

ELEMENTARY DIAGRAM (UL APPLICATIONS ONLY)

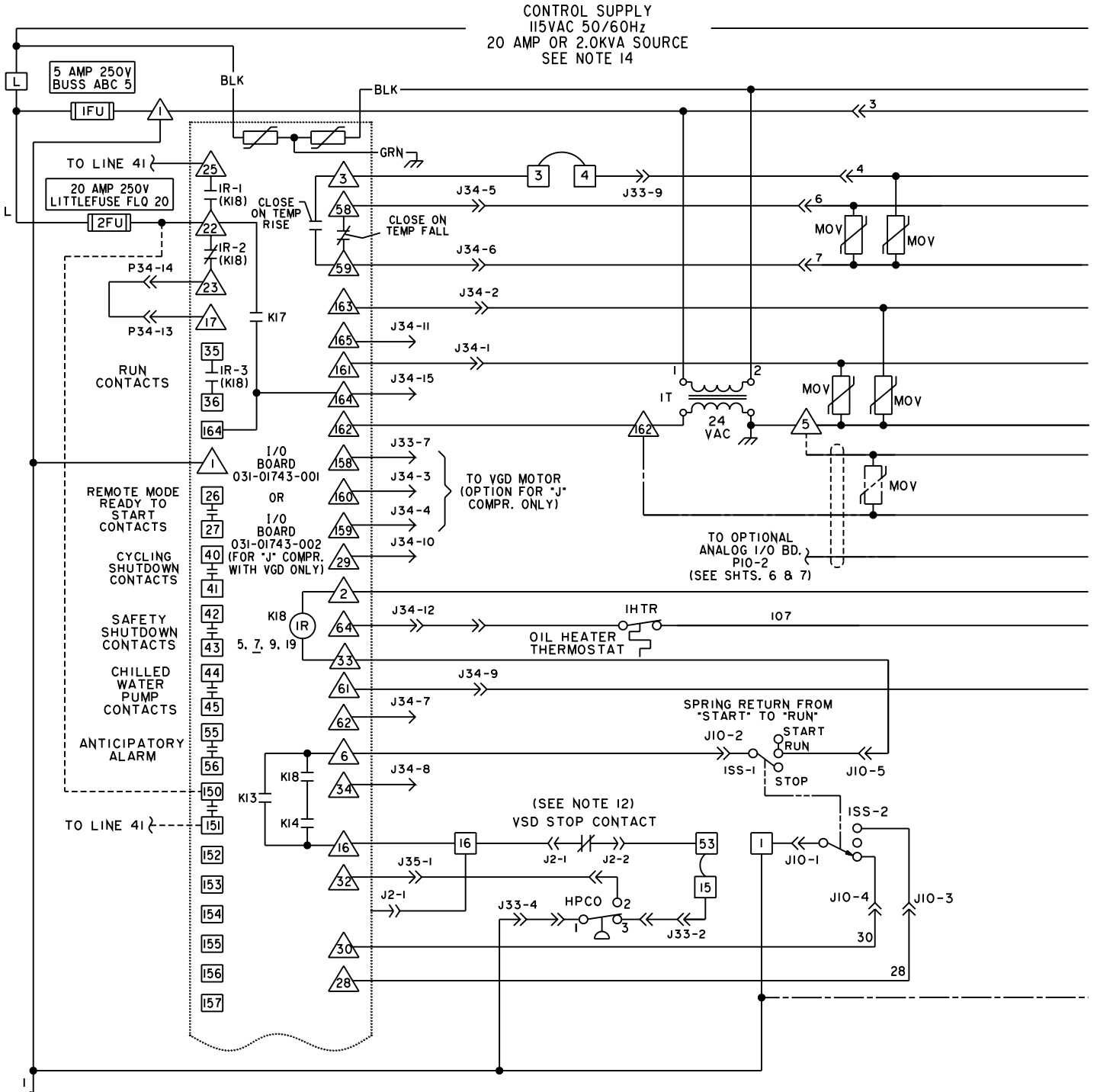
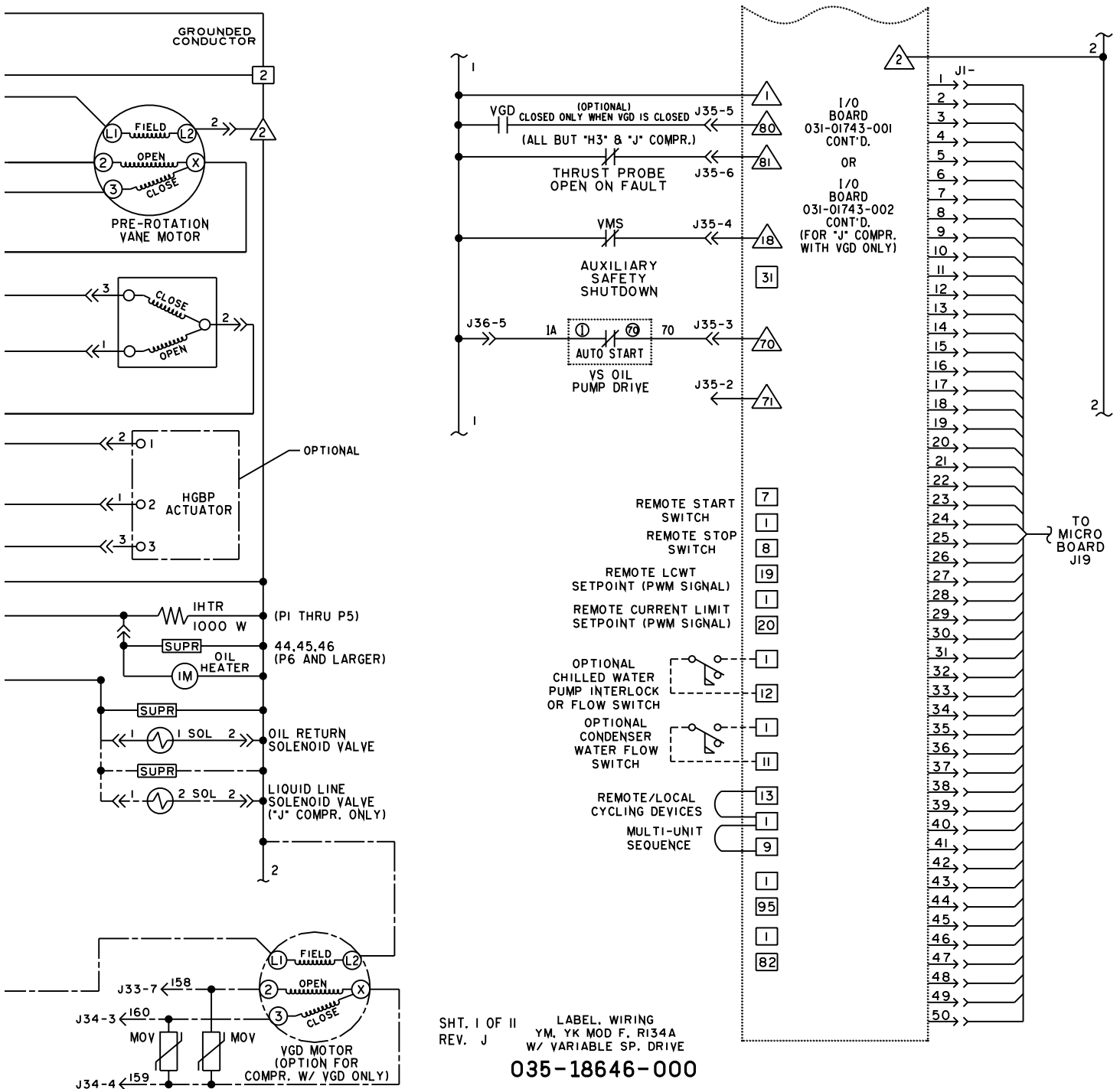


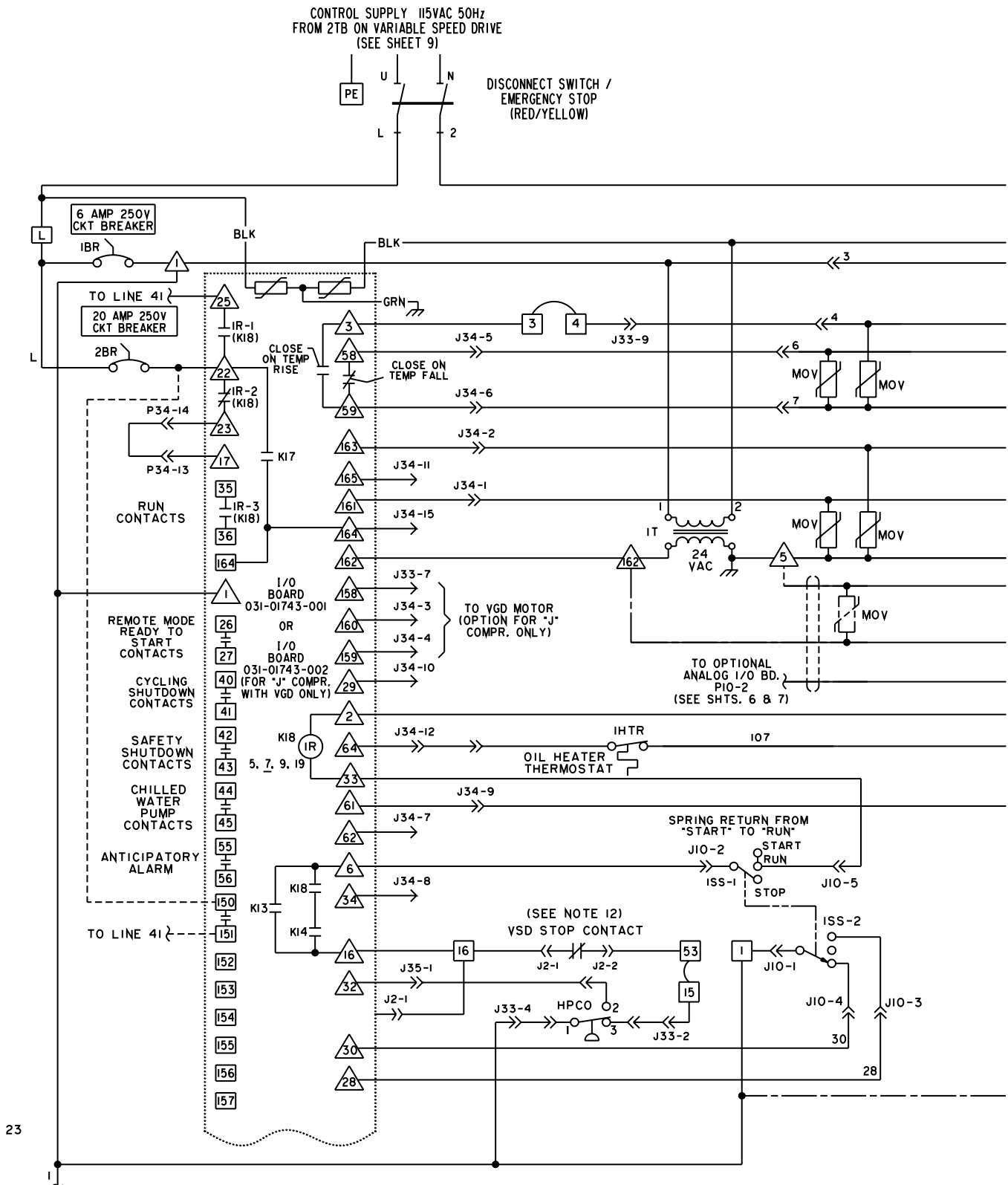
FIG. 1 – ELEMENTARY DIAGRAM (UL APPLICATIONS ONLY)

