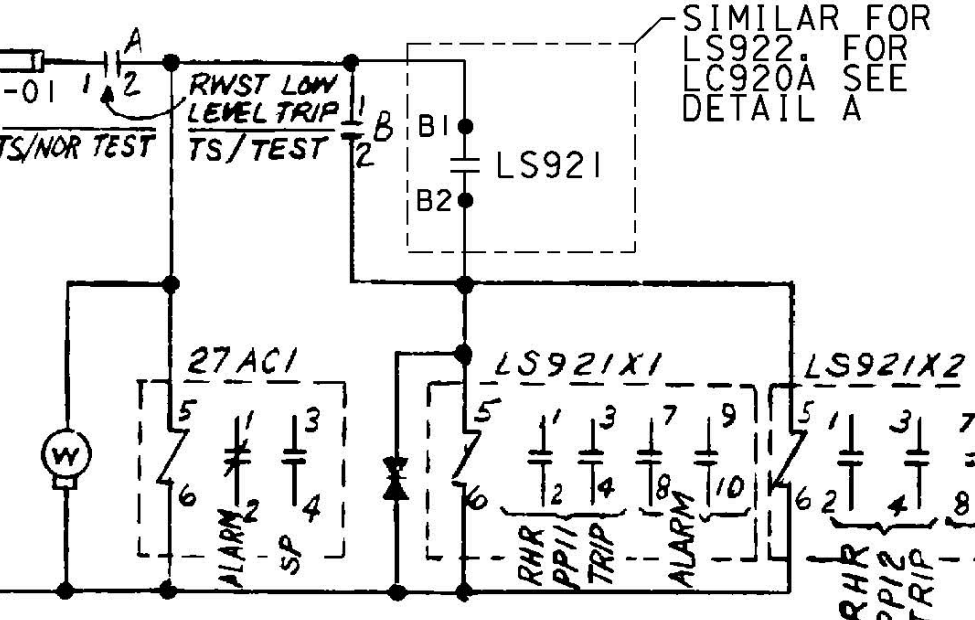
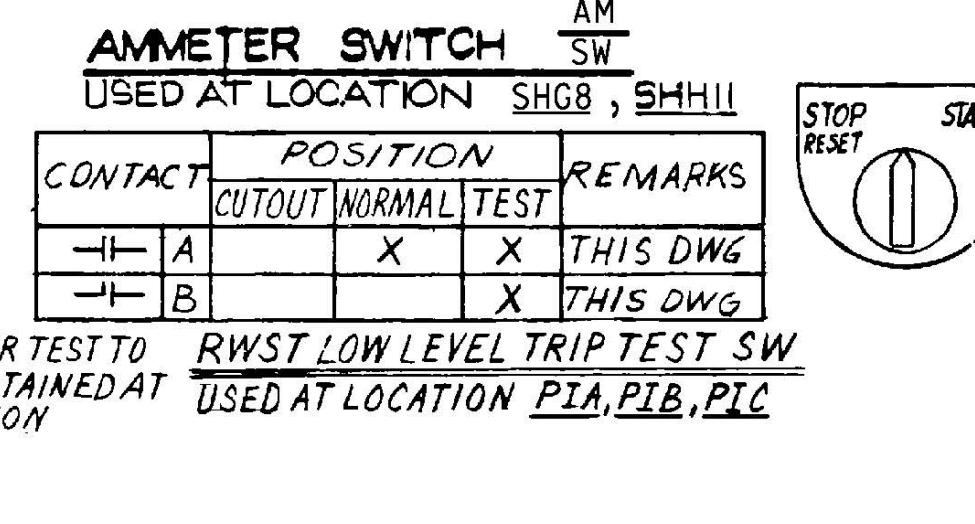
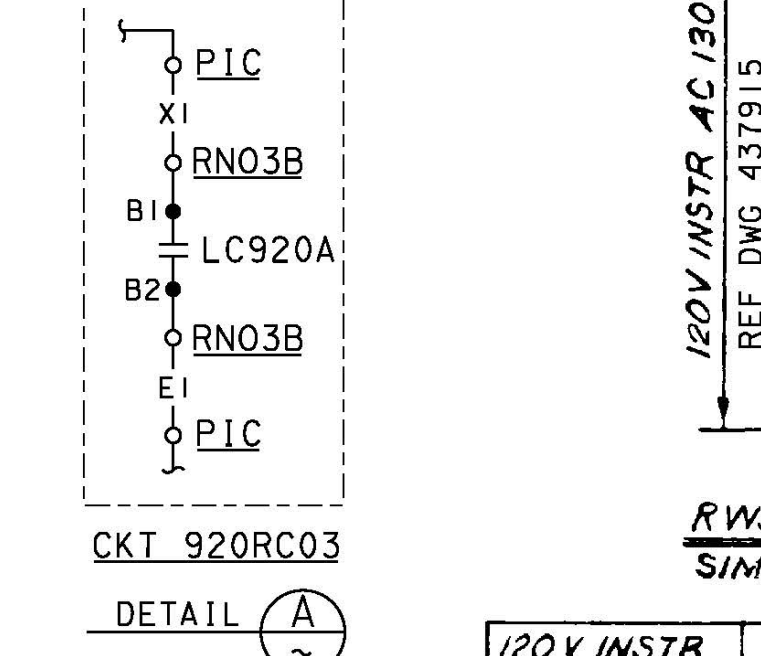
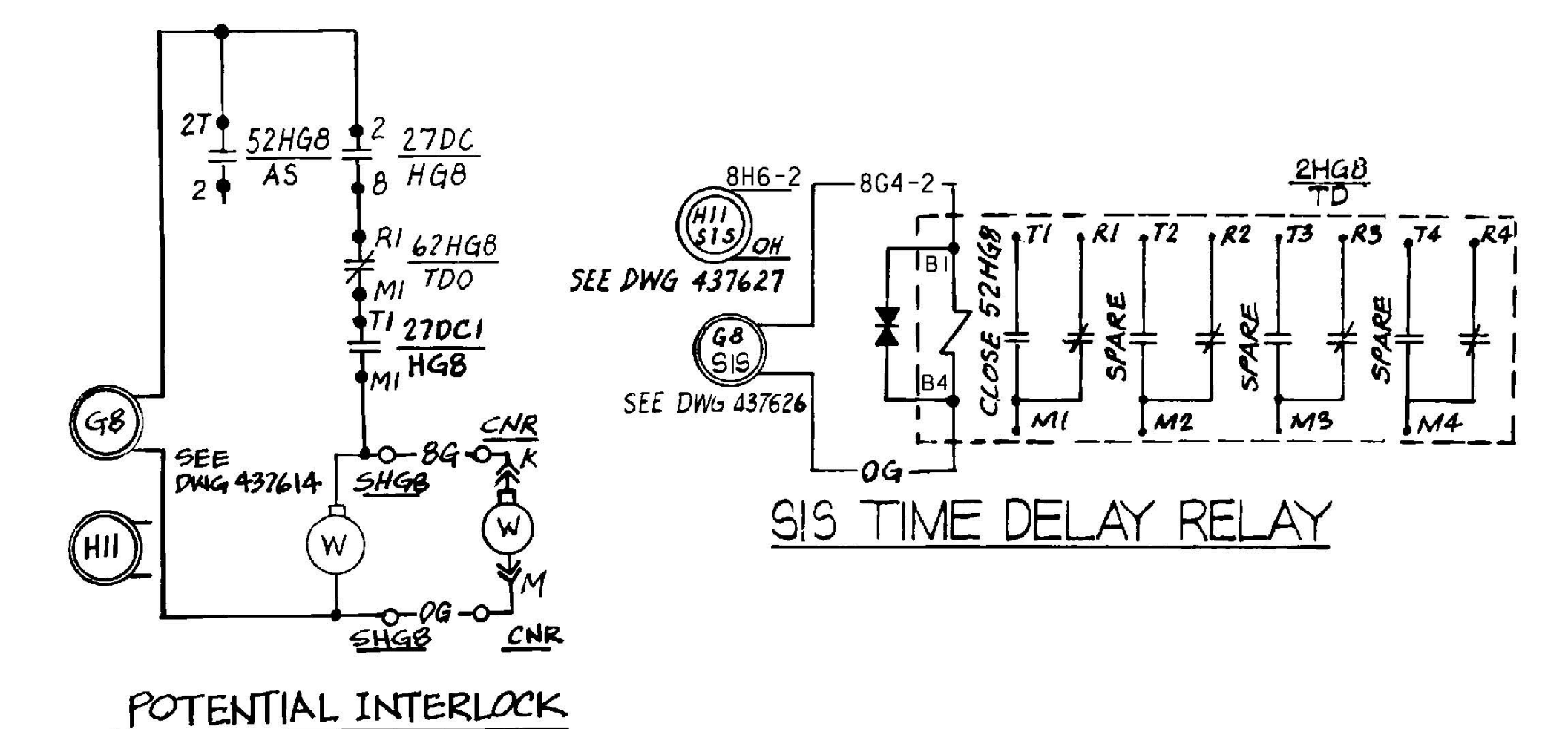


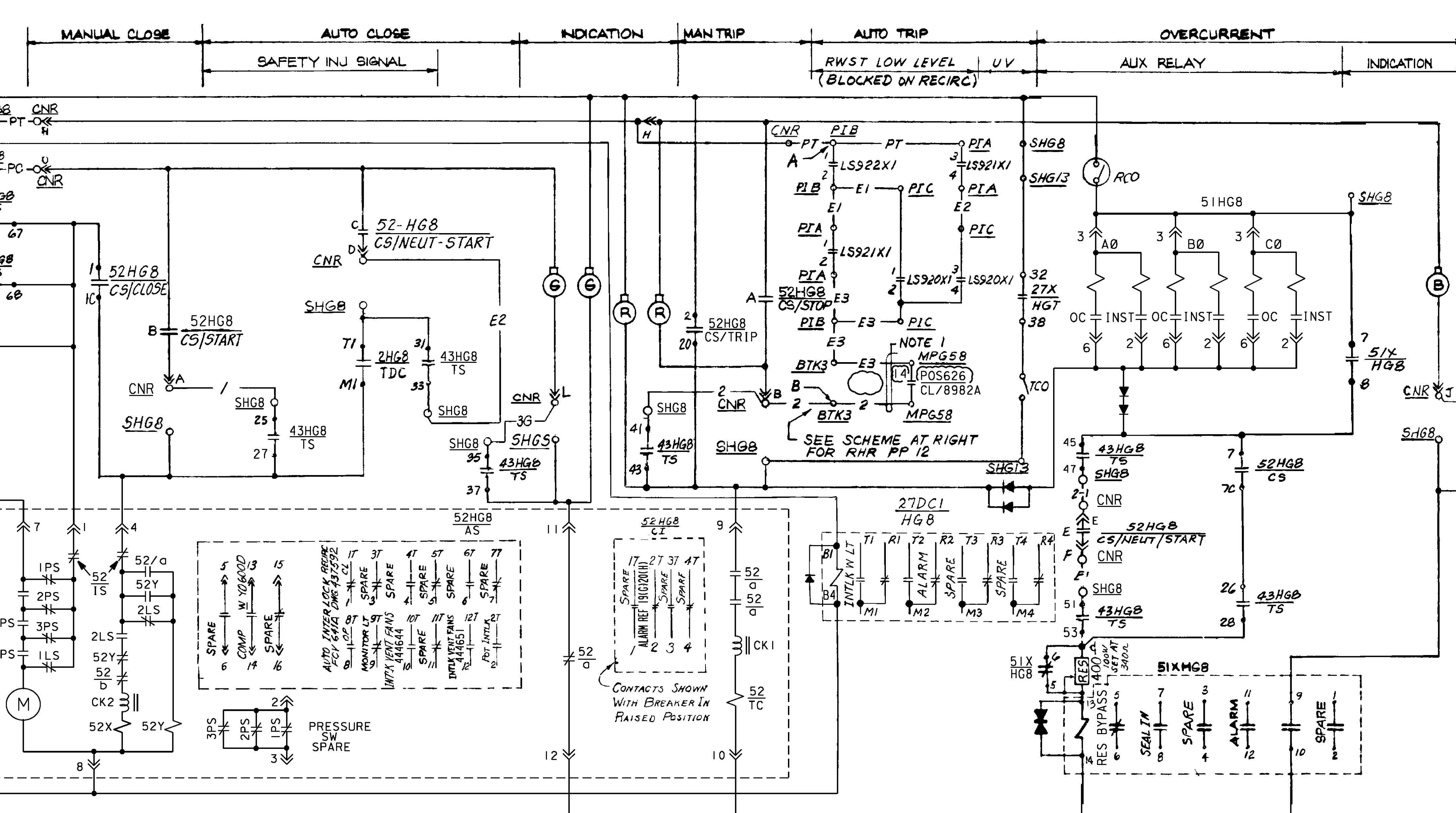
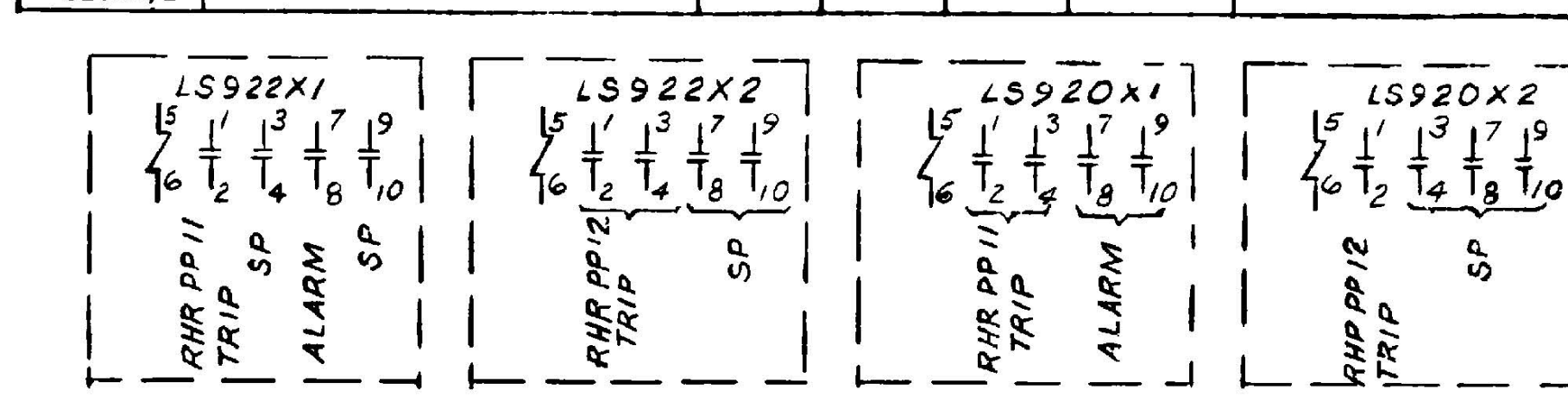
| CONTACTS | POSITION | REMARKS |
|-----------|---------------|-----------|
| | A INT B INT C | |
| 1-11-1 | 1 | X X X X X |
| 2-11-2 | 2 | X X X X X |
| 3-11-3C | 3 | X X X X X |
| 4-11-4 | 4 | X X X X X |
| 5-11-5 | 5 | X X X X X |
| 6-11-6 | 6 | X X X X X |
| 7-11-7C | 7 | X X X X X |
| 8-11-8 | 8 | X X X X X |
| 9-11-9 | 9 | X X X X X |
| 10-11-10 | 10 | X X X X X |
| 11-11-11C | 11 | X X X X X |

| CONTACTS | POSITIONS AFTER TRIP | CLOSE | REMARKS |
|-----------|----------------------|-------|----------|
| 1-11-1 | TRIP | X | THIS DWG |
| 2-11-2 | TRIP | X | THIS DWG |
| 3-11-3C | TRIP | X | SPARE |
| 4-11-4 | TRIP | X | SPARE |
| 5-11-5 | TRIP | X | SPARE |
| 6-11-6 | TRIP | X | SPARE |
| 7-11-7C | TRIP | X | THIS DWG |
