

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

REV. C	EN: 34-992-7157	DATE: 12/06/11	DWN:	CJW	ENG:	BMS	APPD:	APPD:
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ADDED MANUAL AND/OR AUTO TO TEMP SWITCH DESCRIPTIONS; GND LEG REMOVED ON IGNITER; ADDED DRAIN LEGS WHERE NECESSARY; CORRECTED WIRE TYPES AND BOLDING; STANDARDIZED LWCO LAYOUT AND LOOK; DRY CONTACTS FOR BOILER STATUS INDICATION WIRES REMOVED AND NOTE MOVED IN; ADDED JUMPER ON RO & C; TSBG (WAS) SAGE

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
 SOLARIS BOILERS/WATER HEATERS

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

TITLE
 LADDER WIRING DIAGRAM
 CONTROL CIRCUIT W/
 RM7897A-1002 PROGRAMMER CONTROL

DRAWING NUMBER
 102475-01

SCALE
 NONE

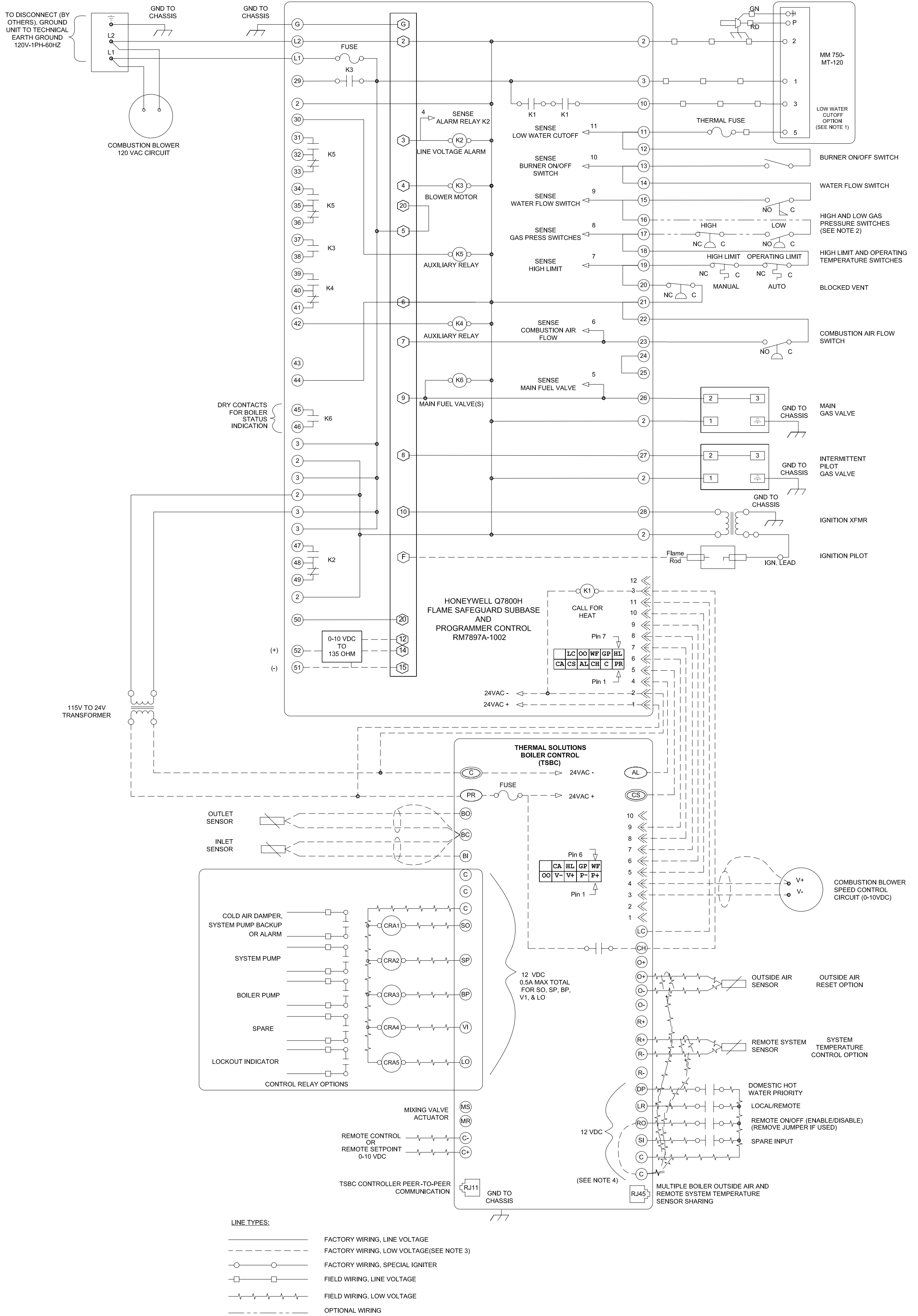
DWG SIZE
 C

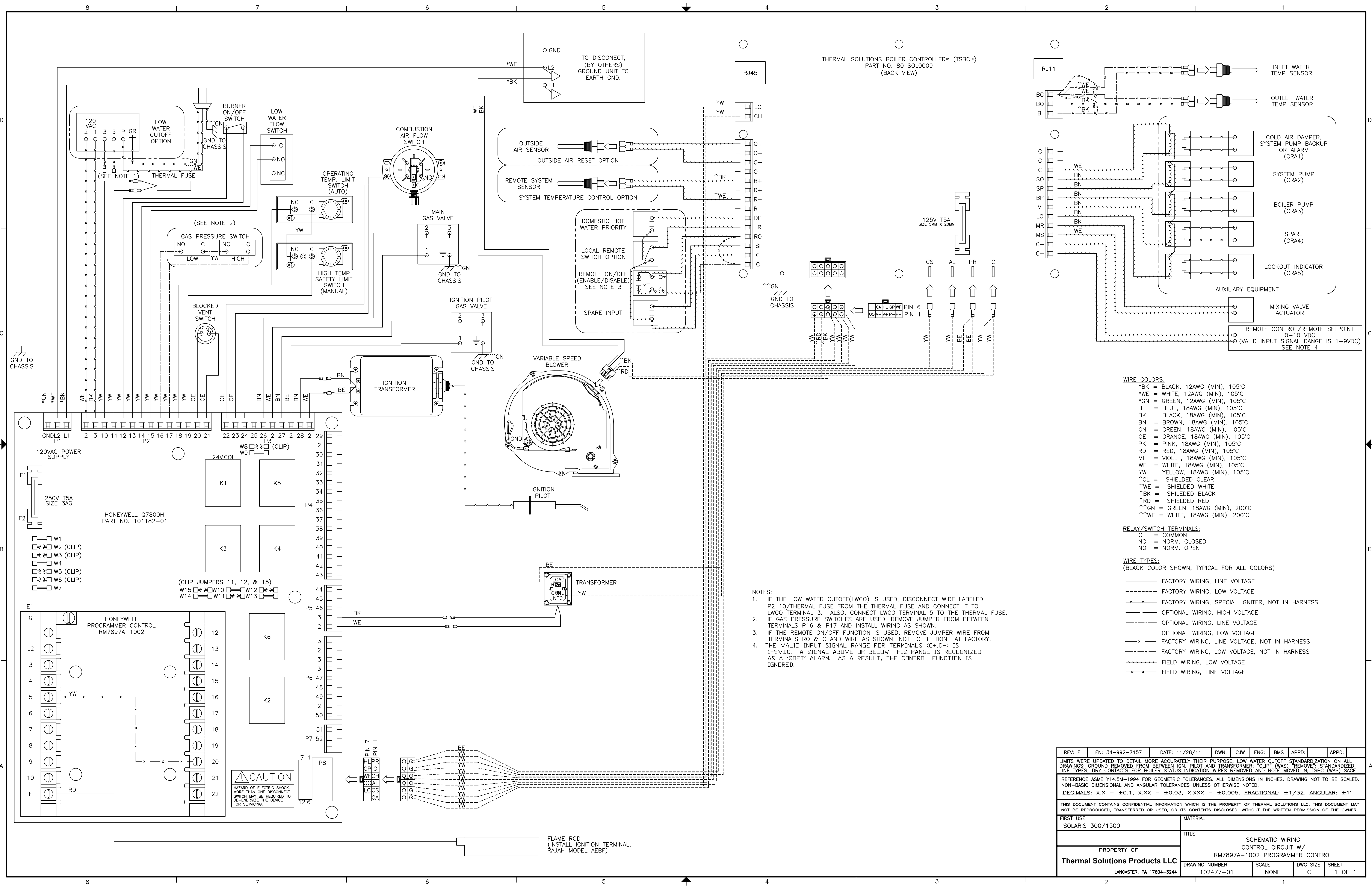
SHEET
 1 OF 1

**Solaris
Ladder Diagram**

NOTES:

- IF LOW WATER CUTOFF (LWCO) IS NOT USED, WIRE #P2 10/THERMAL FUSE MUST BE WIRED FROM TERMINAL(6) TO THE THERMAL FUSE.
