

TERMINAL TYPES:

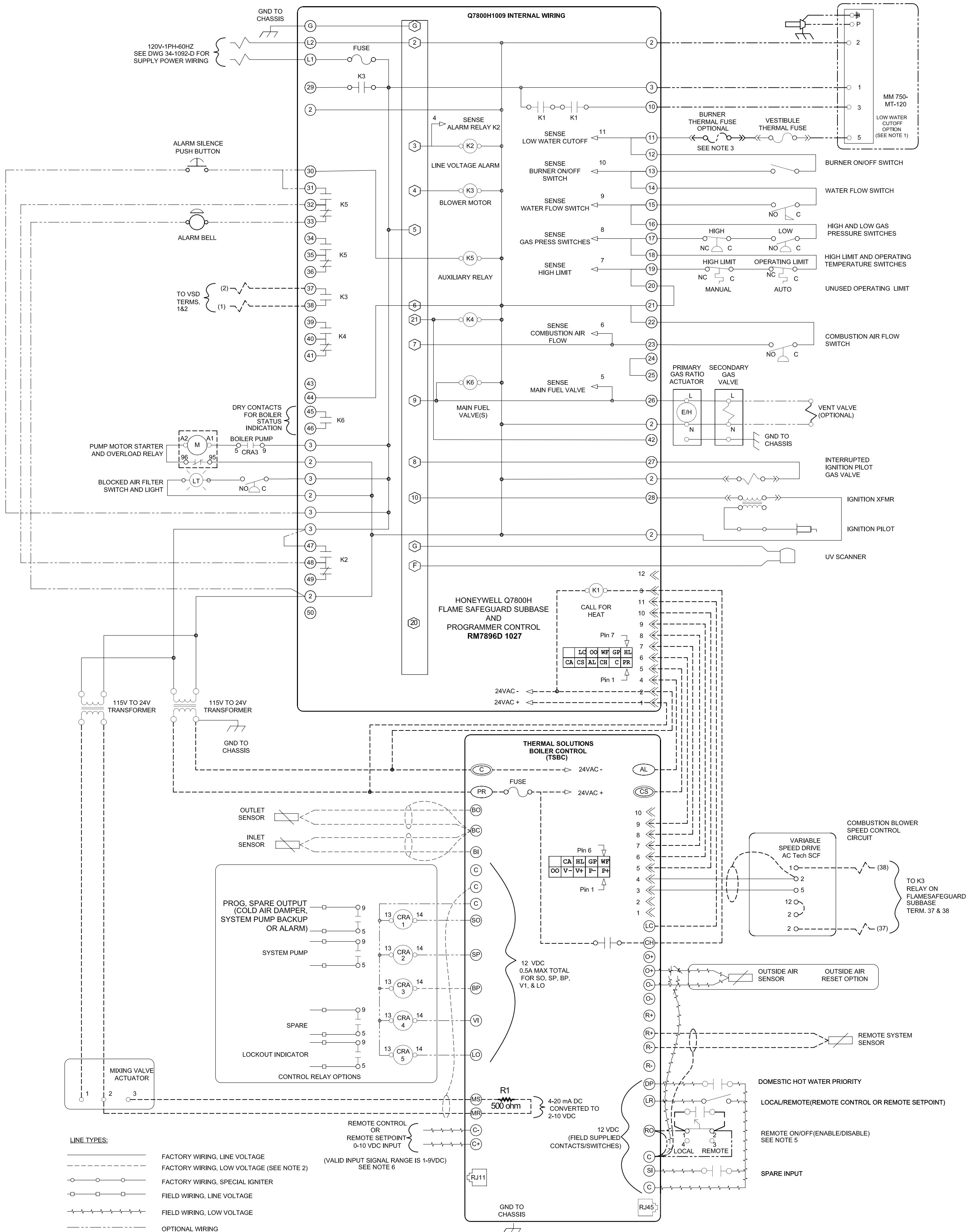
- # HONEYWELL RM 7800 SUBBASE
- # COMPRESSION
- # MOLEX CONNECTOR
- # MALE SPADE TERMINAL
- # FEMALE SPADE TERMINAL
- # RJ11 OR RJ45 CONNECTOR

