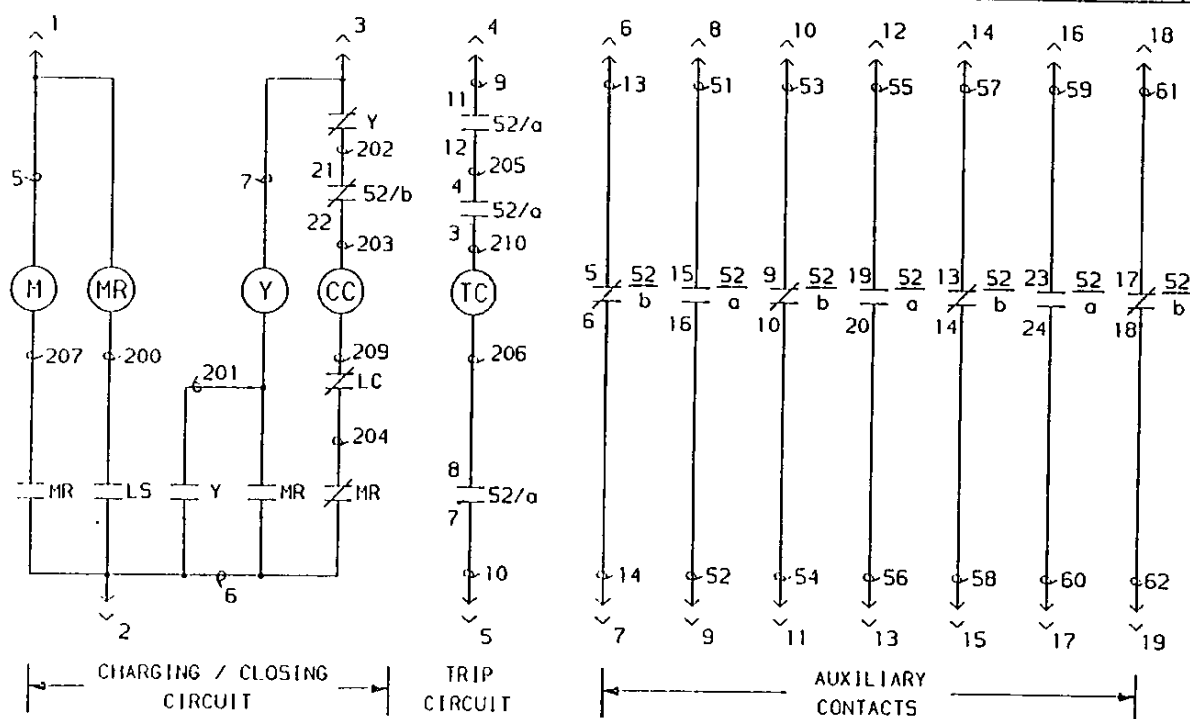


REV	A	B	C	D	E	F	G
A	ECO	BY	DATE				
	VA31C90	MEC	11/06/92				
D	B1356	LHG	10/20/92				

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- ### OPERATION OF BREAKER

1. THE BREAKER WILL NOT CLOSE UNTIL THE SPRINGS ARE CHARGED.
2. WHEN THE SPRINGS ARE DISCHARGED, SPRING CHARGING LIMIT SWITCH CONTACT 52/L5 IS CLOSED. THIS CLOSING OF THE MOTOR RELAY (52MR), WHICH ENERGIZES THE SPRING CHARGING MOTOR (52/M), 52/M RUNS UNTIL THE CLOSING SPRINGS ARE CHARGED. WHEN THE SPRINGS ARE CHARGED, 52/L5 OPENS, DROPPING OUT 52MR, WHICH DE-ENERGIZES 52M.
3. WHEN 52MR DROPS OUT, THE NORMALLY CLOSED 52MR CONTACT CLOSURES ALLOWING CONTINUITY IN THE CLOSING SOLENOID 52/C CIRCUIT. IF CLOSING SIGNAL IS APPLIED, 52/C IS ENERGIZED, UNLATCHING THE CLOSING SPRINGS, CLOSING THE BREAKER. SPRING CHARGING THE OPENING SPRINGS. 52/B CONTACTS OPEN, DE-ENERGIZING 52/C, THE DISCHARGING OF THE CLOSING SPRINGS CAUSES 52/L5 TO CLOSE. 52MR PICKS UP CLOSING THE NORMALLY OPEN 52MR CONTACT ALLOWING CONTINUITY IN THE ANTI-PUMP RELAY (52Y) CIRCUIT. THE 52Y CONTACTS CHANGE STATE 52/L IN 52/M AND PREVENTING 52/C FROM BEING RE-ENERGIZED UNTIL THE CLOSING SIGNAL IS RE-APPLIED. THIS LIMITS THE BREAKER TO ONE CLOSING OPERATION PER CLOSING SIGNAL.