| 8-11-8 | TRIP | X | THIS DWG |
| 9-11-9 | TRIP | X | THIS DWG |
| 10-11-10 | TRIP | X | THIS DWG |
| 11-11-11C | TRIP | X | THIS DWG |

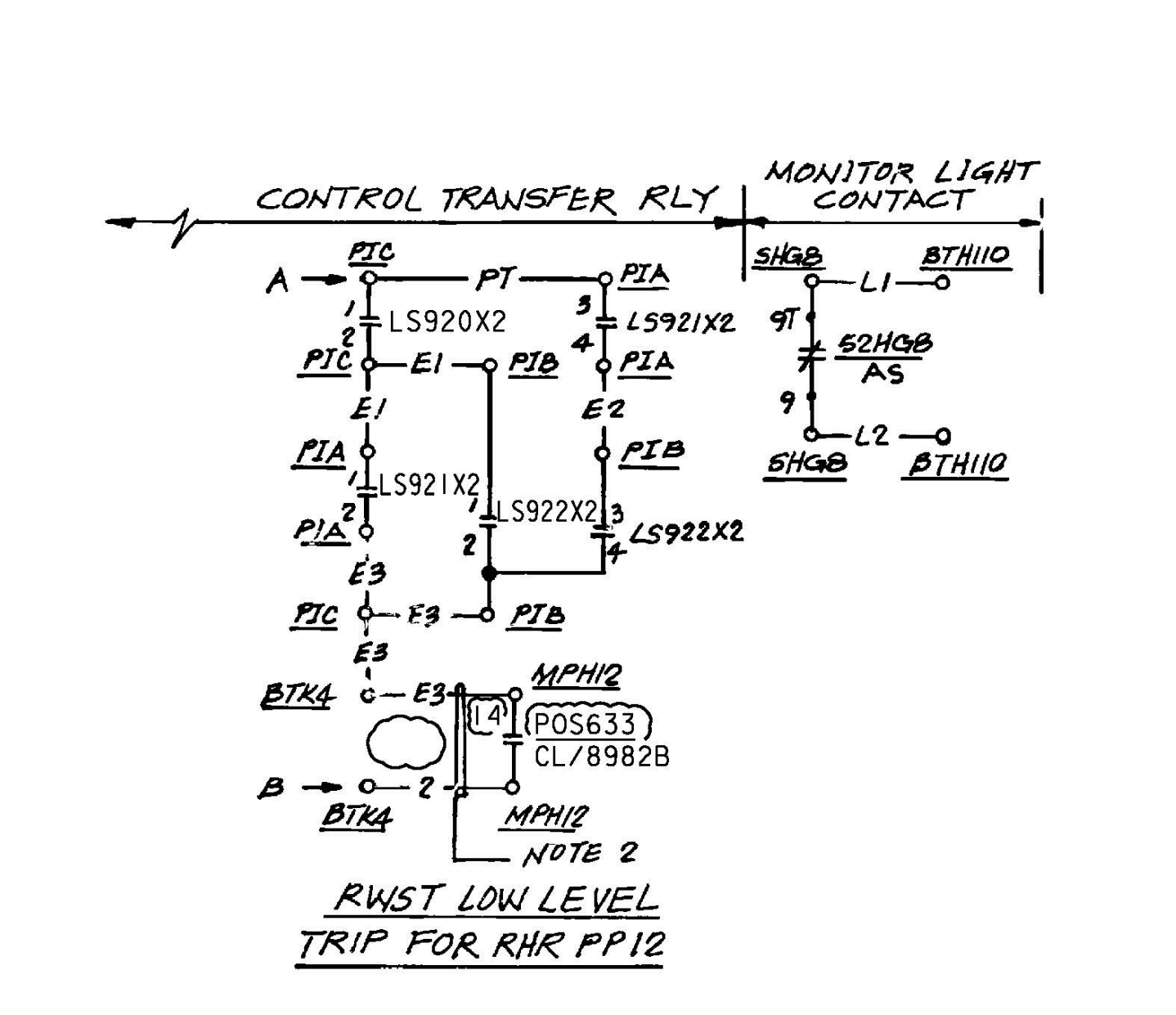
| DEVICE NO | FUNCTION | RATING | MFR | TYPE | CAT/DWG NO | REMARKS |
|----------------|-------------------------------------|----------|-----------------|-----------|------------|--|
| YM200A | CURRENT TRANSDUCER | 5W | ACTON INST | | | |
| YM201A | | | | | | |
| YM200B | SIGNAL ISOLATOR | | | | | |
| YM201B | | | | | | |
| 0100Ω | RESISTOR | | PRECISION POWER | | | |
| 250Ω | | | | | | |
| 2HG8, 2HH11 | SAFETY INJECTION SIG TIMING REL | 120V AC | AGASTAT | ETR | ETRI413B | TIME DELAY 0.55-15 SEC |
| 27X HGT, HHT | 4KV UV TRIP AUXILIARY RELAY | | | | (5) (3) | TRIPS ON UV & TRANS TO DISSE |
| 27DC1HG8, HH11 | CONTROL BUS DC UV REL | 125VDC | GE Co | HGA | | |
| 27DC1HG8, HH11 | CONTROL BUS D.C. UV RELAY | 125VDC | AGASTAT | EGPD | | ALARM ONLY |
| 27AC1, 2, 3 | 120V INSTR AC UV AUX RELAY | 120VAC | C-H | POWERED | D40RR11A | |
