



TYPE KG GENERAL PURPOSE CONTROL RELAYS

DESCRIPTION

Type KG relays are general purpose control relays designed for heavy duty applications. These relays are available with one, two, three or four contact blocks. Each contact block may contain:

- One normally open circuit (1 NO),
- or one normally closed circuit (1 NC),
- or one normally open and one normally closed circuit (1 NO & 1 NC).

INSTALLATION AND ADJUSTMENT

Mount the relay vertically on a rigid support. Allowances for arcing clearance are not required.

With the relay power off, operate the relay by hand. It should operate freely. If it does not, check for binding in the armature knife edge and where the spring rod passes through the magnet frame. Check that all electrical connections are tight. Adjustments are not required since all relays are factory set in accordance with NEMA Standards. The relay setting is correct when the top of lock nut (12) is flush with the top of spring rod (15).

The armature stop is factory set with adjusting knob (18) as follows:

Adjust so that operator arm (16) or operator arm extension (19) just touches the closest operator button on a contact block. Tighten lock nut (12) against adjustment knob (18).

TROUBLESHOOTING

PROBLEM: Relay does not close when energized.

SOLUTION: Check the voltage at the operating coil terminals. An absence of voltage indicates a fault elsewhere in the circuitry. If the coil voltage is normal, disconnect the coil leads and check the coil for continuity. An open or shorted coil must be replaced.

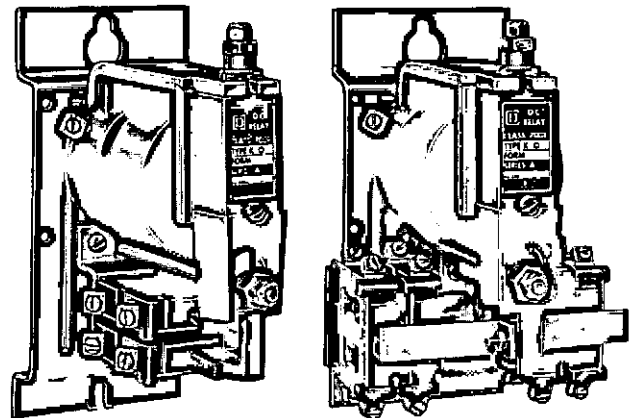
REPAIR AND MAINTENANCE

CONTACT REPLACEMENT

The relay contacts consist of a copper body with a silver facing. Contacts must be replaced when the silver has worn off. Note: Do not clean the silver facing as the oxides of silver are conductive and discoloration is normal.

To replace contacts, proceed as follows using a screwdriver:

1. Loosen the two mounting bracket screws and remove the assembled mounting bracket (24).
2. Turn bracket over and remove two screws (28).
3. Remove contact block and replace with a new block.



TYPE KGO-22

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4. Mount new contact block on mounting bracket (24). Orient the open side of the contact so it faces down or away from center.
5. Replace assembled mounting bracket on relay base. Fasten with the two captive screws.

Caution: Contact block should face open side down or away from center.

COIL REPLACEMENT

To replace the operating coil, proceed as follows:

1. Remove the coil leads. Grasp the operating arm (16) and also the adjustment knob (13) on top of the relay.
2. Pull down on the operator arm and lift the adjustment knob. Pull the entire assembly forward and it will snap free from the main part of the relay.
3. Remove screw (10) holding the core cap (8) and core cap spacer (9). Observe the number and order of core caps and core cap spacers.
4. Remove the core cap (8) and core cap spacer (9).
5. Remove the operating coil (7) and replace it with a new coil.
6. Replace the core cap (8) and core cap spacer (9). Fasten with screw (10). Connect coil leads.
7. To reassemble relay, grasp operating arm and lift the adjustment knob. Replace assembly on relay.
8. No adjustments are necessary since the adjustments were not disturbed during the coil change.

