

Cutler-Hammer
Beaver, PA

Automatic Transfer Switch

GENSWITCH
Type ATVM/ATHM Wiring Diagrams



Cutler-Hammer

EATON

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ATVM	Wiring Diagram Book		Date: 09/10/98

Plug - Pin assignments for the GENSWITCH Transfer Switch.

P1 - Switching Panel

S1 - Transformer Panel

1	Normal	N1	Phase A
2	Normal	N2	Phase B
3	Normal	N3	Phase C
4	Normal	N1	Phase A
5	Normal	N2	Phase B
6	Normal	N3	Phase C
7	N Aux Sw #1	N.O.	
8	N Aux Sw #1	C	Limit Switch
9	N Aux Sw #1	N.C.	
10	N Aux Sw #2	N.O.	
11	N Aux Sw #2	C	
12	N Aux Sw #2	N.C.	
13	N Aux Sw #3	N.O.	
14	N Aux Sw #3	C	
15	N Aux Sw #3	N.C.	

P2 - Switching Panel

S2 - Transformer Panel

1	Emergency	E3	Phase C
2	Emergency	E2	Phase B
3	Emergency	E1	Phase A
4	Emergency	E3	Phase C
5	Emergency	E2	Phase B
6	Emergency	E1	Phase A
7	E Aux Sw #1	N.O.	
8	E Aux Sw #1	C	Limit Switch
9	E Aux Sw #1	N.C.	
10	E Aux Sw #2	N.O.	
11	E Aux Sw #2	C	
12	E Aux Sw #2	N.C.	
13	E Aux Sw #3	N.O.	
14	E Aux Sw #3	C	
15	E Aux Sw #3	N.C.	

P3 - Switching Panel to
S3 - Transformer Panel

- 1
- 2
- 3
- 4 Motor Bridge "AC" In
- 5 Motor Bridge "AC" In
- 6
- 7
- 8
- 9
- 10
- 11
- 12

P4 - Transformer Panel to
S4 - Intelligence Panel

- 1 Motherboard 1
- 2 Motherboard 2
- 3 Motherboard 3
- 4 Motherboard 4
- 5 Motherboard 5
- 6 Motherboard 6
- 7 Motherboard 7
- 8 Motherboard 8
- 9 Motherboard 9
- 10 Motherboard 10
- 11 Reserved
- 12 Reserved
- 13 Reserved
- 14 Reserved
- 15

S5 - Transformer Panel to
P5 - Intelligence Panel (Door)

- 1 Normal from NLS
- 2 Emergency from ELS
- 3 Control Neutral
- 4 Normal Control Power
- 5 Emergency Control Power
- 6 Normal Position Light
- 7 Emergency Position Light
- 8 Normal Logic Interrupt (Test Pushbutton)
- 9 Normal Logic Interrupt (Test Pushbutton)
- 10 Emergency Logic Interrupt
- 11 Emergency Logic Interrupt
- 12 Transfer Motor Operate
- 13 NRA Relay Power
- 14 Engine Start Circuit Source 2
- 15 Engine Start Circuit Source 2

S7a - g Voltage Selector - Socket
P7 - Plug

- 1 NT3
- 2 NT4
- 3 NT1
- 4 ET1
- 5 ET4
- 6 ET3

Cutler-Hammer Automatic Transfer Switch Wiring Diagrams

Directions for Use

The drawing package can be used as a point to point wiring diagram for maintenance and diagnostic purposes for the GENSWITCH (Catalog ATVM) Transfer Switches, 30 - 1000 Ampere, all voltages.

This document contains the following wiring information:

- Basic Switching Panel Wiring
- Basic wiring diagrams for the transformer and intelligence panels.
- Wiring for all normally available features. (Options)
- Legend Sheet describing symbols used throughout this document.