RELAY / SWITCH TERMINALS:
 C = COMMON
 NC = NORM. CLOSED
 NO = NORM. OPEN

- NOTES:**
1. IF LOW WATER CUTOFF (LWCO) IS USED DISCONNECT WIRE, LABELED P2 10/VESTIBULE, FROM VESTIBULE THERMAL FUSE AND CONNECT TO LWCO TERMINAL 3 AND CONNECT LWCO TERMINAL 5 TO VESTIBULE THERMAL FUSE.
 2. FACTORY WIRING, LOW VOLTAGE IS 24VAC UNLESS OTHERWISE INDICATED.
 3. IF THE BURNER THERMAL FUSE IS NOT USED (VENTURI BOILERS), REMOVE WIRE LABELED VEST FUSE/BURNER FUSE AND CONNECT WIRE LABELED 11 P2/BURNER FUSE TO THE VESTIBULE THERMAL FUSE.
 4. THE VALID INPUT SIGNAL RANGE FOR TERMINALS (C+,C-) IS 1-9VDC. A SIGNAL ABOVE OR BELOW THIS RANGE IS RECOGNIZED AS A 'SOFT' ALARM. AS A RESULT, THE CONTROL FUNCTION IS IGNORED.
 5. IF THE REMOTE ON/OFF (ENABLE/DISABLE) SWITCH IS NOT ORDERED, JUMPER TERMINAL RO TO TERMINAL C ON THE TSBC. WHEN IT IS ORDERED, THE SWITCH IS FACTORY SUPPLIED AND THE CONTACTS ARE FIELD SUPPLIED.

4. THE VALID INPUT SIGNAL RANGE FOR TERMINALS (C+,C-) IS 1-9VDC. A SIGNAL ABOVE OR BELOW THIS RANGE IS RECOGNIZED AS A 'SOFT' ALARM. AS A RESULT, THE CONTROL FUNCTION IS IGNORED.
5. IF THE REMOTE ON/OFF (ENABLE/DISABLE) SWITCH IS NOT ORDERED, JUMPER TERMINAL RO TO TERMINAL C ON THE TSBC. WHEN IT IS ORDERED, THE SWITCH IS FACTORY SUPPLIED AND THE CONTACTS ARE FIELD SUPPLIED.

REV: K EN: 34-992-7157 DATE: 11/28/11 DWN: C/JW CHKD: BMS APPD: APPD:
 ADDED MANUAL AND/OR AUTO TO TEMP SWITCH DESCRIPTIONS; GND LEG REMOVED ON IGNITER; ADDED DRAIN LEGS WHERE NECESSARY; CORRECTED WIRE TYPES AND BOLTING; STANDARDIZED LWCO LAYOUT AND LOOK; DRY CONTACTS FOR BOILER STATUS INDICATION Wires Removed and Note Moved In



