INSTRUCTION MANUAL

(ROUND)

(PRESET)

MODEL **DR-7500R**   MODEL **DR-7500X**

MODEL **DR-7600R**   MODEL **DR-7600X**
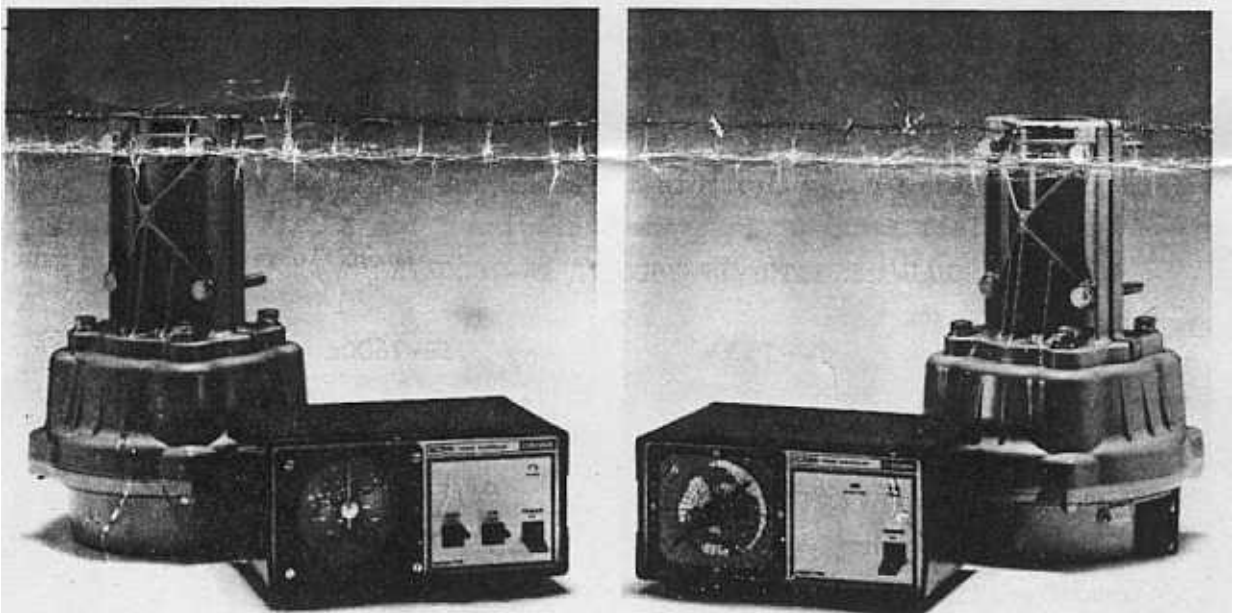
DR-7500/7600

DAIWA INDUSTRY CO., LTD.

OPERATION

DR-7500R/DR-7600R

1. Before switching on, make sure the wiring of the 6 leads between the controller and rotator have been connected correctly.   Connect the same terminal number of the controller and rotator.

2. When unpacked, the controller indicator is set at the south position. After confirming the wiring, switch on the power.   The light on the indicator panel will come on and the indicator will show the direction of the rotor.

3. Push CW (Right) switch and turn the rotator to the maximum clock-wise position.   Tighten the antenna to the rotator at the desired starting position.   Remove the color panel and re-set the indicator to the direction of the antenna.

4. When the cable between rotor and controller is cut accidentally, the indicator stops on the opposite direction of the start position i.e. + 180°.

OPERATION

DR-7500X/DR-7600X

1. Before switching on, make sure the wiring of the 6 leads between the controller and rotator have been correctly connected.   Connect the same terminal numbers of the controller and rotator.

2. The pre-set knob has been set to North (Fully clockwise position) when shipping.   If the start position is altered the pre-set knob can be set as follows :

a) Set the preset knob to the fully clockwise position.

b) Tighten the antenna to the rotator at the desired starting position.

c) Pull off the preset knob.

d) Adjust the preset knob to the start direction, then push the knob.

Interconnection

No.1 to No.1
No.2 to No.2 etc.

The antenna should be mounted close to the rotor as high winds produce a bending force on the mast. We suggest one meter of antenna support pipe as the practical limit. The weight of the antenna should be downward on the rotor and the boom at the mast-to-boom clamp.
Balanced weight produces only downward thrust on the rotor and the DR-7500a/DR-7600a has an axial load rating of 200 Kg.
Unbalanced installation results in some leverage force which strains the mast at the clamping point on the rotor. Care should be given especially in high wind areas. When installing a bigger-than-medium antenna, an inside tower mount with a STAY BEARING Located at the top of the tower is recommended.
Care mast be taken to align the TOP BEARING exactly with the center of the rotor.
The size of the 6 conductor cable is also important 22 cable is good to about 30 meters for greater lengths 20 cable or larger should be used.
When running co-ax. cable be sure to leave enough slack to allow the antenna to rotate a full 360 degrees.
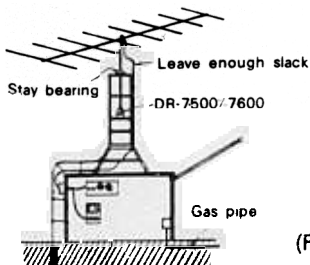
Leave enough slack
Stay bearing
DR-7500/7600
Gas pipe
(Fig. 8)

CAUTION :

When not is use, turn the power switch to OFF. The rotor gear train is bracked mechanically. When the rotor reaches end, RELEASE THE SWITCH IMMEDIATELY. If you keep pressing the switch, damage to the motor or gear train may occur. The motor used is of a five minute intermittent rating. However it can continuously run for as ten minutes, provided the motor is brought to rest no less than ten minutes afterward.