| 50HG8, HH11 | GROUND OVERCURRENT SENSOR | | | | (2) | ALARM ONLY |
| 51HG8, HH11 | OVERCURRENT RELAY | | | | (2) | |
| 50X-60, HH11 | OVERCURRENT AUX REL | 24V DC | GE Co | HFA | | |
| 52HG8, HH11 | AIR CIRCUIT BREAKER | | | | (2) | REC N° 663332 |
| 52HG8, HH11 | AIR CIRCUIT BKR CELL INTERLOCK | | | | | PART OF SWITCHGEAR |
| 62HG8, HH11 | BKR CLOSING SPRING TIME DELAY RELAY | 12.5V DC | AGASTAT | ETR | ETRI4D9C | TD 1-30 SEC |
| 43HG8, 43HH11 | CONTROL TRANSFER SWITCH | 126VDC | ELECTRO SWITCH | 2A | 249078-2 | |
| POS 627634 | CNT SUMP RECIRC VALVE POS SW | | | | | CLOSE WHEN VALVE IS FULLY CLOSED OPEN WHEN VALVE IS OPENED REC |
| LS921 922 | RWST LOW LEVEL SW | | MOORE | CPT HLPRG | 17 | CLOSES ON LOW LEVEL NON-FAIL SAFE |
| LS921X1, 2 | | | | | | |
| LS921X1, 2 | RWST LOW LEVEL AUX RELAY | 120VAC | C-H | POWERED | D40RR11A | |



| 120V INSTR AC CKT NO | RWST LEVEL INSTR NO | RHR PPI1 | RHR PPI2 | ALARM CKT | DEV NO | ALARM CKT | PANEL LOC | FUSE # |