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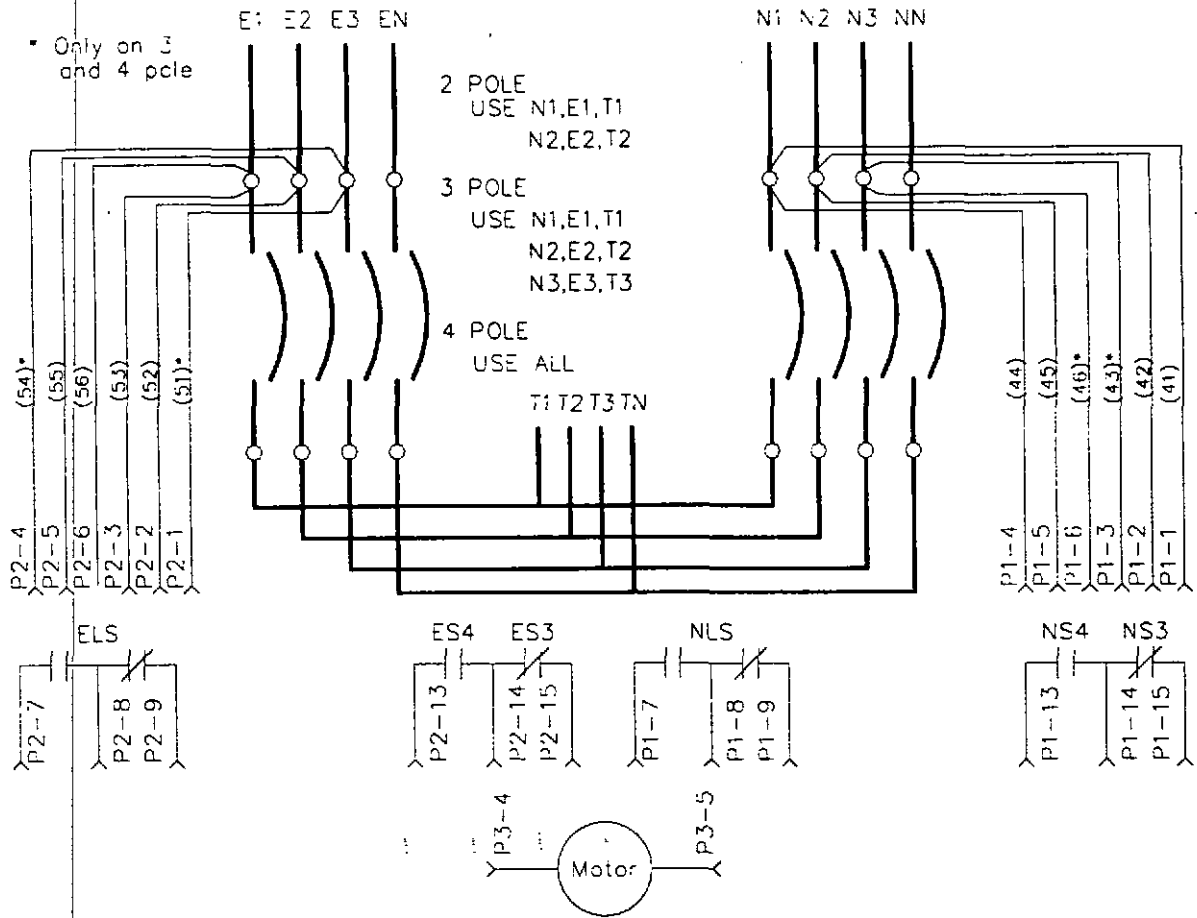
Legend Sheet

BR	Bridge Rectifier
EL	Emergency Position Indicator Light
ER	Emergency Relay
ERA	Emergency Auxiliary Relay
ERB	Emergency Auxiliary Relay
ETx	Emergency Transformer
Ex	Emergency Power Terminal x
KB	Brake Relay
KF	Failsafe Relay
NL	Normal Position Indicator Light
NR	Normal Relay
NRA	Normal Auxiliary Relay
NRB	Normal Auxiliary Relay
NTx	Normal Transformer x
Nx	Normal Power Terminal x
PE	Plant Exerciser Clock
PSDR	Pretransfer Signal Relay
PSDT	Pretransfer Signal Timer
Px-y	"Plug Number x, Pin Number y"
Sx-y	"Socket Number x, Pin Number y"
TDEC	Time Delay Engine Cooloff
TDEN	Time Delay Emergency to Normal
TDES	Time Delay Engine Start
TDN	Time Delay Neutral
TDNE	Time Delay Normal to Emergency

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100 Amp Switching Panel Assembly

GENSWITCH (Cat. No. ATVM ONLY)



