
AUTOMATIC TRANSFER SWITCH WIRING DIAGRAMS

CATALOG NUMBER **ATSBM** ONLY

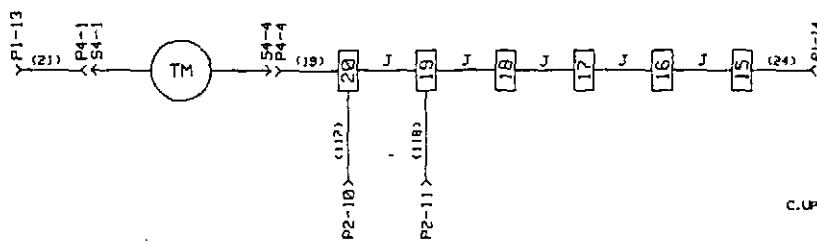
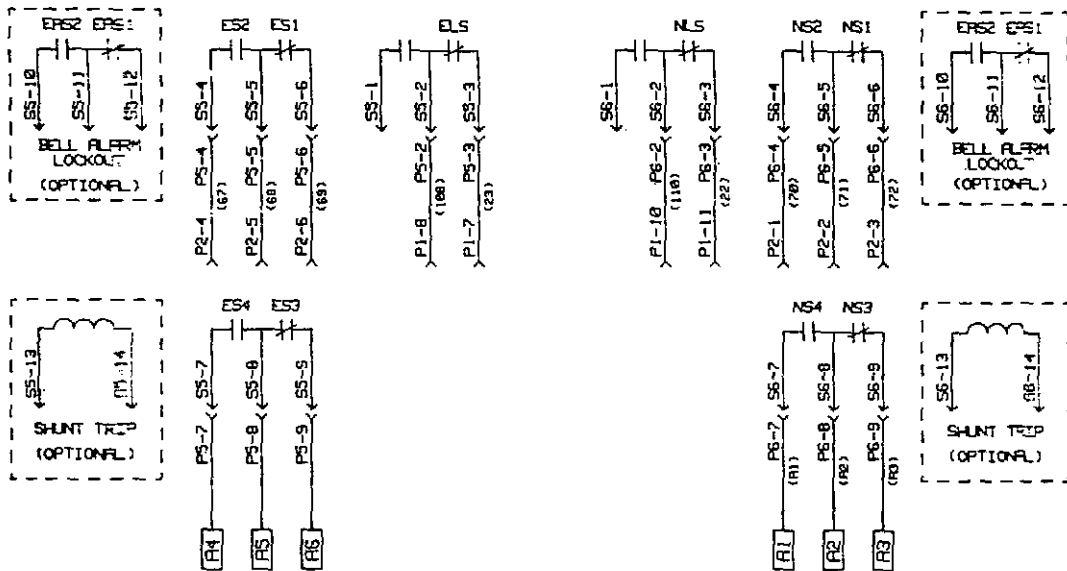
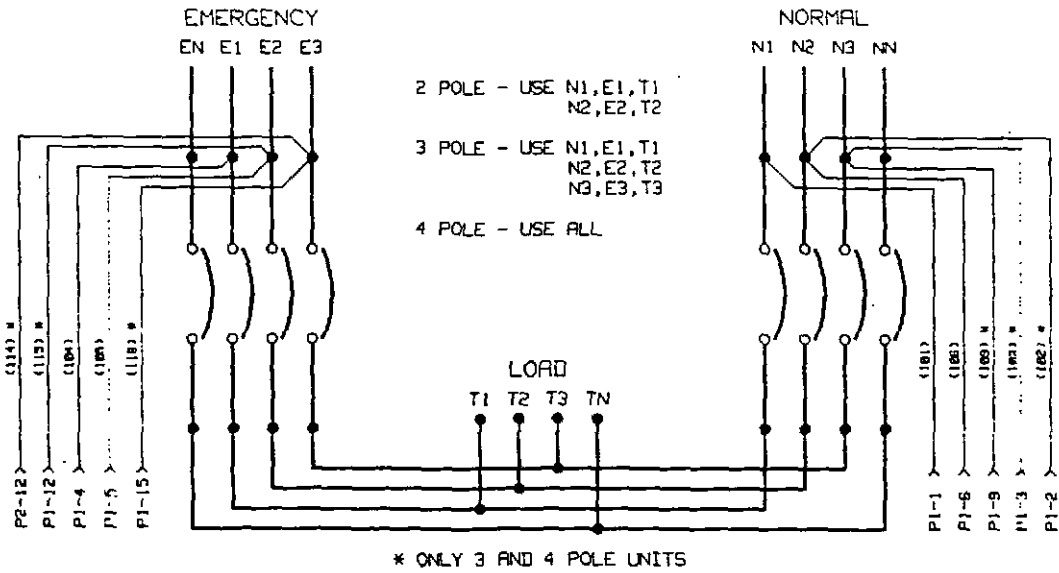
SOLID STATE TYPE SWITCH

