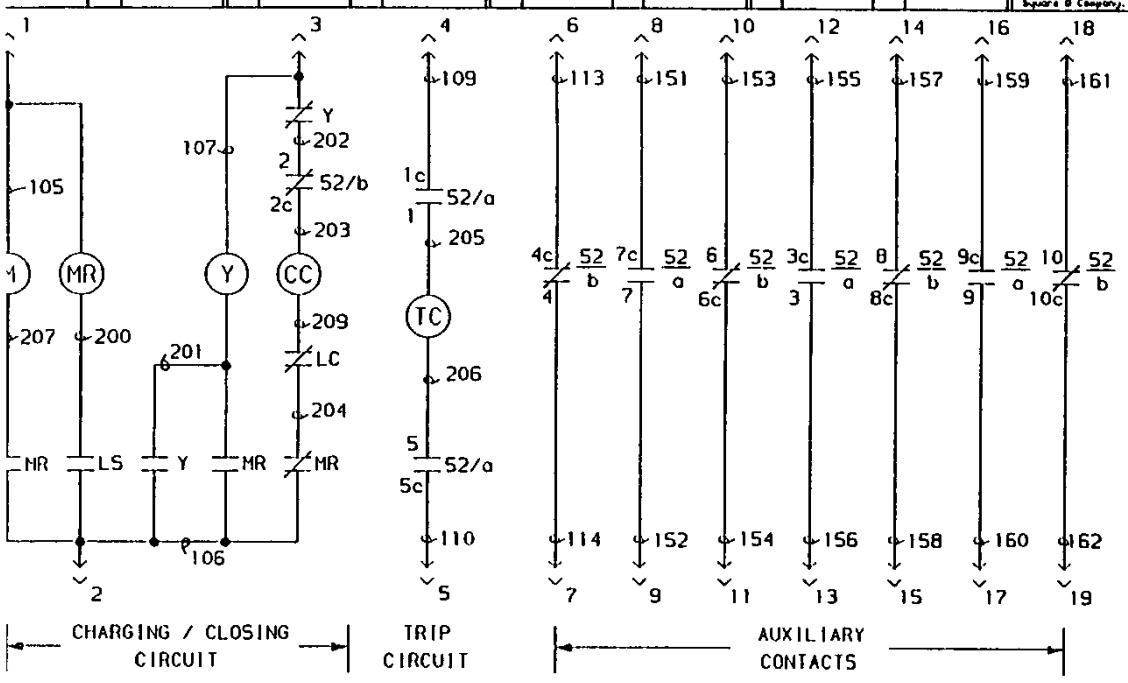
ECO	BY	DATE
B1480	SPH	8/27/93



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/LS 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/LS OPENS, DROPPING OUT 52MR, WHICH DE-ENERGIZES 52M.
3. WHEN 52MR DROPS OUT, THE NORMALLY CLOSED 52MR CONTACT CLOSES ALLOWING CONTINUITY IN THE CLOSING SOLENOID 52/CC CIRCUIT. IF CLOSING SIGNAL IS APPLIED, 52/CC IS ENERGIZED, UNLATCHING THE CLOSING SPRINGS, CLOSING THE BREAKER, AND CHARGING THE OPENING SPRINGS. 52/b CONTACTS OPEN, DE-ENERGIZING 52/CC. THE DISCHARGING OF THE CLOSING SPRINGS CAUSES 52/LS TO CLOSE. 52MR PICKS UP CLOSING THE NORMALLY OPEN 52MA CONTACT ALLOWING CONTINUITY IN THE ANTI-PUMP RELAY (52Y) CIRCUIT. THE 52Y CONTACTS CHANGE STATE SEALING IN 52Y AND PREVENTING 52/CC 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 CLOSES, 52/a AUXILIARY CONTACTS CLOSE ALLOWING CONTINUITY IN THE TRIP SOLENOID (52/TC) CIRCUIT. IF A TRIPPING SIGNAL IS APPLIED, 52/TC IS ENERGIZED, UNLATCHING THE TRIPPING SPRINGS, OPENING THE BREAKER. THE 52/a CONTACTS OPEN, DE-ENERGIZING 52/TC 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 44069-358 FOR WIRING DIAGRAM.

LEGEND

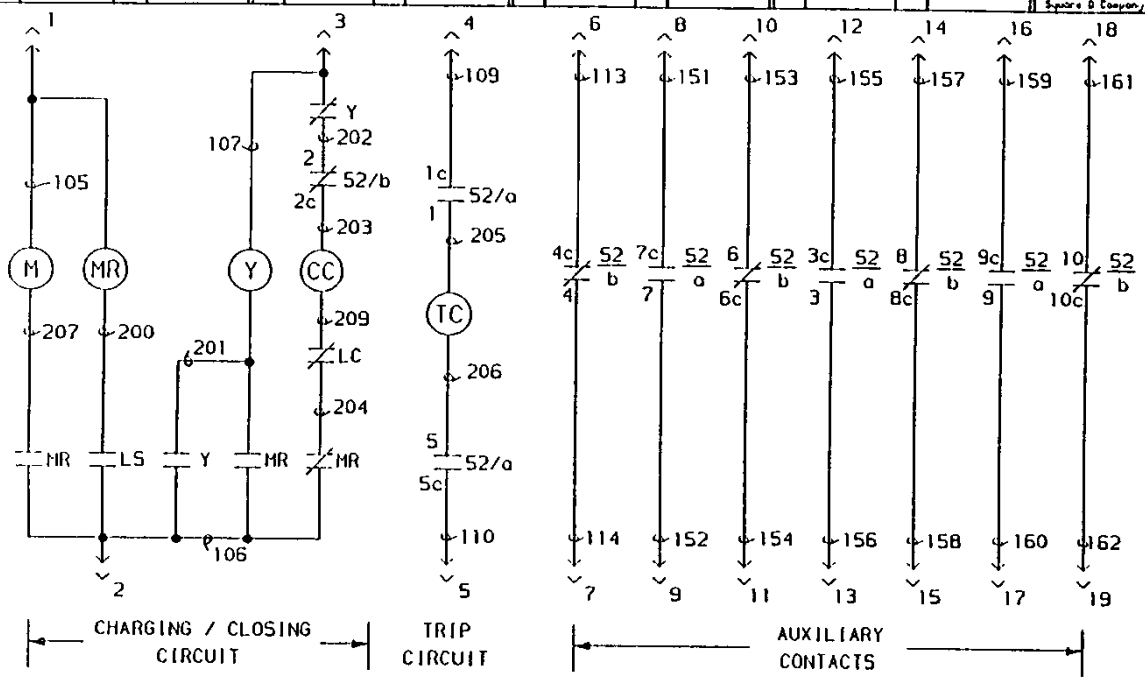
52 VACUUM CIRCUIT BREAKER
52M SPRING CHARGING MOTOR
52/LS SPRING CHARGING MOTOR LIMIT SWITCH
52/TC TRIP COIL (OPENING COIL)
52/CC SPRING RELEASE COIL (CLOSING COIL)
52Y ANTI-PUMP RELAY
52MR MOTOR RELAY
52/a AUX. SWITCH CONTACTS, OPEN WHEN BREAKER IS OPEN
52/b AUX. SWITCH CONTACTS, CLOSED WHEN BREAKER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

FOR CONTROL VOLTAGE:
TRIP 24V, 48V, 125V DC OR 120V AC
CLOSE 48V, 125V DC OR 120V AC

4 - RELEASED IN SMYRNA

LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC: 17	USED ON: VAD-2 BREAKERS WITH AMP PLUG	ECO: 2/11/91	PRINTS TO:	SQUARE D COMPANY POWER EQUIPMENT	
HOLE DIMENSIONS	PUNCHED/DRILLED ± .005	DRAWN BY: MEC	RAWSTOCK: NONE	DATE: VA21C23	TITLE: VAD-2 SCHEMATIC DIAGRAM AMP PLUG		
		CHKD BY: SPH	MATERIAL DESCRIPTION: NONE				
		ENGINEER: LHS	FINISH DESCRIPTION: NONE	SCALE: NONE	PART# 44069-357	QTY: -	A 44069-357

REV	ECO	BY	DATE
A	81480	SPH	8/27/93



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/LS 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/LS OPENS, DROPPING OUT 52MR, WHICH DE-ENERGIZES 52M.
3. WHEN 52MR DROPS OUT, THE NORMALLY CLOSED 52MR CONTACT CLOSES ALLOWING CONTINUITY IN THE CLOSING SOLENOID 52/CC CIRCUIT. IF CLOSING SIGNAL IS APPLIED, 52/CC IS ENERGIZED, UNLATCHING THE CLOSING SPRINGS, CLOSING THE BREAKER, AND CHARGING THE OPENING SPRINGS. 52/b CONTACTS OPEN, DE-ENERGIZING 52/CC. THE DISCHARGING OF THE CLOSING SPRINGS CAUSES 52/LS 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 SEALING IN 52Y AND PREVENTING 52/CC 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 CLOSES, 52/a AUXILIARY CONTACTS CLOSE ALLOWING CONTINUITY IN THE TRIP SOLENOID (52/TC) CIRCUIT. IF A TRIPPING SIGNAL IS APPLIED, 52/TC IS ENERGIZED, UNLATCHING THE TRIPPING SPRINGS, OPENING THE BREAKER. THE 52/a CONTACTS OPEN, DE-ENERGIZING 52/TC 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 44069-358 FOR WIRING DIAGRAM.

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

FOR CONTROL VOLTAGE:

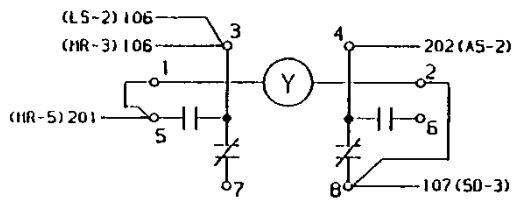
TRIP 24V, 48V, 125V DC OR 120V AC
CLOSE 48V, 125V DC OR 120V AC

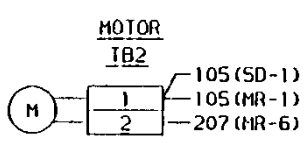
⚠ - RELEASED IN SMYRNA

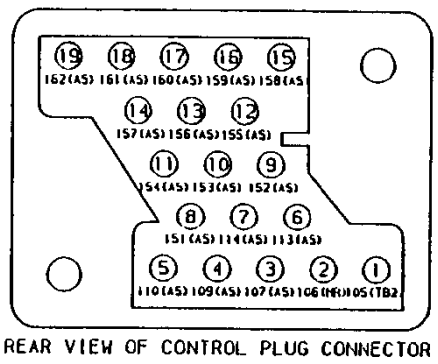
STANDARD TOLERANCE UNLESS OTHERWISE	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC: 17	USED ON: VAD-2 BREAKERS WITH AMP PLUG	ECO: 2/11/91	PRINTS TO:	SQUARE D COMPANY POWER EQUIPMENT
	HOLE	PUNCHED/DRILLED ± .005	DRAWN BY: MEC	RAWSTOCK: NONE	DATE: VA21C23	TITLE: VAD-2 SCHEMATIC DIAGRAM AMP PLUG	
			CHKD BY: SPH	MATERIAL DESCRIPTION: NONE			

EV	ECO	BY	DATE
A	B1480	SPH	8/27/93

SECONDARY DISCONNECT (SD)







REAR VIEW OF CONTROL PLUG CONNECTOR

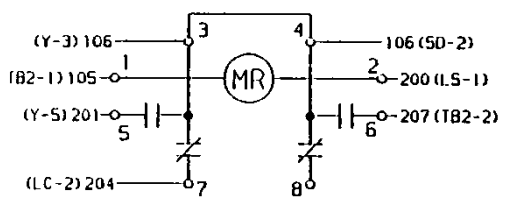
LEGEND

52 AS	AUXILIARY SWITCH
52 SD	SECONDARY DISCONNECT
52 TB1	SOLENOID TERMINAL BLOCK
52 TB2	MOTOR TERMINAL BLOCK
52 Y	ANTI-PUMP RELAY
52 MR	MOTOR RELAY
52 LS	LIMIT SWITCH (MOTOR)
52 LC	LATCH CHECK SWITCH
52 M	SPRING CHARGING MOTOR
52 CC	SPRING RELEASE COIL (CLOSING COIL)
52 TC	TRIP COIL (OPENING COIL)

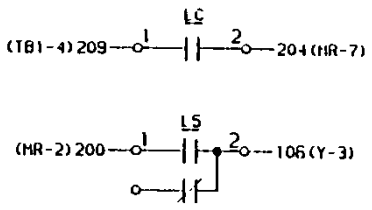
NOTE

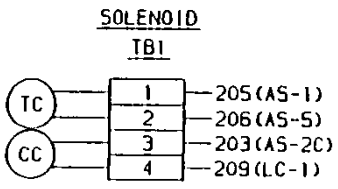
1. SEE 44069-357 FOR SCHEMATIC DIAGRAM

AUXILIARY SWITCH (AS)



TOP CONTACTS	BOTTOM CONTACTS
(SD-18) 161 — 10 / 10C — 162 (SD-19)	(SD-16) 159 — 9C / 9 — 160 (SD-17)
(SD-14) 157 — 8 / 8C — 158 (SD-15)	(SD-8) 151 — 7C / 7 — 152 (SD-9)
(SD-10) 153 — 6 / 6C — 154 (SD-11)	(SD-5) 110 — 5C / 5 — 206 (TB1-2)
(SD-7) 114 — 4 / 4C — 113 (SD-6)	(SD-12) 155 — 3C / 3 — 156 (SD-13)
(Y-4) 202 — 2 / 2C — 203 (TB1-3)	(SD-4) 109 — 1C / 1 — 205 (TB1-1)





