



NEMA SIZE 2 SINGLE POLE S CONTACTOR FOLIO 7 FOR DC OPERATION

INSTRUCTIONS

TYPE S CONTACTORS are general purpose, direct current magnetic contactors.

RATING: 50 amp. continuous, 500 amp. rupturing capacity, 115-550 Volts.

ELECTRICAL INTERLOCKS: These consist of stationary contacts mounted on the base and a moving contact attached to the magnet arm. The moving contact should provide $\frac{1}{8}$ " follow-up when the magnet arm reaches its limit of travel, either completely closed or completely opened. The rating of these electrical interlocks is as follows:

	Max. Inrush	Cont. Amps.	Rupturing Capacity Amps. Inductive			
			115 V.	250 V.	440 V.	550 V.
A.C.	30	15	10	10	5	5
D.C.	30	15	2.5	1.0	.4	.4

MECHANICAL INTERLOCKS: Horizontal mechanical interlocks are bakelite bars pivoted at their centers. These are carefully ground on the ends to suit so that they do not interfere with the complete closure and seal of either contactor but prevent the simultaneous touching of both sets of contacts and prevent one contactor from closing if the other is closed.

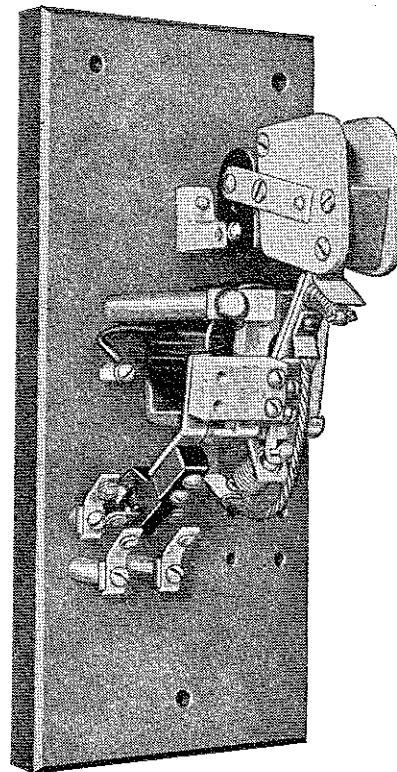
OPERATING COILS: Continuous duty operating coils are furnished for 115 volts and 230 volts. For 550 volts, the 230 volt coil is used and connected in series with a suitable resistor.

To remove the coil, loosen and rotate the stop plate out of the way and loosen the screws securing the spring retaining plate to the frame. Compress the arm spring and unhook the spring pin from the spring plate. The magnet arm may then be worked out of its bearing, exposing the coil. Remove core cap and coil terminal screws.

The contactor will pick up and seal on 80% normal voltage with the coil hot, will stand 110% voltage continuously, and will hold in to approximately 15% of normal voltage.

MAGNET AIR GAP: The air gap is provided by means of a non-magnetic spacer between the core and the frame which are held together by a brass screw. The armature seals directly against the core cap. See that this point of contact is free of any sticky, foreign material.

BEARINGS: Knife edge bearings are used and require no oiling. After assembly or adjustment, merely see that the knife edge bearing is properly located in its seat so that the arm moves freely. The arm spring has no adjustment but is sufficient to maintain the magnet arm properly in its bearing.