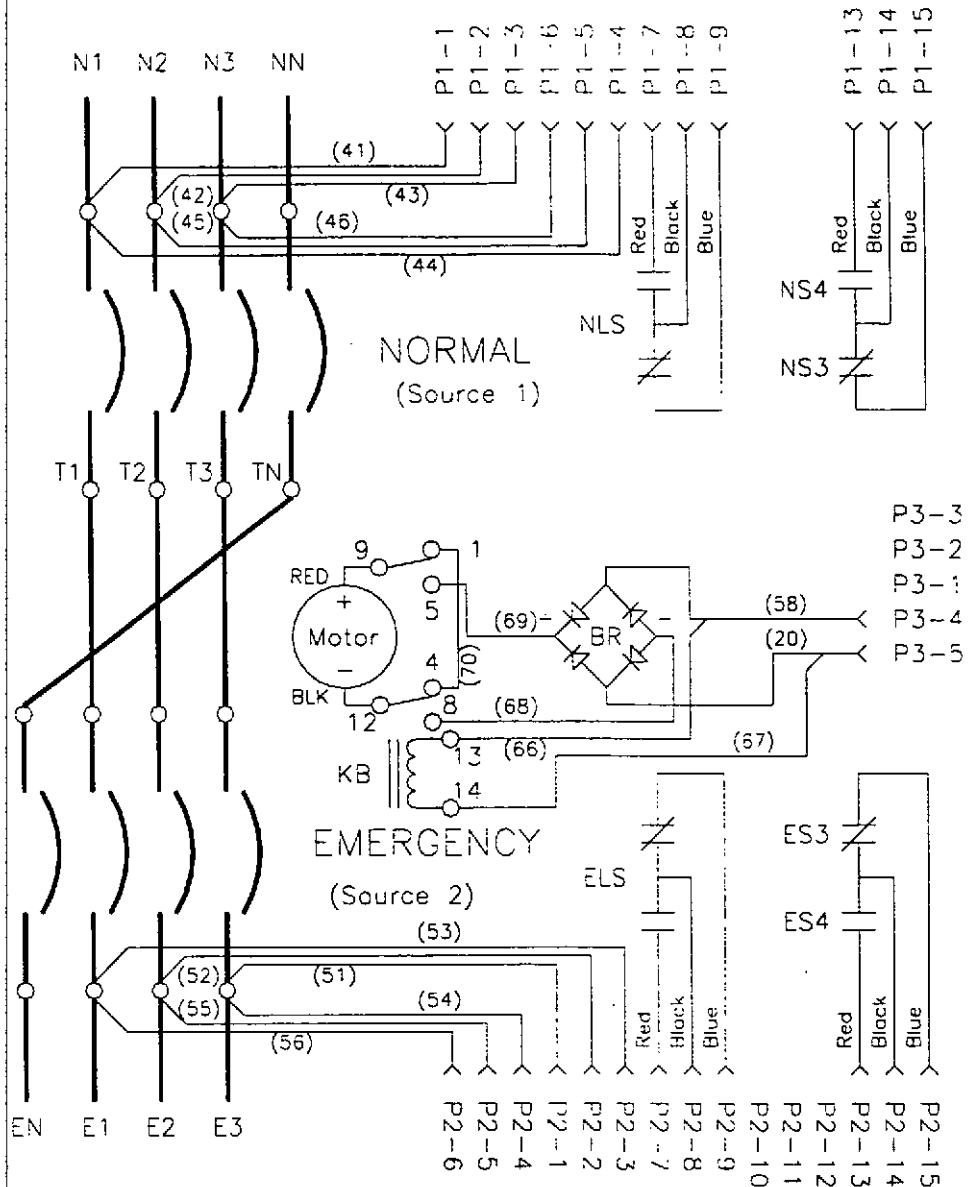
NLS and ELS are located on the mechanism