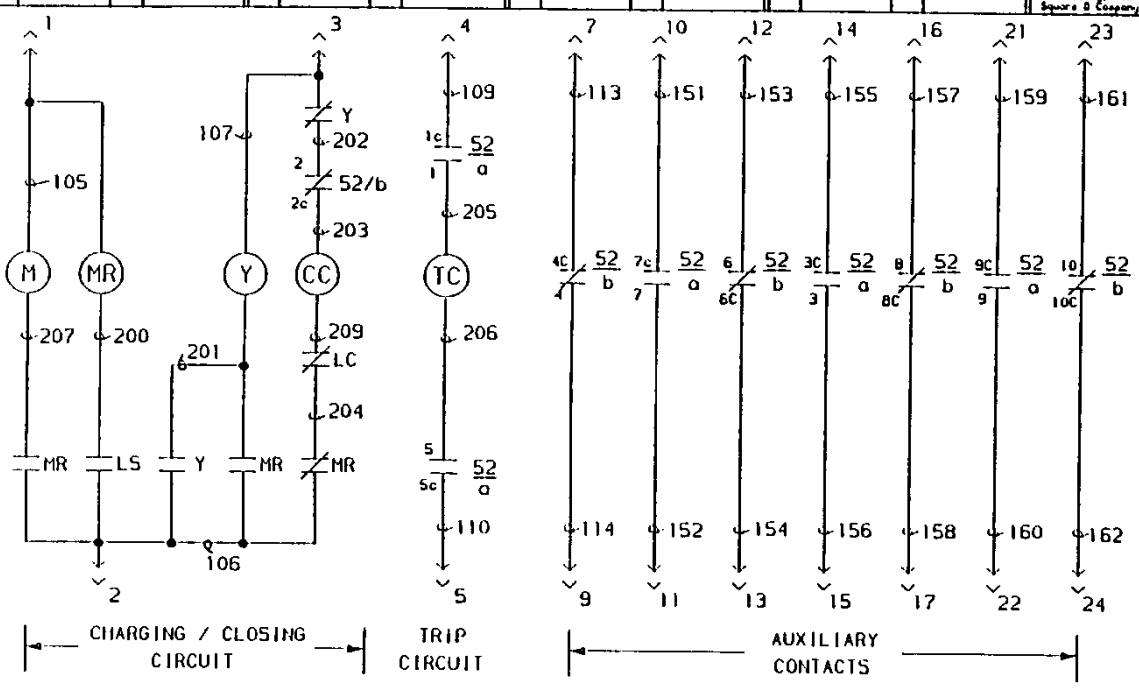
FOR CONTROL VOLTAGES

TRIP 24V, 48V, 125V DC OR 120V AC
CLOSE 48V, 125V DC OR 120V AC

⚠ - RELEASED IN SMYRNA

STANDARD TOLERANCE UNLESS	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC. 17	USED ON. VAD-2 BREAKERS WITH AMP PLUG	ECO. 2/11/91	PRINTS TO.	SQUARE D COMPANY POWER EQUIPMENT
	NOTE	PUNCHED/DRILLED ± .005	DRAWN BY. MEC	RAWSTOCK. NONE	DATE. VA21C23	TITLE. VAD-2 WIRING DIAGRAM AMP PLUG	
			CHKD BY. SPH	MATERIAL DESCRIPTION. NONE			

REV	ECO	BY	DATE
A	B1480	SPH	8/27/93



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

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/LS 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/LS OPENS, DROPPING OUT 52MR, WHICH DE-ENERGIZES 52M.
3. WHEN 52MR DROPS OUT, THE NORMALLY CLOSED 52MR CONTACT CLOSES ALLOWING CONTINUITY IN THE CLOSING SOLENOID 52/CC CIRCUIT. IF CLOSING SIGNAL IS APPLIED, 52/CC IS ENERGIZED, UNLATCHING THE CLOSING SPRINGS, CLOSING THE BREAKER, AND CHARGING THE OPENING SPRINGS. 52/b CONTACTS OPEN, DE-ENERGIZING 52/CC. THE DISCHARGING OF THE CLOSING SPRINGS CAUSES 52/LS 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 SEALING IN 52Y AND PREVENTING 52/CC 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 CLOSES, 52/a AUXILIARY CONTACTS CLOSE ALLOWING CONTINUITY IN THE TRIP SOLENOID (52/TC) CIRCUIT. IF A TRIPPING SIGNAL IS APPLIED, 52/TC IS ENERGIZED, UNLATCHING THE TRIPPING SPRINGS, OPENING THE BREAKER. THE 52/a CONTACTS OPEN, DE-ENERGIZING 52/TC 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 & CLOSING SPRINGS CHARGED.
2. SEE 44069-360 FOR WIRING DIAGRAM

FOR CONTROL VOLTAGE:

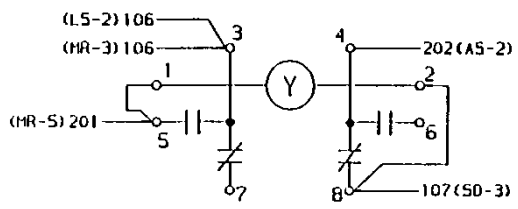
TRIP 24V, 48V, 125V DC OR 120V AC
CLOSE 48V, 125V DC OR 120V AC

⚠ - RELEASED IN SMYRNA

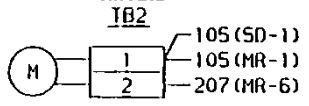
STANDARD TOLERANCE UNLESS OTHERWISE	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC: 17	USED ON: VAD-2 BREAKERS WITH HARTING PLUG	ECO: 2/10/92	PRINTS TO:
	HOLE DIMENSIONS	PUNCHED/DRILLED ± .005	DRAWN BY: MEC	RAWSTOCK: NONE	DATE: VA21C23	TITLE: VAD-2 SCHEMATIC DIAGRAM HARTING PLUG
			CHKD BY: SPH	MATERIAL DESCRIPTION: NONE		

SQUARE D COMPANY
POWER EQUIPMENT

REV	ECO	BY	DATE
A	B1480	SPH	8/27/93



MOTOR
TB2

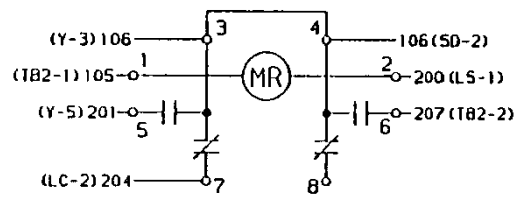


LEGEND

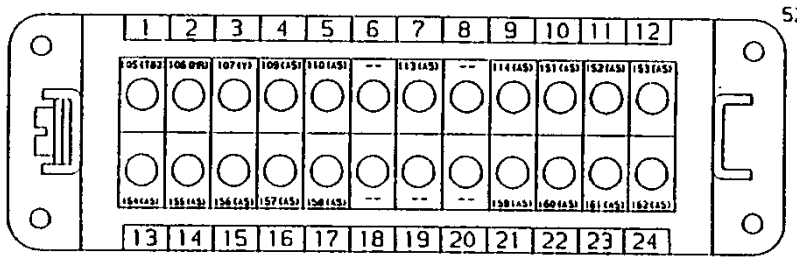
52 AS	AUXILIARY SWITCH
52 SD	SECONDARY DISCONNECT
52 TB1	SOLENOID TERMINAL BLOCK
52 TB2	MOTOR TERMINAL BLOCK
52 Y	ANTI-PUMP RELAY
52 MR	MOTOR RELAY
52 LS	LIMIT SWITCH (MOTOR)
52 LC	LATCH CHECK SWITCH
52 M	SPRING CHARGING MOTOR
52 CC	SPRING RELEASE COIL (CLOSING COIL)
52 TC	TRIP COIL (OPENING COIL)

NOTE

1. SEE 44069-359 FOR SCHEMATIC DIAGRAM.



SECONDARY DISCONNECT (SD)

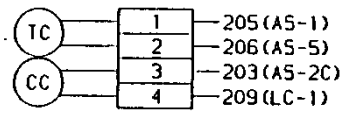


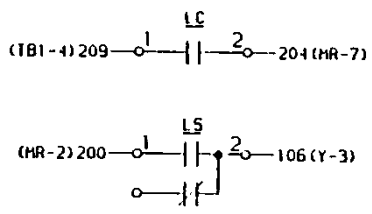
REAR VIEW OF BREAKER CONTROL PLUG

AUXILIARY SWITCH (AS)

TOP CONTACTS	BOTTOM CONTACTS
(SD-23) 161 — 10 / 10C — 162 (SD-24)	(SD-21) 159 — 9C / 9 — 160 (SD-22)
(SD-16) 157 — 8 / 8C — 158 (SD-17)	(SD-10) 151 — 7C / 7 — 152 (SD-11)
(SD-12) 153 — 6 / 6C — 154 (SD-13)	(SD-5) 110 — 5C / 5 — 206 (TB1-2)
(SD-9) 114 — 4 / 4C — 113 (SD-7)	(SD-14) 155 — 3C / 3 — 156 (SD-15)
(Y-4) 202 — 2 / 2C — 203 (TB1-3)	(SD-4) 109 — 1C / 1 — 205 (TB1-1)

SOLENOID
TB1





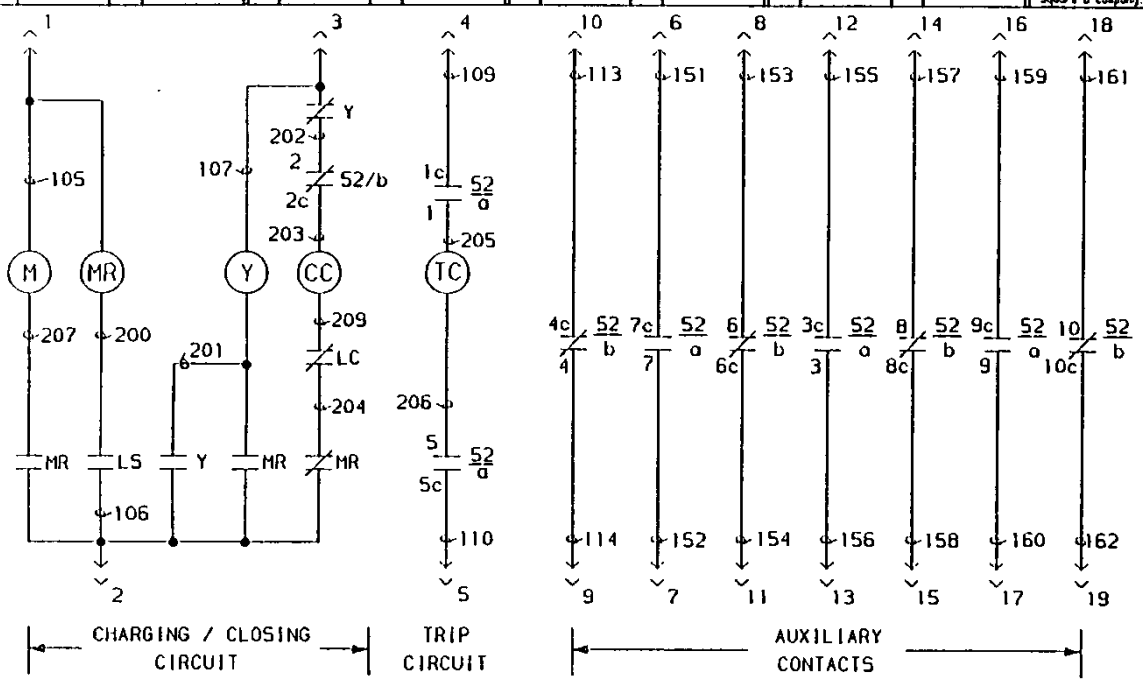
FOR CONTROL VOLTAGES

TRIP 24V, 48V, 125V DC OR 120V AC
CLOSE 48V, 125V DC OR 120V AC

△A - RELEASED IN SMYRNA

STANDARD TOLERANCE UNLESS OTHERWISE	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC. 17	USED ON. VAD-2 BREAKERS WITH HARTING PLUG	ECO. 2/10/92	PRINTS TO.	SQUARE D COMPANY POWER EQUIPMENT
	HOLE DIMENSIONS	PUNCHED/DRILLED ± .005	DRAWN BY. MEC CHKD BY. SPH	RAWSTOCK. NONE MATERIAL DESCRIPTION. NONE	DATE. VA21C23	TITLE. VAD-2 WIRING DIAGRAM HARTING PLUG	

REV	ECO	BY	DATE
A	81480	SPN	8/27/93



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/LS 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/LS OPENS, DROPPING OUT 52MR, WHICH DE-ENERGIZES 52M.
3. WHEN 52MR DROPS OUT, THE NORMALLY CLOSED 52MR CONTACT CLOSES ALLOWING CONTINUITY IN THE CLOSING SOLENOID 52/CC CIRCUIT. IF CLOSING SIGNAL IS APPLIED, 52/CC IS ENERGIZED, UNLATCHING THE CLOSING SPRINGS, CLOSING THE BREAKER, AND CHARGING THE OPENING SPRINGS. 52/b CONTACTS OPEN, DE-ENERGIZING 52/CC. THE DISCHARGING OF THE CLOSING SPRINGS CAUSES 52/LS TO CLOSE. 52MR PICKS UP CLOSING THE NORMALLY OPEN 52MM CONTACT ALLOWING CONTINUITY IN THE ANTI-PUMP RELAY (52Y) CIRCUIT. THE 52Y CONTACTS CHANGE STATE SEALING IN 52Y AND PREVENTING 52/CC 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 CLOSES, 52/a AUXILIARY CONTACTS CLOSE ALLOWING CONTINUITY IN THE TRIP SOLENOID (52/TC) CIRCUIT. IF A TRIPPING SIGNAL IS APPLIED, 52/TC IS ENERGIZED, UNLATCHING THE TRIPPING SPRINGS, OPENING THE BREAKER. THE 52/a CONTACTS OPEN, DE-ENERGIZING 52/TC 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 & CLOSING SPRINGS CHARGED.
2. SEE 44069-362 FOR WIRING DIAGRAM.

