



Type 700-1250 Amp D.C. Contactors

Control Products Division INSTALLATION – MAINTENANCE – PARTS LIST 14 – 163 – 750 – 403

DESCRIPTION

The Type 700-1250 amp definite purpose D.C. contactor is designed for specific application to electric power circuits. The design of the equipment provides for the safety of the operating and service personnel, provided care and caution are taken in performing the operating and service functions.

WARNING DO NOT OPERATE CONTACTOR BEYOND ITS MAXIMUM RATINGS.

INSTALLATION

The type 700 device mounts on a 2" x 3" angle support with two 3/8" screws. Two – 3/8-16 tapped holes per terminal are provided for customer's power connections. 1/4" fasten tabs are provided for D.C. coil and auxiliary switch connections.

WARNING: DO NOT OPERATE CONTACTOR WITHOUT ARC CHUTE. DO NOT REMOVE ARC CHUTE WHILE CONTACTOR IS ENERGIZED.

MAINTENANCE

Only skilled personnel familiar with electrical equipment and the hazards involved should be permitted to service these contactors. All safety precautions must be observed.

WARNING: REMOVE POWER FROM CONTACTOR BEFORE INSPECTION OR MAINTENANCE.

Periodically inspect contactor, specifically the contacts. Note that contacts which appear dark, rough, or both after a few weeks of operation are normal. Do not clean, dress, or file contacts. It is important to check the thickness of the contact tips. If the movable or stationary contact tips are eroded through to less than 1/32" thickness, contact welding is likely and therefore all contacts should be replaced.

WARNING: DO NOT TOUCH METAL PARTS WITH POWER APPLIED. THESE PARTS CAN BE AT LINE VOLTAGE.

Moving mechanical parts should be free from excess friction. The bearing surfaces on the contactors are designed to operate without lubrication. Therefore, do not oil or grease at any time.

MAIN AND ARCHING CONTACT REPLACEMENT

1. Refer to Exploded View. To replace main contacts, remove arc chute assembly (273) by pulling latch spring (281) forward and lifting front end of arc chute. To remove stationary main contact assemblies (229), remove pivot terminal (230) held with hardware (231), (232), and clean spring recesses. Replace pivot springs (226), pivot spring caps (227), and wipe springs (225).

Place spacer (228) between springs and replace contacts (229). Insert pivot terminal (230) until contact pivots are engaged. Reinstall hardware (231), (232). Check for freedom of contact motion (.05" contact clearance).

2. To remove movable arcing tip assemblies (224), remove hardware (246) (247). Pull arcing tip assemblies (244) up out of slot between movable contact supports (239) and pivot assemblies (245). Remove hardware (242), (243). Replace movable main contacts (241). Reinstall hardware. Reinstall arcing tip assemblies (244).

To replace stationary arcing contacts (278), remove hardware (279). Replace contacts (278). Reinstall.

