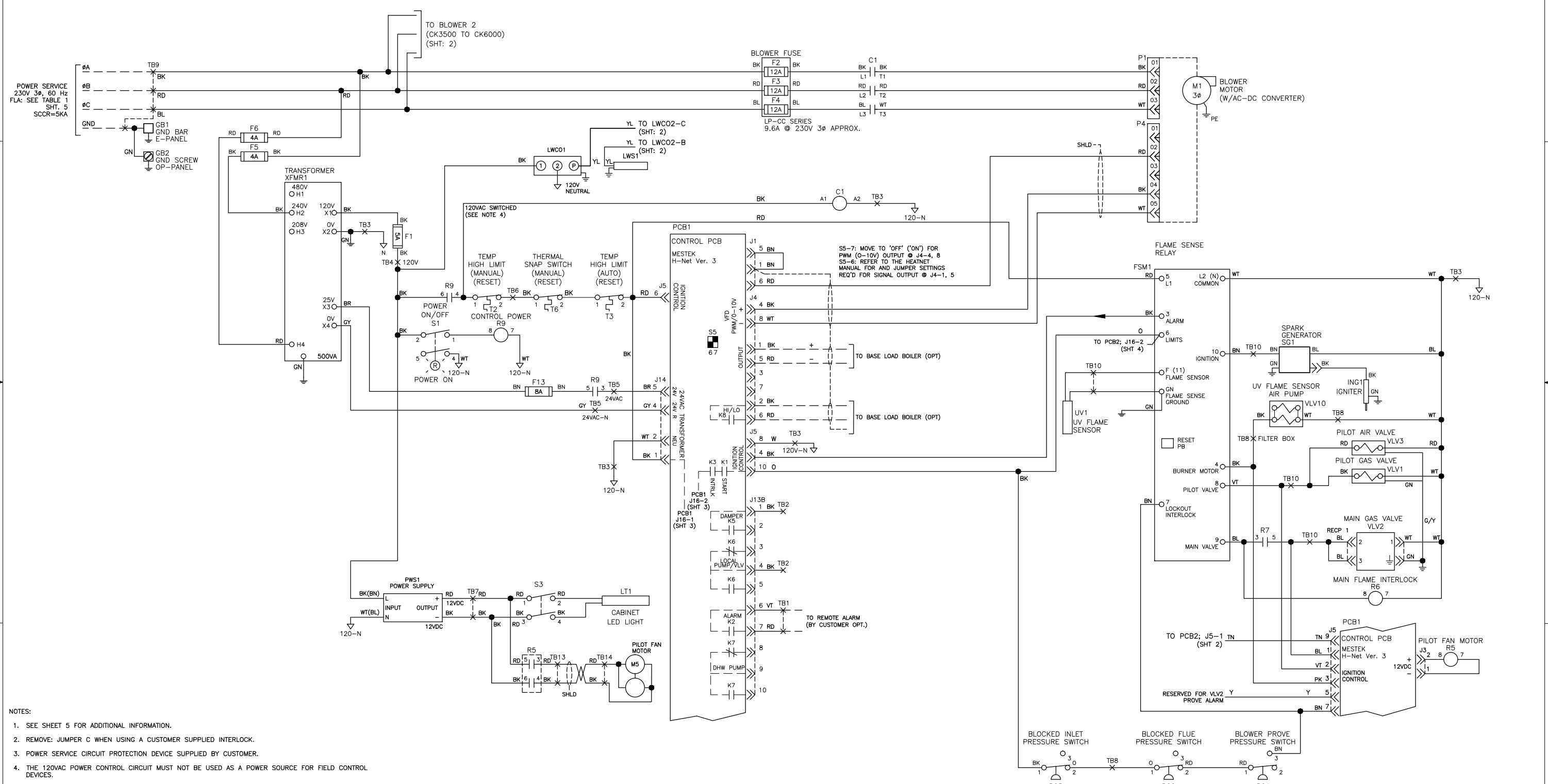
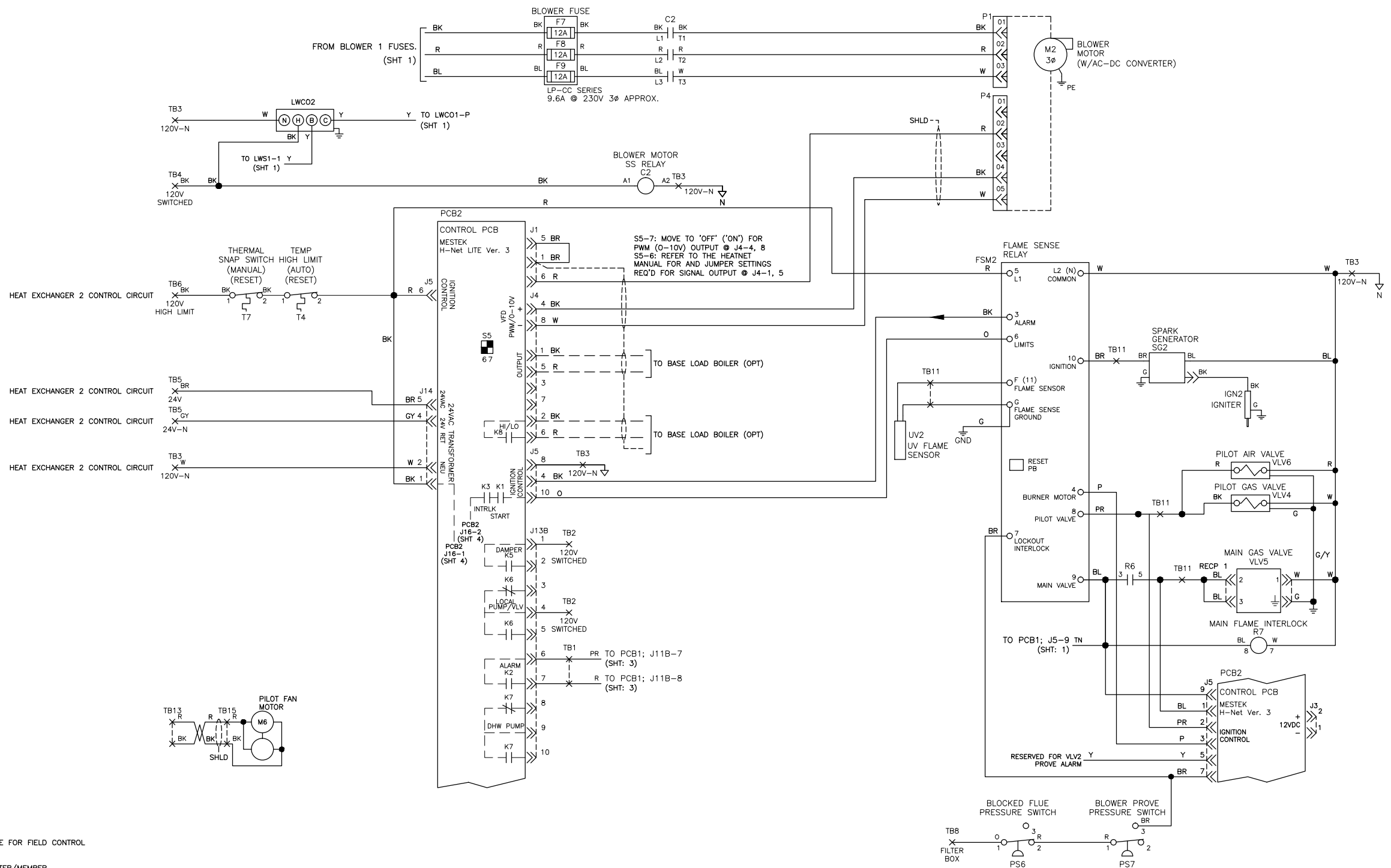