FOR CONTROL VOLTAGE:

TRIP 24V, 48V, 125V DC OR 120V AC
CLOSE 48V, 125V DC OR 120V AC

LEGEND

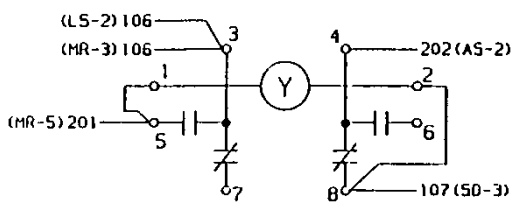
52 VACUUM CIRCUIT BREAKER
52M SPRING CHARGING MOTOR
52/LS SPRING CHARGING MOTOR LIMIT SWITCH
52/TC TRIP COIL (OPENING COIL)
52/CC SPRING RELEASE COIL (CLOSING COIL)
52Y ANTI-PUMP RELAY
52MR MOTOR RELAY
52/a AUX. SWITCH CONTACTS, OPEN WHEN BREAKER IS OPEN
52/b AUX. SWITCH CONTACTS, CLOSED WHEN BREAKER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

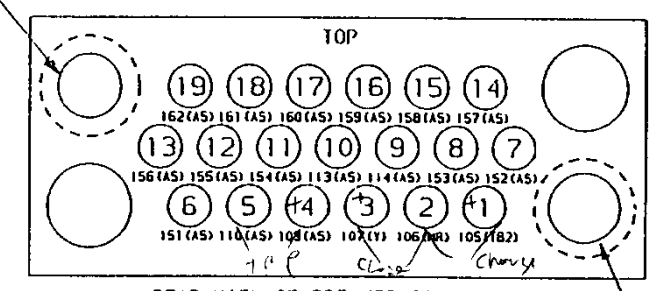
⚠ - RELEASED IN SMYRNA

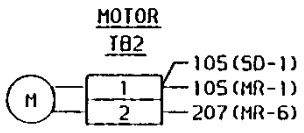
STANDARD TOLERANCE UNLESS OTHERWISE	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC: 17	USED ON: VAD-2 BREAKERS WITH MEXICO PLUG	ECO: 2/10/92	PRINTS TO:
	HOLE	PUNCHED/DRILLED ± .005	DRAWN BY: MEC	RAWSTOCK: NONE	DATE: VA21C23	TITLE: VAD-2 SCHEMATIC DIAGRAM MEXICO PLUG
			CHKD BY: SPN	MATERIAL DESCRIPTION: NONE		

SQUARE D COMPANY
POWER EQUIPMENT

REV	ECO	BY	DATE
A	B1480	SPII	8/27/93







LEGEND

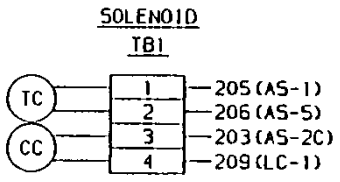
52 AS	AUXILIARY SWITCH
52 SD	SECONDARY DISCONNECT
52 TB1	SOLENOID TERMINAL BLOCK
52 TB2	MOTOR TERMINAL BLOCK
52 Y	ANTI-PUMP RELAY
52 MR	MOTOR RELAY
52 LS	LIMIT SWITCH (MOTOR)
52 LC	LATCH CHECK SWITCH
52 M	SPRING CHARGING MOTOR
52 CC	SPRING RELEASE COIL (CLOSING COIL)
52 TC	TRIP COIL (OPENING COIL)

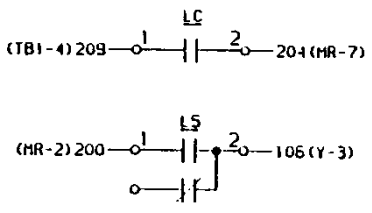
NOTE

1. SEE 44069-361 FOR SCHEMATIC DIAGRAM

AUXILIARY SWITCH (AS)

TOP CONTACTS	BOTTOM CONTACTS
(SD-18) 161 — 10 / 10C — 162 (SD-19)	(SD-16) 159 — 9C / 9 — 160 (SD-17)
(SD-14) 157 — 8 / 8C — 158 (SD-15)	(SD-6) 151 — 7C / 7 — 152 (SD-7)
(SD-8) 153 — 6 / 6C — 154 (SD-11)	(SD-5) 110 — 5C / 5 — 206 (TB1-2)
(SD-9) 114 — 4 / 4C — 113 (SD-10)	(SD-12) 155 — 3C / 3 — 156 (SD-13)
(Y-4) 202 — 2 / 2C — 203 (TB1-3)	(SD-4) 109 — 1C / 1 — 205 (TB1-1)





FOR CONTROL VOLTAGES

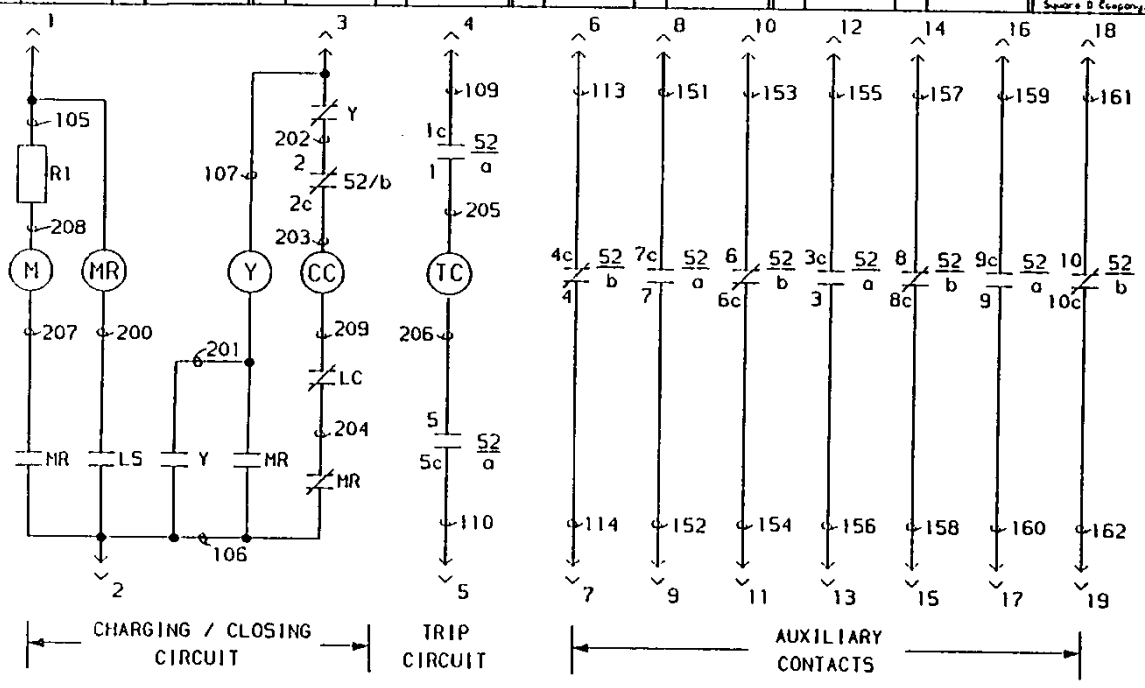
TRIP 24V, 48V, 125V DC OR 120V AC

CLOSE 48V, 125V DC OR 120V AC

⚠ - RELEASED IN SMYRNA

STANDARD TOLERANCE UNLESS OTHERWISE	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC: 17	USED ON: VAD-2 BREAKERS WITH MEXICO PLUG	ECO: 2/10/93	PRINTS TO:	SQUARE D COMPANY POWER EQUIPMENT
	HOLE DIMENSIONS	PUNCHED/DRILLED ± .005	DRAWN BY: MEC CHKD BY: SPII	RAWSTOCK: NONE MATERIAL DESCRIPTION: NONE	DATE: VA21C23	TITLE: VAD-2 WIRING DIAGRAM MEXICO PLUG	

REV	ECO	BY	DATE
A	B1480	GPI	8/27/93



LEGEND

S2 VACUUM CIRCUIT BREAKER
S2M SPRING CHARGING MOTOR
S2/LS SPRING CHARGING MOTOR LIMIT SWITCH
S2/TC TRIP COIL (OPENING COIL)
S2/CC SPRING RELEASE COIL (CLOSING COIL)
S2Y ANTI-PUMP RELAY
S2MR MOTOR RELAY
S2/a AUX. SWITCH CONTACTS, OPEN WHEN BREAKER IS OPEN
S2/b AUX. SWITCH CONTACTS, CLOSED WHEN BREAKER IS OPEN
R1 MOTOR RESISTOR (120V/500W)
S2/LC LATCH CHECK SWITCH

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/LS IS CLOSED. THIS PICKS UP THE MOTOR RELAY (S2MR), WHICH ENERGIZES THE SPRING CHARGING MOTOR (S2/M). S2/M RUNS UNTIL THE CLOSING SPRINGS ARE CHARGED. WHEN THE SPRINGS ARE CHARGED, S2/LS OPENS, DROPPING OUT S2MR, WHICH DE-ENERGIZES S2M.
3. WHEN S2MR DROPS OUT, THE NORMALLY CLOSED S2MR CONTACT CLOSES ALLOWING CONTINUITY IN THE CLOSING SOLENOID S2/CC CIRCUIT. IF CLOSING SIGNAL IS APPLIED, S2/CC IS ENERGIZED, UNLATCHING THE CLOSING SPRINGS, CLOSING THE BREAKER, AND CHARGING THE OPENING SPRINGS. S2/b CONTACTS OPEN, DE-ENERGIZING S2/CC. THE DISCHARGING OF THE CLOSING SPRINGS CAUSES S2/LS TO CLOSE. S2MR PICKS UP CLOSING THE NORMALLY OPEN S2MR CONTACT ALLOWING CONTINUITY IN THE ANTI-PUMP RELAY (S2Y) CIRCUIT. THE S2Y CONTACTS CHANGE STATE SEALING IN S2Y AND PREVENTING S2/CC 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 CLOSES, S2/a AUXILIARY CONTACTS CLOSE ALLOWING CONTINUITY IN THE TRIP SOLENOID (S2/TC) CIRCUIT. IF A TRIPPING SIGNAL IS APPLIED, S2/TC IS ENERGIZED, UNLATCHING THE TRIPPING SPRINGS, OPENING THE BREAKER. THE S2/a CONTACTS OPEN, DE-ENERGIZING S2/TC WHILE THE BREAKER IS OPEN.
5. REMOTE STATUS INDICATORS ARE CONNECTED TO TERMINALS TO INDICATE IF THE BREAKER IS OPEN OR CLOSED. CONTACT S2/a IS CLOSED WHEN THE BREAKER IS CLOSED. CONTACT S2/b IS CLOSED WHEN THE BREAKER IS OPEN.

NOTES:

1. BREAKER SHOWN IN OPEN POSITION & CLOSING SPRINGS CHARGED.
2. SEE 44069-364 FOR WIRING DIAGRAM.

FOR CONTROL VOLTAGE:

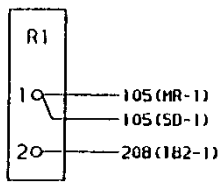
TRIP 24V, 48V, 125V DC OR 120V AC
CLOSE 250V DC OR 240V AC

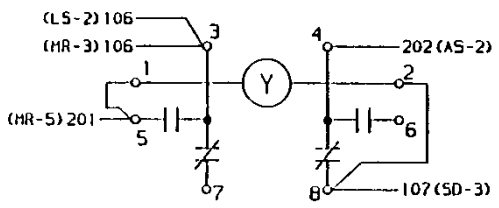
⚠A - RELEASED IN SMYRNA

STANDARD TOLERANCE UNLESS OTHERWISE	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC: 17	USED ON: VAD-2 BREAKERS WITH AMP PLUG	ECO: 2/10/92	PRINTS TO:
	HOLE	PUNCHED/DRILLED ± .005	DRAWN BY: MEC	RAWSTOCK: NONE	DATE: VA21C23	TITLE: VAD-2 SCHEMATIC DIAGRAM AMP PLUG
			CHKD BY: SPH	MATERIAL DESCRIPTION: NONE		

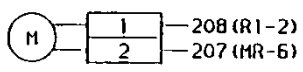
SQUARE D COMPANY
POWER EQUIPMENT

REV	ECO	BY	DATE
A	81480	SPI	8/27/93

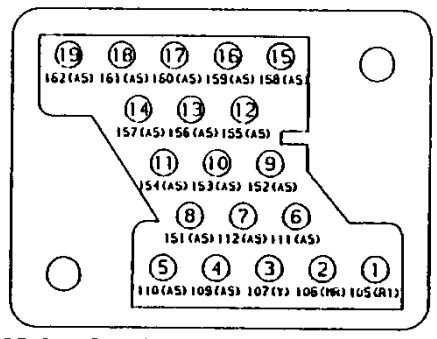




MOTOR
TB2



SECONDARY DISCONNECT (SD)



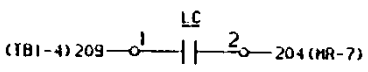
REAR VIEW OF CONTROL PLUG CONNECTOR

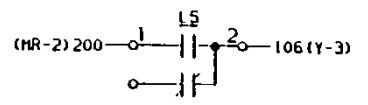
LEGEND

52 AS	AUXILIARY SWITCH
52 SD	SECONDARY DISCONNECT
52 TBI	SOLENOID TERMINAL BLOCK
52 TB2	MOTOR TERMINAL BLOCK
52 Y	ANTI-PUMP RELAY
52 MR	MOTOR RELAY
52 LS	LIMIT SWITCH (MOTOR)
52 LC	LATCH CHECK SWITCH
52 M	SPRING CHARGING MOTOR
52 CC	SPRING RELEASE COIL (CLOSING COIL)
52 TC	TRIP COIL (OPENING COIL)
52 R1	MOTOR RESISTOR (120V/500W)