NS3/NS4 and ES3/ES4 are ONLY supplied when Option 32 is supplied

NS3/NS4 and ES3/ES4 are mounted internally in the switching devices

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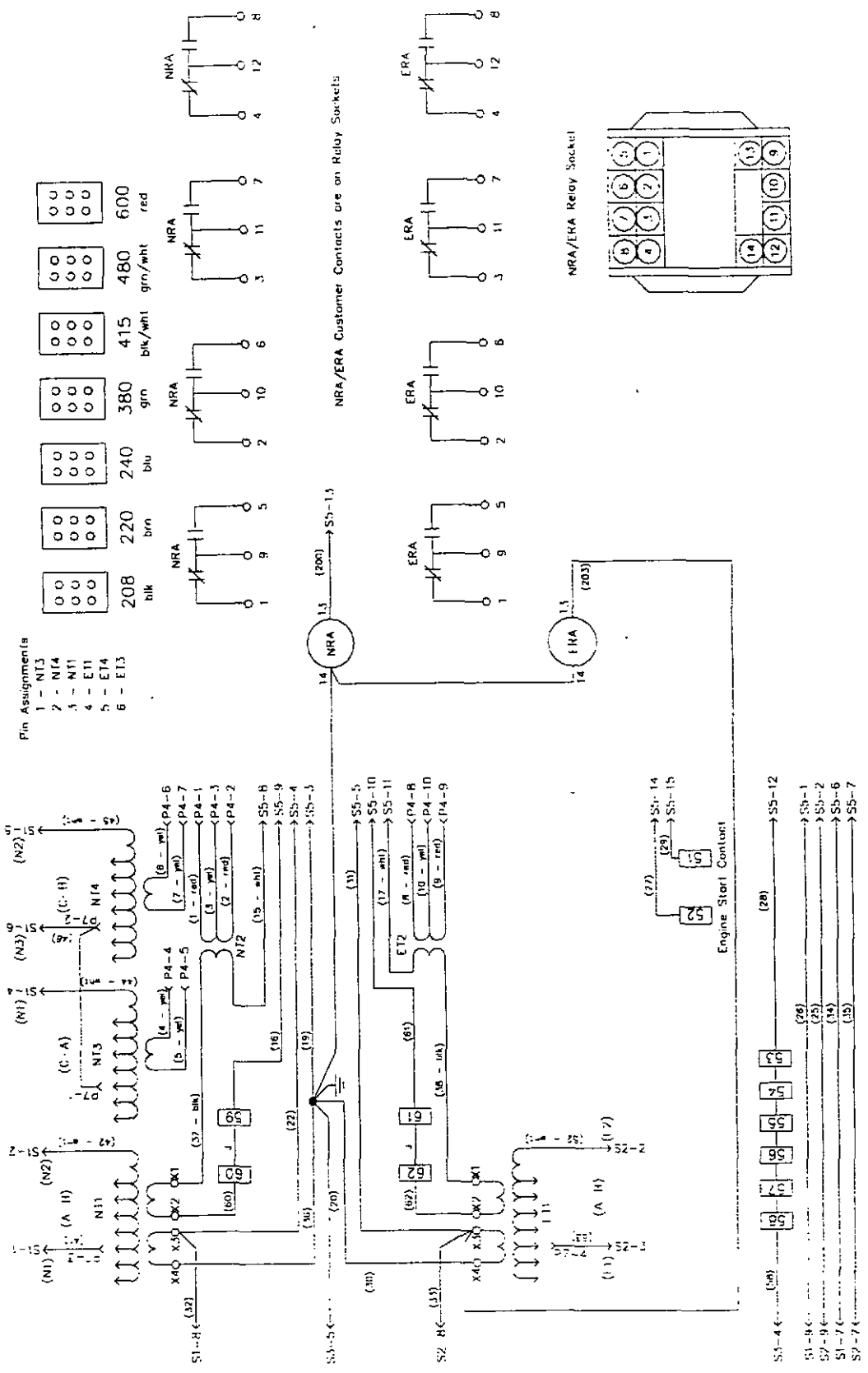
Switching Pole (150 - 1000 Ampere, 2,3,or 4 pole)



