

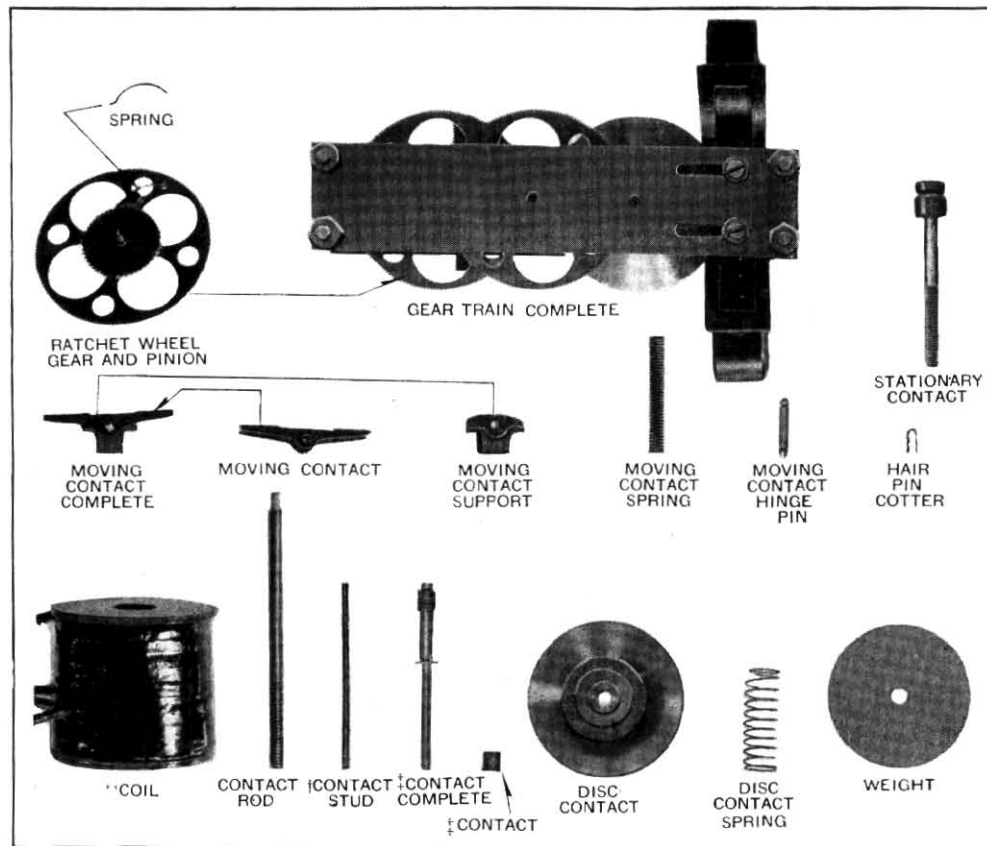
TYPE KD GEARED TIME ELEMENT RELAYS  
RENEWAL PARTS DATA

FIG. 3—RENEWAL PARTS FOR TYPE KD GEARED TIME ELEMENT RELAYS

\*\*When ordering coil, also give the number shown on the old one.

†Used on earlier design relays.

‡Used on later design relays.

## Recommended Stock of Renewal Parts

For Relays in use up to and including.....

Name of Part	No. Per Unit	Recommended For Stock		
		2	5	15
Gear train complete .....	1	0	0	1
Ratchet wheel gear and pinion ..	1	0	0	1
Spring .....	1	0	1	2
Stationary contact.....	2	4	8	16
Moving contact.....	1	2	4	8
Moving contact support.....	1	0	0	1
Moving contact spring.....	1	0	1	1
‡ Moving contact hinge pin.....	1	0	1	2
Hair pin cotter.....	2	2	4	8
Contact stud.....	2	0	1	1
Contact complete.....	2	1	2	4
Contact.....	2	4	8	16
Contact rod.....	1	0	0	1
Contact disc.....	1	1	2	4
Contact disc spring.....	1	0	1	1
Weight.....	5	0	1	2
Coil.....	1	1	1	2

NOTE—Parts indented are included in the part under which they are indented.

‡ When Moving Contact Hinge Pin is ordered, one with two cotter Pins will be supplied

## Ordering Instructions



FIG. 4—NAME PLATE

Quick shipments from local stock and prompt reply to inquiries, without the necessity of referring to the works for information, are possible only when complete identifying information for the part is given:

1. Name the part, using the name shown on the illustration, and state quantity desired.
2. Give the relay name plate reading. See Fig. 4.
3. State whether shipment is to be made by freight, express (and name the route) or by parcel post. If by parcel post, shall we insure the shipment?
4. Send all orders or correspondence to the nearest Sales Office of the Company.
5. Small orders should be combined so as to amount to a value of at least one dollar, as order-handling and shipping expenses prevent us from billing a smaller amount.

