

**Service Information System**

Shutdown SIS

[Previous Screen](#)

◀ Product: MARINE ENGINE
Model: C280-16 MARINE ENGINE TDX
Configuration: C280-16 MARINE TDX00001-UP

Testing and Adjusting**3606, 3608, 3612 and 3616 Engines and C280-12, C280-16, C280-6 and C280-8 Marine Engines Control Panel****Media Number -REN2493-01****Publication Date -01/04/2007****Date Updated -12/04/2007**

i01532588

Schematics and Wiring Diagrams

SMCS - 7566

Symbol Descriptions



























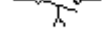

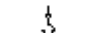

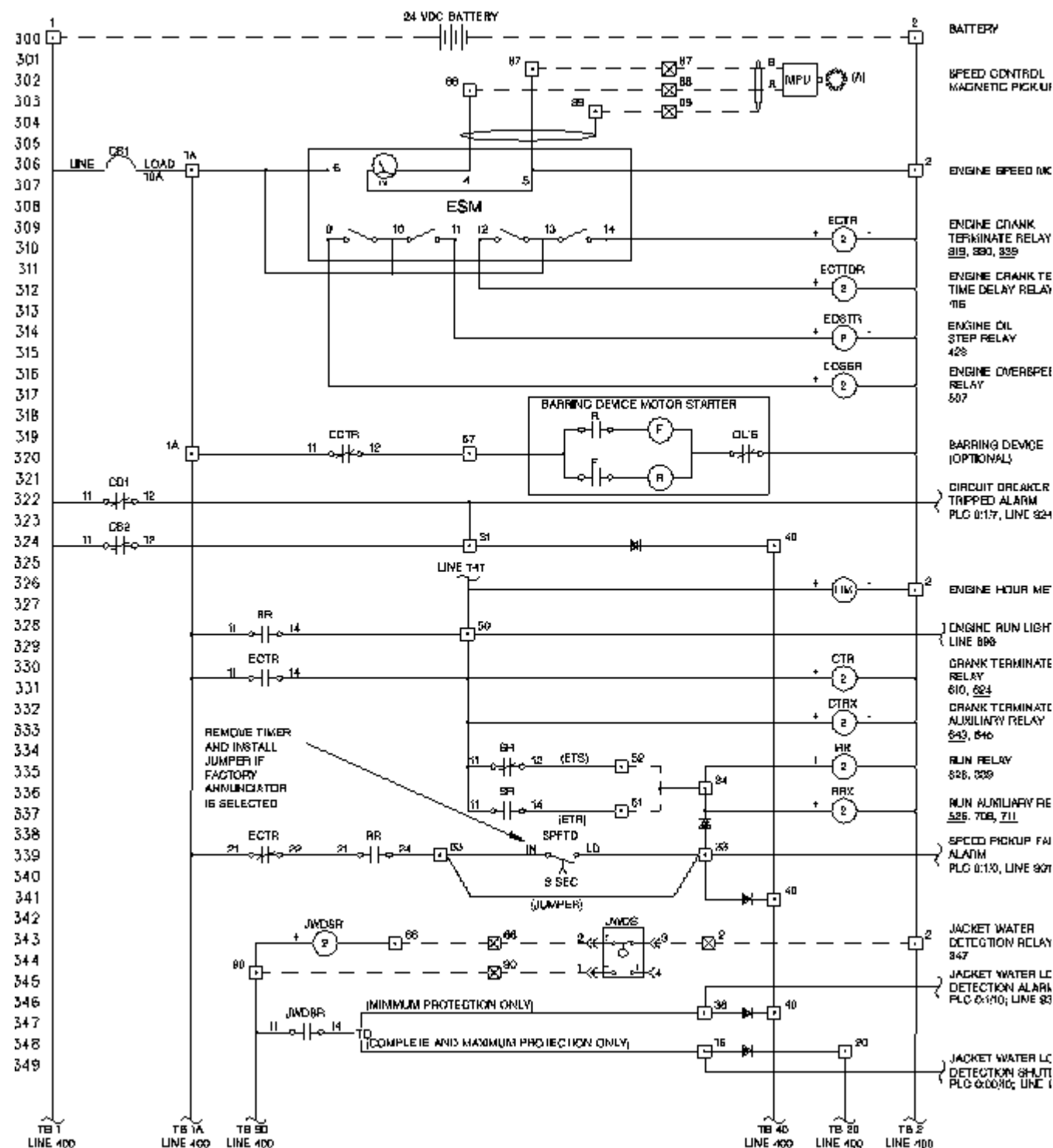
LEGEND	
	INTERNAL WIRING
	FACTORY PROVIDED WIRING
	CUSTOMER PROVIDED WIRING
	FACTORY WIRING PRESENT ONLY ON ETR PANELS
	FACTORY WIRING PRESENT ONLY ON ETS PANELS
	ENGINE PROTECTION BOX TERMINAL BOARD POINT
	CONTACTOR PANEL TERMINAL POINT
	ENGINE MOUNTED TERMINAL BOX TERMINAL BOARD POINT
	BATTERY
	CIRCUIT BREAKER
	DIODE
	STANDARD RELAY ACTIVATION COIL
	NORMALLY OPEN RELAY CONTACT
	NORMALLY CLOSED RELAY CONTACT
	SOLENOID
	PRESSURE SWITCH
	LIQUID SWITCH
	TEMPERATURE SWITCH
	TIME SWITCH ENERGIZED
	TIME SWITCH DE-ENERGIZED
	LAMP
	NORMALLY OPEN PUSH BUTTON
	NORMALLY CLOSED PUSHBUTTON
	SOLID STATE TIMER
	THERMOCOUPLE
	OVERLOAD
	TRANSDUCER
	RTD
	MPU
	MODE SWITCH
ALL PRESSURE SWITCHES SHOWN WITHOUT PRESSURE PRESENT	
ALL LEVEL SWITCHES SHOWN WITHOUT FLUID PRESENT	
ALL RELAY CONTACTS SHOWN IN THE DE-ENERGIZED MODE	

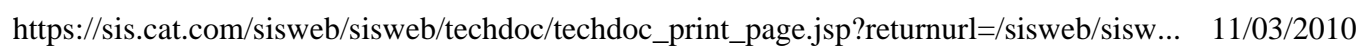
Illustration 1
Description of symbols in the prints

g0075

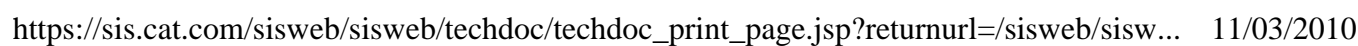
Ladder Logic For The Engine Control Panel (ECP)



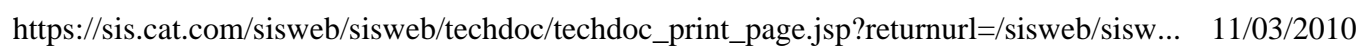
g0079



g0079



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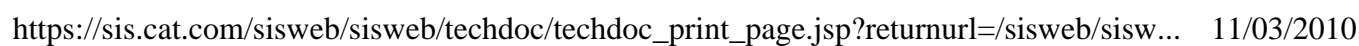


