



**Read the
separate
safety
manual
before
installing,
operating,
or servicing**

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Schematic/Electrical Parts

30022 & 36026X8W,

42026 & 42032X7W

MARK V & VI CONTROLS



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COMPONENT PARTS LIST

W6X8WSPL/2010444N

<u>COMPONENT NUMBER</u>	<u>FUNCTION OF THIS COMPONENT NUMBER</u>	<u>WHERE TO FIND THIS COMPONENT</u>	<u>MIL/NOR P/N</u>	<u>DESCRIPTION</u>	<u>LOCATION</u>
	>>>CONTROL BOX LAYOUTS				
001	DETAIL-3022X8W CONTROLS	W6X8WSTG1	B2T2004031	30022X8W CONTROL BOX	CONTROL BOX
002	DETAIL-3022/3626X8W PROCESSOR	W6X8WSTG1	B2T2004032	36026X8W PROCESSOR BOX	PROCESSOR BOX
003	DETAIL-4226/4232X7W CONTROLS	W6X8WSTG2	B2T2004033	42026/42032X7W CONTROL BOX	CONTROL BOX
004	DETAIL-4226/4232X7W PROCESSOR	W6X8WSTG2	B2T2004034	42026/42032X7W PROCESSOR BOX	PROCESSOR BOX
005	DETAIL-F8P/W, F7P/W, X8W, X7W IN/OUTPUTS	W6X8WSTG3	B2TAG96034	F8P/W, F7P/W, X8W, X7W INPUTS/OUTPUTS	CONTROL BOX
BA	>>>PRINTED CIRCUIT BOARDS				
BAD-1	BOARD-ANALOG TO DIGITAL CONVERTER	W6X8WSBW	08BSADCT	BD: SERIAL A-D CONVERT->TEST	CONTROL BOX
BAS	BOARD-16 SNUBBER CIRCUITS	W6X8WSCF	08BNCMBT	COIN MACHINE SNUBBER->TESTED	CONTROL BOX
BAS	BOARD-16 SNUBBER CIRCUITS	W6X8WSEV	08BNCMBT	COIN MACHINE SNUBBER->TESTED	CONTROL BOX
BAS	BOARD-16 SNUBBER CIRCUITS	W6X8WSS+	08BNCMBT	COIN MACHINE SNUBBER->TESTED	CONTROL BOX
BAS	BOARD-16 SNUBBER CIRCUITS	W6X8WSS+A	08BNCMBT	COIN MACHINE SNUBBER->TESTED	CONTROL BOX
BBB-1	BOARD-MEMORY BATTERY BACKUP	W6X8WSBW	08BSBB1T	BOARD: SER BATT BACKUP-TEST	PROCESSOR BX
BDA-1	BOARD-DIGITAL TO ANALOG CONVERTOR	W6X8WSBW	08BSDACHT	BD:HI-RES SERIAL D-A->TEST	CONTROL BOX
BDFP	DISPLAY-MICROPROCESSOR-COLOR FP	W6X8WSDF	08EFD320A	DISPLAY#AV05114KIT#BT057PM	SWITCH PANEL
BDVFD	DISPLAY-MICROPROCESSOR-VFD	W6X8WSBW	08BSEVFD5V	BD: SERIAL VFD 2LINE 186-19200B-TEST	SWITCH PANEL
BFPC	BOARD-FLAT PNL CONTRROLLER	W6X8WSDF	MESSAGE EW	INCLUDED IN KIT FOR BDFP ABOVE	SWITCH PANEL
BFPI	BOARD-FLAT PNL INTERFACE	W6X8WSDF	08BSAT3AT	BD:FLAT PNL DISP INF->TESTED	SWITCH PANEL
BIO-1	BOARD-8OUTPUT/16INPUT #1	W6X8WSBW	08BS816CHT	BD 8OUT-16IN HIGH SPD->TEST	CONTROL BOX
BLB	BOARD-LEVEL TRANSDUCER	W6X8WSBW	08BNLT	LEVEL TRANSDUCER BD->TEST	CONTROL BOX
BMTH	BOARD-5 CHANNEL MOTHER	W6X8WSBW	08BS5MTHAT	BD:SERIAL 5 CARD MOTHER->TEST	CONTROL BOX
BO24-1	BOARD-24 OUTPUT #1	W6X8WSBW	08BSO24AT	BD:SERIAL 24 OUTPUT->TEST	CONTROL BOX
BO24-2	BOARD-24 OUTPUT #2	W6X8WSBW	08BSO24AT	BD:SERIAL 24 OUTPUT->TEST	CONTROL BOX
BPB	BOARD-186 PROCESSOR	W6X8WSBW	08BSPE2T	SERIAL 186 PROC BD+FP->TEST	PROCESSOR BX
BSP	BOARD-SPEED SENSING	W6X8WSBW	08BNDSRAT	BD DRY SAFETY ROTATION->TEST	CONTROL BOX
	>>>RELAY-DELAY				
CDSD	DELAY-SAMPLE DOOR	W6X8WSDS	08TF090A71	ELECT ADJ RELAY 1-90 230V 60C	CONTROL BOX
CL	>>>RELAY-LATCH				
CLA	LATCH+DOOR SEAL	W6X8WSS+A	09CL2C-C71	RELAY-LATCH DPDT 240V 2-COIL	CONTROL BOX
CP	>>>PHOTOEYE				
CPSP	PHOTOEYE-SPEED	W6X8WSBW	09RPE013	SENSOR E-Z BEAM DC	MAIN PULLEY
CR	>>>RELAY-PILOT OR CONTROL				
CRC01	RELAY-INTERPERT #1	W6X8WSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX

COMPONENT PARTS LIST

<u>COMPONENT</u>	<u>FUNCTION OF THIS</u>	<u>WHERE TO FIND</u>	<u>MILNOR P/N</u>	<u>DESCRIPTION</u>	<u>LOCATION</u>
<u>NUMBER</u>	<u>COMPONENT NUMBER</u>	<u>THIS COMPONENT</u>			
CRC02	RELAY-INTERPERT #2	W6X8WSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX
CRC03	RELAY-INTERPERT #3	W6X8WSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX
CRC04	RELAY-INTERPERT #4	W6X8WSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX
CRC05	RELAY-INTERPERT #5	W6X8WSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX
CRC06	RELAY-INTERPERT #6	W6X8WSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX
CRC07	RELAY-INTERPERT #7	W6X8WSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX
CRC08	RELAY-INTERPERT #8	W6X8WSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX
CRC09	RELAY-INTERPERT #9	W6X8WSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX
CRC10	RELAY-INTERPERT #10	W6X8WSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX
CRC11	RELAY-INTERPERT #11	W6X8WSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX
CRC12	RELAY-INTERPERT #12	W6X8WSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX
CRC13	RELAY-INTERPERT #13	W6X8WSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX
CRC14	RELAY-INTERPERT #14	W6X8WSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX
CRC15	RELAY-INTERPERT #15	W6X8WSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX
CRD	RELAY-DOOR UNLATCH	W6X8WSS-A	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX
CRS+	RELAY-START 3-WIRE	W6X8WSS+	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX
CRS+	RELAY-START 3-WIRE	W6X8WSS-A	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX
CRSAD	RELAY-DISABLE DOOR	W6X8WSDS	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX
CRSAE	RELAY-SAMPLE DESIRED	W6X8WSDS	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX
CRSDR	RELAY-SAMPLE DOOR RELEASE	W6X8WSDS	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX
CS	>>>CONTACTOR-MOTOR STARTER				
CSR	CONTACTOR-RECIRCULATE	W6X8WSEV	09MC04E371	32A 3P CONT.NR 240V5/6 IEC	CONTROL BOX
CSV5	CONTACTOR-INVERTER 3022X8 <MODEL AZ	W6X8WSS+	09MC08C371	16A 3P MCS CONT NR 240V5/6	CONTROL BOX
CSV5	CONTACTOR-INVERTER 3022X8 >MODEL AZ	W6X8WSS+	98CMCR3004	3022X CONTACTOR 18A	CONTROL BOX
CSV5	CONTACTOR-INVERTER 36" &42"X7 <MODEL AZ W6X8WSS+A	W6X8WSS+A	09MC08J371	43A 3P MCS CONT NR 240V5/6	CONTROL BOX
CSV5	CONTACTOR-INVERTER 36X8 >MODEL AZ	W6X8WSS+A	98CMCR3601	CONTACTOR 3626X 32A	CONTROL BOX
CSV5	CONTACTOR-INVERTER LV 42X7 >MODEL AZ	W6X8WSS+A	98CMCR4201	CONTACTOR 42X LOW VOLT 38A	CONTROL BOX
CSV5	CONTACTOR-INVERTER HV 42X7 >MODEL AZ	W6X8WSS+A	98CMCR4202	CONTACTOR 42X HI VOLT 25A	CONTROL BOX
EB	>>>BUZZER OR AUDIBLE SIGNAL				
EB5G	BUZZER-SIGNAL AUDIBLE	W6X8WSS+	09H016	BUZZ. 230V W/6-32 CTR+6" LEADS	SWITCH PANEL
EB5G	BUZZER-SIGNAL AUDIBLE	W6X8WSS+A	09H016	BUZZ. 230V W/6-32 CTR+6" LEADS	SWITCH PANEL
EF	>>>FUSE OR FUSE HOLDER				
EF01	FUSE-CONTROL CIRCUIT	W6X8WSLV	09FF006AMA	FUSE BK/ABC 6 AMP 250V BUSS	CONTROL BOX

COMPONENT PARTS LIST

W6X8WSPL/2010444N

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EF02	FUSE-CONTROL CIRCUIT	W6X8WSLV	09FF006AMA	FUSE BK/ABC 6 AMP 250V BUSS	CONTROL BOX
EF1	FUSE-PRIMARY INCOMING VOLTAGE	W6X8WSLV	09FF005AWN	BUSE BUSS KTK 5AMP 600V=HPS HOLDER	CONTROL BOX
EF2	FUSE-PRIMARY INCOMING VOLTAGE	W6X8WSLV	09FF005AWN	BUSE BUSS KTK 5AMP 600V=HPS HOLDER	CONTROL BOX
EL	>>>LIGHT-PILOT OR INDICATOR				
ELSAO	LIGHT-OK TO OPEN SAMPLE DOOR	W6X8WSDS	09J060WH71	LAMP 1/2" WHITE 240VAC TABS	SAMPLE SWPNL
ELSDR	LIGHT-SAMPLE DESIRED	W6X8WSDS	09J060A71	LAMP 1/2" AMB 250V IDI 1051QC3	SAMPLE SWPNL
ELSG	LIGHT-SIGNAL VISUAL	W6X8WSS+	09J060A71	LAMP 1/2" AMB 250V IDI 1051QC3	SWITCH PANEL
ELSG	LIGHT-SIGNAL VISUAL	W6X8WSS+A	09J060A71	LAMP 1/2" AMB 250V IDI 1051QC3	SWITCH PANEL
EM	>>>ELECTROMAGNET AND SOLENOID				
EMDL	SOLENOID-DOOR LATCH	W6X8WSS+	09K062A71	SOLENOID 240/60--220/50 = ILOC	DOOR LATCH
EMDL	SOLENOID-DOOR LATCH	W6X8WSS+A	09K062A71	SOLENOID 240/60--220/50 = ILOC	DOOR LATCH
ES	>>>POWER SUPPLY-ELECTRONIC				
ESPS	POWER SUPPLY-MICROPROCESSOR	W6X8WSBW	08PSS3401T	40 WATT POWER SUPPLY TESTED	CONTROL BOX
ET	>>>THERMAL OVERLOAD DEVICES				
ETDB	OVERLOAD-DYNAMIC BRAKE	W6X8WSS+	09F024A	OL RELAY 1P SZ1 SQD #9065-C01	CONTROL BOX
ETDB	OVERLOAD-DYNAMIC BRAKE	W6X8WSS+A	09F024A	OL RELAY 1P SZ1 SQD #9065-C01	CONTROL BOX
ETR	OVERLOAD-RECIRCULATION MOTOR	W6X8WSS+	09FTD0016T	E1 PLUS OL RELAY 1.0-5.0A	CONTROL BOX
ETR	OVERLOAD-RECIRCULATION MOTOR	W6X8WSS+A	09FTD0016T	E1 PLUS OL RELAY 1.0-5.0A	CONTROL BOX
ETVS	OVERLOAD-GPD315 INVERTER 3022X8W	W6X8WSS+	09FTD0120T	MCS OL RELAY ADJ.RANGE 12-32	CONTROL BOX
ETVS	O'LOAD-VARIABLE SPD 30 LV >MODEL AZ	W6X8WSS+	98CMCR3005	3022XOVERLOAD LOW VOLT 12-18A	CONTROL BOX
ETVS	O'LOAD-VARIABLE SPD 30 HV >MODEL AZ	W6X8WSS+	98CMCR3006	3022XOVERLOAD HI VOLT 7-10A	CONTROL BOX
ETVS	OVERLOAD-GPD505 INVERTER 36"&42"X7W	W6X8WSS+A	09FTD0230T	MCS OL RELAY ADJ. RANGE 23-75	CONTROL BOX
ETVS	O'LOAD-VARIABLE SPD 36 LV >MODEL AZ	W6X8WSS+A	98CMCR3602	3626XOVERLOAD LOW VOLT 30-38A	CONTROL BOX
ETVS	O'LOAD-VARIABLE SPD 36 HV >MODEL AZ	W6X8WSS+A	98CMCR3603	3626XOVERLOAD HI VOLT12-18A	CONTROL BOX
ETVS	O'LOAD-VARIABLE SPD 42 LV >MODEL AZ	W6X8WSS+A	98CMCR4203	42XOVERLOAD LOW VOLT 30-38A	CONTROL BOX
ETVS	O'LOAD-VARIABLE SPD 42 HV >MODEL AZ	W6X8WSS+A	98CMCR4204	42XOVERLOAD HI VOLT30-38A	CONTROL BOX
EX	>>>TRANSFORMERS				
EX37	TRANSFORMER-INCOMING VOLT.120VAC	W6X8WSLV	MESSAGE EW	SEE EX37-1, -2, OR -3 FOR VOLTAGE	CONTROL BOX
EX37-1	TRANSFORMER-208 TO 240V <MODEL AZ	W6X8WSLV	09U250AT71	AUTOXFMR 208V-230V 250VA	CONTROL BOX
EX37-1	TRANSFORMER-208 TO 240V >MODEL AZ	W6X8WSLV	98CMCR0902	AUTOXFMR 208V-230V 250VA	CONTROL BOX
EX37-2	TRANSFORMER-380/480 TO 240VAC	W6X8WSLV	09UA025AAB	XFMR 380-480PRI/120-240SEC250V	CONTROL BOX
EX37-3	TRANSFORMER-600 TO 240VAC	W6X8WSLV	09UB100098	BUK/BOST 1KVA 240X480 120/240	CONTROL BOX
KB	>>>KEYBOARD-ELECTRONIC				

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KBM	KEYPAD-MICROPROCESSOR	W6X8WSKP	08ND5X6WE	KEYPAD:5X6MATRIX WASHER-EXT	SWITCH PANEL
MT	>>>MOTORS				
MTD	MOTOR-DRIVE	W6X8WSS+	MESSAGE SO	SEE SPECIFIC COMPONENT+NAMEPLATE	MACHINE
MTD	MOTOR-DRIVE	W6X8WSS+A	MESSAGE SO	SEE SPECIFIC COMPONENT+NAMEPLATE	MACHINE
MTLF	FILTER-INVERTER/MOTOR POWER	W6X8WSS+	09MVFILTR1	INCOME POWER FILTER CAP	CONTROL BOX
MTLF	FILTER-INVERTER/MOTOR POWER	W6X8WSS+A	09MVFILTR1	INCOME POWER FILTER CAP	CONTROL BOX
MTR	MOTOR-RECIRCULATION	W6X8WSS+	MESSAGE SO	SEE SPECIFIC COMPONENT+NAMEPLATE	MACHINE
MTR	MOTOR-RECIRCULATION	W6X8WSS+A	MESSAGE SO	SEE SPECIFIC COMPONENT+NAMEPLATE	MACHINE
MTVS	FAN-INVERTOR COOLING	W6X8WSS+	13AF235A71	FAN 235CFM 230V 50/60	BACK C-BOX
MTVS	FAN-INVERTOR COOLING	W6X8WSS+A	13AF235A71	FAN 235CFM 230V 50/60	BACK C-BOX
MV	>>>MOTOR POWER INVERTERS				
MVDBR	RESISTOR-DYNAMIC BRAKE	W6X8WSS+	09MV100RES	RESIST 100 OHM 225WATT ADJ	BELOW C-BX
MVDBR	RESISTOR-DYNAMIC BRAKE	W6X8WSS+A	09MV100RES	RESIST 100 OHM 225WATT ADJ	BELOW C-BX
MVFLT	INV FILTER-DRIVE	W6X8WSS+	09MVFILTR1	INCOME POWER FILTER CAP	CONTROL BOX
MVFLT	INV FILTER-DRIVE	W6X8WSS+A	09MVFILTR1	INCOME POWER FILTER CAP	CONTROL BOX
MV/INR-L	INV IN LINE REACTOR 200-240V 3022 MODEL	W6X8WSS+	09MX100A74	REACTOR 25HP 230V 35A	CONTROL BOX
MV/INR-H	INV IN LINE REACTOR 380-480V 3022 MODEL	W6X8WSS+	09MX100A96	REACTOR 10HP 460V 16A	CONTROL BOX
MV/INR-L	INV IN LINE REACTOR 200-240V 36/42MODELS	W6X8WSS+A	09MX200A74	REACTOR 20HP 230V 55A	CONTROL BOX
MV/INR-H	INV IN LINE REACTOR 280-4800V 36/42MODELS	W6X8WSS+A	09MX250A96	REACTOR 25HP 460V 35A	CONTROL BOX
MV/INV-H	INVERTER-3022X8W 380-460 V <SEPT-2009	W6X8WSS+	09MV050F96	VARSPEED V MACHINES 5HP 460V	CONTROL BOX
MV/INV-H	INVERTER-3022X8W 380-460 V >SEPT-2009	W6X8WSS+	09MMWB00996	V1000 INVERTER 9.2AMP 460V	CONTROL BOX
MV/INV-H	INVERTER-36" X8W 380-460 VOLTS	W6X8WSS+A	09MMWB01896	V1000 INVERTER 18AMP 460V	CONTROL BOX
MV/INV-H	INVERTER-42" X7W 380-460 VOLTS	W6X8WSS+A	09MMWA02496	F7 INVERTER 24 AMP	CONTROL BOX
MV/INV-L	INVERTER-3022X8W 200-240V <SEPT-2009	W6X8WSS+	09MV050F74	VARSPEED V MACHINES 5HP 230V	CONTROL BOX
MV/INV-L	INVERTER-3022X8W 200-240V >SEPT-2009	W6X8WSS+	09MMWB01774	V1000 INVERTER 17.5AMP 230V	CONTROL BOX
MV/INV-L	INVERTER-36" X8W 200-240VOLTS	W6X8WSS+A	09MMWB03374	V1000 INVERTER 33AMP 230V	CONTROL BOX
MV/INV-L	INVERTER-42" X7W 200-240VOLTS	W6X8WSS+A	09MMWA04574	F7 INVERTER 45 AMP	CONTROL BOX
SH	>>>SWITCH-HAND OPERATED				
SH01	SWITCH-208-240V SELECT	W6X8WSLV	09N050	TOGSW SPDT NO OFF 10A250V	CONTROL BOX
SHDOH	SWITCH-DOOR OPEN	W6X8WSS+	09N405S320	SWASS S3W 2NO	SWITCH PANEL
SHDOH	SWITCH-DOOR OPEN	W6X8WSS+A	09N405S320	SWASS S3W 2NO	SWITCH PANEL
SHS+	SWITCH-START	W6X8WSS+	09N405PG10	SWASS PBGN 1NO	SWITCH PANEL
SHS+	SWITCH-START	W6X8WSS+A	09N405PG10	SWASS PBGN 1NO	SWITCH PANEL