SHOP ORDER: _____

WESTINGHOUSE ELECTRIC CORPORATION
250 WESTINGHOUSE DRIVE
LONDON, KY 40741

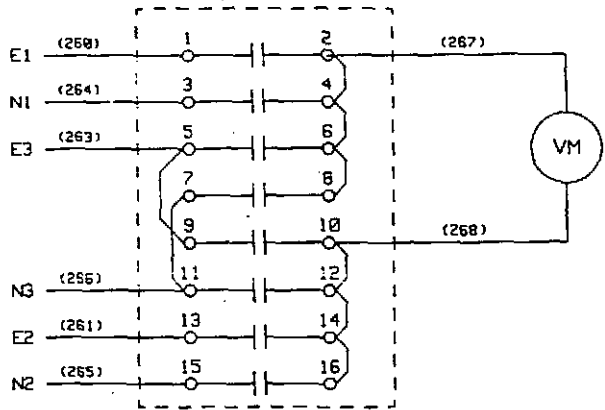
SWITCHING PANEL

SERIES C ONLY (150 AMP OR HIGHER)



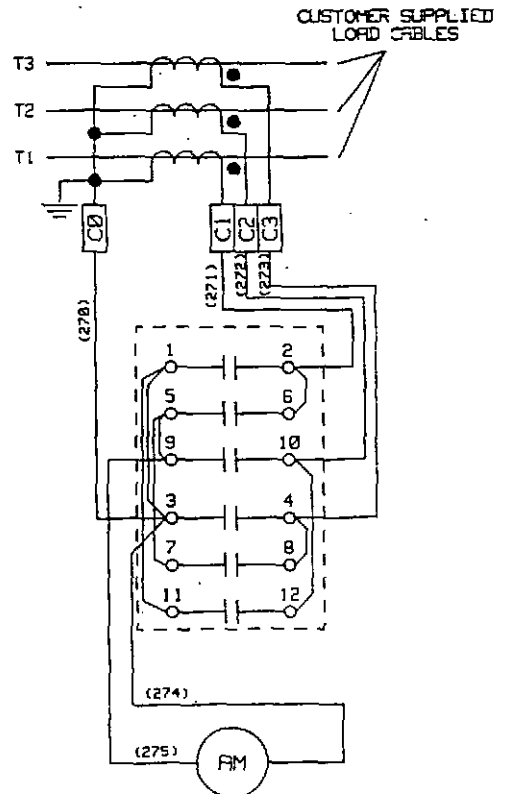
OPTION 18E - VOLTMETER

	HANDLE POSITION					
	NORMAL			EMERGENCY		
	1-3	2-3	1-2	1-2	2-3	1-3
1 - 2				X	X	
3 - 4	X		X			
5 - 6					X	
7 - 8		X				
9 - 10						X
11 - 12	X					
13 - 14				X	X	
15 - 16		X	X			

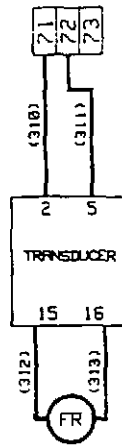


OPTION 18F - AMMETER

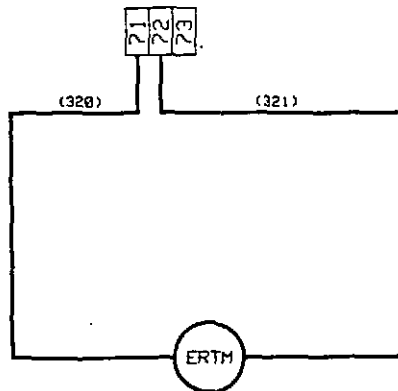
	HANDLE POSITION						
	OFF	-	1	-	2	-	3
1 - 2	X	X	X	X	X	X	X
3 - 4	X	X	X	X	X	X	X
5 - 6	X	X	X	X	X	X	X
7 - 8	X	X	X	X	X	X	X
9 - 10	X	X	X	X	X	X	X
11 - 12	X	X	X	X	X	X	X