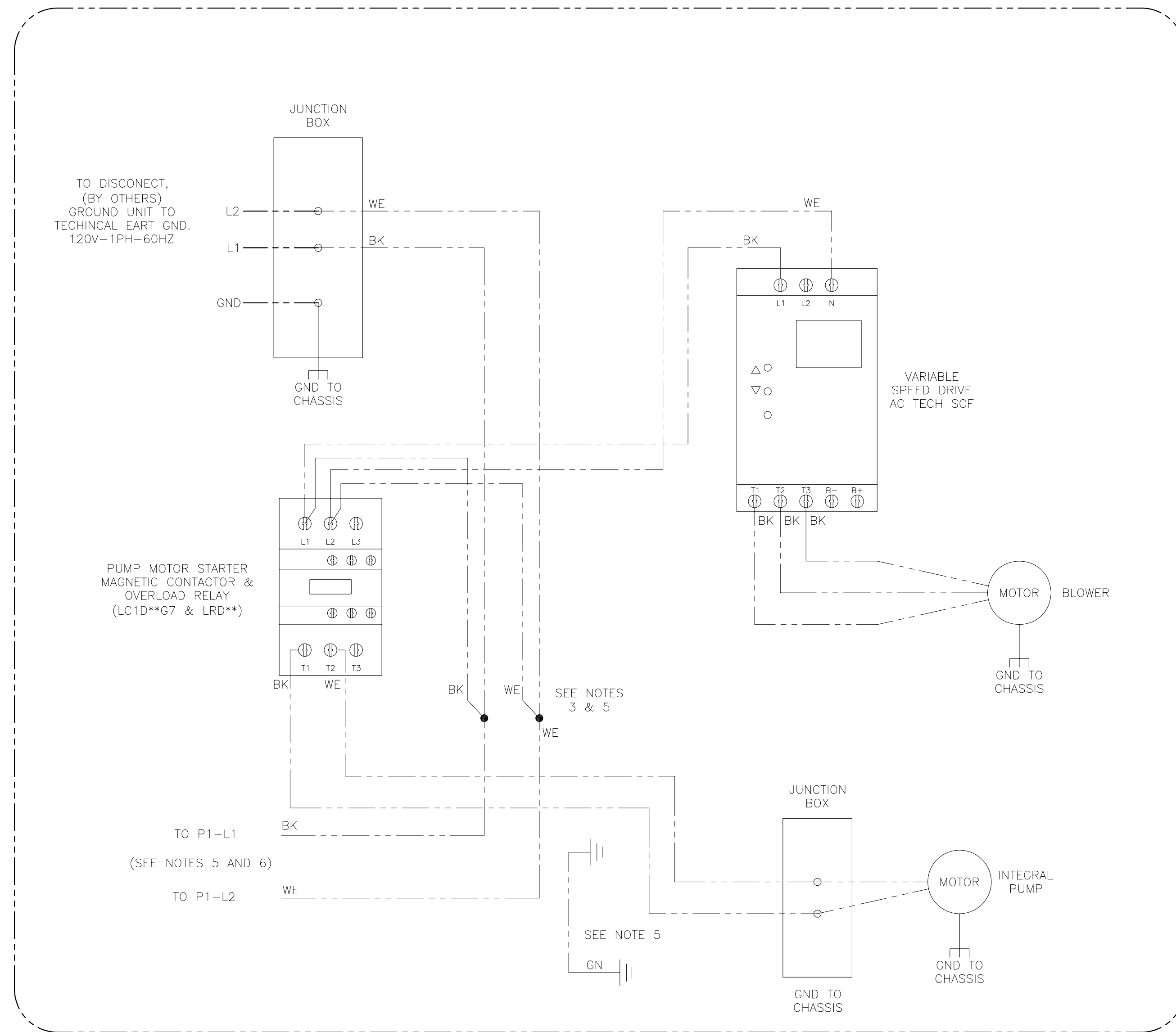
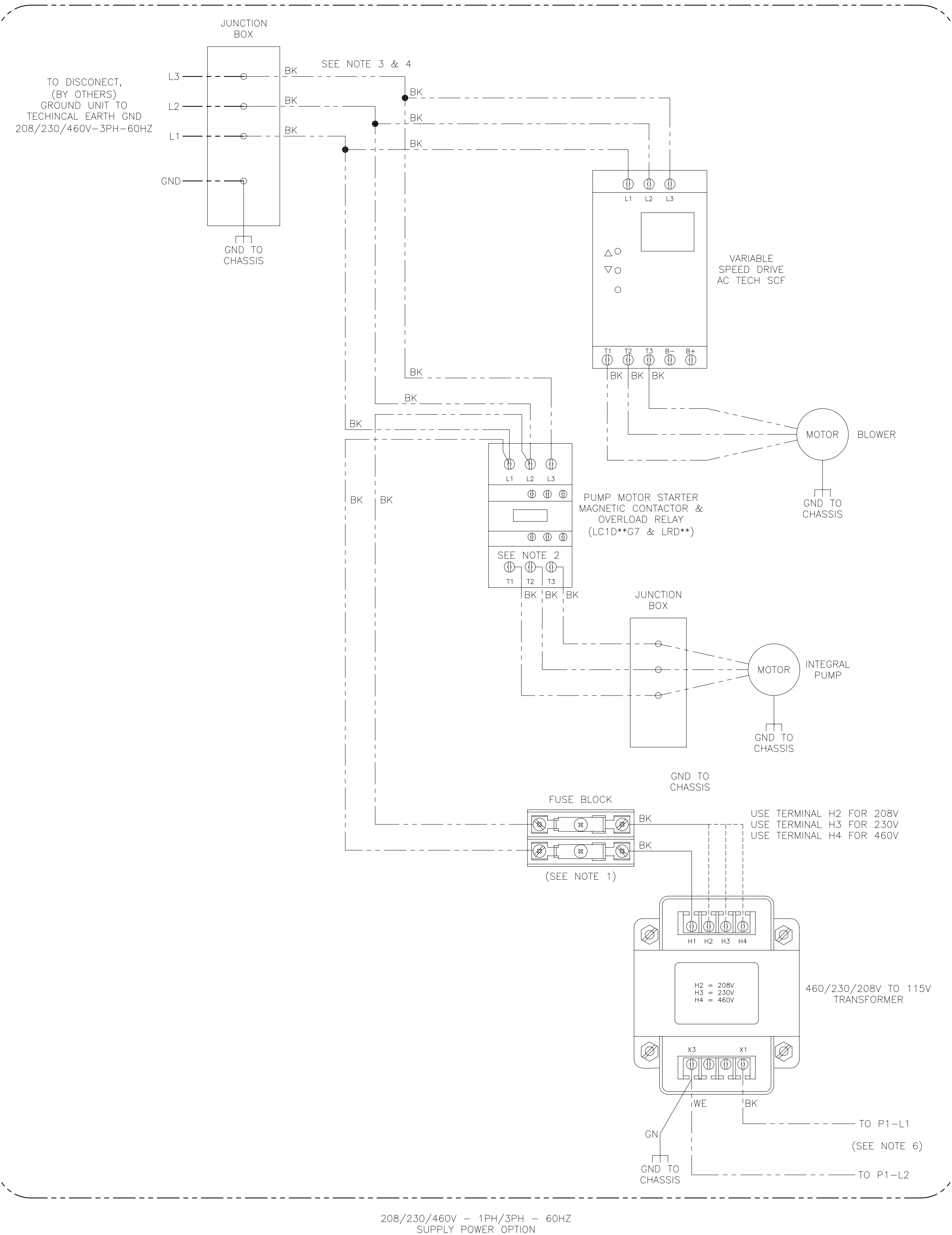
Thermal Solutions Products LLC
 PROPERTY OF
 LANCASTER, PA 17604-3244