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SHSAD	SWITCH-SAMPLE DESIRED	W6X8WSDS	09N400CBNO	CONTACT BLK ONLY 1-NO SQD#ZB2BE101	SAMPLE SWPL
SHSAR	SWITCH--SAMPLE DOOR RESET	W6X8WSDS	09N400CBNC	CONTACT BLKONLY 1-NC SQD#ZB2BE102	SAMPLE SWPL
SHSG	SWITCH-SIGNAL CANCEL	W6X8WSI1A	09N405PY10	SWASS PB YELLOW INO	SWITCH PANEL
SHSMA	SWITCH-MASTER	W6X8WSS+	09N405M210	SWASS M2W 1NO	SWITCH PANEL
SHSMA	SWITCH-MASTER	W6X8WSS+A	09N405M210	SWASS M2W 1NO	SWITCH PANEL
SHSO	SWITCH-STOP	W6X8WSS+	09N405PR01	SWASS PBRD 1NC	SWITCH PANEL
SHSO	SWITCH-STOP	W6X8WSS+A	09N405PR01	SWASS PBRD 1NC	SWITCH PANEL
SHSOE	SWITCH-EMERGENCY STOP	W6X8WSS+	09N505	SW ASSY EMER STOP	SWITCH PANEL
SHSOE	SWITCH-EMERGENCY STOP	W6X8WSS+A	09N505	SW ASSY EMER STOP	SWITCH PANEL
SK	>>>SWITCH-KEYLOCK				
SKPR	SWITCH-RUN/PROGRAM (KEY OP)	W6X8WSI1A	09N127C	KEYSW SPST 7A120VAC SCREW TERM	SWITCH PANEL
SM	>>>SWITCH-MECHANICAL OPERATED				
SMDE	SWITCH-SECONDARY DOOR CLOSED	W6X8WSS+A	09RM01212S	CAPSW 12' 180DEG ROLLER SILVER	SHELL FRONT
SMEB	SWITCH-EXCURSION	W6X8WSI1A	09R008A	MICSW SPDT BZE6-2RN183	UNDER SHELL
SMPLL	SWITCH-DOOR CLOSED	W6X8WSS+	09R014A	MINI-SW SPDT STAKON #V15G1C26	DOOR LATCH
SMPLL	SWITCH-DOOR CLOSED	W6X8WSS+A	09R012	MICSW SPDT PAINTED BZE6-RN 01	DOOR LATCH
SMSDC	SWITCH-SAMPLE DOOR	W6X8WSDS	09RM01212S	CAPSW 12' 180DEG ROLLER SILVER	SAMPLE DOOR
SMWVB	SWITCH-VIBRATION	W6X8WSS+	09R020	SWITCH NC VIBR#WZ-2RW84429-P52	CONTROL BOX
SMWVB	SWITCH-VIBRATION	W6X8WSS+A	09R020	SWITCH NC VIBR#WZ-2RW84429-P52	CONTROL BOX
SP	>>>SWITCH-PRESSURE OPERATED				
SPA	PRESSURE SW-AIR PRESSURE AVAILBLE	W6X8WSS+A	09N082A	PRESSW NASON CLOSE @ 62 LB.	CONTROL BOX
SPD	PRESSURE SW-LEVEL OK TO OPEN DOOR	W6X8WSS+A	09N082B10	PRESSW NASON CLOSE @ 10 LB	CONTROL BOX
VE	>>>VALVE-ELECTRIC OPERATED				
VEC01	VALVE-CHEMICAL #1 FLUSH	W6X8WSCF	96P013B71	3/4" 2WAYPLASTICVAL 240V60C	SUPPLY INJEC
VEC02	VALVE-CHEMICAL #2 FLUSH	W6X8WSCF	96P013B71	3/4" 2WAYPLASTICVAL 240V60C	SUPPLY INJEC
VEC03	VALVE-CHEMICAL #3 FLUSH	W6X8WSCF	96P013B71	3/4" 2WAYPLASTICVAL 240V60C	SUPPLY INJEC
VEC04	VALVE-CHEMICAL #4 FLUSH	W6X8WSCF	96P013B71	3/4" 2WAYPLASTICVAL 240V60C	SUPPLY INJEC
VEC05	VALVE-CHEMICAL #5 FLUSH	W6X8WSCF	96P013B71	3/4" 2WAYPLASTICVAL 240V60C	SUPPLY INJEC
VEC06	VALVE-CHEMICAL #6 FLUSH	W6X8WSCX		SUPPLIED BY OTHERS	
VEC07	VALVE-CHEMICAL #7 FLUSH	W6X8WSCX		SUPPLIED BY OTHERS	
VEC08	VALVE-CHEMICAL #8 FLUSH	W6X8WSCX		SUPPLIED BY OTHERS	
VEC09	VALVE-CHEMICAL #9 FLUSH	W6X8WSCX		SUPPLIED BY OTHERS	
VEC10	VALVE-CHEMICAL #10 FLUSH	W6X8WSCX		SUPPLIED BY OTHERS	

COMPONENT PARTS LIST

<u>COMPONENT</u>	<u>FUNCTION OF THIS</u>	<u>WHERE TO FIND</u>	<u>MILNOR P/N</u>	<u>DESCRIPTION</u>	<u>LOCATION</u>
<u>NUMBER</u>	<u>COMPONENT NUMBER</u>	<u>THIS COMPONENT</u>			
VEC11	VALVE-CHEMICAL #11 FLUSH	W6X8WSCX	96R301B71	1/8" AIRPILOT 3W NC 240V	VALVE BOX
VEC12	VALVE-CHEMICAL #12 FLUSH	W6X8WSCX	98CMCR3001	PILOT VALVE GANG N.C. X MACHINE	REAR RT LEG
VEC13	VALVE-CHEMICAL #13 FLUSH	W6X8WSCX	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	AIR VALVE BX
VEC14	VALVE-CHEMICAL #14 FLUSH	W6X8WSCX	96D350A71	DRINVAL 3" MTRDR 240V 50/60C	REAR OF MACH
VEC15	VALVE-CHEMICAL #15 FLUSH	W6X8WSCX	96P056A71	3/4" NC 230V50/60 W/LEADS BURK	SUPPLY INJEC
VEDL	VALVE-DOOR UNLATCH 36+42 <MODEL AZ	W7X8JS+A	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	AIR VALVE BX
VEDL	VALVE-DOOR UNLATCH 36+42>MODEL AZ	W7X8JS+A	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	REAR RT LEG
VEDRR	VALVE-REUSE DRAIN	W6X8WSEV	96D350A71	DRINVAL 3" MTRDR 240V 50/60C	AIR VALVE BX
VEDRS	VALVE-DRAIN	W6X8WSEV	96P056A71	3/4" NC 230V50/60 W/LEADS BURK	SUPPLY INJEC
VEFL	VALVE-FLUSH	W6X8WSCF	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	AIR VALVE BX
VEPPO	VALVE-DOOR SEAL 36=42 <MODEL AZ	W6X8WSS+A	98CMCR3002	PILOT VALVE GANG N.O. X MACHINE	REAR RT LEG
VEPPO	VALVE-DOOR SEAL 36=42 >MODEL AZ	W6X8WSS+A	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	AIR VALVE BX
VESDL	VALVE-SAMPLE DOOR LATCH	W6X8WSDS	96TDC2BA71	1/2" N/C 2WAY 240V50/60C STEAM	INLET PIPE
VESTM	VALVE-STEAM 30"	W6X8WSEV	96P040A71	3/4" STEAMVAL240V50/60C 150PSI	REAR OF MACH
VESTM	VALVE-STEAM 36" & 42" <MODEL AZ	W6X8WSEV	98CMCR3001	PILOT VALVE GANG N.C. X MACHINE	REAR RT LEG
VESTM	VALVE-STEAM 36" & 42" >MODEL AZ	W6X8WSEV	96P057A71	1/2"NPT X 1/2"ORIFICE 240V 5/6	REAR OF MACH
VEWC	VALVE-COLD WATER 30"	W6X8WSEV	96P056A71	3/4" NC 230V50/60 W/LEADS BURK	REAR OF MACH
VEWC	VALVE-COLD WATER 36" <MODEL AZ	W6X8WSEV	98CMCR3001	PILOT VALVE GANG N.C. X MACHINE	REAR RT LEG
VEWC	VALVE-COLD WATER 36" >MODEL AZ	W6X8WSEV	96P152A71	1+1/4"NC 240V W/LEADS BURK	REAR OF MACH
VEWC	VALVE-COLD WATER 42" <MODEL AZ	W6X8WSEV	98CMCR3001	PILOT VALVE GANG N.C. X MACHINE	REAR RT LEG
VEWC	VALVE-COLD WATER 42" >MODEL AZ	W6X8WSEV	96P057A71	1/2"NPT X 1/2"ORIFICE 240V 5/6	REAR RT LEG
VEWH	VALVE-COLD WATER 30"	W6X8WSEV	96P056A71	3/4" NC 230V50/60 W/LEADS BURK	REAR OF MACH
VEWH	VALVE-COLD WATER 36" <MODEL AZ	W6X8WSEV	98CMCR3001	PILOT VALVE GANG N.C. X MACHINE	REAR RT LEG
VEWH	VALVE-COLD WATER 36" >MODEL AZ	W6X8WSEV	96P152A71	1+1/4"NC 240V W/LEADS BURK	REAR OF MACH
VEWH	VALVE-COLD WATER 42" <MODEL AZ	W6X8WSEV	98CMCR3001	PILOT VALVE GANG N.C. X MACHINE	REAR RT LEG
VEWH	VALVE-COLD WATER 42" >MODEL AZ	W6X8WSEV	96P057A71	1/2"NPT X 1/2"ORIFICE 240V 5/6	REAR OF MACH
VEVWX	VALVE-EXTRA WATER 30022	W6X8WSEV	96P056A71	3/4" NC 230V50/60 W/LEADS BURK	REAR OF MACH
VEVWX	VALVE-EXTRA WATER 36026	W6X8WSEV	96P152A71	1+1/4"NC 240V W/LEADS BURK	REAR OF MACH
VEVWX	VALVE-EXTRA WATER 42026 & 42032	W6X8WSEV	96P152A71	1+1/4"NC 240V W/LEADS BURK	REAR OF MACH

PELLERIN MILNOR CORPORATION LIMITED STANDARD WARRANTY

We warrant to the original purchaser that MILNOR machines including electronic hardware/software (hereafter referred to as "equipment"), will be free from defects in material and workmanship for a period of one year from the date of shipment (unless the time period is specifically extended for certain parts pursuant to a specific MILNOR published extended warranty) from our factory with no operating hour limitation. This warranty is contingent upon the equipment being installed, operated and serviced as specified in the operating manual supplied with the equipment, and operated under normal conditions by competent operators.

Providing we receive written notification of a warranted defect within 30 days of its discovery, we will at our option repair or replace the defective part or parts, FOB our factory. We retain the right to require inspection of the parts claimed defective in our factory prior to repairing or replacing same. We will not be responsible, or in any way liable, for unauthorized repairs or service to our equipment, and this warranty shall be void if the equipment is tampered with, modified, or abused, used for purposes not intended in the design and construction of the machine, or is repaired or altered in any way without MILNOR's written consent.

Parts damaged by exposure to weather, to aggressive water, or to chemical attack are not covered by this warranty. For parts which require routine replacement due to normal wear such as gaskets, contact points, brake and clutch linings, belts, hoses, and similar parts the warranty time period is 90 days.

We reserve the right to make changes in the design and/or construction of our equipment (including purchased components) without obligation to change any equipment previously supplied.

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How to Get the Necessary Repair Components



This document uses Simplified Technical English.

Learn more at <http://www.asd-ste100.org>.

You can get components to repair your machine from the approved supplier where you got this machine. Your supplier will usually have the necessary components in stock. You can also get components from the Milnor® factory.

Tell the supplier the machine model and serial number and this data for each necessary component:

- The component number from this manual
- The component name if known
- The necessary quantity
- The necessary transportation requirements
- If the component is an electrical component, give the schematic number if known.
- If the component is a motor or an electrical control, give the nameplate data from the used component.

To write to the Milnor factory:

Pellerin Milnor Corporation
Post Office Box 400
Kenner, LA 70063-0400
UNITED STATES

Telephone: 504-467-2787
Fax: 504-469-9777
Email: parts@milnor.com

— End of BIUUUD19 —

BIUUUK01 (Published) Book specs- Dates: 20130308 / 20130308 / 20130308 Lang: ENG01 Applic: PCR UUU

How to Use Milnor® Electrical Schematic Diagrams

Milnor® electrical schematic manuals contain a table of contents/component list and a set of schematic drawings. These documents are cross referenced and must be used together.

The table of contents/components list shows, for every component on every schematic in the manual, the component item number (explained in detail below), statement of function, parent schematic number, part number, description and electric box location. In older manuals, two component lists are provided: List 1 sorts the components by function, and List 2 by type of component. Newer schematic manuals include only the list sorted by component number.

The schematic drawings use symbols for each electromechanical component, and indicate the function of each. Integrated circuits are not shown, but the function of each microprocessor input and output is stated. Certain electrical components not pertinent to circuit logic, such as wire connectors, are not represented on the schematic.

Most machines require several schematics to describe the complete control system and all the options available on the included models. In most manuals there are some schematic pages that don't apply to your specific machine because certain options and configurations are mutually exclusive or are not necessary in all markets. You may find it helpful to mark or remove such pages. A schematic page that only applies to a subset of machines will normally state, in the title, which models and/or options it covers. Compare this with the nameplate on your machine and with your purchase records.

Each schematic is devoted to circuits with common functions (e.g., microprocessor inputs, motor contactors). Schematics appear in the manual in alphanumeric order.

1. Component Prefix Classifications and Descriptions

Component item numbers consist of up to six characters and appear as part of a component's symbol on the schematic. The first two characters indicate the general class of component, and the remaining characters are a mnemonic for the function. For example, "CD" is the code for all time delay relays, and "SR" stands for safety reset. Thus, CDSR is a time delay relay that serves as a safety reset.

The following are descriptions of electrical components used in Milnor® machines. Descriptions are in alphabetical order by the component class code (two character prefix).

Note 1: Some component class codes do not have a corresponding symbol, but are represented by a box and an accompanying note describing the component. Examples of such codes are BA (printed circuit board), ED (electronic display), and ES (electronic power supply).

BA=Printed Circuit Board—Insulating substrate on which a thin pattern of copper conductors has been formed to connect discrete electronic components also mounted on the board.

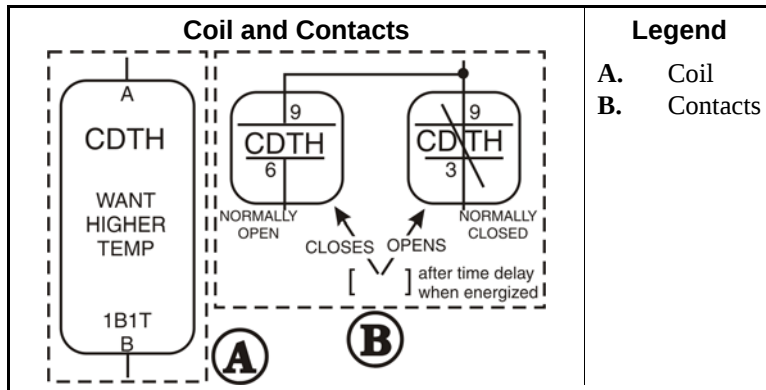
CB=Circuit Breaker (Figure 1)—Automatic switch that opens an electric circuit in abnormal current conditions (e.g., an overload).

Figure 1: Circuit Breaker (CB)



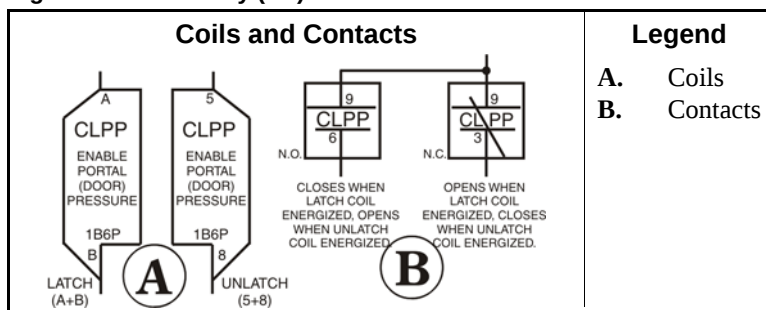
CD=Control, Time Delay Relay (Figure 2)—A relay whose contacts switch only after a fixed or adjustable delay, once voltage has been applied to its coil. The contacts switch back to normal (de-energized state) immediately when the voltage is removed.

Figure 2: Time Delay Relay (CD)



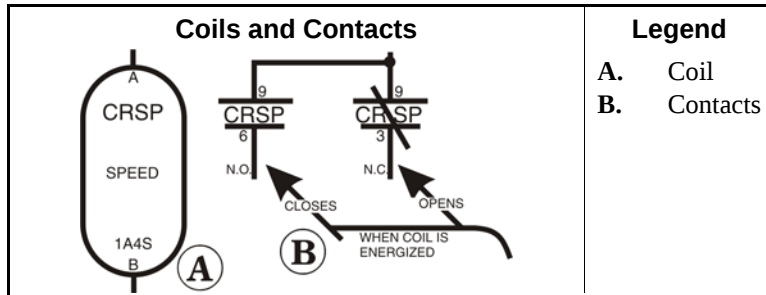
CL=Control, Latch Relay (Figure 3)—A relay which latches in an energized or set position when operated by one coil (the latch/set coil). The relay stays latched even though coil voltage is removed. The relay releases or unlatches when voltage is applied to a second coil (the unlatch/reset coil).

Figure 3: Latch Relay (CL)



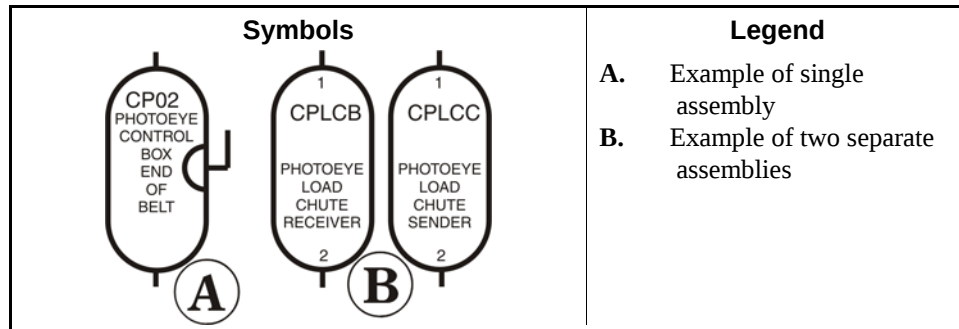
CR=Control, Relay (Figure 4)—A relay whose contacts switch immediately when voltage is applied to its coil and revert to normal when the voltage is removed.