Illustration 6

g0079

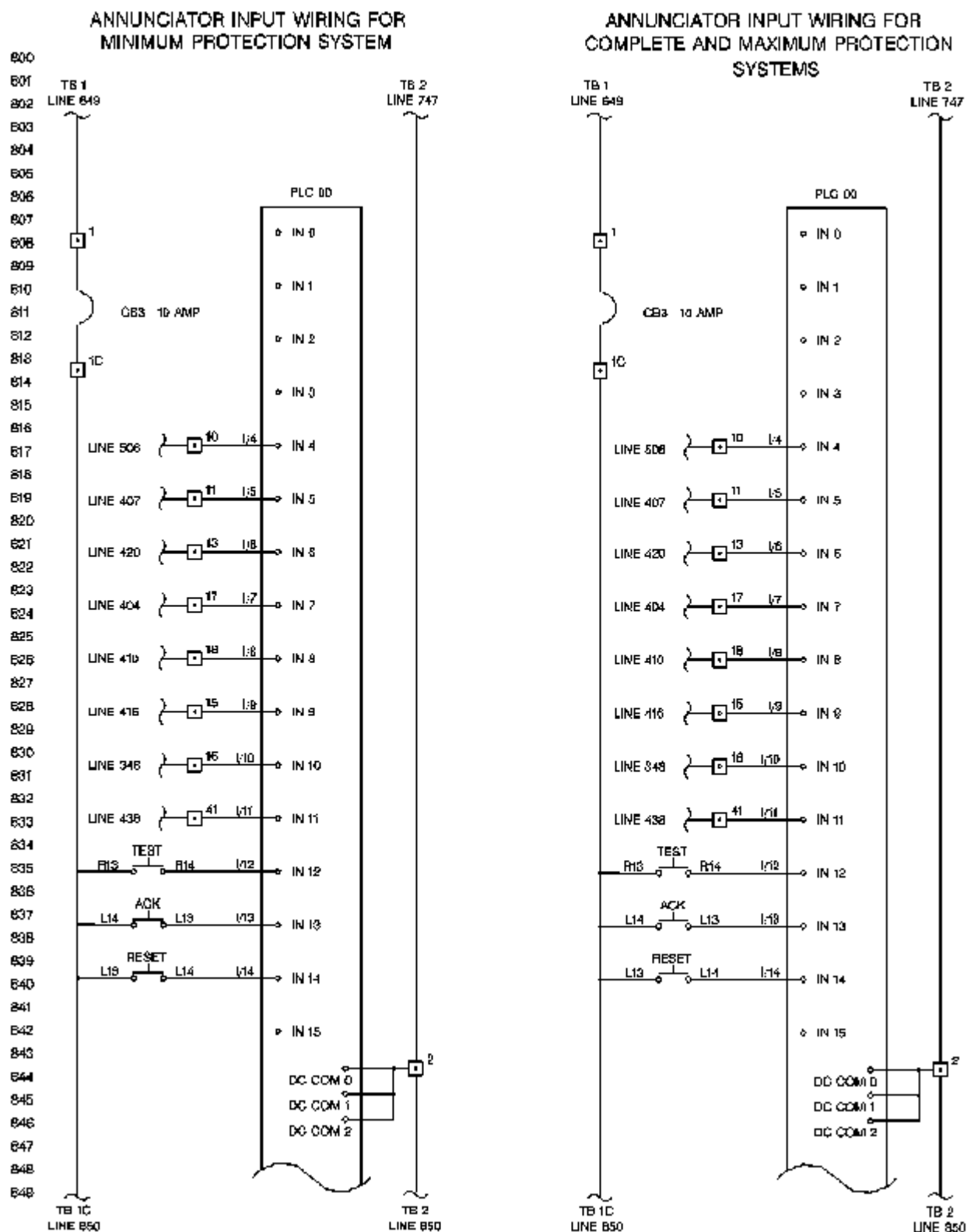


Illustration 7
Inputs to the PLC

g0079

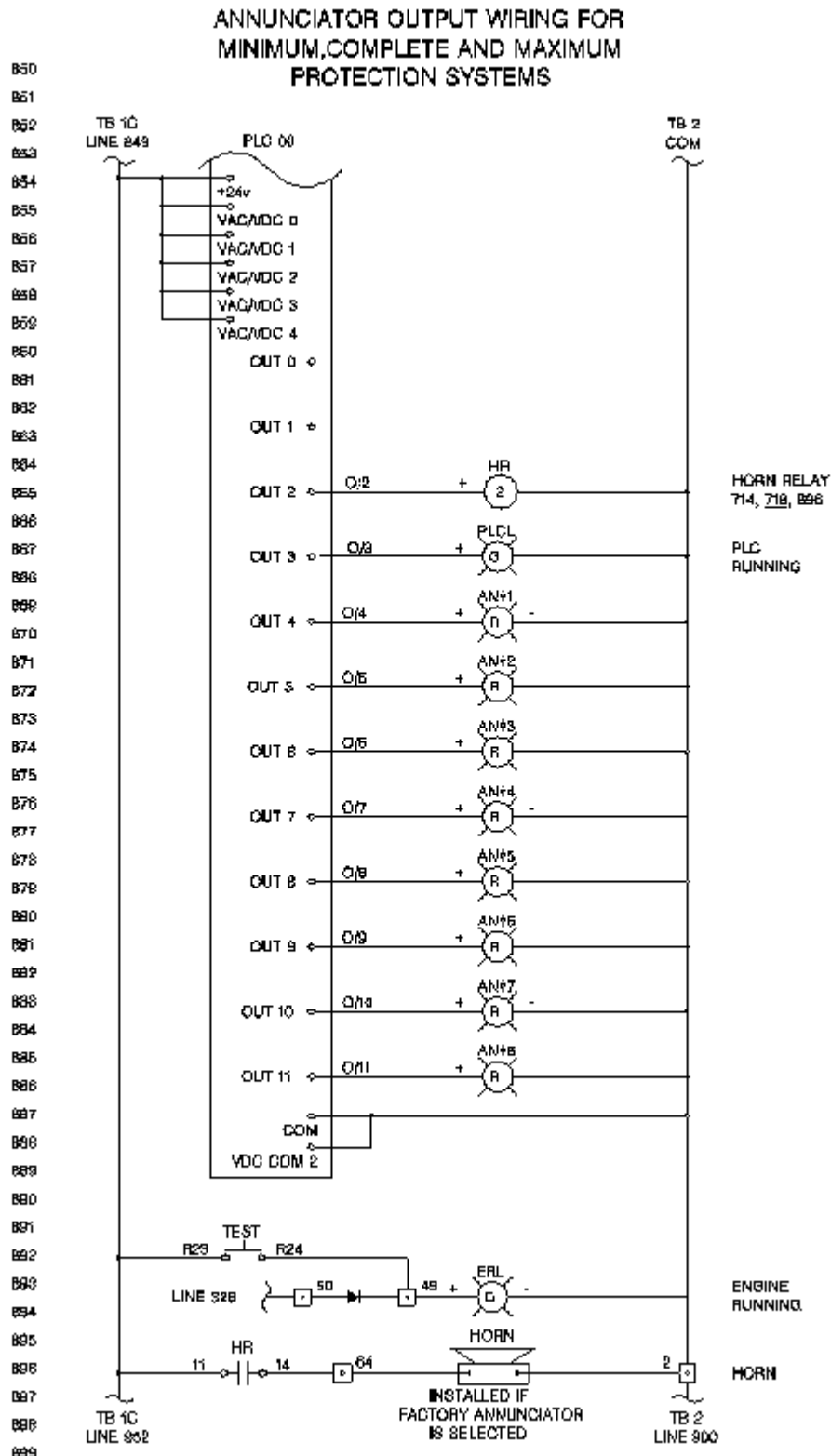


Illustration 8

g0075

Outputs from the PLC

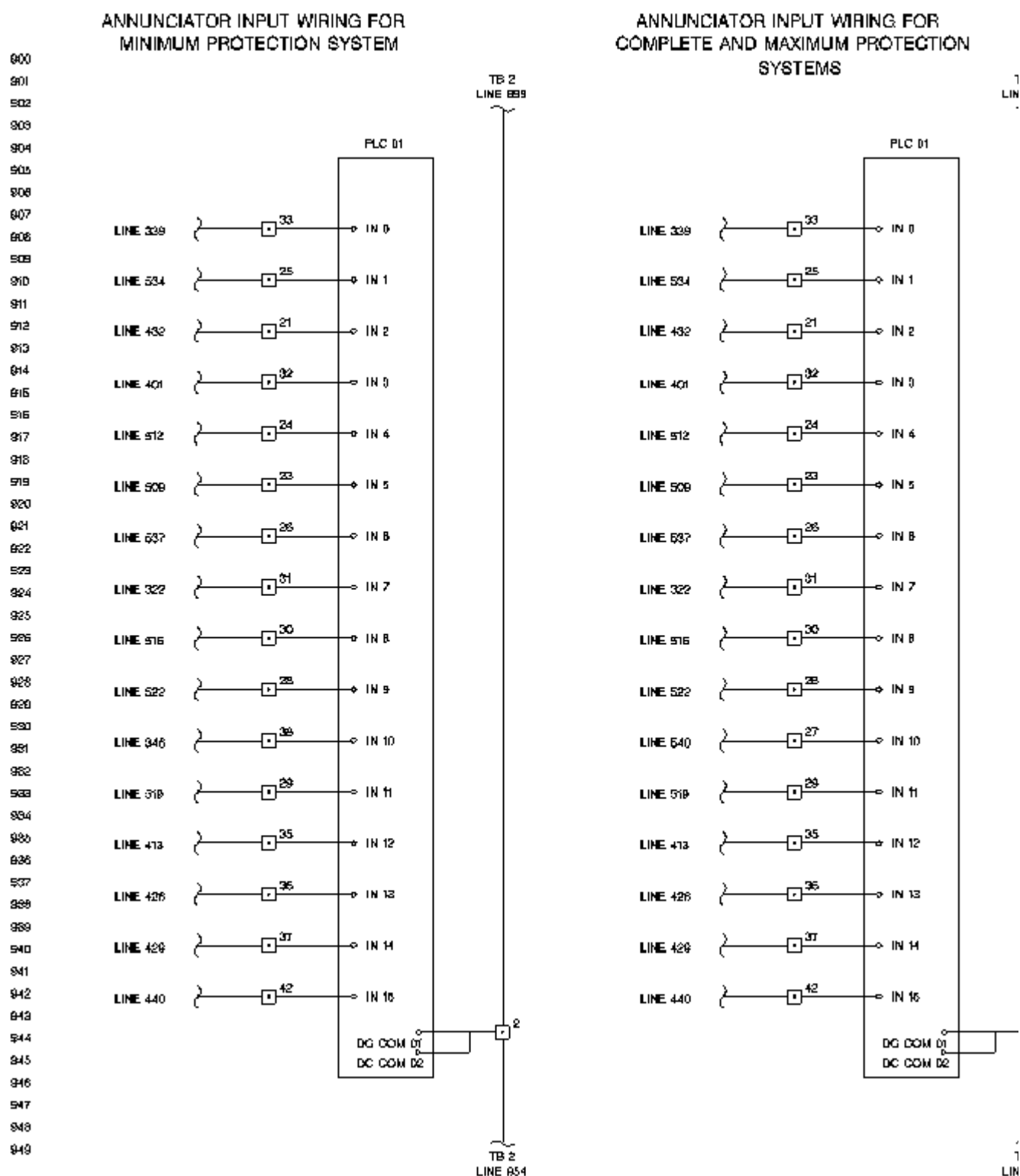


Illustration 9
Inputs to the PLC

g0079

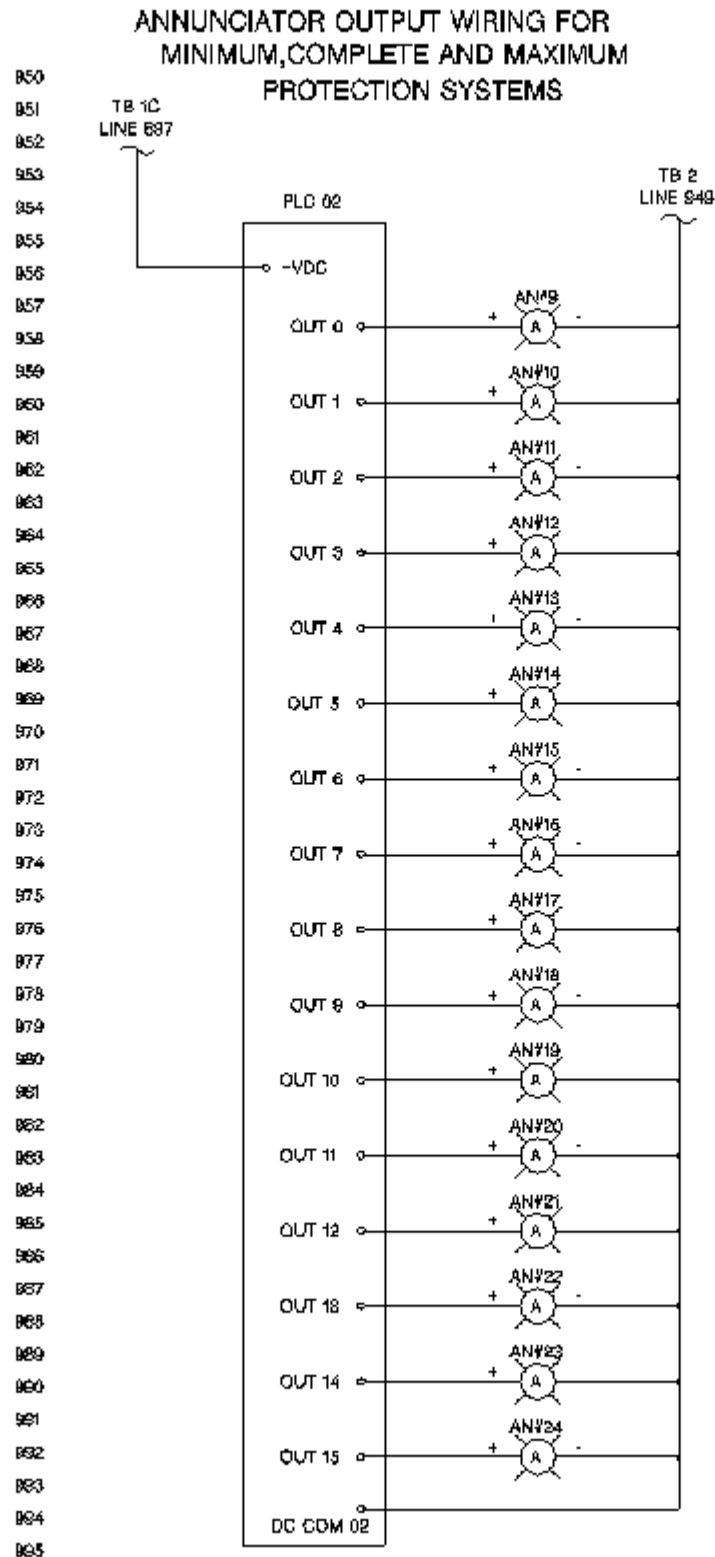



Illustration 10
Outputs from the PLC

g0075








Charts For The Switch Contacts

EMERGENCY SWITCH (ES) CHART

CONTACT BLOCKS	CONTACTS	DEACTIVATED	ACTIVATED	LINE NO.
LEFT	L13  L14	O	X	503



SCHEMATIC INDICATES STATES OF ES CONTACTS IN THE DEACTIVATED POSITION.

SPEED CONTROL SWITCH CHART (SCS)

CONTACT BLOCKS	CONTACTS	INCREASE		DECREASE	LINE NO.
LEFT	L13  L14	O	O	X	708
