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# MANUAL TRANSFER SWITCH WIRING DIAGRAMS

CATALOG NUMBER **MTSBM** ONLY

SOLID STATE TYPE SWITCH

SHOP ORDER: \_\_\_\_\_

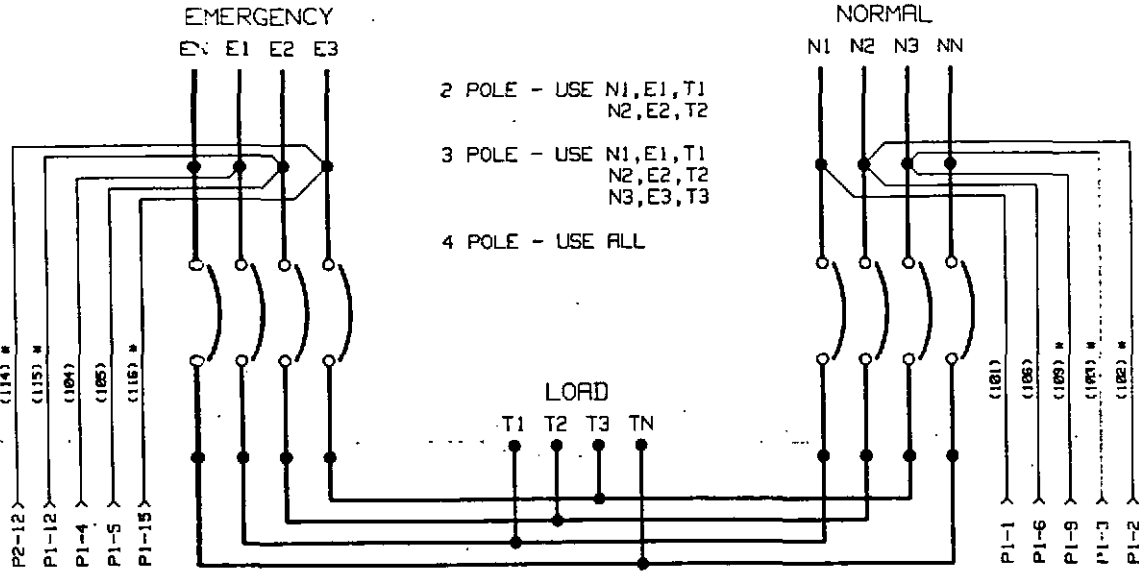
WESTINGHOUSE ELECTRIC CORPORATION  
250 WESTINGHOUSE DRIVE  
LONDON, KY 40741

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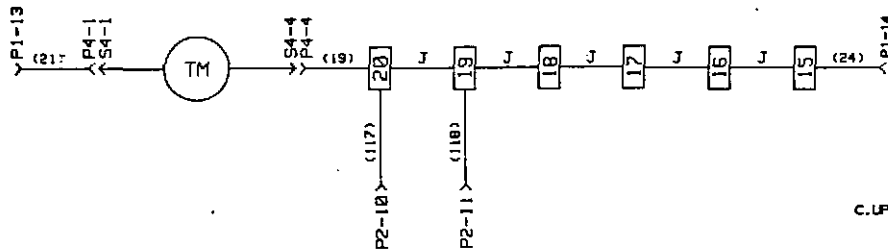
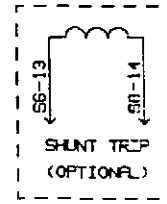
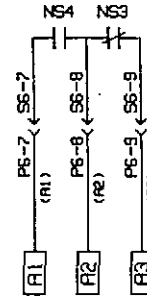
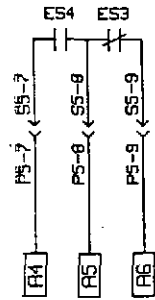
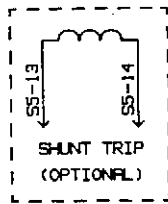
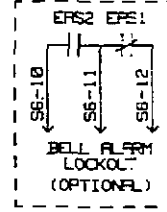
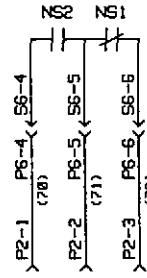
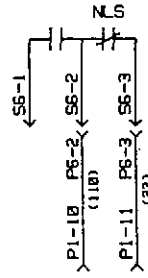
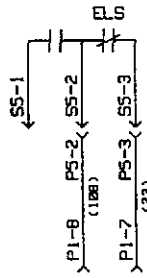
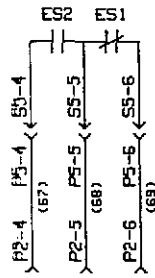
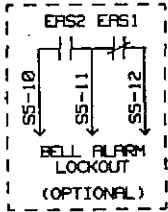