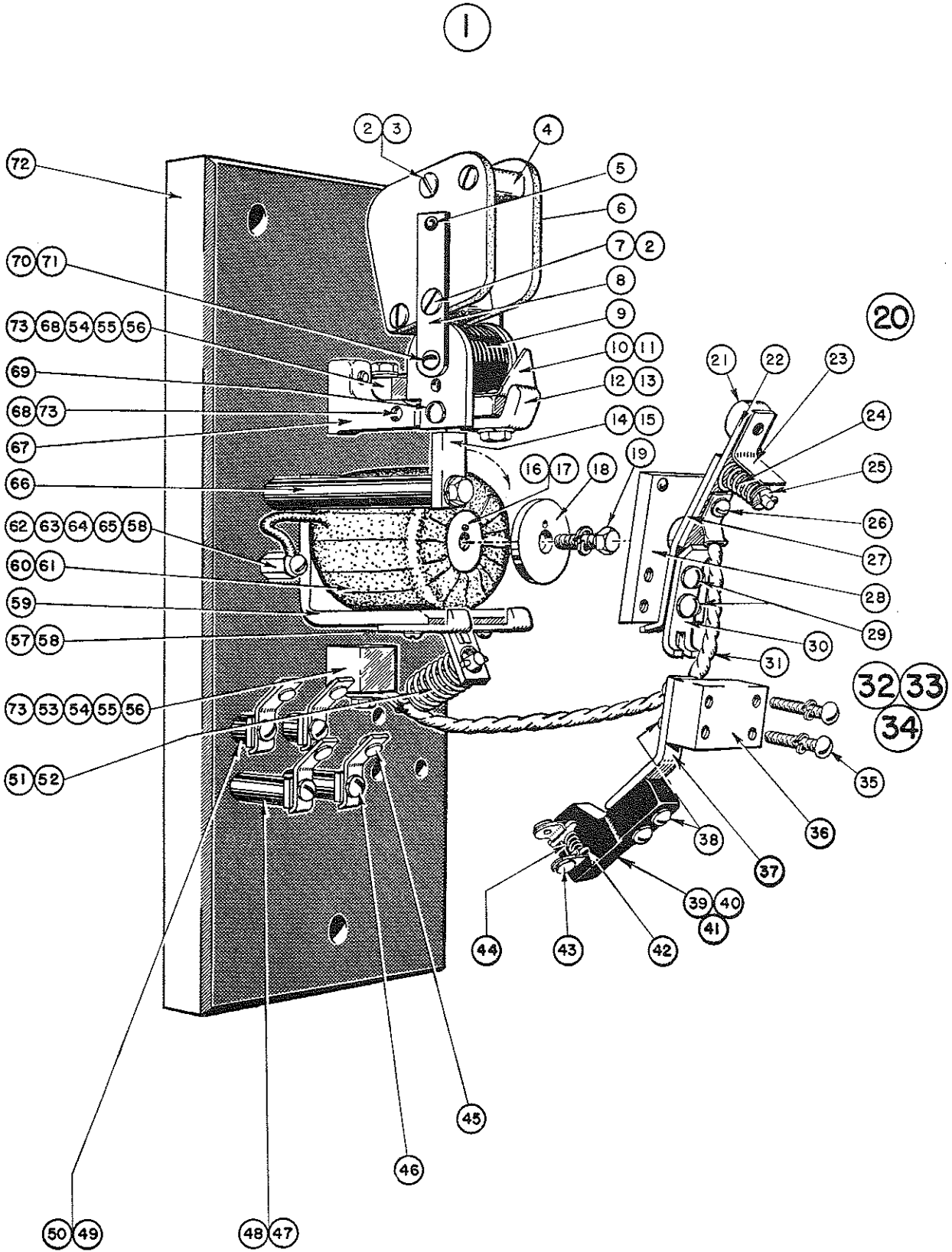


CONTACTS AND CONTACT SPRINGS: The follow-up with new contacts is $\frac{1}{4}$ " which is equivalent to $\frac{1}{8}$ " when measured on the contact finger opposite the contact spring pin. When this measurement, because of contact wear, decreases to $\frac{1}{32}$ ", the contacts should be replaced. The contact spring pressure is not adjustable. The initial pressure should be approx. one pound, and the final sealed pressure approx. $1\frac{1}{2}$ pounds. There is sufficient tolerance in the assembly of arms to permit alignment of the contacts. When replacing contact tips, see that they are properly aligned and that the contact springs do not bind. Always have the arc shields fully down when operating the contactor under load.

(Continued on Page 4)



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SEE PAGE 4 FOR ADDITIONAL PARTS

SERVICE BULLETIN

July, 1967



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NOTE: Indented items are component parts of item immediately preceding.