RIGHT	R13  R14	X	O	O	707
LEFT	L23  L24	O	O	X	710
RIGHT	R23  R24	X	O	O	709
LEFT	L33  L34	O	O	X	730
RIGHT	R33  R34	X	O	O	727


SCHEMATIC INDICATES STATES OF SCS CONTACTS IN THE CENTER POSITION.

FUEL CONTROL SWITCH (FCS) CHART

CONTACT BLOCKS	CONTACTS	OFF	ON	LINE NO.
LEFT	L12  L11	X	O	607
RIGHT	R13  R14	O	X	616

SCHEMATIC INDICATES STATES OF FCS CONTACTS IN THE OFF POSITION.

IDLE/RATED (IRS) SWITCH CHART


CONTACT BLOCKS	CONTACTS	IDLE	RATED	LINE NO.
RIGHT	R13  R14	O	X	725

SCHEMATIC INDICATES STATES OF IRS CONTACTS IN THE IDLE POSITION.

ECS CHART

LOCAL ECS RESET				
CONTACT	OFF/RESET	STOP	PROTE	LINE NO.
L14, L13 N.O.	X	X	X	613
L21, L22 N.O.	X	X	X	625
L23, L24 N.C.	X	X	X	610
R13, R14 N.O.	X	X	X	503
X=CLOSED				