# SWITCHING PANEL

SERIES C ONLY (150 AMP OR HIGHER)



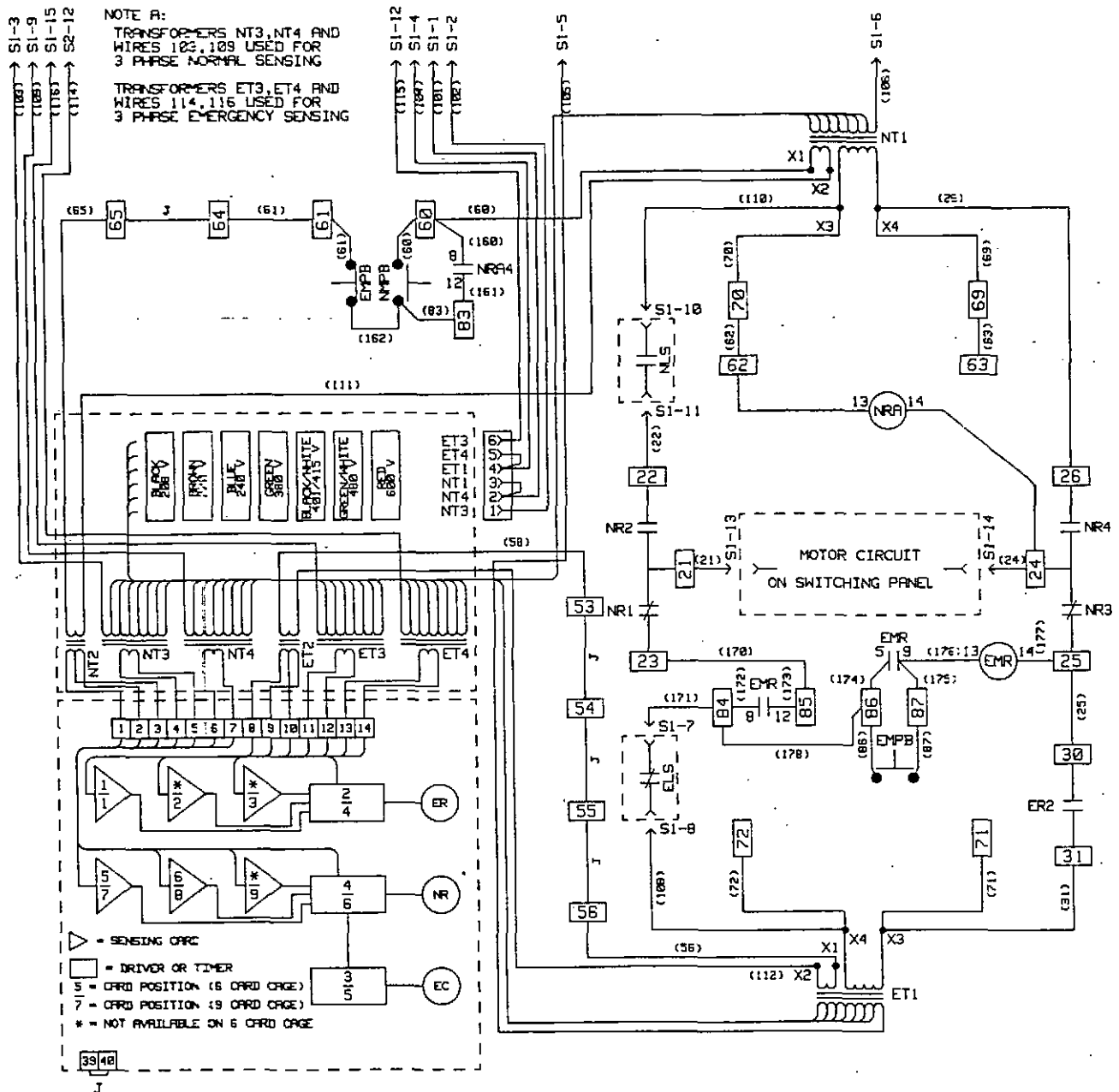
\* ONLY 3 AND 4 POLE UNITS



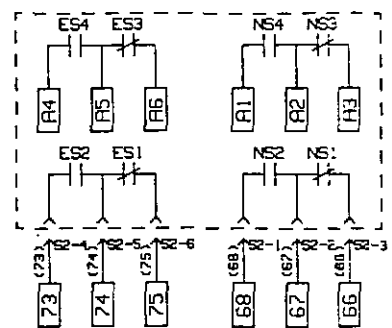
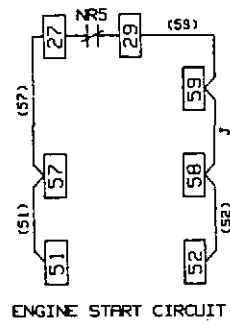
# SOLID STATE INTELLIGENCE PANEL

NOTE A

NOTE A:  
 TRANSFORMERS NT3, NT4 AND WIRES 103, 109 USED FOR 3 PHASE NORMAL SENSING  
 TRANSFORMERS ET3, ET4 AND WIRES 114, 116 USED FOR 3 PHASE EMERGENCY SENSING



- ▽ = SENSING CIRC
- = DRIVER OR TIMER
- 5 = CARD POSITION (6 CARD CAGE)
- 7 = CARD POSITION (9 CARD CAGE)
- \* = NOT AVAILABLE ON 6 CARD CAGE



6 POSITION CARD CAGE

NORMAL		ENG	EMERGENCY		
1	2	3	4	5	6
BLANK (OPTION 26)	DRIVER	BLANK	DRIVER	BLANK (OPTION 5)	BLANK (OPTION 5)

9 POSITION CARD CAGE

NORMAL				ENG	EMERGENCY			