Figure 4: Standard Relay (CR)



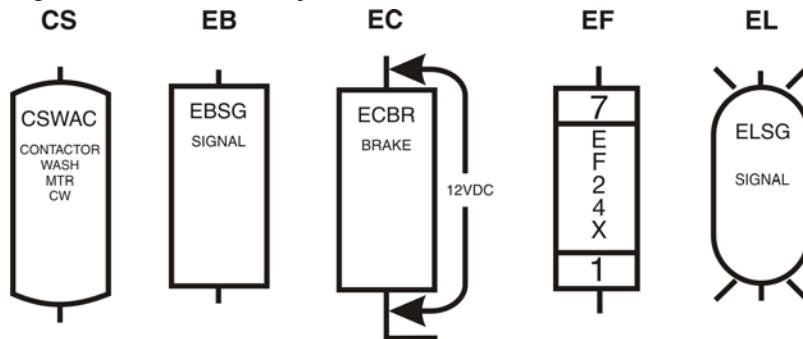
CP=Control, Photo-Eye (Figure 5)—Photo-eyes sense the presence of an object without direct physical contact. Photo-eyes consist of a transmitter, receiver, and output module. These components may be housed in one assembly with the transmitter bouncing light off of a reflector to the receiver, or these components can be housed in two separate assemblies with the transmitter pointed directly at the receiver. The photo-eye can be set to turn on its output either when the light beam becomes blocked (dark operate) or when it becomes un-blocked (light operate).

Figure 5: Photo-eye (CP)



CS=Control, Contactor/Motor Starter (Figure 6)—A relay capable of handling heavier electrical loads, usually a motor.

Figure 6: Other Control Symbols



EB=Electric Buzzer (Figure 6)—An audible signaling device.

EC=Electric Clutch (Figure 6)—A clutch consists of a coil and a rotor. The rotor has two separate rotating plates. These plates are free to rotate independent of each other until the coil is energized. Once energized the two plates turn as one.

ED=Electronic Display—A visual presentation of data, such as an LCD (liquid crystal display), LED (light emitting diode) display, or VFD (vacuum florescent display).

EF=Electric Fuse (Figure 6)—A fuse is an over-current safety device with a circuit opening fusible member which is heated and severed by the passage of over-current through it.

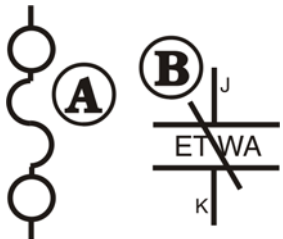
EL=Electric Light (Figure 6)—Indicator lights may be either incandescent or fluorescent.

EM=Electro Magnet Solenoid—A device consisting of a core surrounded by a wire coil through which an electric current is passed. While current is flowing, iron is attracted to the core (e.g., a pinch tube drain valve solenoid).

ES=Electronic Power Supply—A device that converts AC (alternating current) to filtered and regulated DC (direct current). The input voltage to the power supply is usually 120 or 240 VAC. The output is +5, +12, and -12 VDC.

ET=Thermal Overload (Figure 7)—A safety device designed to protect a motor. A thermal overload consists of an overload block, heaters, and an auxiliary contact. The auxiliary contact is normally installed in a safety (three-wire) circuit that stops power to the motor contactor coil when a motor overload occurs.

Figure 7: Thermal Overload (ET)

Schematic Symbol	Legend
	A. Heater (one per phase) B. Overload relay; contacts open if overload condition exists

EX=Electrical Transformer (Figure 8)—A device that transfers electrical energy from one isolated circuit to another, often raising or lowering the voltage in the process.

KB=Keyboard—Device similar to a typewriter for making entries to a computer.

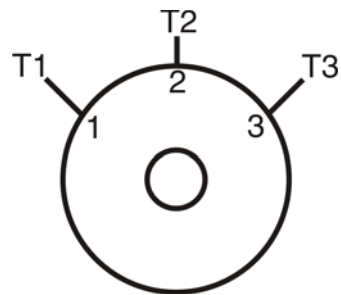
MN=Electronic Monitor (CRT)—A cathode ray tube used for visual presentation of data.

MR=Motors (Figure 9)—Electromechanical device that converts electrical energy into mechanical energy.

Figure 8: Transformer (EX)



Figure 9: Electric Motor (MR)

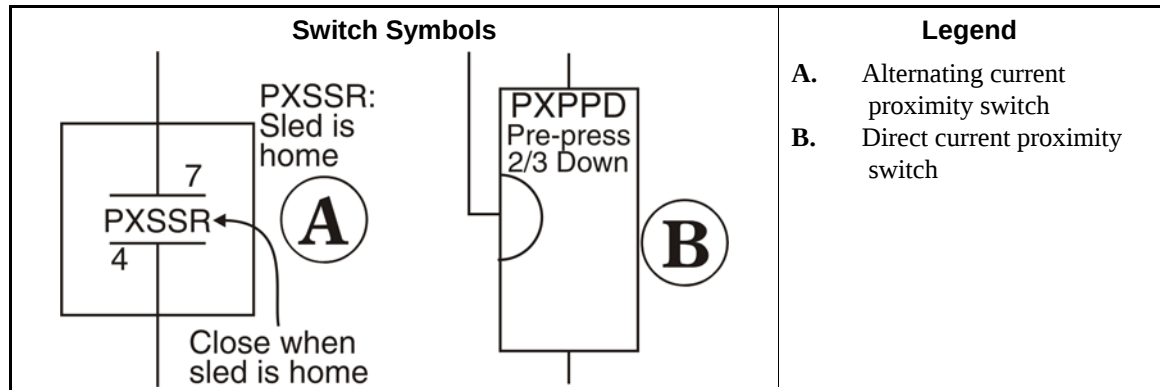


MV=Motor (Variable Speed) Inverter—To vary the speed of an AC motor, the volts to frequency ratio must be kept constant. The motor will overheat if this ratio is not maintained. The motor variable speed inverter converts three phase AC to DC. The inverter then uses this DC voltage to generate AC at the proper voltage and frequency for the commanded speed.

Note 2: Switch symbols used in the schematics and described below always depict the switch in its un-actuated state.

PX=Proximity Switch (Figure 10)—A device which reacts to the proximity of a target without physical contact or connection. The actuator or target causes a change in the inductance of the proximity switch which causes the switch to operate. Proximity switches can be two-wire (AC) or three-wire (DC) devices.

Figure 10: Proximity Switches (PX)



SC=Switch, Cam Operated (Figure 11)—A switch in which the electrical contacts are opened and/or closed by the mechanical action of a cam(s). Applications include 35-50 pound timer operated machines, Autospot, timer reversing motor assembly, and some balancing systems.

SH=Switch, Hand Operated (Figure 12)—A switch that is manually operated (e.g., *Start button*, *Master switch*, etc.).

Figure 11: Cam Switch (SC)

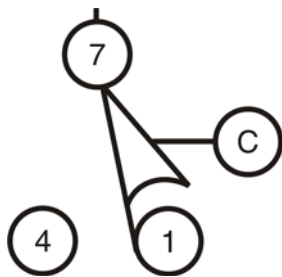
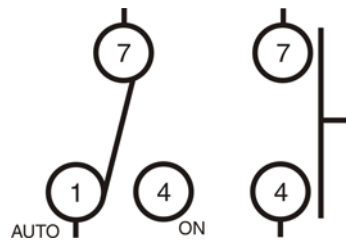


Figure 12: Hand Operated Switch (SH)



SK=Switch, Key Lock (Figure 13)—A switch that requires a key to operate. This prevents unauthorized personnel from gaining access to certain functions (e.g., the *Program menu*).

SL=Switch, Level Operated (Figure 14)—A switch connected to a float that causes the switch to open and close as the level changes.

Figure 13: Key Switch (SK)

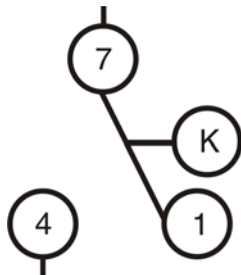
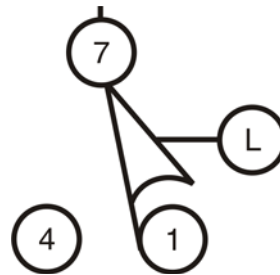


Figure 14: Level Switch (SL)



SM=Switch, Mechanically Operated (Figure 15)—A switch that is mechanically operated by a part of or the motion of the machine (e.g., door closed switch, tilt limit switches, etc.)

SP=Switch, Pressure Operated (Figure 16)—A switch in which a diaphragm presses against a switch actuator.

Figure 15: Mechanical Switch (SM)

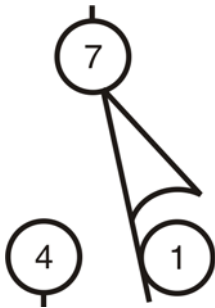
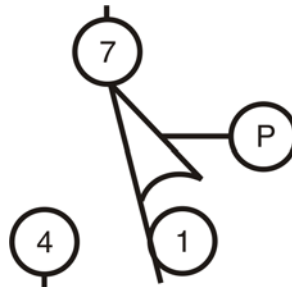


Figure 16: Pressure Switch (SP)



ST=Switch, Temperature Operated (Figure 17)—A switch that is actuated at a preset temperature (e.g., dryer safety probes) or has adjustable set points (e.g., Motometers or Combistats).

TB=Terminal Board (Figure 18)—A strip or block for attaching or terminating wires.

Figure 17: Temperature Switch (ST)

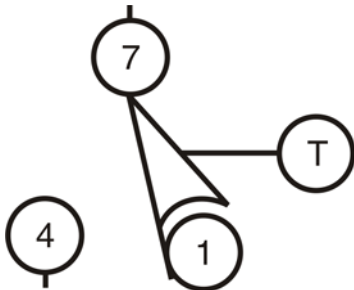
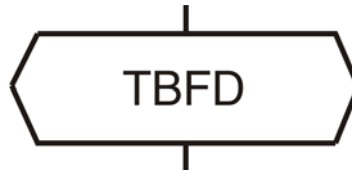


Figure 18: Terminal Board (TB)



VE=Valve, Electric Operated (Figure 19)—A valve operated by an electric coil to control the flow of fluid. The fluid can be air, water or hydraulic.

Figure 19: Electrically Operated Valve (VE)



ZF=Rectifier (Figure 20)—A solid state device that converts alternating current to direct current.

Figure 20: Bridge Rectifier (ZF)

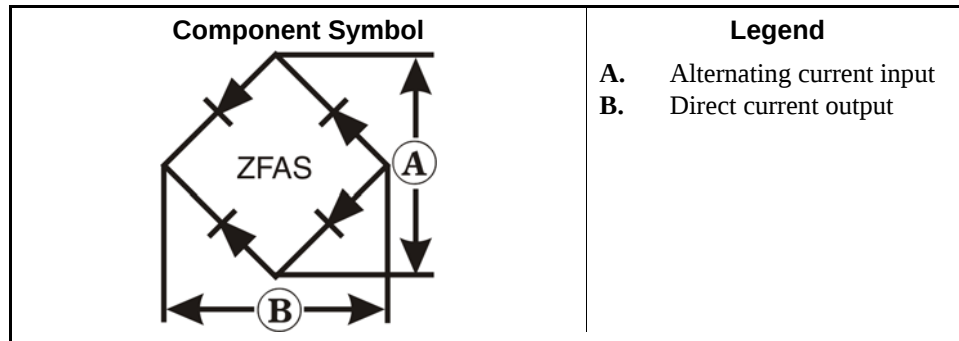
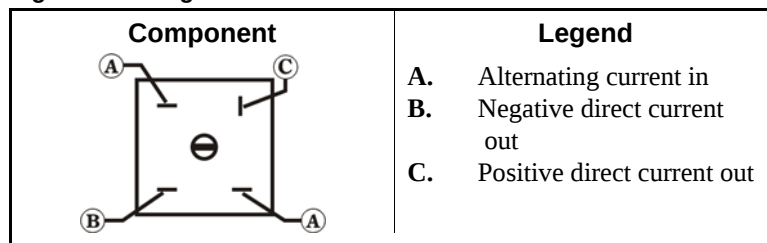


Figure 21: Bridge Rectifier



WC=Wiring Connector—A coupling device for joining two cables or connecting a cable to an electronic circuit or piece of equipment. Connectors are male or female, according to whether they plug into or receive the mating connector.

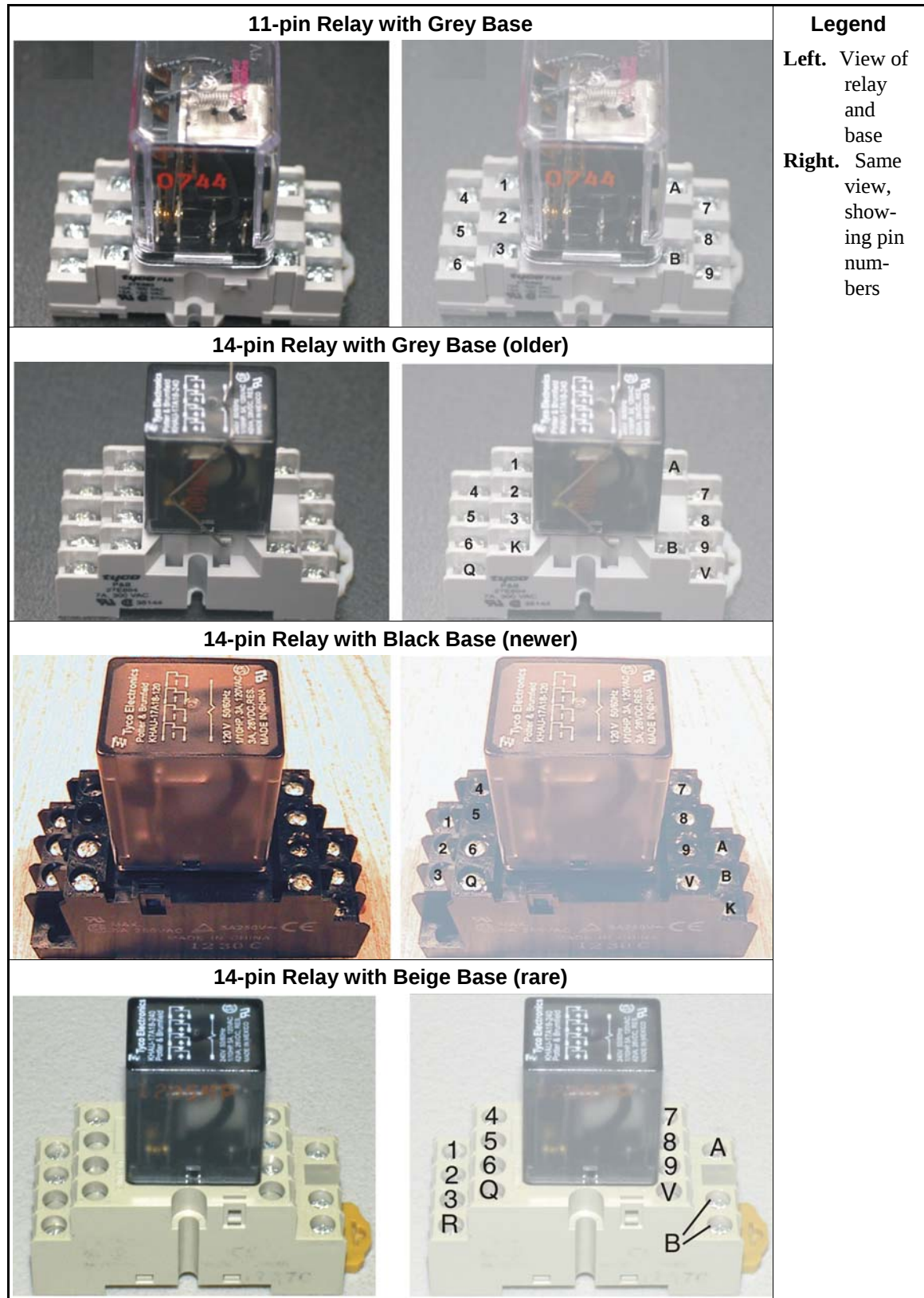
2. Component Terminal Numbering



CAUTION 1: Risk of Mis-wiring—Due to electrical component manufacturing inconsistencies, the pin numbers imprinted on components such as connectors and relay bases used on Milnor machines often do not correspond to the pin numbers shown in the schematics.

- Ignore pin numbers imprinted on in-line connectors (e.g., Molex connectors) and relay bases.
- Use the pin identification illustrations herein to identify pins on these components.

Figure 22: Plug-in Relays



Note 3: Relay functional names ending with the letter "M" (e.g., CRxxM) are not discrete components but are a component of a printed circuit board. They are usually not individually replaceable.