PSS CHART

PSS				
PRELUBE		START		
				
CONTACT	APRELUBE	START	LINE NO.	
L13, L14 H.O.	X	X	637	
R13, R14 H.O.	X	X	630	
X=CLOSED				

X INDICATES A CLOSED CONTACT
O INDICATES AN OPEN CONTACT

Illustration 11

g0075

Contacts For Customer Need

FORM C CONTACTS FOR CUSTOMER USE

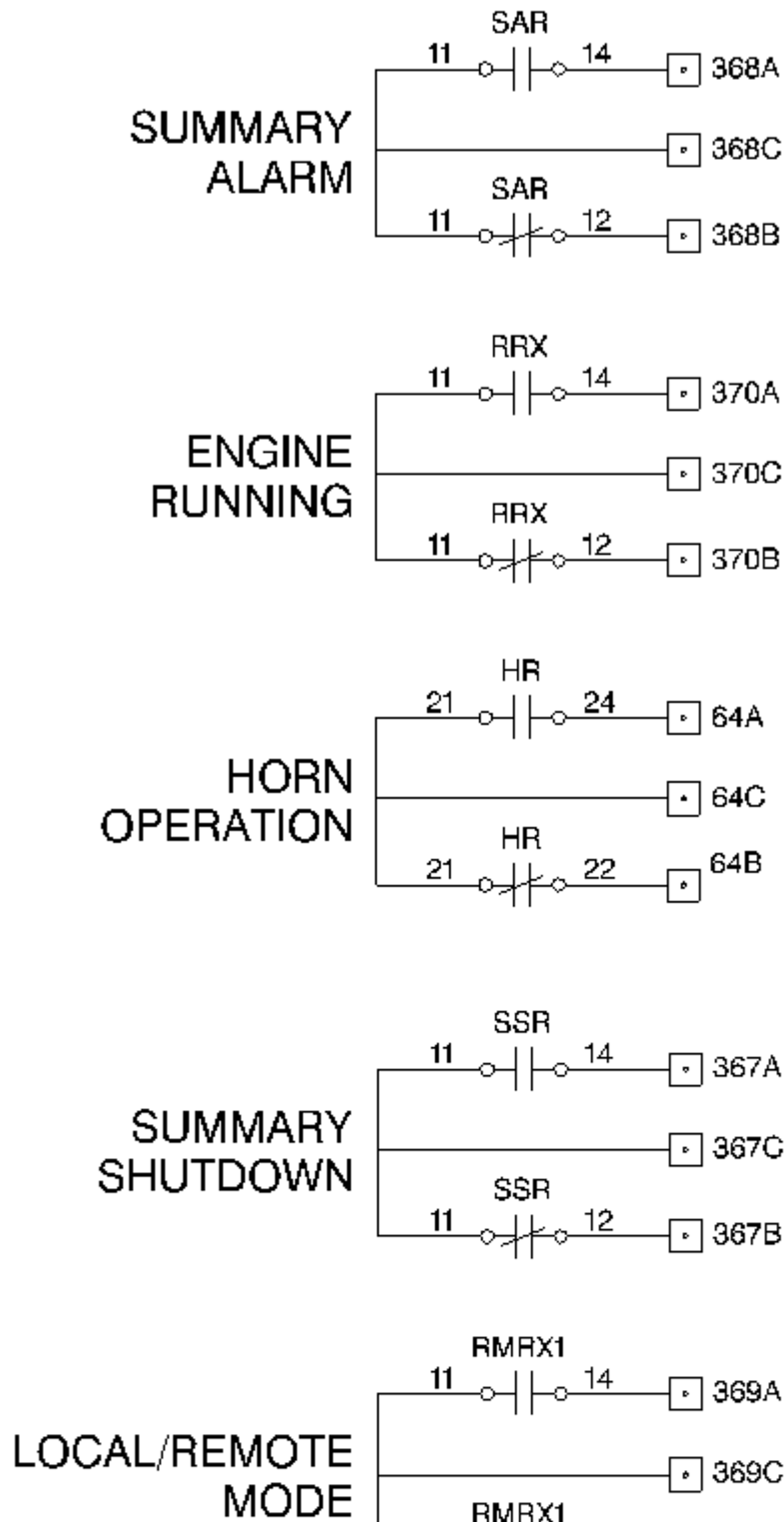


Illustration 12

g00796885

Wiring Diagram For Customer Supplied Components

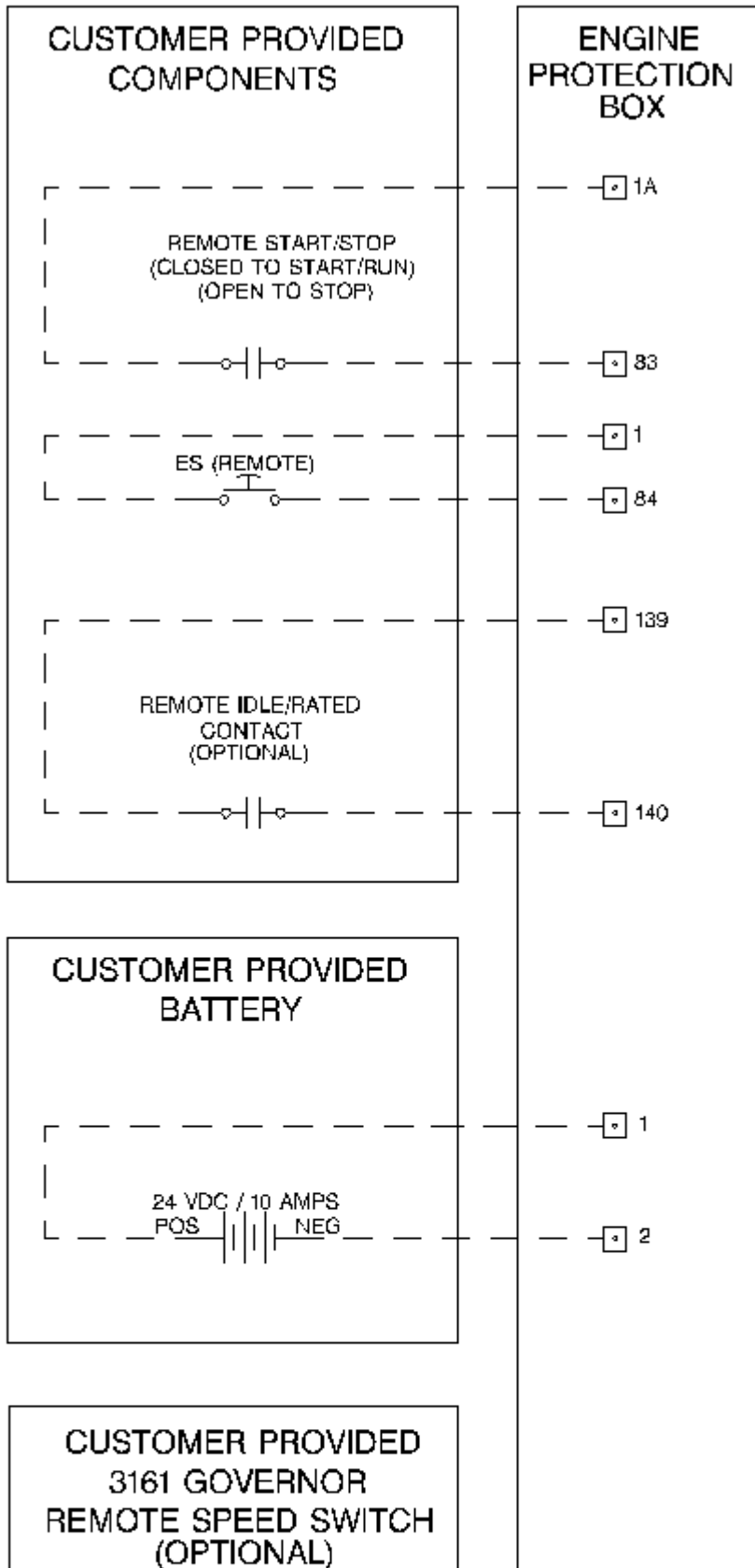


Illustration 13