REVISIONS				
REV.	EN NO.	DATE	DRAWN BY	APPROVED
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D	10945	02/22/17	MAC	JAS
E	11024	05/31/17	MAC	JAS



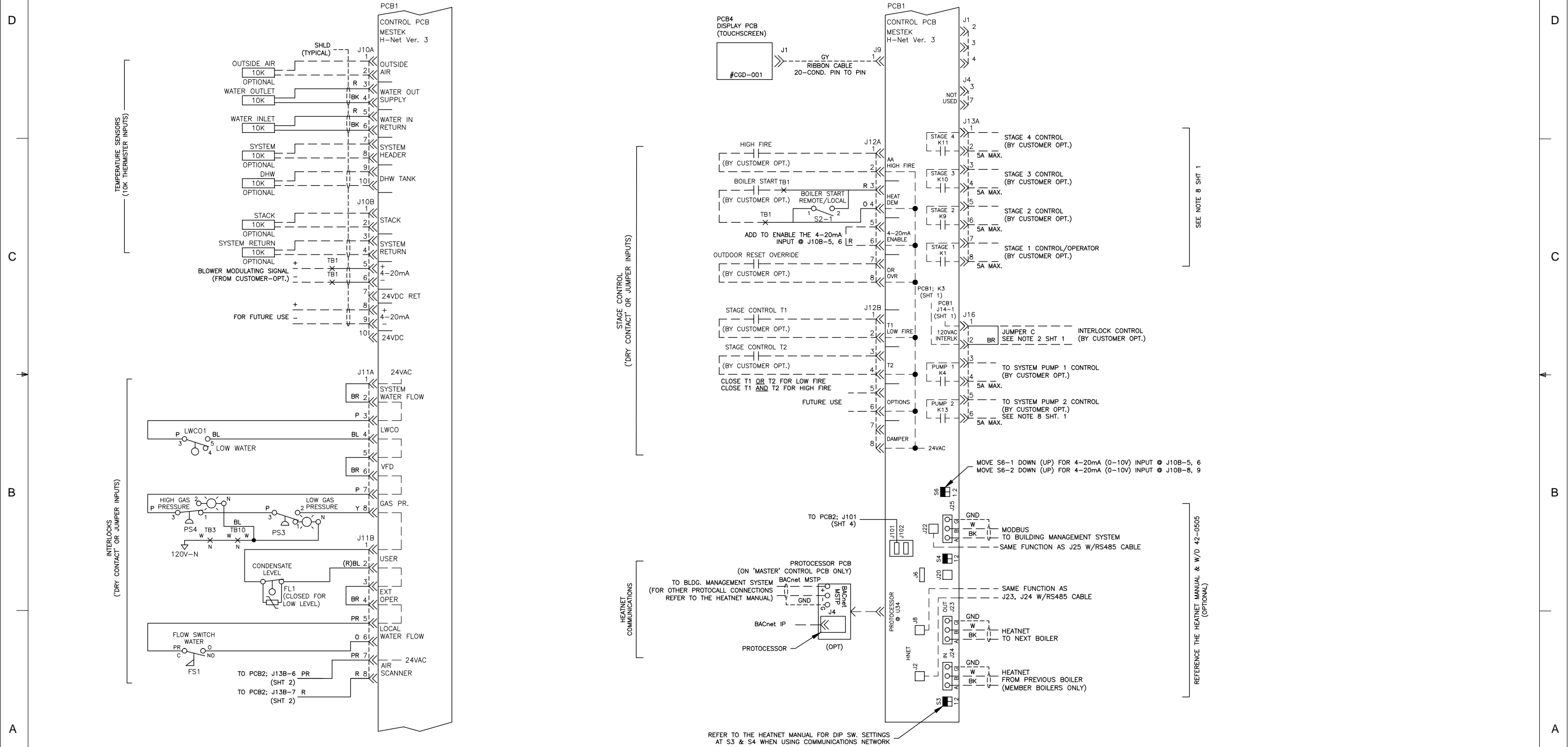
- NOTES:
- SEE SHEET 5 FOR ADDITIONAL INFORMATION.
  - REMOVE JUMPER C WHEN USING A CUSTOMER SUPPLIED INTERLOCK.
  - POWER SERVICE CIRCUIT PROTECTION DEVICE SUPPLIED BY CUSTOMER.
  - THE 120VAC POWER CONTROL CIRCUIT MUST NOT BE USED AS A POWER SOURCE FOR FIELD CONTROL DEVICES.
  - FOR MULTIPLE BOILERS OPERATING WITH A SYSTEM AIR DAMPER WHEN IN A MASTER/MEMBER CONFIGURATION: ADD A JUMPER FROM TERMINAL TB-16 ON THE MASTER BOILER TO TERMINAL TB-16 ON ALL MEMBER BOILERS.
  - 
  - 
  - HEATNET "LITE" CONTROL BOARDS PROVIDED FOR SUBORDINATE CONTROL BOARDS. HEATNET ONLINE, STAGE 2, 3, 4 AND SYSTEM PUMP 2 OUTPUTS ARE NOT AVAILABLE WITH THE H-NET "LITE" CONTROL PCB.

DIVISION	PRODUCT	DRAWN BY	DATE	DRAWING DESCRIPTION			
RBI	CK3500	MAC	03/21/16	LADDER DIAGRAM			
THE PRINT AND ALL INFORMATION THEREON IS PROPERTY OF THE RBI DIVISION OF MESTEK, INC. NEITHER THE PRINT NOR THE INFORMATION THEREON MAY BE REPRODUCED OR USED IN ANY MANNER WHATSOEVER OR DIVULGED TO ANY OTHER PERSON UNLESS SPECIFICALLY AUTHORIZED BY MESTEK, INC.			CHECKED BY	DATE	DRAWING NUMBER		
			JAS	03/21/16	CK3500NXR8X0XAXXC3X5		
			APPROVED BY	DATE	SHEET	SHEET SIZE	SCALE
			JAS	03/23/16	1 OF 10	B	N/A
							REVISION
							E



- NOTES:
- SEE SHEET 5 FOR ADDITIONAL INFORMATION.
  - REMOVE JUMPER C WHEN USING A CUSTOMER SUPPLIED INTERLOCK.
  - POWER SERVICE CIRCUIT PROTECTION DEVICE SUPPLIED BY CUSTOMER.
  - THE 120VAC POWER CONTROL CIRCUIT MUST NOT BE USED AS A POWER SOURCE FOR FIELD CONTROL DEVICES.
  - FOR MULTIPLE BOILERS OPERATING WITH A SYSTEM AIR DAMPER WHEN IN A MASTER/MEMBER CONFIGURATION: ADD A JUMPER FROM TERMINAL TB-16 ON THE MASTER BOILER TO TERMINAL TB-16 ON ALL MEMBER BOILERS.
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		JAS	03/21/16	CK3500NXR8X0XAXXC3X5			
		APPROVED BY	DATE	SHEET	SHEET SIZE	SCALE	REVISION
		JAS	03/23/16	2 OF 10	B	N/A	E