4. WHEN THE BREAKER CLOSSES, 52/a AUXILIARY CONTACTS CLOSE ALLOWING CONTINUITY IN THE TRIP SOLENOID (52/T) CIRCUIT. IF A TRIPPING SIGNAL IS APPLIED, 52/T IS ENERGIZED, UNLATCHING THE TRIPPING SPRING, OPENING THE BREAKER. THE 52/a CONTACTS OPEN, DE-ENERGIZING 52/T WHILE THE BREAKER IS OPEN.
5. REMOTE STATUS INDICATORS ARE CONNECTED TO TERMINALS TO INDICATE IF THE BREAKER IS OPEN OR CLOSED. CONTACT 52/o IS CLOSED WHEN THE BREAKER IS CLOSED. CONTACT 52/b IS CLOSED WHEN THE BREAKER IS OPEN.

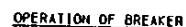
NOTES

1. BREAKER SHOWN IN OPEN POSITION & MAIN SPRINGS CHARGED.
2. SEE 44068-401 FOR WIRING DIAGRAM.

STANDARD TOLERANCE UNLESS OTHERWISE SPECIFIED	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .050 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC. 68	USED ON: ----	ECO, VA31C48	PRINTS TO: -- -- -- -- -- -- -- --	 SQUARE D COMPANY POWER EQUIPMENT
	BOLE DIMENSIONS	PUNCHED/DRILLED ± .005	DRAWN BY: MEC	RAWSTOCK, NONE	DATE, 02/10/92	TITLE, VAD-3 SCHEMATIC DIAGRAM APP. PLUG	
	ANGLES	DIMENSIONED ± 1° UNDIMENSIONED 90° ± 2°	CHKD BY:	MATERIAL DESCRIPTION, NONE	SCALE, 1/1	PART# 4406B-400	
			ENGINEER, BLF	FINISH DESCRIPTION, NONE		QTY. - 8	
							4406B-400