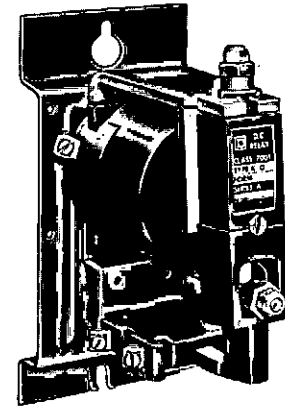
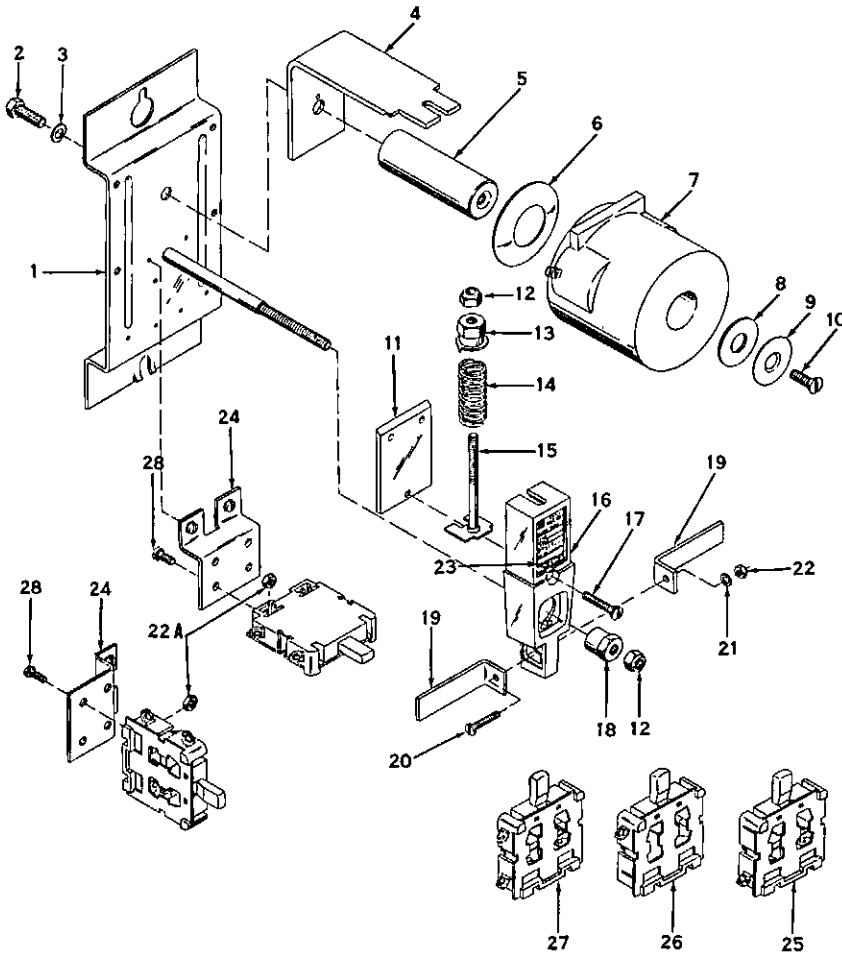
Caution: The two projecting points on the bottom of the adjusting knob (13) must be properly seated in the two slots on top of magnet frame (4).

LUBRICATION

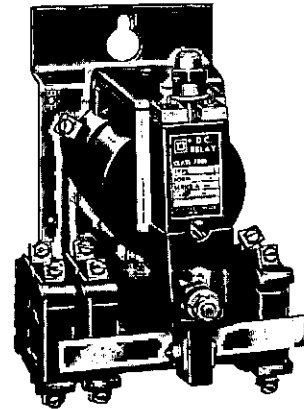
The Type KG relays require no lubrication.



TYPE KG GENERAL PURPOSE CONTROL RELAYS



TYPE KGO-11



TYPE KGO-33

Item No.	Part No.	Description	No. Required	
			1 or 2 Contact Blocks	3 or 4 Contact Blocks
1	A51152-024-50	Assembled Base	1	1
2	21401-22280	5/16"-18x7/8" Steel Hex Cap Screw	1	1
3	23701-00220	5/16" Plain Lock Washer	1	1
4	A51152-007-01	Magnet Frame	1	1
5	A51152-025-50	Assembled Coil Core	1	1
6	A51017-041-01	Spring Washer	1	1
*7	A51017-056-50	Assembled Operating Coil (240 V)	1	1
	A51017-056-51	Assembled Operating Coil (120 V)		
8	A51152-023-01	Core Cap (Steel)	1	1
9	A51152-022-01	Core Cap Spacer (Stainless Steel)	1	1
10	21714-20240	1/4"-20x3/4" Flat Hd. Brass/Nylock Screw	1	1
11	A51152-008-01	Armature	1	1
12	23201-00210	1/4"-28 Jam Nut	2	2
13	A51152-030-50	Assembled Adjusting Knob	1	1
14	B50502-601-41	Operating Spring (Yellow)	1	1
	B50502-601-42	Operating Spring (Blue)	1	1
15	A51152-013-50	Assembled Spring Adjustment Rod	1	1
16	C51152-009-01	Operator Arm	1	1
17	21933-16400	No. 10-24-1-1/4" Oval Head Screw	1	1
18	A51152-029-01	Adjusting Knob	1	1
19	A51152-015-01	Operator Arm Extension	-	2

Item No.	Part No.	Description	No. Required	
			1 or 2 Contact Blocks	3 or 4 Contact Blocks
20	21507-16280	No. 10-24x7/8" Screw	-	1
21	23701-00160	No. 10 Lock Washer	-	1
22	23001-00160	No. 10-24 Hex Nut	-	1
23	A51139-108-01	Nameplate	1	1
24	A51152-014-50	Assem. Mtg. Bracket	1	2
*28	Class 9999 Type KX-1 Kit	No. 10-24x5/8" Pan Head Screw Assembly (2 Req'd.)	1, 2, 3 or 4 As Required	
*22A		No. 10-24 Hex Nut (2 Req'd.)		
*25	Class 9999 Type KX-2 Kit	Assem. Contact Block, 1 N.O. Contact		
*28		No. 10-24x5/8" Pan Head Screw Assembly (2 Req'd.)		
*26	Class 9999 Type KX-3 Kit	No. 10-24 Hex Nut (2 Req'd.)		
*27		Assem. Contact Block, 1 N.C. Contact		
*28	Class 9999 Type KX-3 Kit	No. 10-24x5/8" Pan Head Screw Assembly (2 Req'd.)		
*22A		No. 10-24 Hex Nut (2 Req'd.)		
*27	Class 9999 Type KX-3 Kit	Assem. Contact Block, 1 N.O. and 1 N.C. Contact		
*22A		No. 10-24 Hex Nut (2 Req'd.)		

*Essential Parts for General Maintenance