|----------------------|---------------------|----------|----------|-----------|--------|-----------|-----------|--------|
| 130Y00 | LS921 | LS921X1 | LS921X2 | AL0915DG | 27AC1 | AV0900DF | PIA | FA-01 |
| 230Y00 | LS922 | LS922X1 | LS922X2 | | 27AC2 | AV0901DG | PIE | FA-01 |
| 327Y00 | LC920A | LS920X1 | LS920X2 | | 27AC3 | AV0902DH | PIE | BA-01 |



| CONTACTS | POSITION | LOCAL | INTER | CONTROL ROOM | REMARKS |
|----------|----------|-------|-------|--------------|----------|
| 12-11-14 | 1 | X | | | THIS DWG |
| 11-11-13 | 2 | X | | | THIS DWG |
| 16-11-18 | 3 | X | | | SPARE |
| 15-11-17 | 4 | X | | | THIS DWG |
| 22-11-24 | 5 | X | | | |
| 21-11-23 | 6 | X | | | |
| 26-11-28 | 7 | X | | | |
| 25-11-27 | 8 | X | | | |
| 32-11-34 | 9 | X | | | SPARE |
| 31-11-33 | 10 | X | | | THIS DWG |
| 36-11-38 | 11 | X | | | SPARE |
| 35-11-37 | 12 | X | | | THIS DWG |
| 42-11-43 | 13 | X | | | SPARE |
| 41-11-42 | 14 | X | | | THIS DWG |
| 46-11-48 | 15 | X | | | SPARE |
| 45-11-47 | 16 | X | | | THIS DWG |
