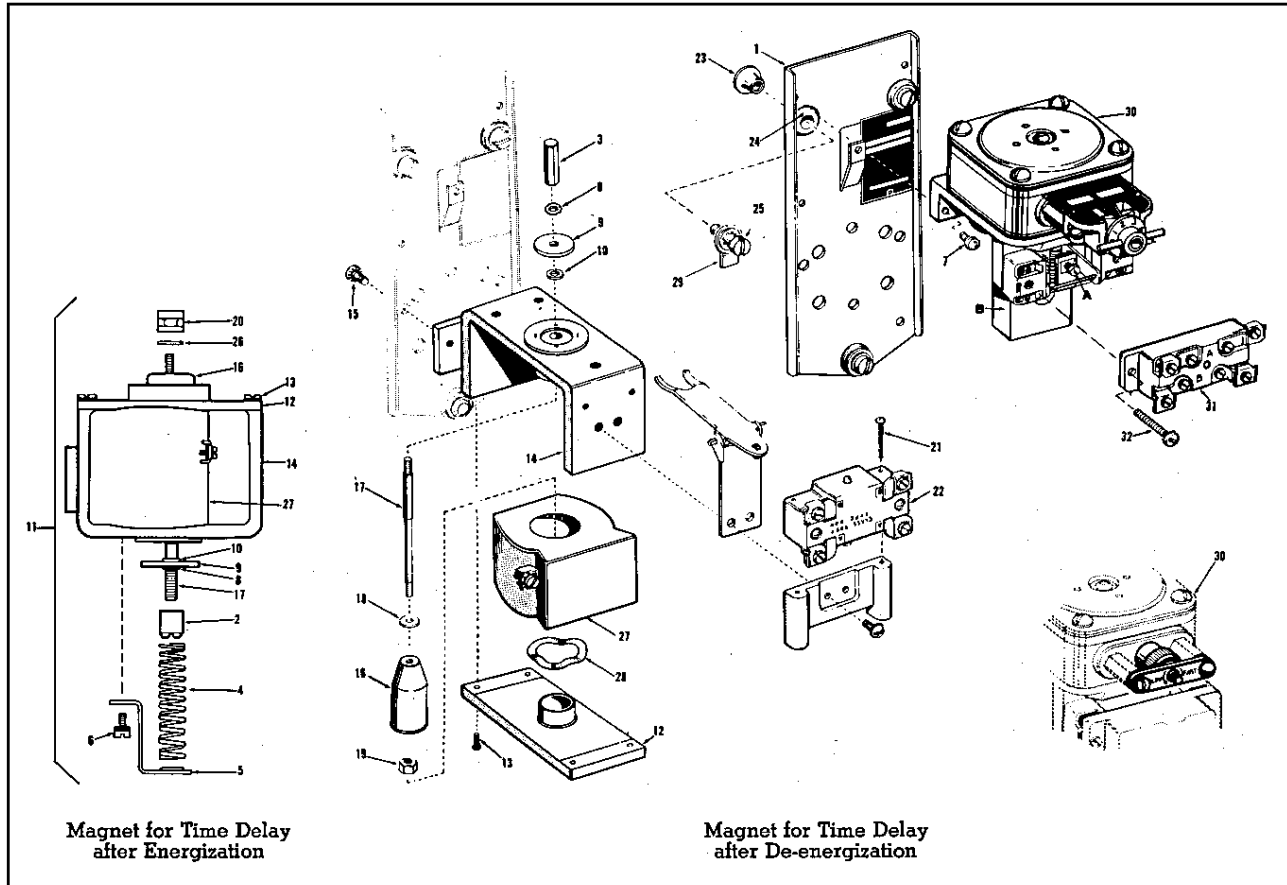




## Class 9050 — Type C — DC Pneumatic Timing Relay With Single Pole Timed Contacts — Series D

**DANGER: Hazard of electrical shock or burn. Be sure to turn off power supplying this equipment before working on it.**



**Pneumatic Timing Unit** — Repair and replacement of parts of the timing unit, other than the snap switch, are to be done at the factory. Accuracy and performance of the unit can be greatly affected when repairs are attempted in the field. Faulty units are to be replaced by new timing units or returned to the factory for repairs.

**Timed Contact** — The snap switch contact mechanism (31) may be removed by disconnecting any wiring to it, and removing the two screws (32) holding it to the timing head.

When installing a new Class 9007 Type AO-104 snap switch (31), the overtravel after time-out **must be adjusted** as follows:

- (1) Rotate the snap switch adjusting screw (A) so that the snap switch just trips at the extreme outward travel limit of the diaphragm block (B).
- (2) As shown in the above view, rotate the adjusting screw (A) clockwise exactly 1/2 turn or 3 flats of the hexagon screw head.
- (3) The diaphragm block on the timing head should have approximately 0.042" overtravel after the snap switch trips; this can be checked by hand operation of the diaphragm block.

**CAUTION** — When the **timed contact** snap switch mechanism is replaced, it must only be replaced with a Class 9007 Type AO-104 snap switch. Other Class and Type snap switches are not interchangeable.

**Magnet Coil** — To replace the magnet coil (27) first disconnect the wires from the coil terminals. Next remove the screws (15) which hold the magnet frame (14) to the base plate (1). After removing the screws (13) holding the magnet frame bottom plate (12) to the magnet frame, the coil may be removed.

When reassembling the magnet, orient the magnet frame bottom plate (12) so that the word "FRONT" is toward the front of the magnet.