REFERENCE ASME Y14.5M-1994 FOR GEOMETRIC TOLERANCES. ALL DIMENSIONS IN INCHES. DRAWING NOT TO BE SCALED. NON-BASIC DIMENSIONAL AND ANGULAR TOLERANCES UNLESS OTHERWISE NOTED:
 DECIMALS: X.X - ±0.1, X.XX - ±0.03, X.XXX - ±0.005, FRACTIONAL: ±1/32, ANGULAR: ±1°

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TITLE
 LADDER WIRING DIAGRAM
 RM7896D 1027 PROGRAMMER CONTROL; EVCA-750/2000
 DRAWING NUMBER 34-1093-C SCALE NONE DWG SIZE C SHEET 1 OF 1

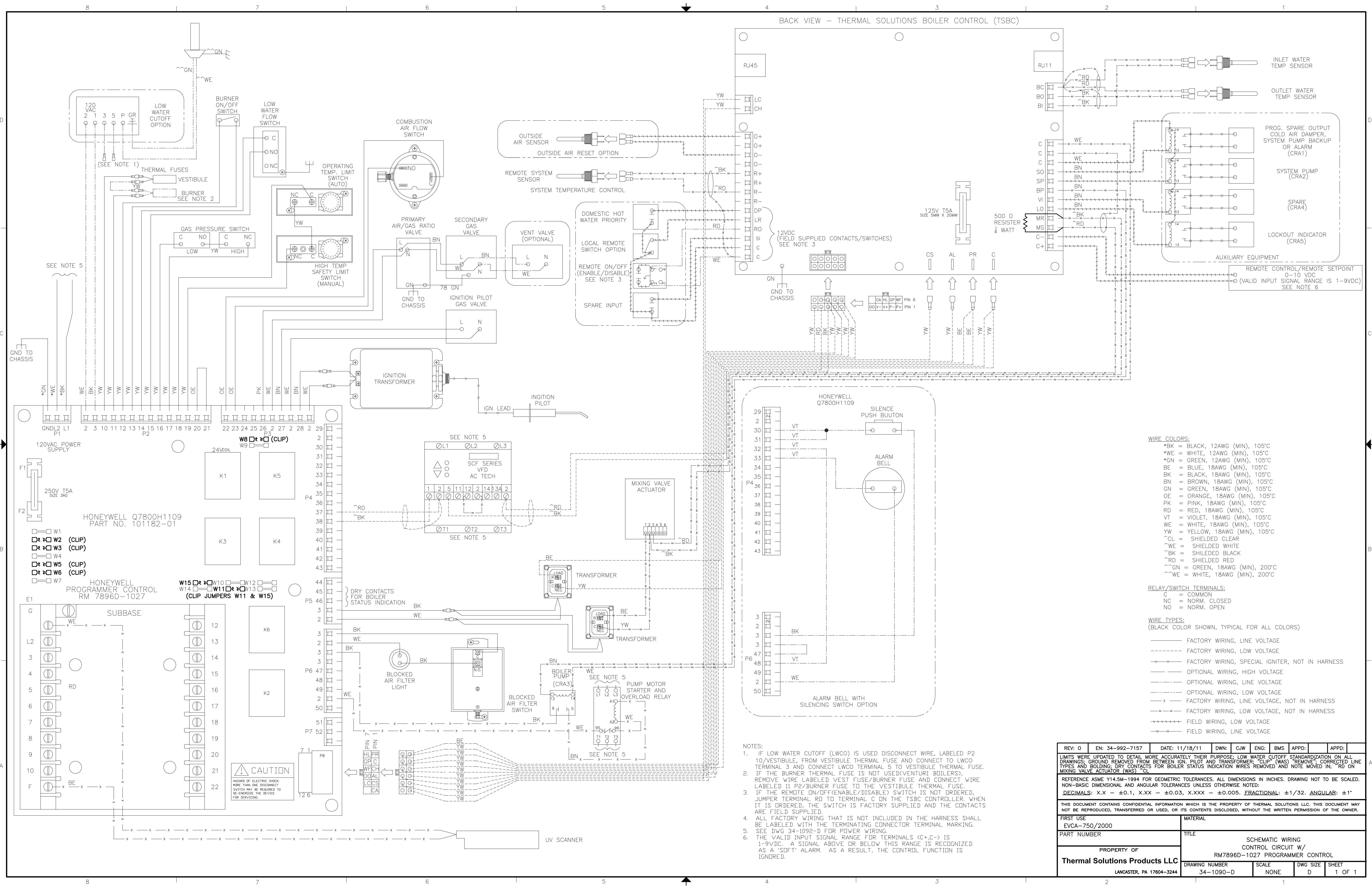


- NOTES:
- UL CLASS 'CC' CARTRIDGE FUSE TIME DELAY, 600V AC, 200K I.R., 3 AMP.
 - T3 WIRING OMITTED WHEN 3 PHASE NOT SPECIFIED.
 - USE SPRING CAGE CONNECTORS (PN 81368915) FOR WIRE JUNCTIONS.
 - IF SINGLE PHASE ELECTRICAL INPUT IS USED, L3 IS NOT USED.
 - FOR 120V-1PH ONLY:
 - REMOVE FORKED CONNECTOR FROM BK WIRE LABELED L1-P1/115V XFMR X1 AND COMBINE INTO CONNECTOR AS SHOWN.
 - CLIP AND REMOVE WE WIRE LABELED L2-P1/115V XFMR X3 FROM FORKED CONNECTOR AND COMBINE INTO CONNECTOR AS SHOWN.
 - SECURE FORKED END AND RING TERMINAL END OF GN WIRE LABELED 115V XFMR GND/X3 TO THE CONTROL PANEL ASSEMBLY.
 - FOR CONTROL CIRCUIT WIRING, USE THE FOLLOWING DWGS:

SCHEMATIC:	
34-1090-D STANDARD	} EVCA-750/2000
34-1150-D P.O.C. OPTION	
34-1165-D STANDARD	
34-1166-D P.O.C. OPTION	} EVCA-2000S/3000
LADDER:	
34-1093-C STANDARD	} EVCA-750/2000
34-1149-C P.O.C. OPTION	
34-1168-C STANDARD	
34-1167-C P.O.C. OPTION	} EVCA-2000S/3000
 - ALL WIRING SHALL BE LABELED WITH THE TERMINATING CONNECTOR TERMINAL MARKING.

WIRING LEGEND
 - - - - - FACTORY WIRING, 12 AWG, 600V, 105°C
 _____ FACTORY WIRING, 18 AWG, 600V, 105°C

REV: K	EN: 34-966-6913	DATE: 07/01/11	DWN: CJW	ENG: BMS	APPD:	APPD:
DESCRIPTION: WE WIRE FROM L2 ON PUMP MOTOR STARTER TO L2 ON THE J-BOX (WAS) BK						
REFERENCE ASME Y14.5M-1994 FOR GEOMETRIC TOLERANCES. ALL DIMENSIONS IN INCHES. DRAWING NOT TO BE SCALED. NON-BASIC DIMENSIONAL AND ANGULAR TOLERANCES UNLESS OTHERWISE NOTED: DECIMALS: X.X - ±0.1, X.XX - ±0.03, X.XXX - ±0.005. FRACTIONAL: ±1/32. ANGULAR: ±1°						
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FIRST USE EVCA-750/3000	MATERIAL					
PART NUMBER	TITLE SCHEMATIC WIRING SUPPLY POWER					
PROPERTY OF Thermal Solutions Products LLC LANCASTER, PA 17604-3244						
DRAWING NUMBER 34-1092-D	SCALE NONE	DWG SIZE D	SHEET 1 OF 1			



- WIRE COLORS:**
- *BK = BLACK, 12AWG (MIN), 105°C
 - *WE = WHITE, 12AWG (MIN), 105°C
 - *GN = GREEN, 12AWG (MIN), 105°C
 - BE = BLUE, 18AWG (MIN), 105°C
 - BK = BLACK, 18AWG (MIN), 105°C
 - BN = BROWN, 18AWG (MIN), 105°C
 - GN = GREEN, 18AWG (MIN), 105°C
 - OE = ORANGE, 18AWG (MIN), 105°C
 - PK = PINK, 18AWG (MIN), 105°C
 - RD = RED, 18AWG (MIN), 105°C
 - WE = WHITE, 18AWG (MIN), 105°C
 - YW = YELLOW, 18AWG (MIN), 105°C
 - CL = SHIELDED CLEAR
 - WE = SHIELDED WHITE
 - BK = SHIELDED BLACK
 - RD = SHIELDED RED
 - GN = GREEN, 18AWG (MIN), 200°C
 - WE = WHITE, 18AWG (MIN), 200°C
- RELAY/SWITCH TERMINALS:**
- C = COMMON
 - NC = NORM. CLOSED
 - NO = NORM. OPEN
- WIRE TYPES:**
(BLACK COLOR SHOWN, TYPICAL FOR ALL COLORS)
- FACTORY WIRING, LINE VOLTAGE
 - FACTORY WIRING, LOW VOLTAGE
 - FACTORY WIRING, SPECIAL IGNITER, NOT IN HARNESS
 - OPTIONAL WIRING, HIGH VOLTAGE
 - OPTIONAL WIRING, LINE VOLTAGE
 - OPTIONAL WIRING, LOW VOLTAGE
 - x----- FACTORY WIRING, LINE VOLTAGE, NOT IN HARNESS
 - x----- FACTORY WIRING, LOW VOLTAGE, NOT IN HARNESS
 - FIELD WIRING, LOW VOLTAGE
 - FIELD WIRING, LINE VOLTAGE