g00796888

Wiring Diagram For Contactors

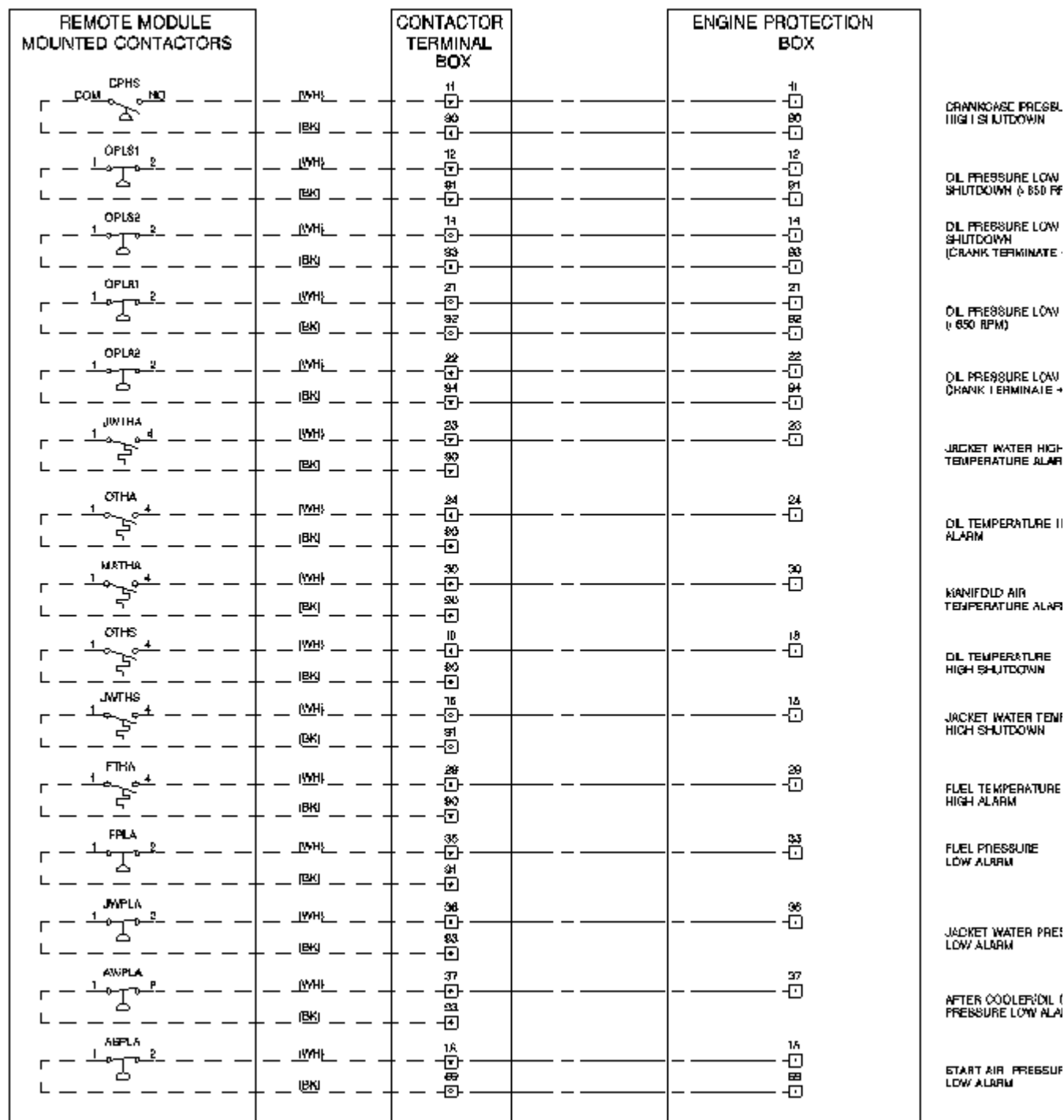


Illustration 14

g0079

Wiring Diagram For Thermocouples

3606 AND 3608 THERMOCOUPLE ARRANGEMENT

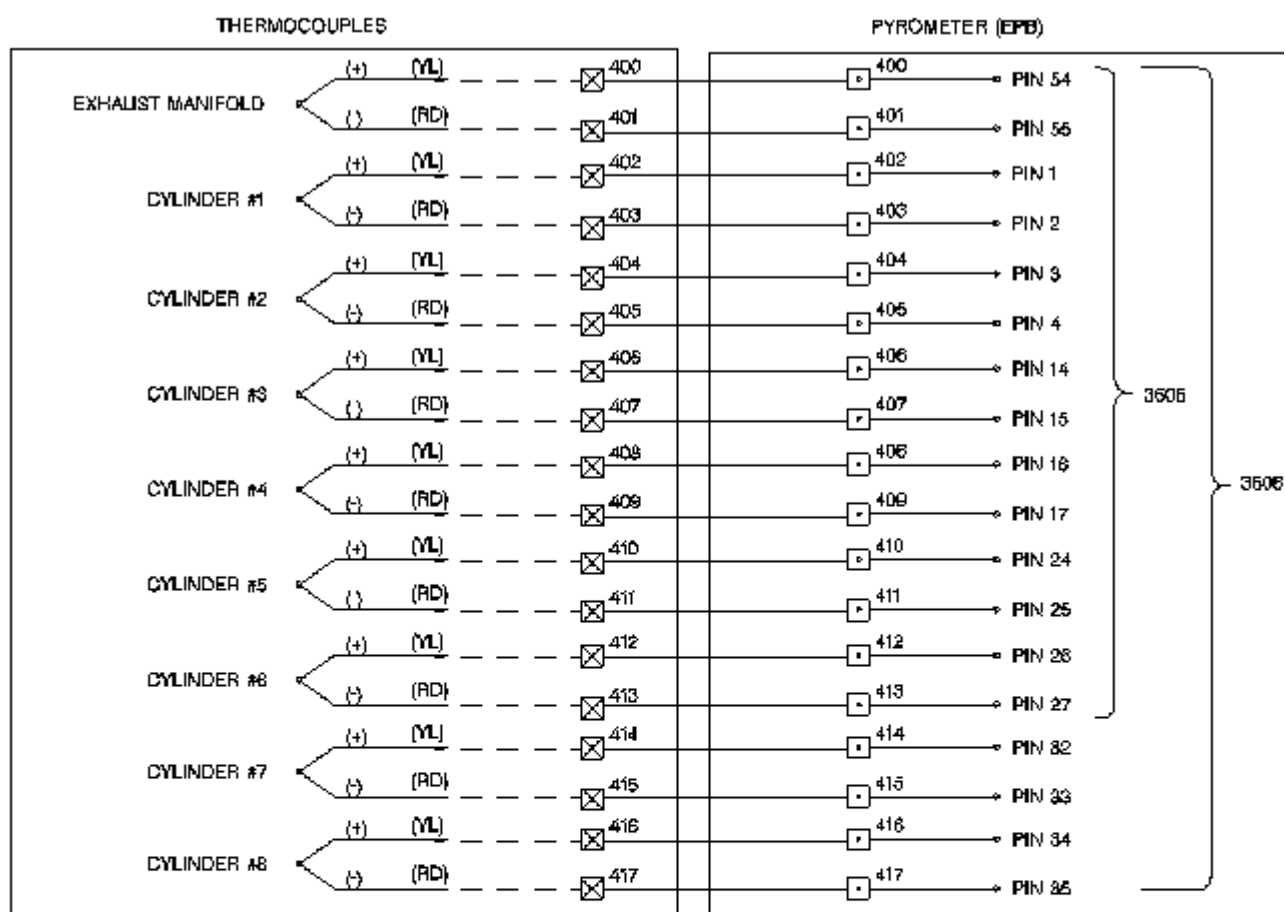


Illustration 15

g0075

Wiring diagram for thermocouples that are used on 3606 engine and 3608 engine

3612 AND 3616 THERMOCOUPLE ARRANGEMENT

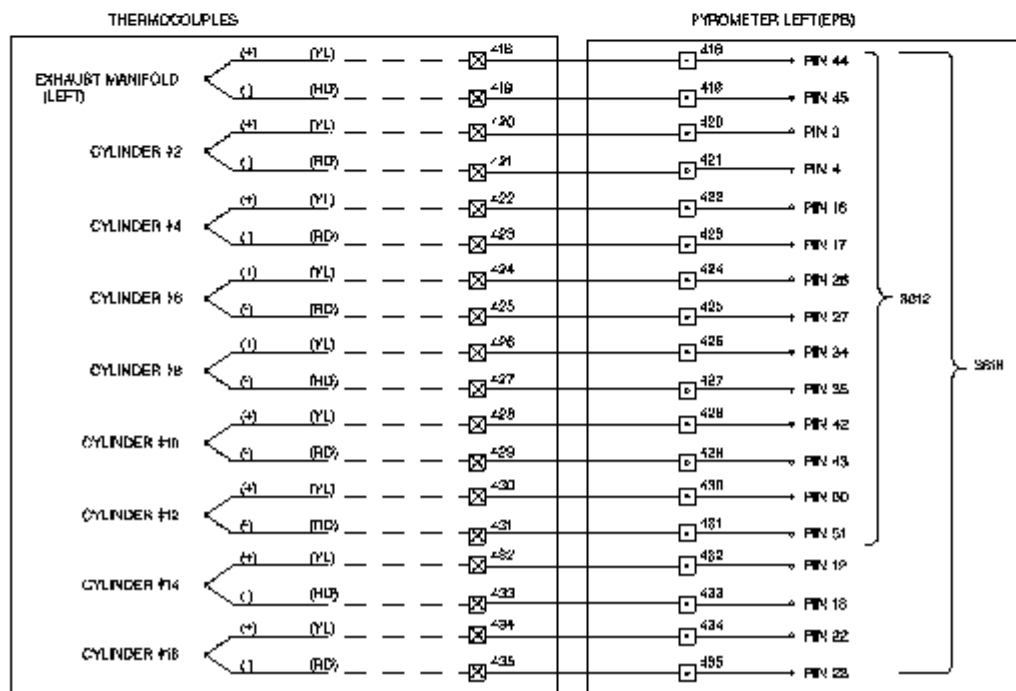
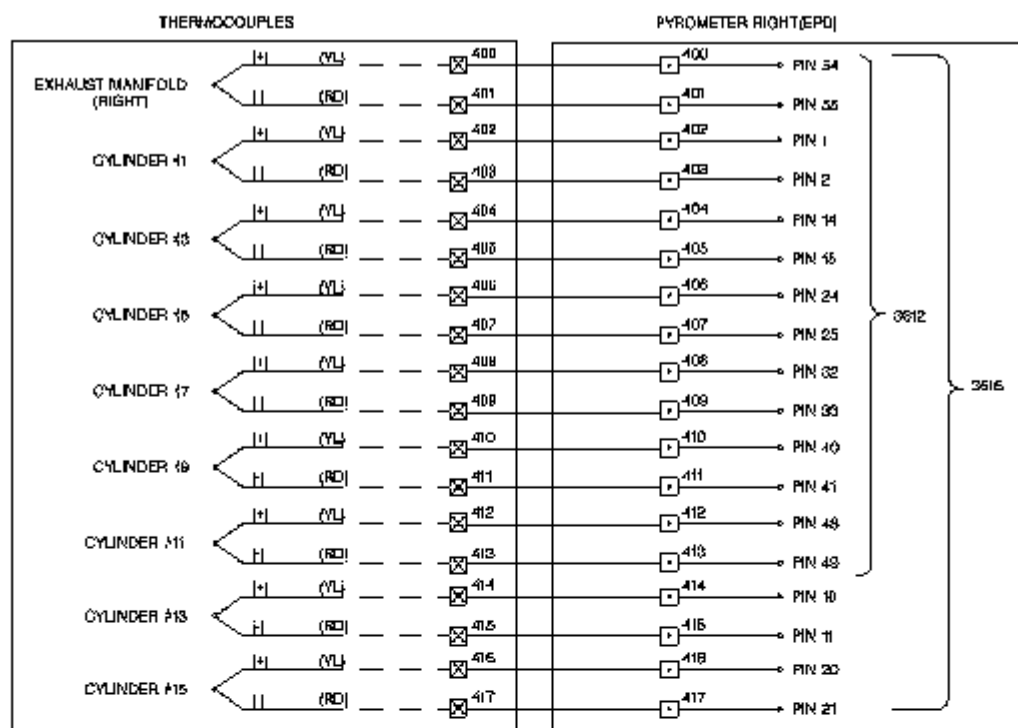