Figure 23: AMP Connector Pin Locations

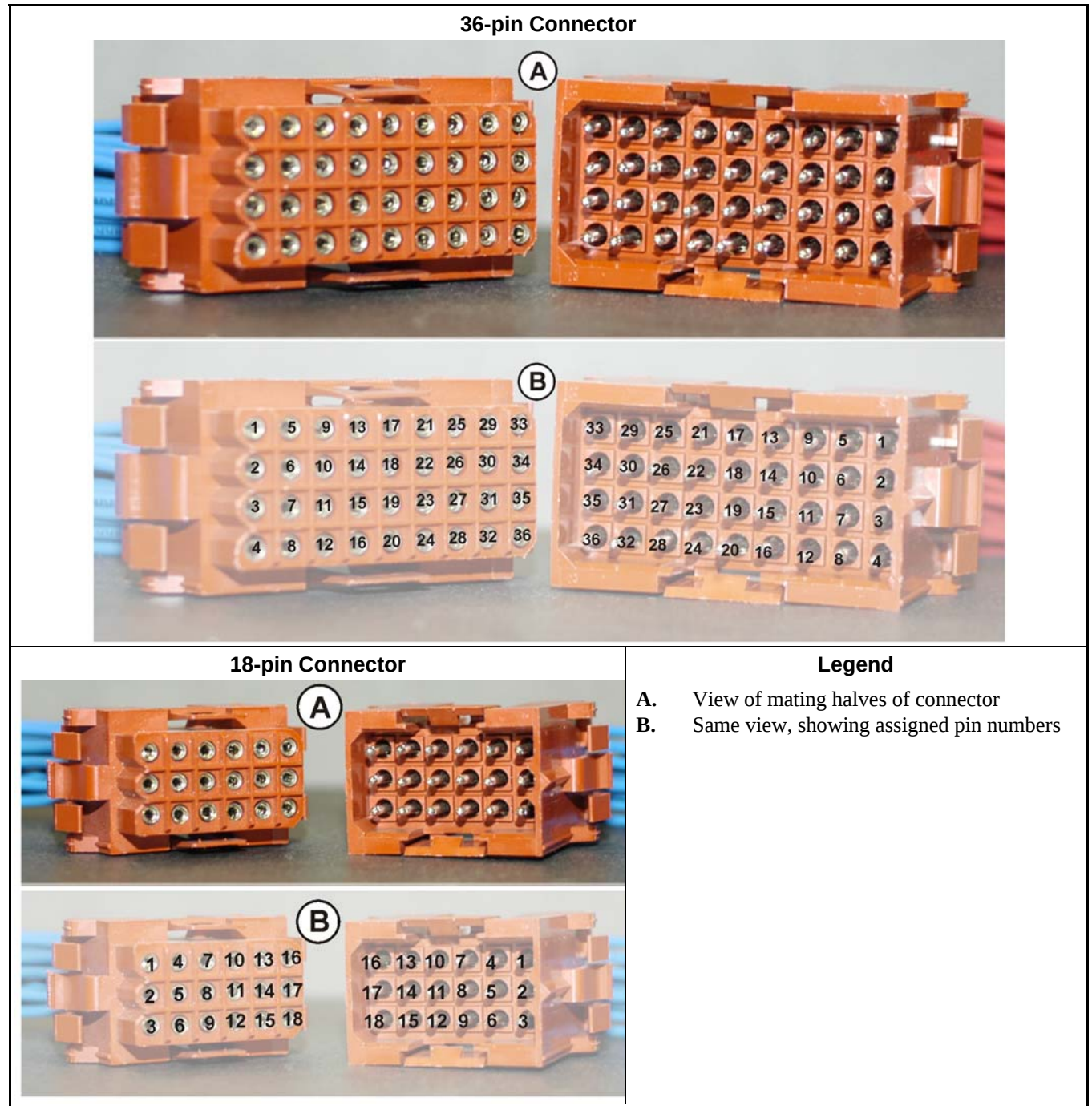


Figure 24: Molex Connector Pin Locations

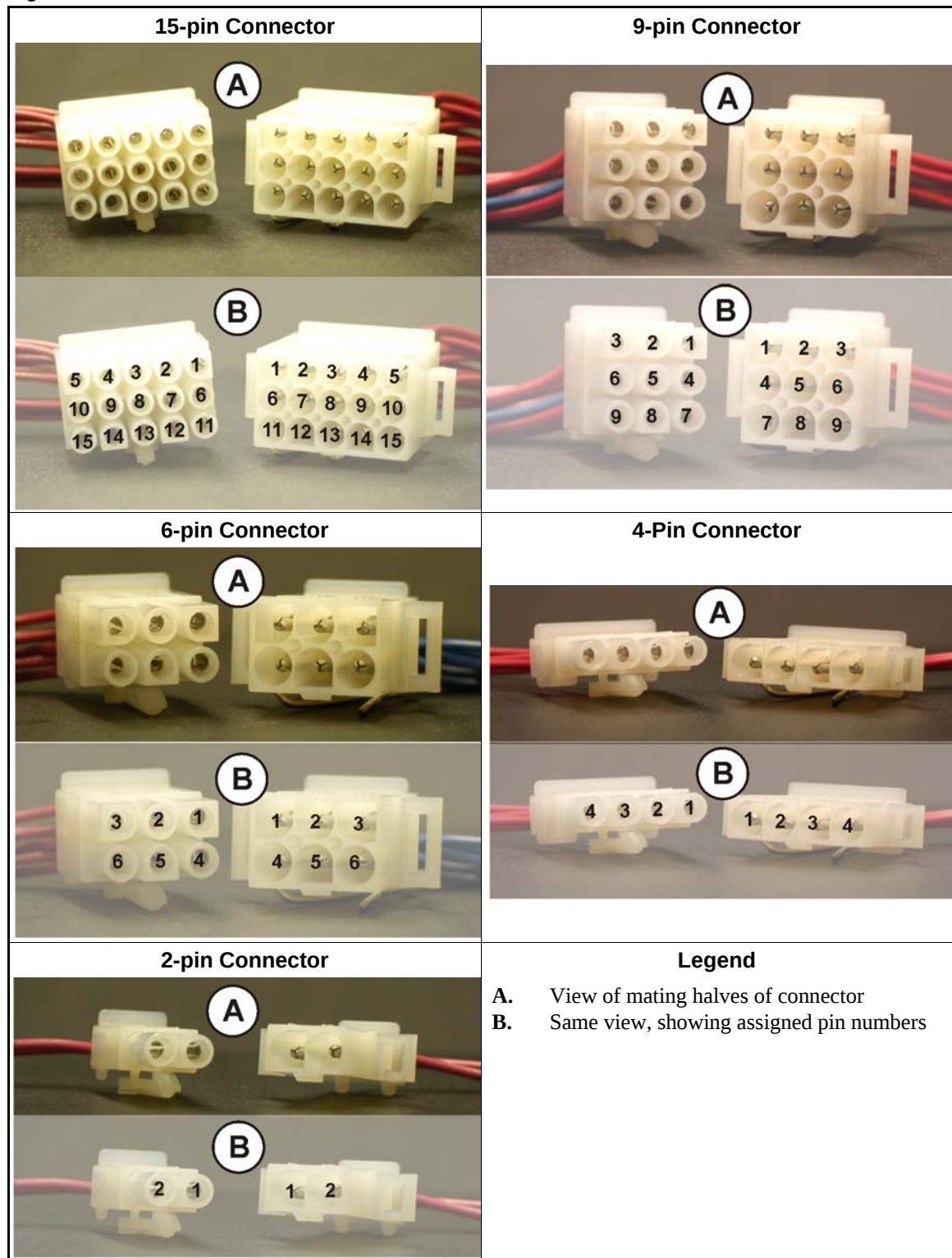


Figure 25: Pressure Switch

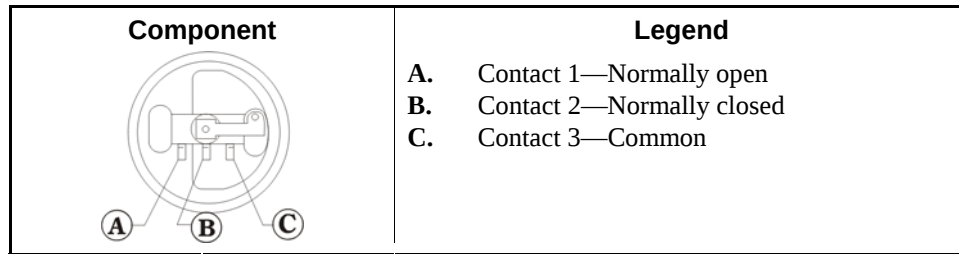


Figure 26: Toggle Switch

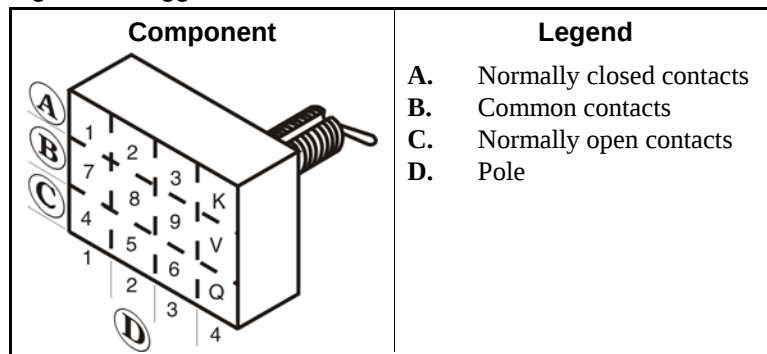
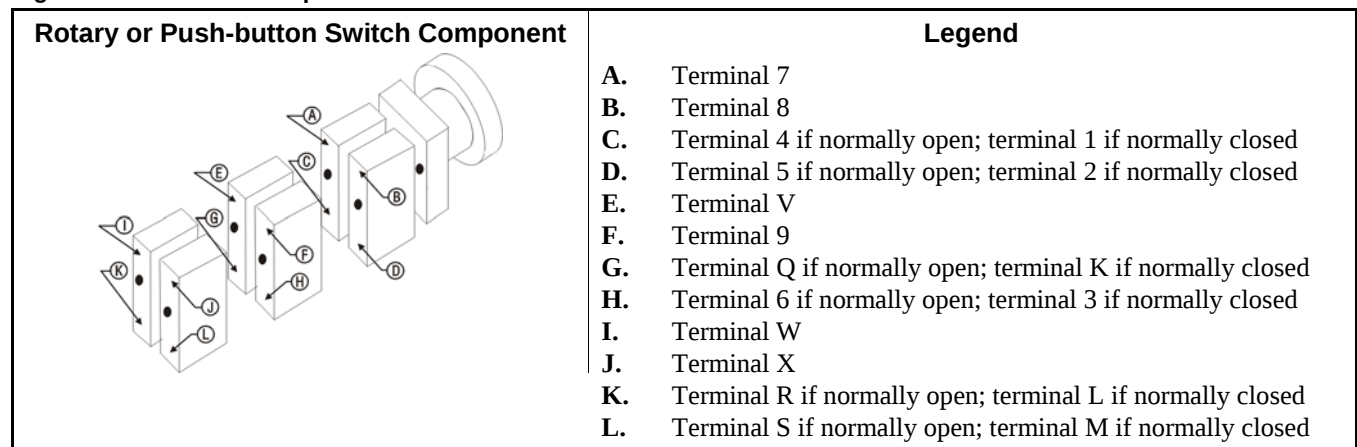


Figure 27: Switch with Replaceable Contact Blocks



3. Features of Milnor® Electrical Schematic Diagrams

Document BMP010012 (following this section) is a sample schematic, based on a schematic diagram for the Milnor® gas dryer. For the purposes of this exercise, the schematic is shown gray and explanations of the items on the schematic are shown black.

The item numbers below correspond to the circled item numbers shown on the drawing.

1. The first six characters of the drawing number (W6DRYG) indicate that this is a wiring diagram (W), identify the generation of controls (6), and identify the type of machine (DRYG=Gas Dryer). These characters appear in the drawing number of every schematic in the set.

The characters following the first six are unique to each drawing. The two characters identified as the page number are an abbreviation for the function performed by the depicted

circuitry (S+=three-wire circuit) and establish the order in which the schematic occurs in the manual (schematics are arranged in alpha-numeric order in the manual).

Whenever circuitry changes are significant enough to warrant publishing a new schematic drawing, the new drawing number will be the same as the old except for the major revision letter (A in the example).

2. Included in the drawing title are the class of control system, the title of this circuit, and the circuit voltage.
3. Line numbers are provided along the bottom edge of the drawing. These permit service personnel in the field and at the Milnor® factory to quickly relate circuit locations when discussing troubleshooting over the phone. Page and line numbers are referenced on the drawing as explained in items five and six below.
4. Relay contacts show the page and line number on which the relay coil may be found. This is the type of cross referencing most frequently used in troubleshooting.
5. Relay coils show the page and line number on which its associated contacts are located.
6. Relay contacts and relay coils show the physical location of the relay.
7. The designation MTA applies to electronic circuit board connections. Typically, a control system will contain several different types of circuit boards and one or more boards of each type. A numerical suffix identifies the board type and a numerical prefix identifies which one of several boards of a given type is being depicted. For example, the designation 1MTA5 identifies this as the first I/O board (8 output, 16 input board) in the control system. As shown on the drawing, a pin number follows the board number, separated by a dash. Thus, 1MTA5-9 is pin 9 on this board. The numerical designations for board types vary from one control system to another. Some of the board types commonly encountered on the Mark V and Mark VI washer-extractor control and their designations are as follows:
 - MTM1-MTM8 = Mother board
 - MTA1-MTA5 = 8 output, 16 input (8/16) boards
 - MTA11-MTA14 = 24 output boards
 - MTA30-MTA40 = processor boards
 - MTA41-MTA43 = digital to analog (D/A) boards
 - MTA51-MTA55 = analog to digital (A/D) boards
 - MTA81-MTA85 = balance A-D board

The complete listing of the boards utilized in a given control system can be found in the component list for that system.

8. Wire numbers, as described earlier in this section, are shown at appropriate locations on the schematic drawing.
9. Where diamond symbols appear at the end of a conductor, these are match points for continuing the schematic on another drawing. The page and line number that continues the circuit is printed adjacent to the diamond symbol. Where more than one match point appears on the referenced page, match diamonds containing corresponding letters.

— End of BIUUUK01 —

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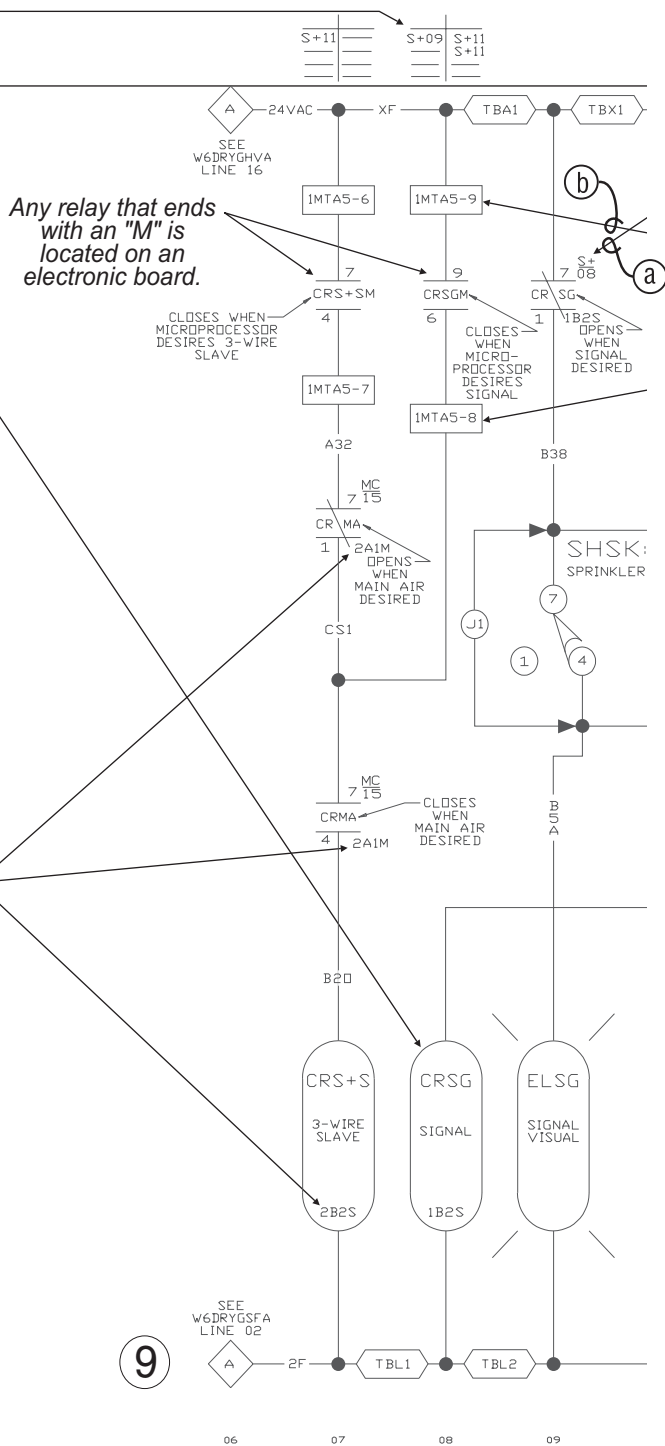
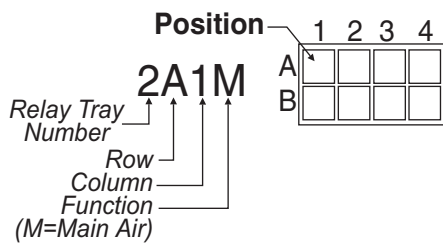
④ This indicates on which page (W6DRYGS+) and line number (08) the relay coil can be found for this set of contacts

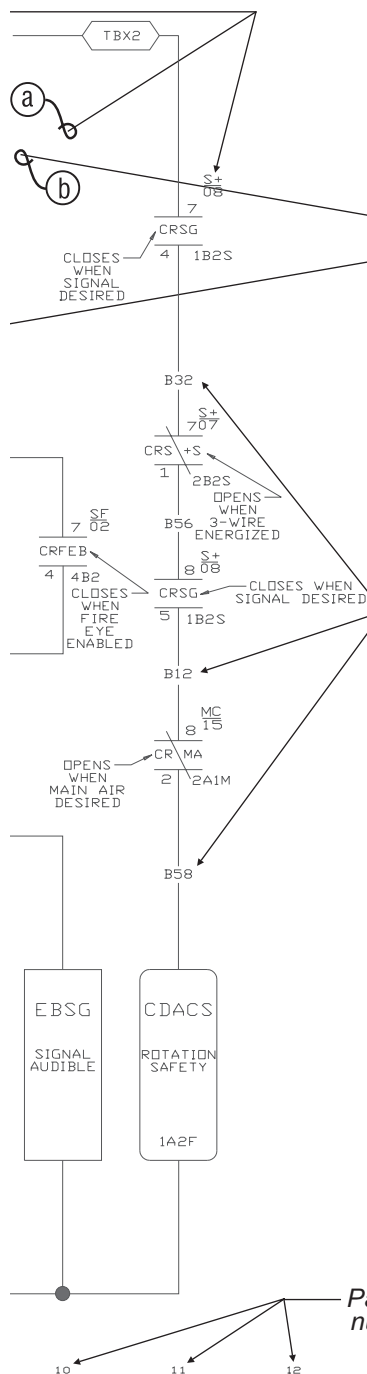
5 This indicates on which —
schematic page and
line number the relay
contacts of this coil (on Line
08) are located (i.e.,
W6DRYGS+, Lines 9 and 11).

	Normally closed contacts	Normally open contacts	
7-1 contact	S+09	S+11	7-4 contact
8-2 contact	—	S+11	8-5 contact
9-3 contact	—	—	9-6 contact
V-Q contact	—	—	V-K contact

Contact not used —
 Drawing and line where contact is located

6 This is the physical location of the relay on the machine. Row and column numbers are shown on the appropriate tag for each relay tray.





7 **1MTA5-9**

Mass termination assembly
Pin number
MTA designation on board
Board MTA group designation

An MTA is a connection on an electronic circuit board. The notes and the tag page locate the appropriate board.

8 **Wire identification marking.**
This designation is stamped on the wire every 6 inches and is used with the signal routing table.