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1. THE BREAKER WILL NOT CLOSE UNTIL THE SPRINGS ARE CHARGED.
2. WHEN THE SPRINGS ARE DISCHARGED, SPRING CHARGING LIMIT SWITCH CONTACT 52/L5 IS CLOSED. THIS PICKS UP THE MOTOR RELAY (52MR), WHICH ENERGIZES THE SPRING CHARGING MOTOR (52/M). 52/M RUNS UNTIL THE CLOSING SPRINGS ARE CHARGED. WHEN THE SPRINGS ARE CHARGED, 52/L5 OPENS, DROPPING OUT 52MR, WHICH DE-ENERGIZES 52M.
3. WHEN 52MR DROPS OUT, THE NORMALLY CLOSED 52MR CONTACT CLOSING ALLOWING CONTINUITY IN THE CLOSING SOLENOID 52/C CIRCUIT. IF CLOSING SIGNAL IS APPLIED, 52/C IS ENERGIZED, UNLATCHING THE CLOSING SPRINGS, CLOSING THE BREAKER, AND CHARGING THE OPENING SPRINGS. 52/b CONTACTS OPEN, DE-ENERGIZING 52/C, THE DISCHARGING OF THE CLOSING SPRINGS CAUSES 52/L5 TO CLOSE. 52MR PICKS UP THE NORMALLY OPEN 52MR CONTACT ALLOWING CONTINUITY IN THE ALTI-PUMP RELAY (52Y) CIRCUIT. THE 52Y CONTACTS CHANGE STATE SEAL IN 52Y AND PREVENTING 52/C FROM BEING RE-ENERGIZED UNTIL THE CLOSING SIGNAL IS REMOVED. THIS LIMITS THE BREAKER TO ONE CLOSING OPERATION PER CLOSING SIGNAL.
4. WHEN THE BREAKER CLOSING, 52/a AUXILIARY CONTACTS CLOSE ALLOWING CONTINUITY IN THE TRIP SOLENOID (52/TIC) CIRCUIT. IF TRIPPING SIGNAL IS APPLIED, 52/TIC IS ENERGIZED, UNLATCHING THE TRIPPING SPRINGS, OPENING THE BREAKER. THE 52/a CONTACTS OPEN, DE-ENERGIZING 52/TIC WHILE THE BREAKER IS OPEN.
5. REMOTE STATUS INDICATORS ARE CONNECTED TO TERMINALS TO INDICATE IF THE BREAKER IS OPEN OR CLOSED. CONTACT 52/a IS CLOSED WHEN THE BREAKER IS CLOSED. CONTACT 52/b IS CLOSED WHEN THE BREAKER IS OPEN.

NOTES:

1. BREAKER SHOWN IN OPEN POSITION & MAIN SPRINGS CHARGED.
2. SEE 4406B-403 FOR WIRING DIAGRAM.

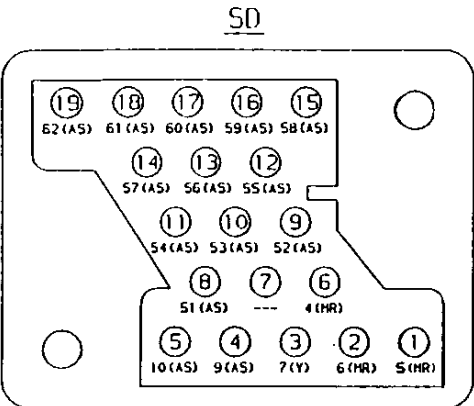
STANDARD TOLERANCE UNLESS OTHERWISE SPECIFIED	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC. 69	USED ON: ----	ECO, VA3IC48	PRINTS TO: -- -- -- -- --	 SQUARE D COMPANY POWER EQUIPMENT
	HOLE DIMENSIONS	PINKED/DRILLED ± .005	DRAWN BY: HEC	RAWSTOCK, NONE	DATE, 02/10/92	TITLE, VAO-3 SCHEMATIC DIAGRAM HARTING PLUG	
	ANGLES	DIMENSIONED ± 1° UNDIMENSIONED 90° ± 2°	CHKD BY:	MATERIAL DESCRIPTION, NONE	SCALE, 1/1	PART# 44058-402	
			ENGINEER, BLF	FINISH DESCRIPTION, NONE		QTY. - 8	44058-402

STANDARD TOLERANCE UNLESS OTHERWISE SPECIFIED	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC.68	USED ON: ----	ECO, VA31C48	PRINTS TO: -- -- -- -- --	 SQUARE D COMPANY POWER EQUIPMENT	
	HOLE DIMENSIONS	PUNCHED/DILLED ± .005	DRAWN BY: MEC	RAWSTOCK, NONE	DATE, 02/10/92	TITLE, VAD-3 SCHEMATIC DIAGRAM SEPARATE CHANGE - AMP PLUG		
	ANGLES	DIMENSIONED ± 1° UNDIMENSIONED 90° ± 2°	CHKD BY:	MATERIAL DESCRIPTION, NONE	SCALE, 1/1	PART# 44068-406		
			ENGINEER, DLF	FINISH DESCRIPTION, NONE		QTY, - 8		
							44068-406	REV. B