Illustration 16

g0075

Wiring diagram for thermocouples that are used on 3612 engine and 3616 engine

Wiring Diagram For Prelube Systems

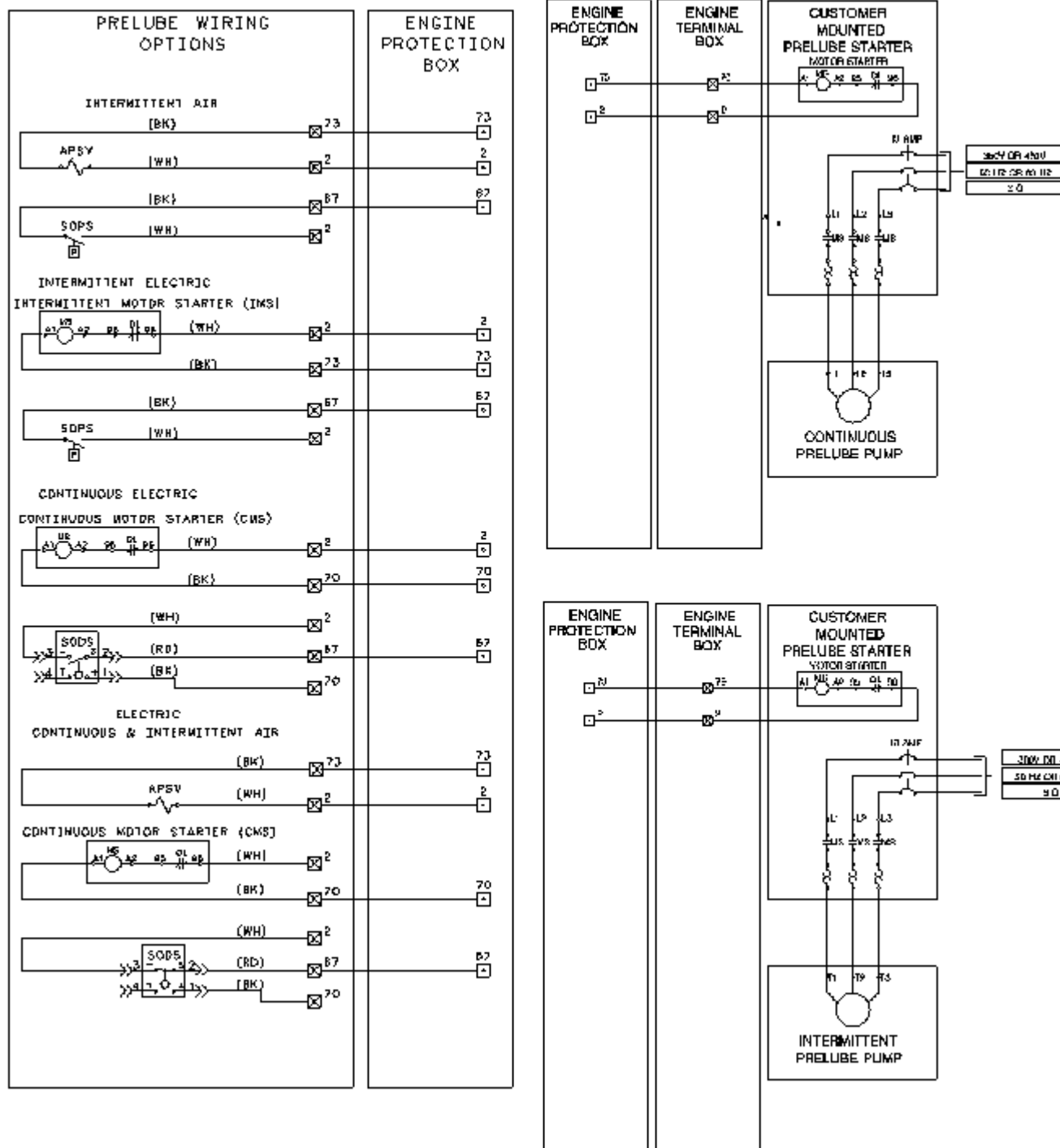


Illustration 17

g0079

Wiring Diagram For Remote Mounted Components

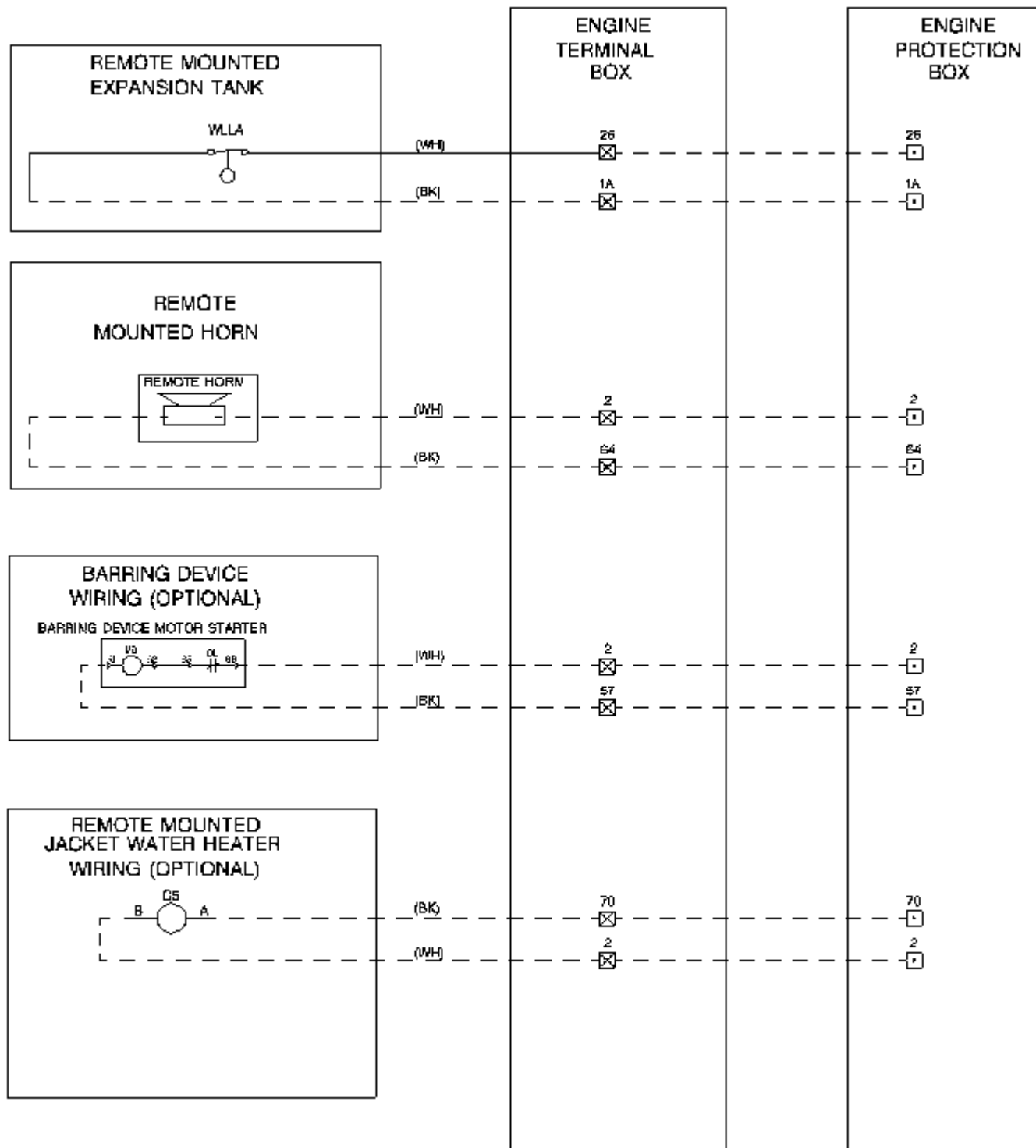


Illustration 18

g0075

Wiring Diagram For Engine Components