1	2	3	4	5	6	7	8	9
BLANK (OPTION 26)	BLANK (OPTION 26)	BLANK (OPTION 26)	DRIVER	BLANK	DRIVER	BLANK (OPTION 5)	BLANK (OPTION 5)	BLANK (OPTION 5)



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 26 - NORMAL SENSING

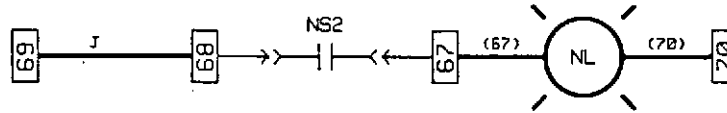
6 POSITION CARD CAGE

REPLACE BLANK CARD IN POSITION 1  
WITH APPROPRIATE SENSING CARD

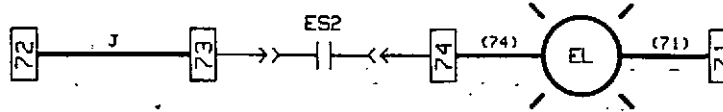
9 POSITION CARD CAGE

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

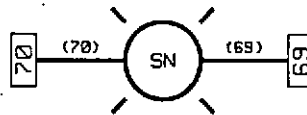
- OPTION 12A/C - NORMAL POSITION LIGHT  
INDICATES LOAD IS CONNECTED TO NORMAL



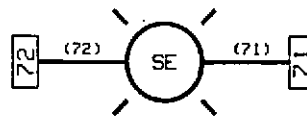
- OPTION 12B/D - EMERGENCY POSITION LIGHT  
INDICATES LOAD IS CONNECTED TO EMERGENCY