REV	ECO	A	BY	DATE	B	C	D	E	F	G
A	VA31C90	MEC	11/09/92							
B	B1358	LMG	12/02/92							

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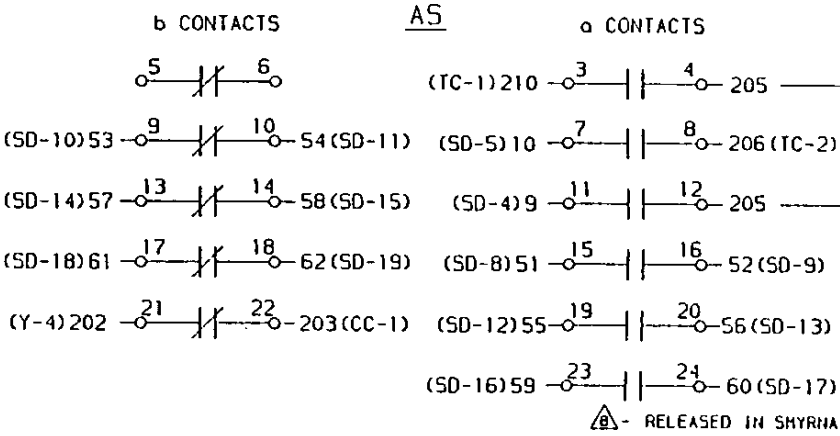
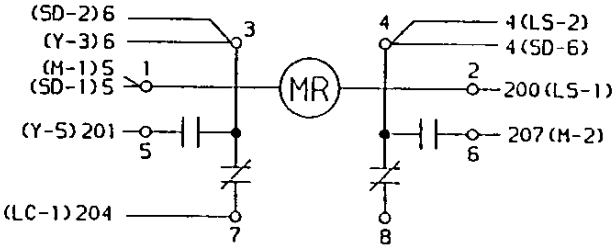
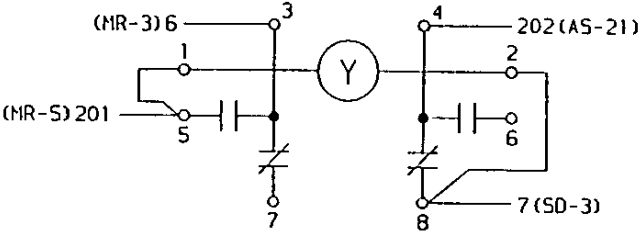
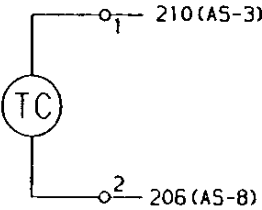
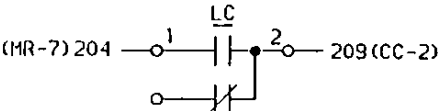
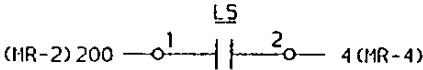
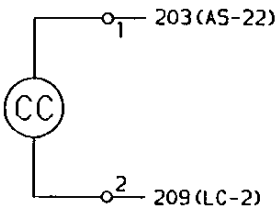
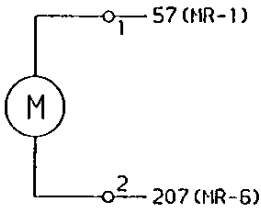
REAR VIEW OF CONTROL PLUG CONNECTOR