- NOTES:**
- IF LOW WATER CUTOFF (LWCO) IS USED DISCONNECT WIRE, LABELED P2 10/VESTIBULE, FROM VESTIBULE THERMAL FUSE AND CONNECT TO LWCO TERMINAL 3 AND CONNECT LWCO TERMINAL 5 TO VESTIBULE THERMAL FUSE.
 - IF THE BURNER THERMAL FUSE IS NOT USED(VENTURI BOILERS), REMOVE WIRE LABELED VEST FUSE/BURNER FUSE AND CONNECT WIRE LABELED 11 P2/BURNER FUSE TO THE VESTIBULE THERMAL FUSE.
 - IF THE REMOTE ON/OFF(ENABLE/DISABLE) SWITCH IS NOT ORDERED, JUMPER TERMINAL RD TO TERMINAL C ON THE TSBC CONTROLLER. WHEN IT IS ORDERED, THE SWITCH IS FACTORY SUPPLIED AND THE CONTACTS ARE FIELD SUPPLIED.
 - ALL FACTORY WIRING THAT IS NOT INCLUDED IN THE HARNESS SHALL BE LABELED WITH THE TERMINATING CONNECTOR TERMINAL MARKING.
 - SEE DWG 34-1092-D FOR POWER WIRING.
 - THE VALID INPUT SIGNAL RANGE FOR TERMINALS (C+,C-) IS 1-9VDC. A SIGNAL ABOVE OR BELOW THIS RANGE IS RECOGNIZED AS A 'SOFT' ALARM. AS A RESULT, THE CONTROL FUNCTION IS IGNORED.

REV: 0	EN: 34-992-7157	DATE: 11/18/11	DWN: CJW	ENG: BMS	APPD:	APPD:
LIMITS WERE UPDATED TO DETAIL MORE ACCURATELY THEIR PURPOSE; LOW WATER CUTOFF STANDARDIZATION ON ALL DRAWINGS; GROUND REMOVED FROM BETWEEN IGN. PILOT AND TRANSFORMER; "CLIP" (WAS) "REMOVE"; CORRECTED LINE TYPES AND BOLDING; DRY CONTACTS FOR BOILER STATUS INDICATION WIRES REMOVED AND NOTE MOVED IN; "RD ON MIXING VALVE ACTUATOR (WAS) "CL"						
REFERENCE ASME Y14.5M-1994 FOR GEOMETRIC TOLERANCES. ALL DIMENSIONS IN INCHES. DRAWING NOT TO BE SCALED. NON-BASIC DIMENSIONAL AND ANGULAR TOLERANCES UNLESS OTHERWISE NOTED: DECIMALS: X.X - ±0.1, X.XX - ±0.03, X.XXX - ±0.005. FRACTIONAL: ±1/32. ANGULAR: ±1°						
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FIRST USE EVCA-750/2000	MATERIAL					
PART NUMBER	TITLE SCHEMATIC WIRING CONTROL CIRCUIT W/ RM7896D-1027 PROGRAMMER CONTROL					
PROPERTY OF Thermal Solutions Products LLC LANCASTER, PA 17604-3244			DRAWING NUMBER 34-1090-D	SCALE NONE	DWG SIZE D	SHEET 1 OF 1

CAUTION
HAZARD OF ELECTRIC SHOCK
MORE THAN ONE DISCONNECT
SWITCH MAY BE REQUIRED TO
DE-ENERGIZE THE DEVICE
FOR SERVICING.