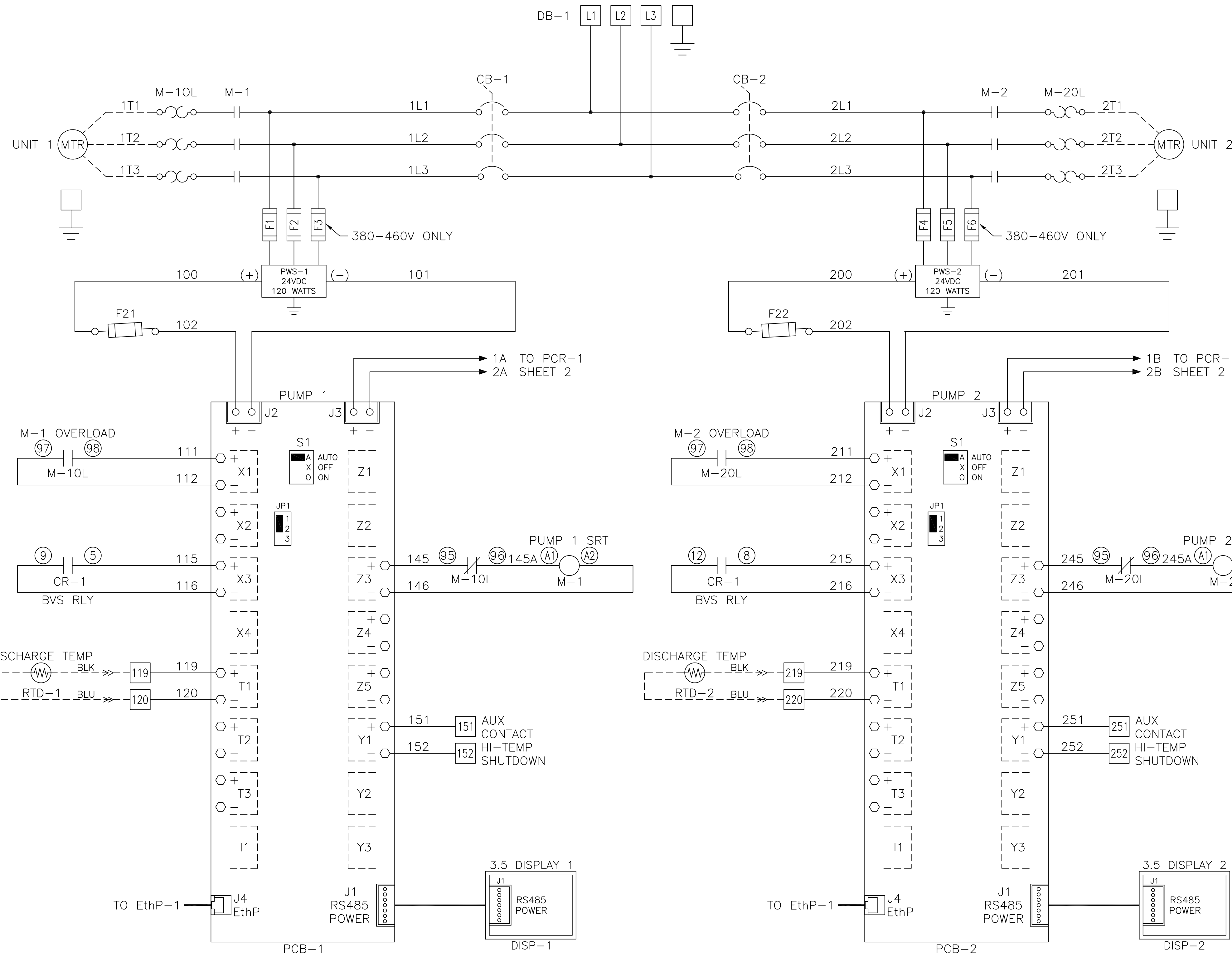


Notes:

1. MAIN DISCONNECT PROVIDED BY OTHERS.
2. FIELD WIRING TO BE COPPER RATED FOR 75°C MINIMUM.
3. - - - - INDICATES FIELD WIRING OUTSIDE OF BOX.
4. \* INDICATES DATA FOR HORIZONTAL TANK MOUNT SYSTEMS.
5. AUXILIARY CONTACTS LIST AND OPERATION NOTES ON SHEET 2.
6. THE AMPACITY OF CONDUCTORS SUPPLYING THE CONTROL PANEL TO BE ROUNDED UP TO THE NEXT SIZE LARGER STANDARD WIRE GAUGE.
7. MOP VALUES TO BE ROUNDED DOWN TO THE NEAREST STANDARD RATING OF THE OVERCURRENT PROTECTION DEVICE.
8. SHORT CIRCUIT CURRENT RATING (SCCR): 5kA

208-460V  
3Ø  
50/60 Hz  
SCCR: 5kA



MINIMUM CIRCUIT AMPACITY (MCA)

SYSTEM HP	208 V	230 V	380/400 V	460 V
1.5 HP	16.6 AMPS	15.1 AMPS	8.7 AMPS	7.8 AMPS
2 HP	18.6 AMPS	16.9 AMPS	10.9 AMPS	8.7 AMPS
3 HP	25.6 AMPS	23.2 AMPS	15.0 AMPS	11.8 AMPS
5 HP	41.2 AMPS	35.8 AMPS	23.1 AMPS	18.1 AMPS
7.5 HP	58.7 AMPS	51.1 AMPS	32.8 AMPS	25.8 AMPS
10 HP	74.3 AMPS	64.6 AMPS	41.8 AMPS	32.5 AMPS
15 HP	110.5 AMPS	96.1 AMPS	62.0 AMPS	48.3 AMPS
20 HP	141.5 AMPS	123.1 AMPS	77.8 AMPS	61.8 AMPS
25 HP	177.7 AMPS	154.6 AMPS	100.3 AMPS	77.5 AMPS

MAXIMUM OVERCURRENT PROTECTION (MOP)

SYSTEM HP	208 V	230 V	380/400 V	460 V
1.5 HP	21.5 AMPS	19.5 AMPS	10.7 AMPS	9.8 AMPS
2 HP	24.4 AMPS	22.1 AMPS	14.0 AMPS	11.1 AMPS
3 HP	34.5 AMPS	31.2 AMPS	19.8 AMPS	15.6 AMPS
5 HP	56.8 AMPS	49.4 AMPS	31.5 AMPS	24.7 AMPS
7.5 HP	82.2 AMPS	71.5 AMPS	45.5 AMPS	35.8 AMPS
10 HP	104.6 AMPS	91.0 AMPS	58.5 AMPS	45.5 AMPS
15 HP	156.9 AMPS	136.5 AMPS	87.8 AMPS	68.3 AMPS
20 HP	201.8 AMPS	175.5 AMPS	110.5 AMPS	87.8 AMPS
25 HP	254.1 AMPS	221.0 AMPS	143.0 AMPS	110.5 AMPS

DUPLEX SYSTEM FULL LOAD AMPERES

SYSTEM HP	208 V	230 V	380V/50Hz	460 V
1.5 HP	10.4 AMPS	10.1 AMPS	6.2 AMPS	5.3 AMPS
2 HP	12.6 AMPS	12.1 AMPS	7.4 AMPS	6.3 AMPS
3 HP	18.2 AMPS	16.9 AMPS	10.2 AMPS	8.7 AMPS
*5 HP	29.0 AMPS	27.7 AMPS	15.6 AMPS	13.9 AMPS
5 HP	30.0 AMPS	27.1 AMPS	16.4 AMPS	13.9 AMPS
7.5 HP	44.2 AMPS	44.9 AMPS	23.8 AMPS	22.7 AMPS
10 HP	54.2 AMPS	52.5 AMPS	28.2 AMPS	26.5 AMPS
15 HP	82.2 AMPS	76.1 AMPS	45.6 AMPS	38.3 AMPS
20 HP	109.4 AMPS	105.3 AMPS	57.0 AMPS	52.9 AMPS
25 HP	145.4 AMPS	125.3 AMPS	75.0 AMPS	62.9 AMPS