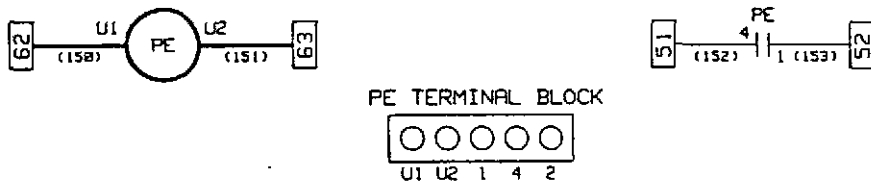
OPTION 18G - FREQUENCY METER



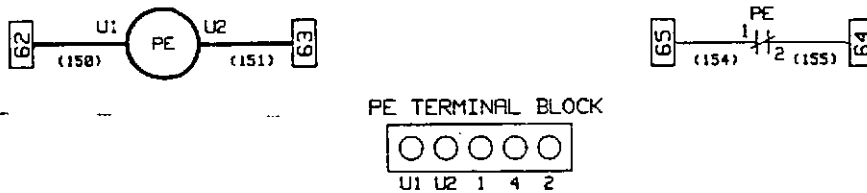
OPTION 18H - RUNNING TIME METER



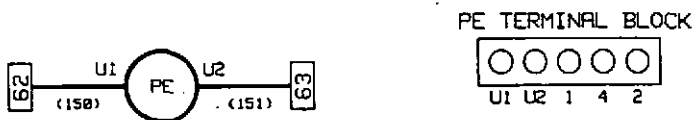
- OPTION 23C - PLANT EXERCISER
RUN ENGINE AT SPECIFIED TIME - NO LOAD



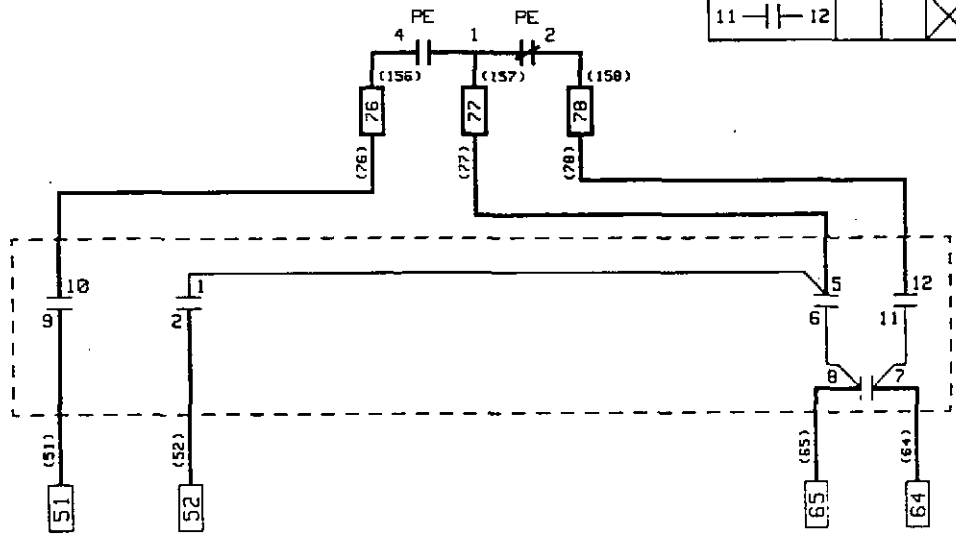
- OPTION 23D - PLANT EXERCISER
RUN ENGINE AT SPECIFIED TIME - LOAD



- OPTION 23G - PLANT EXERCISER
RUN ENGINE AT SPECIFIED TIME - LOAD OR NO LOAD
(SWITCH SELECTABLE)

