

Notes:

1. THE AMPACITY OF CONDUCTORS SUPPLYING THE CONTROL PANEL TO BE ROUNDED UP TO THE NEXT SIZE LARGER STANDARD WIRE GAUGE.
2. MOP VALUES TO BE ROUNDED DOWN TO THE NEAREST STANDARD RATING OF THE OVERCURRENT PROTECTION DEVICE.
3. SHORT CIRCUIT CURRENT RATING (SCCR): 5 kA

AUTO OPERATION:

THE MASTER PCB WILL CONTROL THE ADAPTIVE FUNCTIONALITY OF THE SYSTEM. THE ADAPTIVE CONTROL CAUSES THE VACUUM PUMPS TO START BASED ON THE VACUUM LEVEL. THE SIGNAL TO STOP IS BASED ON THE LENGTH OF TIME THE VACUUM SYSTEM WAS NOT RUNNING. THE MASTER PCB DETERMINES THE MINIMUM RUN TIME OF A PUMP ONCE IT HAS STOPPED. IF THE VACUUM SYSTEM IS STOPPED FOR A LONG PERIOD OF TIME, THE MINIMUM RUN TIME AFTER A RESTART WILL BE SHORT. IF THE VACUUM SYSTEM IS STOPPED FOR A SHORT PERIOD OF TIME, THE MINIMUM RUN TIME WILL BE LONGER. SEE O&M MANUAL FOR SPECIFIC VARIATIONS. IF DURING OPERATION THE FIFTH VACUUM PUMP IS REQUIRED TO TURN ON, THE MASTER CONTROLLER WILL SET A LAG ALARM CONDITION.

PUMP PCB S1 POSITION:

POSITION (A) – AUTO (DEFAULT):

THE PUMP WILL OPERATE NORMALLY AS DESCRIBED ABOVE IN "AUTO OPERATION".

POSITION (X) – OFF:

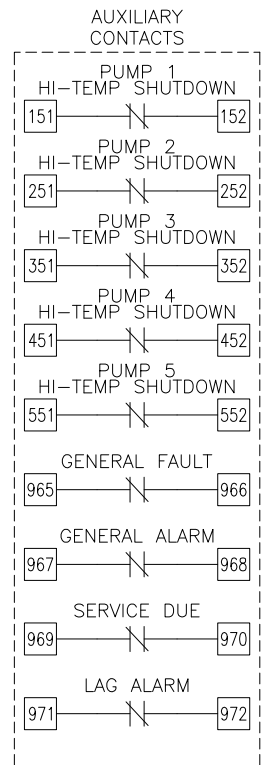
THE PUMP IS DISABLED FROM RUNNING.

POSITION (O) – MANUAL:

THE PUMP WILL RUN CONTINUOUSLY.

PCB FAULT:

IF A PUMP PCB ETHERNET FAULT OR A TRANSDUCER FAULT OCCURS, THE PUMP PCB WILL AUTOMATICALLY SWITCH TO MANUAL MODE. VACUUM PUMPS WILL START WHEN BVS-1 (BACKUP VACUUM SWITCH) CLOSSES AND STOP WHEN THE RUN TIMER EXPIRES.



NOTE:  
AUXILIARY CONTACTS 151-152, 251-252, 351-352, 451-452, 551-552, & 965-972 ARE "CLASS 1 CONTROL CIRCUITS. USE CLASS 1 CONDUCTORS."

AUX CONTACTS ARE RATED 0.7A<sub>dc</sub>/0.7A<sub>rms</sub> @ 24V MAX. UNLESS OTHERWISE NOTED.

AUX CONTACTS CLOSED DURING NORMAL OPERATION.