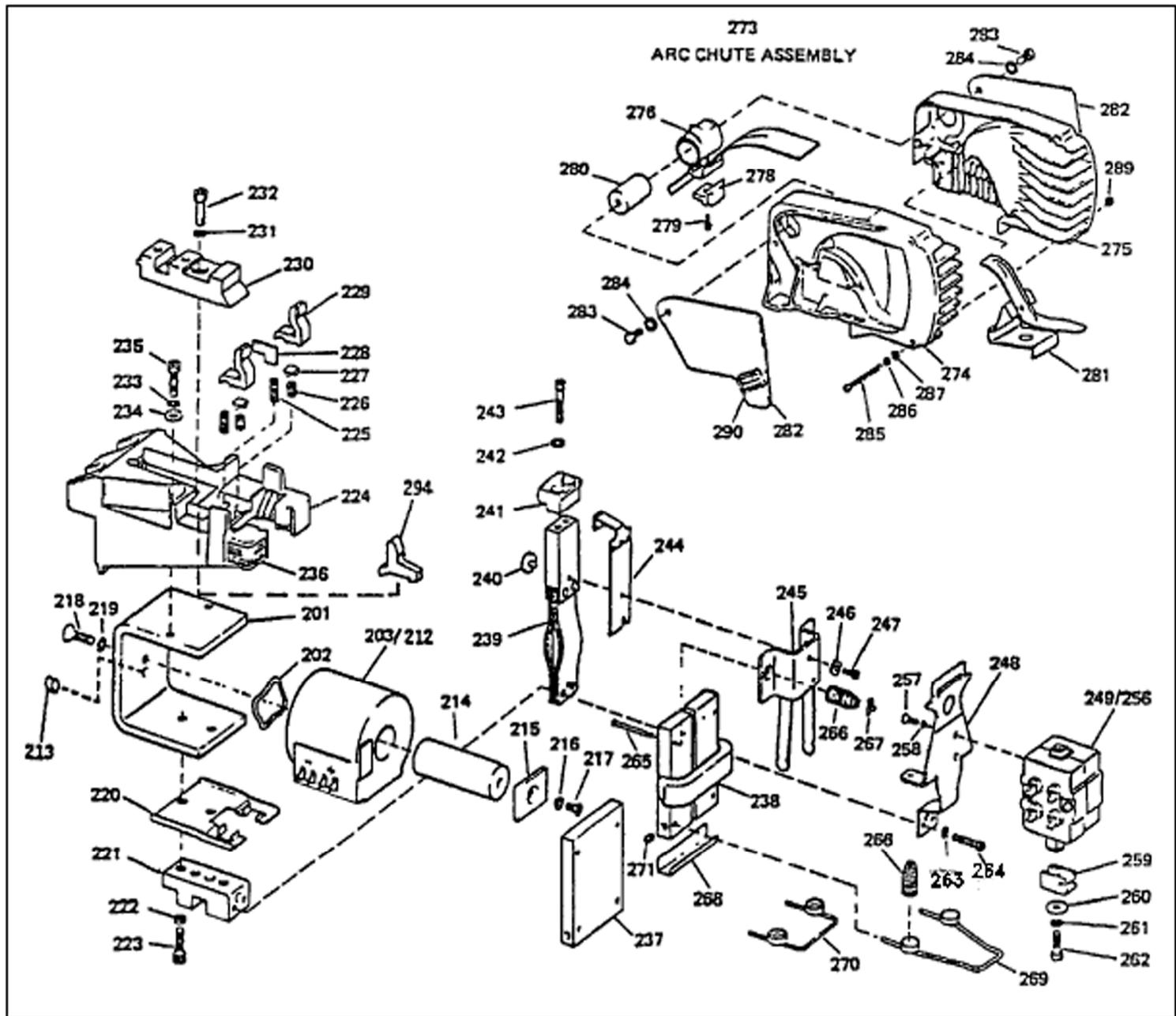
OPERATING COIL REPLACEMENT

3. To replace operating coil (203/212), remove arc chute assembly (273). Remove power cable from lower terminal (221) and wires from auxiliary switch (249/256) and coil (203/212). Remove hardware (216), (217) and pole plate (215). Replace coil. Reinstall. There should be no binding in armature motion (237), (238) and contact tips should mate properly.

AUXILIARY SWITCH REPLACEMENT

4. To inspect auxiliary contacts, remove left-hand cover of auxiliary switch (249/256). If contacts are not excessively worn (more than .02" per mating pair), reinstall left-hand cover. Check that switch operates freely without binding. Replace auxiliary switch (249/256) when contacts are worn (more than .02" per mating pair) compared to new contacts.

To replace auxiliary switch (249/256), remove hardware (260) (261) (262) and interlock operator (259). Remove return springs (266), set screws (271), and operating lever (269). Remove hardware (263), (264). Disengage support bracket (248) with auxiliary switch from slot in support bracket (224). Remove hardware (257), (258) from support bracket (248). Replace auxiliary switch (249/256). Reinstall. Check for freedom of movement between interlock operator (259) and operating lever (269).