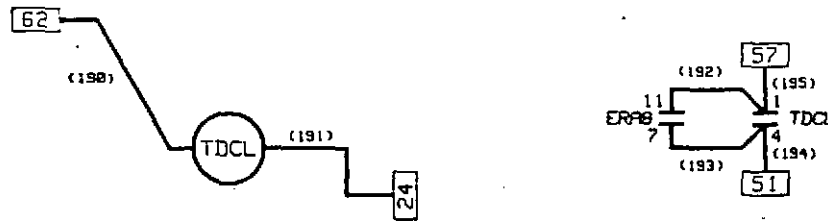


	ENGINE RUN	BYPASS	LOAD TEST
1 - 2	X		
5 - 6			X
7 - 8	X	X	
9 - 10	X	X	
11 - 12			X

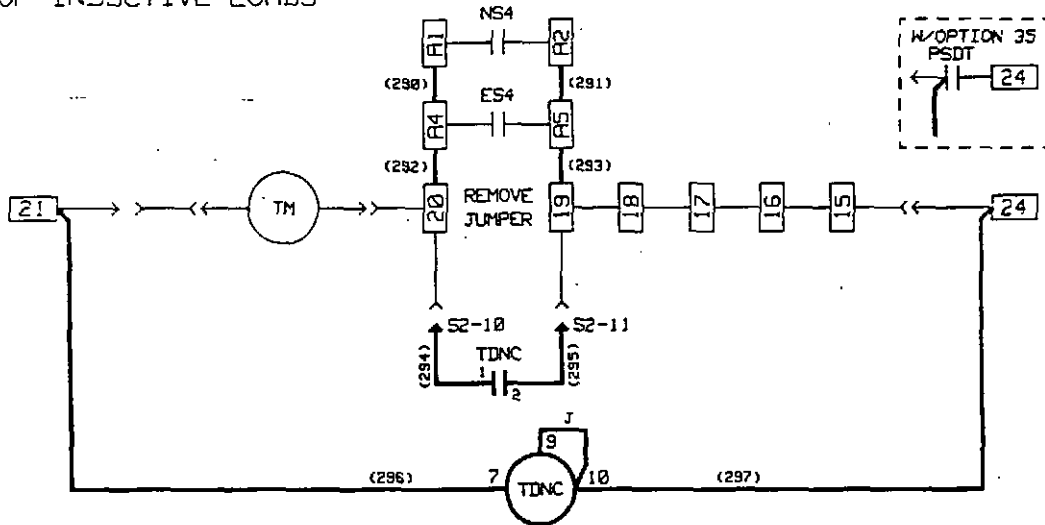


REMOVE JUMPER 64-65

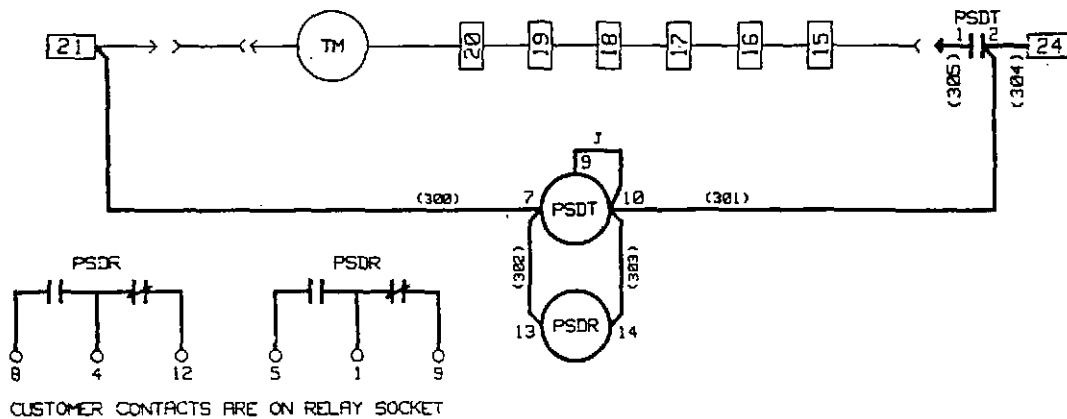
- OPTION 30 - TIME DELAY CRANK LIMITER (TDCL)
INTERUPTS ENGINE START CIRCUIT IF VOLTAGE DOES NOT APPEAR WITHIN A PRESELECTED TIME