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

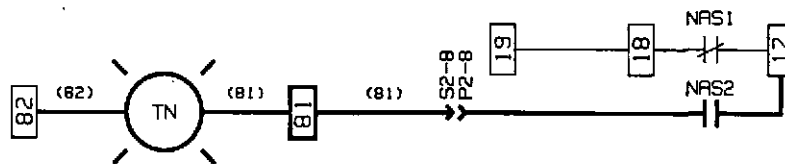


- OPTION 12F/H - EMERGENCY SOURCE LIGHT  
INDICATES EMERGENCY SOURCE AVAILABLE



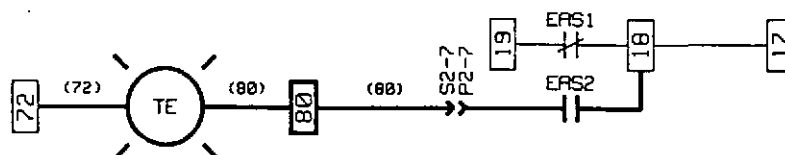
- OPTION 12J/L - NORMAL TRIPPED INDICATOR  
INDICATES OVERLOAD TRIP ON NORMAL

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

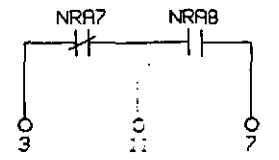
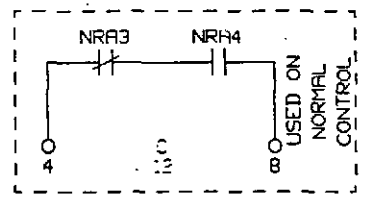
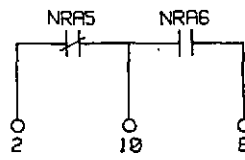
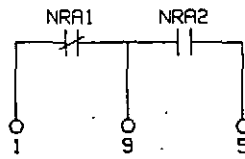
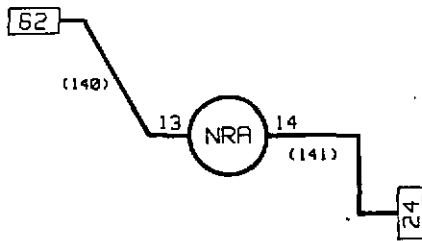




### OPTION 14C - NORMAL AUXILIARY RELAY (NRA)

PROVIDES ADDITIONAL RELAY CONTACTS ON NORMAL

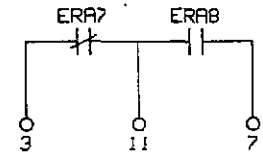
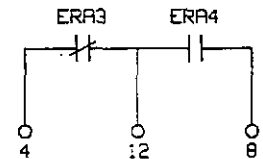
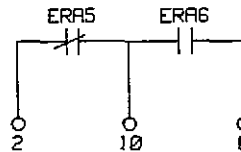
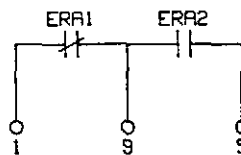
NOTE: CUSTOMER CONTACTS ARE ON RELAY SOCKET  
SEE SOCKET DIAGRAM BELOW