WESTINGHOUSE ELECTRIC &amp; MANUFACTURING COMPANY

East Pittsburgh Works

East Pittsburgh, Pa.

Printed in U.S.A.

\*To be filed as an Instruction Leaflet and as Renewal Parts Data; for Instructions, see reverse side of this sheet.

## TYPE KD GEARED TIME ELEMENT RELAYS INSTRUCTIONS

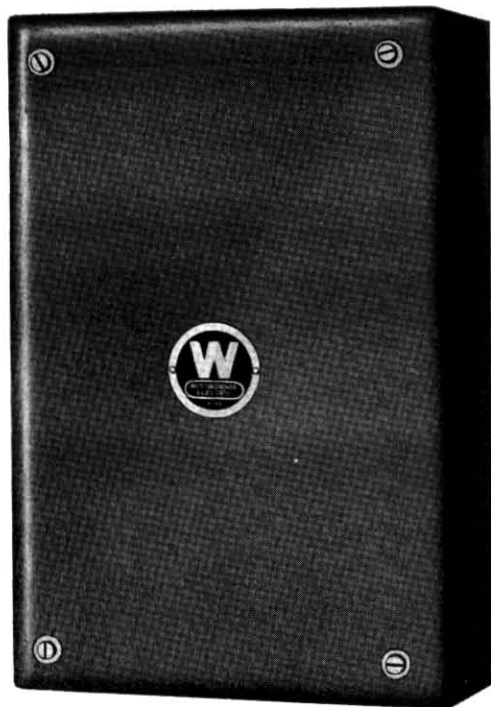


FIG. 1—TYPE KD GEARED TIME ELEMENT RELAY

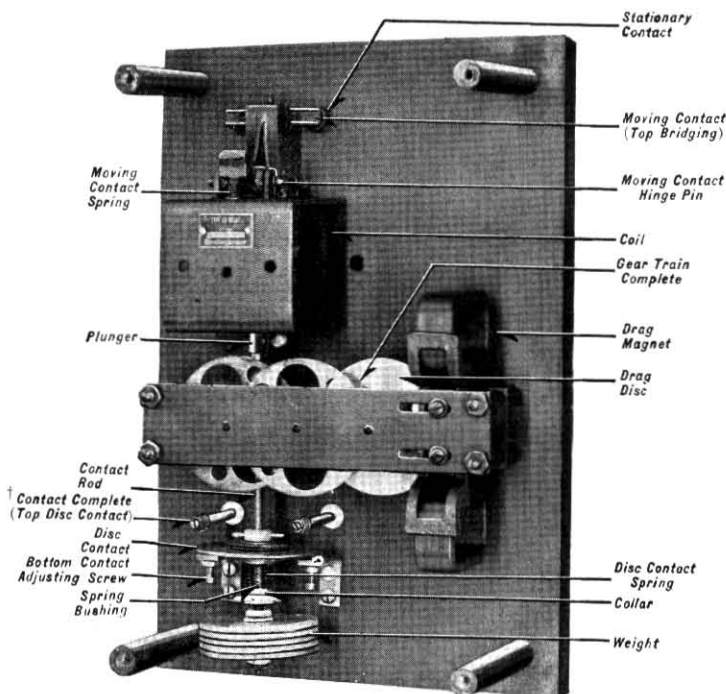


FIG. 2—TYPE KD GEARED TIME ELEMENT RELAY WITH COVER REMOVED  
(Does not include mounting panel)

†Used on later design relays, earlier design relays use a contact stud.

### Application and Rating

The type KD relay is a gear train time element relay for use on either A-C. or D-C. circuits. The coil is for intermittent service only and the voltage should be applied only long enough to lift the plunger to the top position. The relay is insulated for voltages up to 600 volts. The disc contacts have a maximum current rating of 10 amperes. The top bridging contacts, when used, have a rating of five amperes. The top disc contacts should not be used to open an inductive circuit.

### Adjustments

Time settings may be made by changing the position of the drag magnet, and by regulating the distance of the plunger travel by means of the bottom contact adjusting screws. Time settings are adjustable from 6 seconds to 150 seconds. Five lead weights are provided to operate the gear train and this number of weights should always be used in order to secure proper operation of relay.

### Maintenance

This relay must be protected from dirt and dust particles. Care should be taken when removing the cover to prevent any dust that may have accumulated on the top of the cover from dropping into the mechanism. Remove any iron filings or dust particles that may accumulate in the magnet gap. The drag disc should rotate freely.

Use only a high grade of light oil on the bearings of the gear train. Take care that oil and dust do not accumulate on the drag disc.

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