LD10895

ELEMENTARY DIAGRAM (CON'T) (UL APPLICATIONS ONLY)



ELEMENTARY DIAGRAM (CE APPLICATIONS ONLY)

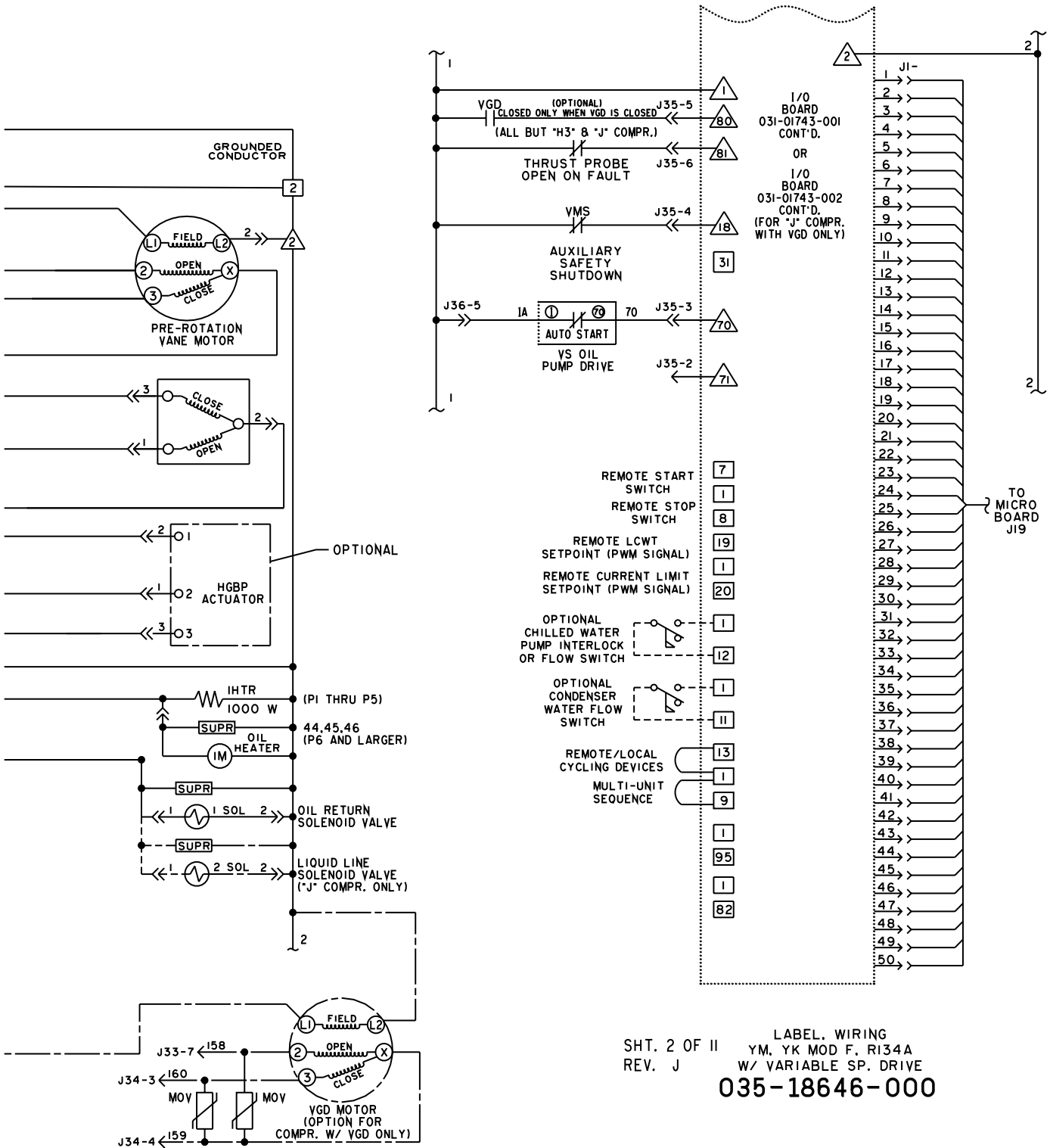


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LD10897

FIG. 2 – ELEMENTARY DIAGRAM (CE APPLICATIONS ONLY)

ELEMENTARY DIAGRAM (CON'T) (CE APPLICATIONS ONLY)



SHT. 2 OF 11 LABEL WIRING
REV. J YM, YK MOD F, R134A
W/ VARIABLE SP. DRIVE
035-18646-000

ELEMENTARY DIAGRAM

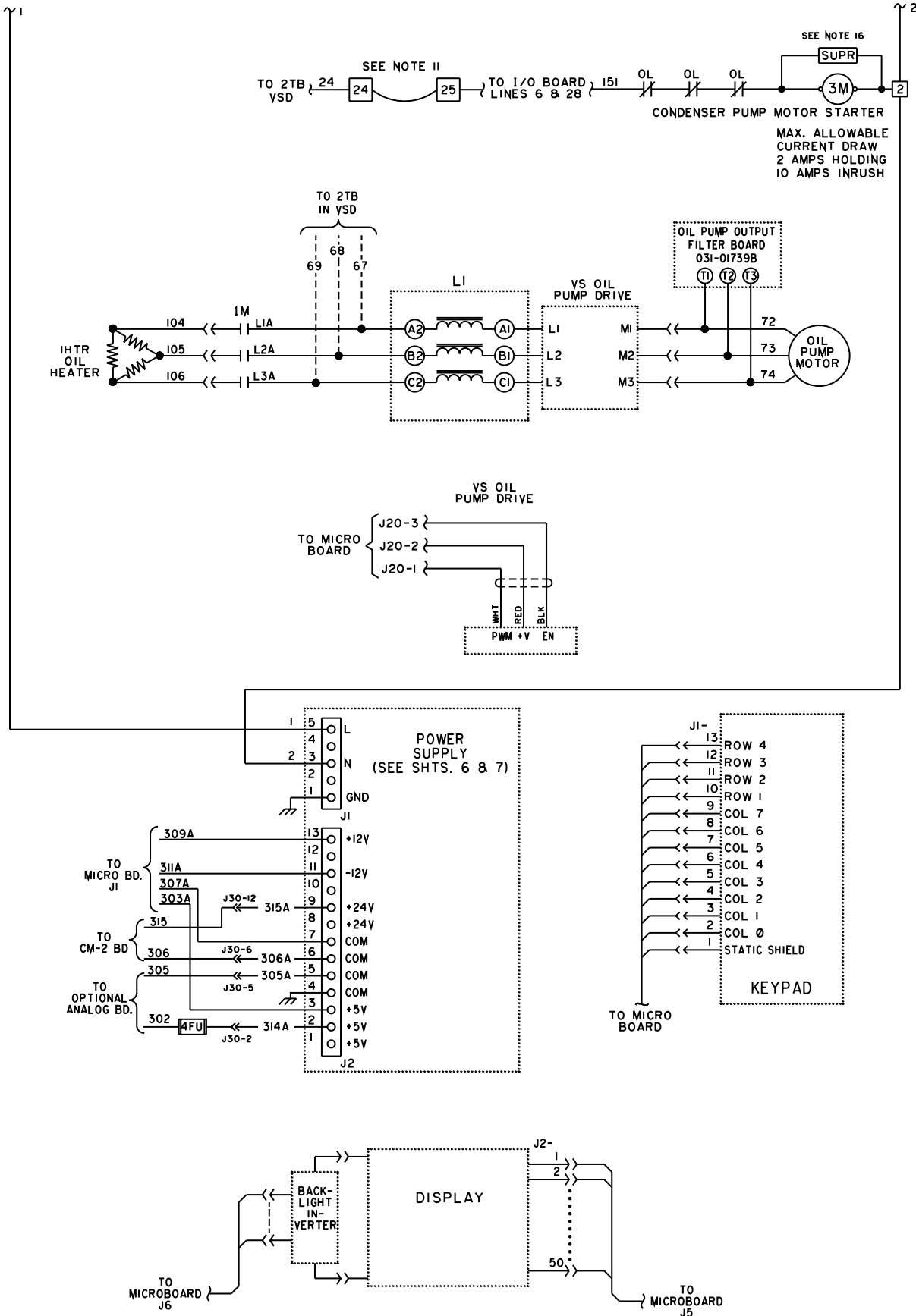
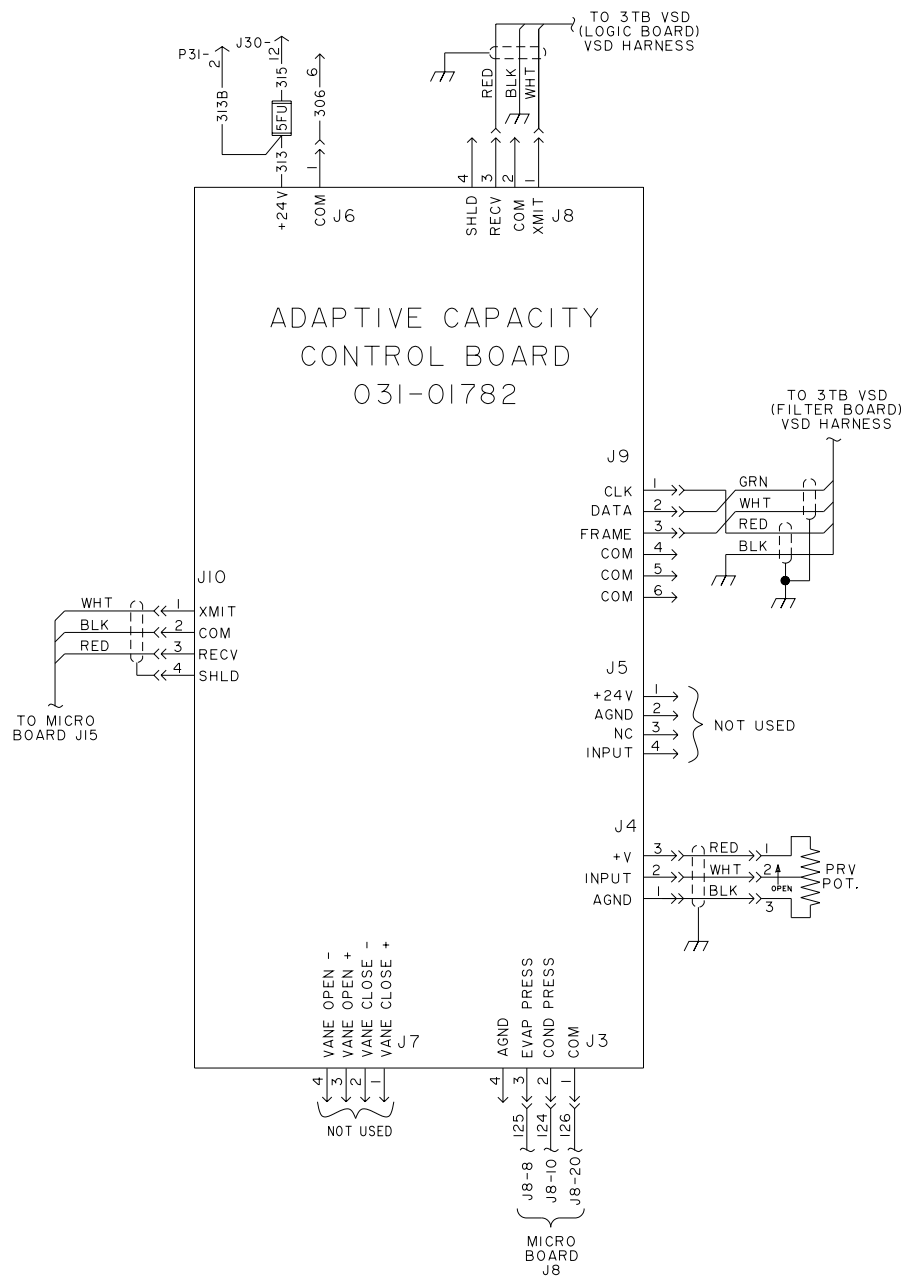
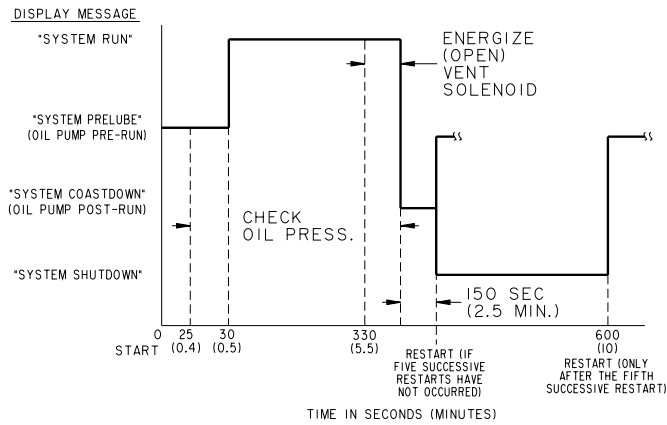