SEE NOTE 8 SHT 1

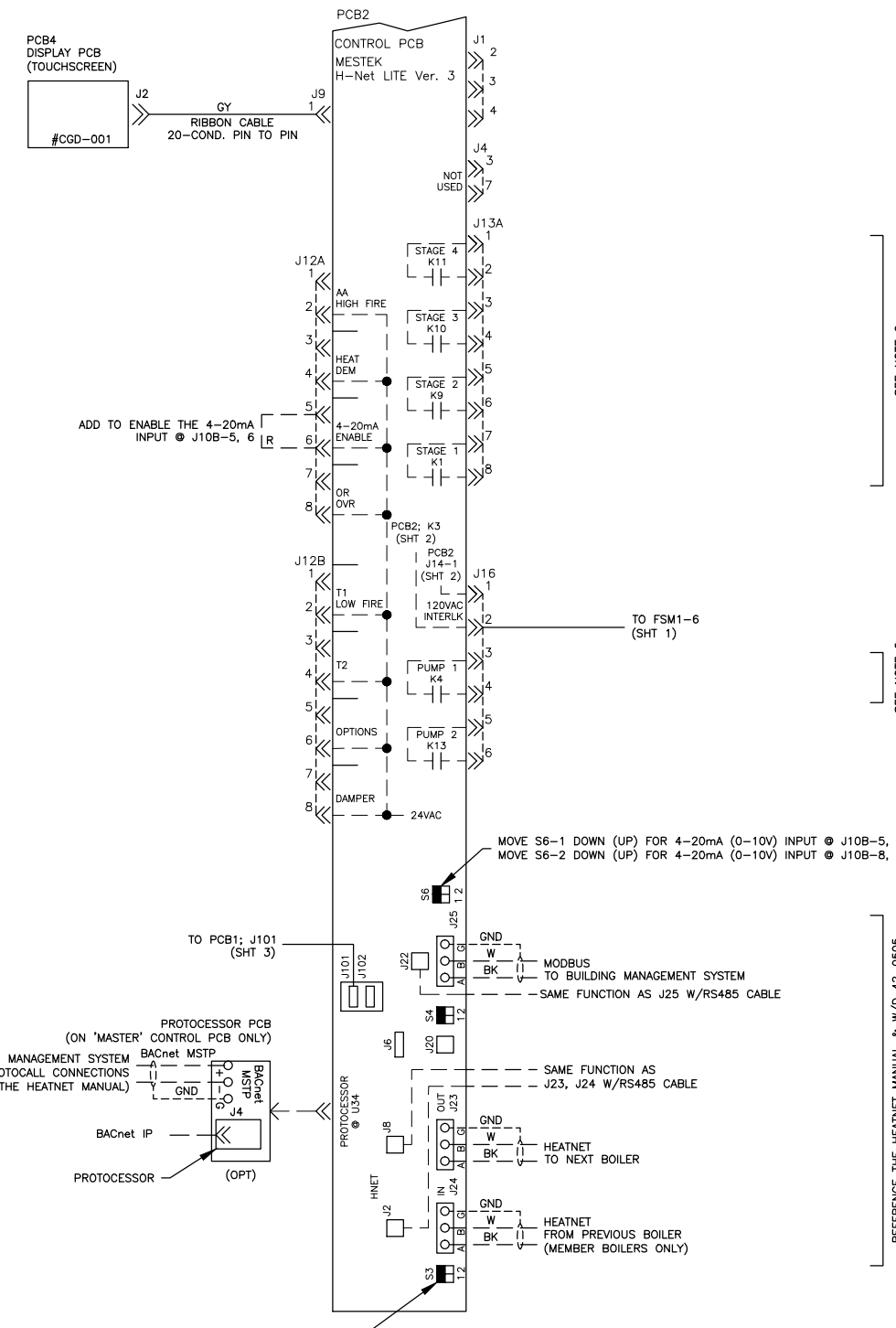
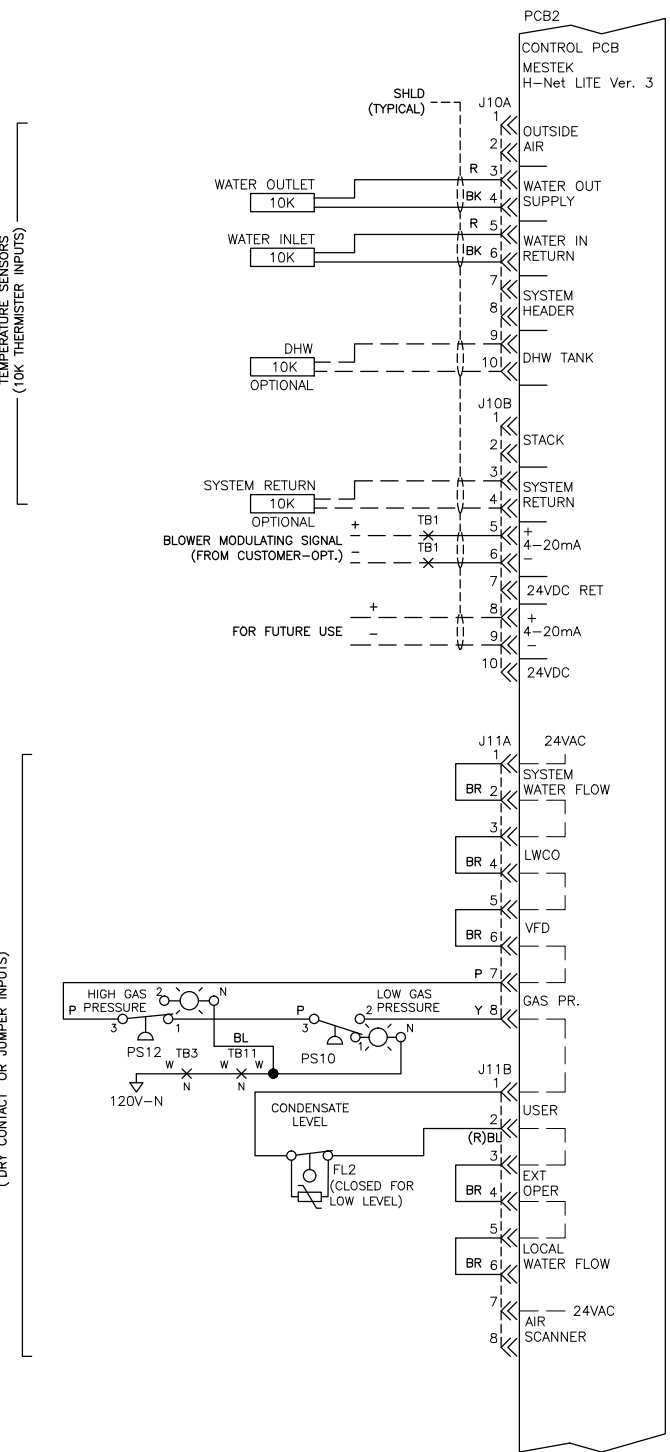
REFERENCE THE HEATNET MANUAL & W/D 42-0505 (OPTIONAL)

REFER TO THE HEATNET MANUAL FOR DIP SW. SETTINGS AT S3 & S4 WHEN USING COMMUNICATIONS NETWORK

NOTES:  
1. SEE SHEET 5 FOR ADDITIONAL INFORMATION.

DIVISION	PRODUCT	DRAWN BY	DATE	DRAWING DESCRIPTION			
RBI	CK3500	MAC	03/21/16	LADDER DIAGRAM			
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				JAS	03/21/16	CK3500NXR8X0XAXXC3X5	
APPROVED BY	DATE	SHEET	SHEET SIZE	SCALE	REVISION		
JAS	03/23/16	3 OF 10	B	N/A	E		