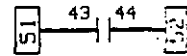
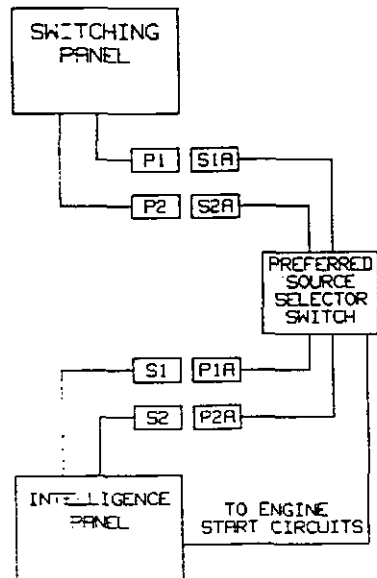
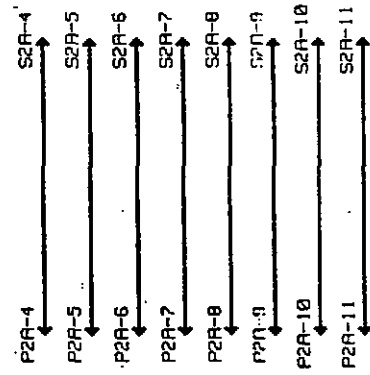
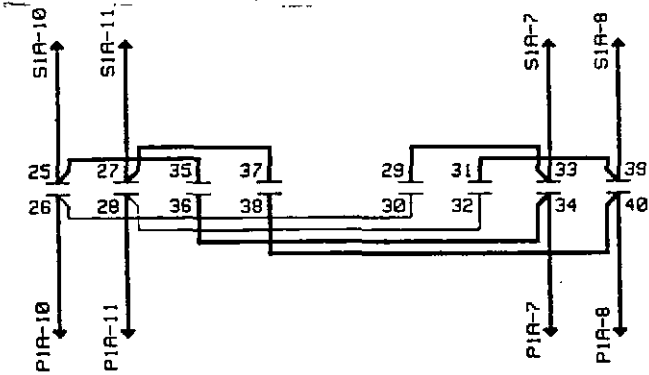
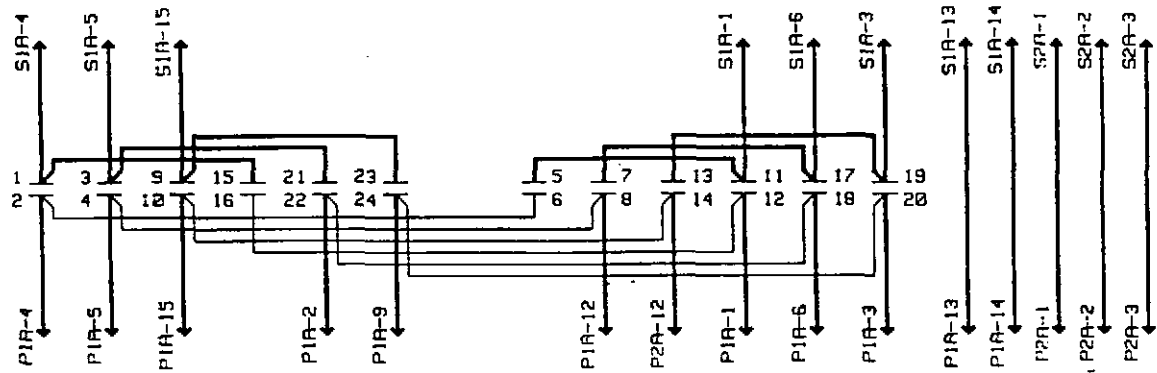
- OPTION 32 - TIME DELAY NEUTRAL (TDN)
PROVIDES A TIME DELAY IN THE NEUTRAL POSITION WHEN THE LOAD IS TRANSFERRED IN EITHER DIRECTION TO PREVENT EXCESSIVE INRUSH CURRENTS DUE TO OUT-OF-PHASE SWITCHING OF INDUCTIVE LOADS



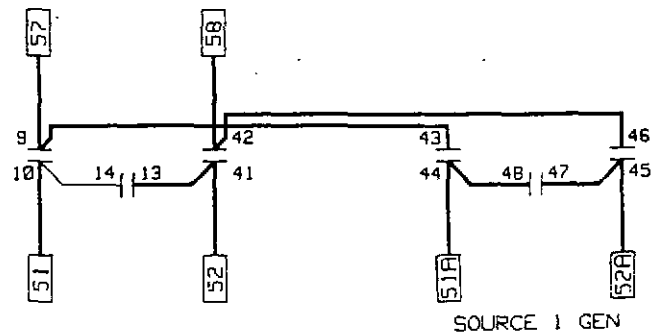
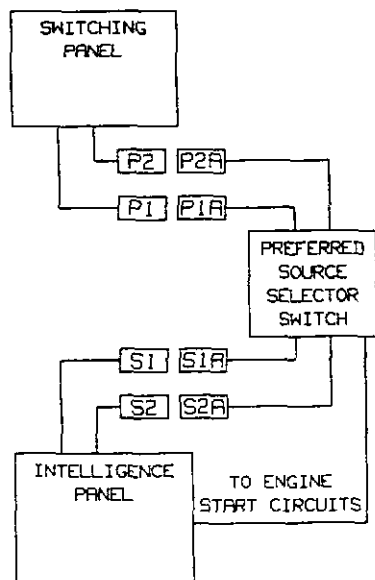
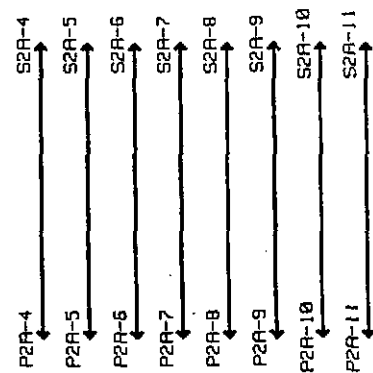
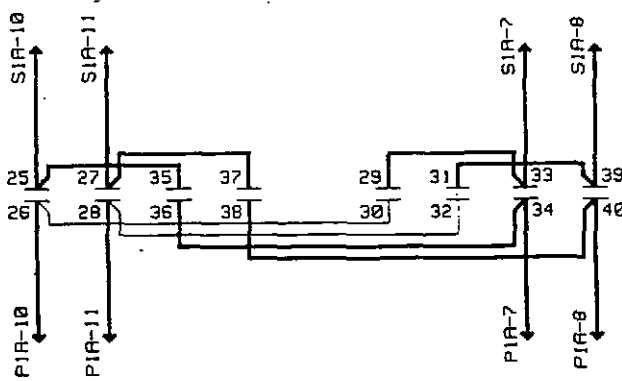
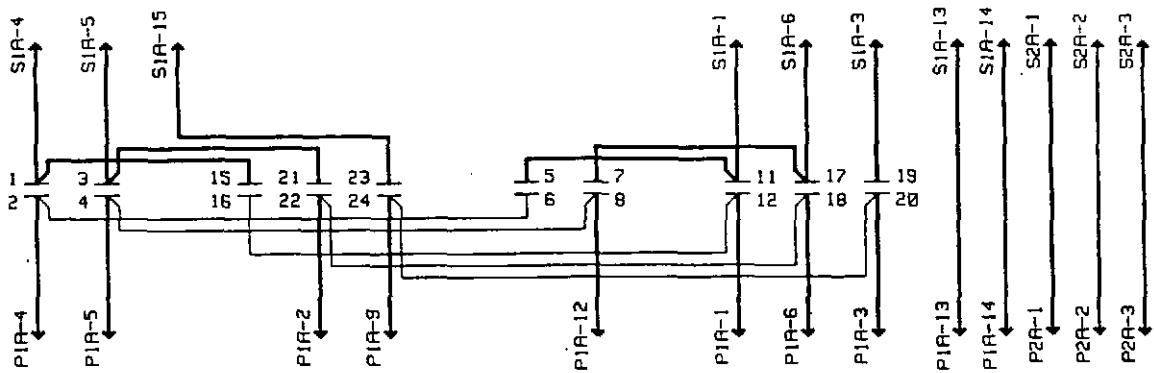
- OPTION 35 - PRETRANSFER SIGNAL DEVICE
RELAY CONTACTS CHANGE STATE PRIOR TO TRANSFER WITH PRESET TIME DELAY