| 52-11-54 | 17 | X | | | SPARE |
| 51-11-53 | 18 | X | | | THIS DWG |
| 56-11-58 | 19 | X | | | SPARE |
| 55-11-57 | 20 | X | | | THIS DWG |
| 62-11-64 | 21 | X | | | ALARM |
| 61-11-63 | 22 | X | | | THIS DWG |
| 68-11-68 | 23 | X | | | SPARE |
| 65-11-67 | 24 | X | | | THIS DWG |
| 72-11-74 | 25 | X | | | SPARE |
| 71-11-73 | 26 | X | | | THIS DWG |
| 76-11-78 | 27 | X | | | SPARE |
| 75-11-77 | 28 | X | | | THIS DWG |



| MOTOR | MOTOR LOC NO | MOTOR NO | CIRCUIT NO | BUS SECTION | DC CIRCUIT NO | 120VAC CIRCUIT NO | BUS UNDERVOLTAGE RELAY | LOCATION | CONTACT TRIP | TRANSFER SWITCH | ALARM CIRCUIT NO | CONTROL BUS DC UV | BREAKER CLOSED | RHR PUMP AMPS | COMPUTER CKT NOS. | BKR AUX SW | SIS TIME DELAY RELAY | FUSE SIZE | CURRENT TRANSDUCER | SIGNAL ISOLATOR | |
|-------|--------------|----------|------------|-------------|---------------|-------------------|------------------------|----------|--------------|-----------------|------------------|-------------------|----------------|---------------|-------------------|------------|----------------------|-----------|--------------------|-----------------|--------|