Major revision (letter) **A**
Page number (S+) **1**
Machine type (Gas fired dryer) **S+**
6th generation of controls **6**
W = Wiring **W**
Class of control system **DRYG**
Title of this circuit **SCHEMATIC: 3-WIRE CIRCUIT**
Voltage of this circuit **24V1P50HZ/24V1P60HZ**

PELLERIN MILNOR CORPORATION

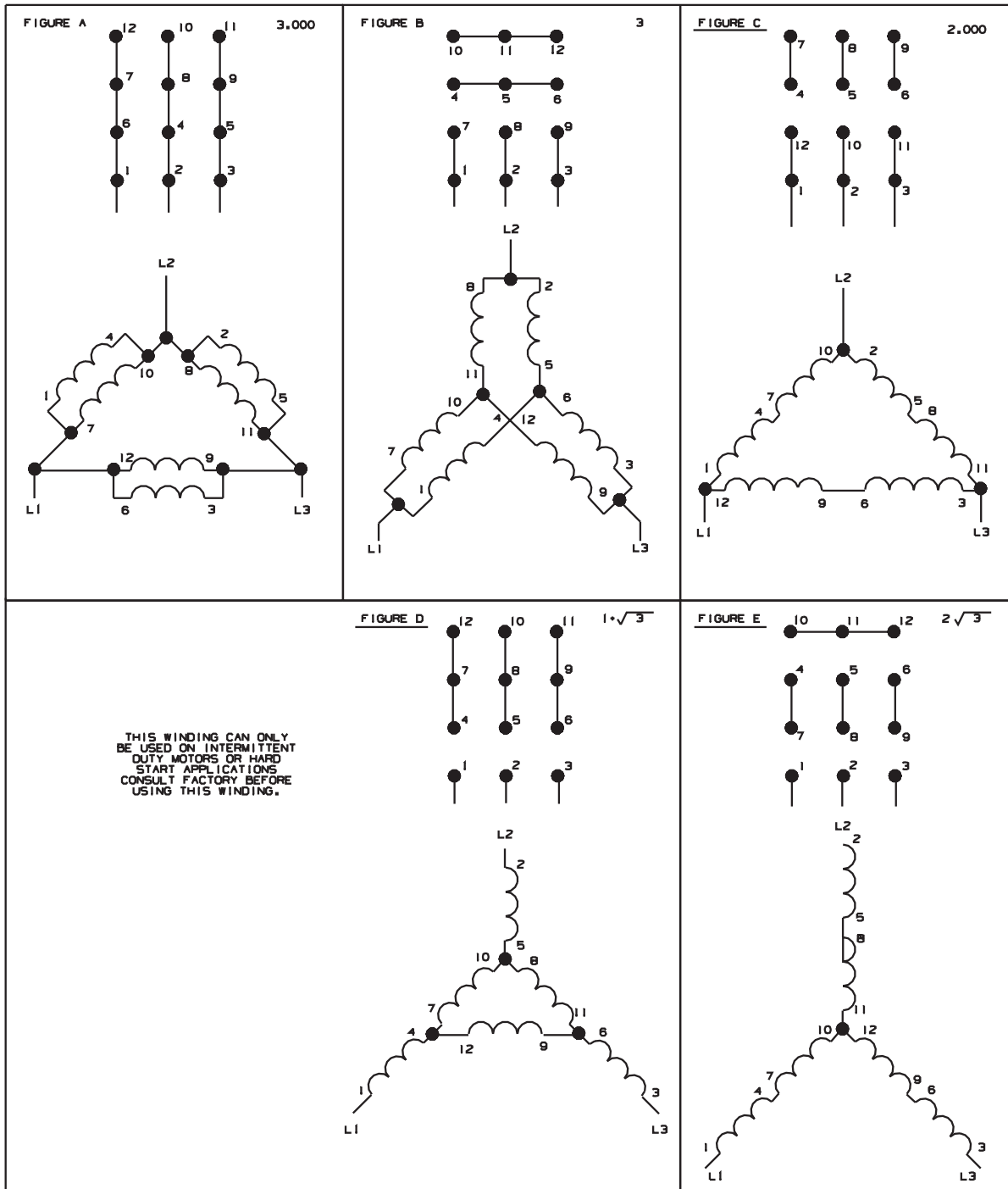
NOTES:

1. TBL IS LOCATED IN LEFT CONTROL BOX.
2. TBA IS LOCATED IN RIGHT CONTROL BOX.
3. TBX IS LOCATED IN LEFT CONTROL BOX.
4. 1MTA5 IS LOCATED ON BID1 (8 OUTPUT-16 INPUT BOARD).
5. REMOVE (J1) IF DRYER HAS VALVE SET SHUT OPTION.

Page line numbers

3

FIGURE	ELECTRICAL VALUES	SUFFIXES							
		B		H		M		T	
		50HZ	60HZ	50HZ	60HZ	50HZ	60HZ	50HZ	60HZ
A	1,000	208	230			200	220	220	240
B	$\sqrt{3}$			208	240	346	380	380	
C	2,000	416	460	220	240	400	440	440	480
D	$1 + \sqrt{3}$						600		
E	$2\sqrt{3}$			380					



06 07 08 09 10 11 12 13 14 15 16 17

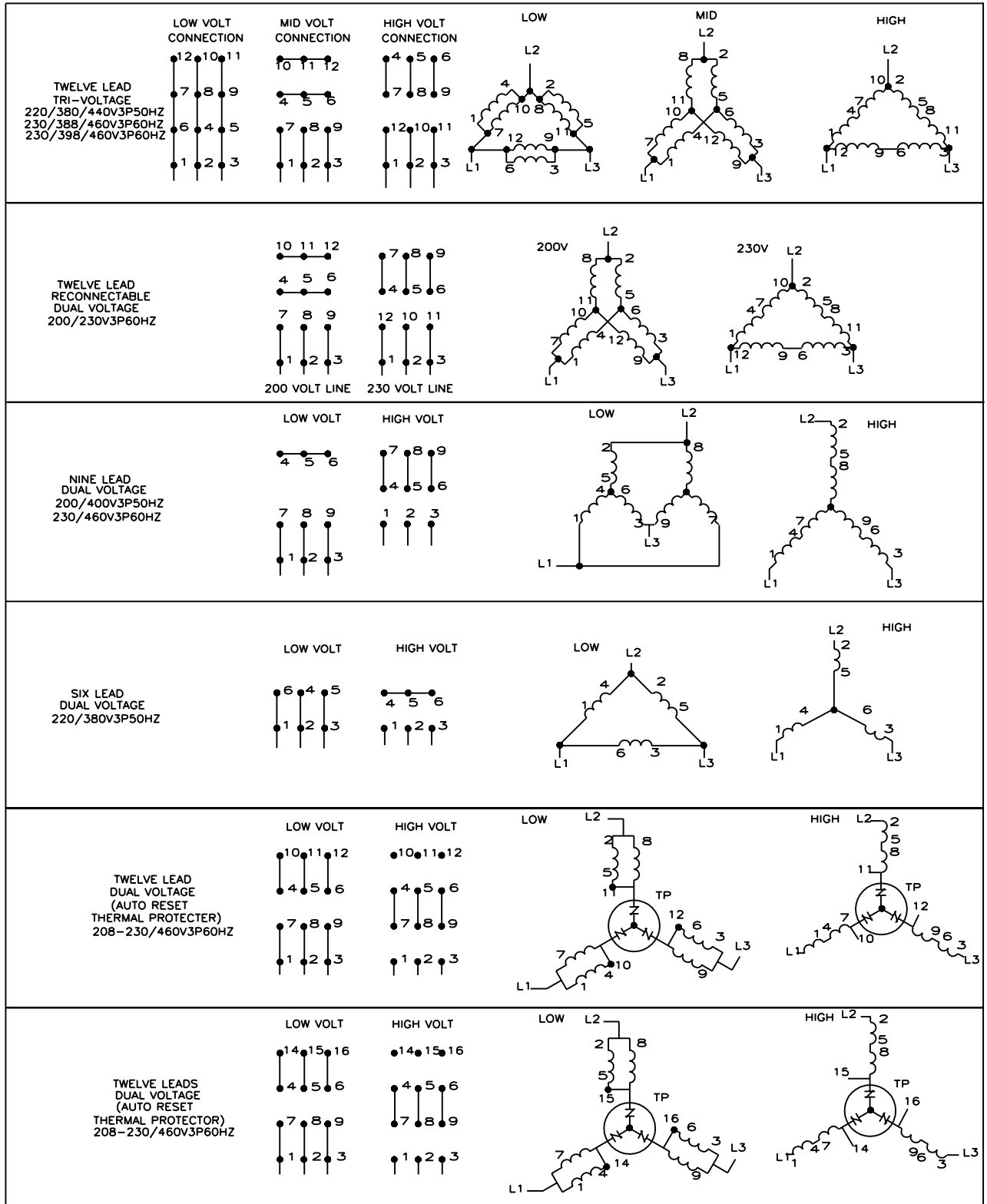
BMP850029

MOTOR CONNECTION DIAGRAMS

THREE PHASE SINGLE SPEED MOTORS WITH MULTIPLE VOLTAGE RATINGS

(ONLY FOR MOTOR SUFFIXES LISTED)

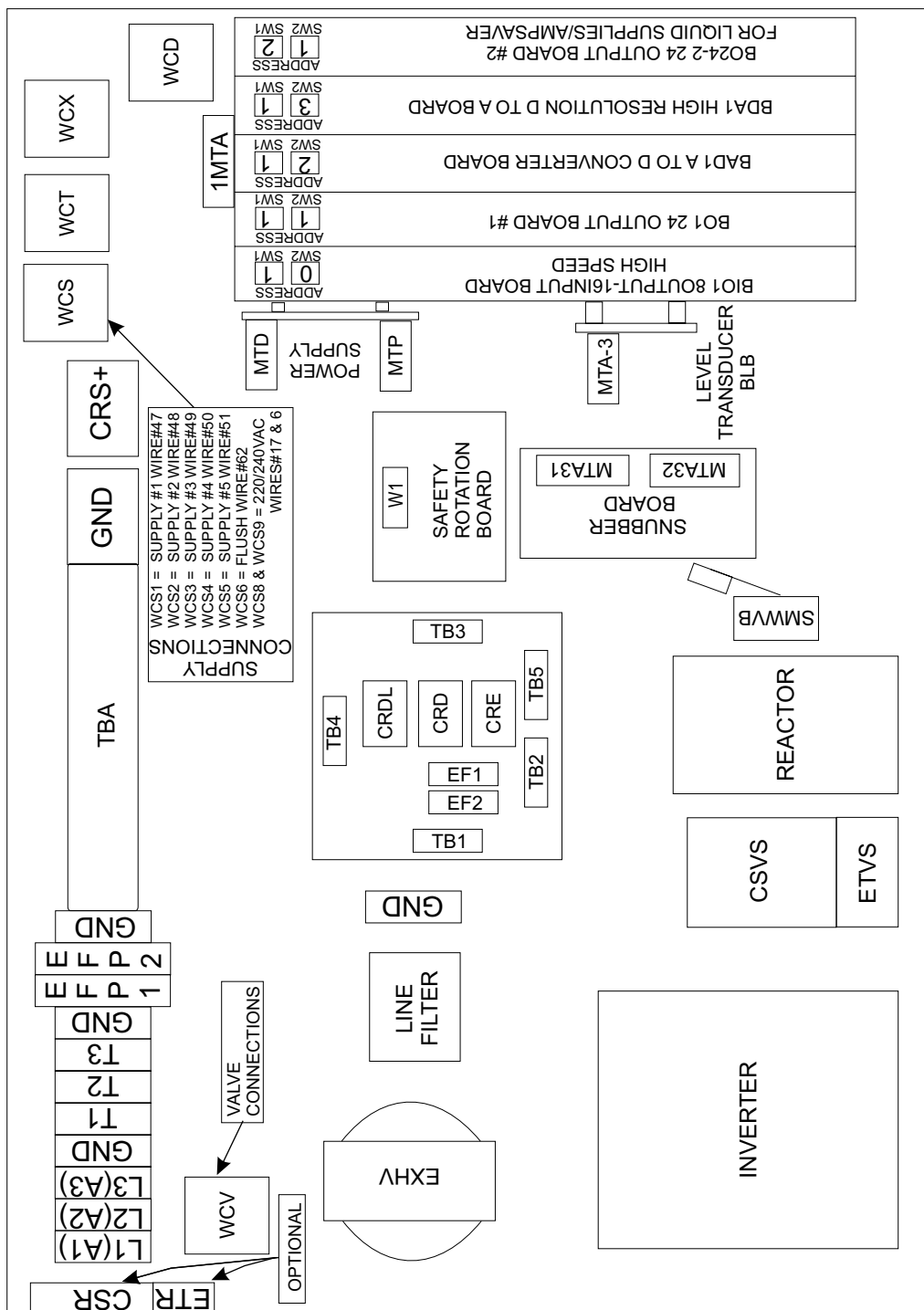
PELLERIN MILNOR CORPORATION



W80008

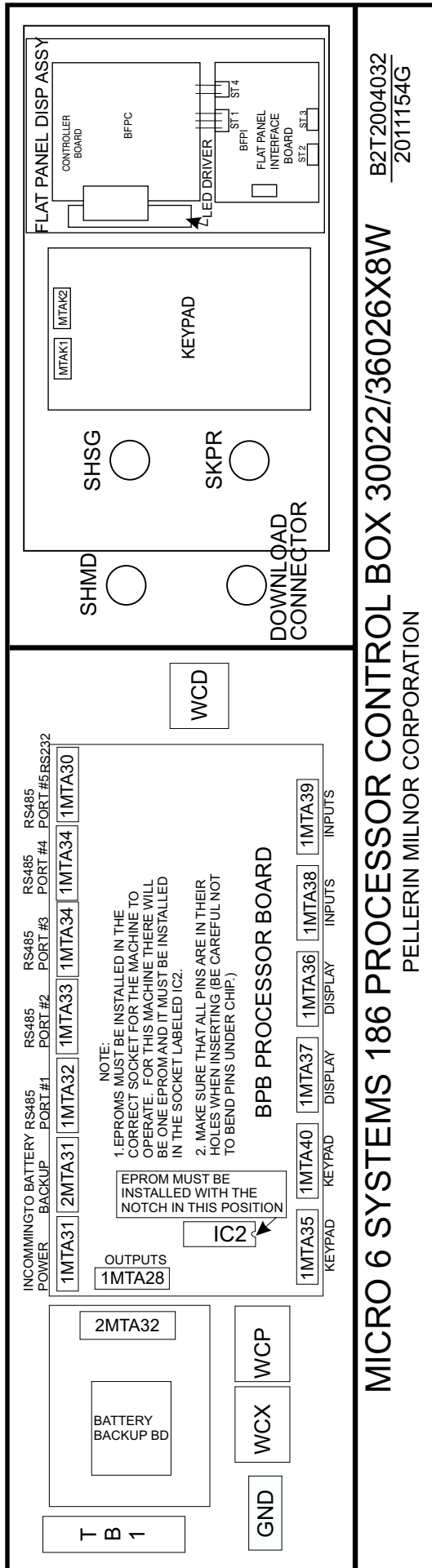
THREE PHASE
MOTOR CONNECTION DIAGRAMS
SINGLE SPEED MOTORS WITH MULTIPLE VOLTAGE RATINGS
PELLERIN MILNOR CORPORATION