LEGEND

- 52 VACUUM CIRCUIT BREAKER
- 52M SPRING CHARGING MOTOR
- 52/LS SPRING CHARGING MOTOR LIMIT SWITCH
- 52/TC TRIP COIL (OPENING COIL)
- 52/CC SPRING RELEASE COIL (CLOSING COIL)
- 52Y ANTI-PUMP RELAY
- 52MR MOTOR RELAY
- 52/a AUX. SWITCH CONTACTS, OPEN WHEN BREAKER IS OPEN
- 52/b AUX. SWITCH CONTACTS, CLOSED WHEN BREAKER IS OPEN
- 52/LC LATCH CHECK SWITCH (NORMALLY OPEN CONTACT)
- 52/SD SECONDARY DISCONNECT CONTACTS

NOTE

- SEE 44068-406 FOR SCHEMATIC DIAGRAM



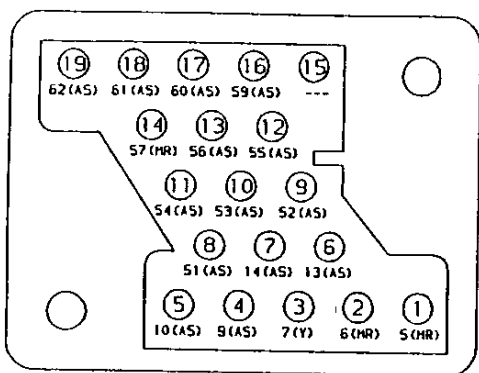
STANDARD TOLERANCE UNLESS OTHERWISE SPECIFIED	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC. 68	USED ON: ---	ECO: VA31C48	PRINTS TO: -- -- -- -- --	SQUARE D COMPANY POWER EQUIPMENT
	HOLE DIMENSIONS	PURCHES/DRILED ± .005	DRAWN BY: MEC	RAWSTOCK: NONE	DATE: 02/10/92	TITLE: VAD-3 WIRING DIAGRAM SEPARATE CHARGE - AMP PLUG	
	ANGLES	DIMENSIONED ± 1° UNDIMENSIONED 90° ± 2°	CHKD BY:	MATERIAL DESCRIPTION: NONE	SCALE: 1/1	PART# 44068-407	
			ENGINEER: DNF	FINISH DESCRIPTION: NONE		QTY: - 8	