| N° 11 | MHG8 | 52HG8 | 908H00 | G | 213D | 223Y00 | 27X HGT | SHG12 | 32-11-38 | 43HG8/TS | A10600DE | A10602DG | AV4307DG | CY0600DG | CY1001A | FCV 641A | 2HG8 SHG6 | 1-11-5 | 3.5A | YM200A | YM200B |
| N° 12 | MHH11 | 52HH11 | H11H00 | H | 314D | 3A13Y00 | 27X HHT | SHH13 | 26-11-24 | 43HH11/TS | A10600DH | A10603DH | AV4207DH | CY0601DH | CY1000A | FCV 641B | 2HH11 SHH11 | 1-11-11 | 3.0A | YM201A | YM201B |

- NOTES
- 1 WIRES E3 & 2 BET BTK3 & MPOS8 LISTED UNDER CKT G58P07. #103058
 - 2 WIRES E3 & 2 BET BTK4 & MPH12 LISTED UNDER CKT H12P07. #103058
- REFERENCES
1. DESCRIPTION OF ELEC SCHEM DIAG, SYMBOLS, & CKT DESIGNATIONS DWG NO 030003
 2. SINGLE LINE METER & RELAY 4160V SYSTEM (BUS F, G, H) DWG NO 437533
 3. SCHEMATIC DIAGRAM POTENTIAL & SYNCHRONIZING 4160V SYS DWG NO 437614
 4. SCHEMATIC DIAGRAM 4160V BUS F AUTOMATIC TRANSFER DWG NO 437625