W80008
2001253A



**MICRO 6 SYSTEMS, MARK V CONTROLS
30022X8W CONTROL BOX**

B2T2004031
2008066G

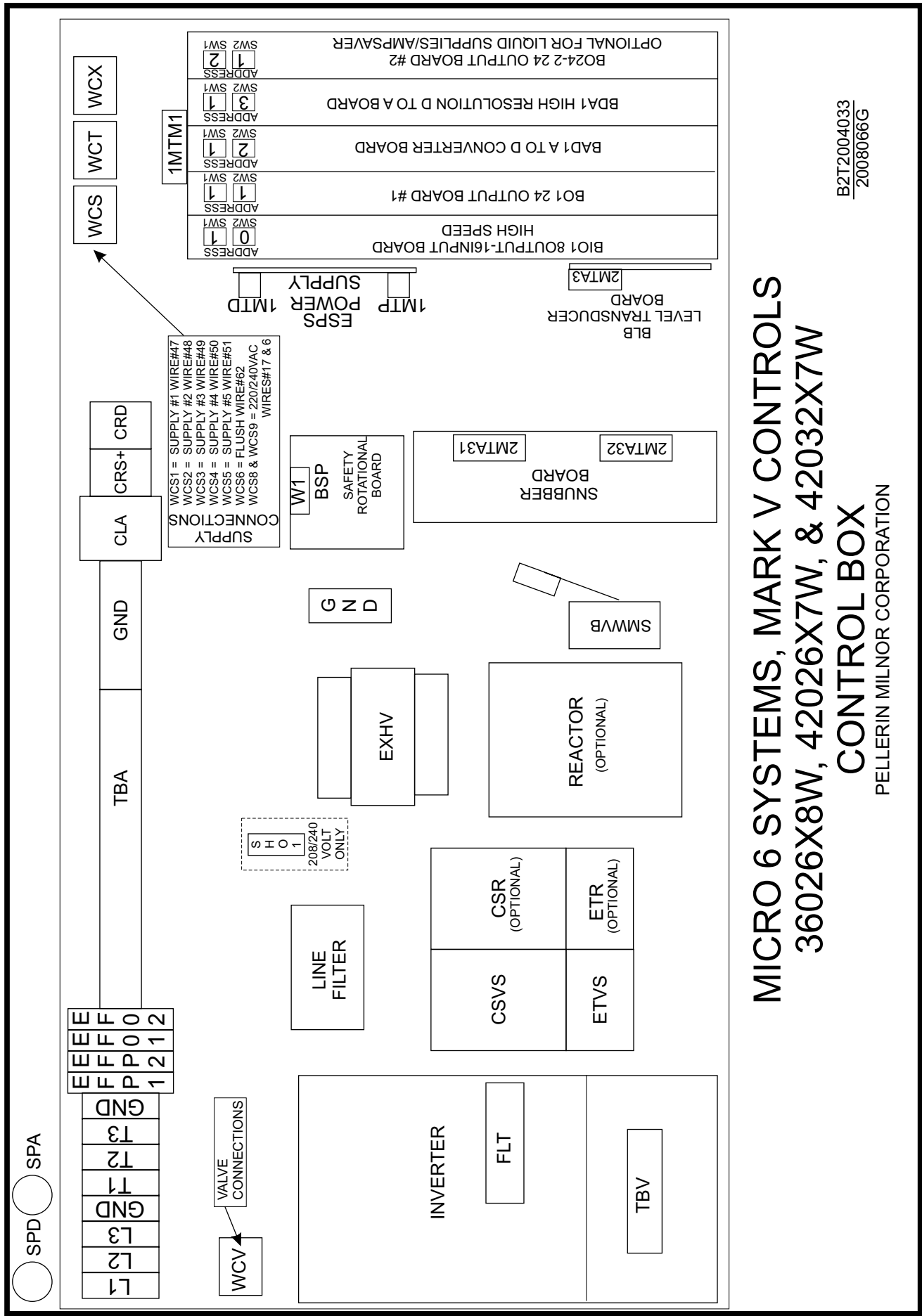


W6X8WSTG1

MICRO 6 SYSTEMS

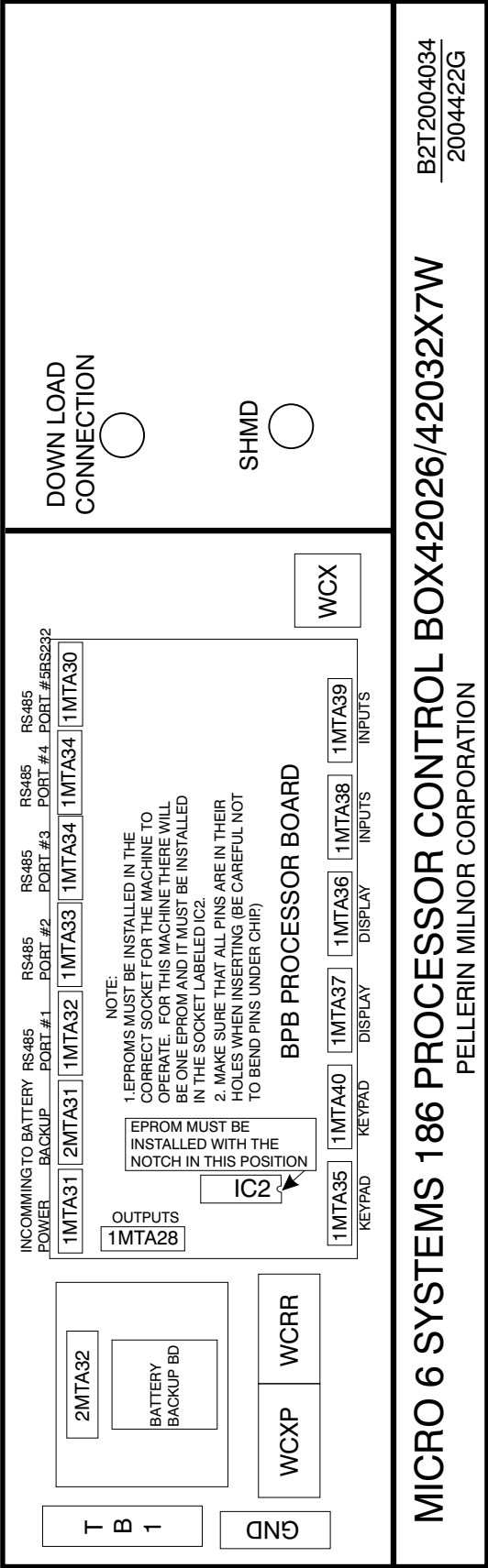
CONTROL BOX LAYOUTS

PELLERIN MILNOR CORPORATION



MICRO 6 SYSTEMS, MARK V CONTROLS
36026X8W, 42026X7W, & 42032X7W
CONTROL BOX
PELLERIN MILNOR CORPORATION

B2T2004033
2008066G



MICRO 6 SYSTEMS 186 PROCESSOR CONTROL BOX42026/42032X7W
 PELLERIN MILNOR CORPORATION

B2T2004034
 2004422G

W6X8WSTG2

MICRO 6 SYSTEMS

CONTROL BOX LAYOUTS

PELLERIN MILNOR CORPORATION

BIO-1	BO24-1	BO24-2(OPTIONAL) LIQUID SUPPLIES	BO24-3(OPTIONAL) 20 PROGRAMMABLE OUTPUTS
INPUTS	OUTPUTS	OUTPUTS	OUTPUTS
0 HI LEVEL REUSE TANK	0 TANK TO MACHINE	0 CHEM #14	0 OUTPUT 0
1 DOOR CLOSED	1 ACCELERATE/DECELERATE	1 CHEM #9	1 OUTPUT 1
2 INVERTER FAULT	2 DOOR UNLOCK	2 CHEM #13	2 OUTPUT 2
3 NOT USED	3 CLOCKWISE WASH	3 FLUSH MANIFOLD	3 OUTPUT 3
4 NOT USED	4 COUNTER CLOCKWISE WASH	4 CHEM #15	4 OUTPUT 4
5 NOT USED	5 STEAM	5 CHEM #11	5 OUTPUT 5
6 DON'T ALLOW CHEM	6 SIGNAL	6 CHEM SAVE	6 OUTPUT 6
7 NOT USED	7 3-WIRE ENABLED	7 DOOR UNLOCK PULSE(30022)	7 OUTPUT 7
8 AMPSAVER	8 NOT USED	8 CHEM #10	8 OUTPUT 8
9 AT WASH LEVEL	9 HOT WATER	9 DOORLOCK PULSE(30022)	9 OUTPUT 9
10 NOT USED	10 COLD WATER	10 CHEM #6	10 OUTPUT 10
11 AT LOAD LEVEL	11 EXTRA WATER	11 CHEM #7	11 OUTPUT 11
12 NOT USED	12 DRAIN TO SEWER	12 CHEM #8	12 OUTPUT 12
13 NOT USED	13 DRAIN TO REUSE	13 CHEM #12	13 OUTPUT 13
14 NOT USED	14 MACHINE TO MACHINE	14 AUTO RECIRCULATION	14 OUTPUT 14
15 NOT USED	15 MACHINE TO TANK	15 NOT USED	15 OUTPUT 15
OUTPUTS	16 NOT USED	16 NOT USED	16 OUTPUT 16
0 RECIRCULATE PUMP	17 NOT USED	17 NOT USED	17 OUTPUT 17
1 COOLDOWN	18 NOT USED	18 NOT USED	18 OUTPUT 18
2 CHEMICAL FLUSH	19 NOT USED	19 TILT TO LOAD	19 OUTPUT 19
3 CHEMICAL #4	20 NOT USED	20 NOT USED	20 NOT USED
4 CHEMICAL #1	21 NOT USED	21 TILT TO WASH	21 NOT USED
5 CHEMICAL #3	22 NOT USED	22 NOT USED	22 NOT USED
6 CHEMICAL #2	23 NOT USED	23 TILTING	23 NOT USED
7 CHEMICAL #5			

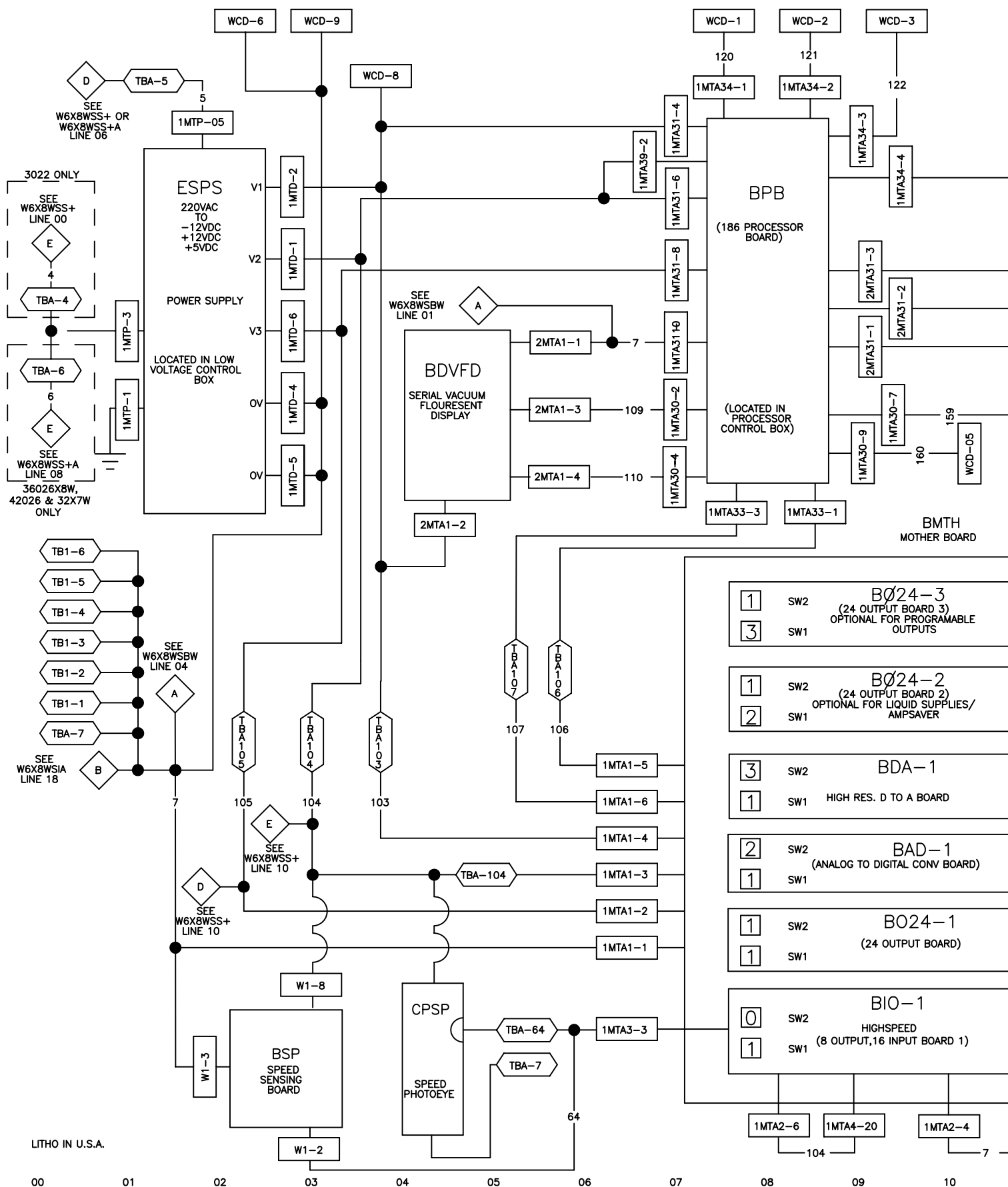
MICRO 6 SYSTEMS
WASHER EXTRACTOR
CONTROL BOARDS INPUTS/OUTPUTS
 PELLERIN MILNOR CORPORATION

B2TAG96034
 20121245G

W6X8WSTG3
MICRO 6 SYSTEMS
CONTROL BOX LAYOUTS
PELLERIN MILNOR CORPORATION

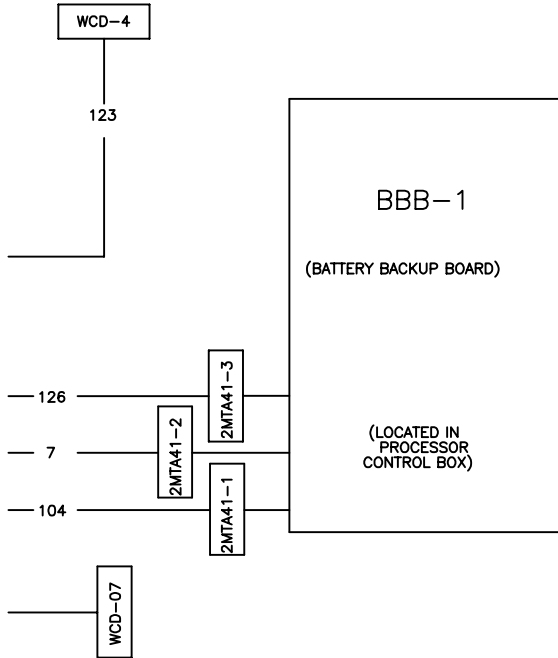
W6X8WSTG3
2012246B

W6X8WSTG3
2012246B

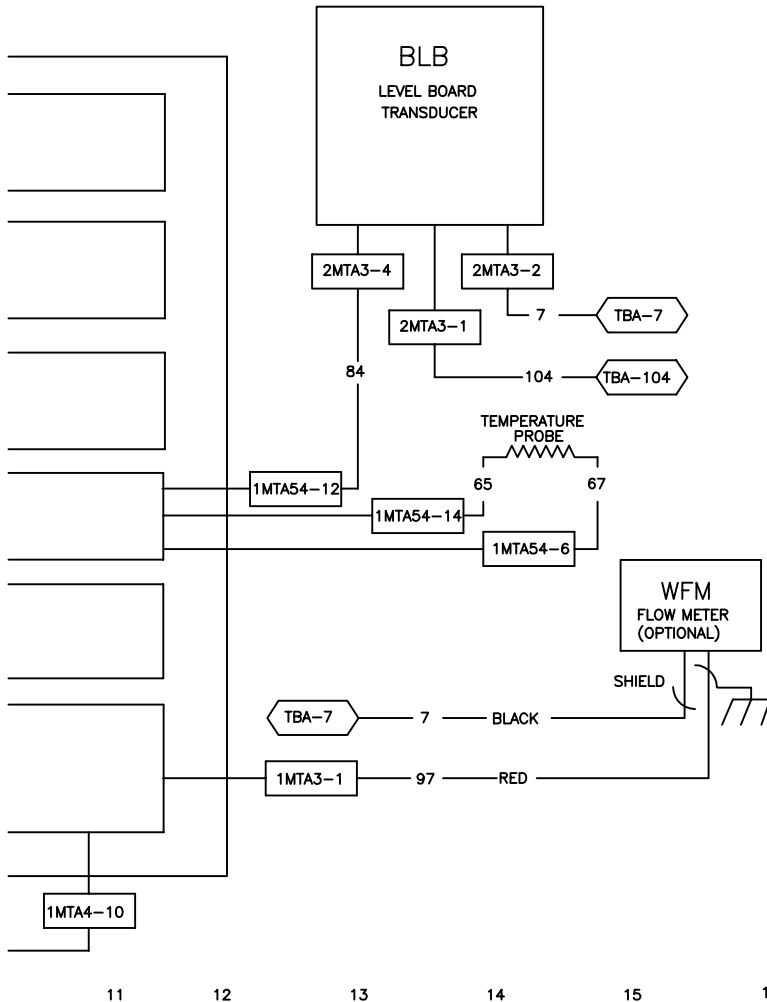


LITHO IN U.S.A.

W6X8WSBW
2006232B



WIRE NO.	VOLTAGE	WIRE COLOR
103	+5VDC	BLUE/RED
104	+12VDC	BLUE/ORANGE
105	-12VDC	BLUE/BLACK
7	GROUND	BLUE/WHITE
107	SERIAL HIGH	BLUE/RED
106	SERIAL LOW	BLUE/BLACK
INPUTS	-	BLUE/BLACK
5	240VAC	RED
6	240VAC	RED/WHITE

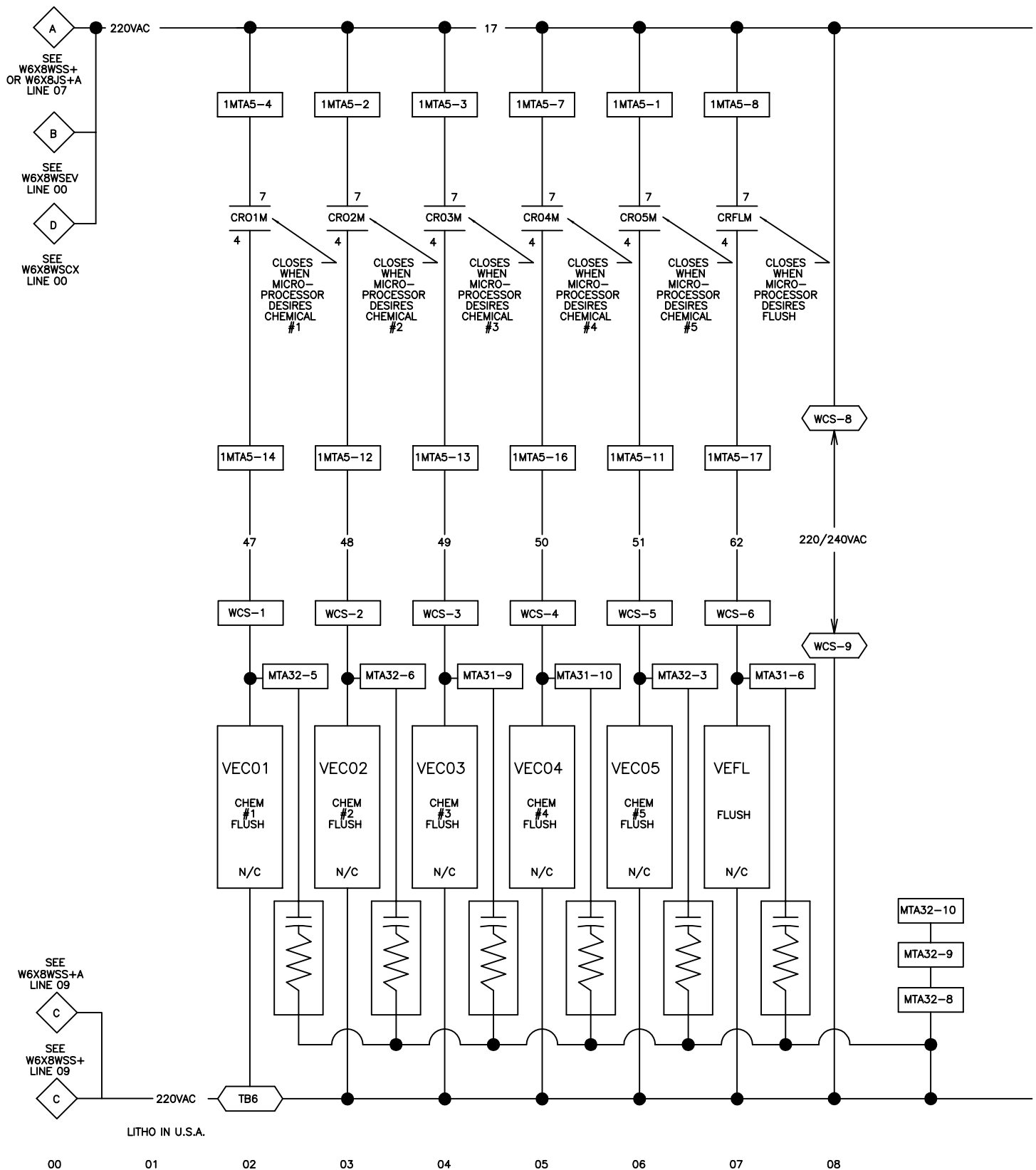


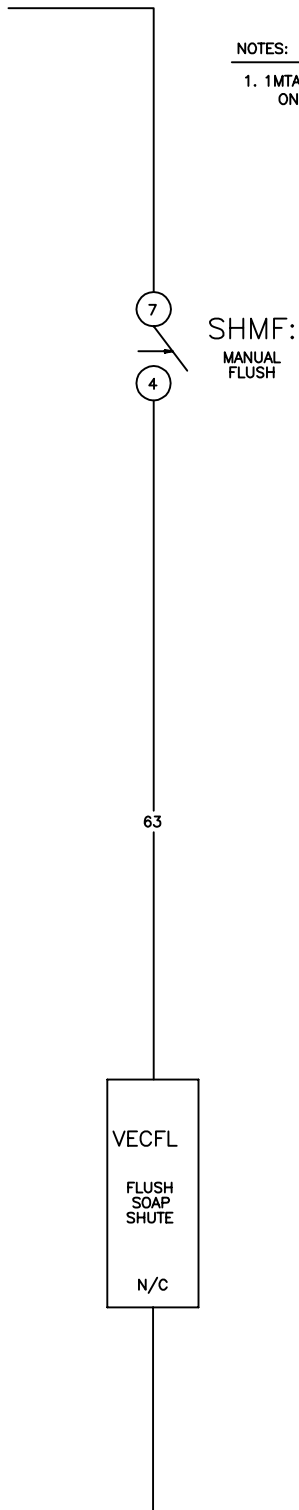
W6X8WSBW MICRO 6 SYSTEMS SERIAL CONTROLS MARK V SCHEMATIC: BOARD TO BOARD WIRING (SERIAL CONTROLS) (MODIFIED FOR 186 PROCESSOR BOARD)

PELLERIN MILNOR CORPORATION

NOTES:

1. 1MTP, 1MTD ARE LOCATED ON ESPS (POWER SUPPLY).
2. 1MTA31, 1MTA33, 2MTA31, 1MTA34, 1MTA30, AND 1MTA39 ARE LOCATED ON BPB (186 PROCESSOR BOARD).
3. 1MTA2, 1MTA3, AND 1MTA4 ARE LOCATED ON BIO-1 (8 OUTPUT-16 INPUT BOARD).
4. 1MTA1 IS LOCATED BMTH (MOTHER BOARD).
5. 1MTA54 IS LOCATED ON BAD-1 (ANALOG TO DIGITAL BOARD).
6. 2MTA1 IS LOCATED ON BDVFD (SERIAL VACUUM FLOURESENT DISPLAY).
7. TBP IS LOCATED IN LOW VOLTAGE CONTROL BOX.
8. 2MTA41 IS LOCATED ON BBB-1 (BATTERY BACKUP BOARD).
9. WCD IS DOWN LOAD/PRINTER/MILDATA CONNECTOR.
10. TBI IS LOCATED IN THE PROCESSOR BOX.
11. W1 IS LOCATED ON BSP (SPEED SENSING BOARD).
12. 2MTA3 IS LOCATED ON BLB (LEVEL TRANSDUCER BOARD).





