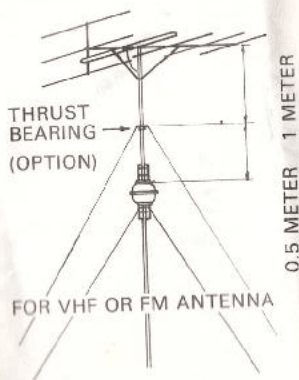


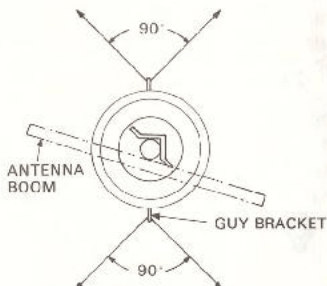
Fig.6

GUY WIRING

It is recommended that tall mast installations be guyed to stabilize the system and help prevent wind damage. Fig.7 shows in plan view an ideal method of guying.

GUY WIRES ANGLED DOWN ABOUT 45° AT TACHED TO ROOF OR OTHER GUY STATIONS. KEEP AWAY FROM POWER LINES.

Fig.7



OPERATION

Plug a cord into an AC power outlet of the correct voltage depending on control box model.

Press the power switch to "ON", pilot lamp illuminate and rotator moves to same direction of the knob and stops. Operation lamp illuminates during rotator is moving.

When knob turns to desired clockwise or counter-clockwise, rotator synchronize with control unit and stops at the knob position.

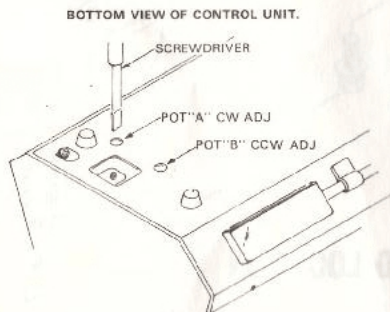
When operate the rotor for many hours, thermostat in the motor comes into action and stops rotation automatically. In such case, rest the rotor for a while and operate again.

ADJUSTMENT

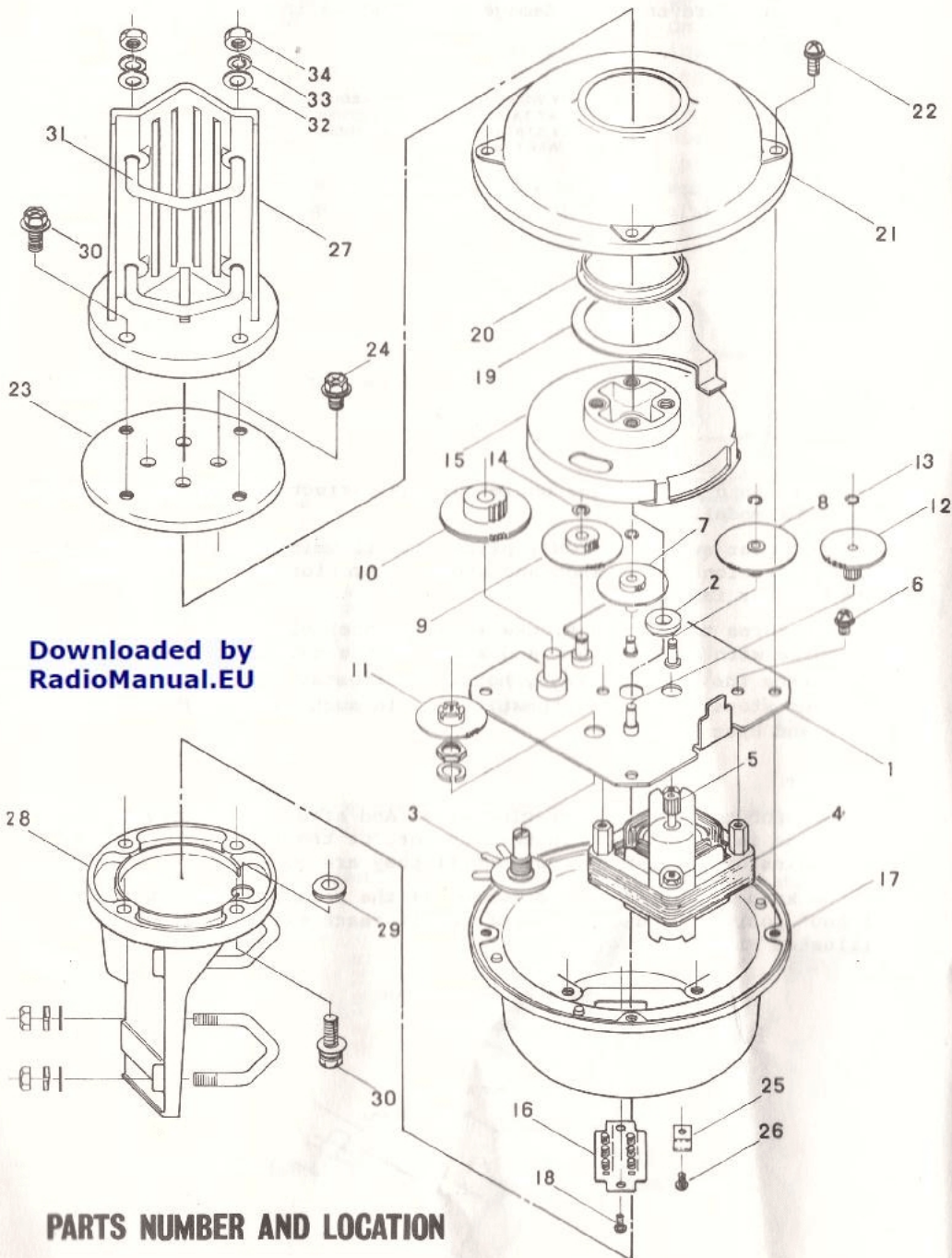
Turn the knob to full counter-clockwise. And after rotation stops, if motor noise is still heard in the rotator, or the light of operation lamp remains on, adjust "B" pot untill they are gone out.