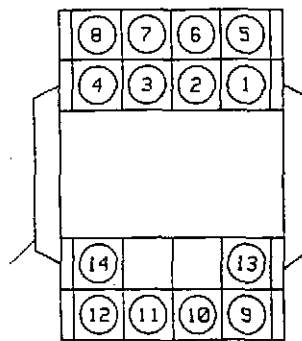
### OPTION 14D - EMERGENCY AUXILIARY RELAY (ERA)

PROVIDES ADDITIONAL RELAY CONTACTS ON EMERGENCY

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

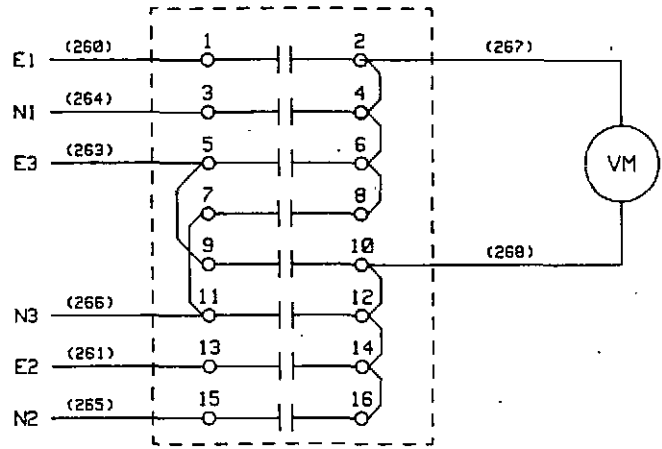


NRA - ERA SOCKET DIAGRAM



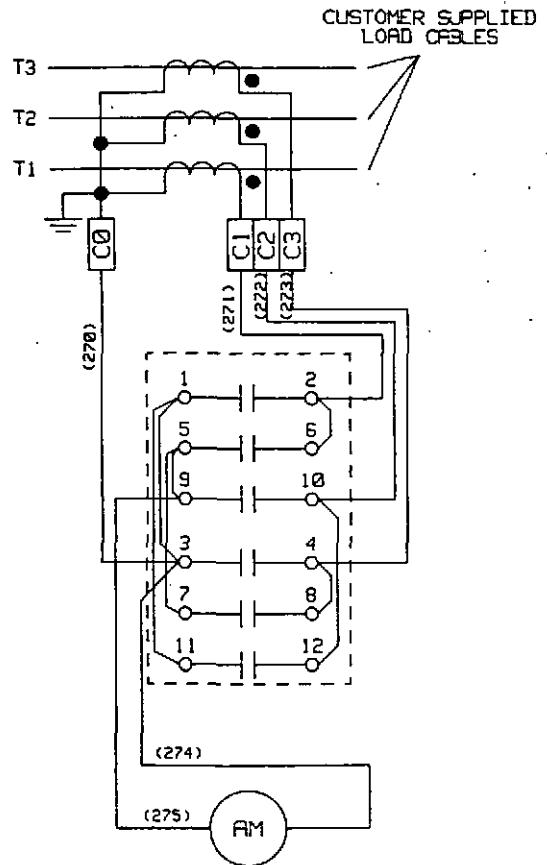
OPTION 18E - VOLTMETER

	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			

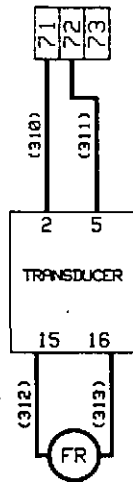


OPTION 18F - AMMETER

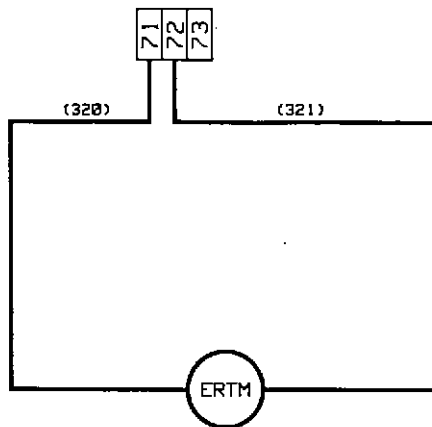
	HANDLE POSITION							
	OFF	-	1	-	2	-	3	-
1 — — 2	X	X	X	X	X	X	X	X
3 — — 4	X	X	X	X	X	X	X	X
5 — — 6	X	X	X	X	X	X	X	X
7 — — 8	X	X	X	X	X	X	X	X
9 — — 10	X	X	X	X	X	X	X	X
11 — — 12	X	X	X	X	X	X	X	X