Item No.	List No.	Description	Item No.	List No.	Description
✓ 1	SS-0746-A	Assembled Arc Shield, Complete.....	39	EL-1-A	Control Circuit Arm, Complete for Open or Closed Control Circuit.....
● 2	22899-14400	Binding Screw, 4 req'd.....	40	EL-2-A	Control Circuit Arm, Complete for Open and Closed Control Circuit.....
● 3	29418-14120	Binding Post, 3 req'd.....	41	EL-47	Control Circuit Arm, only.....
✓ 4	SS-0771	Spacer, 2 req'd.....	42	EL-87	Spring Retainer, 2 req'd.....
5		# 6 x 5/16" Wafer Hd. U-Drive Screw, 2 req'd.....	† 43	EL-84-A	Contact Bridge, 1 req'd. for Item 39, 2 for Item 40.....
✓ 6	SS-0770	Arc Shield, 2 req'd.....	† 44	EL-49	Spring.....
● 7	29418-14400	Binding Post.....	† 45	EL-6-A	Contact.....
✓ 8	SS-0753	Blowout Ear, 2 req'd.....	46		10-24x1/2" R.I. Mch. Screw & 3/16" Lk. Washer.....
✓ 9	SS-0747-A	Blowout Coil.....	47	EL-19	Stud, for 3/8"-1" -1 1/4" Base.....
10	SS-0752	Arc Horn.....	48	EL-20	Stud, for 1 1/2"-2" Base.....
11		# 6 x 3/16" R.H. U-Drive Screw, 2 req'd.....	49	EL-9	Stud, for 3/8"-1" -1 1/4" Base.....
12	5D005040	Contact Tip.....	50	EL-10	Stud, for 1 1/2"-2" Base.....
13		1/4"-20x1/2" H.I. Cap Screw & Lk. Washer.....	✓ 51	SS-0769-A	Spring Pin.....
14	SS-0805	Stop Plate.....	† 52	SS-0802	Arm Spring.....
15		1/4"-20x3/4" H.I. Cap Screw & Lk. Washer.....	✓ 53	B5-0502-004-01	Spring Washer.....
16	5-0107-A	Core.....	54	SS-0756	Main Terminal Stud, for 3/8" Base.....
17	SS-0803	Non-magnetic Spacer (at rear of core, not shown).....	55	SS-0757	Main Terminal Stud, for 1"-1 1/4" Base.....
18	LT-1067	Core Cap.....	56	SS-0758	Main Terminal Stud, for 1 1/2"-2" Base.....
19		1/4"-20x3/4" H.B. Cap Screw & Lk. Washer.....	57	SS-0798	Spring Retaining Plate.....
20	SS-0755-A	Assembled Contact Finger.....	58		10-24x3/8" R.I. Mch. Screw & 3/16" Lk. Washer, 2 req'd.....
● 21	A50005-049-01	Contact Tip.....	59	SS-0827-A	Frame.....
22	SS-0754	Contact Finger.....	† 60	SS-0785-AE	Operating Coil, 230 Volt.....
23	SS-0786	Guard.....	† 61	SS-0782-AE	Operating Coil, 115 Volt.....
24	SS-0896	Contact Spring.....	62	S-0110	Coil Terminal Stud, for 3/8" Base, 2 req'd.....
25	ZS-0349	Spring Guide.....	63	LTZ-1809	Coil Terminal Stud, for 1" Base, 2 req'd.....
26		8-32x3/8" R.B. Mch. Screw & # 8 Lk. Washer.....	64	LTZ-1810	Coil Terminal Stud, for 1 1/4"-1 1/2" Base, 2 req'd.....
27	SS-0796-A	Contact Bracket (includes Contact Spring Pin).....	65	LTZ-1811	Coil Terminal Stud, for 2" Base, 2 req'd.....
28	SS-0922-A	Armature.....	66	SS-0806	Stop Bar.....
29		10-24x1/2" R.I. Mch. Screw & 3/16" Lk. Washer, 2 req'd.....	67	SS-0750	Contact Bracket.....
30	SS-0795	Spring Plate.....	68	ZO-1150	Cup Washer.....
31	SS-0828-A	Connector.....	69		10-24x1 1/2" R.I. Mch. Screw, # 6 Bl. Burr., 3/16" Lk. Washer & 10-24 H.I. Nut (Nuts & Washers not shown).....
32	EL-53-G	Control Circuit, Complete for Normally Closed.....	70	SS-0781	Blowout Core.....
33	EL-54-G	Control Circuit, Complete for Normally Open.....	71		10-24x1 1/4" R.I. Mch. Screw, # 6 Bl. Burr. 3/16" Lk. Washer & 10-24 H.I. Nut (Nut & Washers not shown).....
34	EL-55-G	Control Circuit, Complete for Open and Closed.....	72		Base, specify thickness.....
35		10-24x1" R.I. Mch. Screw & Lk. Washer 2 req'd.....	73		1/4"-20x1/2" H.I. Cap Screw.....
36	EL-63	Mounting Block.....			
37	EL-62	Control Circuit Support.....			
38		10-24x3/4" R.I. Mch. Screw & 3/16" Lk. Washer, 4 req'd.....			

† Essential Parts for General Maintenance

● Minor revisions since previous issue.

Station

movable

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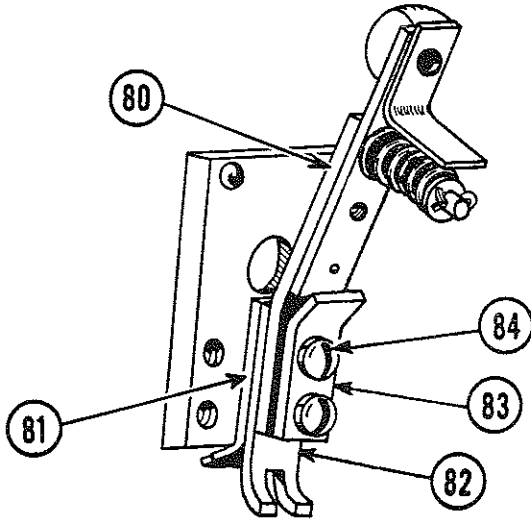
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Handwritten notes and corrections in the right column of the table, including 'obsolete', 'NOT FOR CUST. USE', and various part numbers.



NEMA SIZE No. 2 SINGLE POLE S CONTACTOR, FOLIO 7

This contact assembly has been designed to provide extra contact wipe. Where greater wipe is needed on existing contactors, the necessary parts can be purchased separately or the new complete assembled contact arm SS-0955-A (as illustrated below) can be installed quickly and easily.



Item No.	List No.	Description
80	SS-0957-A	Assembled Contact Bracket. <i>obsolete</i>
81	SS-0958	Armature Centering Plate. <i>obsolete</i>
82	SS-0960	Spring Plate..... <i>obsolete</i>
83	SS-0959	Retaining Plate..... <i>obsolete</i>
84		10-24 x 3/4" R.I. Machine Screw and Lk. Washer

NOTE: Parts not numbered are the same as parts on Page 2.

ADVISE NAMEPLATE MARKING WHEN ORDERING SPARE PARTS