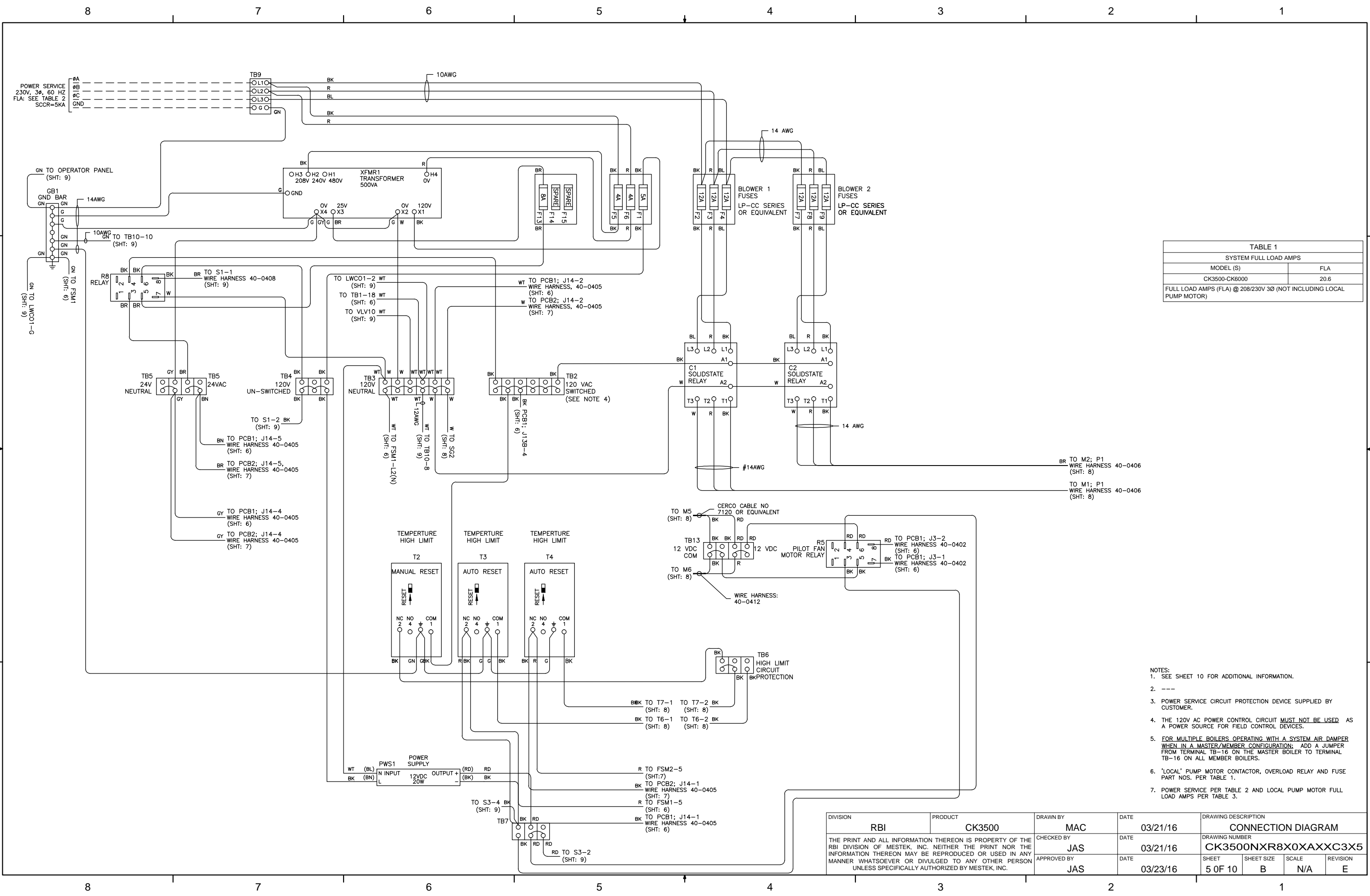
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NOTES:  
 1. SEE SHEET 5 FOR ADDITIONAL INFORMATION.  
 2. HEATNET "LITE" CONTROL BOARDS PROVIDED FOR SUBORDINATE CONTROL BOARDS. HEATNET ONLINE, STAGE 2, 3, 4 AND SYSTEM PUMP 2 OUTPUTS ARE NOT AVAILABLE WITH THE H-NET "LITE" CONTROL PCB.

DIVISION	PRODUCT	DRAWN BY	DATE	DRAWING DESCRIPTION				
RBI	CK3500	MAC	03/21/16	LADDER DIAGRAM				
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			JAS	03/21/16	CK3500NXR8X0XAXXC3X5			
			APPROVED BY	DATE	SHEET	SHEET SIZE	SCALE	REVISION
			JAS	03/23/16	4 OF 10	B	N/A	E

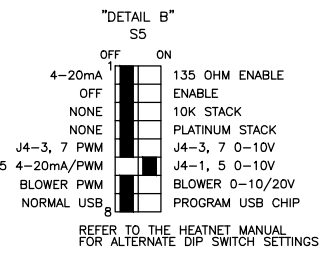
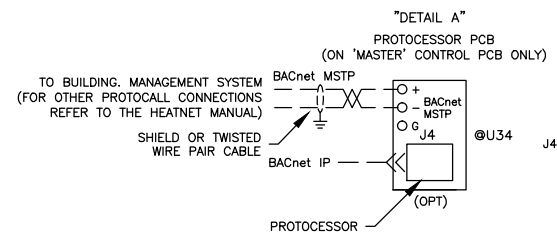
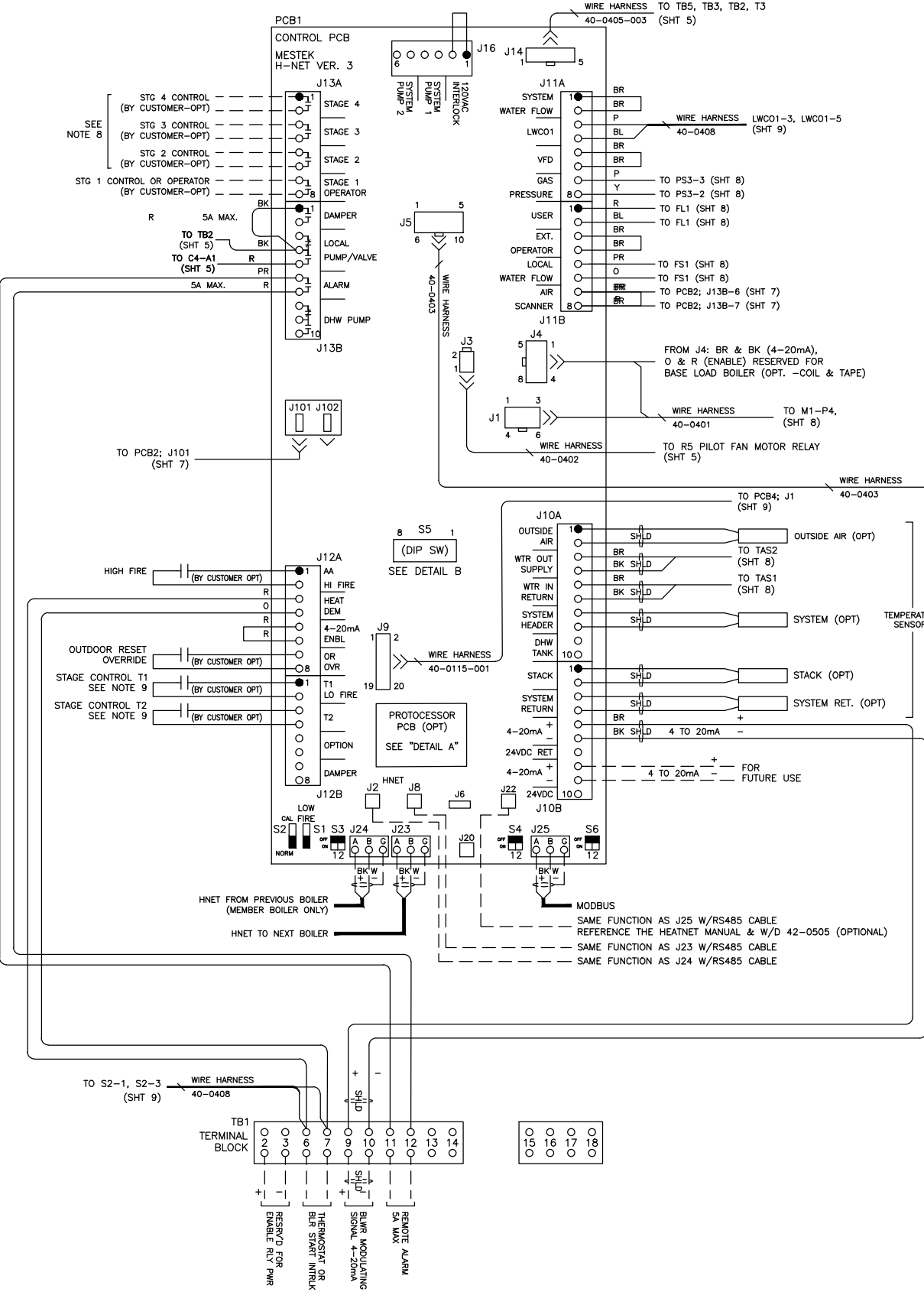
D  
C  
B  
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SYSTEM FULL LOAD AMPS	
MODEL (S)	FLA
CK3500-CK6000	20.6
FULL LOAD AMPS (FLA) @ 208/230V 3Ø (NOT INCLUDING LOCAL PUMP MOTOR)	

