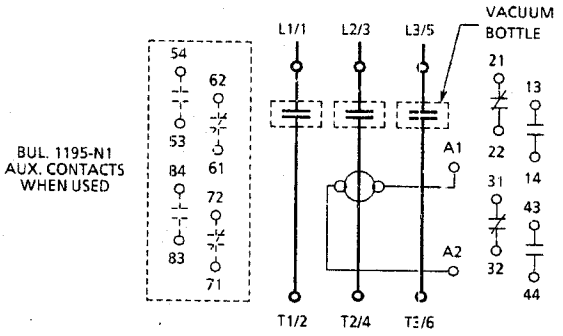
BULLETIN 1100 VACUUM CONTACTOR

VACUUM CONTACTOR WIRING DIAGRAM



INSTALLATION AND MAINTENANCE INSTRUCTIONS

MOUNTING

1. Contactors may be mounted in either the vertical or horizontal position. Proper vertical mounting is with the power line terminals at the top.
2. Install the top two mounting screws first and then shim the bottom mounting surfaces, if required, to prevent any contactor mounting strain before installing the lower mounting screws.

WARNING: Disconnect power from contactor before maintenance to avoid hazards of electrical shock and unintended operation of equipment. When required for maintenance provide a separate voltage source to the coil.

VACUUM BOTTLES

1. Each vacuum bottle has a red contact life line on the movable contact shaft. When this line is no longer visible with the contactor energized the vacuum bottles must be replaced. Replace all vacuum bottles at the same time.
2. When your estimated number of contactor operations reaches one million the vacuum bottles should be replaced, regardless of the location of the red contact life line, as part of a standard preventive maintenance procedure.

40051-253-01 (B)
Printed in U.S.A.

ALLEN-BRADLEY
Milwaukee, Wisconsin 53201-2086

REFERENCES			BULLETIN 1100 VACUUM CONTACTOR		WAS
REVISION		DIMENSIONS APPLY BEFORE SURFACE TREATMENT	INSTALLATION & MAINTENANCE INSTRUCTIONS		ALLEN-BRADLEY MILWAUKEE, WISCONSIN
	RELEASE	(DIMENSIONS IN INCHES) TOLERANCES UNLESS OTHERWISE SPECIFIED			
1	5207-84	2 PLACE DECIMAL (.XX) ±	DR. Greg Yakabow	DATE 12-27-84	SHEET 1 OF 3
2	5002-86	3 PLACE DECIMAL (.XXX) ±	CHKD. [illegible]	DATE 1-4-85	DWG. SIZE B 40051-253
		ANGLES ±	APPD. A. Bouchard	DATE 1-3-85	
REFER. BOOK					

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WARNING Disconnect power from the contactor before proceeding with Steps 3 through 6. Use a separate voltage source to energize the coil of the contactor where required. Remove the control wires from coil terminals A1 and A2 before connecting the separate voltage source.

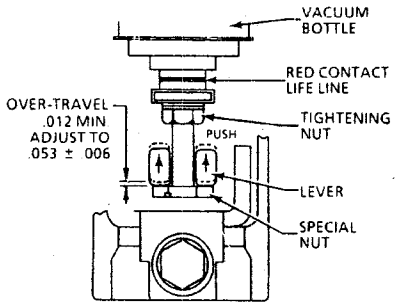

FIGURE-1

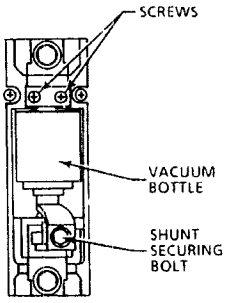

FIGURE-2

3. Check of vacuum bottle integrity.
   a. Normal pull out (contact) force on each bottle should be approximately 7.7 pounds (3.5 kg) with the coil of the contactor energized. Zero force indicates a vacuum bottle which must be replaced.
   b. Continuity should be evident between line and load terminals on each phase when the coil of the contactor is energized. Lack of continuity on a bottle having normal pull out force indicates incorrect overtravel adjustment if pull out force is per Step 3a.

4. Periodic inspection and adjustment of overtravel. See Figures 1 and 2.
   a. Energize the coil of the contactor with a separate source.
   b. Overtravel is the distance between the lever and the special nut when the lever is pushed toward the vacuum bottle against the solid stop. Minimum overtravel to ensure contact closing is .012 inch (.3 millimeters).
   c. To adjust the overtravel, first remove the shunt securing bolt. Then loosen the tightening nut and turn the special nut counterclockwise to increase and clockwise to decrease the overtravel. Set the overtravel between .047 and .059 inch (1.2 and 1.5 millimeters). Adjust the overtravel on all three vacuum bottles within this range.
   d. Torque the tightening nut to 75-100 lb-in (86-115 kg-cm). Replace the shunt securing bolt and torque to 75-100 lb-in (86-115 kg-cm).