Replacement Parts

June 2007

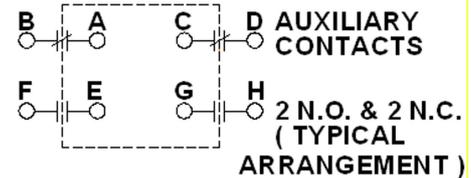
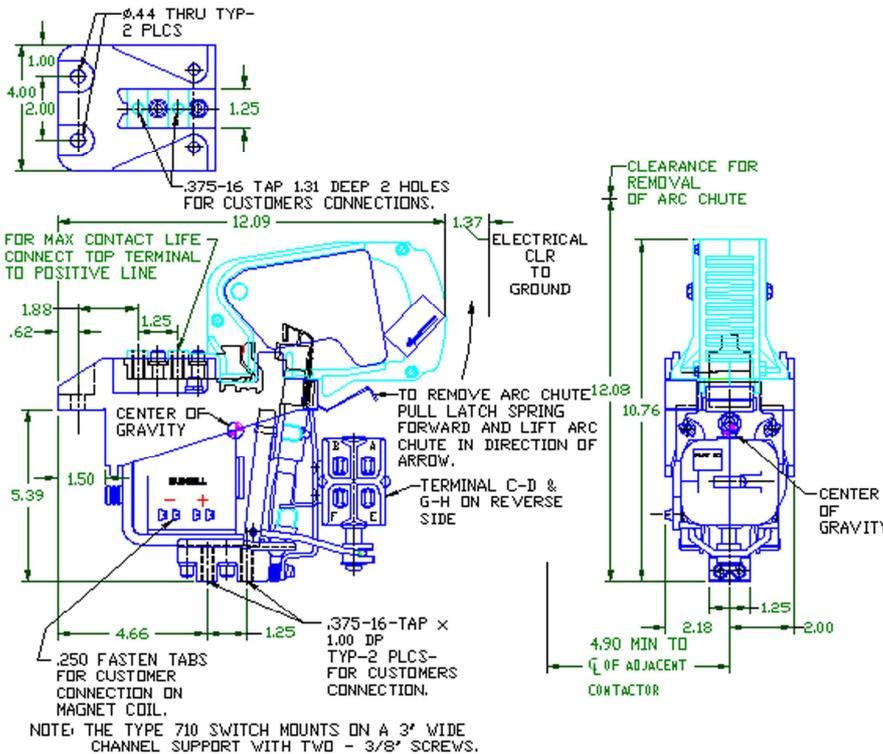
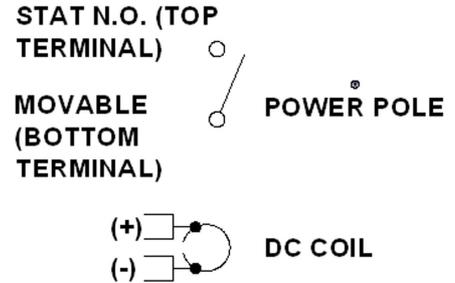
The information contained herein is general in nature and not intended for specifications shown herein or make improvements at anytime without notice or obligation. It doesn't relieve the user of responsibility to use sound practices in application installation operation and maintenance of equipment purchased. Should a conflict arise between the general information contained in this publication and the contents of drawings or supplementary material or both the latter shall take precedence.

HC14-163-750-403

Type 700-1250 AMP
D.C. Contactor

ITEM No.	NAME OF PART	QTY.	PART No.
1	Main Contact Kit	1	14192680801
2	Arcing Contact Kit	1	14192681801
3	Auxiliary Switch (1 N.O.-3 N. C.)	1	14192890524
4	Auxiliary Switch (2 N.O.-2 N. C.)	1	14192890523
5	Auxiliary Switch (3 N.O.-1 N. C.)	1	14192890513
6	Auxiliary Switch (4 N.O.)	1	14192890522
7	Auxiliary Switch (4 N.C.)	1	14192890525
8	Arc Chute kit (Incl. Arching Contacts.)	1	14192682801

CONNECTION DIAGRAM
Diagram For 1250A DC Contactor



Main Contact Ratings:

Continuous carry @ 40 Deg. C	1250 Amps
Maximum Make Current	5000 Amps
Maximum Break Current	2000 Amps
Maximum Interrupting Capacity	1000 KW Within Limits of 2000 A, 2000 V
Thru-Current Capability	15000 Amps

Operating Coils (Continuous Duty), Operation at 20 deg. C Coil temperature:

Volts DC	Ohms (20Deg C)	Max Pickup Up V DC	Drop-Out V DC
12	4.9	8.6	0.6-4.0
28	19.8	19.0	1.2-6.0
36	32.2	22.5	1.8-9.0
37.5	18.5	16.6	1.3-6.7
48	45.4	27.9	2.4-12.0
74	125.0	45.0	3.7-18.5
96	177.0	55.0	6.0-30.0
125	294.0	69.5	7.5-37.5
250	1162.0	141.0	15.0-75.0

U.L Recognized Ratings for Electronic Power Conversion Equipment, Forced Air Cooled, Current limit at 150% of Rated:

Horsepower	Amps	Volts DC
900	1200	600
800	1280	500

Electrical Data

Main Contact Configuration: Single Pole normally Open (SPNO)
 Auxiliary Contact ratings: Resistive load: 125 VDC or less – 10.0 Amps
 250 VDC – 2.5 Amps
 Voltage Rating: 1000 volts standard.
 Mechanical life: 1.8 million operations.
 U.L Recognized Ratings for Electronic Power Conversion Equipment, Convection Cooled and Current Limit at 200% of Rated:

Horsepower	Amps	Volts DC
700	1000	530 - 600
600	1000	500
300	1000	220 - 240

Power Connections: Two -3/8"-16 tapped holes perterminal.
 Top and bottom of contactor.
 Coil Connections: Four - 1/4" faston tabs.
 Arc Chute Clearance: 1 3/8" min.(face to nearest surface).
 Weight: 24 pounds.