- IF THE HIGH AND LOW GAS PRESSURE SWITCHES ARE NOT USED, A WIRE MUST BE INSTALLED BETWEEN TERMINAL(6) AND(7).
- FACTORY WIRING, LOW VOLTAGE IS 24VAC UNLESS OTHERWISE INDICATED.
- IF REMOTE ON/OFF FUNCTION IS USED, REMOVE JUMPER WIRE FROM TERMINALS RO & C AND WIRE AS SHOWN.(NOT TO BE DONE AT FACTORY)





- WIRE COLORS:**
- *BK = BLACK, 12AWG (MIN), 105°C
 - *WE = WHITE, 12AWG (MIN), 105°C
 - *CN = 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
 - VT = VIOLET, 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
- o—o— FACTORY WIRING, SPECIAL IGNITER, NOT IN HARNESS
- OPTIONAL WIRING, HIGH VOLTAGE
- OPTIONAL WIRING, LINE VOLTAGE
- OPTIONAL WIRING, LOW VOLTAGE
- x—x— FACTORY WIRING, LINE VOLTAGE, NOT IN HARNESS
- FACTORY WIRING, LOW VOLTAGE, NOT IN HARNESS
- FIELD WIRING, LOW VOLTAGE
- o—o— FIELD WIRING, LINE VOLTAGE

- NOTES:**
1. IF THE LOW WATER CUTOFF(LWCO) IS USED, DISCONNECT WIRE LABELED P2 10/THERMAL FUSE FROM THE THERMAL FUSE AND CONNECT IT TO LWCO TERMINAL 3. ALSO, CONNECT LWCO TERMINAL 5 TO THE THERMAL FUSE.
 2. IF GAS PRESSURE SWITCHES ARE USED, REMOVE JUMPER FROM BETWEEN TERMINALS P16 & P17 AND INSTALL WIRING AS SHOWN.
 3. IF THE REMOTE ON/OFF FUNCTION IS USED, REMOVE JUMPER WIRE FROM TERMINALS RD & C AND WIRE AS SHOWN. NOT TO BE DONE AT FACTORY.
 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 IGNRED.

REV: E	EN: 34-992-7157	DATE: 11/28/11	DWN: C/JW	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'; STANDARDIZED LINE TYPES; DRY CONTACTS FOR BOILER STATUS INDICATION WIRES REMOVED AND NOTE MOVED IN; TSBC (WAS) SAGE.						
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:						
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FIRST USE	MATERIAL			TITLE		
SOLARIS 300/1500				SCHEMATIC WIRING CONTROL CIRCUIT W/ RM7897A-1002 PROGRAMMER CONTROL		
PROPERTY OF				DRAWING NUMBER		
Thermal Solutions Products LLC				102477-01		
LANCASTER, PA 17604-3244				SCALE	DWG SIZE	SHEET
				NONE	C	1 OF 1