 5. SCHEMATIC DIAGRAM 4160V BUS G AUTOMATIC TRANSFER DWG NO 437626
 6. SCHEMATIC DIAGRAM 4160V BUS DIFFERENTIAL DWG NO 437617
 7. SINGLE LINE METER & RELAY 125/250V DC SYSTEM DWG NO 437546
 8. SCHEMATIC DIAGRAM 4160V BUS H AUTOMATIC TRANSFER DWG NO 437627
 9. EQUIPMENT LOCATION NO'S DWG NO 101900
 10. PIPING SCHEMATIC RESIDUAL HEAT REMOVAL SYSTEM DWG NO 102010
 11. LOGIC DIAGRAM RESIDUAL HEAT REMOVAL PUMPS DWG NO 19410
 12. SCHEMATIC DIAGRAM MAIN ANNUNCIATOR DWG NO 501121
 13. SCHEMATIC DIAGRAM MONITOR LIGHT BOX C DWG NO 437698
 14. SCHEMATIC DIAGRAM RHR MOV'S DWG NO 437592
 15. SCHEMATIC DIAGRAM 4160V BUS F AUTOMATIC TRANSFER DWG NO 437605
 16. SCHEMATIC DIAGRAM 4160V BUS G AUTOMATIC TRANSFER DWG NO 437605
 17. INSTRUMENT SCHEMATIC LEVEL INSTR SYSTEM SH 17A DWG NO 102032
 18. SCHEMATIC DIAGRAM MAIN ANNUNCIATOR DWG NO 437700
 19. SCHEMATIC DIAGRAM MAIN ANNUNCIATOR DWG NO 501136
 20. SCHEMATIC DIAGRAM MAIN ANNUNCIATOR DWG NO 501137
 21. P.D.S. CONTROL CIRCUITS SCHEMATIC DIAGRAM REC. DWG NO. 6009838-69