OPTION 18G - FREQUENCY METER

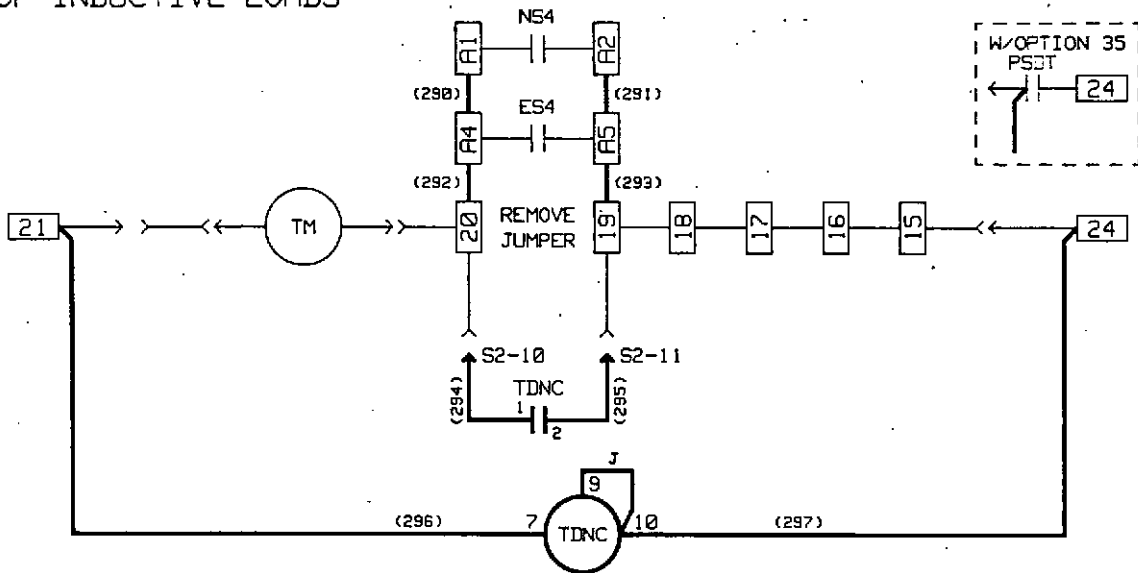


OPTION 18H - RUNNING TIME METER

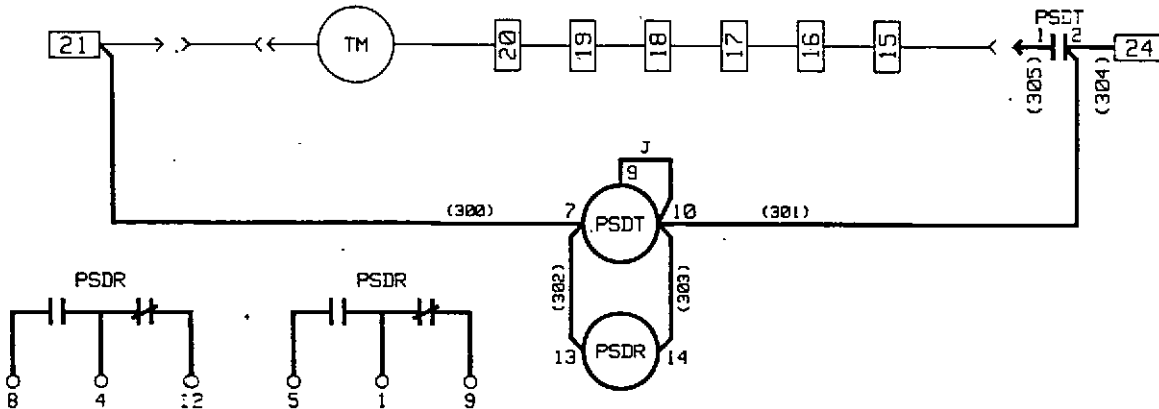




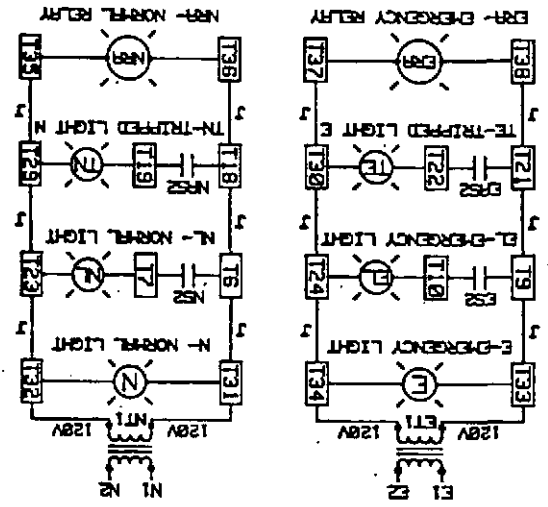
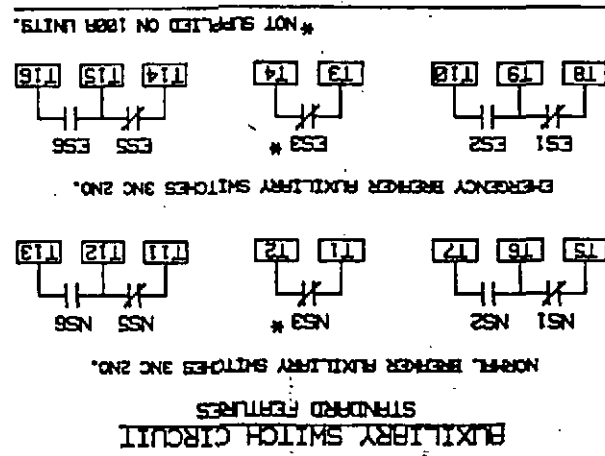
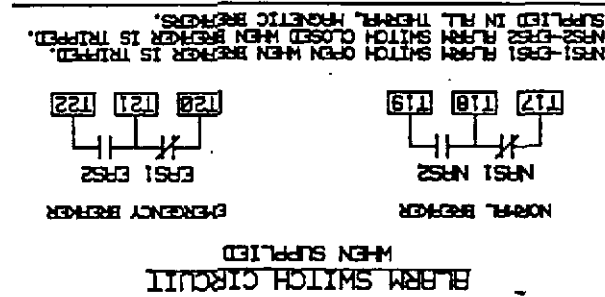
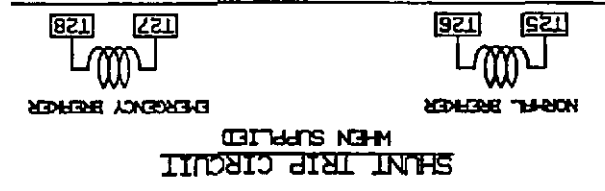
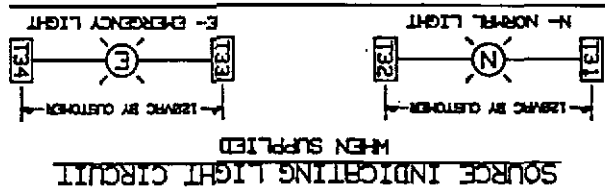