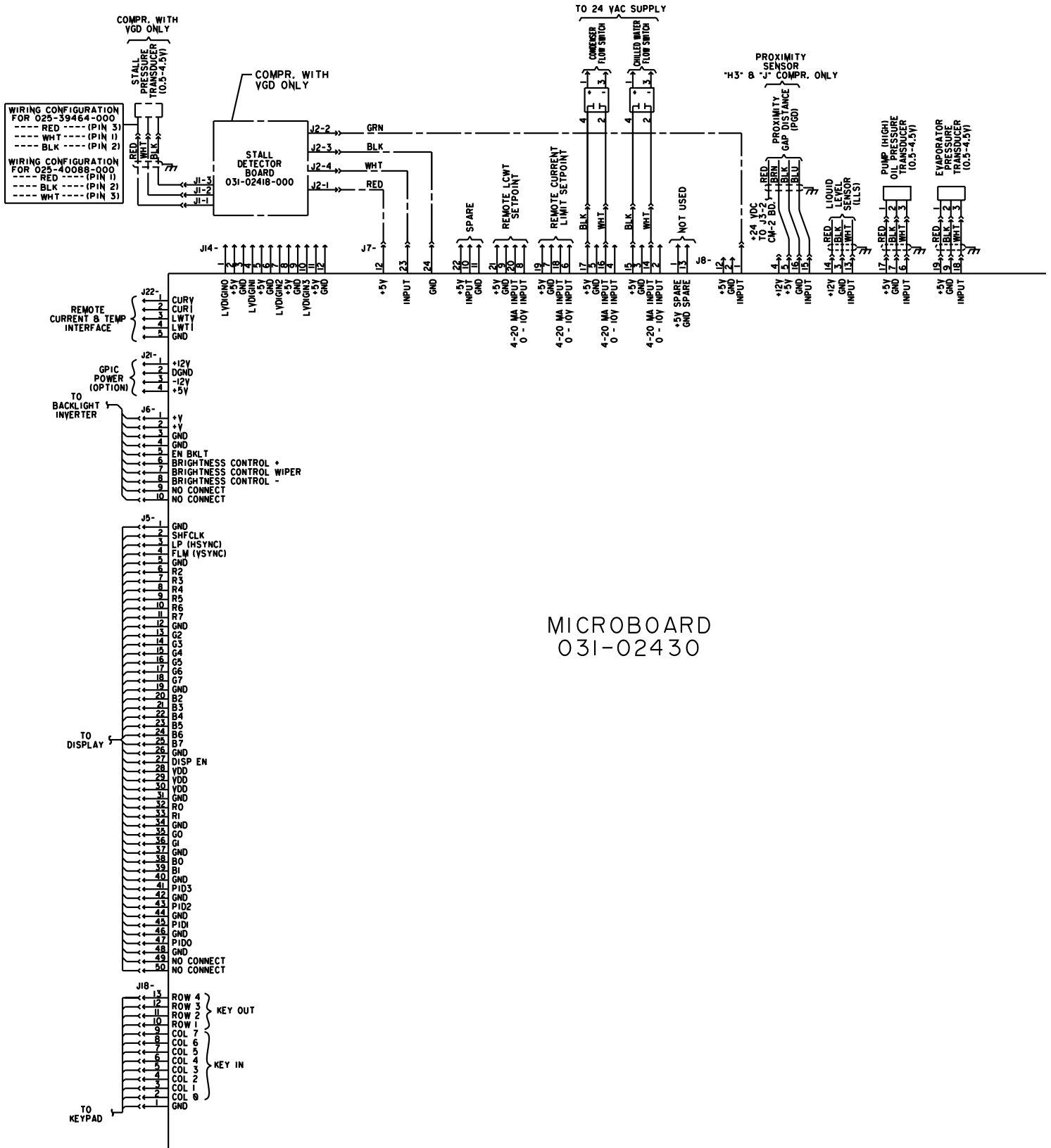
FIG. 3 – ELEMENTARY DIAGRAM

ELEMENTARY DIAGRAM (CON'T)

TIMING DIAGRAM



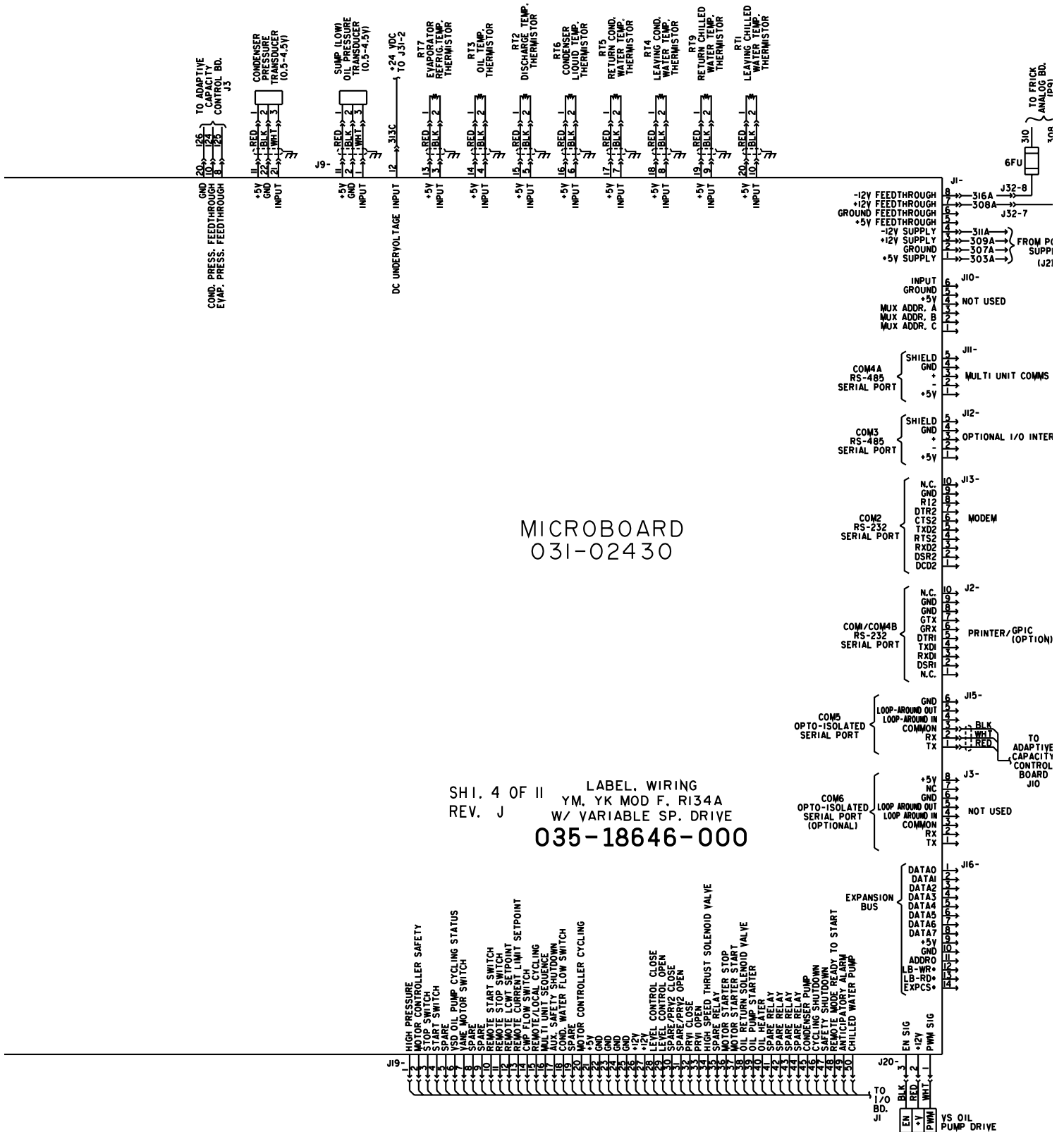
ELEMENTARY DIAGRAM (MICROBOARD 031-02430)








MICROBOARD
031-02430

FIG. 4 – ELEMENTARY DIAGRAM (MICROBOARD 031-02430)

ELEMENTARY DIAGRAM (MICROBOARD 031-02430)(CON'T)



LEGEND

IHTR	3 PHASE THERMOSTATICALLY CONTROLLED 3000 WATT OIL HEATER AT LINE VOLTAGE (P6 AND LARGER) 1000 WATT 120V 1 PHASE (PI THRU P5)
IM	3 PHASE OIL HEATER CONTACTOR
3M	CONDENSER PUMP MOTOR STARTER
IR	COMPRESSOR MOTOR/ IHTR HEATER CONTROL RELAY (K18 - LOCATED ON I/O BD.)
3R	VS OIL PUMP DRIVE RUN RELAY
ISOL	OIL RETURN SOLENOID VALVE
2SOL	LIQUID LINE SOLENOID VALVE (USED ON "J" COMPR. ONLY)
ISS	DPDT 3 POSITION ROCKER SWITCH
2TB	TERMINAL BLOCK, FACTORY WIRING (IN VSD)
3TB	TERMINAL BLOCK, FACTORY WIRING (IN VSD)
FDT5	FAULTY DISCHARGE TEMP. SENSOR
FLA	FULL LOAD AMPS (COMPRESSOR MOTOR)
FU	FUSE
PGD	PROXIMITY GAP DISTANCE (PROBE LOCATED IN COMPRESSOR)
HDT	REFRIG. HIGH DISCHARGE TEMP. (PROVIDED BY RT2)
HOP	HIGH OIL PRESSURE (PROVIDED BY TWO TRANSDUCERS)
HOT	HIGH OIL TEMPERATURE (PROVIDED BY RT3)
HP	HIGH PRESSURE CUTOUT
LEP	LOW EVAPORATOR PRESSURE (PROVIDED BY EVAP. PRESS TRANSDUCER)
LLS	LIQUID LEVEL SENSOR (PROBE)
LOT	LOW OIL TEMPERATURE (PROVIDED BY RT3)
LOTD	LOW OIL TEMP. DIFFERENTIAL (PROVIDED BY RT3 AND CONDENSER PRESS. TRANSDUCER)
HGBP	HOT GAS BYPASS
IT	CLASS 2 POWER SUPPLY TRANSFORMER
L1	INDUCTOR 4A, 9mH (460VAC)
LWT	LOW WATER TEMPERATURE (PROVIDED BY RT1)
MOV	METAL OXIDE VARISTOR
OL	MOTOR STARTER OVERLOADS
OP	LOW OIL PRESSURE (PROVIDED BY TWO TRANSDUCERS)
OVA	ORIFICE VALVE ACTUATOR
PRV	PRE-ROTATION VANE MOTOR
RT1-RT9	RESISTANCE TEMPERATURE SENSING ELEMENT
RES	RESISTOR
SUPR	TRANSIENT SUPPRESSOR
TBI, TB3, TB5,	TERMINAL BLOCK, FACTORY WIRING — 
TB2, TB4	TERMINAL BLOCK, FIELD CONNECTION — 
TB6	TERMINAL BLOCK, FIELD (BOTTOM), FACTORY (TOP)
VMP	VANE MOTOR POTENTIOMETER
VMS	VANE MOTOR SWITCH
VS	VARIABLE SPEED OIL PUMP DRIVE
-----	FIELD WIRING
—————	FACTORY WIRING
.....	CIRCUIT BOARD OR ENCLOSURE BOUNDARY
→	JACK (J1, J2, ...)
⌢	PLUG (P1, P2, ...)
	WIRE ENTRANCE HOLE IN CONTROL PANEL
-----	OPTION (WHEN SUPPLIED) BY YORK.
-----	MECHANICAL LINKAGE
	SHIELDED CABLE
	METAL OXIDE VARISTOR
K13, K14, K17	RELAYS MOUNTED ON I/O BOARD — SEE OPERATOR'S MANUAL