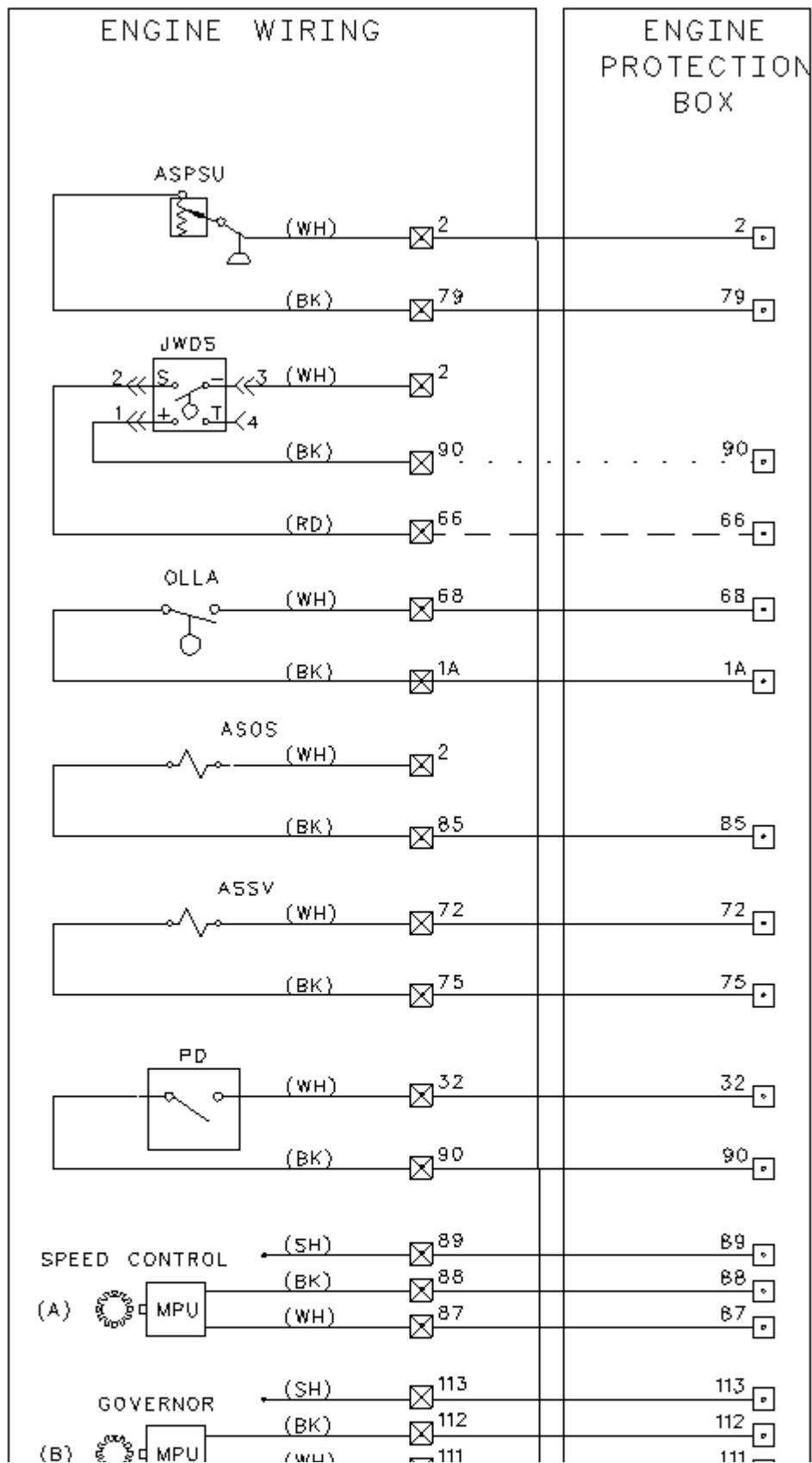


Illustration 19

g00796969

Wiring diagram for engine components

Wiring Diagram For Actuators

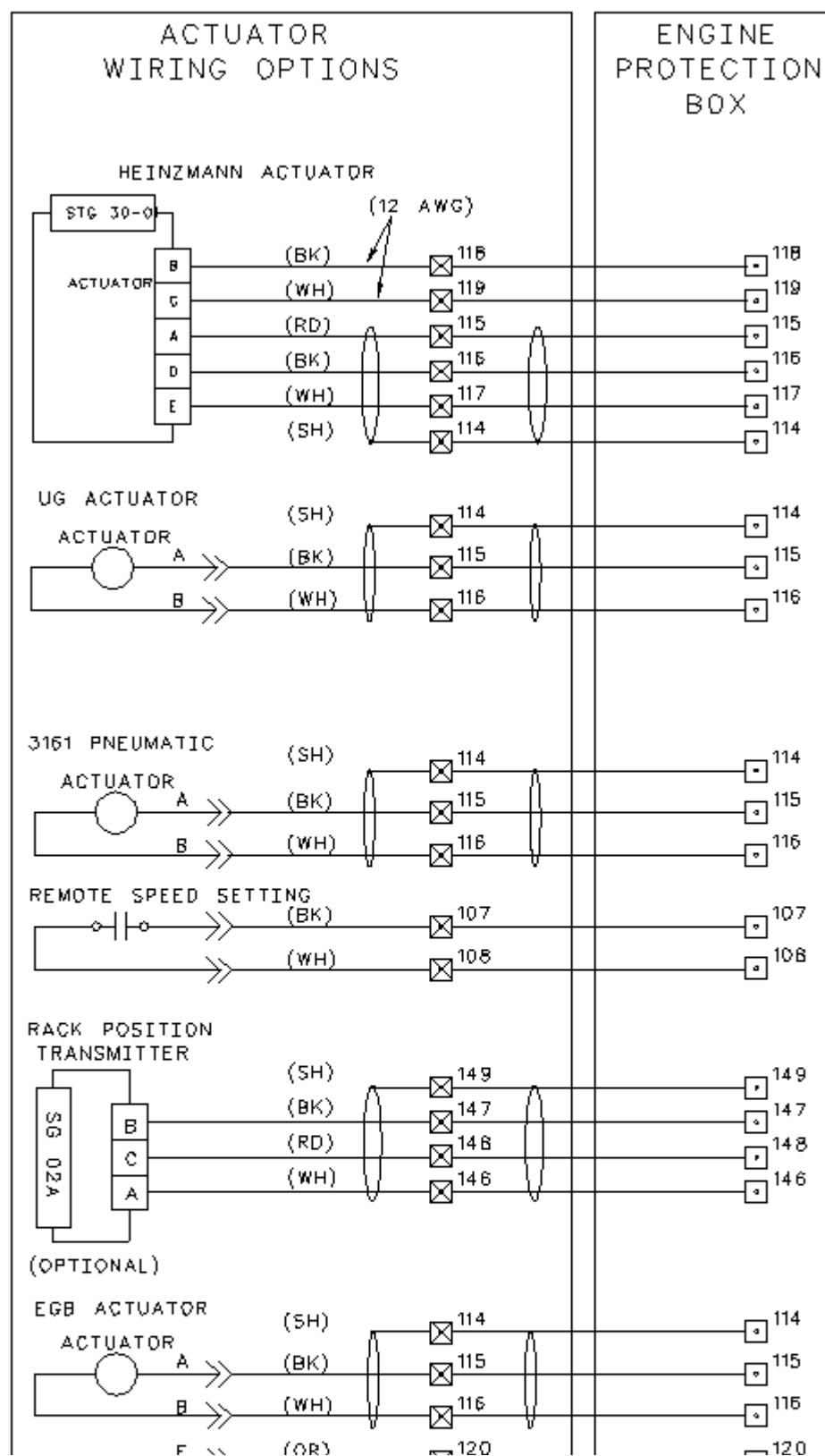


Illustration 20

g00796971

Wiring Diagram For Governors

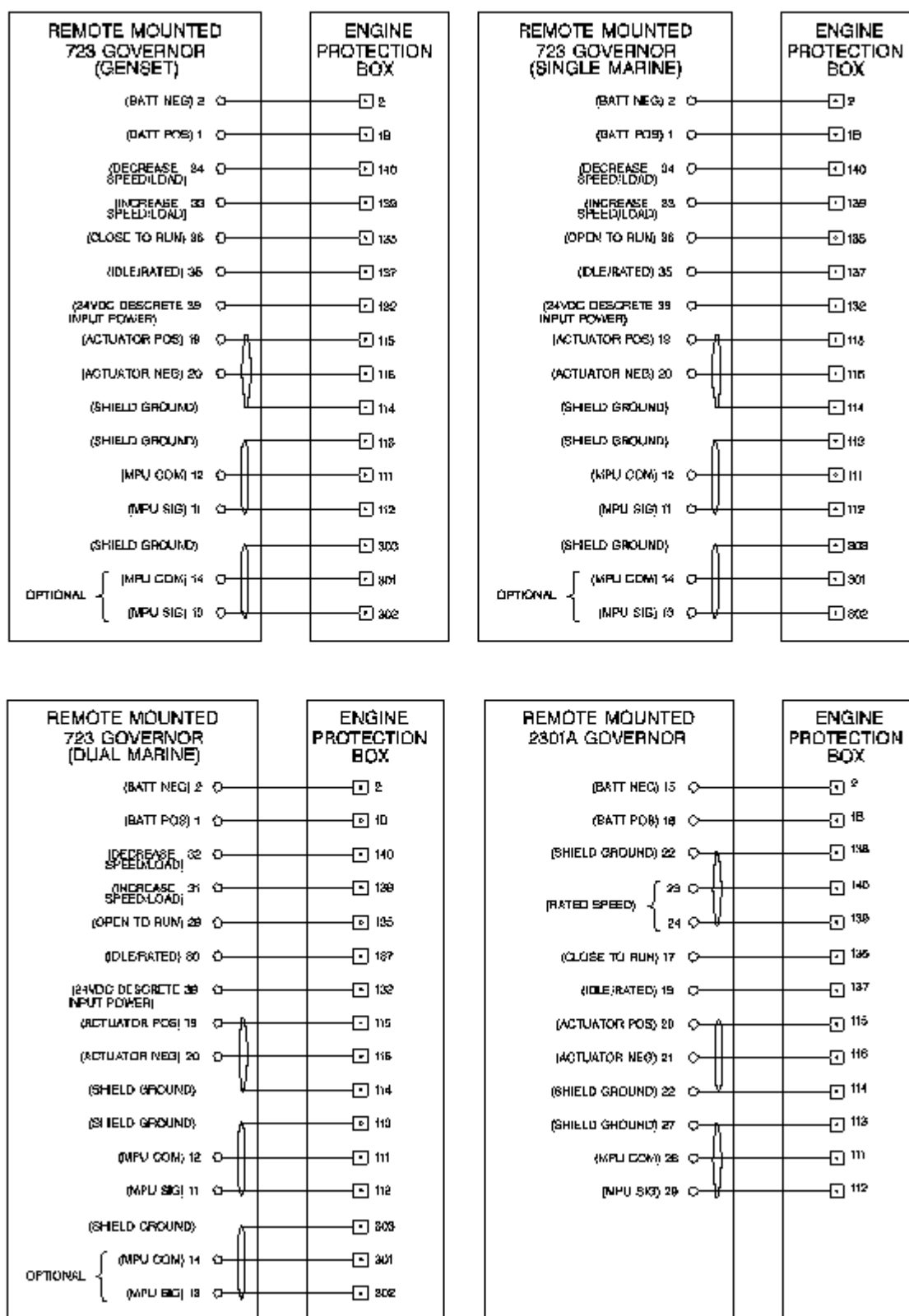


Illustration 21

g0079