MINIMUM CIRCUIT AMPACITY (MCA)

SYSTEM HP	208 V	230 V	380/400 V	460 V
15 HP	246.9 AMPS	224.4 AMPS	144.9 AMPS	112.8 AMPS

MAXIMUM OVERCURRENT PROTECTION (MOP)

SYSTEM HP	208 V	230 V	380/400 V	460 V
15 HP	288.8 AMPS	262.5 AMPS	168.8 AMPS	131.3 AMPS

INDIVIDUAL OPERATING FULL LOAD AMPERES

SYSTEM HP	208 V	230 V	380V/50Hz	460 V
15 HP	40.5 AMPS	35.0 AMPS	14.5 AMPS	17.5 AMPS

INDIVIDUAL MOTOR NAMEPLATE FULL LOAD AMPERES

SYSTEM HP	208 V	230 V	460 V	S.F.	380V/50Hz	S.F.
15 HP	40.5 AMPS	35.0 AMPS	17.5 AMPS	1.15	14.5 AMPS	1.15

PENTAPLEX SYSTEM FULL LOAD AMPERES

SYSTEM HP	208 V	230 V	380V/50Hz	460 V
15 HP	206.0 AMPS	178.2 AMPS	75.0 AMPS	89.6 AMPS

FUSE SELECTION CHART (MAX FUSE SIZES SHOWN)

FUSES	208 V	230 V	380 V	460 V
F1/F2/F4/F5/ F7/F8/F10/ F11/F13/F14	6.0 AMPS	6.0 AMPS	6.0 AMPS	6.0 AMPS
F3/F6/F9/ F12/F15	---	---	6.0 AMPS	6.0 AMPS
F21-F25	2.5 AMPS	2.5 AMPS	2.5 AMPS	2.5 AMPS
F33	1.0 AMP	1.0 AMP	1.0 AMP	1.0 AMP
F35	0.5 AMP	0.5 AMP	0.5 AMP	0.5 AMP

F1-F15 ARE LITTELFUSE KLDR 600V TYPE  
F21-F25/F33/F35 ARE LITTELFUSE 2AG 250V TYPE

OVERLOAD SETTINGS

SYSTEM HP	208 V	230 V	380V/50Hz	460 V
15 HP	44.6 AMPS	38.5 AMPS	16.0 AMPS	19.3 AMPS

DEFAULT VACUUM SETTINGS ("HgV)

ALTITUDE	LEAD CUT-OFF		LAG CUT-ON		MAXIMUM LIMITS			MINIMUM LIMITS				
	O2A	O2A	O2A	O2A	O2A	O2A	O2A	O2A	O2A			
0-1000'	21	19	16	15	25	18	25	17	17	15	16	15
1001-2000'	20	18	16	15	24	18	24	17	17	15	16	15
2001-3000'	19	18	16	15	23	18	23	17	17	15	16	15
3001-4000'	19	18	16	15	22	18	22	17	17	15	16	15
>4000'	CONSULT FACTORY											

RELIEF VALVE SETTINGS ("HgV)