**Timing Mode Conversion** — The magnet assembly used with this timer allows easy conversion from time delay after energization (on delay) to time delay after de-energization (off-delay), or vice-versa. This conversion, however, requires either one of two Class 9999 kits depending on the conversion.

The Class 9999 Type K-5 kit contains the necessary parts and instructions to change from time delay after de-energization to time delay after energization.

The Class 9999 Type K-6 kit contains the parts and instructions required to change the timer from time delay after energization to time delay after de-energization.

**Instantaneous Interlocks** — A total of two instantaneous interlocks can be mounted on the front of the timing relay. They may be factory installed on the timer or added in the field. All the necessary parts and instructions for field mounting one interlock are included in a Class 9999 Type R-5 parts kit.



**ORDERING INSTRUCTIONS:** Specify quantity, Part number and description of part, giving complete nameplate data of device. For example: 1-2105-X15 stop washer for Class 9050 — Type CO2D Timer with serial number 954312-S31018-546-52.

PARTS LIST										
Item No.	Description	Part Number	QUANTITY REQUIRED							
			CO-1E	CO-1D	CO-2E	CO-2D	CO-3E	CO-3D	CO-4E	CO-4D
1	Baseplate.....	4427-C8-X1	1	1	1	1	1	1	1	1
**2	Nut.....	214-X45	1	...	1	...	1	...	1	...
**3	Nut.....	214-X65	...	1	...	1	...	1	...	1
4	Spring.....	See item 11	1	...	1	...	1	...	1	...
5	Spring Bracket.....	2711-D2-X1	1	...	1	...	1	...	1	...
**6	SA #6-32 x 5/16".....	21915-14101	2	...	2	...	2	...	2	...
**7	Screw Assembly #10-24x1/2".....	21911-16161	2	2	2	2	2	2	2	2
8	Washer #10.....	23703-00160	1	1	1	1	1	1	1	1
9	Bakelite Washer.....	2711-X1	1	1	1	1	1	1	1	1
10	Washer #10.....	23603-00163	1	1	1	1	1	1	1	1
11	Magnet and Armature Assembly (Includes Items 2-6, 8-10, 12-14, 16-20, 26, 28).....	S31018-626-50	1	1	1	1	1	1	1	1
12	Magnet Bottom Plate Assy.....	See item 11	1	1	1	1	1	1	1	1
**13	Screw Assembly #6-32x3/8".....	21911-12120	4	4	4	4	4	4	4	4
14	Magnet Frame Assembly.....	See item 11	1	1	1	1	1	1	1	1
**15	Screw Assy. #10-24x5/16".....	21911-16100	2	2	2	2	2	2	2	2
16	Armature.....	See item 11	1	1	1	1	1	1	1	1
17	Armature Rod.....	See item 11	1	1	1	1	1	1	1	1
18	Stop Washer.....	2105-X15	1	1	1	1	1	1	1	1
**19	Elastic Stop Nut #10-24.....	23201-00160	...	1	...	1	...	1	...	1
**20	Nut.....	214-X11	1	...	1	...	1	...	1	...
**21	Screw Assy. #6-32x7/8".....	21911-12280	...	...	2	2	...	...	2	2
22	Snap Switch Interlock.....	Class 9007 Type BO4	...	...	1	1	...	...	1	1
23	Flanged Spacer.....	1861-X17	3	3	3	3	3	3	3	3
24	Rubber Grommet.....	29202-18080	3	3	3	3	3	3	3	3
25	SA #10-24x5/8".....	21909-16201	3	3	3	3	3	3	3	3
26	Washer #10.....	23701-00160	1	...	1	...	1	...	1	...
27	Magnet Coil.....	See table below	1	1	1	1	1	1	1	1
28	Spring Washer.....	23903-26501	1	1	1	1	1	1	1	1
29	Grounding Clip.....	31017-024-01	1	1	1	1	1	1	1	1
PNEUMATIC TIMER										
30	Timing Unit Complete } w/o Dial	9050 G27	1	1	1	1	...	...	...	...
	With Snap Switch } w/Dial	9050 G29	...	...	...	...	1	1	1	1
31	Snap Switch with Pressure Wire Connector.....	9007 AO-104	1	1	1	1	1	1	1	1
**32	SA #6-32x1.....	21911-12321	2	2	2	2	2	2	2	2

**\*\*FACTORY RECOMMENDED DRIVING TORQUES**

Item No.	Description	Driving Torque (in.-lb.)
2	Nut (1 required) Part #214X-45.....	24-28
3	Nut (1 required) Part #214X-65.....	24-28
6	Spring bracket mounting screw (2 required).....	18-21
7	Timing head mounting screw (2 required).....	24-28
13	Magnet bottom plate mounting screw (4 required).....	9-12
15	Magnet frame assembly mounting screw (2 required).....	24-28
19	Nut (1 required) Part #23201-00160.....	24-28
20	Nut (1 required) Part #214-X11.....	24-28
21	Interlock mounting screw (2 required).....	9-12
32	Timed contact mounting screw (2 required).....	9-12

MAGNET COILS*			
D.C. Voltage	Part Number	D.C. Voltage	Part Number
6	31018-400-22	48	31018-400-49
12	31018-400-31	115	31018-400-61
24	31018-400-40	230/250	31018-400-70
36	31018-400-46		

\*When ordering replacement coils give part number and voltage of coil being replaced.