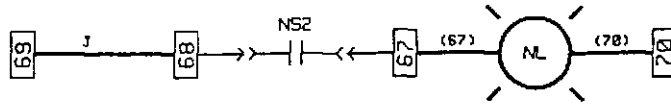
OPTION 12 A/B - PREFERRED SOURCE SELECTOR SWITCH



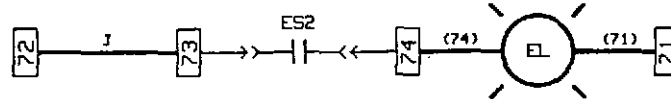
OPTION 10 C/D - PREFERRED SOURCE SELECTOR SWITCH
DUAL GENERATOR



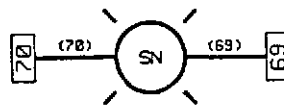
- OPTION 12A/C - NORMAL POSITION LIGHT
INDICATES LOAD IS CONNECTED TO NORMAL



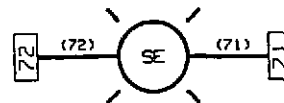
- OPTION 12B/D - EMERGENCY POSITION LIGHT
INDICATES LOAD IS CONNECTED TO EMERGENCY



- OPTION 12E/G - NORMAL SOURCE LIGHT
INDICATES NORMAL SOURCE AVAILABLE

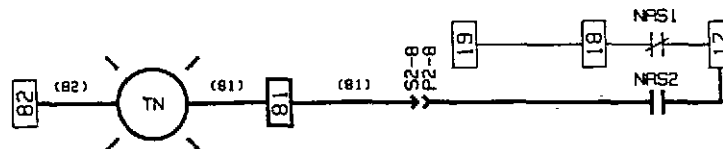


- OPTION 12F/H - EMERGENCY SOURCE LIGHT
INDICATES EMERGENCY SOURCE AVAILABLE



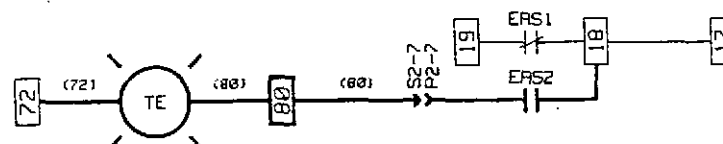
- OPTION 12J/L - NORMAL TRIPPED INDICATOR
INDICATES OVERLOAD TRIP ON NORMAL

NOTE: ONLY AVAILABLE WHEN
OPTION 11F IS SUPPLIED



- OPTION 12K/M - EMERGENCY TRIPPED INDICATOR
INDICATES OVERLOAD TRIP ON EMERGENCY

NOTE: ONLY AVAILABLE WHEN
OPTION 11F IS SUPPLIED



6 POSITION CARD CAGE

NORMAL		ENG	EMERGENCY		
1	2	3	4	5	6
UNDERVOLTAGE (OPTION 2E)	DRIVER (OPTION 3)	BLANK (OPTION 4)	DRIVER (OPTION 1)	BLANK (OPTION 5)	BLANK (OPTION 5)