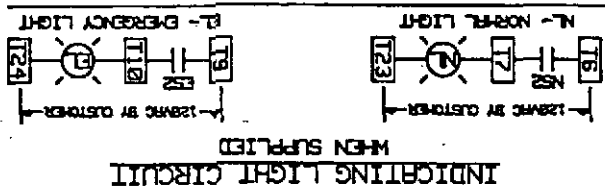
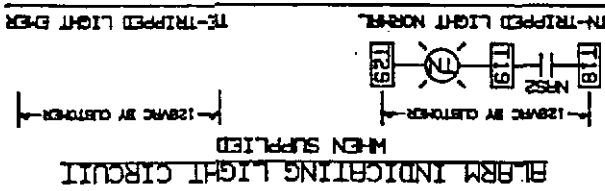
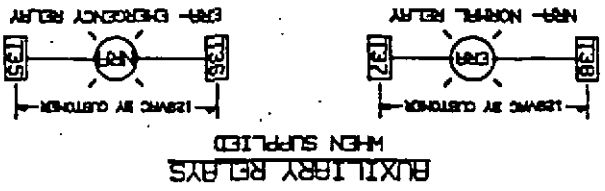
OPTION 32 - TIME DELAY NEUTRAL (TDN)  
 PROVIDES A TIME DELAY IN THE NEUTRAL POSITION WHEN THE  
 LOAD IS TRANSFERRED IN EITHER DIRECTION TO PREVENT EXCESSIVE  
 INRUSH CURRENTS DUE TO OUT-OF-PHASE SWITCHING  
 OF INDUCTIVE LOADS