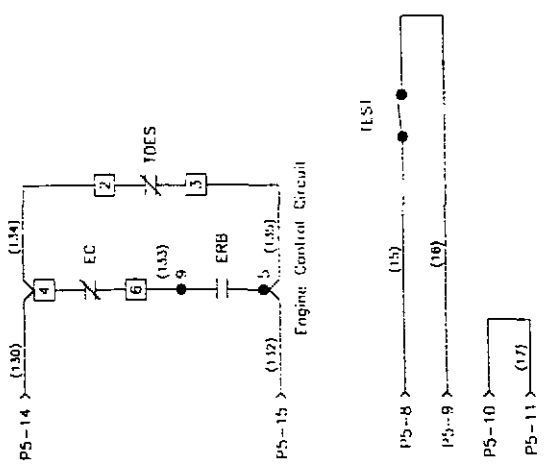
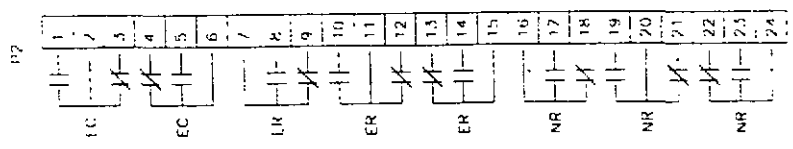
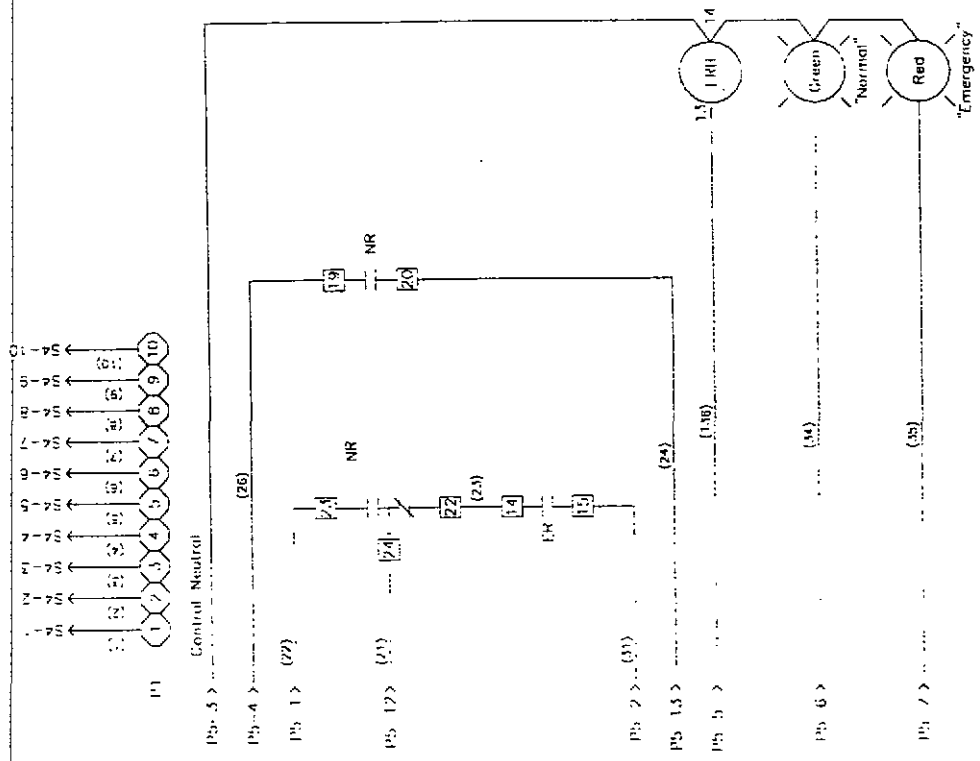
NLS/NS3/NS4 and ELS/ES3/ES4 are mounted internally in the switching devices
 NS3/NS4 and ES3/ES4 are ONLY supplied when Option 32 is supplied