INDIVIDUAL FULL LOAD AMPERES

SYSTEM HP	208 V	230 V	380V/50Hz	460 V
1.5 HP	4.5 AMPS	4.4 AMPS	2.6 AMPS	2.2 AMPS
2 HP	5.6 AMPS	5.4 AMPS	3.2 AMPS	2.7 AMPS
3 HP	8.4 AMPS	7.8 AMPS	4.6 AMPS	3.9 AMPS
*5 HP	13.8 AMPS	13.2 AMPS	7.3 AMPS	6.5 AMPS
5 HP	14.3 AMPS	12.9 AMPS	7.7 AMPS	6.5 AMPS
7.5 HP	21.4 AMPS	21.8 AMPS	11.4 AMPS	10.9 AMPS
10 HP	26.4 AMPS	25.6 AMPS	13.6 AMPS	12.8 AMPS
15 HP	40.4 AMPS	37.4 AMPS	22.3 AMPS	18.7 AMPS
20 HP	54.0 AMPS	52.0 AMPS	28.0 AMPS	26.0 AMPS
25 HP	72.0 AMPS	62.0 AMPS	37.0 AMPS	31.0 AMPS

FUSE SELECTION CHART (MAX FUSE SIZES SHOWN)

HP	FUSES	208 V	230 V	380 V	460 V
ALL	F1/F2/F4/F5	6 AMP	6 AMP	6 AMP	6 AMP
	F3/F6	---	---	6 AMP	6 AMP
1-20HP	F21/F22	2.5 AMP	2.5 AMP	2.5 AMP	2.5 AMP
		4.0 AMP			
ALL	F33	1.0 AMP	1.0 AMP	1.0 AMP	1.0 AMP
ALL	F35	0.5 AMP	0.5 AMP	0.5 AMP	0.5 AMP

F1-F6 ARE LITTELFUSE KLDR 600V TYPE  
F21/F22/F33/F35 ARE LITTELFUSE 2AG 250V TYPE

DEFAULT VACUUM SETTINGS

ALTITUDE	LEAD CUT-OFF ("Hg)	LAG CUT-ON ("Hg)	Maximum Limits ("Hg)	Minimum Limits ("Hg)	
0'-3000'	25"	19"	25"	22"	
3001'-4000'	24"	19"	25"	22"	
4001'-5000'	23"	18"	25"	22"	
5001'-6000'	22"	18"	24"	21"	
6001'-7000'	21"	17"	23"	20"	
7001'-8000'	20"	17"	22"	19"	
8001'-9000'	19"	16"	21"	18"	
9001'-10,000'	18"	16"	20"	18"	
>10,000'	CONSULT FACTORY				