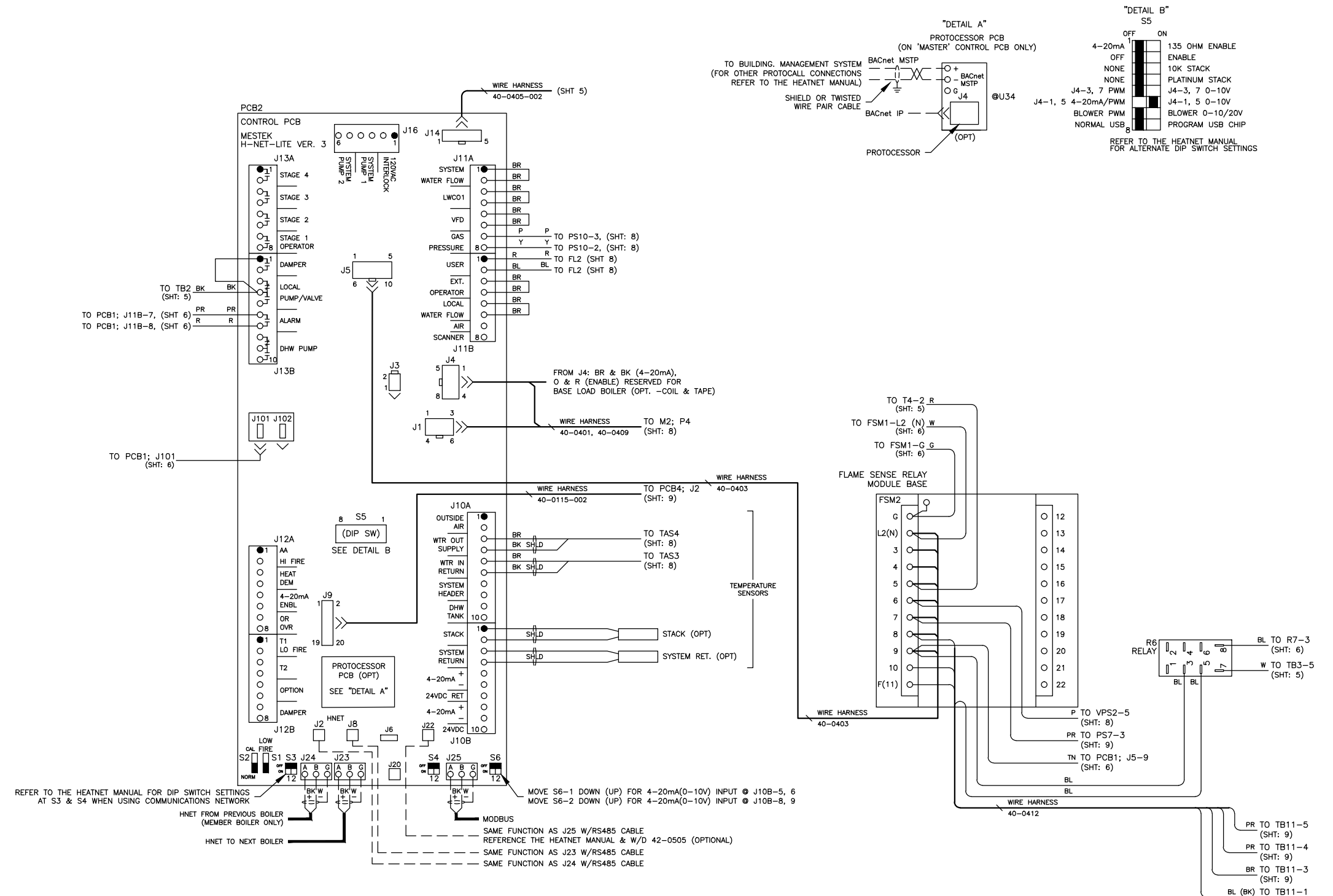
- NOTES:
- SEE SHEET 10 FOR ADDITIONAL INFORMATION.
  - 
  - POWER SERVICE CIRCUIT PROTECTION DEVICE SUPPLIED BY CUSTOMER.
  - THE 120V AC POWER CONTROL CIRCUIT MUST NOT BE USED AS A POWER SOURCE FOR FIELD CONTROL DEVICES.
  - FOR MULTIPLE BOILERS OPERATING WITH A SYSTEM AIR DAMPER WHEN IN A MASTER/MEMBER CONFIGURATION: ADD A JUMPER FROM TERMINAL TB-16 ON THE MASTER BOILER TO TERMINAL TB-16 ON ALL MEMBER BOILERS.
  - 'LOCAL' PUMP MOTOR CONTACTOR, OVERLOAD RELAY AND FUSE PART NOS. PER TABLE 1.
  - POWER SERVICE PER TABLE 2 AND LOCAL PUMP MOTOR FULL LOAD AMPS PER TABLE 3.

DIVISION	PRODUCT	DRAWN BY	DATE	DRAWING DESCRIPTION			
RBI	CK3500	MAC	03/21/16	CONNECTION DIAGRAM			
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				JAS	03/21/16	CK3500NXR8X0XAXXC3X5	
				APPROVED BY	DATE	SHEET	SHEET SIZE
				JAS	03/23/16	5 OF 10	B
						SCALE	REVISION
						N/A	E



- NOTES:
- SEE SHEET 5 AND 10 FOR ADDITIONAL INFORMATION.
  - REMOVE JUMPER C WHEN USING A CUSTOMER SUPPLIED INTERLOCK.
  - 
  - THE 120V POWER CONTROL CIRCUIT MUST NOT BE USED AS A POWER SOURCE FOR FIELD CONTROL DEVICES.
  - FOR MULTIPLE BOILERS OPERATING WITH A SYSTEM AIR DAMPER WHEN IN A MASTER/MEMBER CONFIGURATION, ADD A JUMPER FROM TERMINAL TB-16 ON THE MASTER BOILER TO TERMINAL TB-16 ON ALL MEMBER BOILERS.
  - 
  - 
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  - CLOSE T1 OR T2 FOR LOW FIRE. CLOSE T1 AND T2 FOR HIGH FIRE.