44068-407 B

REV	ECO	BY	DATE	B	C	D	E	F	G
A	VA31C90	MEC	11/08/92						
B	B1358	LMG	12/02/92						

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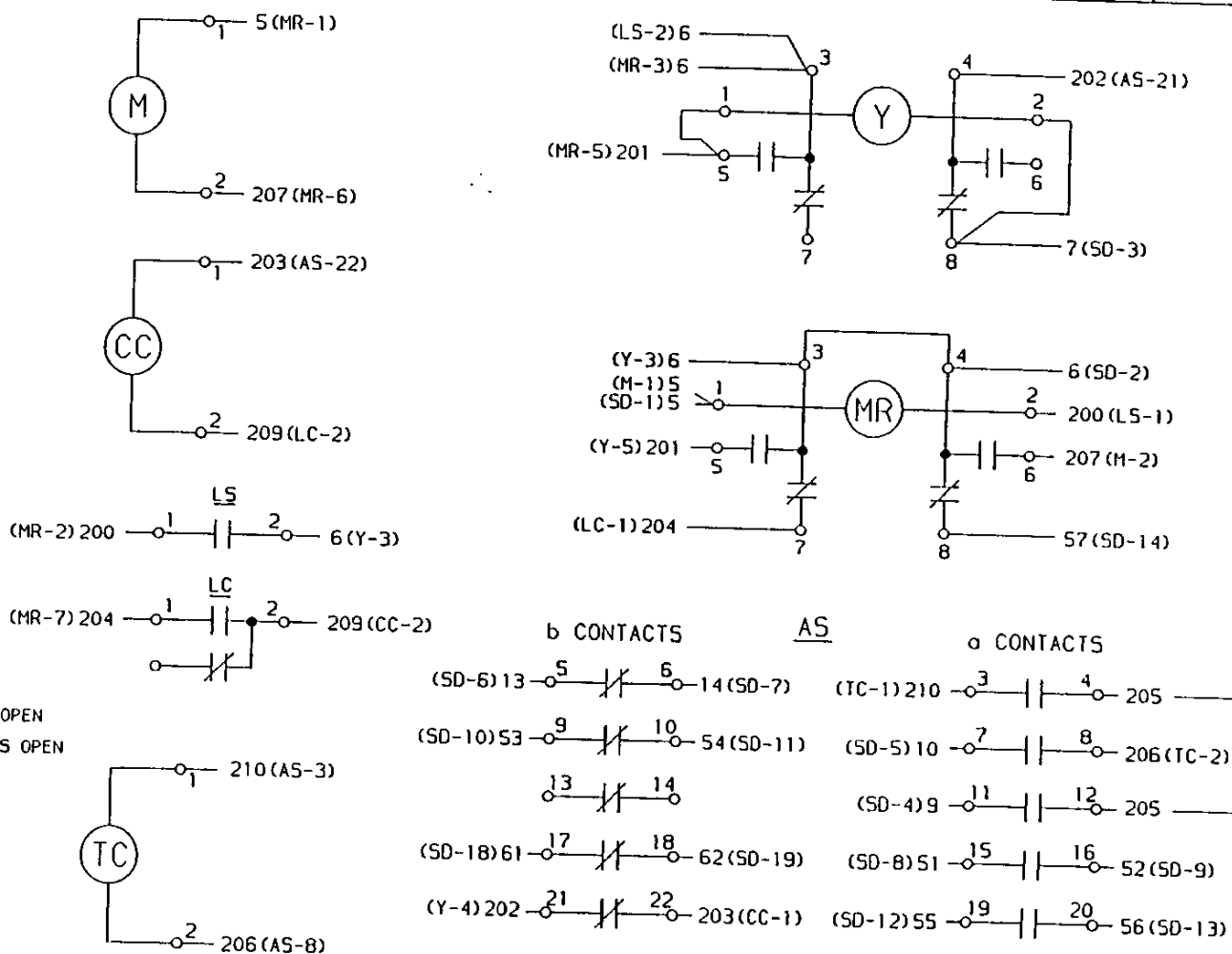
REAR VIEW OF CONTROL PLUG CONNECTOR

LEGEND

- 52 VACUUM CIRCUIT BREAKER
- 52M SPRING CHARGING MOTOR
- 52/LS SPRING CHARGING MOTOR LIMIT SWITCH
- 52/TC TRIP COIL (OPENING COIL)
- 52/CC SPRING RELEASE COIL (CLOSING COIL)
- 52Y ANTI-PUMP RELAY
- 52MR MOTOR RELAY
- 52/a AUX. SWITCH CONTACTS, OPEN WHEN BREAKER IS OPEN
- 52/b AUX. SWITCH CONTACTS, CLOSED WHEN BREAKER IS OPEN
- 52/LC LATCH CHECK SWITCH (NORMALLY OPEN CONTACT)
- 52/SD SECONDARY DISCONNECT CONTACTS

NOTE

- SEE 44068-408 FOR SCHEMATIC DIAGRAM



STANDARD TOLERANCE UNLESS OTHERWISE SPECIFIED	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .050 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC. 68	USED ON: ---	ECO: VA31C48	PRINTS TO: ---	DATE: 02/10/92	TITLE: Y-3 WIRING DIAGRAM SPRING CHARGE INDICATOR - AMP PLUG	SCALE: 1/1	PART: 44068-409	QTY: - 8	44068-409
	HOLE DIMENSIONS	PUNCHED/DRILLED ± .005	CHKD BY: MEC	RAWSTOCK: NONE								
	ANGLES	DIMENSIONED ± 1° UNDIMENSIONED 90° ± 2°	ENGINEER: BLF	MATERIAL DESCRIPTION: NONE								
				FINISH DESCRIPTION: NONE								