Turn the knob to full 360° clockwise. if the rotator does not rotate full 360° position, adjust "A" pot untill reach exact 360° position as illusted Fig. 8.

Fig.8



MODEL KR-250 ROTOR



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PARTS NUMBER AND LOCATION

PARTS LIST

- | | |
|-----------------------|------------------------|
| 1. Gear Base Ass'y | 18. 3x6 Screw |
| 2. Shaft Holder (#1) | 19. Limit Lever |
| 3. Potentiometer | 20. Shaft Holder (#2) |
| 4. Motor | 21. Cover Housing |
| 5. Motor Pinion | 22. M4x14 Screw |
| 6. M4x8 Screw | 23. Mast Support Plate |
| 7. Gear Ass'y (#2) | 24. M5x12 Bolt |
| 8. Gear (#1) | 25. Cable Holder |
| 9. Gear Ass'y (#3) | 26. Cable Holder Screw |
| 10. Gear (#4) | 27. Upper Mast Clamp |
| 11. Pot Gear | 28. Bottom Mast Clamp |
| 12. VR Gear (#2) | 29. Grommet |
| 13. 'E' Ring | 30. M5x16 Bolt |
| 14. 'E' Ring | 31. 'U' Bolt |
| 15. Internal Gear | 32. M6 Washer |
| 16. 6P Terminal Board | 33. M6 Spring Washer |
| 17. Case Housing | 34. M6 Nut |

WARRANTY

TOYOMURA ELECTRONICS CO., LTD. warrants the KR-250 Antenna Rotator to be free from defect in materials arising from normal usage. Its obligation under this warranty is limited to replacing, or at its option repairing the rotator which, after regular installation and under normal usage and the validity of this warranty is for ONE YEAR from date of original consumer purchase.

The obligation of TOYOMURA ELECTRONICS CO., LTD. does not include either the making or the furnishing of any labour in connection with the installation of such repaired responsibility for any transportation expense.

This warranty does not extend if model KR-250 antenna rotator has been subjected to misuse neglect accident, interconnect wiring, improper installation or to use in violation of the instructions furnished by us, nor does it extend to units which have been repaired or altered outside our service department, nor to units used with accessories not manufactured or recommended by us.

MANUFACTURER.

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