DIVISION	PRODUCT	DRAWN BY	DATE	DRAWING DESCRIPTION			
RBI	CK3500	MAC	03/21/16	CONNECTION DIAGRAM			
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				JAS	03/21/16	CK3500NXR8X0XAXXC3X5	
				APPROVED BY	DATE	SHEET	SHEET SIZE
				JAS	03/23/16	6 OF 10	B
						SCALE	REVISION
						N/A	E



REFER TO THE HEATNET MANUAL FOR DIP SWITCH SETTINGS AT S3 & S4 WHEN USING COMMUNICATIONS NETWORK

MODBUS  
SAME FUNCTION AS J25 W/RS485 CABLE  
REFERENCE THE HEATNET MANUAL & W/D 42-0505 (OPTIONAL)

HNET FROM PREVIOUS BOILER (MEMBER BOILER ONLY)

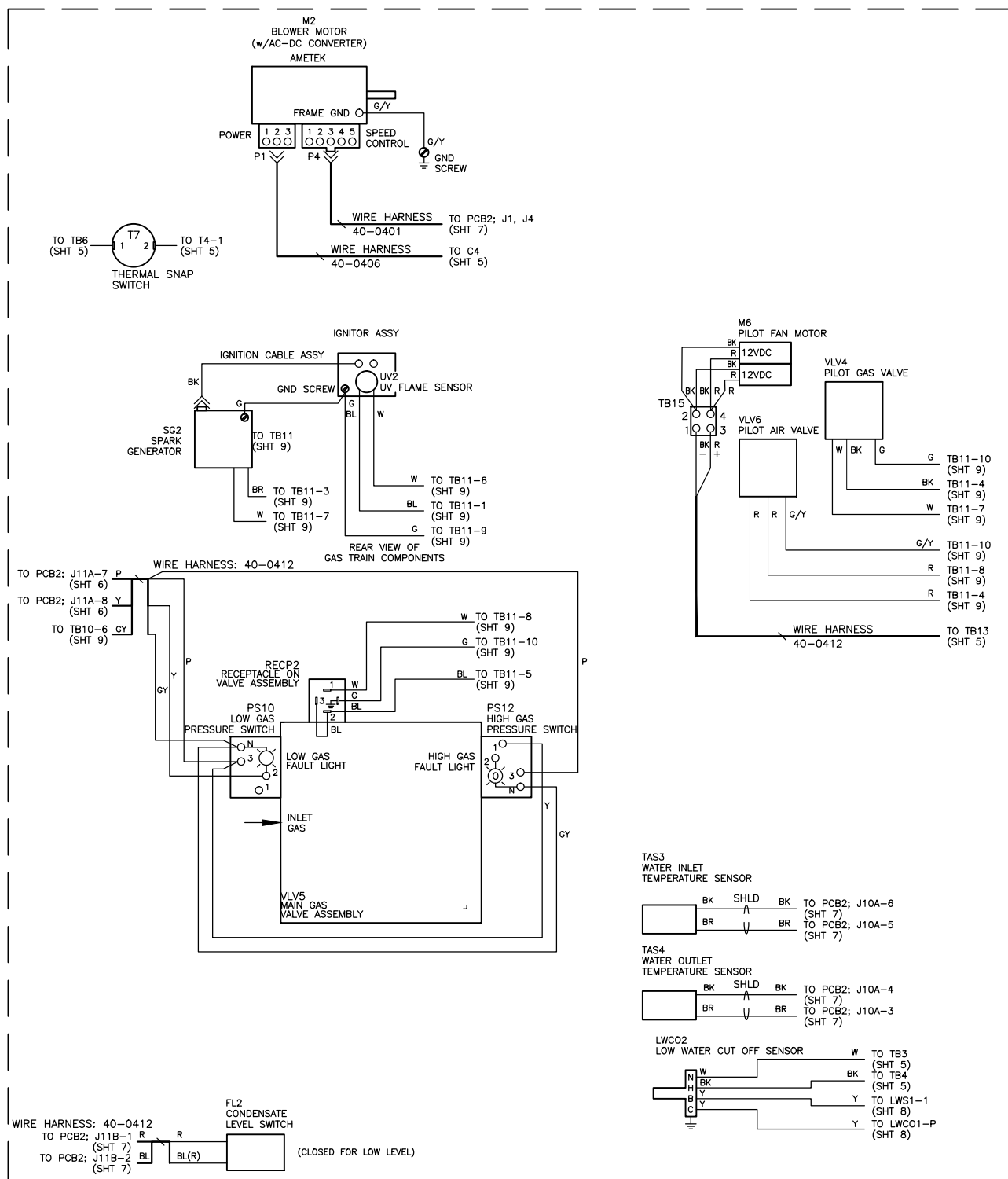
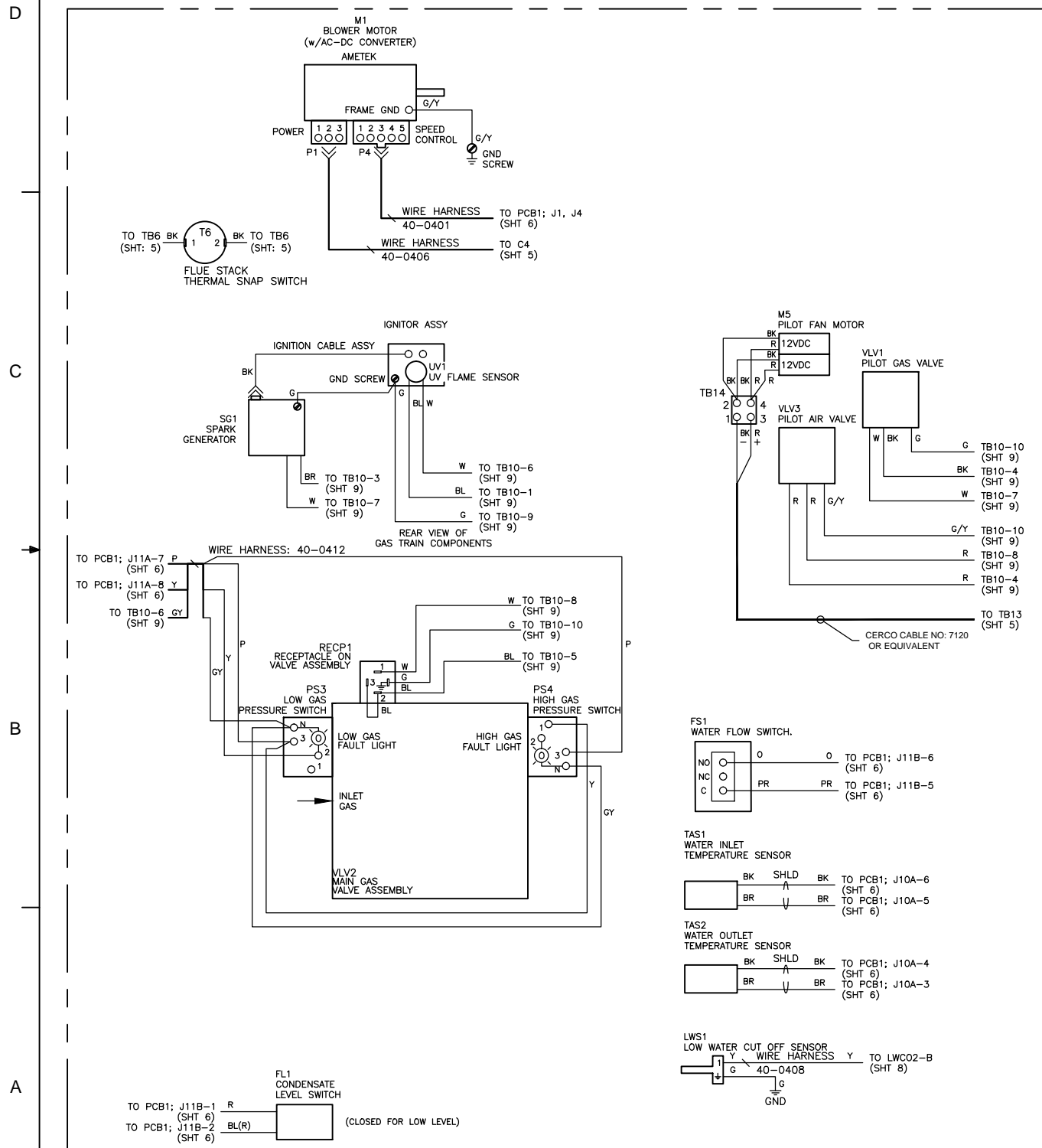
HNET TO NEXT BOILER