THE RESISTANCE CHART

DR-7500 (ohm)

	1	2	3	4	5	6
1		0~500	500	500	500	500
2	0~500		0~500	4~500	4~500	0~500
3	500	0~500		4	4	0
4	500	4~500	4		8	4
5	500	4~500	4	8		4
6	500	0~500	0	4	4	

Resistance of 6 conductors cable :
 0.5 ㎜ square conductor wire (#20)....1 ohm/40 meter
 0.3 ㎜ square conductor wire (#22)....2 ohm/40 meter

DR-7600

	1	2	3	4	5	6
1		0~500	500	500	500	500
2	0~500		0~500	10~500	10~500	0~500
3	500	0~500		10	10	0
4	500	10~500	10		20	10 (×∞)
5	500	10~500	10	20		10 (×∞)
6	500	0~500	0	10 (×∞)	10 (×∞)	

(※The value at full CW or CCW position)

Each rotator and controller has been adjusted in the factory. However, if the indication between the indicator and rotator has a more than 5° offset, adjust the trimpot (located inside cabinet) as follows :

DC-7011   (Round Controller)

(1)

(2)

)   Set the pre-set knob to the fully clockwise position.

(-)   Adjust the trimpot to synchronise the rotator and preset knob at the fully clockwise position.

CAUTION

When setting the trimpot to synchronise the angle of the rotator and indicator, the rotation angle of the preset knob should be spread the same angle of the rotator. If the trimpot is adjusted at over the rotating position, the motor may be damaged by over-heating.
The LED (Operation indicator) will flash fully rotator position when the trimpot is not adjusted properly. In such cases, readjust the trimpot.

The resistance of the cable is increased when using the control cable longer than 40 meters. When the resistance is too high the LED will flash at about 0° - 5° position.

In these cases 0.75 m/m sq. is recommended to connect between the rotator and controller.

CAUTION   DR-7500a (in the case of DR-7500X)

When the indicator (LED) of DC-7055 is flashing when the rotator is stopped at the fully turned position, the motor in the DR-7500a might fail by over-heating, because AC current is flowing in the motor when the LED is flashing. Check the wiring of control cable.
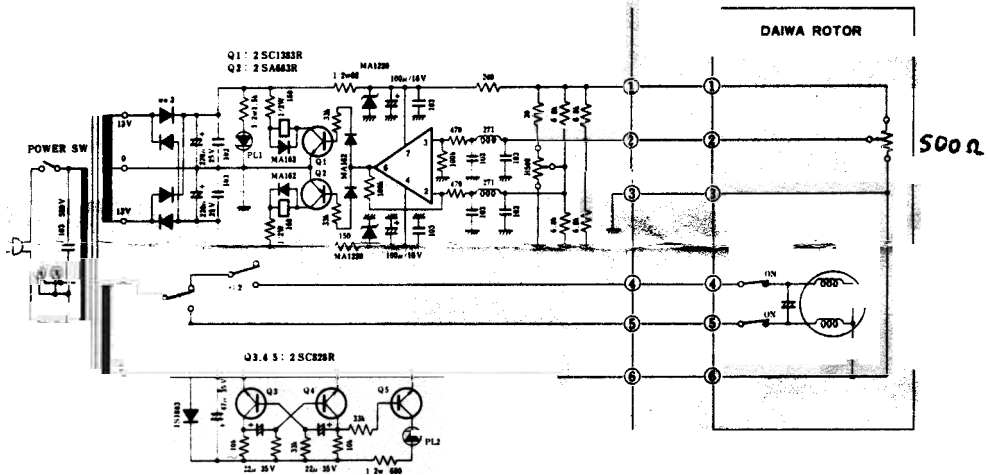
Under some circumstance it is possible for RF interference to upset the rotator operation. In such cases the problem may be cured by inserting ferrite beads or a high toroidal coil on each conductor of the control cable.

SCHEMATIC DIAGRAM

DC—7011
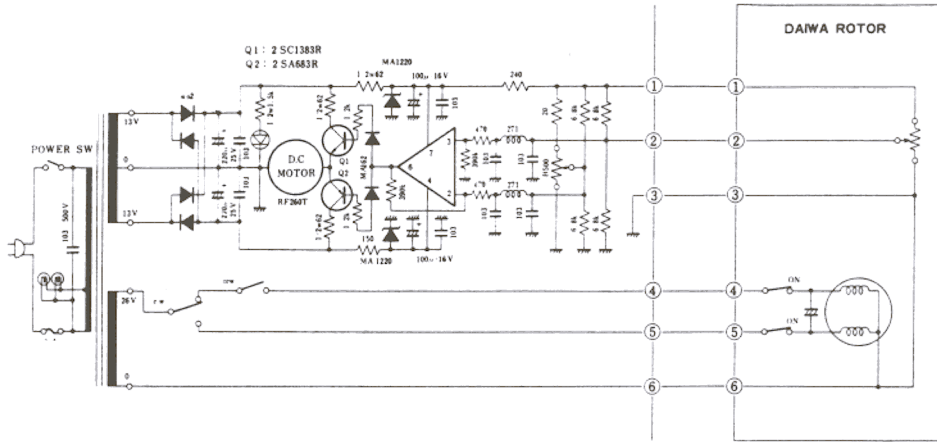
DC—7055

The specifications and/or circuit may be altered without notice.

DAIWA ANTENNA ROTATORS

DR-7500R   Medium duty rotator with DC-7011 round controller.
DR-7500X   Medium duty rotator with DC-7055 pre-set controller.
DR-7600R   Heavy duty rotator with DC-7011 round controller.
DR-7600X   Heavy duty rotator with DC-7055 pre-set controller.

1 — BK
2 — R.
3 — Y
4 — GR.
5 — BL.
6 — W.