BACKUP VACUUM SWITCH

BVS-1	CUT-ON	15"
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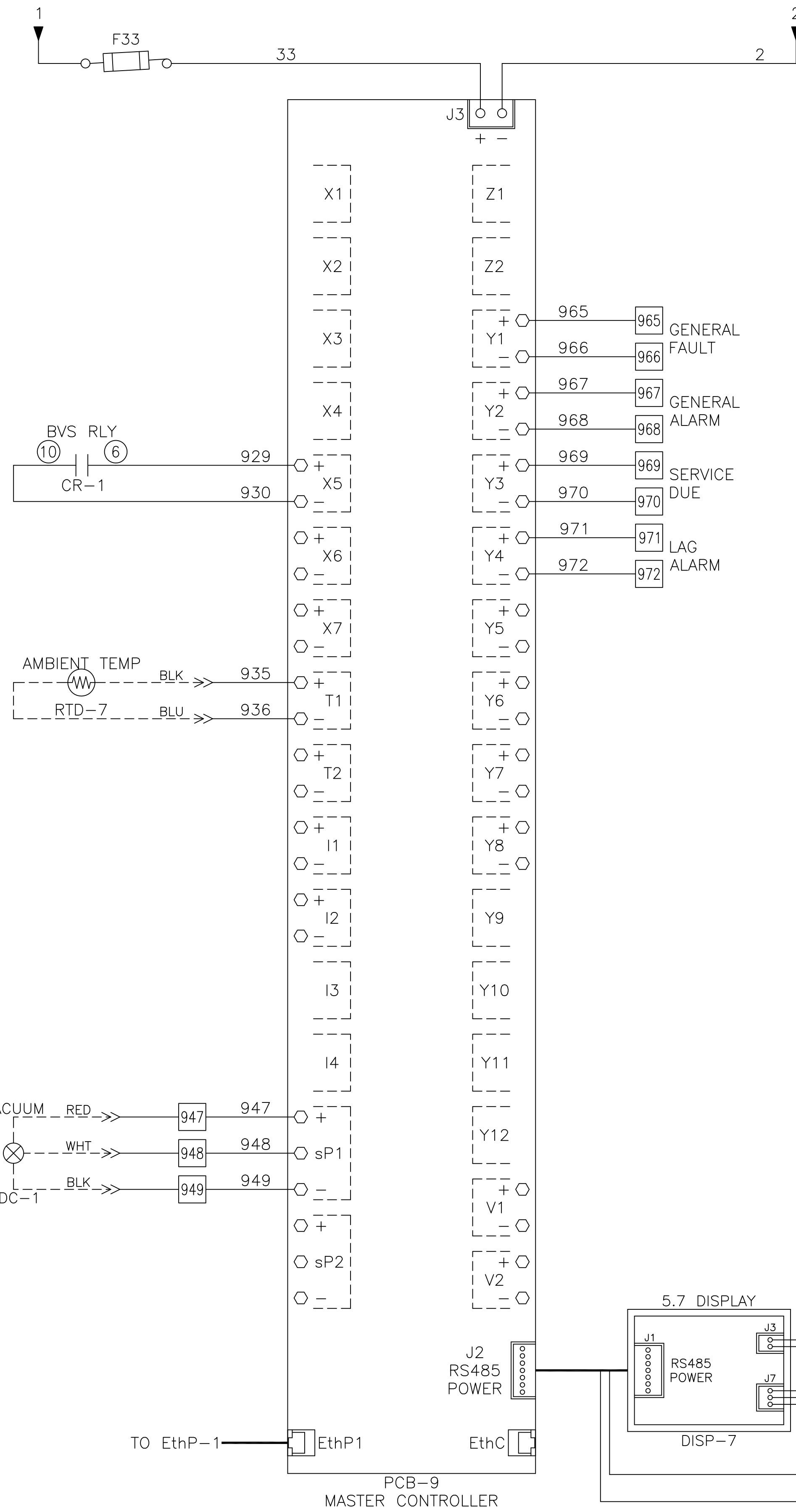
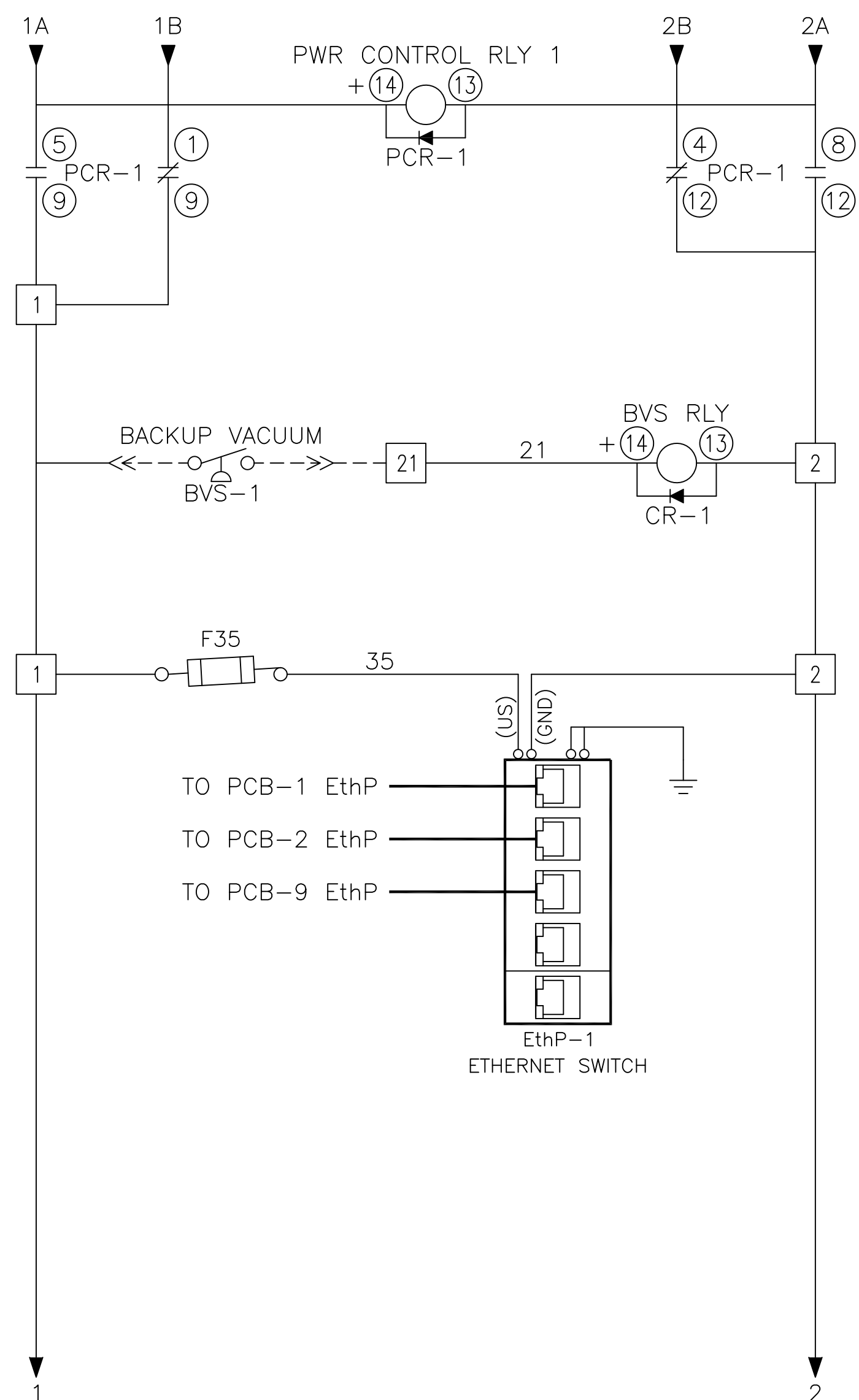
PUMP PCB JUMPER/SWT SETTINGS