Transformer Panel

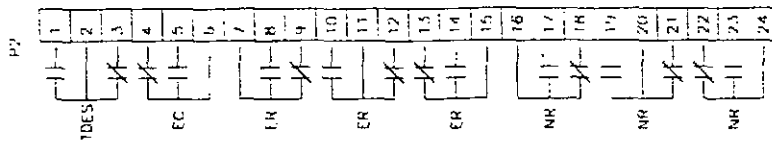
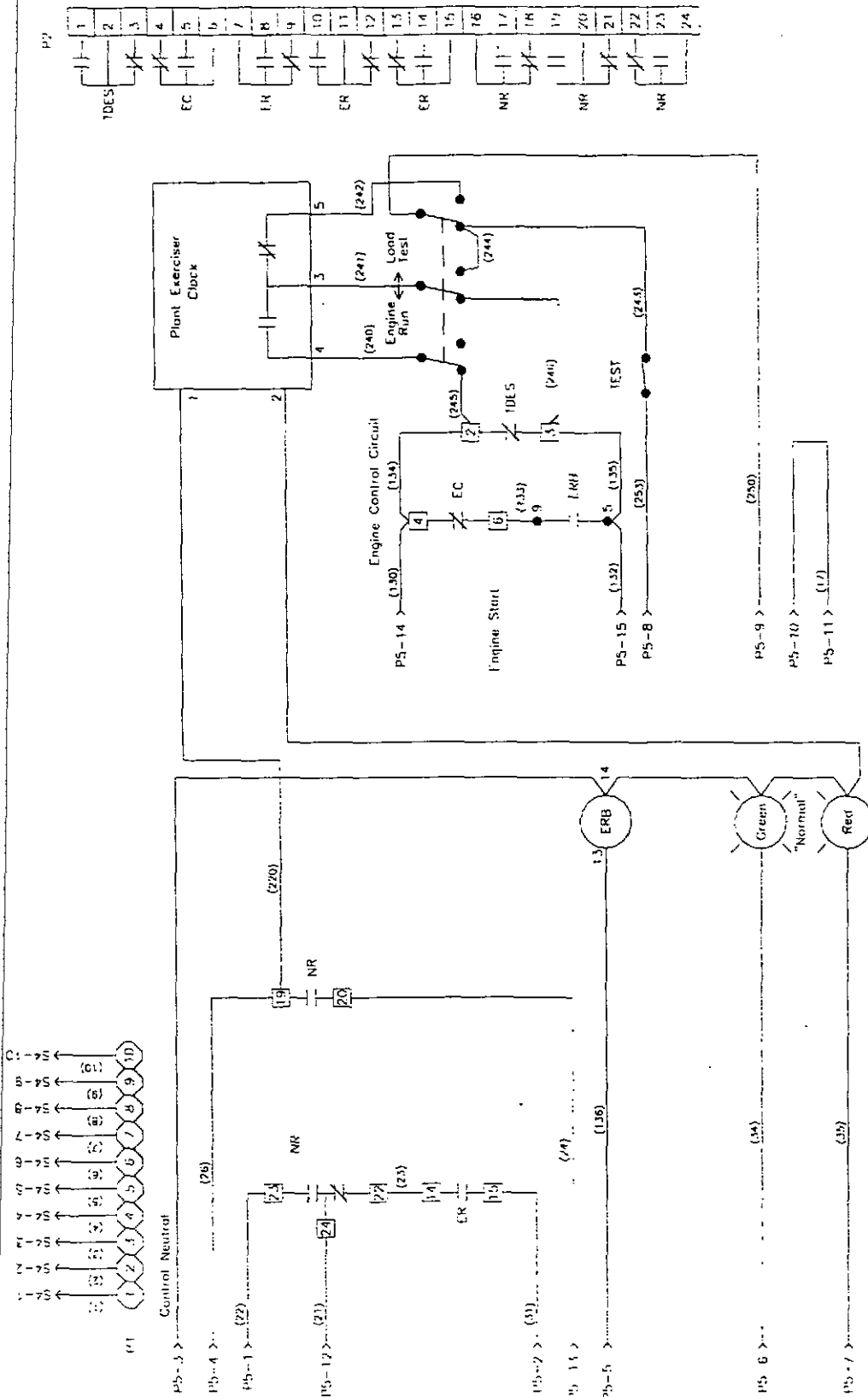
121/S70a=g_Detail