 22. SCHEMATIC DIAGRAM AUX & FUEL HANDLING BLDG VENTILATION SYS (POV1) DWG. 44644A
 23. SCHEMATIC DIAGRAM AUX & FUEL HANDLING BLDG VENTILATION SYS (POV2) DWG. 44645I
- EQUIPMENT LOCATION NUMBERS
- CNR - CONTROL BOARD RESIDUAL HEAT
 MHG8 - RESIDUAL HEAT REMOVAL PUMP NO 11
 SHG8 - SWITCHGEAR 4KV BUS G CUBICLE B
 BTH110 - TERMINAL BOX AREA H" NO 110
 RHG - ENG SAFEGUARD RELAY BOARD BUS G
 PIA - INSTRUMENT PANEL A

RASTER=437591-1-0.dgn
 DUN 437592-2.dgn
 CND 437592-3.dgn

KEY DWG. SECTION 4

| DATE | REVISION DESCRIPTION |
|------------|------------------------|
| 03-13-2019 | Revised Per DDN-211830 |
| D.D. ZNS4 | |
| R.E. FXC2 | |
| I.V. N/A | |
| P.E. N/A | |

| UNIT I | DWG SCALES |
|--|------------------------|
| ELECTRICAL SCHEMATIC DIAGRAM RESIDUAL HEAT REMOVAL PUMPS | BILL OF MAT'L: SUPDS01 |
| PACIFIC GAS AND ELECTRIC COMPANY SAN FRANCISCO, CALIFORNIA | DWG NO. 437591 |
| | SHEET 1 |
| | PAGE 0 |
| | REV 26 |

NUCLEAR SAFETY RELATED

P.G. & E. SYSTEM PHASE SEQUENCE A-C-B