ALTITUDE	O2 ASSURED PUMPS
0-1000'	23
1001-2000'	22
2001-3000'	21
3001-4000'	20
>4000'	CONSULT FACTORY

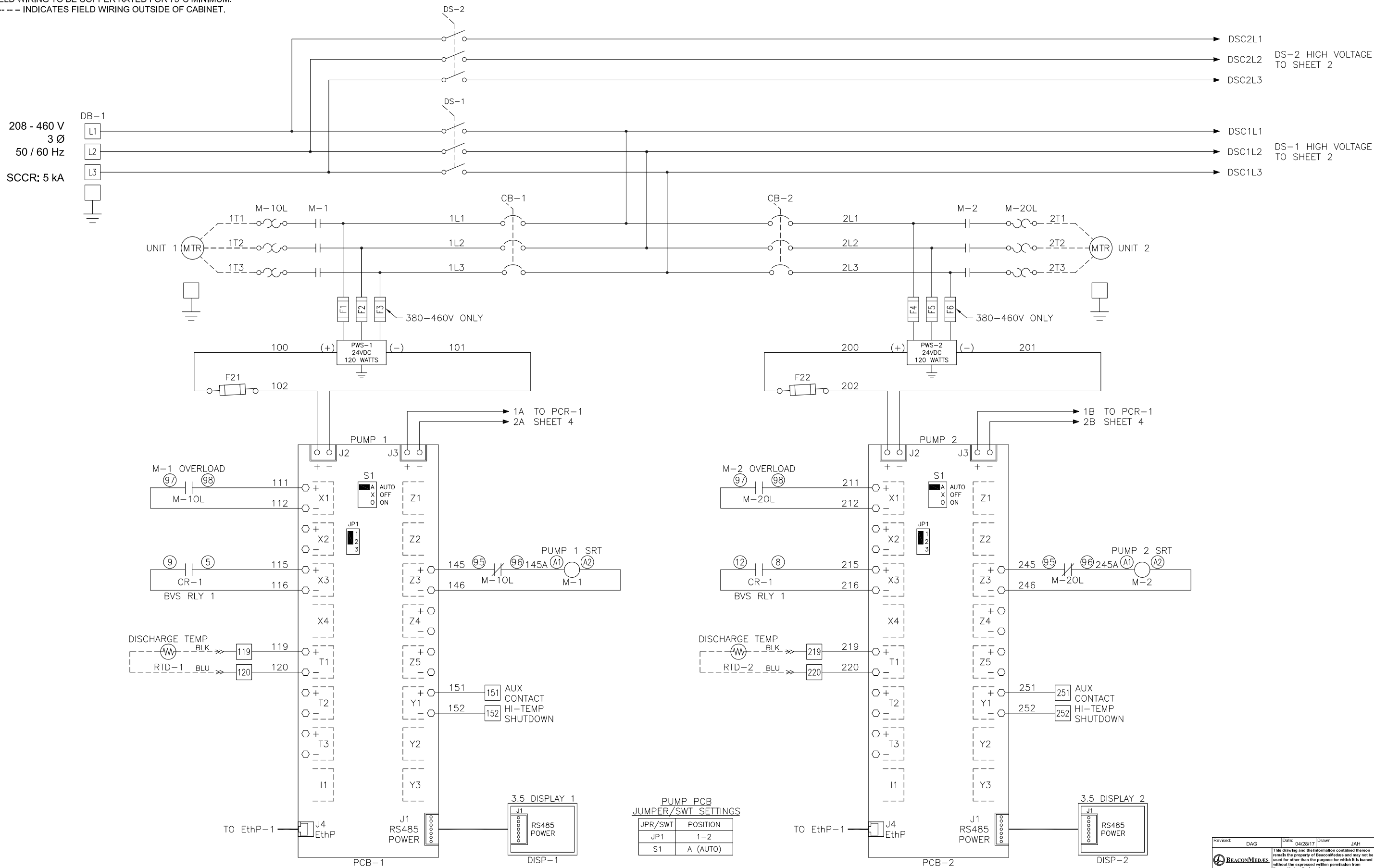
BACKUP VACUUM SWITCH ("HgV)

BVS-1	CUT-ON	O2A
	15	14

Revised: DAG	Date: 04/28/17	Drawn: JAH	Date: 02/01/11
		This drawing and the information contained therein remain the property of BeaconMedics and may not be used for other than the purpose for which it is loaned without the expressed written permission from BeaconMedics Engineering.	
Description: DWG WIRING CONTROL PX CLAW 15HP 208-460/3/50-60		Part Number: 4107 8527 17	
DN: HOP 170417 00	Rev: 08	Scale: NTS	
Sheet 1 of 5	DO NOT SCALE THIS DOCUMENT		

Notes:

1. MAIN DISCONNECT PROVIDED BY OTHER.
2. FIELD WIRING TO BE COPPER RATED FOR 75°C MINIMUM.
3. - - - - - INDICATES FIELD WIRING OUTSIDE OF CABINET.