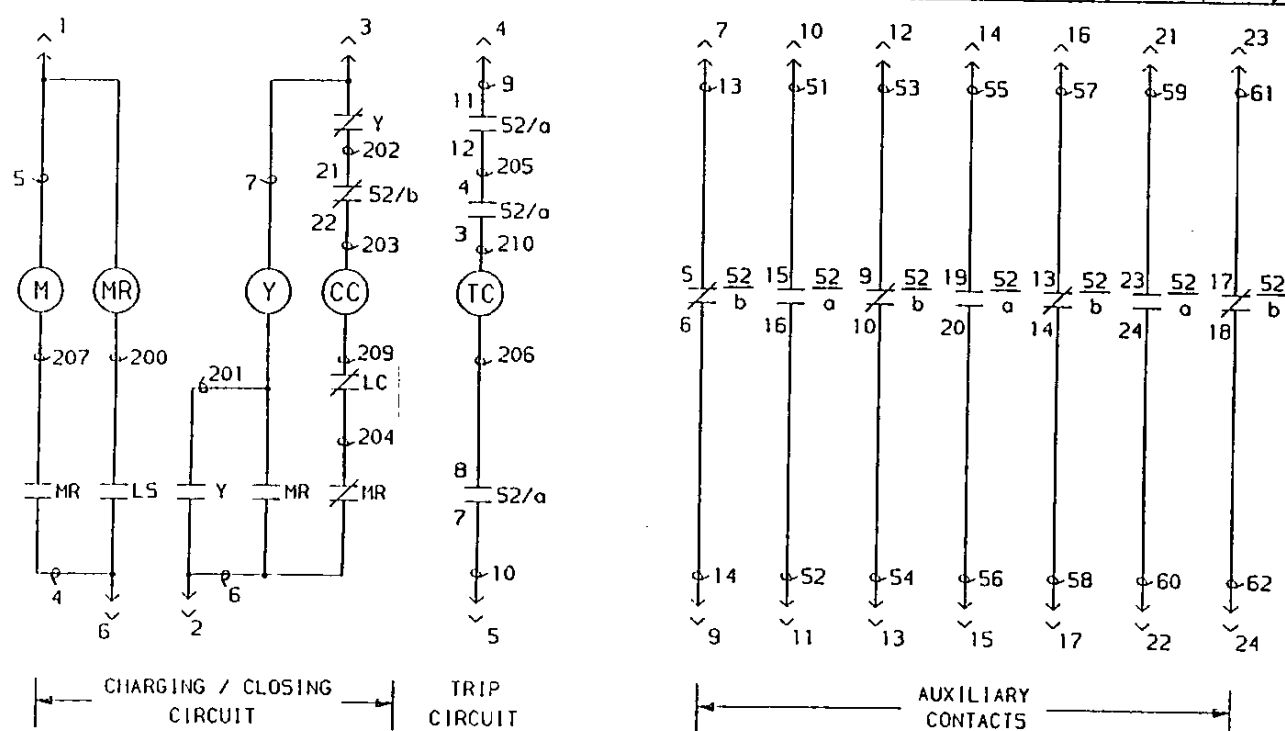
RELEASED IN SHYRIA

SQUARE D COMPANY
POWER EQUIPMENT

REV	A	B	C	D	E	F	G
A	ECO	BY	DATE				
	VA31C09	HEC	11-05-92				
B	B1358	LMC	12/02/92				

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- ### OPERATION OF BREAKER

1. THE BREAKER WILL NOT CLOSE UNTIL THE SPRINGS ARE CHARGED.
2. WHEN THE SPRINGS ARE DISCHARGED, SPRING CHARGING LIMIT SWITCH CONTACT S2/L5 IS CLOSED. THIS PICKS UP THE MOTOR RELAY (52HR), WHICH ENERGIZES THE SPRING CHARGING MOTOR (52/M). 52/M RUNS UNTIL THE CLOSING SPRINGS ARE CHARGED. WHEN THE SPRINGS ARE CHARGED, 52/L5 OPENS, DROPPING OUT 52HR, WHICH DE-ENERGIZES 52M.
3. WHEN 52HR DROPS OUT, THE NORMALLY CLOSED 52HR CONTACT CLOSING ALLOWING CONTINUITY IN THE CLOSING SOLENOID 52/C CIRCUIT. IF CLOSING SIGNAL IS APPLIED, 52/C IS ENERGIZED, UNLATCHING THE CLOSING SPRINGS, CLOSING THE BREAKER, AND CHARGING THE OPENING SPRINGS. 52/b CONTACTS OPEN, DE-ENERGIZING 52/C. THE DISCHARGING OF THE CLOSING SPRINGS CAUSES 52/L5 TO CLOSE. 52HR PICKS UP CLOSING THE NORMALLY OPEN 52HR CONTACT ALLOWING CONTINUITY IN THE ANTI-PUMP RELAY (52Y) CIRCUIT. THE 52Y CONTACTS CHANGE STATE SEALING IN 52Y AND PREVENTING 52/C FROM BEING RE-ENERGIZED UNTIL THE CLOSING SIGNAL IS REMOVED. THIS LIMITS THE BREAKER TO ONE CLOSING OPERATION PER CLOSING SIGNAL.
4. WHEN THE BREAKER CLOSING, 52/a AUXILIARY CONTACTS CLOSE ALLOWING CONTINUITY IN THE TRIP SOLENOID (52/TIC) CIRCUIT. IF A TRIPPING SIGNAL IS APPLIED, 52/TIC IS ENERGIZED, UNLATCHING THE TRIPPING SPRINGS, OPENING THE BREAKER. THE 52/a CONTACTS OPEN, DE-ENERGIZING 52/TIC WHILE THE BREAKER IS OPEN.