DISPLAY INTERFACE BOARD

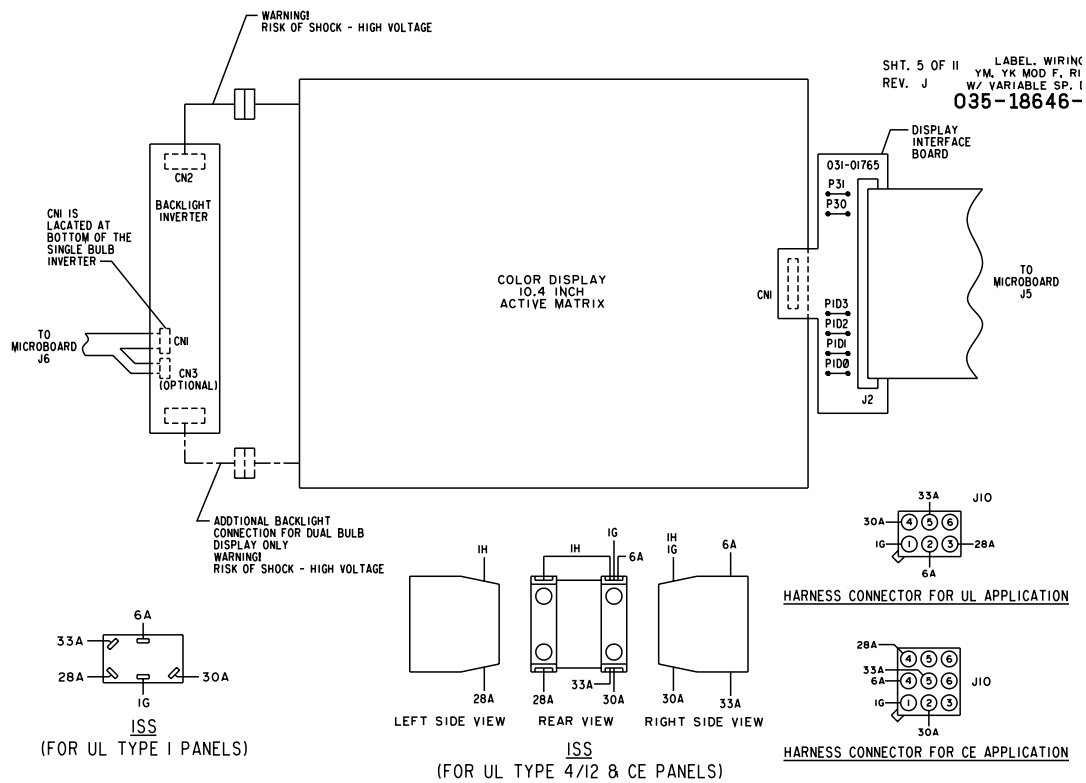


FIG. 5 – DISPLAY INTERFACE BOARD

NOTES:

- This wiring diagram describes the standard electronic control scheme for use with a YORK V.S.D. for details of standard modifications, refer to Product Form 160.54-PW7.
- Field wiring to be in accordance with the National Electrical Code as well as all other applicable codes and specifications. See Product Form 160.54-PW6 for field wiring connections.
- Numbers along the left side of diagram are line identification numbers. The numbers along the right side indicate the line number location of relay contacts. An underlined contact location signifies a normally closed contact.
- Main control panel Class 1 field wiring terminal connection points are indicated by numbers within a rectangle, i.e. 15. Main control panel factory wiring terminal connection points are indicated by numbers within a triangle, i.e. \triangle . Component terminal markings are indicated by numbers within a circle, i.e. $\textcircled{1}$. Numbers adjacent to circuit lines are the circuit identification numbers.
- To cycle unit on and off automatically with contacts other than those shown, install a cycling device between terminals 1 & 13 (line 37) (see note 7). If a cycling device is installed, jumper must be removed between terminals 1 & 13.
- To stop unit and not permit it to start again, install a stop device between terminals 1 & 8 (Line 33) (see note 7). A remote start-stop switch may be connected to terminals 1, 7 & 8 (Lines 32 & 33) (see note 7). Remote start-stop switch (Line 32) is operative only in the "remote" operating mode.
- Device contact rating to be 5 milliamperes @ 115 volts A.C.
- Contact rating is 5 Amps resistive @ 120 volts A.C. or 240 volts A.C.
- For wiring diagram of V.S.D refer to product form 160.49-PW9.
- A jumper is installed between terminals 24 & 25 for normal operation.
CAUTION: The jumper is the only connection permitted between terminals 24 & 25. Connections of any other devices to either terminals 24 & 25 may cause inadvertent compressor start-up.
- Stop contact on V.S.D logic board is set to trip at 105% FLA.
- Contact rating is 5 Amps resistive @ 250 Volts A.C. & 30 Volts D.C., 2 Amp Inductive (.4 PF) @ 250 Volts A.C. & 30 Volts D.C.
- Field connected control power supply is not required, as control transformer is supplied on the V.S.D.
- For high and low voltage units, the factory supplied jumper between 15 & 53 must be removed when electromechanical starter overloads and/or safety devices are used. For high voltage (2300-4160) UL and CUL approved units only. Electromechanical compressor motor starter overloads (normally closed) must be connected between 15 & 53.
- Each 115VAC field-connected inductive load: i.e. relay coil, motor starter coil, etc., shall have a transient suppressor wired in parallel with its coil, physically located at the coil. Spare transient suppressors and control circuit fuses are supplied in a bag attached to green ground screw in lower left corner of control panel.
- Resistor for use with Belimo actuator. Remove resistor if hot gas actuator is a Dodge Engineering, Bray or Landis-Staefa actuator.

CONNECTION DIAGRAM (UL APPLICATIONS ONLY)

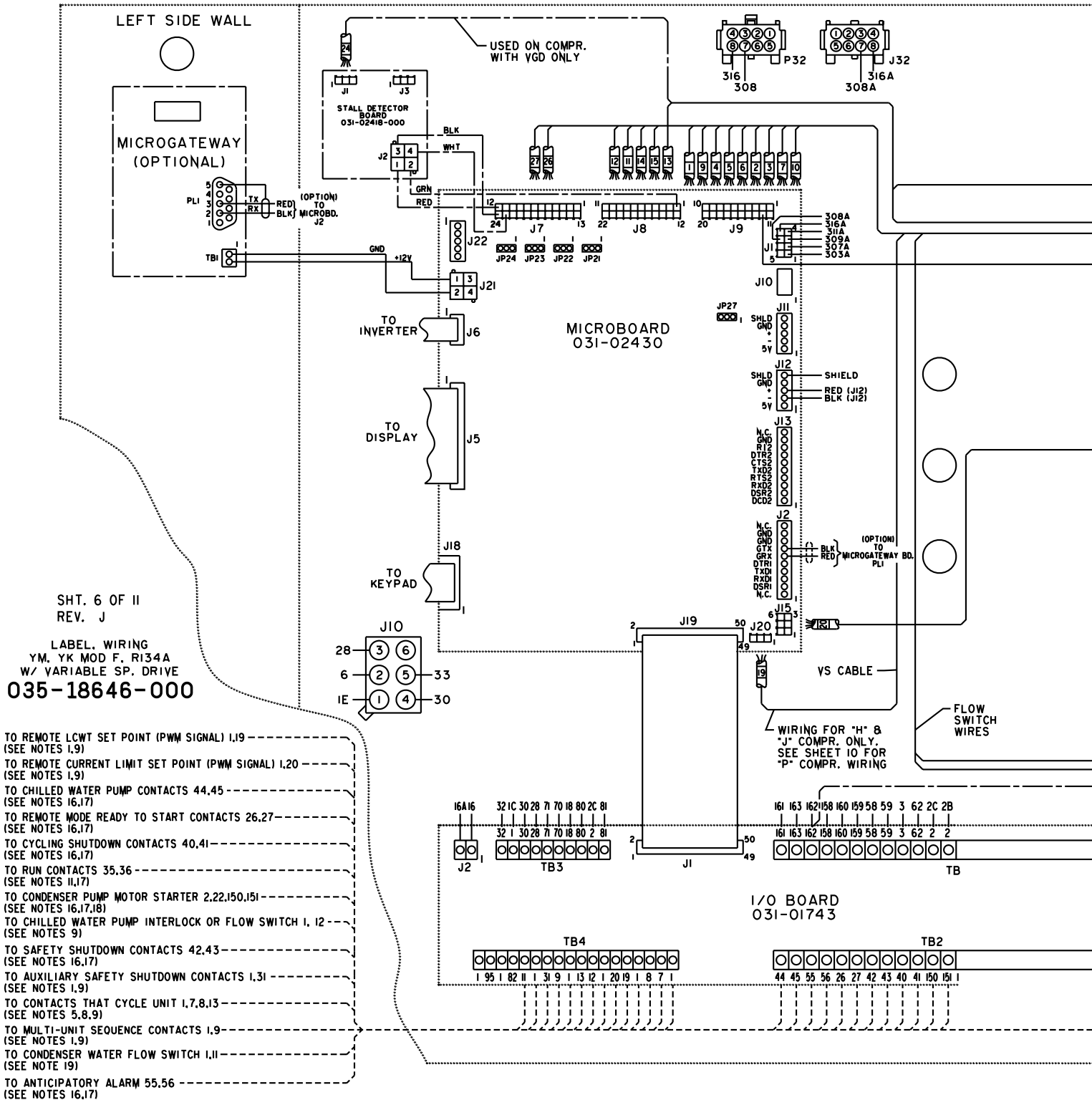
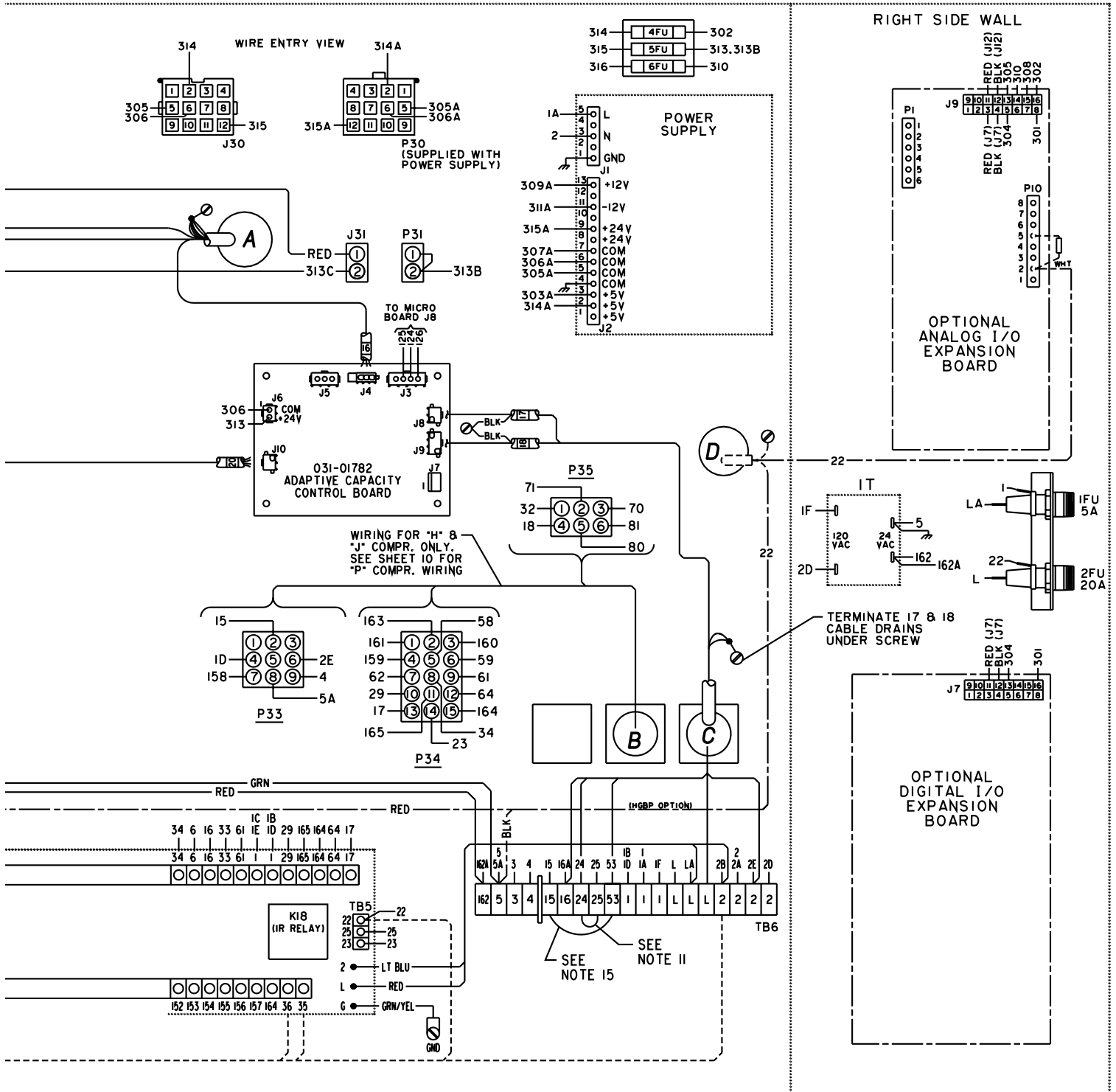