5. Vacuum bottle replacement.
   a. Remove the shunt securing bolt and the two screws shown in Figure 2.
   b. Remove the vacuum bottle.
   c. Position the new vacuum bottle in place and secure with the two screws and the shunt securing bolt. Torque the screws to 35-50 lb-in (40-58 kg-cm) and the shunt securing bolt to 75-100 lb-in (86-115 kg-cm).
   d. Adjust the overtravel per Step 4c above.

REFERENCES			BULLETIN 1100 VACUUM CONTACTOR		WAS
REVISION	RELEASE	DIMENSIONS APPLY BEFORE SURFACE TREATMENT	INSTALLATION & MAINTENANCE		ALLEN-BRADLEY MILWAUKEE, WISCONSIN
1	5207-84	(DIMENSIONS IN INCHES) TOLERANCES UNLESS OTHERWISE SPECIFIED	INSTRUCTIONS		
2	5002-86	2 PLACE DECIMAL (.XX) ±	DR. Harry Hoffmaker	DATE 12-27-84	SHEET 2 OF 3
		3 PLACE DECIMAL (.XXX) ±	CHKD. [illegible]	DATE 1-4-85	DWG. SIZE B 40051-253
REFER. BOOK		ANGLES ±	APPD. R. Bouchard	DATE 1-3-85	

FORM NO. 980

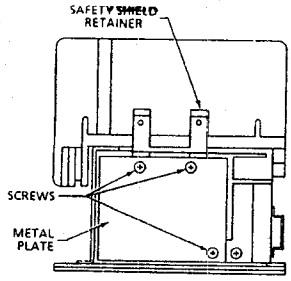

FIGURE-3
(LEFT SIDE VIEW)

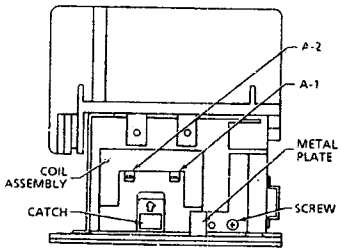

FIGURE-4
(LEFT SIDE VIEW)

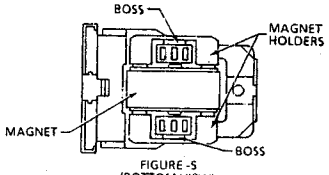

FIGURE-5
(BOTTOM VIEW)

6. Coil replacement.
   a. Remove the three screws, metal plate or auxiliary contacts when used and the safety shield retainer shown in Figure 3.
   b. Remove the screw and small metal plate shown in Figure 4.
   c. Push the catch in the direction shown by the arrow, hold and pull out the coil assembly.
   d. Remove the coil wires from the coil terminals (A1 and A2) and the control unit on DC coils.
   e. Spread the magnet holders shown in Figure 5 to clear the bosses and then remove the magnet.
   f. Insert the magnet into the replacement coil and press the magnet holders together until they fully engage their respective bosses.
   g. Connect the coil wires to the coil terminals (A1 and A2) and the control unit on DC coils.
   h. Slide the coil assembly into the contactor until the catch snaps into position.
   i. Replace the metal plates, safety shield retainer, and screws removed in Steps 6a and 6b above. Torque the four screws to 20-30 lb-in (23-35 kg-cm).

Part No.	Chg. Ltr.	Material	Finished Size
-01	B	Two Side Printed Body Stock White Body Ink Black	8½"W. x 11"W

DO NOT WRITE IN THIS AREA

REFERENCES

REVISION	RELEASE
1	5207-84
2	5002-86

DIMENSIONS APPLY BEFORE SURFACE TREATMENT
(DIMENSIONS IN INCHES) TOLERANCES UNLESS OTHERWISE SPECIFIED
2 PLACE DECIMAL (.XX) ±
3 PLACE DECIMAL (.XXX) ±
ANGLES ±
REFER. BOOK

BULLETIN 1100 VACUUM CONTACTOR
INSTALLATION & MAINTENANCE
INSTRUCTIONS

WAS

ALLEN-BRADLEY
MILWAUKEE, WISCONSIN

DR. Harry Ughetta	DATE 12-27-84	SHEET 3 OF 3
CHKD.	DATE 1-4-85	DWG. SIZE B 40051-253
APPD. R. Bouchard	DATE 1-3-85	

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