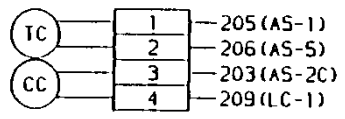
NOTE

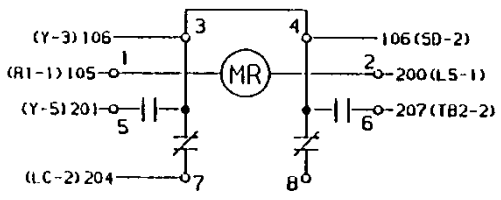
1. SEE 44069-363 FOR SCHEMATIC DIAGRAM





SOLENOID
TBI





AUXILIARY SWITCH (AS)

TOP CONTACTS	BOTTOM CONTACTS
(SD-18)161 — 10 / 10C — 162(SD-19)	(SD-16)159 — 9C / 9 — 160(SD-17)
(SD-14)157 — 8 / 8C — 158(SD-15)	(SD-8)151 — 7C / 7 — 152(SD-9)
(SD-10)153 — 6 / 6C — 154(SD-11)	(SD-5)110 — 5C / 5 — 206(TBI-2)
(SD-7)114 — 4 / 4C — 113(SD-6)	(SD-12)155 — 3C / 3 — 156(SD-13)
(Y-4)202 — 2 / 2C — 203(TBI-3)	(SD-4)109 — 1C / 1 — 205(TBI-1)

FOR CONTROL VOLTAGES

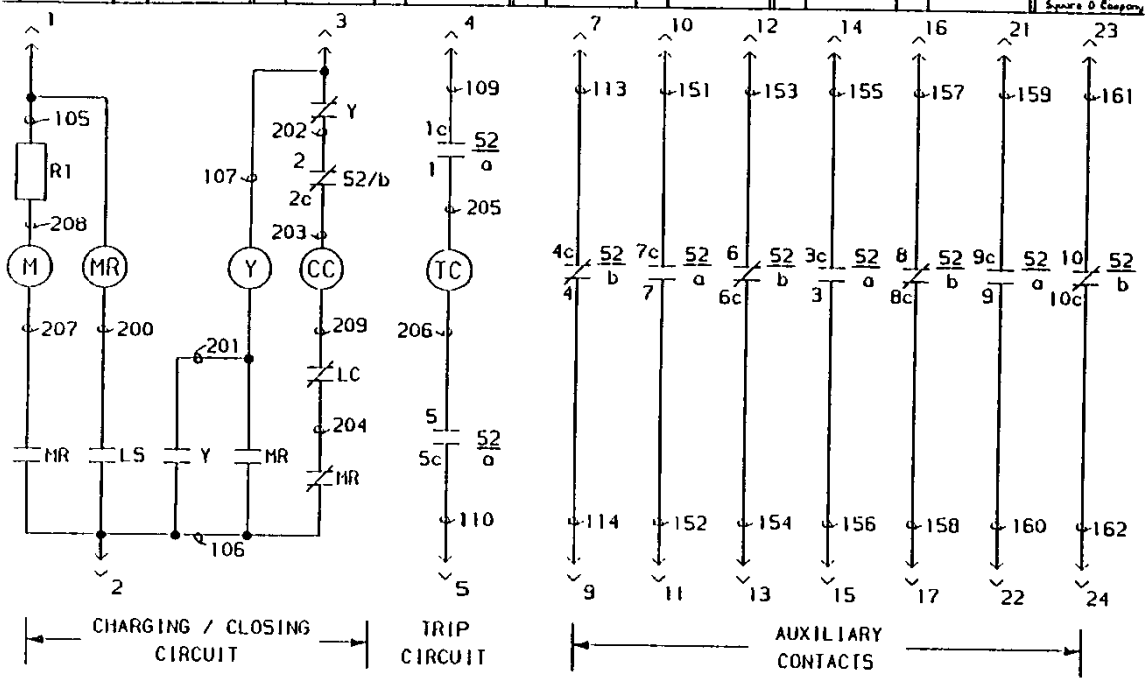
TRIP 24V, 48V, 125V DC OR 120V AC

CLOSE 250VDC OR 240VAC

⚠A - RELEASED IN SMYRNA

STANDARD CLEARANCE UNLESS OTHERWISE	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC. 17 DRAWN BY. MEC CHKD BY. SPH	USED ON. VAD-2 BREAKERS WITH AMP PLUG RAWSTOCK. NONE MATERIAL DESCRIPTION. NONE	ECO. 2/10/92 DATE. VA21C23	PRINTS TO.	SQUARE D COMPANY POWER EQUIPMENT
	HOLE DIMENSIONS	PUNCHED/DRILLED ± .005				TITLE. VAD-2 WIRING DIAGRAM AMP PLUG - 240/250 CLOSE	

REV	ECO	BY	DATE
A	B1480	SPH	8/27/93



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/LS 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/LS OPENS, DROPPING OUT 52MR, WHICH DE-ENERGIZES 52M.
3. WHEN 52MR DROPS OUT, THE NORMALLY CLOSED 52MR CONTACT CLOSES ALLOWING CONTINUITY IN THE CLOSING SOLENOID 52/CC CIRCUIT. IF CLOSING SIGNAL IS APPLIED, 52/CC IS ENERGIZED, UNLATCHING THE CLOSING SPRINGS, CLOSING THE BREAKER, AND CHARGING THE OPENING SPRINGS. 52/b CONTACTS OPEN, DE-ENERGIZING 52/CC. THE DISCHARGING OF THE CLOSING SPRINGS CAUSES 52/LS 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 SEALING IN 52Y AND PREVENTING 52/CC 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 CLOSES, 52/a AUXILIARY CONTACTS CLOSE ALLOWING CONTINUITY IN THE TRIP SOLENOID (52/TC) CIRCUIT. IF A TRIPPING SIGNAL IS APPLIED, 52/TC IS ENERGIZED, UNLATCHING THE TRIPPING SPRINGS, OPENING THE BREAKER. THE 52/a CONTACTS OPEN, DE-ENERGIZING 52/TC 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 & CLOSING SPRINGS CHARGED.
2. SEE 44069-366-50 FOR MAIN DIAGRAM

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
R1 MOTOR RESISTOR (120V/500W)
52/LC LATCH CHECK SWITCH

FOR CONTROL VOLTAGE:

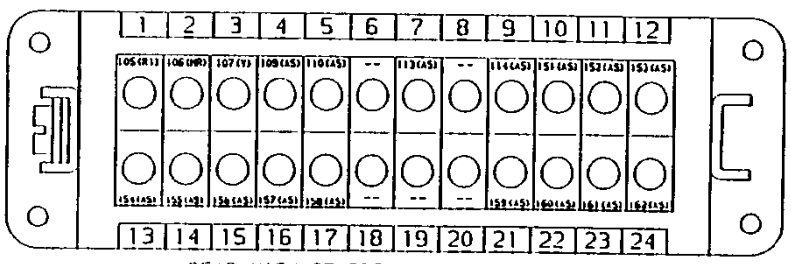
TRIP 24V, 48V, 125V DC OR 120V AC
CLOSE 250VDC OR 240VAC

⚠ - RELEASED IN SHYRNA

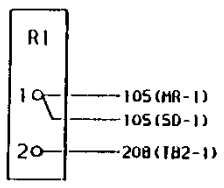
STANDARD TOLERANCE UNLESS OTHERWISE	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC: 17	USED ON: VAD-2 BREAKERS WITH HARTING PLUG	ECO: 2/10/92	PRINTS TO:	SQUARE D COMPANY POWER EQUIPMENT
	HOLE DIMENSIONS	PUNCHED/DRILLED ± .005	DRAWN BY: MEC	RAWSTOCK: NONE	DATE: VA21C23	TITLE: VAD-2 SCHEMATIC DIAGRAM HARTING PLUG - 240/250 CLOSE	
			CHKD BY: SPH	MATERIAL DESCRIPTION: NONE			

REV	ECO	BY	DATE
A	B1480	SPH	8/27/93

SECONDARY DISCONNECT (SD)



REAR VIEW OF BREAKER CONTROL PLUG

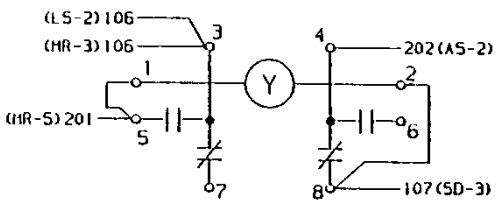


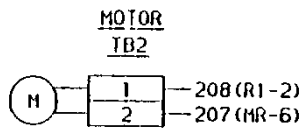
LEGEND

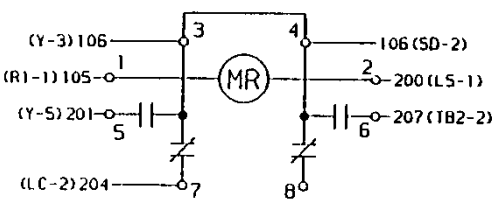
52 AS	AUXILIARY SWITCH
52 SD	SECONDARY DISCONNECT
52 TB1	SOLENOID TERMINAL BLOCK
52 TB2	MOTOR TERMINAL BLOCK
52 Y	ANTI-PUMP RELAY
52 MR	MOTOR RELAY
52 LS	LIMIT SWITCH (MOTOR)
52 LC	LATCH CHECK SWITCH
52 M	SPRING CHARGING MOTOR
52 CC	SPRING RELEASE COIL (CLOSING COIL)
52 TC	TRIP COIL (OPENING COIL)
52 R1	MOTOR RESISTOR (120V/500W)

NOTE

1. SEE 44069-365 FOR SCHEMATIC DIAGRAM

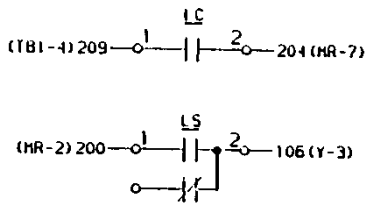


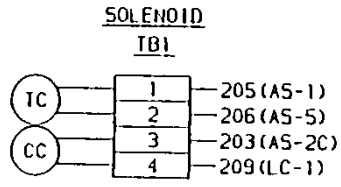




AUXILIARY SWITCH (AS)

TOP CONTACTS	BOTTOM CONTACTS
(SD-23) 161 — 10 / 10C — 162 (SD-24)	(SD-21) 159 — 9C / 9 — 160 (SD-22)
(SD-16) 157 — 8 / 8C — 158 (SD-17)	(SD-10) 151 — 7C / 7 — 152 (SD-11)
(SD-12) 153 — 6 / 6C — 154 (SD-13)	(SD-5) 110 — 5C / 5 — 206 (TB1-2)
(SD-9) 114 — 4 / 4C — 113 (SD-7)	(SD-14) 155 — 3 / 3C — 156 (SD-15)
(Y-4) 202 — 2 / 2C — 203 (TB1-3)	(SD-4) 109 — 1C / 1 — 205 (TB1-1)





FOR CONTROL VOLTAGES

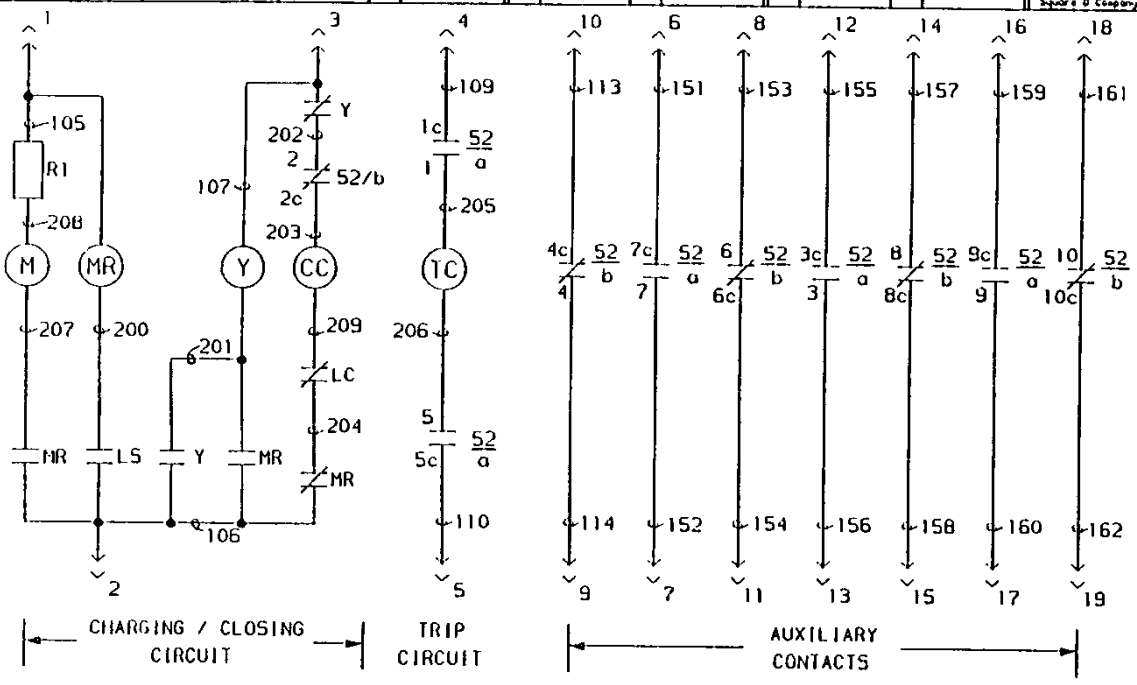
TRIP 24V, 48V, 125V DC OR 120V AC

CLOSE 250VDC OR 240VAC

⚠ - RELEASED IN SMYRNA

STANDARD TOLERANCE UNLESS OTHERWISE	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC. 17	USED ON. VAD-2 BREAKERS WITH HARTING PLUG	ECO. 2/10/93	PRINTS TO.	SQUARE D COMPANY POWER EQUIPMENT
	HOLE DIMENSIONS	PUNCHED/DRILLED ± .005	DRAWN BY. MEC CHKD BY. SPH	RAWSTOCK. NONE MATERIAL DESCRIPTION. NONE	DATE. VA21C23	TITLE. VAD-2 WIRING DIAGRAM HARTING PLUG - 240/250 CLOSE	

REV	ECO	BY	DATE
A	B1480	SPH	8/27/93



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/LS 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/LS OPENS, DROPPING OUT 52MR, WHICH DE-ENERGIZES 52M.
3. WHEN 52MR DROPS OUT, THE NORMALLY CLOSED 52MR CONTACT CLOSES ALLOWING CONTINUITY IN THE CLOSING SOLENOID 52/CC CIRCUIT. IF CLOSING SIGNAL IS APPLIED, 52/CC IS ENERGIZED, UNLATCHING THE CLOSING SPRINGS, CLOSING THE BREAKER, AND CHARGING THE OPENING SPRINGS. 52/b CONTACTS OPEN, DE-ENERGIZING 52/CC. THE DISCHARGING OF THE CLOSING SPRINGS CAUSES 52/LS 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 SEALING IN 52Y AND PREVENTING 52/CC 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 CLOSES, 52/a AUXILIARY CONTACTS CLOSE ALLOWING CONTINUITY IN THE TRIP SOLENOID (52/TC) CIRCUIT. IF A TRIPPING SIGNAL IS APPLIED, 52/TC IS ENERGIZED, UNLATCHING THE TRIPPING SPRINGS, OPENING THE BREAKER. THE 52/a CONTACTS OPEN, DE-ENERGIZING 52/TC 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.