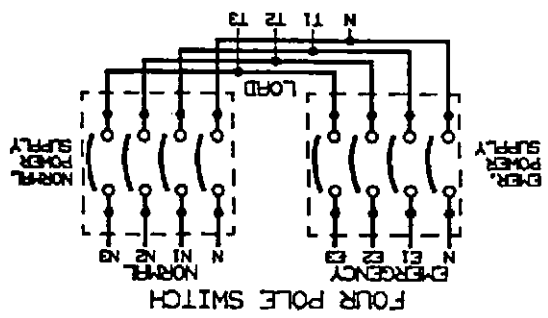
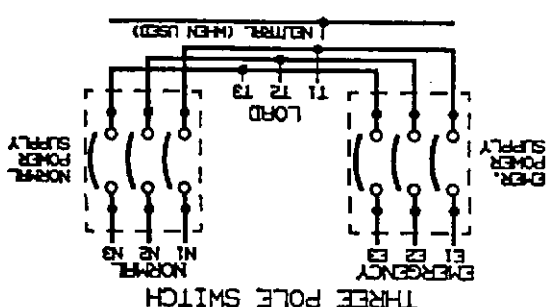
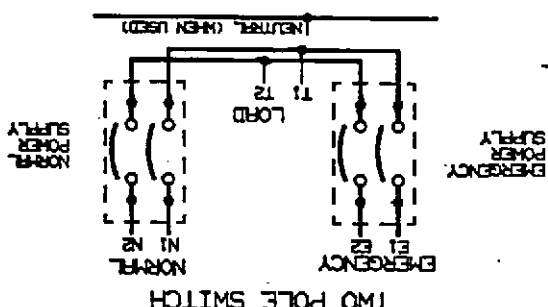
OPTION 35 - PRETRANSFER SIGNAL DEVICE  
 RELAY CONTACTS CHANGE STATE PRIOR TO TRANSFER  
 WITH PRESET TIME DELAY



CUSTOMER CONTACTS ARE ON RELAY SOCKET



E1, E2, N1, N2 WIRING TO EMERGENCY AND NORMAL BREAKERS BY WESTINGHOUSE.  
OPTIONAL WIRING WHEN CONTROL TRANSFORMER SUPPLIED.



MTSSM