FIG. 6 – CONNECTION DIAGRAM (UL APPLICATIONS ONLY)

LD10903

CONNECTION DIAGRAM (CON'T)

(UL APPLICATIONS ONLY)



CONNECTION DIAGRAM (CE APPLICATION ONLY)

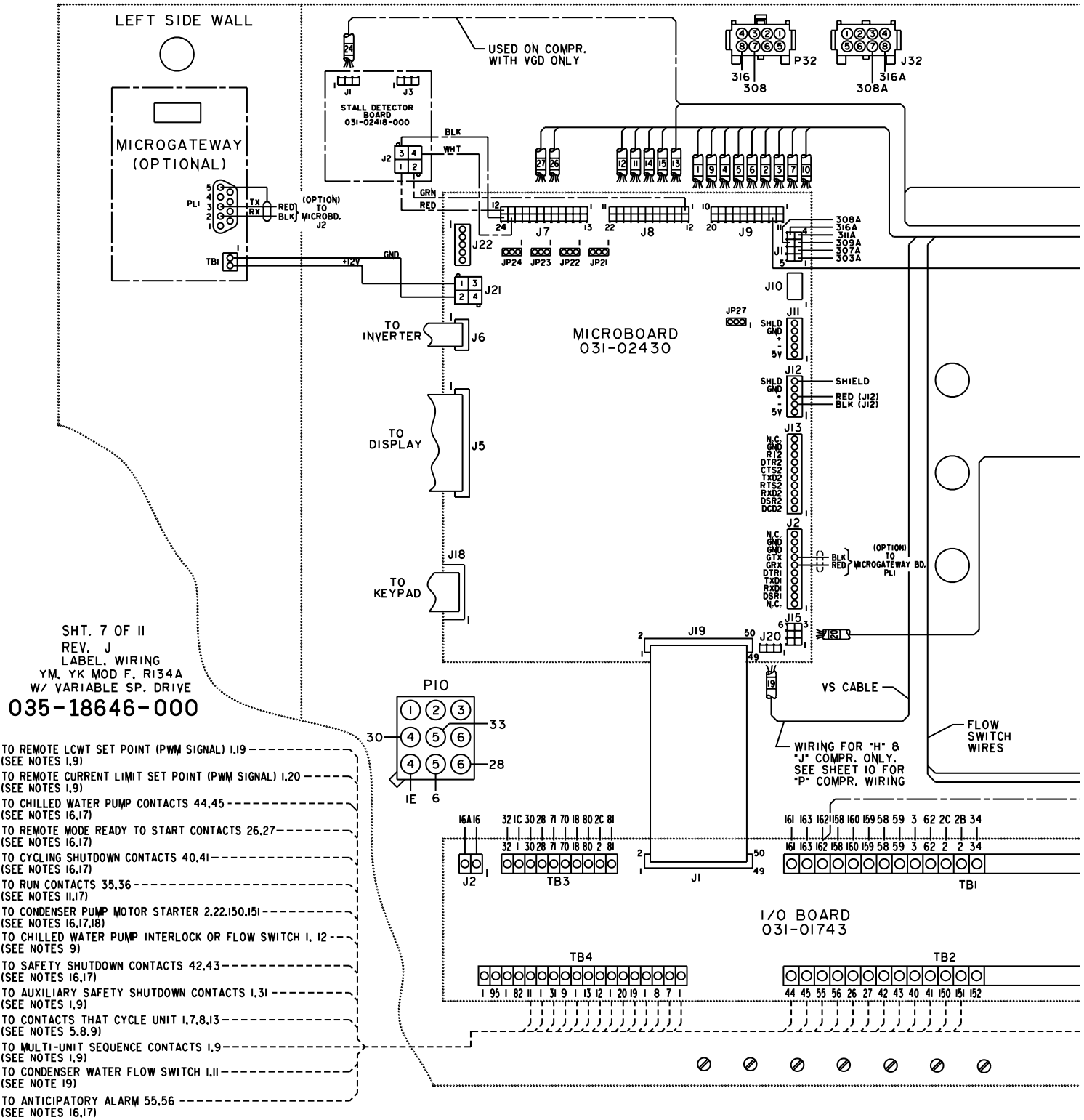
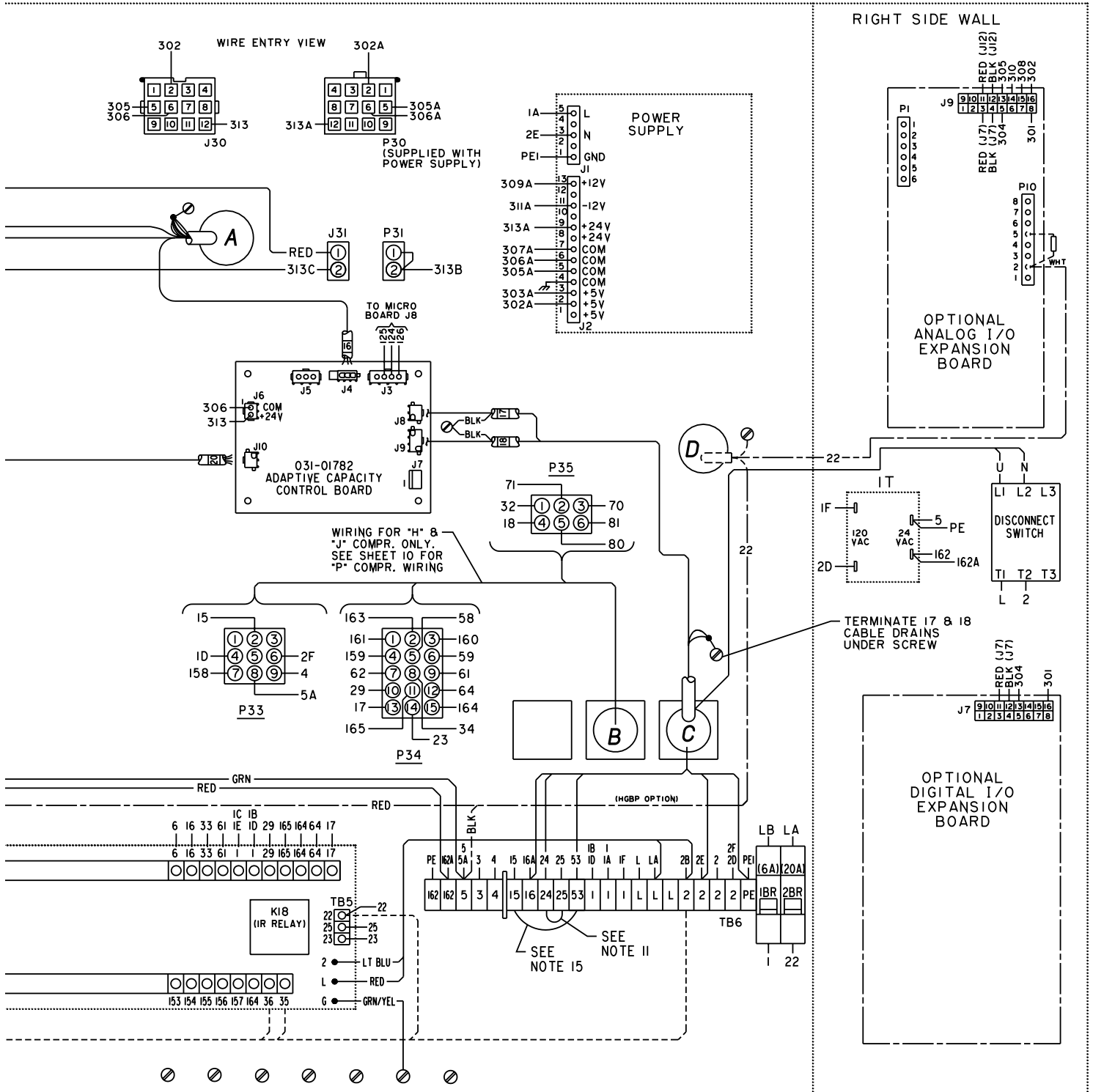


FIG. 7 – CONNECTION DIAGRAM (CE APPLICATION ONLY)

LD10905

CONNECTION DIAGRAM (CON'T) (CE APPLICATION ONLY)