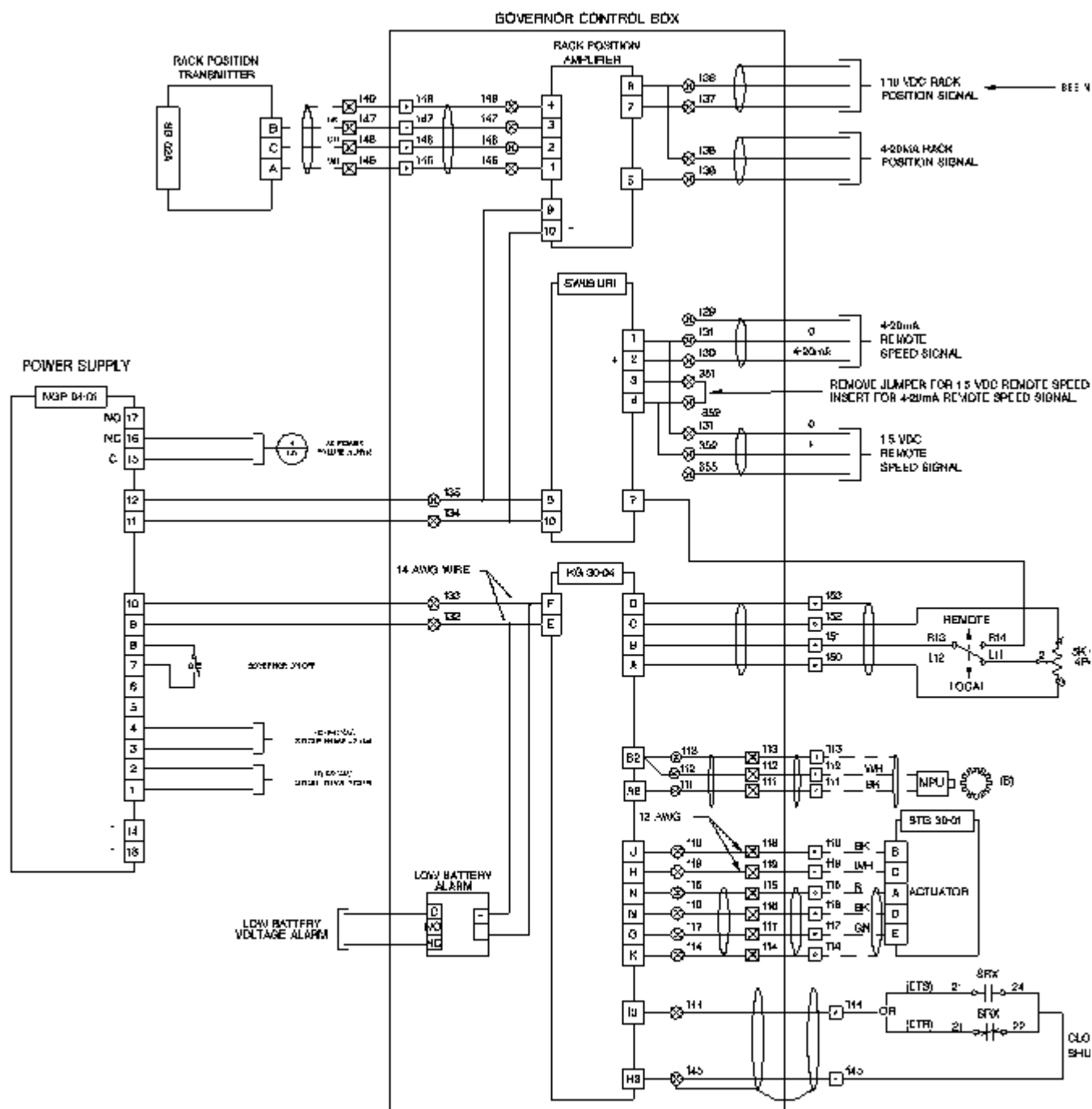


Illustration 22

g0079

Wiring Diagram for Jacket Water Heater

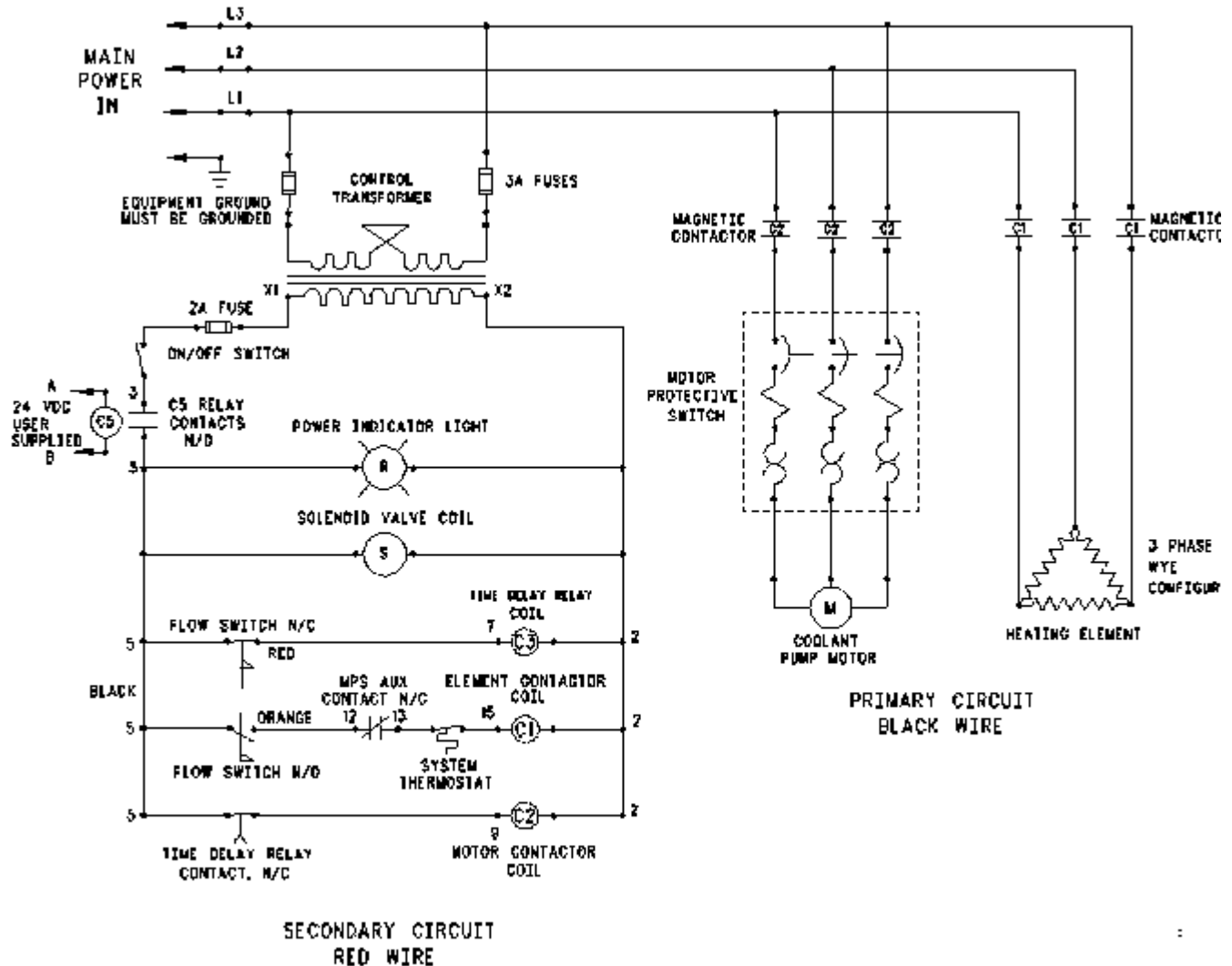


Illustration 23

g0054

Wiring Diagram for Barring Device

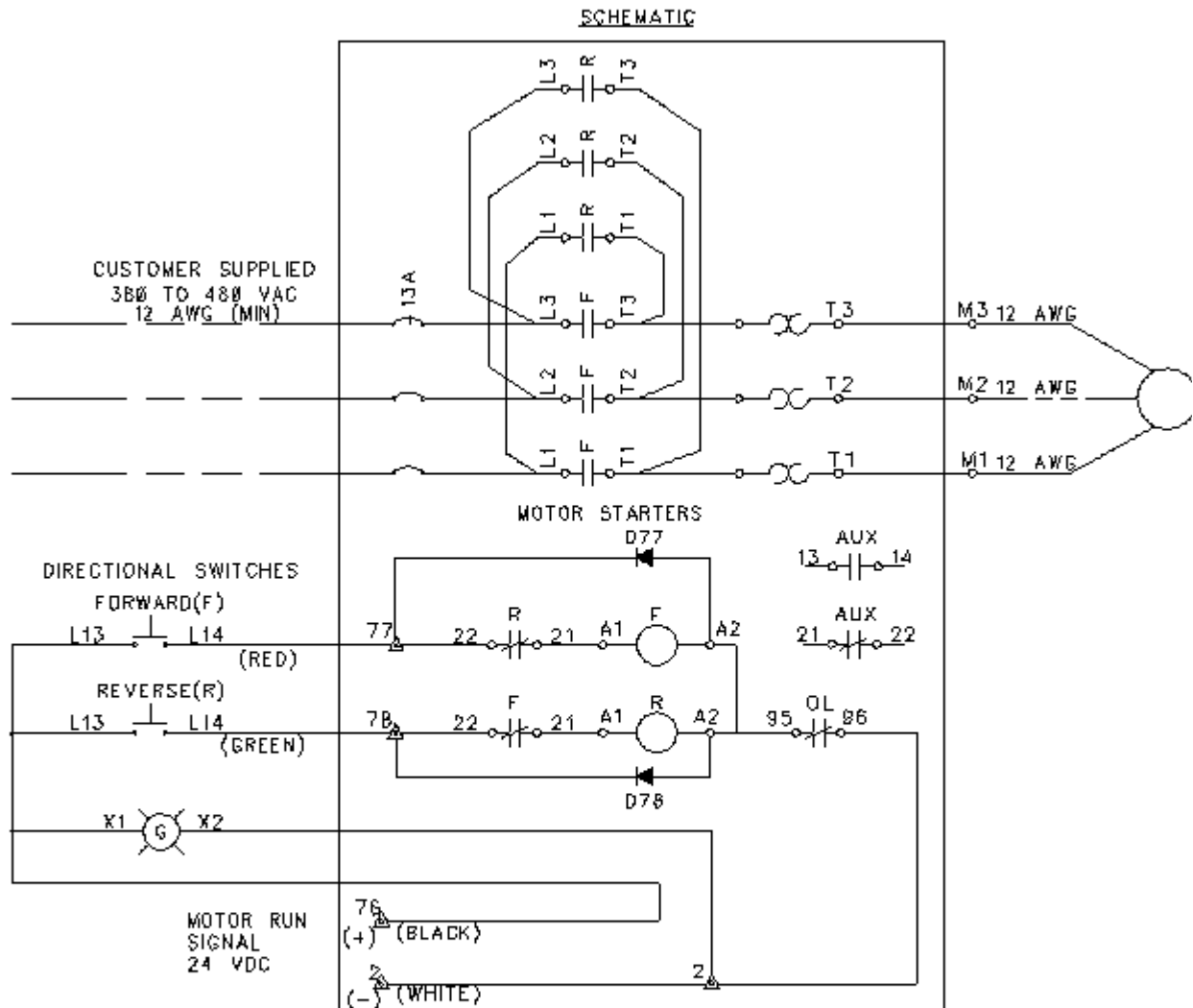


Illustration 24

g0079

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Thu Mar 11 02:13:15 CST 2010