5. REMOTE STATUS INDICATORS ARE CONNECTED TO TERMINALS TO INDICATE IF THE BREAKER IS OPEN OR CLOSED. CONTACT 52/a IS CLOSED WHEN THE BREAKER IS CLOSED. CONTACT 52/b IS CLOSED WHEN THE BREAKER IS OPEN.

- NOTES:

1. BREAKER SHOWN IN OPEN POSITION & MAIN SPRINGS CHARGED.
2. SEE 44068-411 FOR WIRING DIAGRAM.

STANDARD TOLERANCE UNLESS OTHERWISE SPECIFIED	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC. 68	USED ON: ----	ECO, VA3IC48	PRINTS TO: -- -- -- -- --	 SQUARE D COMPANY POWER EQUIPMENT
	HOLE DIMENSIONS	PURCHASED/DRILLED ± .005	DRAWN BY: MEC	RAWSTOCK, NONE	DATE: 02/12/92	TITLE: VAD-3 SCHEMATIC DIAGRAM SEPARATE CHARGE - PARTING PLUG	
	ANGLES	DIMENSIONED ± 1° UNDIMENSIONED 90° ± 2°	CHKD BY:	MATERIAL DESCRIPTION: NONE	SCALE: 1/1	PART# 4406B-410	
			ENGINEER: BLF	FINISH DESCRIPTION: NONE		QTY: - 8	4406B-410

A				B				C				D				E				F				G											
REV.	ECO	BY	DATE																																
A	VAS1690	MEC	11/09/92																																
B	B1358	LHG	12/02/92																																
																This engineering drawing (CAD / CAM or otherwise) is the proprietary property of Square D Company, not part of the public domain, and is issued with the express understanding and agreement that it is not to be reproduced or copied in whole or in part or used for furnishing information to others, or used directly or indirectly, in any way detrimental to the interest of Square D Company and is to be returned upon request by Square D Company. All Rights Reserved.																© 1992 Square D Company			

LEGEND

NOTES:

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