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
R1 MOTOR RESISTOR (120V/500W)
52/LC LATCH CHECK SWITCH

NOTES:

1. BREAKER SHOWN IN OPEN POSITION & CLOSING SPRINGS CHARGED.
2. SEE 44069-368 FOR WIRING DIAGRAM.

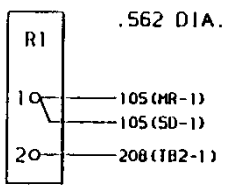
FOR CONTROL VOLTAGE:

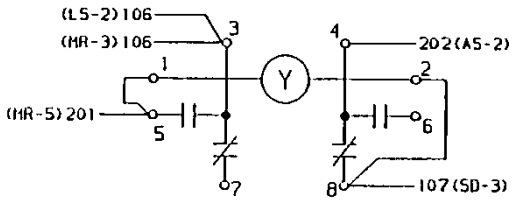
TRIP 24V, 48V, 125V DC OR 120V AC
CLOSE 250VDC OR 240VAC

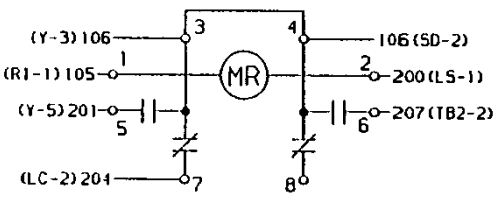
⚠ - RELEASED IN SMYRNA

STANDARD TOLERANCE UNLESS OTHERWISE	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC. 17	USED ON. VAD-2 BREAKERS WITH MEXICO PLUG	ECO. 2/10/92	PRINTS TO.	SQUARE D COMPANY POWER EQUIPMENT
	HOLE	PUNCHED/DRILLED ± .005	DRAWN BY. MEC	RAWSTOCK. NONE	DATE. VA21C23	TITLE. VAD-2 SCHEMATIC DIAGRAM MEXICO PLUG - 240/250 CLOSE	
			CHKD BY. SPH	MATERIAL DESCRIPTION. NONE			

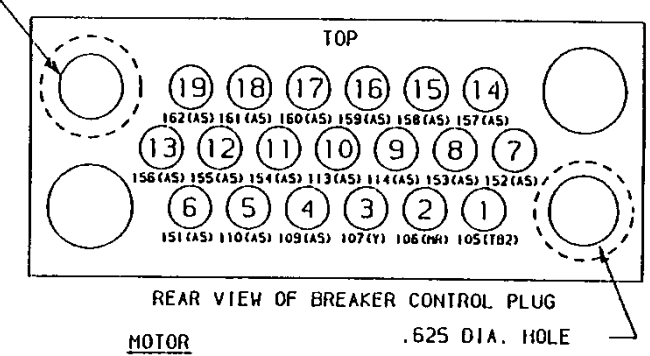
REV	ECO	BY	DATE
A	B1480	SPI	8/27/93





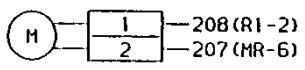


SECONDARY DISCONNECT (SD)



REAR VIEW OF BREAKER CONTROL PLUG

MOTOR
TB2



AUXILIARY SWITCH (AS)

TOP CONTACTS	BOTTOM CONTACTS
(SD-18)161 — 10 / 10C — 162(SD-19)	(SD-16)159 — 9C / 9 — 160(SD-17)
(SD-14)157 — 8 / 8C — 158(SD-15)	(SD-6)151 — 7C / 7 — 152(SD-7)
(SD-8)153 — 6 / 6C — 154(SD-11)	(SD-5)110 — 5C / 5 — 206(TB1-2)
(SD-9)114 — 4 / 4C — 113(SD-10)	(SD-12)155 — 3C / 3 — 156(SD-13)
(Y-4)202 — 2 / 2C — 203(TB1-3)	(SD-4)109 — 1C / 1 — 205(TB1-1)

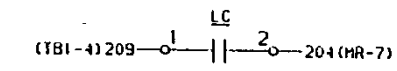
LEGEND

52 AS	AUXILIARY SWITCH
52 SD	SECONDARY DISCONNECT
52 TB1	SOLENOID TERMINAL BLOCK
52 TB2	MOTOR TERMINAL BLOCK
52 Y	ANTI-PUMP RELAY
52 MR	MOTOR RELAY
52 LS	LIMIT SWITCH (MOTOR)
52 LC	LATCH CHECK SWITCH
52 M	SPRING CHARGING MOTOR
52 CC	SPRING RELEASE COIL (CLOSING COIL)
52 TC	TRIP COIL (OPENING COIL)
52 R1	MOTOR RESISTOR (120V/500W)

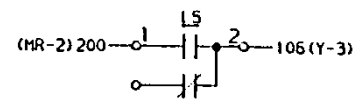
NOTE

1. SEE 44069-367 FOR SCHEMATIC DIAGRAM

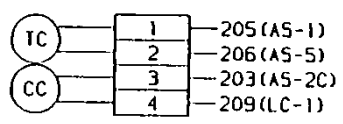
LC



LS



SOLENOID
TB1



FOR CONTROL VOLTAGES

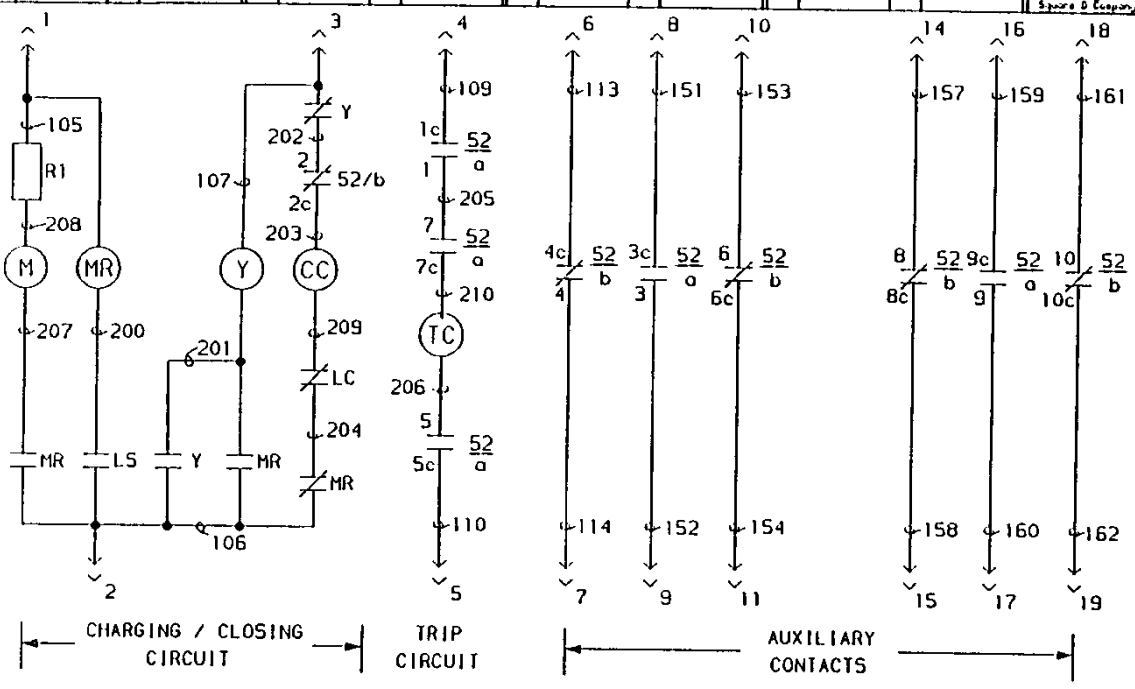
TRIP 24V, 48V, 125V DC OR 120V AC

CLOSE 250VDC OR 240VAC

⚠ - RELEASED IN SHYRIA

"•" INDICATES ENGINEERING REFERENCE ONLY			
STANDARD TOLERANCE UNLESS OTHERWISE	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	
	HOLE DIMENSIONS	PUNCHED/DRILLED ± .005	
DESIGN LOC. 17	USED ON. VAD-2 BREAKERS WITH MEXICO PLUG	ECO. 2/10/92	PRINTS TO.
DRAWN BY. MEC	RAWSTOCK. NONE	DATE. VA21C23	TITLE. VAD-2 WIRING DIAGRAM MEXICO PLUG - 240/250 CLOSE
CHKD BY. SPH	MATERIAL DESCRIPTION. NONE		SQUARE D COMPANY POWER EQUIPMENT

REV	ECO	BY	DATE
A	B1480	SPH	8/27/93



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/LS 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/LS OPENS, DROPPING OUT 52MR, WHICH DE-ENERGIZES 52M.
3. WHEN 52MR DROPS OUT, THE NORMALLY CLOSED 52MR CONTACT CLOSES ALLOWING CONTINUITY IN THE CLOSING SOLENOID 52/CC CIRCUIT. IF CLOSING SIGNAL IS APPLIED, 52/CC IS ENERGIZED, UNLATCHING THE CLOSING SPRINGS, CLOSING THE BREAKER, AND CHARGING THE OPENING SPRINGS. 52/b CONTACTS OPEN, DE-ENERGIZING 52/CC. THE DISCHARGING OF THE CLOSING SPRINGS CAUSES 52/LS 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 SEALING IN 52Y AND PREVENTING 52/CC 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 CLOSES, 52/a AUXILIARY CONTACTS CLOSE ALLOWING CONTINUITY IN THE TRIP SOLENOID (52/TC) CIRCUIT. IF A TRIPPING SIGNAL IS APPLIED, 52/TC IS ENERGIZED, UNLATCHING THE TRIPPING SPRINGS, OPENING THE BREAKER. THE 52/a CONTACTS OPEN, DE-ENERGIZING 52/TC 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.

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
R1 MOTOR RESISTOR (120V/500W)

NOTES:

1. BREAKER SHOWN IN OPEN POSITION & CLOSING SPRINGS CHARGED.
2. SEE 44069-370 FOR WIRING DIAGRAM

FOR CONTROL VOLTAGE:

TRIP 250 VDC OR 240 VAC
CLOSE 250 VDC OR 240 VAC

⚠ - RELEASED IN SHYRNA

STANDARD TOLERANCE UNLESS OTHERWISE	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC. 17	USED ON. VAD-2 BREAKERS WITH AMP PLUG	ECO. 2/10/92	PRINTS TO.	SQUARE D COMPANY POWER EQUIPMENT
	HOLE DIMENSIONS	PUNCHED/DRILLED ± .005	DRAWN BY. MEC	RAWSTOCK. NONE	DATE. VA21C23	TITLE. VAD-2 SCHEMATIC DIAGRAM AMP PLUG - 250/240 OPEN & CLOSE		
			CHKD BY. SPH	MATERIAL DESCRIPTION. NONE				

REV	ECO	BY	DATE
A	B14BO	SPH	8/27/93

SECONDARY DISCONNECT (SD)

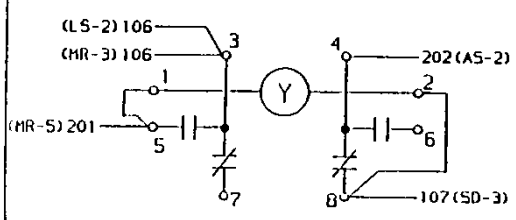
REAR VIEW OF CONTROL PLUG CONNECTOR

LEGEND

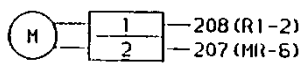
52 AS	AUXILIARY SWITCH
52 SD	SECONDARY DISCONNECT
52 TB1	SOLENOID TERMINAL BLOCK
52 TB2	MOTOR TERMINAL BLOCK
52 Y	ANTI-PUMP RELAY
52 MR	MOTOR RELAY
52 LS	LIMIT SWITCH (MOTOR)
52 LC	LATCH CHECK SWITCH
52 M	SPRING CHARGING MOTOR
52 CC	SPRING RELEASE COIL (CLOSING COIL)
52 TC	TRIP COIL (OPENING COIL)
52 R1	MOTOR RESISTOR (120V/500W)