MOVE S6-1 DOWN (UP) FOR 4-20mA(0-10V) INPUT @ J10B-5, 6  
MOVE S6-2 DOWN (UP) FOR 4-20mA(0-10V) INPUT @ J10B-8, 9

SAME FUNCTION AS J23 W/RS485 CABLE  
SAME FUNCTION AS J24 W/RS485 CABLE

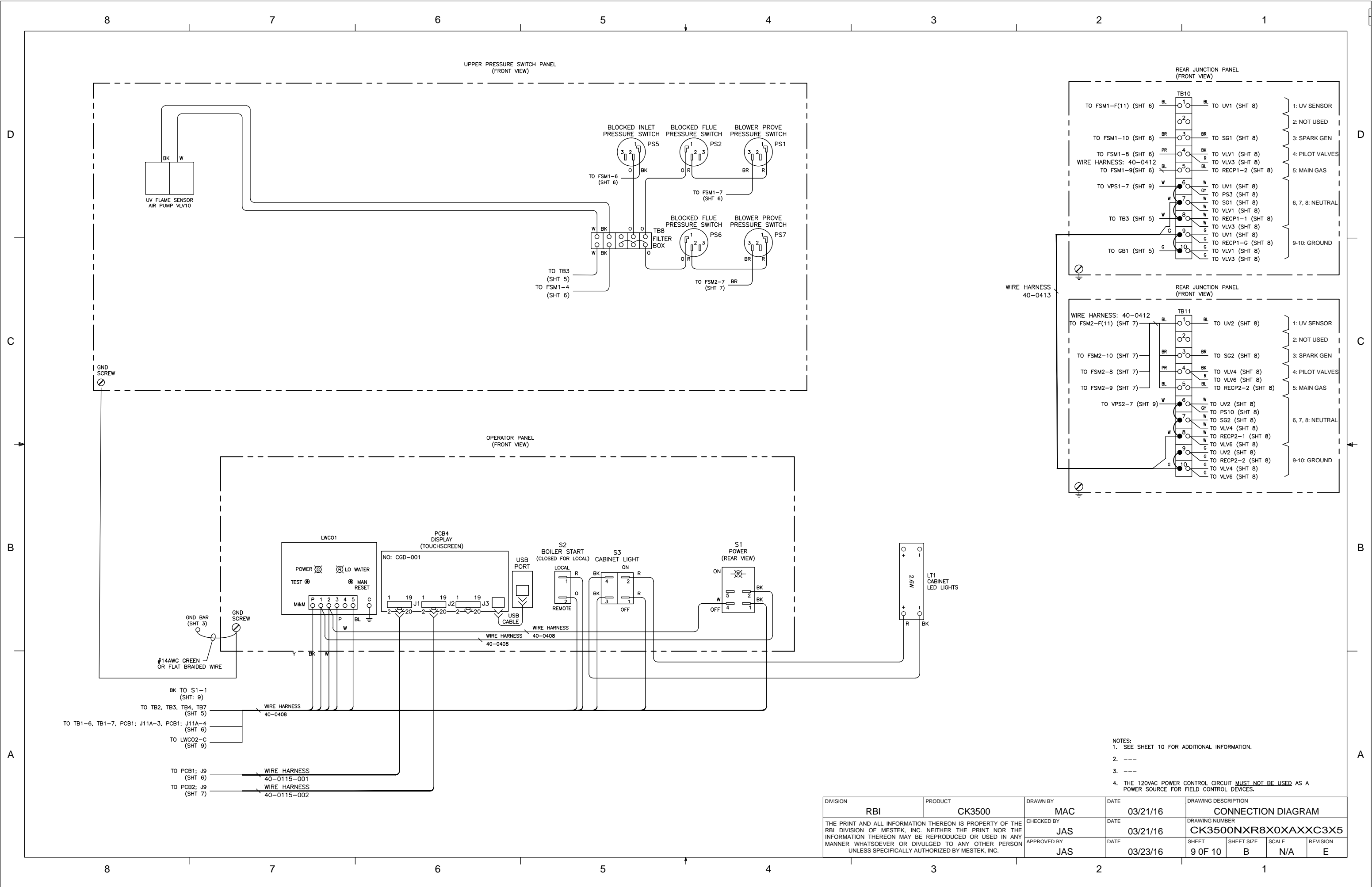
- NOTES:
- SEE SHEET 5 AND 10 FOR ADDITIONAL INFORMATION.
  - REMOVE JUMPER C WHEN USING A CUSTOMER SUPPLIED INTERLOCK.
  - 
  - THE 120V POWER CONTROL CIRCUIT **MUST NOT BE USED** AS A POWER SOURCE FOR FIELD CONTROL DEVICES.
  - FOR MULTIPLE BOILERS OPERATING WITH A SYSTEM AIR DAMPER WHEN IN A MASTER/MEMBER CONFIGURATION: ADD A JUMPER FROM TERMINAL TB-16 ON THE MASTER BOILER TO TERMINAL TB-16 ON ALL MEMBER BOILERS.
  - 
  - 
  - HEATNET "LITE" CONTROL BOARDS PROVIDED FOR SUBORDINATE CONTROL BOARDS. HEATNET ONLINE, STAGE 2, 3, 4 AND SYSTEM PUMP 2 OUTPUTS ARE NOT AVAILABLE WITH THE H-NET "LITE" CONTROL PCB.
  - CLOSE T1 OR T2 FOR LOW FIRE. CLOSE T1 AND T2 FOR HIGH FIRE.

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RBI	CK3500	MAC	03/21/16	CONNECTION DIAGRAM			
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				JAS	03/21/16	CK3500NXR8X0XAXXC3X5	
				APPROVED BY	DATE	SHEET	SHEET SIZE
				JAS	03/23/16	7 OF 10	B
						SCALE	REVISION
						N/A	E



DIVISION	PRODUCT	DRAWN BY	DATE	DRAWING DESCRIPTION			
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				JAS	03/21/16	CK3500NXR8X0XAXXC3X5	
				APPROVED BY	DATE	SHEET	SHEET SIZE
				JAS	03/23/16	8 OF 10	B
						SCALE	REVISION
						N/A	E





- NOTES:
- SEE SHEET 10 FOR ADDITIONAL INFORMATION.
  - 
  - 
  - THE 120VAC POWER CONTROL CIRCUIT MUST NOT BE USED AS A POWER SOURCE FOR FIELD CONTROL DEVICES.

DIVISION	PRODUCT	DRAWN BY	DATE	DRAWING DESCRIPTION			
RBI	CK3500	MAC	03/21/16	CONNECTION DIAGRAM			
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		JAS	03/21/16	CK3500NXR8X0XAXXC3X5			
APPROVED BY	DATE	SHEET	SHEET SIZE	SCALE	REVISION		
JAS	03/23/16	9 OF 10	B	N/A	E		