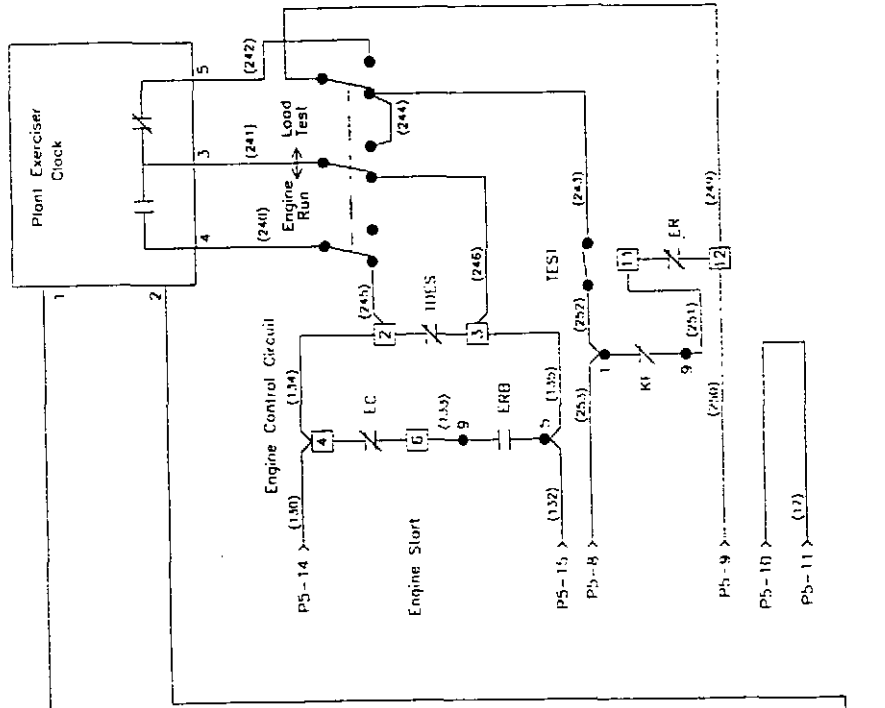
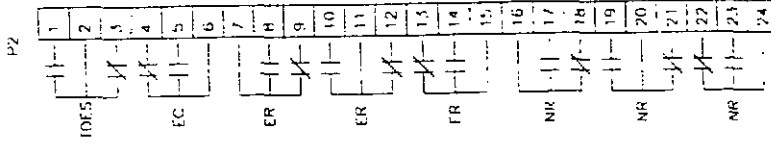
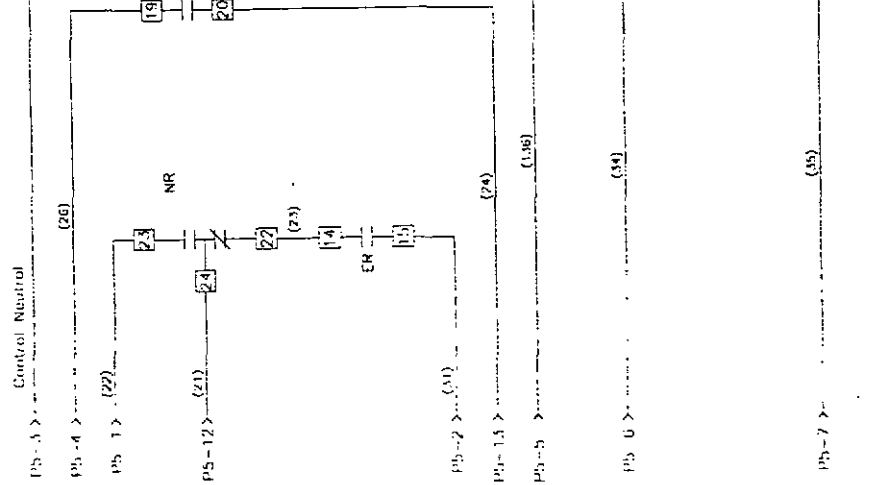
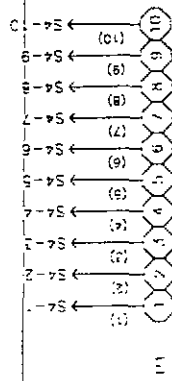
Intelligence Panel
Single Board Controller



Intelligence Panel
Single Board Controller w/Opn2.5G

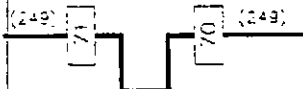


Single Board Controller w/Opt23U



Option 26D Area Protection

Remove Wire #249



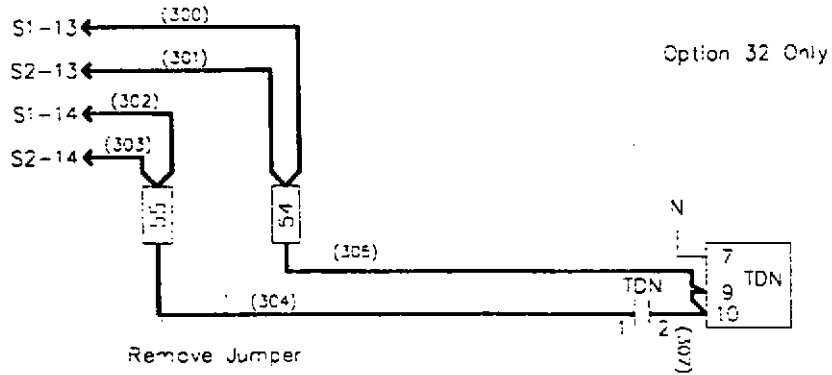
"Open to Transfer to Emergency"

Remove Wire #17



"Inhibit Transfer to Emergency"

Option 32 Time Delay Neutral



Option 35 Pretransfer Signal Device

Remove Jumper