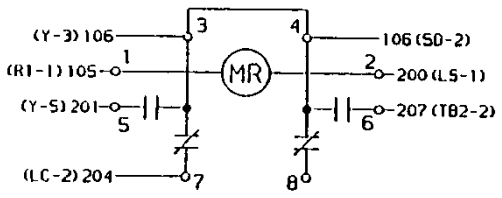
NOTE

1. SEE 44069-369 FOR SCHEMATIC DIAGRAM.



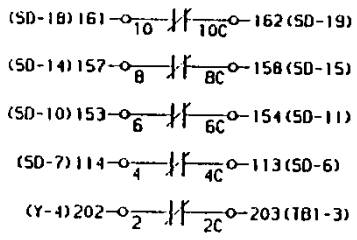
MOTOR
TB2



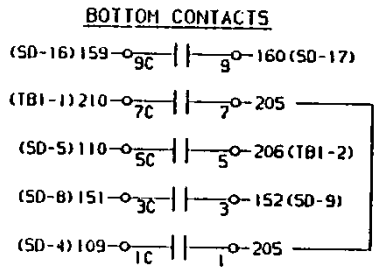


AUXILIARY SWITCH (AS)

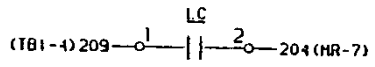
TOP CONTACTS



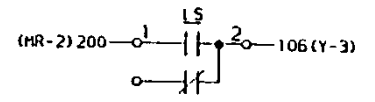
BOTTOM CONTACTS



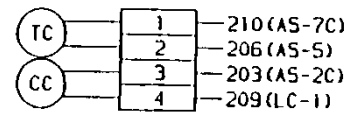
LC



LS



SOLENOID
TB1



FOR CONTROL VOLTAGES

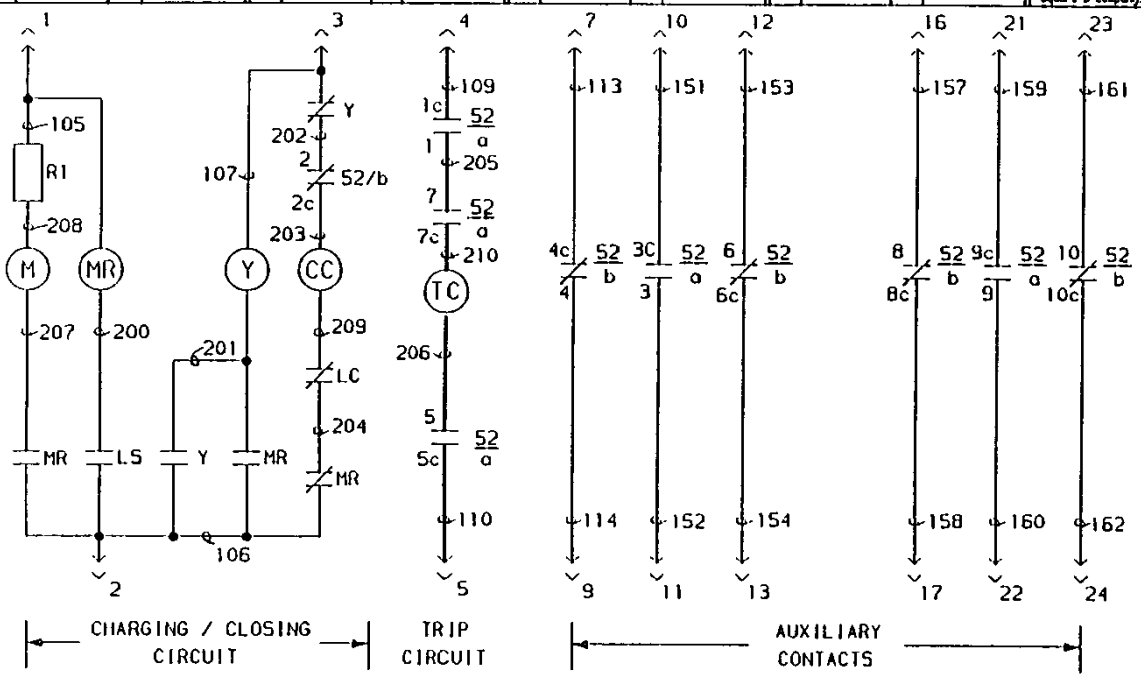
TRIP 250VDC OR 240VAC

CLOSE 250VDC OR 240VAC

⚠ - RELEASED IN SHYRNA

STANDARD TOLERANCE UNLESS OTHERWISE	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC. 17	USED ON. VAD-2 BREAKERS WITH AMP PLUG	ECO. 2/10/92	PRINTS TO.		SQUARE D COMPANY POWER EQUIPMENT	
	HOLE DIMENSIONS	PUNCHED/DRILLED ± .005	DRAWN BY. MEC CHKD BY. SPH	RAWSTOCK. NONE MATERIAL DESCRIPTION. NONE	DATE. VA21C23	TITLE. VAD-2 WIRING DIAGRAM AMP PLUG - 250/240 OPEN & CLOSE			

REV	ECO	BY	DATE
A	B1480	SPH	8/27/93



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/LS 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/LS OPENS, DROPPING OUT 52MR, WHICH DE-ENERGIZES 52M.
3. WHEN 52MR DROPS OUT, THE NORMALLY CLOSED 52MR CONTACT CLOSES ALLOWING CONTINUITY IN THE CLOSING SOLENOID 52/CC CIRCUIT. IF CLOSING SIGNAL IS APPLIED, 52/CC IS ENERGIZED, UNLATCHING THE CLOSING SPRINGS, CLOSING THE BREAKER, AND CHARGING THE OPENING SPRINGS. 52/b CONTACTS OPEN, DE-ENERGIZING 52/CC. THE DISCHARGING OF THE CLOSING SPRINGS CAUSES 52/LS 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 SEALING IN 52Y AND PREVENTING 52/CC 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 CLOSES, 52/a AUXILIARY CONTACTS CLOSE ALLOWING CONTINUITY IN THE TRIP SOLENOID (52/TC) CIRCUIT. IF A TRIPPING SIGNAL IS APPLIED, 52/TC IS ENERGIZED, UNLATCHING THE TRIPPING SPRINGS, OPENING THE BREAKER. THE 52/a CONTACTS OPEN, DE-ENERGIZING 52/TC 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.

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
R1 MOTOR RESISTOR (120V/500W)
52/LC LATCH CHECK SWITCH

NOTES:

1. BREAKER SHOWN IN OPEN POSITION & CLOSING SPRINGS CHARGED.
2. SEE 44069-372 FOR WIRING DIAGRAM

FOR CONTROL VOLTAGE:

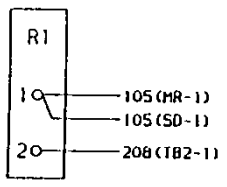
TRIP 250 VDC OR 240 VAC
CLOSE 250 VDC OR 240 VAC

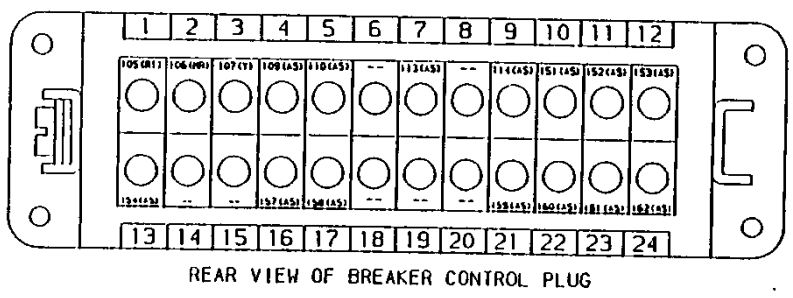
⚠ - RELEASED IN SMYRNA

STANDARD TOLERANCE UNLESS OTHERWISE	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC. 17	USED ON. VAD-2 BREAKERS WITH HARTING PLUG	ECO. 2/10/92	PRINTS TO.	SQUARE D COMPANY
	HOLE DIMENSIONS	PUNCHED/DRILLED ± .005	DRAWN BY. MEC CHKD BY. SPH	RAWSTOCK. NONE MATERIAL DESCRIPTION. NONE	DATE. VA21C23	TITLE. VAD-2 SCHEMATIC DIAGRAM HARTING PLUG - 250/240 OPEN & CLOSE	POWER EQUIPMENT

REV	ECO	BY	DATE
A	B1480	SPH	8/27/93

SECONDARY DISCONNECT (SD)





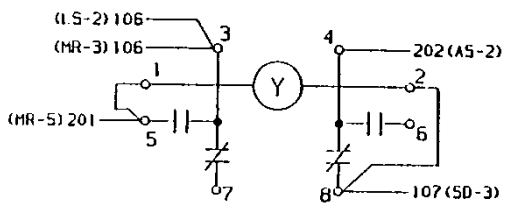
REAR VIEW OF BREAKER CONTROL PLUG

LEGEND

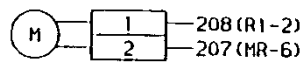
52 AS	AUXILIARY SWITCH
52 SD	SECONDARY DISCONNECT
52 TB1	SOLENOID TERMINAL BLOCK
52 TB2	MOTOR TERMINAL BLOCK
52 Y	ANTI-PUMP RELAY
52 MR	MOTOR RELAY
52 LS	LIMIT SWITCH (MOTOR)
52 LC	LATCH CHECK SWITCH
52 M	SPRING CHARGING MOTOR
52 CC	SPRING RELEASE COIL (CLOSING COIL)
52 TC	TRIP COIL (OPENING COIL)
52 R1	MOTOR RESISTOR (120V/500W)

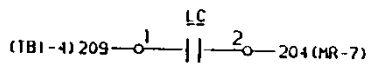
NOTE

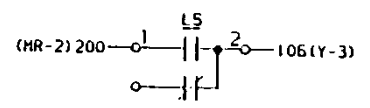
1. SEE 44069-371 FOR SCHEMATIC DIAGRAM.

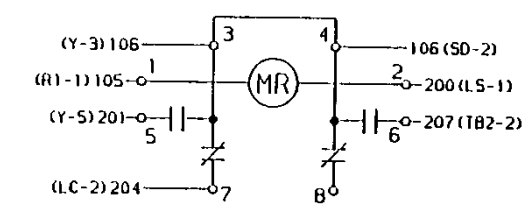


MOTOR
TB2

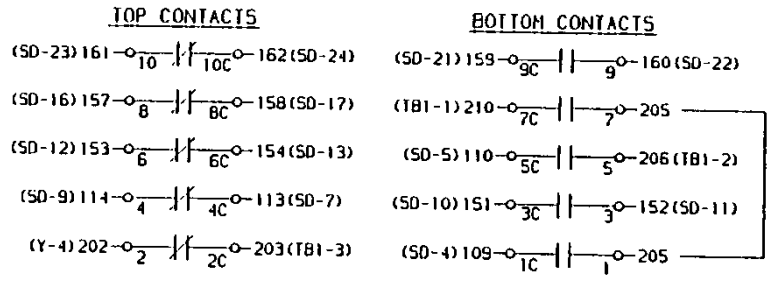




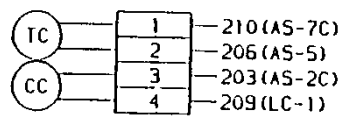




AUXILIARY SWITCH (AS)



SOLENOID
TB1



FOR CONTROL VOLTAGES

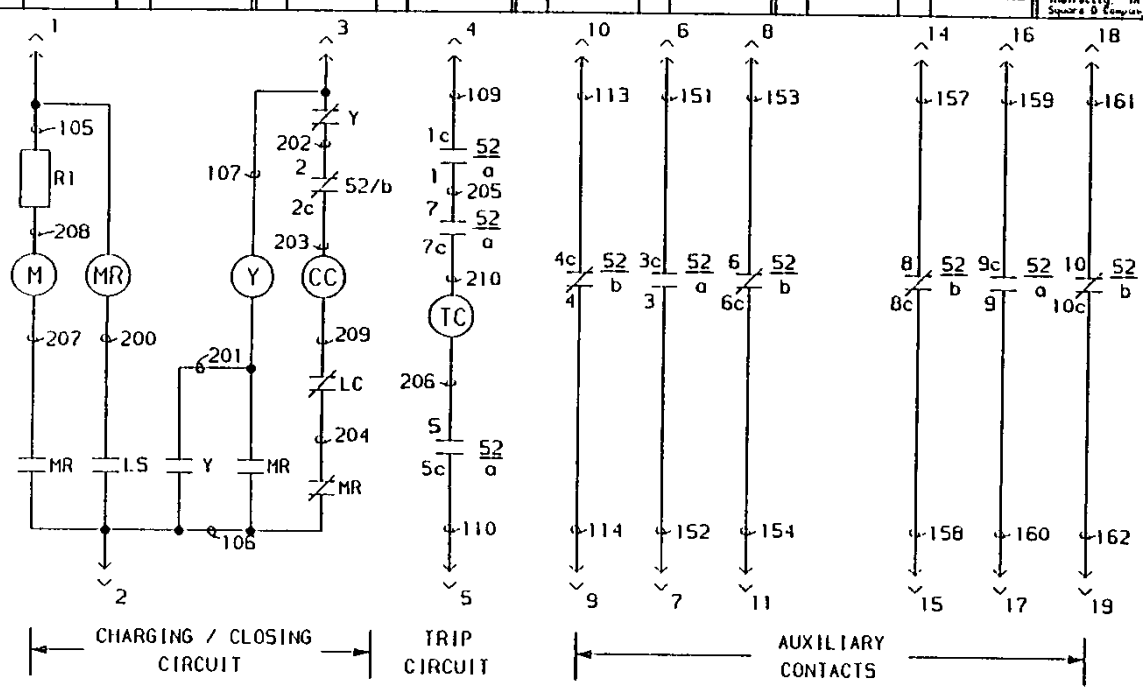
TRIP 250V DC OR 240V AC

CLOSE 250V DC OR 240V AC

⚠ - RELEASED IN SMYRNA

STANDARD TOLERANCE UNLESS OTHERWISE	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC. 17	USED ON. VAD-2 BREAKERS WITH HARTING PLUG	ECO. 2/10/92	PRINTS TO.	SQUARE D COMPANY POWER EQUIPMENT
	HOLE DIMENSIONS	PUNCHED/DRILLED ± .005	DRAWN BY. HEC	RAWSTOCK. NONE	DATE. VA21C23	TITLE. VAD-2 WIRING DIAGRAM HARTING PLUG - 250/240 OPEN & CLOSE	
			CHKD BY. SPH	MATERIAL DESCRIPTION. NONE			

REV	ECO	BY	DATE
A	B1480	SPH	8/27/93



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/LS 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/LS OPENS, DROPPING OUT 52MR, WHICH DE-ENERGIZES 52M.
3. WHEN 52MR DROPS OUT, THE NORMALLY CLOSED 52MR CONTACT CLOSES ALLOWING CONTINUITY IN THE CLOSING SOLENOID 52/CC CIRCUIT. IF CLOSING SIGNAL IS APPLIED, 52/CC IS ENERGIZED, UNLATCHING THE CLOSING SPRINGS, CLOSING THE BREAKER, AND CHARGING THE OPENING SPRINGS. 52/b CONTACTS OPEN, DE-ENERGIZING 52/CC. THE DISCHARGING OF THE CLOSING SPRINGS CAUSES 52/LS 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 SEALING IN 52Y AND PREVENTING 52/CC 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 CLOSES, 52/a AUXILIARY CONTACTS CLOSE ALLOWING CONTINUITY IN THE TRIP SOLENOID (52/TC) CIRCUIT. IF A TRIPPING SIGNAL IS APPLIED, 52/TC IS ENERGIZED, UNLATCHING THE TRIPPING SPRINGS, OPENING THE BREAKER. THE 52/a CONTACTS OPEN, DE-ENERGIZING 52/TC 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.