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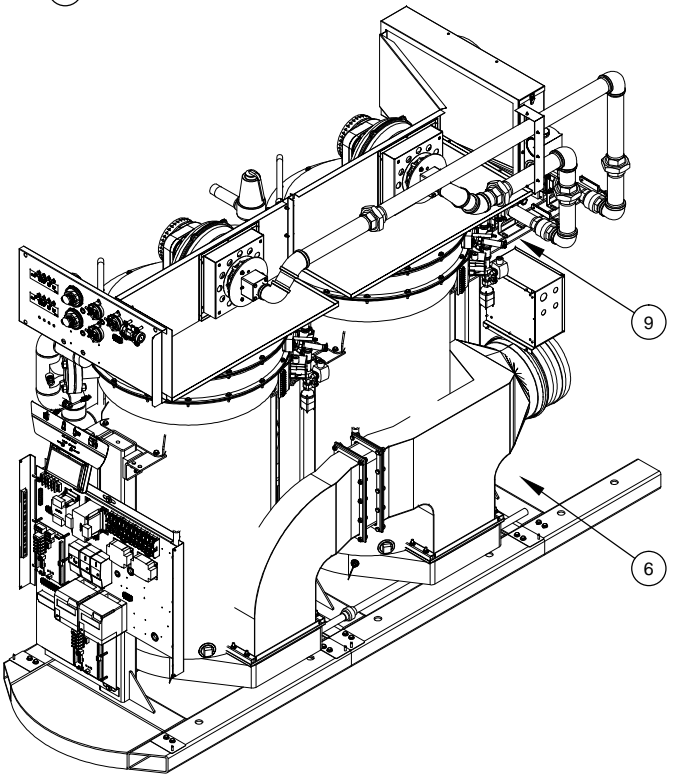
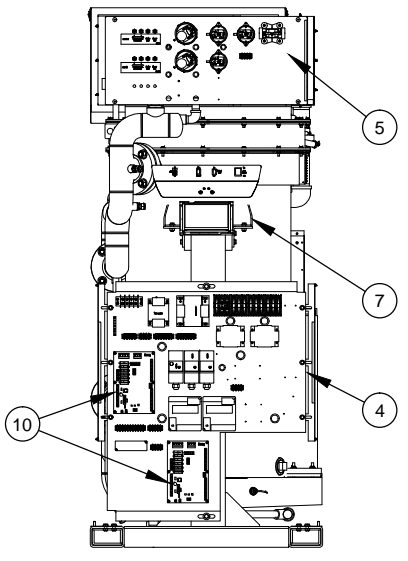
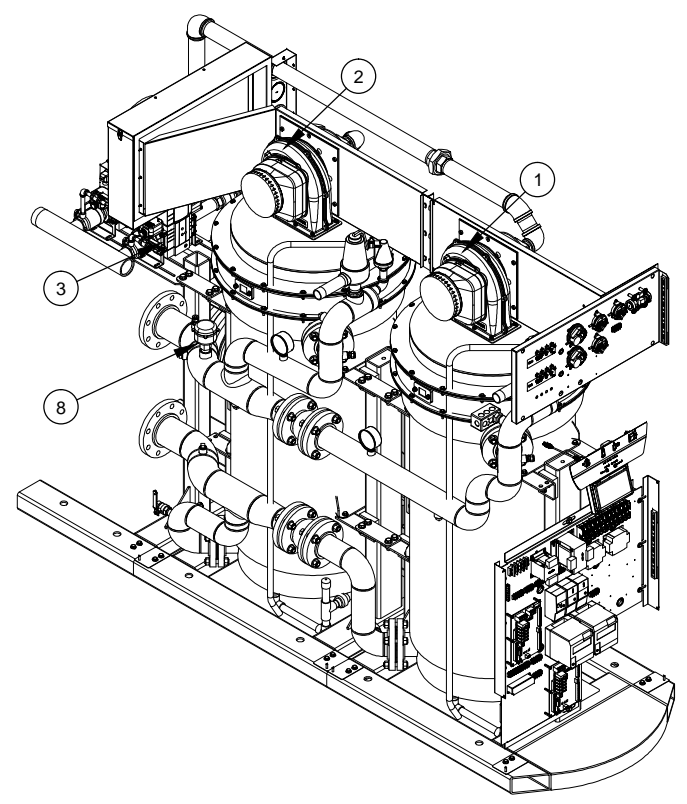
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- 1 BLOWER MOTOR (M1)
- 2 BLOWER MOTOR (M2)
- 3 MAIN GAS VALVE ASSEMBLY (VLV2)
- 4 MAIN ELECTRICAL CONTROL PANEL
- 5 UPPER PRESSURE SWITCH PANEL
- 6 TRANSFORMER (FOR 460V AND 575V UNITS ONLY)
- 7 OPERATOR PANEL
- 8 FLOW SWITCH (FS1)
- 9 SPARK GENERATOR (SG1) AND IGNITOR ASSEMBLY
- 10 H-NET CONTROL BOARD



NOTES:

1. WIRE COLOR CODE SHALL BE AS FOLLOWS:  
 BK-BLACK    R-RED    BL-BLUE    G-GREEN    G/Y-GREEN/YELLOW  
 W-WHITE    P-PINK    BR-BROWN    GY-GRAY  
 PR-PURPLE    Y-YELLOW    O-ORANGE    TN-TAN
- WIRE CODE:    ———— FACTORY WIRING  
                   — — — — FIELD WIRING  
                   - - - - - OPTIONAL WIRING
2. ALL WIRES SHALL BE #18AWG UNLESS SPECIFIED. WIRE TYPE SHALL BE TEW, 600V, STRANDED 16x30, WITH INSULATION RATED FOR 105° OR EQUIVALENT.
3. USE CABLE TIES, CABLE FASTENERS, SPADE TERMINALS, MALE CONNECTORS, WIRENUTS, ETC. AS REQUIRED.
4. LINE VOLTAGE WIRE AND LOW VOLTAGE WIRE SHALL BE KEPT SEPARATE AS MUCH AS POSSIBLE
5. LINE VOLTAGE SHALL NEVER RUN PARALLEL TO LOW VOLTAGE OR THROUGH THE SAME KNOCKOUT. IF LOW VOLTAGE AND LINE VOLTAGE MUST PASS EACH OTHER THEY SHALL PASS PERPENDICULAR TO EACH OTHER.
6. DO NOT RUN ANY SIGNAL CABLE NEAR SPARK GENERATOR.

ABBREVIATION:

- C# - CONTACTOR 1,2,3 (C1, C2, ...)
- DHW - DOMESTIC HOT WATER
- F# - FUSE 1,2,3 (F1, F2, ...)
- FL# - FLOAT SWITCH 1,2,3 (FL1, FL2, ...)
- FLA - FULL LOAD AMPS
- FS# - FLOW SWITCH 1,2,3 (FS1, FS2, ...)
- FSM# - FLAME SENSE RELAY MODULE 1,2,3 (FSM1, FSM2, ...)
- GB# - GROUND BAR 1,2,3 (GB1, GB2, ...)
- IGN# - IGNITOR 1,2,3 (IGN1, IGN2, ...)
- LT# - LIGHT 1,2,3 (LT1, LT2, ...)
- LWCO - LOW WATER CUTOFF
- OPT - OPTION
- OL - OVERLOAD
- M# - MOTOR 1,2,3 (M1, M2, ...)
- PS# - PRESSURE SWITCH 1,2,3 (PS1, PS2, ...)
- PWS# - POWER SUPPLY
- S# - SWITCH 1,2,3 (S1, S2, ...)
- SCCR - SHORT CIRCUIT CURRENT RATING
- SG# - SPARK GENERATOR 1,2,3 (SG1, SG2, ...)
- SHLD - SHIELDED CABLE
- SS RELAY - SOLID STATE RELAY
- TB# - TERMINAL BLOCK 1,2,3 (TB1, TB2, ...)
- TAS# - TEMPERATURE-ACTUATED SWITCH (TAS1, TAS2, ...)
- VLV# - VALVE 1,2,3 (VLV1, VLV2, ...)
- XFMR# - TRANSFORMER 1,2,3 (XFMR1, XFMR2, ...)

DIVISION	PRODUCT	DRAWN BY	DATE	DRAWING DESCRIPTION	
RBI	CK3500	MAC	03/21/16	INFORMATION AND LAYOUT DIAGRAM	
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		JAS	03/21/16	CK3500NXR8X0XAXXC3X5	
		APPROVED BY	DATE	SHEET	SHEET SIZE
		JAS	03/23/16	10 OF 10	B
				SCALE	REVISION
				N/A	E

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