NOTES:
1. 1MTA5, 1MTA6 ARE LOCATED
ON BIO-1 (8 OUTPUT-16 INPUT)

W6X8WSCF

MICRO 6 SYSTEMS SERIAL CONTROLS MARK V

SCHEMATIC: FLUSHING SUPPLIES

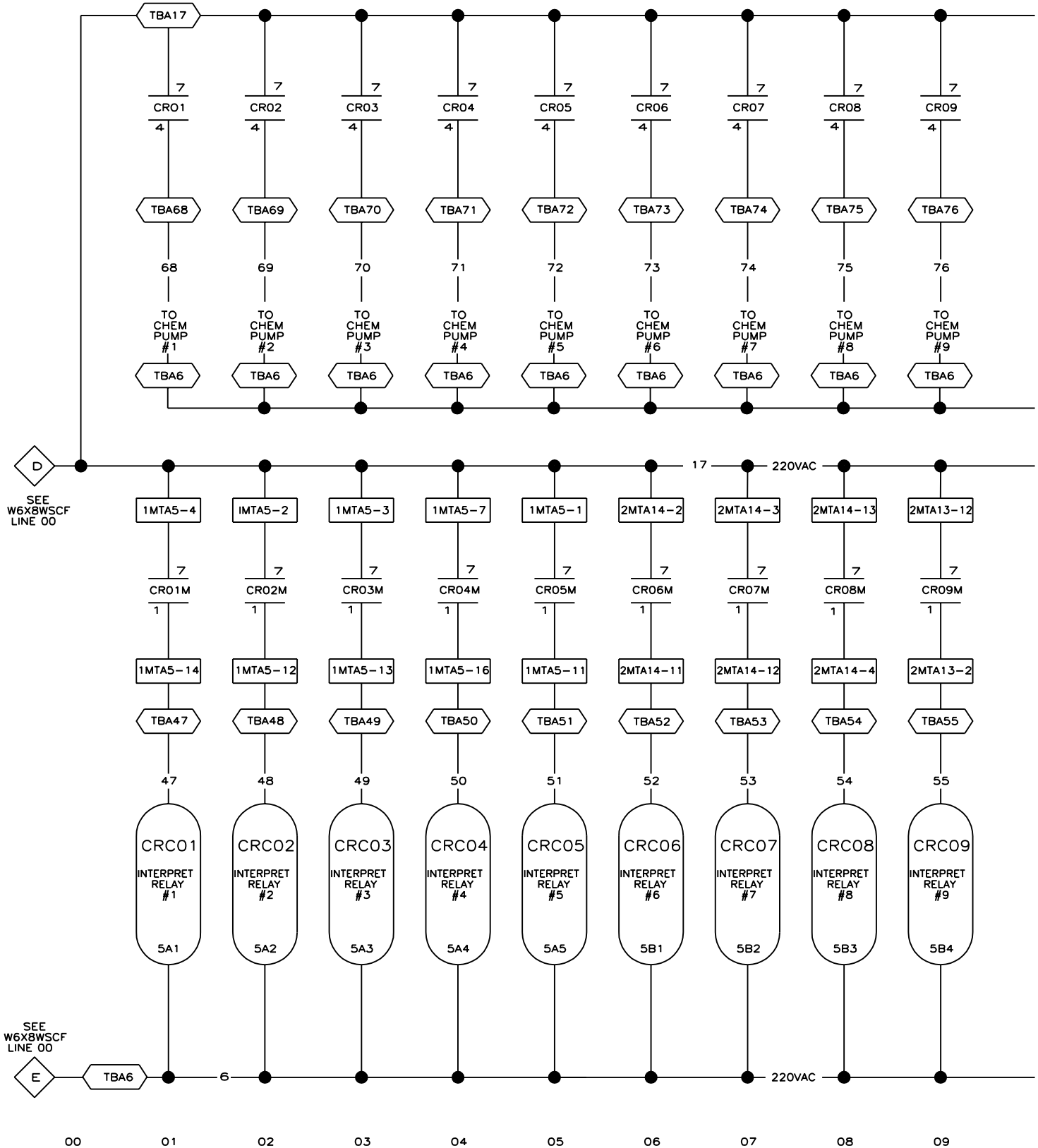
220V1P50HZ/240V1P60HZ

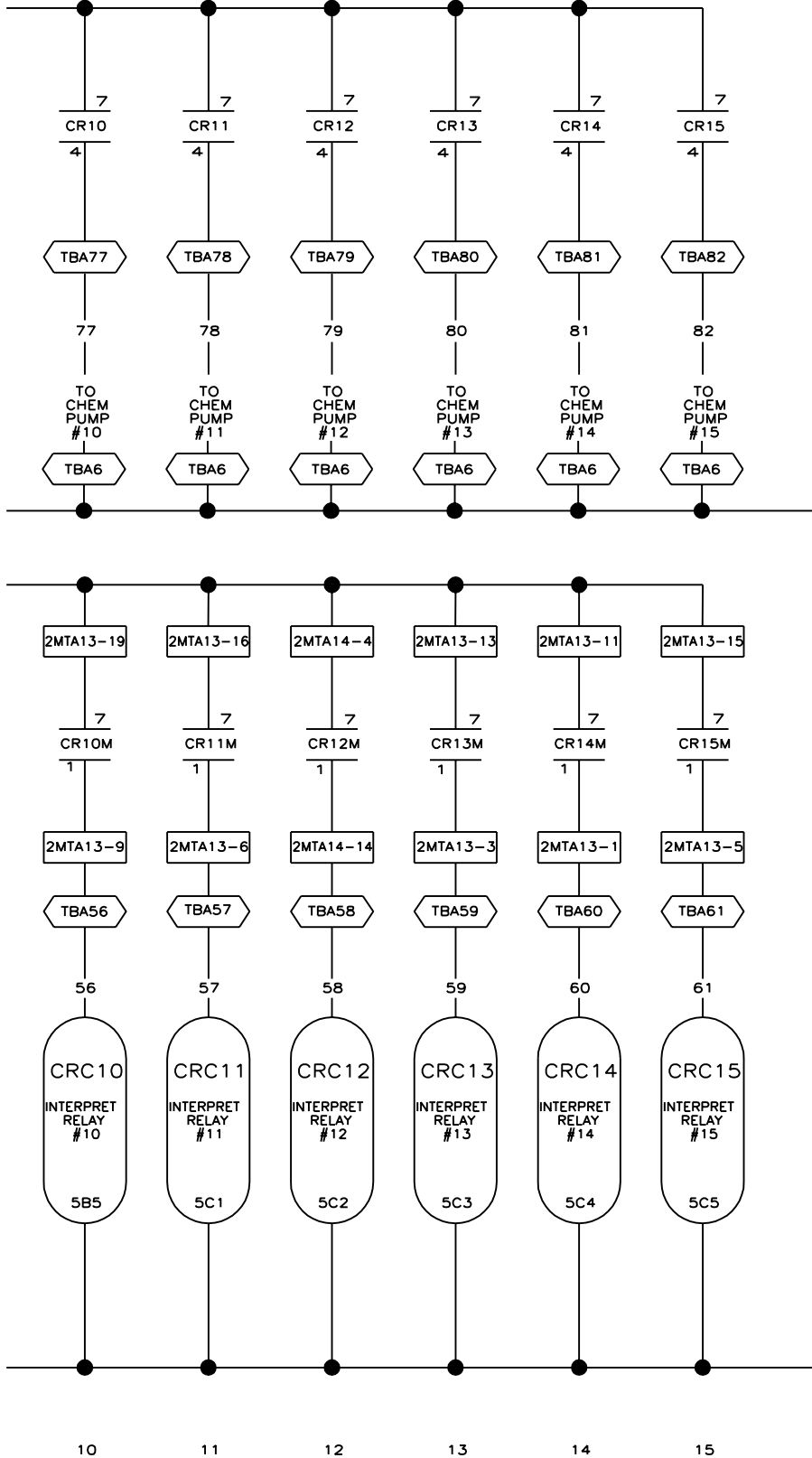
PELLERIN MILNOR CORPORATION

W6X8WSCF
2006232B

W6X8WSCF
2006232B

IF CUSTOMER IS SUPPLYING
VOLTAGE FOR CHEMICAL
PUMPS THEN TB17 & TB6 FEEDING
THE INTERPERET RELAY CONTACTS
MUST BE DISCONNECTED FROM
THE INTERNAL 220/240VAC SUPPLY.





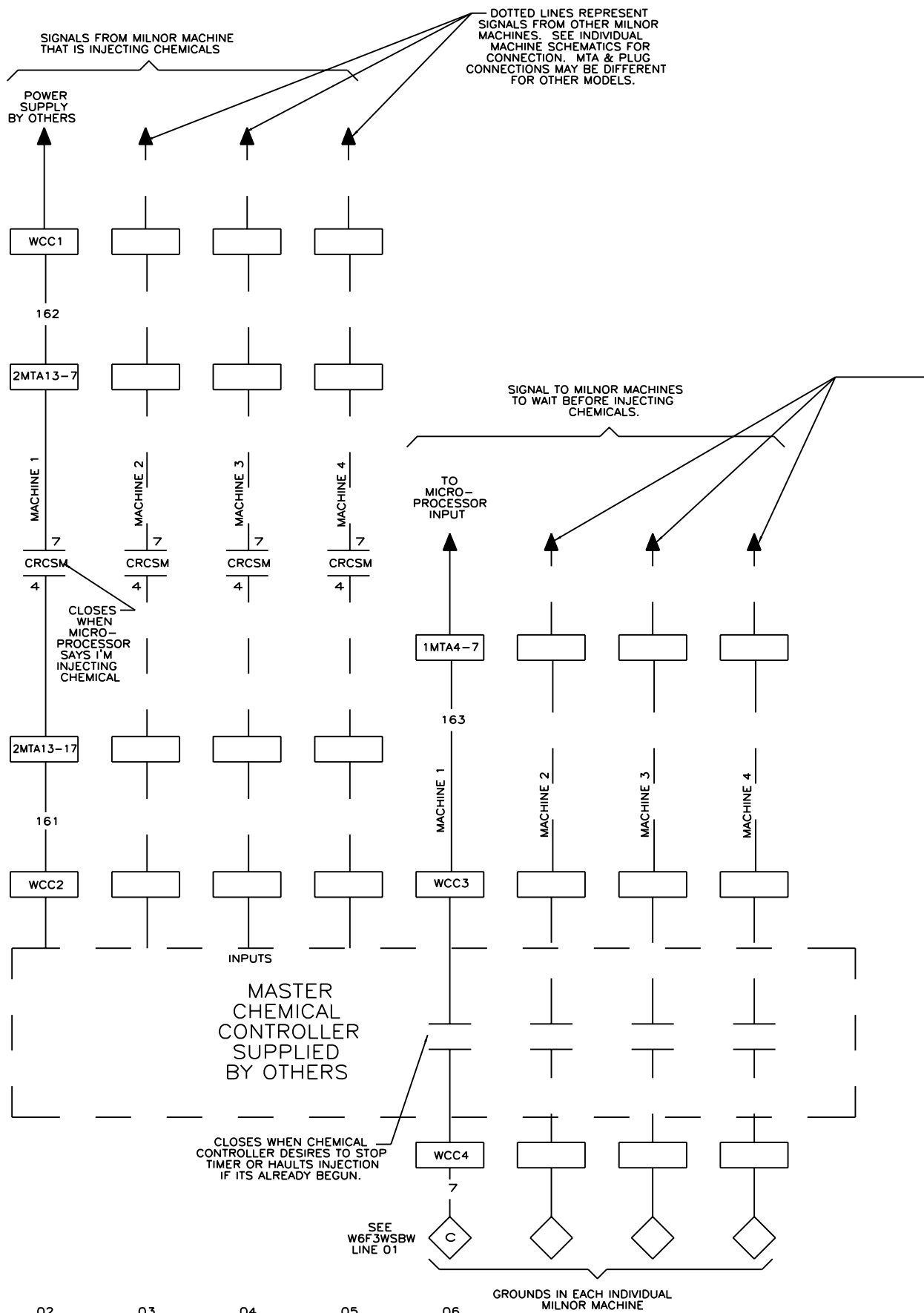
W6X8WSCP

MICRO 6 SYSTEMS SERIAL CONTROLS

SCHEMATIC: LIQUID SUPPLY-INTERPRET RELAYS

220V1P50HZ/240V1P60HZ

PELLERIN MILNOR CORPORATION

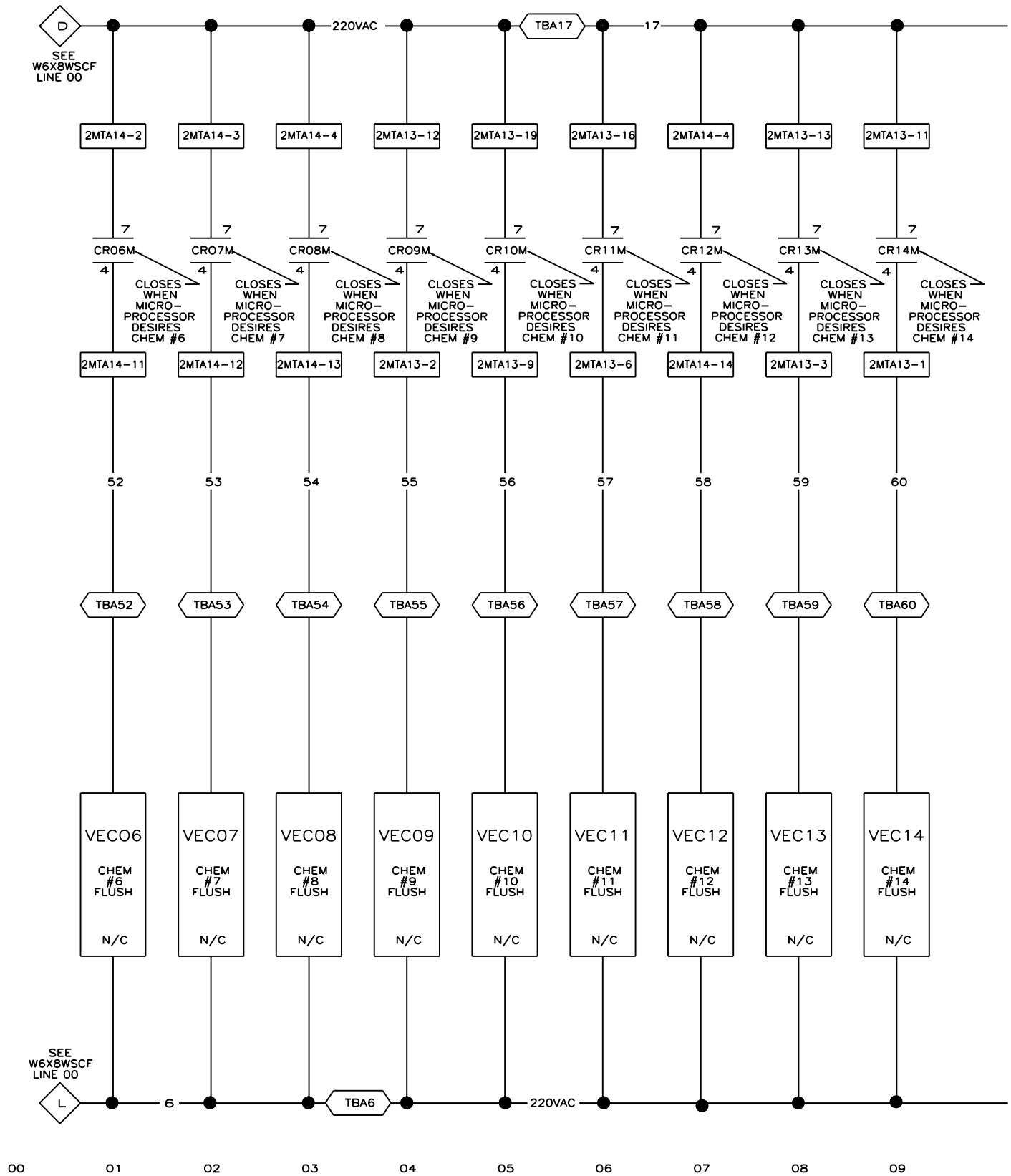


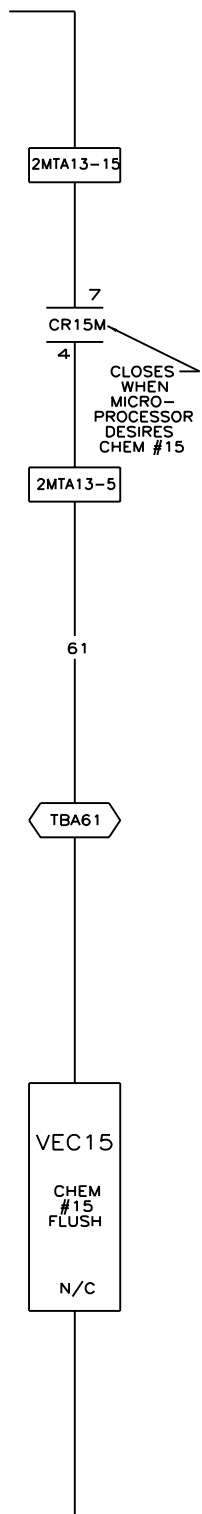
— DOTTED LINES REPRESENT
SIGNALS TO OTHER MILNOR
MACHINES SEE INDIVIDUAL
MACHINE SCHEMATICS FOR
CONNECTION. MTA & PLUG
CONNECTIONS MAY BE DIFFERENT
FOR OTHER MODELS.

NOTES:

1. WCC IS LOCATED IN THE REAR
CONTROL BOX ON THIS MODEL MACHINE.
2. CONTACT CRCSM MUST BE INTERPRETED
BY THE CHEMICAL SEQUENCER (SUPPLIED
BY OTHERS) AND IT MUST SIGNAL ALL
OTHER MILNOR MACHINES TO WAIT
BEFORE THEY INJECT CHEMICALS.