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
R1 MOTOR RESISTOR (120V/500W)
52/LC LATCH CHECK SWITCH

NOTES:

1. BREAKER SHOWN IN OPEN POSITION & CLOSING SPRINGS CHARGED.
2. SEE 44069-374 FOR WIRING DIAGRAM

FOR CONTROL VOLTAGE:

TRIP 250V DC OR 240V AC
CLOSE 250V DC OR 240V AC

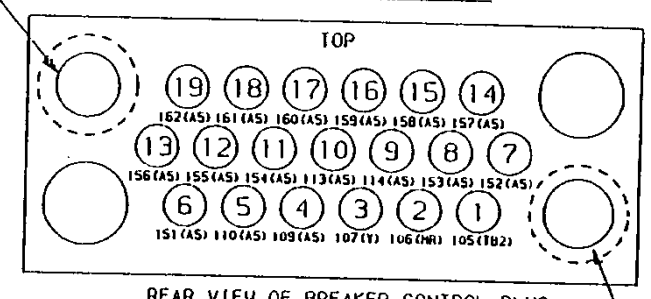
⚠4 - RELEASED IN SHYRNA

STANDARD TOLERANCE UNLESS OTHERWISE	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC. 17	USED ON. VAD-2 BREAKERS WITH MEXICO PLUG	ECO. 2/10/93	PRINTS TO.	SQUARE D COMPANY POWER EQUIPMENT
	HOLE DIMENSIONS	PUNCHED/DRILLED ± .005	DRAWN BY. MEC	RAWSTOCK. NONE	DATE. VA21C23	TITLE. VAD-2 SCHEMATIC DIAGRAM MEXICO PLUG = 250/240 OPEN & CLOSE	
			CHKD BY. SPH	MATERIAL DESCRIPTION. NONE			

REV	ECO	BY	DATE
A	B1480	SPH	8/27/93

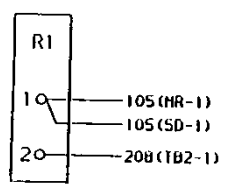
.562 DIA. HOLE

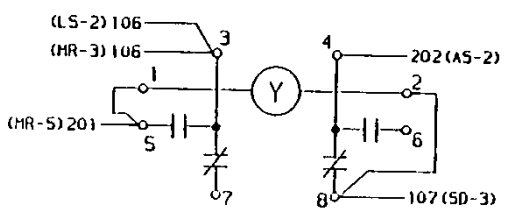
SECONDARY DISCONNECT (SD)



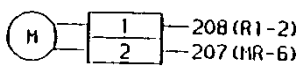
REAR VIEW OF BREAKER CONTROL PLUG

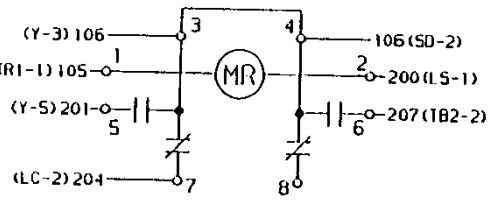
.625 DIA. HOLE





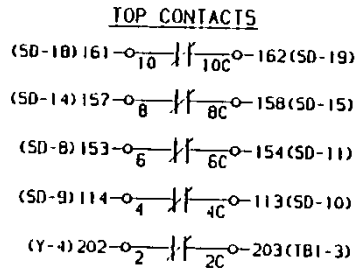
MOTOR
TB2



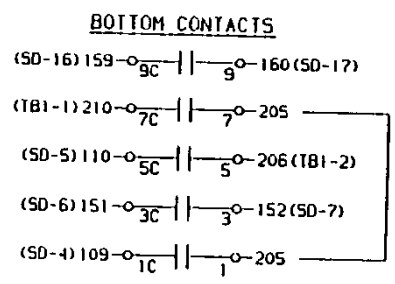


AUXILIARY SWITCH (AS)

TOP CONTACTS



BOTTOM CONTACTS

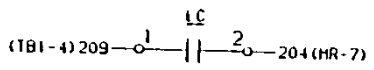


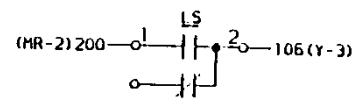
LEGEND

52 AS	AUXILIARY SWITCH
52 SD	SECONDARY DISCONNECT
52 TB1	SOLENOID TERMINAL BLOCK
52 TB2	MOTOR TERMINAL BLOCK
52 Y	ANTI-PUMP RELAY
52 MR	MOTOR RELAY
52 LS	LIMIT SWITCH (MOTOR)
52 LC	LATCH CHECK SWITCH
52 M	SPRING CHARGING MOTOR
52 CC	SPRING RELEASE COIL (CLOSING COIL)
52 TC	TRIP COIL (OPENING COIL)
52 R1	MOTOR RESISTOR (120V/500W)

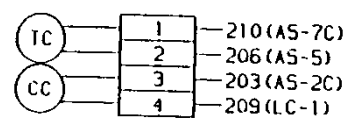
NOTE

1. SEE 44069-373 FOR SCHEMATIC DIAGRAM.





SOLENOID
TB1



FOR CONTROL VOLTAGES

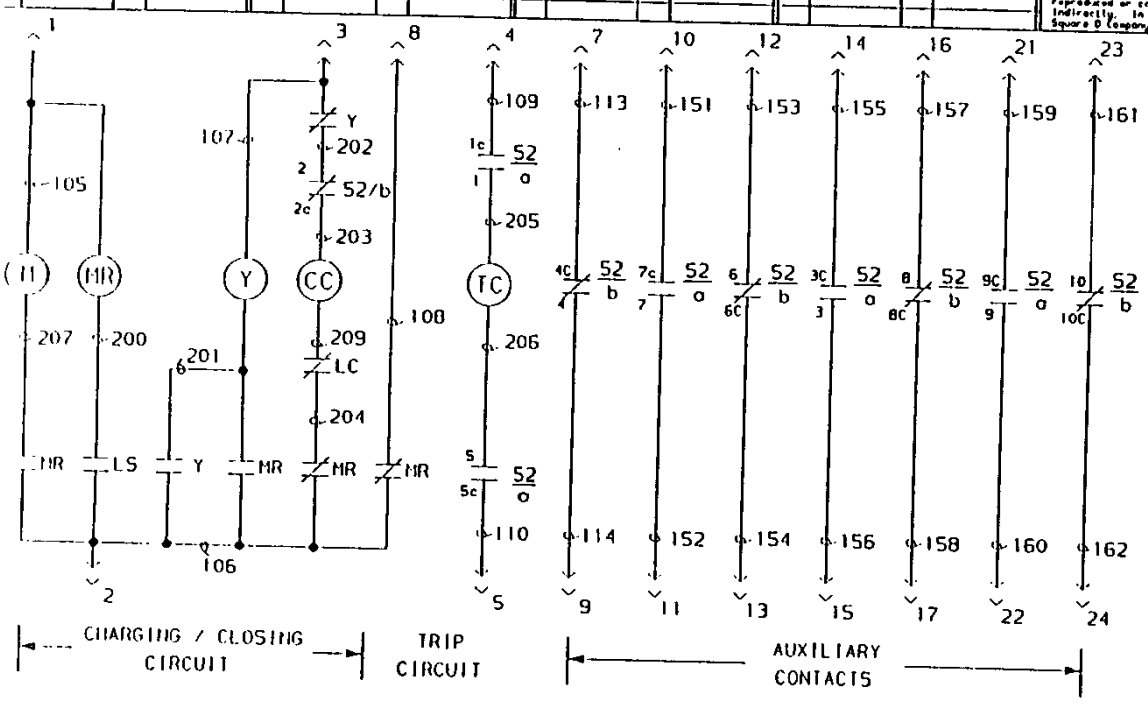
TRIP 250V DC OR 240V AC

CLOSE 250V DC OR 240V DC

⚠ - RELEASED IN SMYRNA

STANDARD TOLERANCE UNLESS OTHERWISE	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC. 17	USED ON: VAD-2 BREAKERS WITH HEXICO PLUG	ECO. 2/10/92	PRINTS TO.	SQUARE D COMPANY POWER EQUIPMENT
	HOLE DIMENSIONS	PUNCHED/DRILLED ± .005	DRAWN BY. HEC CHKD BY. SPH	RAWSTOCK. NONE MATERIAL DESCRIPTION. NONE	DATE: VA21C23	TITLE. VAD-2 WIRING DIAGRAM HEXICO PLUG - 250/240 OPEN & CLOSE	

REV	ECO	BY	DATE



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

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/LS 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/LS OPENS, DROPPING OUT 52MR, WHICH DE-ENERGIZES 52M.
3. WHEN 52MR DROPS OUT, THE NORMALLY CLOSED 52MR CONTACT CLOSES ALLOWING CONTINUITY IN THE CLOSING SOLENOID 52/CC CIRCUIT. IF CLOSING SIGNAL IS APPLIED, 52/CC IS ENERGIZED, UNLATCHING THE CLOSING SPRINGS, CLOSING THE BREAKER, AND CHARGING THE OPENING SPRINGS. 52/b CONTACTS OPEN, DE-ENERGIZING 52/CC. THE DISCHARGING OF THE CLOSING SPRINGS CAUSES 52/LS 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 SEALING IN 52Y AND PREVENTING 52/CC 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 CLOSES, 52/a AUXILIARY CONTACTS CLOSE ALLOWING CONTINUITY IN THE TRIP SOLENOID (52/TC) CIRCUIT. IF A TRIPPING SIGNAL IS APPLIED, 52/TC IS ENERGIZED, UNLATCHING THE TRIPPING SPRINGS, OPENING THE BREAKER. THE 52/a CONTACTS OPEN, DE-ENERGIZING 52/TC 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,

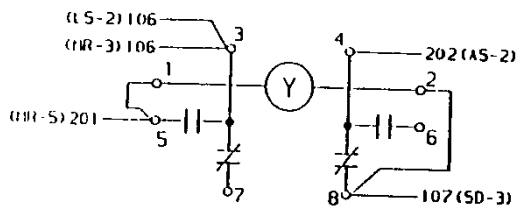
1. BREAKER SHOWN IN OPEN POSITION & CLOSING SPRINGS CHARGED.
2. SEE 44069-360 FOR WIRING DIAGRAM

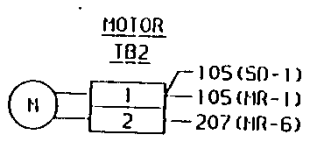
FOR CONTROL VOLTAGE,

TRIP 24V, 48V, 125V DC OR 120V AC
CLOSE 48V, 125V DC OR 120V AC

STANDARD TOLERANCE UNLESS OTHERWISE SPECIFIED	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC. 17	USED ON. VAD-2 BREAKERS WITH HARTING PLUG	ECO. 81508	PRINTS TO.	SQUARE D COMPANY POWER EQUIPMENT		
	HOLE DIMENSIONS	PUNCHED/DRILLED ± .005	DRAWN BY. SPH	RAWSTOCK. NONE	DATE. 9/16/93	TITLE. VAD2 SCHEMATIC DIAGRAM SPRG. CHG. IND.-HARTING PLUG			
	ANGLES	DIMENSIONED ± 1° UNDIMENSIONED 90° ± 2°	CHKD BY. ---	MATERIAL DESCRIPTION. NONE	SCALE. NONE	PART# 44069-554	QTY. -	B	44069-554
			ENGINEER. LHS	FINISH DESCRIPTION. NONE					

