

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:

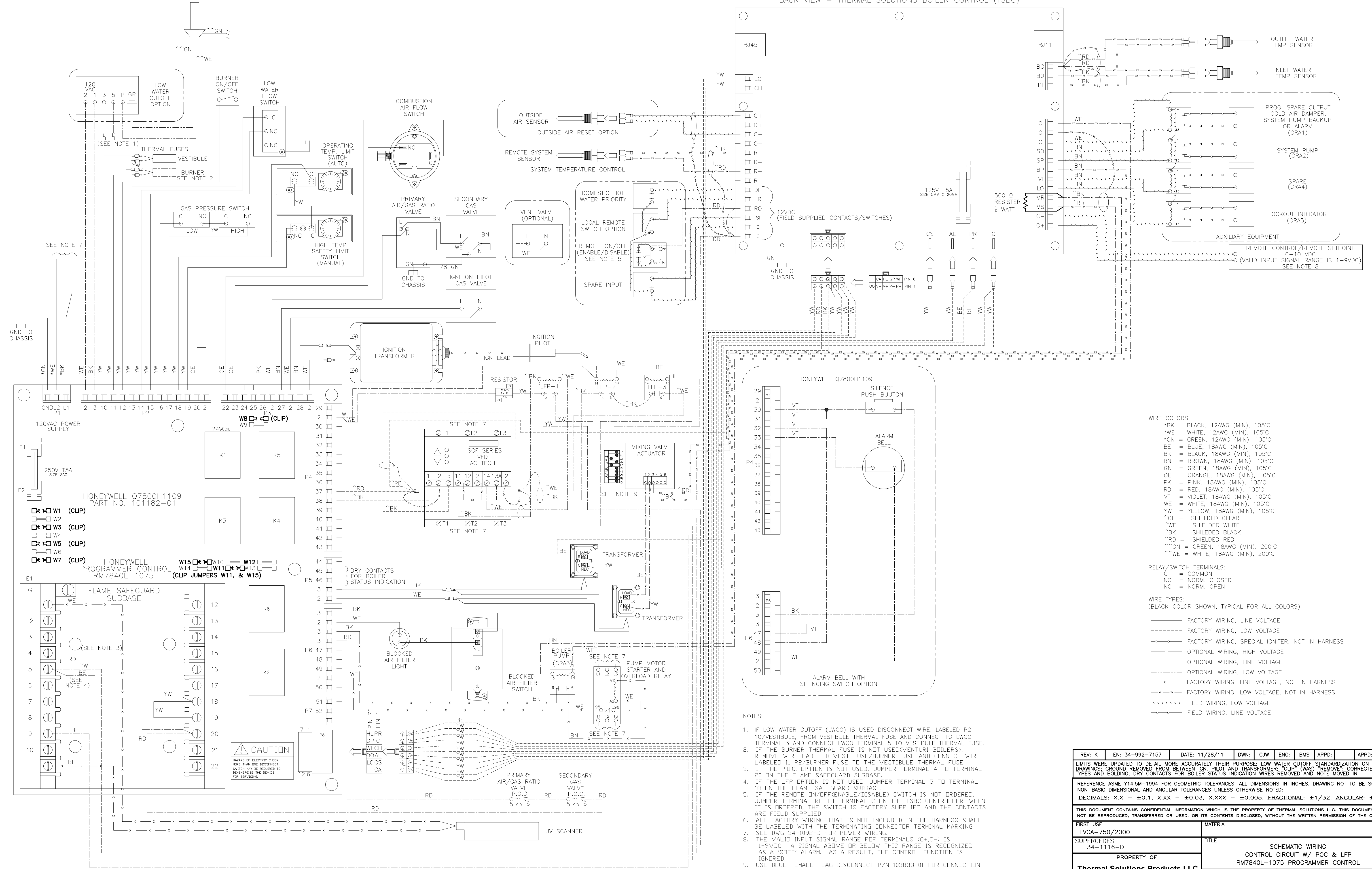
SCHEMATIC:	
34-1090-D STANDARD	} EVCA-750/2000
34-1150-D P.O.C. OPTION	
34-1165-D STANDARD	
34-1166-D P.O.C. OPTION	} EVCA-2000S/3000
LADDER:	
34-1093-C STANDARD	} EVCA-750/2000
34-1149-C P.O.C. OPTION	
34-1168-C STANDARD	
34-1167-C P.O.C. OPTION	} EVCA-2000S/3000
- ALL WIRING SHALL BE LABELED WITH THE 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: C/JW	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°						
THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION WHICH IS THE PROPERTY OF THERMAL SOLUTIONS LLC. THIS DOCUMENT MAY NOT BE REPRODUCED, TRANSFERRED OR USED, OR ITS CONTENTS DISCLOSED, WITHOUT THE WRITTEN PERMISSION OF THE OWNER.						
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			

BACK VIEW - THERMAL SOLUTIONS BOILER CONTROL (TSBC)



- 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
 - 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
 - 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 P.O.C. OPTION IS NOT USED, JUMPER TERMINAL 4 TO TERMINAL 20 ON THE FLAME SAFEGUARD SUBBASE.
 - IF THE LFP OPTION IS NOT USED, JUMPER TERMINAL 5 TO TERMINAL 18 ON THE FLAME SAFEGUARD SUBBASE.
 - 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.
 - USE BLUE FEMALE FLAG DISCONNECT P/N 103833-01 FOR CONNECTION TO TERMINAL #10 ON TIMER AND ROUT WIRE TO AVOID CONTACT WITH RESISTOR.

REV: K	EN: 34-992-7157	DATE: 11/28/11	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 WIRE REMOVED AND NOTE MOVED IN						
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°						
THIS DOCUMENT CONTAINS CONFIDENTIAL INFORMATION WHICH IS THE PROPERTY OF THERMAL SOLUTIONS LLC. THIS DOCUMENT MAY NOT BE REPRODUCED, TRANSFERRED OR USED, OR ITS CONTENTS DISCLOSED, WITHOUT THE WRITTEN PERMISSION OF THE OWNER.						
FIRST USE EVCA-750/2000			MATERIAL			
SUPERCEDES 34-1116-D			TITLE SCHEMATIC WIRING CONTROL CIRCUIT W/ POC & LFP RM7840L-1075 PROGRAMMER CONTROL			
PROPERTY OF Thermal Solutions Products LLC LANCASTER, PA 17604-3244			DRAWING NUMBER 34-1150-D			
			SCALE NONE		DWG SIZE D	
			SHEET 1 OF 1			