PUMP PCB JUMPER/SWT SETTINGS

JPR/SWT	POSITION
JP1	1-2
S1	A (AUTO)

Revised: DAG	Date: 04/28/17	Drawn: JAH	Date: 02/01/11
		This drawing and the information contained thereon remain the property of BeaconMedics and may not be used for other than the purpose for which it is issued without the expressed written permission from BeaconMedics Engineering.	
Description: DWG WIRING CONTROL PX CLAW 15HP 208-460/3/50-60		Part Number: 4107 8527 17 DN: HOP 170417 00 Rev: 08 Sheet 2 of 5	

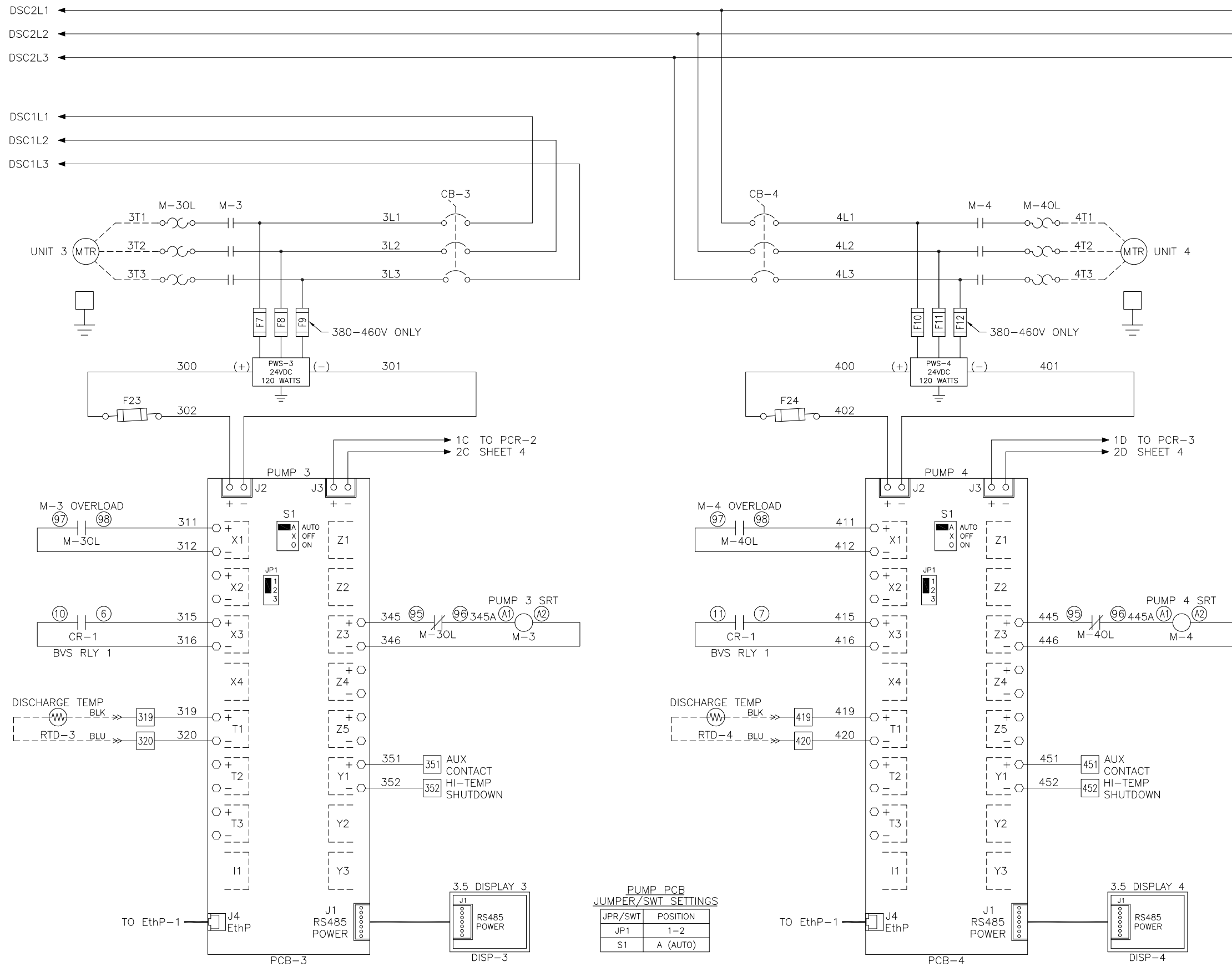
Notes:

1. FIELD WIRING TO BE COPPER RATED FOR 75°C MINIMUM.
2. - - - - - INDICATES FIELD WIRING OUTSIDE OF CABINET.

DS-2 HIGH VOLTAGE FROM SHEET 1  
DSC2L1  
DSC2L2  
DSC2L3

DS-1 HIGH VOLTAGE FROM SHEET 1  
DSC1L1  
DSC1L2  
DSC1L3

DS-2 HIGH VOLTAGE TO SHEET 3  
DSC2L1  
DSC2L2  
DSC2L3



PUMP PCB JUMPER/SWT SETTINGS

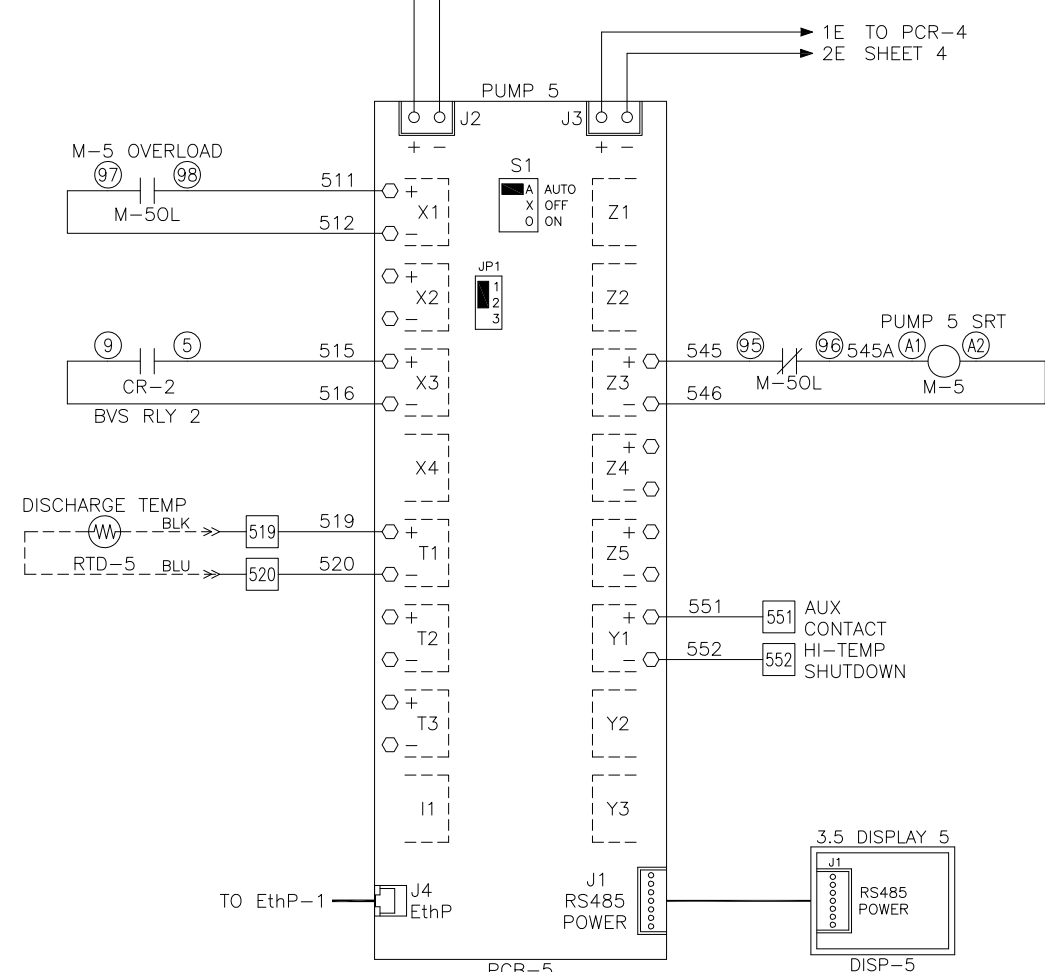
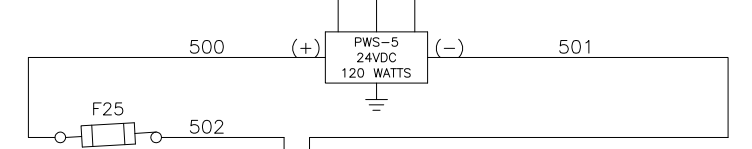
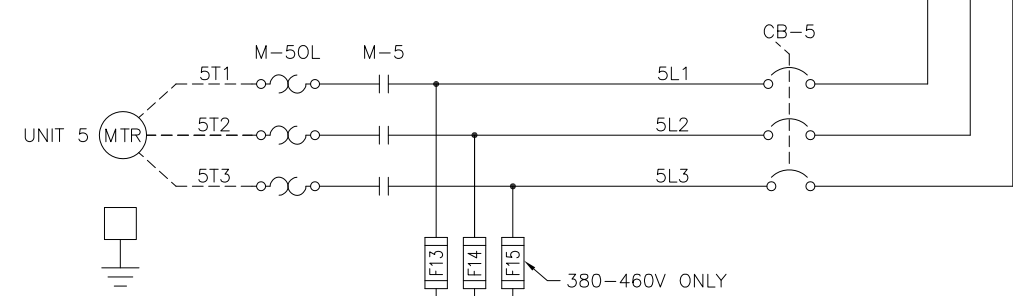
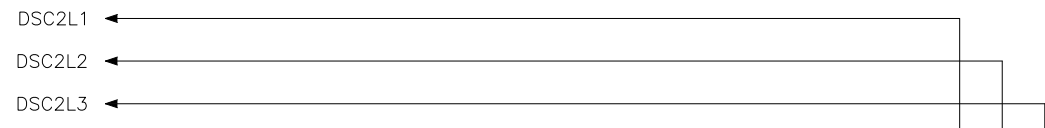
JPR/SWT	POSITION
JP1	1-2
S1	A (AUTO)