9 POSITION CARD CAGE

NORMAL			ENG	EMERGENCY				
1	2	3	4	5	6	7	8	9
UNDERVOLTAGE (OPTION 2E)	BLANK (OPTION 2E)	BLANK (OPTION 2E)	DRIVER (OPTION 3)	BLANK (OPTION 4)	DRIVER (OPTION 1)	BLANK (OPTION 5)	BLANK (OPTION 5)	BLANK (OPTION 5)

OPTION 1 - TIME DELAY NORMAL TO EMERGENCY (TDNE)

6 POSITION CARD CAGE

REPLACE DRIVER CARD IN POSITION 4 WITH TIMER CARD -

9 POSITION CARD CAGE

REPLACE DRIVER CARD IN POSITION 6 WITH TIMER CARD

OPTION 3 - TIME DELAY EMERGENCY TO NORMAL (TDEN)

6 POSITION CARD CAGE

REPLACE DRIVER CARD IN POSITION 2 WITH TIMER CARD

9 POSITION CARD CAGE

REPLACE DRIVER CARD IN POSITION 4 WITH TIMER CARD

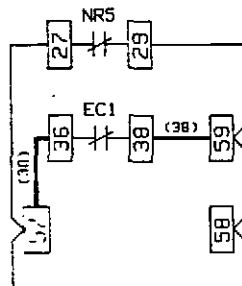
OPTION 4 - TIME DELAY ENGINE COOLOFF (TDEC)

6 POSITION CARD CAGE

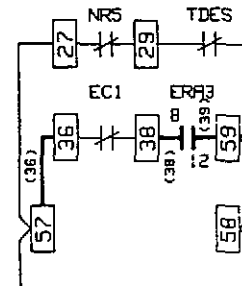
REPLACE BLANK CARD IN POSITION 3 WITH TIMER CARD
ADD EC RELAY TO MOTHERBOARD

9 POSITION CARD CAGE

REPLACE BLANK CARD IN POSITION 5 WITH TIMER CARD
ADD EC RELAY TO MOTHERBOARD



OPTION 4 ONLY



OPTION 4 WITH 2 **
** REQUIRES OPTION 14E

OPTION 5 - EMERGENCY SENSING

6 POSITION CARD CAGE

REPLACE BLANK CARD IN POSITION 5 OR 6 WITH APPROPRIATE SENSING CARD

9 POSITION CARD CAGE

REPLACE BLANK CARD IN POSITION 7, 8 OR 9 WITH APPROPRIATE SENSING CARD

OPTION 2E - NORMAL SENSING

6 POSITION CARD CAGE

NOT AVAILABLE

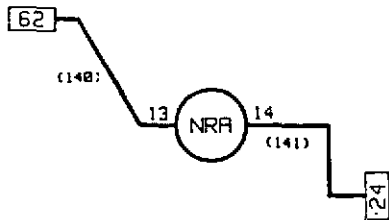
9 POSITION CARD CAGE

REPLACE BLANK CARD IN POSITION 2 OR 3 WITH APPROPRIATE SENSING CARD

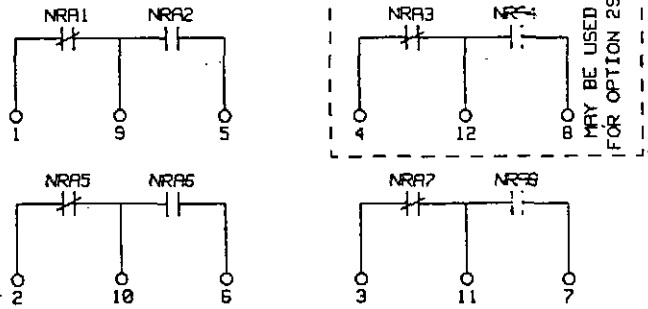


OPTION 14C - NORMAL AUXILIARY RELAY (NRA)

PROVIDES ADDITIONAL RELAY CONTACTS ON NORMAL



NOTE: CUSTOMER CONTACTS ARE ON RELAY SOCKET
SEE SOCKET DIAGRAM BELOW

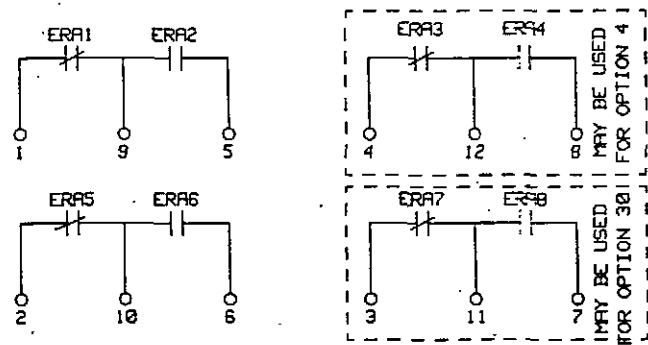


OPTION 14D - EMERGENCY AUXILIARY RELAY (ERA)