REV	ECO	BY	DATE



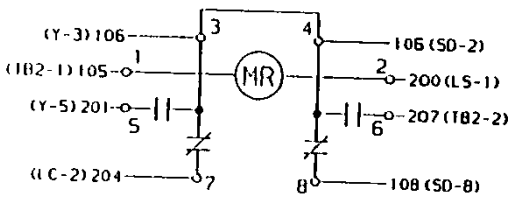


LEGEND

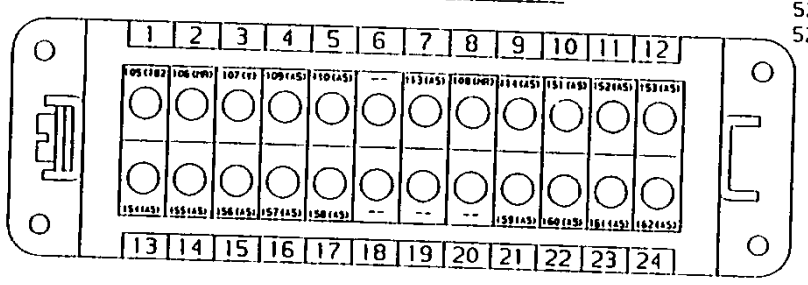
52 AS	AUXILIARY SWITCH
52 SD	SECONDARY DISCONNECT
52 TB1	SOLENOID TERMINAL BLOCK
52 TB2	MOTOR TERMINAL BLOCK
52 Y	ANTI-PUMP RELAY
52 MR	MOTOR RELAY
52 LS	LIMIT SWITCH (MOTOR)
52 LC	LATCH CHECK SWITCH
52 M	SPRING CHARGING MOTOR
52 CC	SPRING RELEASE COIL (CLOSING COIL)
52 TC	TRIP COIL (OPENING COIL)

NOTE

1. SEE 44069-359 FOR SCHEMATIC DIAGRAM.



SECONDARY DISCONNECT (SD)



REAR VIEW OF BREAKER CONTROL PLUG

AUXILIARY SWITCH (AS)

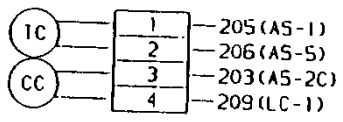
TOP CONTACTS

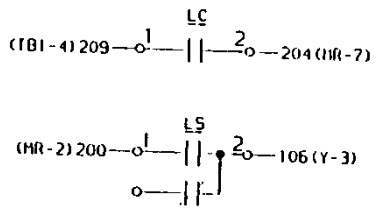
(SD-23) 161 — 10 — 10C — 162 (SD-24)
(SD-16) 157 — 8 — 8C — 158 (SD-17)
(SD-12) 153 — 6 — 6C — 154 (SD-13)
(SD-9) 114 — 4 — 4C — 113 (SD-7)
(Y-4) 202 — 2 — 2C — 203 (TB1-3)

BOTTOM CONTACTS

(SD-21) 159 — 9C — 9 — 160 (SD-22)
(SD-10) 151 — 7C — 7 — 152 (SD-11)
(SD-5) 110 — 5C — 5 — 206 (TB1-2)
(SD-14) 155 — 3C — 3 — 156 (SD-15)
(SD-4) 109 — 1C — 1 — 205 (TB1-1)

SOLENOID
TB1



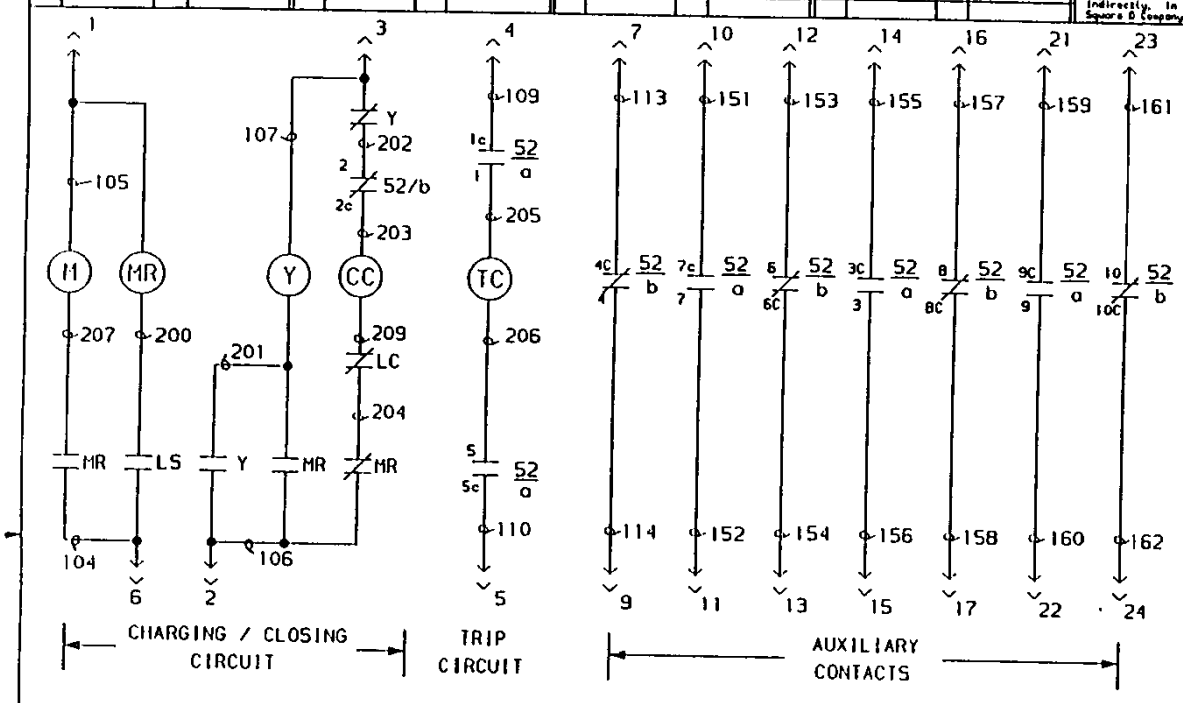


FOR CONTROL VOLTAGES

TRIP 24V, 48V, 125V DC OR 120V AC
CLOSE 48V, 125V DC OR 120V AC

STANDARD TOLERANCE UNLESS OTHERWISE SPECIFIED	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC. 17	USED ON. VAD-2 BREAKERS WITH HARTING PLUG	ECO. 81508	PRINTS TO.	SQUARE D COMPANY POWER EQUIPMENT	
	TRUE DIMENSIONS	PUNCHED/DRILLED ± .005	DRAWN BY. SPH	RAWSTOCK. NONE	DATE. 9/16/93	TITLE. VAD-2 WIRING DIAGRAM SPRG. CHG. IND.- HARTING PLUG		
	ANGLES	DIMENSIONED ± 1° UNDIMENSIONED 90° ± 2°	CHKD BY. ---	MATERIAL DESCRIPTION. NONE	SCALE. NONE	PART. 44069-555	QTY. -	B 44069-555
			ENGINEER. LHS	FINISH DESCRIPTION. NONE				

REV	ECO	BY	DATE
A	B1480	SPH	8/27/93



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

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/LS 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/LS OPENS, DROPPING OUT 52MR, WHICH DE-ENERGIZES 52M.
3. WHEN 52MR DROPS OUT, THE NORMALLY CLOSED 52MR CONTACT CLOSES ALLOWING CONTINUITY IN THE CLOSING SOLENOID 52/CC CIRCUIT. IF CLOSING SIGNAL IS APPLIED, 52/CC IS ENERGIZED, UNLATCHING THE CLOSING SPRINGS, CLOSING THE BREAKER, AND CHARGING THE OPENING SPRINGS. 52/b CONTACTS OPEN, DE-ENERGIZING 52/CC. THE DISCHARGING OF THE CLOSING SPRINGS CAUSES 52/LS 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 SEALING IN 52Y AND PREVENTING 52/CC 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 CLOSES, 52/a AUXILIARY CONTACTS CLOSE ALLOWING CONTINUITY IN THE TRIP SOLENOID (52/TC) CIRCUIT. IF A TRIPPING SIGNAL IS APPLIED, 52/TC IS ENERGIZED, UNLATCHING THE TRIPPING SPRINGS, OPENING THE BREAKER. THE 52/a CONTACTS OPEN, DE-ENERGIZING 52/TC 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 & CLOSING SPRINGS CHARGED.
2. SEE 44069-381 FOR WIRING DIAGRAM

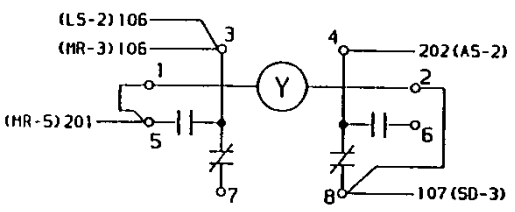
FOR CONTROL VOLTAGE:

TRIP 24V, 48V, 125V DC OR 120V AC
CLOSE 48V, 125V DC OR 120V AC

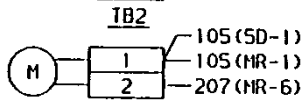
STANDARD TOLERANCE UNLESS OTHERWISE SPECIFIED	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC. 17	USED ON: VAD-2 BREAKERS WITH HARTING PLUG	ECO. 11/2/92	PRINTS TO:		SQUARE D COMPANY POWER EQUIPMENT	
	HOLE DIMENSIONS	PUNCHED/DRILLED ± .005	DRAWN BY. ARS	RAWSTOCK: NONE	DATE: 9/01/15	TITLE: VAD-2 SCHEMATIC DIAGRAM HARTING PLUG - SEPERATE CHARGE			
	ANGLES	DIMENSIONED @ 1° UNDIMENSIONED 90° ± 2°	CHKD BY. SPH	MATERIAL DESCRIPTION: NONE	SCALE: NONE	PART# 44069-380	QTY: -	R 44069-380	REV A
			ENGINEER. TJS	FINISH DESCRIPTION: NONE					

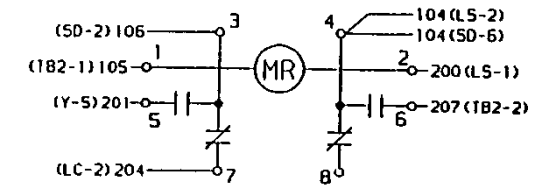
⚠ - RELEASED IN SMYRNA

REV	ECO	BY	DATE
A	B1480	SPH	8/27/93

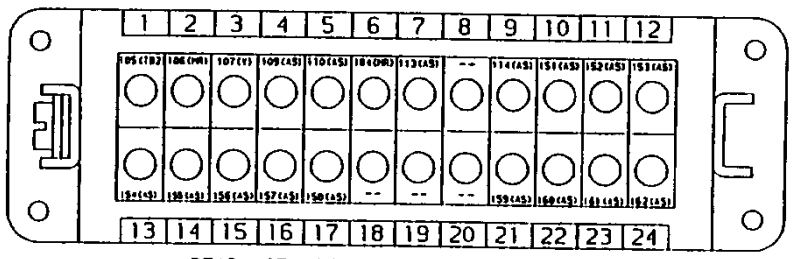


MOTOR
TB2





SECONDARY DISCONNECT (SD)



REAR VIEW OF BREAKER CONTROL PLUG

LEGEND

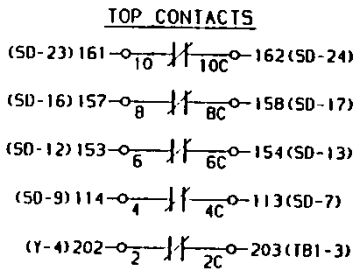
52 AS	AUXILIARY SWITCH
52 SD	SECONDARY DISCONNECT
52 TB1	SOLENOID TERMINAL BLOCK
52 TB2	MOTOR TERMINAL BLOCK
52 Y	ANTI-PUMP RELAY
52 MR	MOTOR RELAY
52 LS	LIMIT SWITCH (MOTOR)
52 LC	LATCH CHECK SWITCH
52 M	SPRING CHARGING MOTOR
52 CC	SPRING RELEASE COIL (CLOSING COIL)
52 TC	TRIP COIL (OPENING COIL)
52 LC	LATCH CHECK SWITCH

NOTE

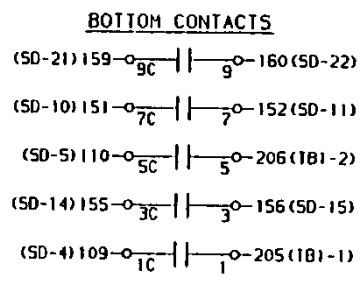
1. SEE 44069-380 FOR SCHEMATIC DIAGRAM.

AUXILIARY SWITCH (AS)

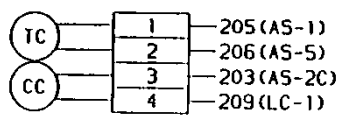
TOP CONTACTS

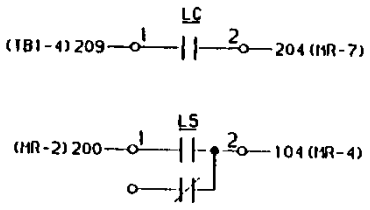


BOTTOM CONTACTS



SOLENOID
TB1





FOR CONTROL VOLTAGES

TRIP 24V, 48V, 125V DC OR 120V AC

CLOSE 48V, 125V DC OR 120V AC

⚠ - RELEASED IN SHYRNA

STANDARD TOLERANCE UNLESS OTHERWISE SPECIFIED	LINEAR DIMENSIONS	ONE PLACE DECIMAL ± .060 TWO PLACE DECIMAL ± .030 THREE PLACE DECIMAL ± .015	DESIGN LOC: 17	USED ON: VAD-2 BREAKERS WITH HARTING PLUG	ECO: 11/2/92	PRINTS TO:	SQUARE D COMPANY POWER EQUIPMENT
	HOLE DIMENSIONS	PUNCHED/DRILLED ± .005	DRAWN BY: ARS	RAWSTOCK: NONE	DATE: 5/01/95	TITLE: VAD-2 WIRING DIAGRAM HARTING PLUG - SEPERATE CHARGE	
	ANGLES	DIMENSIONED ± 1° UNDIMENSIONED 90° ± 2°	CHKD BY: SPH	MATERIAL DESCRIPTION: NONE	SCALE: NONE	PART: 44069-381 QTY: -	B 44069-381 REV A
			ENGINEER: LHS	FINISH DESCRIPTION: NONE			