CONNECTION DIAGRAM

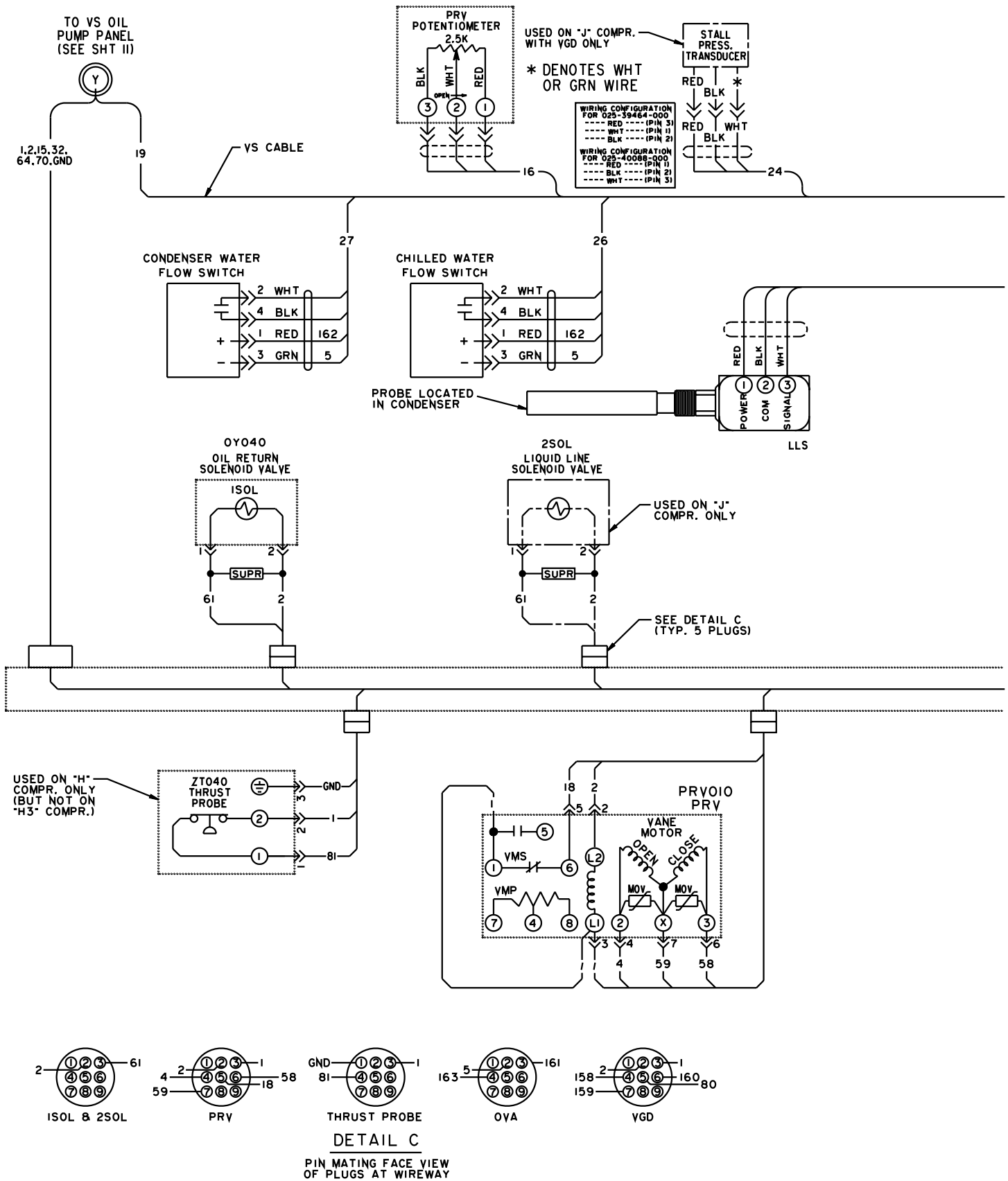
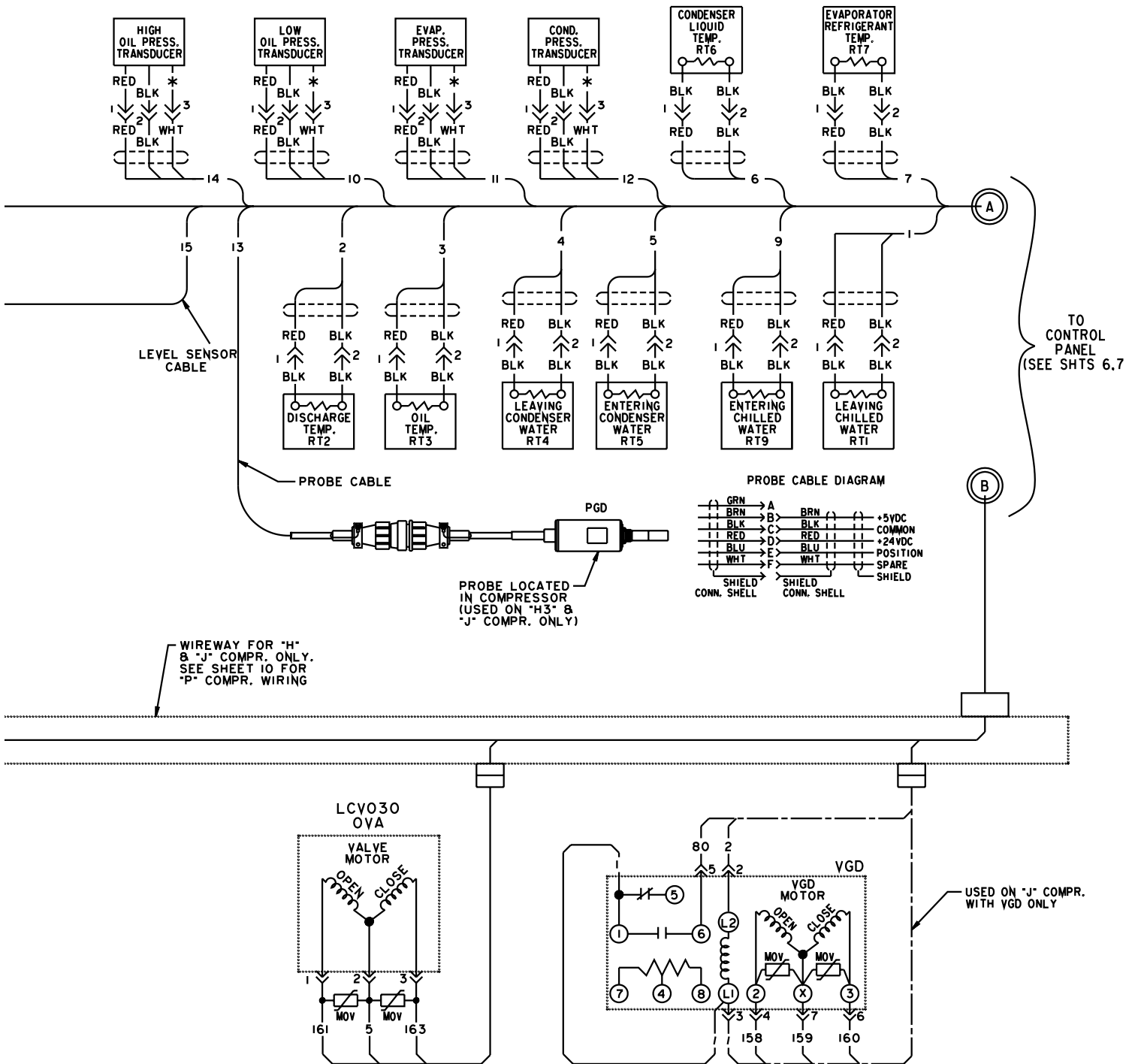


FIG. 8 – CONNECTION DIAGRAM

LD10907

CONNECTION DIAGRAM (CON'T)