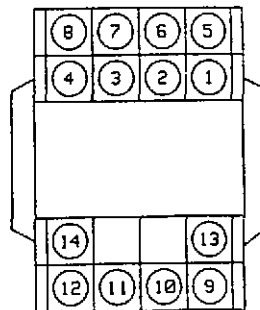
PROVIDES ADDITIONAL RELAY CONTACTS ON EMERGENCY



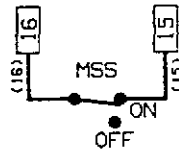
NOTE: CUSTOMER CONTACTS ARE ON RELAY SOCKET
SEE SOCKET DIAGRAM BELOW



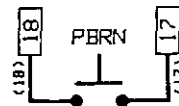
NRA - ERA SOCKET DIAGRAM



- OPTION 9 - MAINTENANCE SELECTOR SWITCH
 PROVIDES A MOTOR CIRCUIT DISCONNECT TO
 PREVENT TRANSFER DURING ATS MAINTENANCE



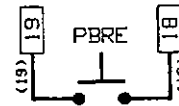
- OPTION 11B/D - PUSHBUTTON RESET NORMAL
 PROVIDES PUSHBUTTON RESET OF LOCKOUT



NOTE: ONLY AVAILABLE IF OPTION 11F
 IS PROVIDED

NOTE: NOT AVAILABLE ON 100 AMP

- OPTION 11C/E - PUSHBUTTON RESET EMERGENCY
 PROVIDES PUSHBUTTON RESET OF LOCKOUT

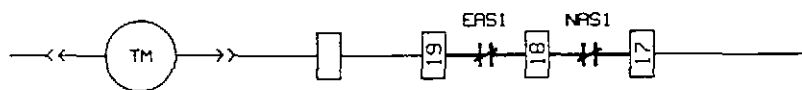


NOTE: ONLY AVAILABLE IF OPTION 11F
 IS PROVIDED

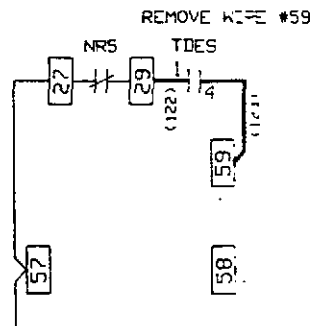
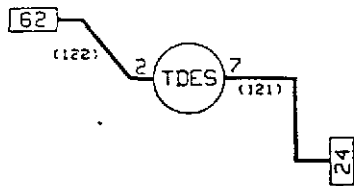
NOTE: NOT AVAILABLE ON 100 AMP

- OPTION 11F - TRIP LOCKOUT
 PREVENTS TRANSFER AFTER BREAKER TRIP
 DUE TO OVERLOAD CONDITION
 (PROVIDED AS STANDARD WITH THERMAL
 MAGNETIC TRIP UNITS)

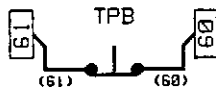
NOTE: NOT USED ON 100 AMP



OPTION 2 - TIME DELAY ENGINE START (TDES)

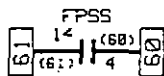


OPTION 6A/B - TEST PUSHBUTTON (TPB)



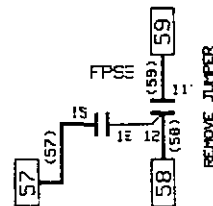
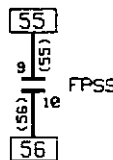
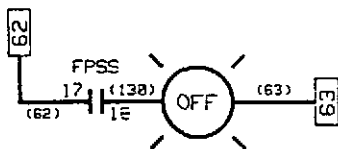
REPLACES STANDARD TEST SELECTOR SWITCH

OPTION 7C/D - FOUR POSITION SELECTOR SWITCH

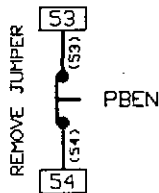


REPLACES STANDARD TEST SELECTOR SWITCH

FPSS	1-9 16T	1-11 12T	1-14 14T	1-15 16T	1-17 18T
TEST	X	X	X	X	X
AUTO	X	X	X	X	X
OFF	X	X	X	X	X
ENG. RUN	X	X	X	X	X



OPTION 8A/C - BYPASS TDEN TIMER (PBEN)



OPTION 8B/D - BYPASS TDNE TIMER (PBNE)