Revised: DAG	Date: 04/28/17	Drawn: JAH	Date: 02/01/11
This drawing and the information contained therein remain the property of BeaconMedics and may not be used for other than the purpose for which it is loaned without the expressed written permission from BeaconMedics Engineering.			Scale: NTS
Description: DWG WIRING CONTROL PX CLAW 15HP 208-460/3/50-60		Part Number: 4107 8527 17 DN: HOP 170417 00 Sheet 3 of 5	
		Rev: 08 DO NOT SCALE THIS DOCUMENT	

Notes:

- 1. FIELD WIRING TO BE COPPER RATED FOR 75°C MINIMUM.
- 2. - - - - - INDICATES FIELD WIRING OUTSIDE OF CABINET.

DS-2 HIGH VOLTAGE FROM SHEET 2



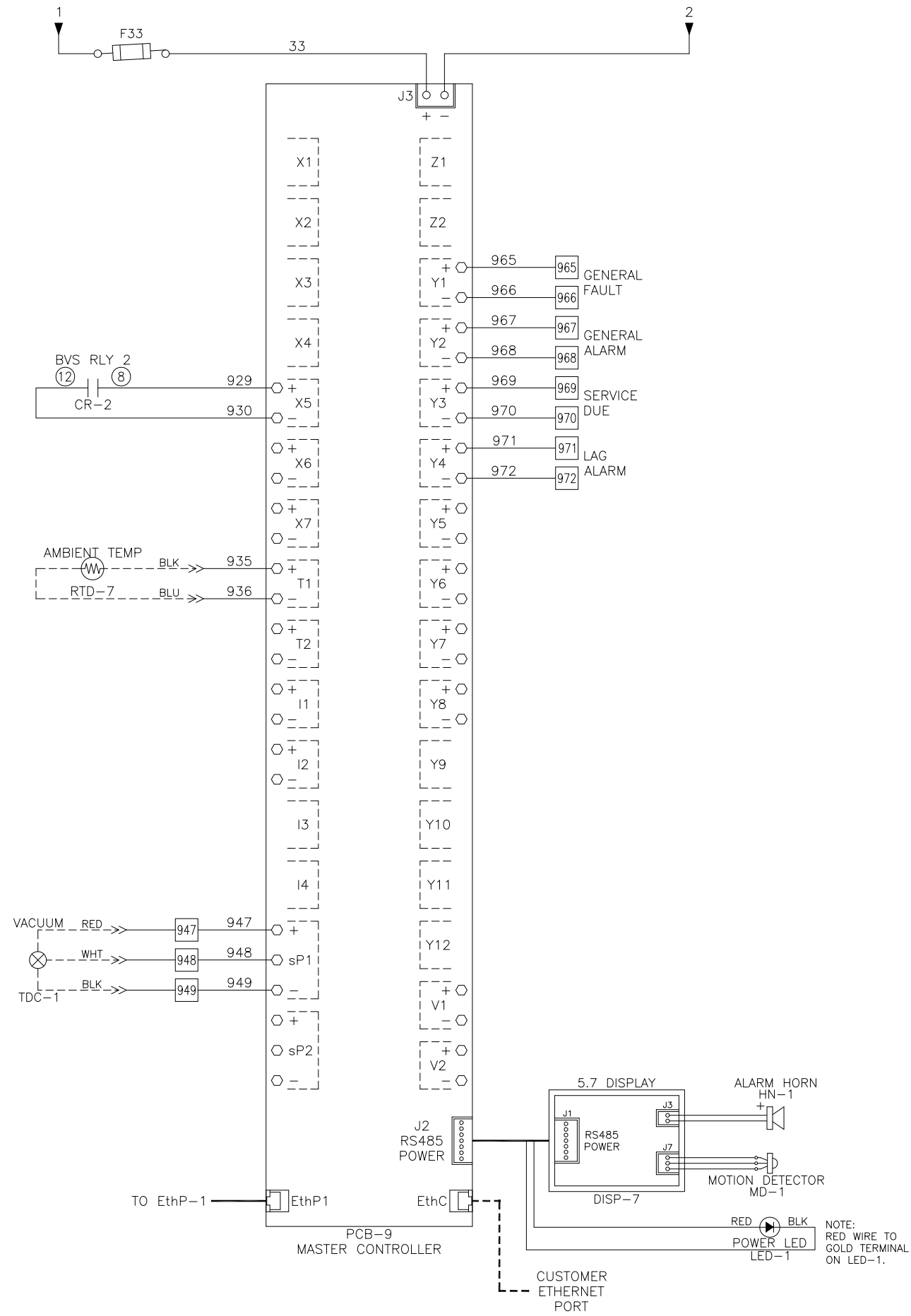
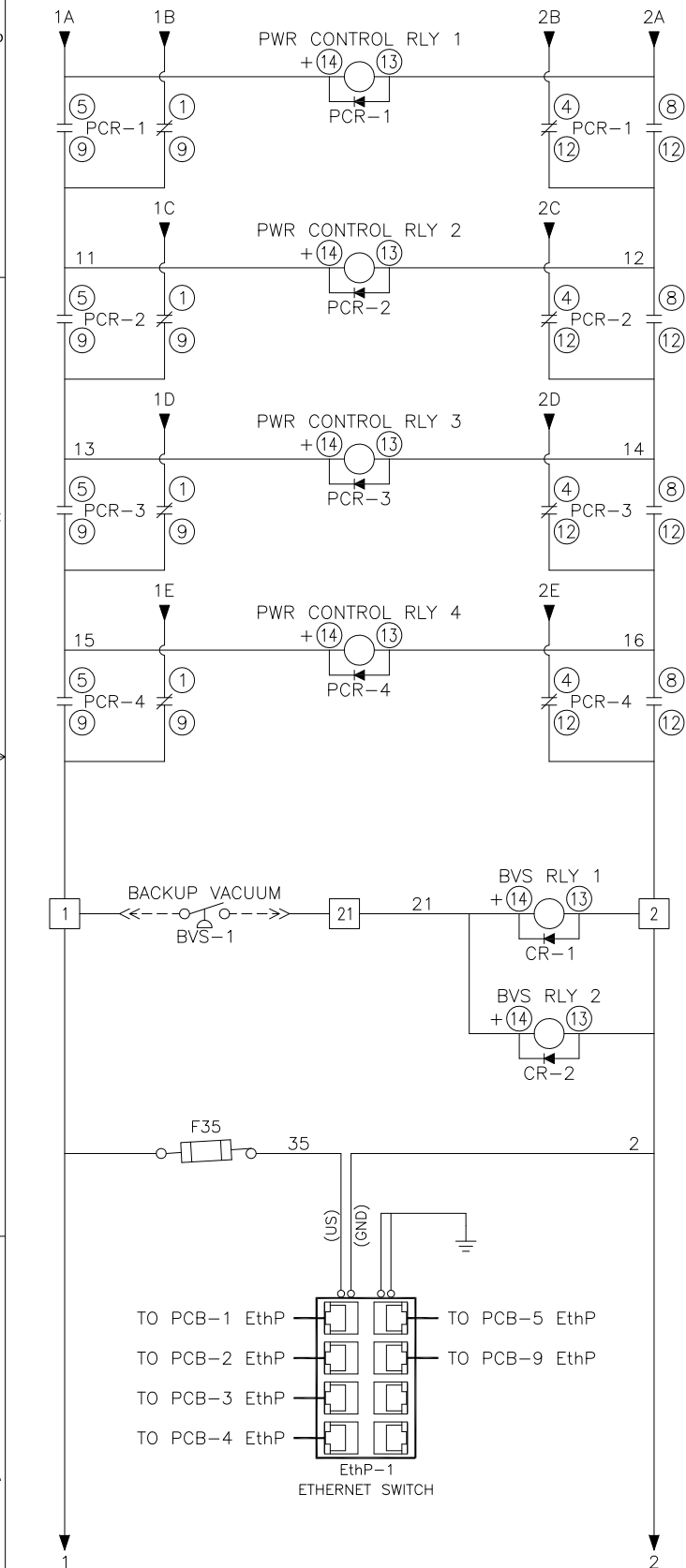
PUMP PCB JUMPER/SWT SETTINGS

JPR/SWT	POSITION
JP1	1-2
S1	A (AUTO)

Revised: DAG	Date: 04/28/17	Drawn: JAH	Date: 02/01/11
This drawing and the information contained thereon remain the property of BeaconMedes and may not be used for other than the purpose for which it is loaned without the expressed written permission from BeaconMedes Engineering.			Scale: NTS
Description: DWG WIRING CONTROL PX CLAW 15HP 208-460/3/50-60		Part Number: 4107 8527 17	
DN: HOP 170417 00	Rev: 08	Sheet 4 of 5	

Notes:

1. FIELD WIRING TO BE COPPER RATED FOR 75°C MINIMUM.
2. - - - - - INDICATES FIELD WIRING OUTSIDE OF CABINET.



Revised: DAG	Date: 04/28/17	Drawn: JAH	Date: 02/01/11
			Scale: NTS
Description: DWG WIRING CONTROL PX CLAW 15HP 208-460/3/50-60			Part Number: 4107 8527 17 DN: HOP 170417 00 Rev: 08 Sheet 5 of 5