SHT. 8 OF 11 LABEL. WIRING
 REV. J YM, YK MOD F. R134A
 W/ VARIABLE SP. DRIVE
035-18646-000

CONNECTION DIAGRAM

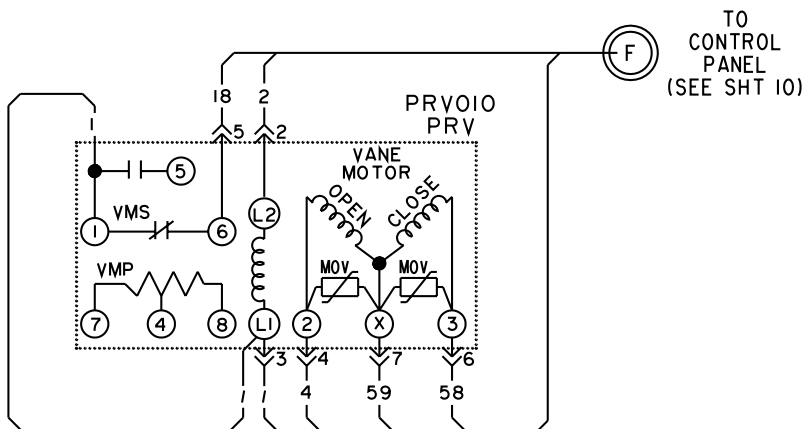
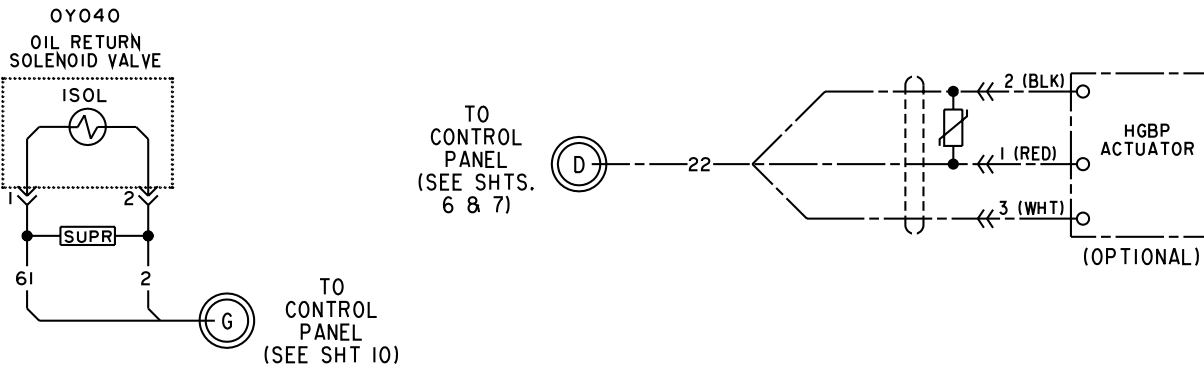
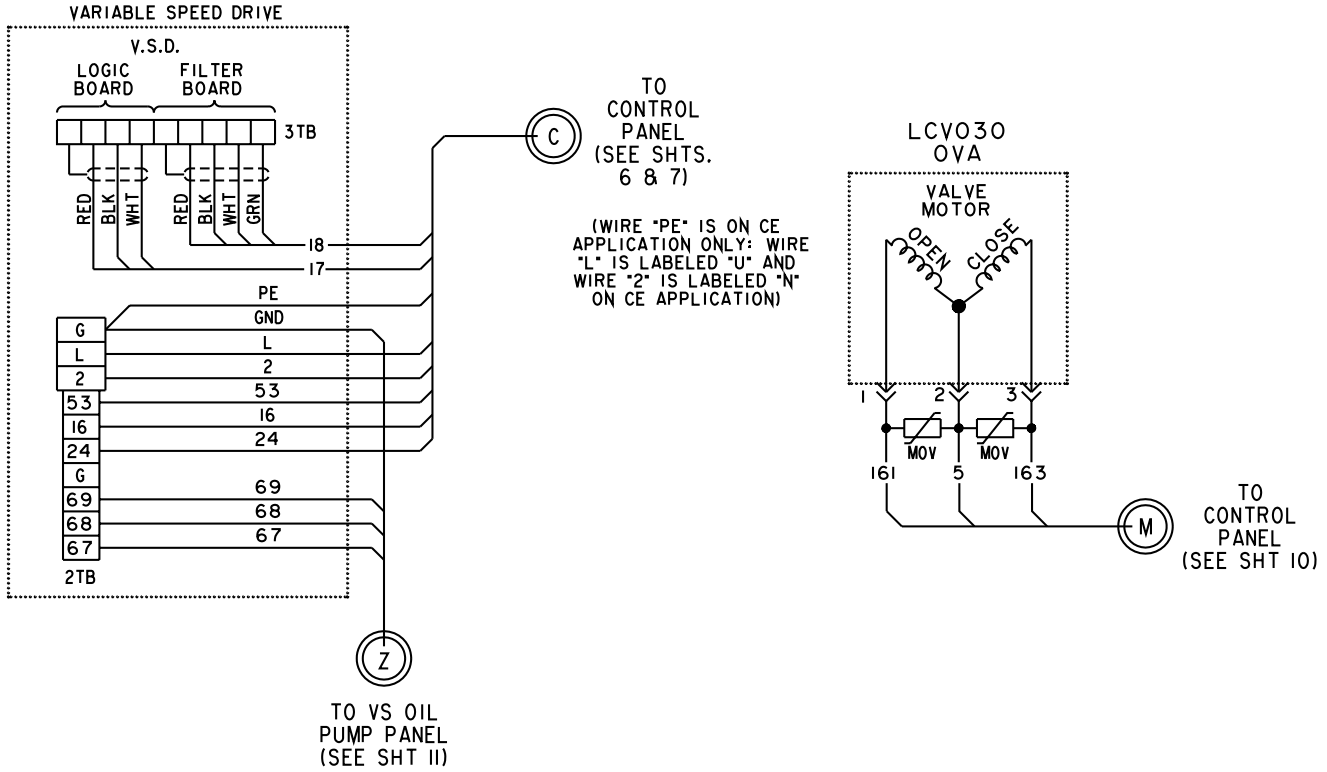
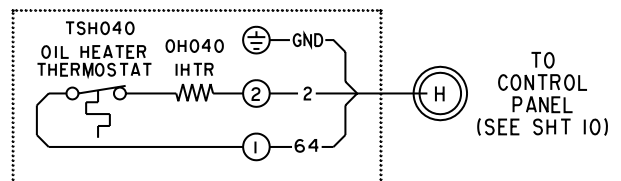
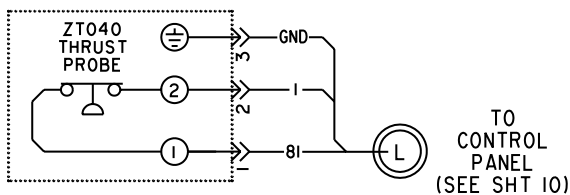
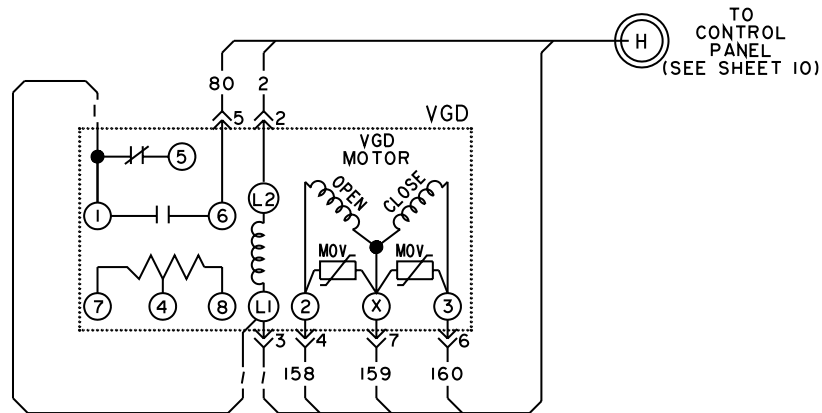
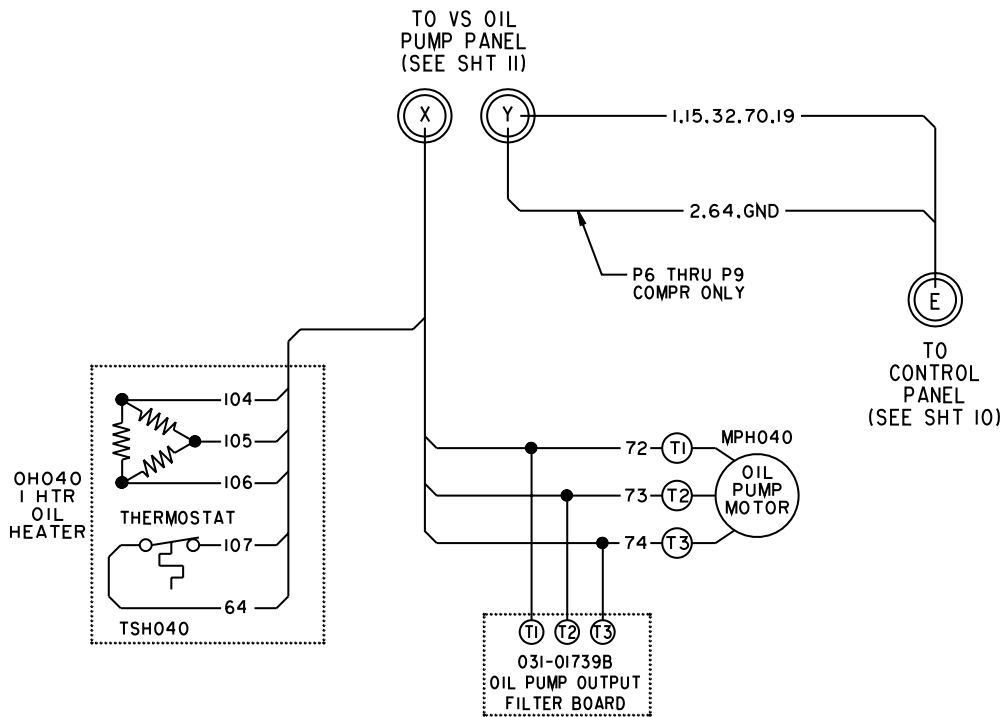


FIG. 9 – CONNECTIONS TO CONTROL PANEL

CONNECTION DIAGRAM (CON'T)