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

Revised: BJM Date: 06/28/18 Drawn: JAH Date: 05/10/11  
 Description: DWG WIRING CONTROL DX LUBE 1-25HP 208-460/3/50-60 Part Number: 4107 8523 57  
 Scale: NTS  
 Sheet 1 of 2

Notes:

1. FIELD WIRING TO BE COPPER RATED FOR 75°C MINIMUM.



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 NOT RUNNING FOR A SHORT PERIOD OF TIME, THE MINIMUM RUN TIME WILL BE LONGER. SEE O&M MANUAL FOR SPECIFIC VARIATIONS. IF DURING OPERATION THE SECOND VACUUM PUMP IS REQUIRED TO TURN ON, THE MASTER CONTROLLER WILL SET A LAG ALARM CONDITION.

PUMP PCB S1 POSITION:

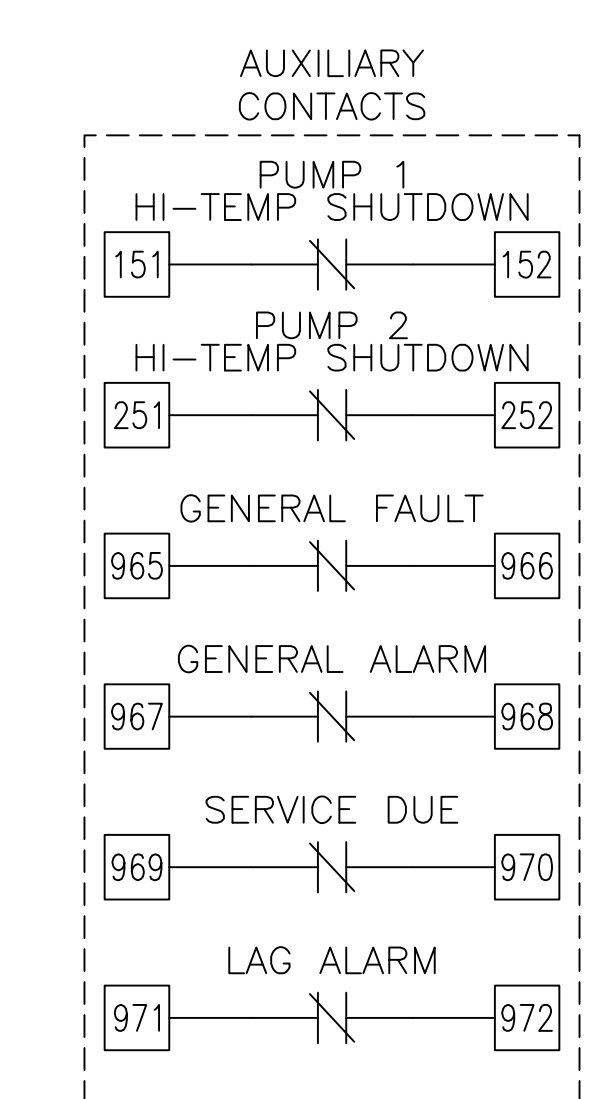
POSITION (A) – AUTO (DEFAULT):  
THE PUMP WILL OPERATE NORMALLY AS DESCRIBED ABOVE IN "AUTO OPERATION".

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 EMERGENCY MANUAL MODE. VACUUM PUMPS WILL START WHEN BVS-1 (BACKUP VACUUM SWITCH) CLOSES AND STOP WHEN IT OPENS. COMPRESSORS WILL NOT SEQUENCE IN THIS CONDITION AND CAN OPERATE UNTIL THE ETHERNET OR TRANSDUCER FAULT IS REPAIRED.



NOTE:  
AUXILIARY CONTACTS 151-152, 251-252, & 965-972 ARE "CLASS 1 CONTROL CIRCUITS. USE CLASS 1 CONDUCTORS."

AUX CONTACTS ARE RATED 0.7Adc/0.7Arms @ 24V MAX. UNLESS OTHERWISE NOTED.

AUX CONTACTS CLOSED DURING NORMAL OPERATION.

NOTE:  
RED WIRE TO GOLD TERMINAL ON LED-1.

Revised: BJM	Date: 08/28/18	Drawn: JAH	Date: 05/10/11
<small>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.</small>		Scale: NTS	Part Number: 4107 8523 57
Description: DWG WIRING CONTROL DX LUBE 1-25HP 208-460/3/50-60		DN: HOP 180701	Rev: 09
Sheet 2 of 2		DO NOT SCALE THIS DOCUMENT	