SHT. 9 OF 11 LABEL. WIRING
 Y.M. YK MOD F. R134A
 REV. J W/ VARIABLE SP. DRIVE
035-18646-000

CONNECTION DIAGRAM

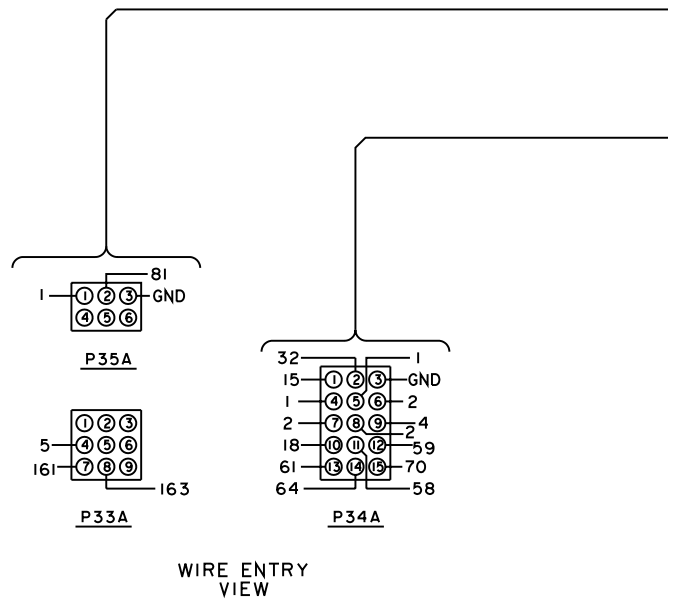
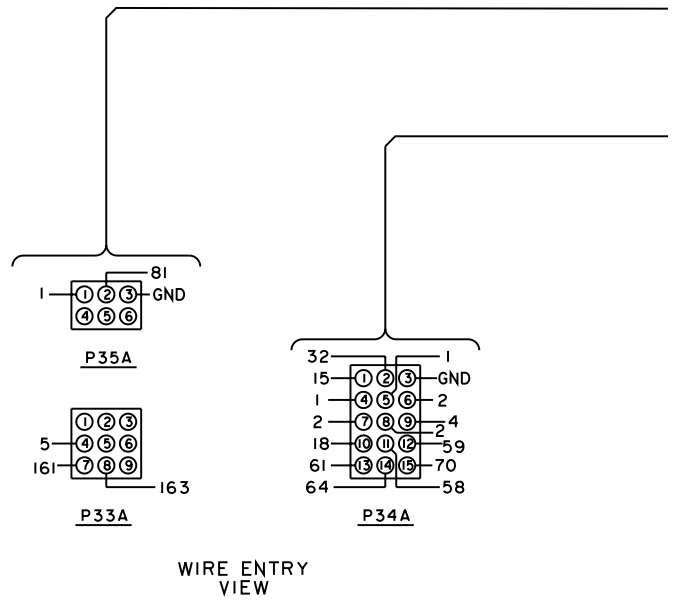
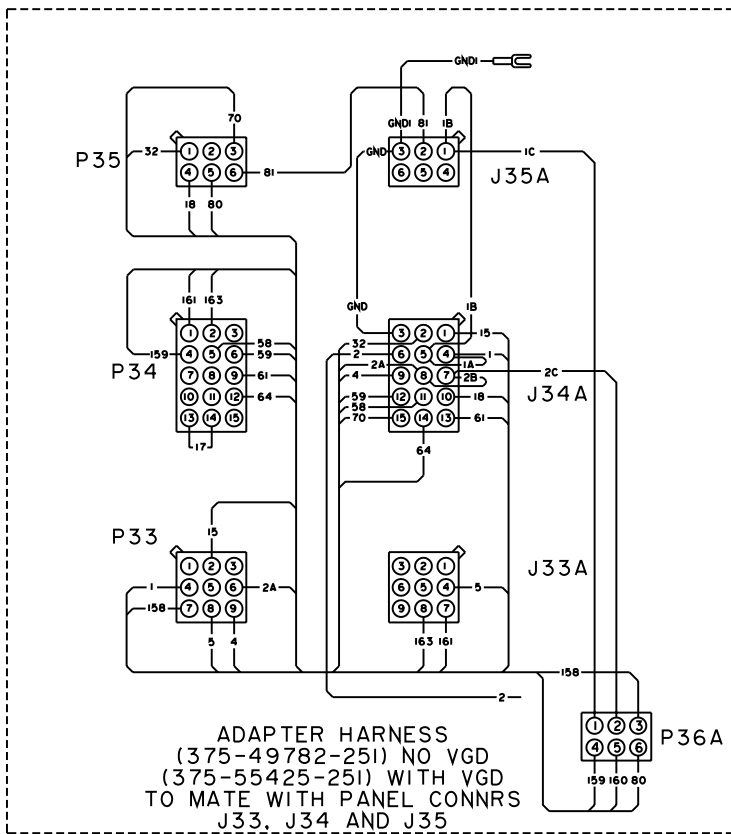
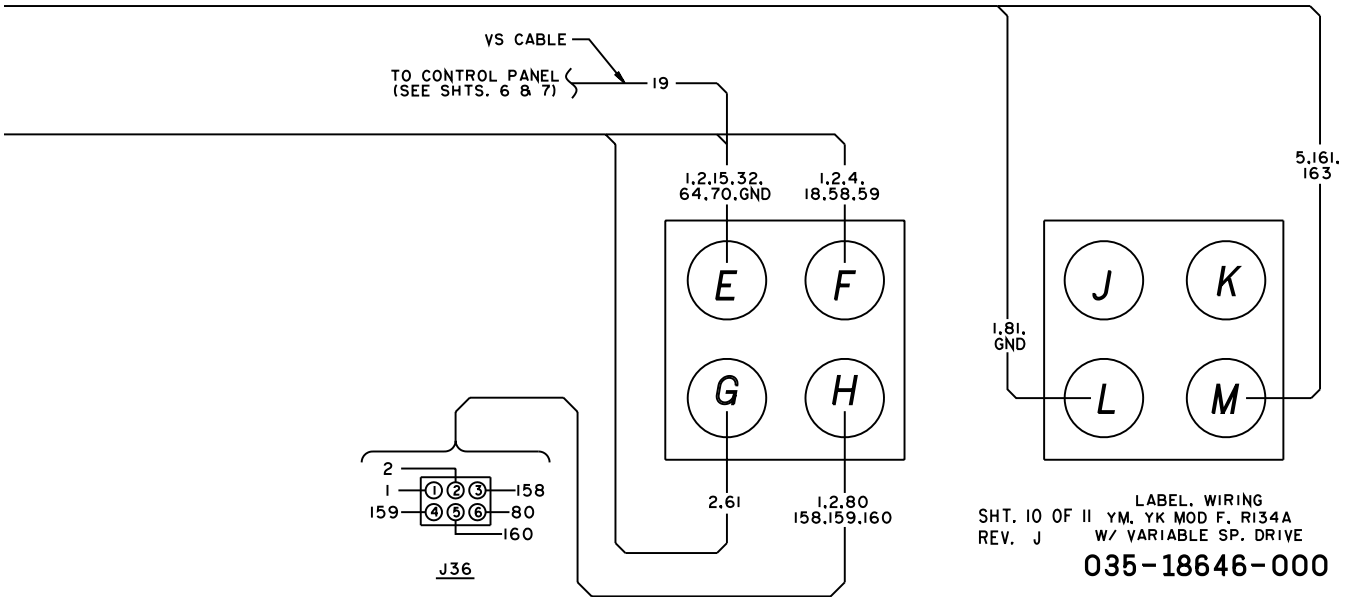
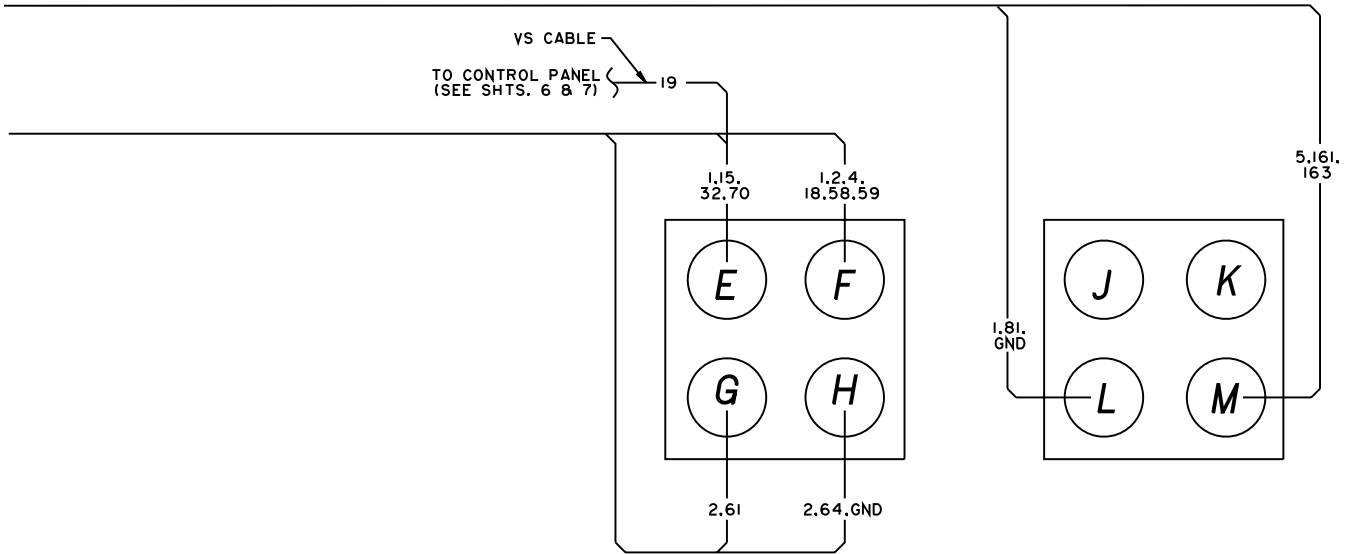
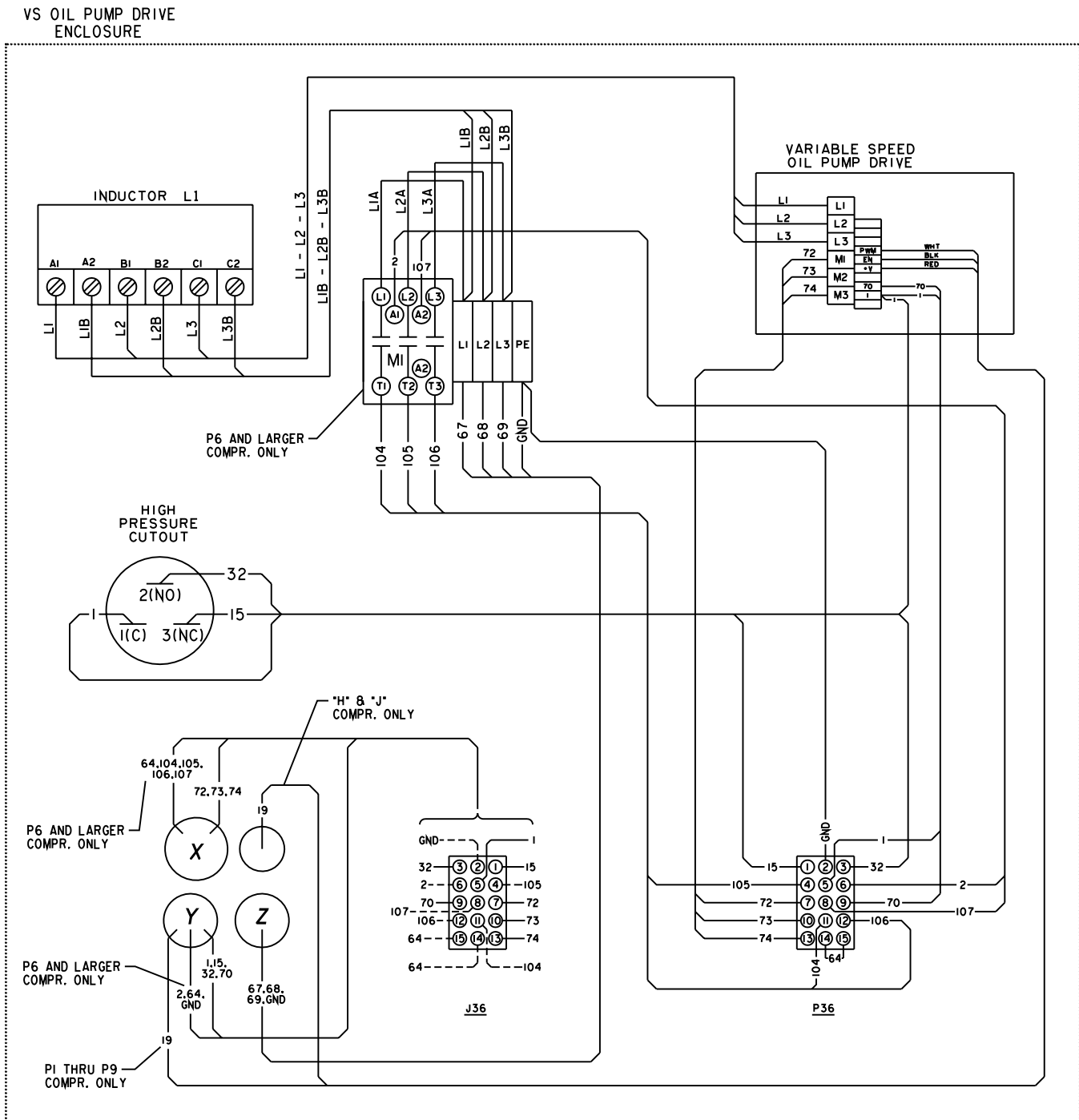


FIG. 10 – CONNECTION DIAGRAM

CONNECTION DIAGRAM (CON'T)



VARIABLE SPEED OIL PUMP DRIVE PANEL



SHT. II OF II LABEL WIRING
 REV. J YM, YK MOD F. R134A
 W/ VARIABLE SP. DRIVE
035-18646-000

FIG. 11 – WIRING FOR 380V THRU 480V UNITS

PRESSURE - TEMPERATURE CHART

PRESSURE-TEMPERATURE CHART							
APPLICATION		DEVICE	UNITS	OPERATING POINT			
CHILLED WATER	BRINE			ON RISE		ON FALL	
✓	✓	HDT	DEG.F/DEG.C	220/104.4		219/103.9	
✓	✓	HOT	DEG.F/DEG.C	180/82.2		179/81.7	
✓	✓	OP	PSID/kPa	25/172		15/104	
				FOR FURTHER INFORMATION, SEE OPERATOR'S MANUAL			
✓	✓	HP (R-134a)	PSIG/kPa	CUT-OUT 180/1241	INHIBIT PRV OPENING * 162.5/1120	ALLOW PRV OPENING * 160/1103	CUT-IN 120/827
✓		LEP (R-134a)	PSIG/kPa	CUT-IN 25.1/173	ALLOW PRV OPENING 28.0/193	INHIBIT PRV OPENING 27.0/186	CUT-OUT 25.0/172
	✓	ILEP	PSIG				
✓	✓	HOP	PSID/kPa	90/620.6		<90/620.6	
✓	✓	FDTS	DEG.F/DEG.C	30.0/-1.10		29.9/-1.20	
✓		LWT	DEG.F/DEG.C	PROGRAMMABLE PER OPERATOR'S MANUAL FORM 160.54-01			
	✓	LWT	DEG.F/DEG.C				
✓	✓	LOT	DEG.F/DEG.C	71.0/21.7		55.0/12.8	
✓	✓	LOTD †	DEG.F/DEG.C	30/16.7		29.9/16.6	
✓	✓	LOTD ††	DEG.F/DEG.C	40/22.2		39.9/22.1	
✓	✓	HSDT	DEG.F/DEG.C	CUT-OUT 250/121.1		CUT-IN 180/82.2 & MANUAL RESET	

- * - FUNCTION PROVIDED BY CONDENSER TRANSDUCER. DEFAULT VALUES SHOWN ON TABLE, ACTUAL VALUES AS PROGRAMMED.
 ** - THIS FUNCTION IS NOT FOR ALL SHUTDOWNS - SEE OPERATOR'S MANUAL
 † - APPLICABLE IF UNIT WAS SHUTDOWN FOR 30 MINS. OR LESS
 †† - APPLICABLE IF UNIT WAS SHUTDOWN FOR GREATER THAN 30 MINS.

LD10914



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