W6X8WSCS
MICRO 6 SYSTEMS
MARK V
SCHEMATIC: CHEMICAL SAVE (OPTIONAL)
PELLERIN MILNOR CORPORATION





W6X8WSCX

MICRO 6 SYSTEMS

SERIAL CONTROLS

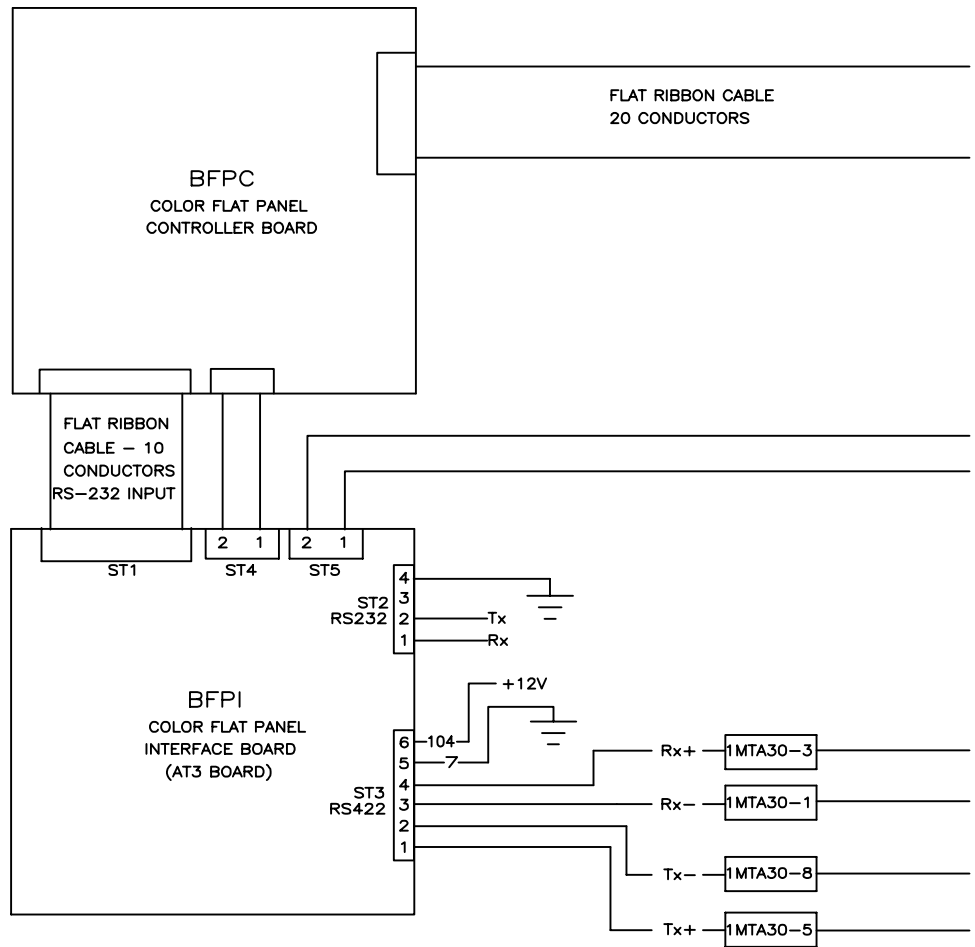
MARK V

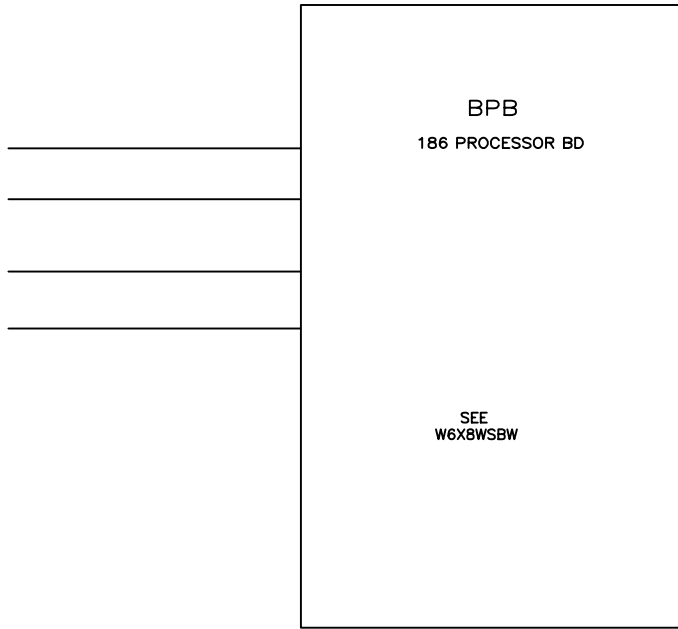
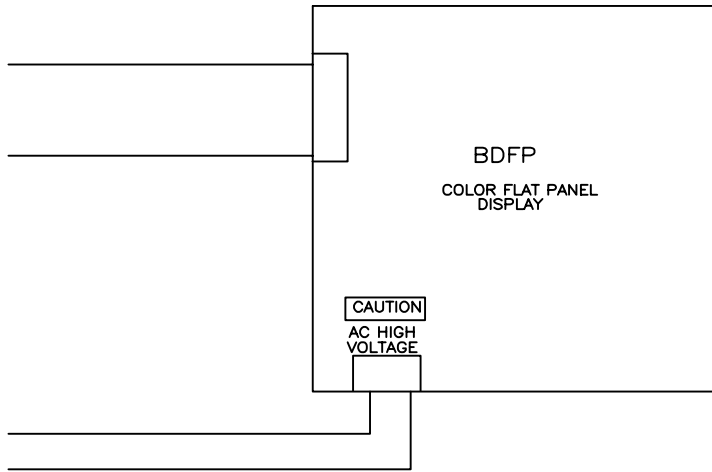
SCHEMATIC: CENTRAL LIQUID SUPPLY

FLUSH 6 THRU 15

PELLERIN MILNOR CORPORATION

W6F3WSCX
2004422B





NOTES

1. 1MTA30 IS LOCATED ON BPB (PROCESSOR BOARD).
2. ST1 THROUGH ST5 IS LOCATED ON BFPI COLOR FLAT PANEL INTERFACE BOARD.

W6X8WSDF

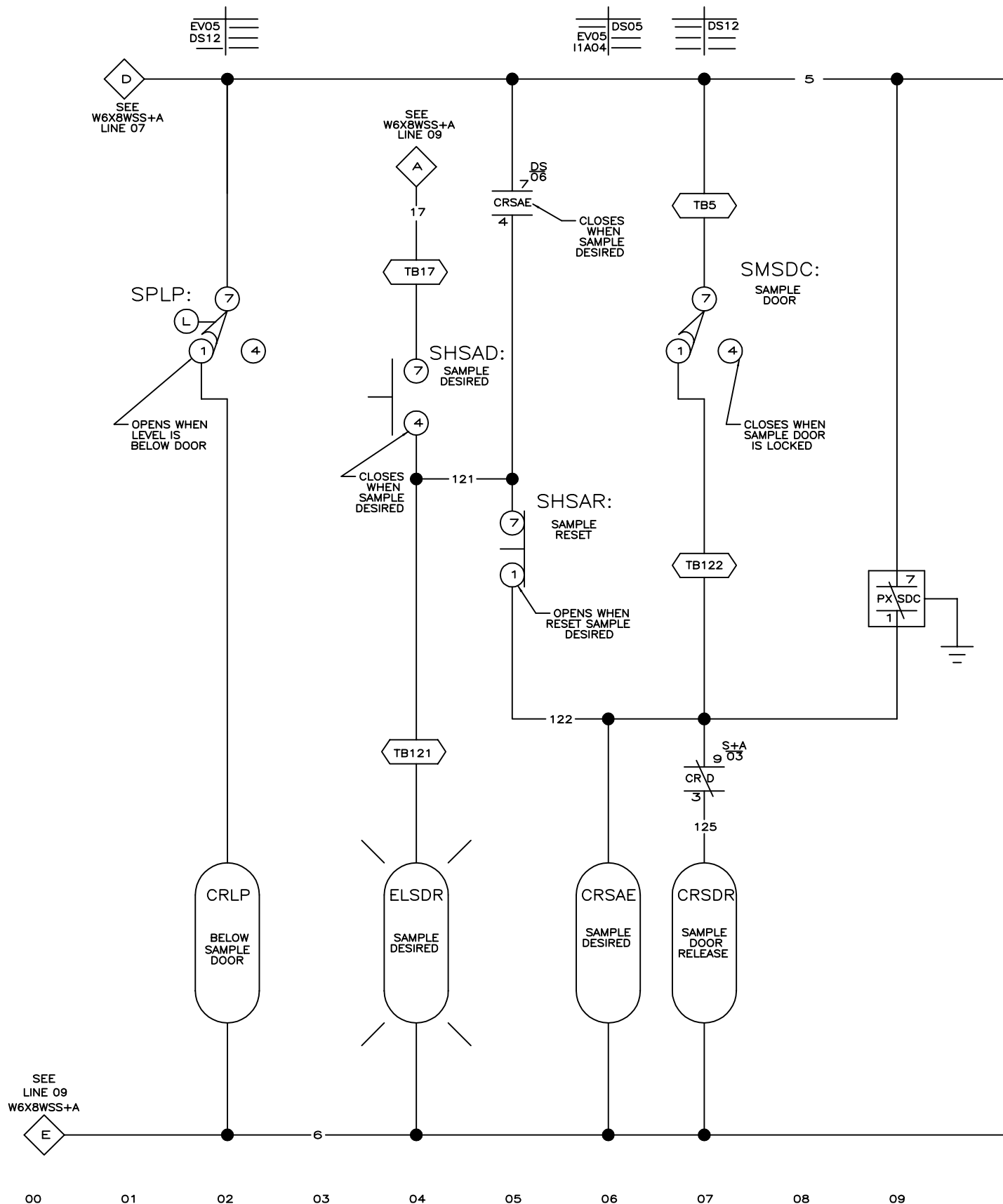
MICRO 6 SYSTEMS

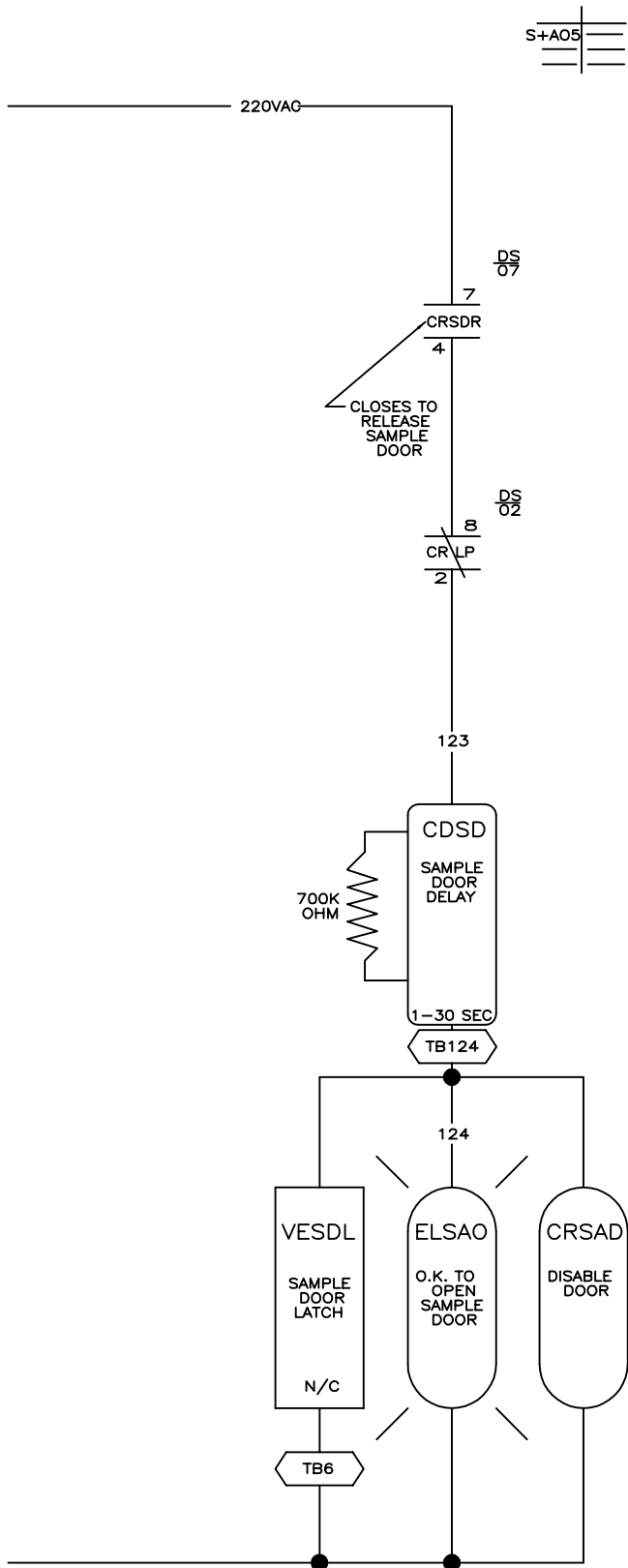
MARK V

SCHEMATIC: COLOR FLAT PANEL DISPLAY

PELLERIN MILNOR CORPORATION

W6X8WSDF
2007513B





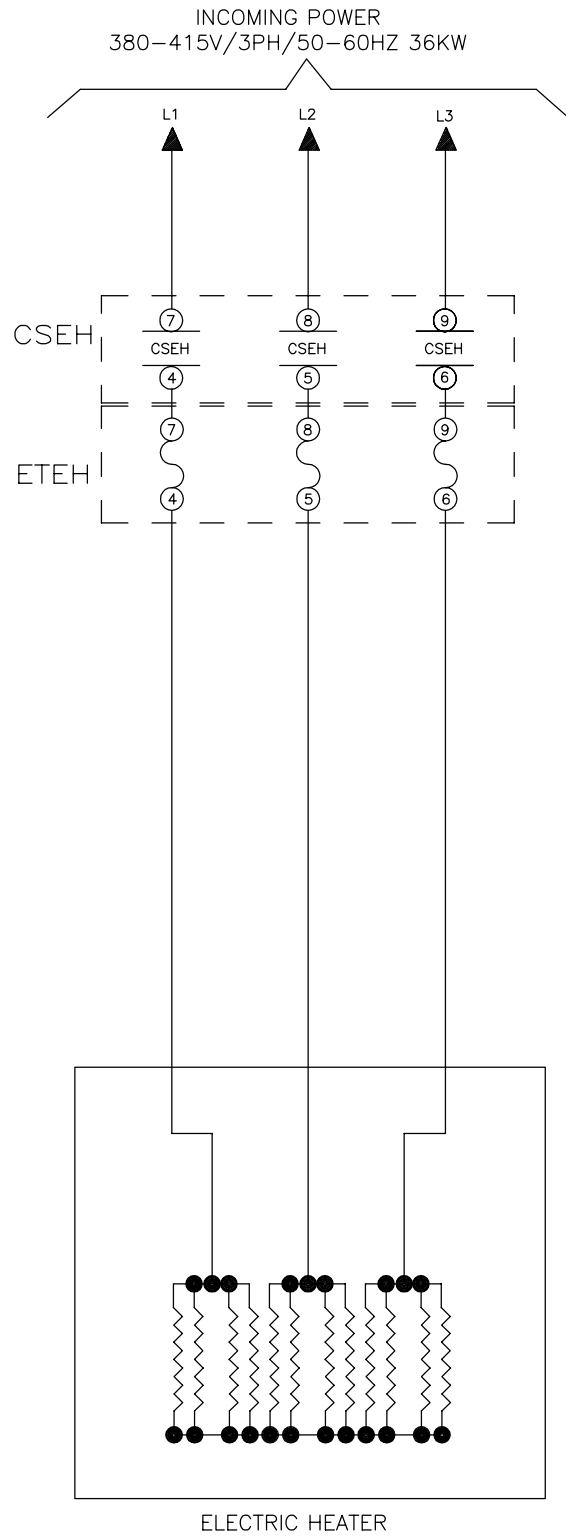
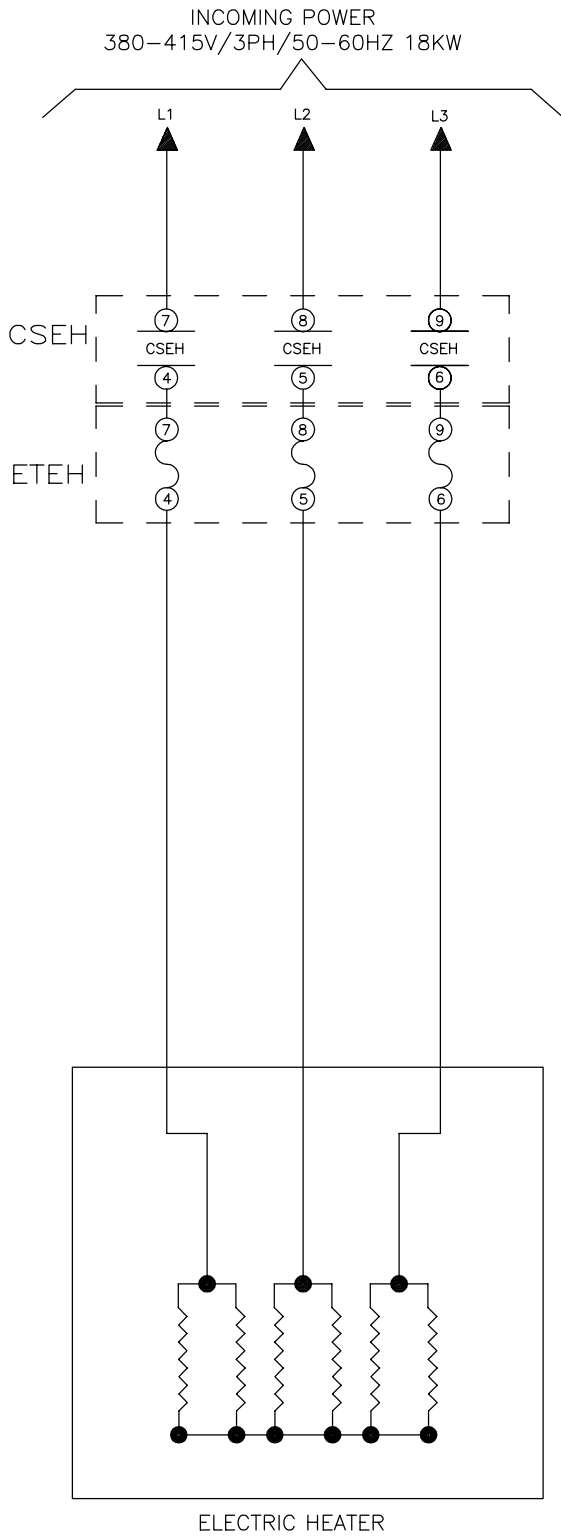
S+A05

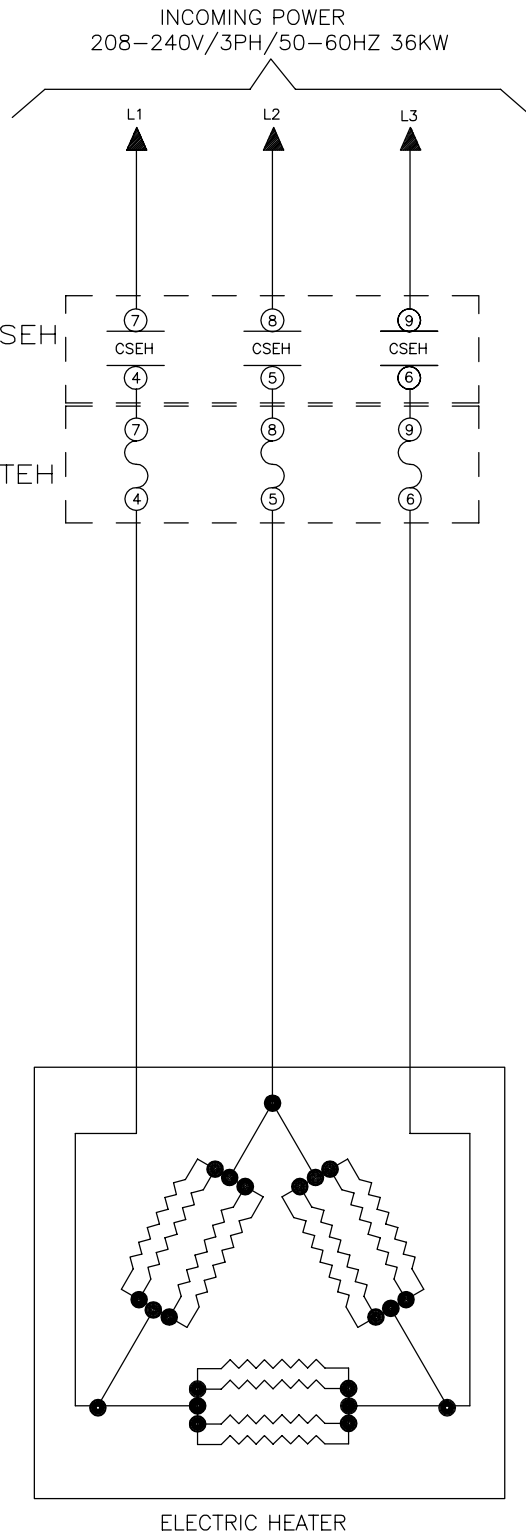
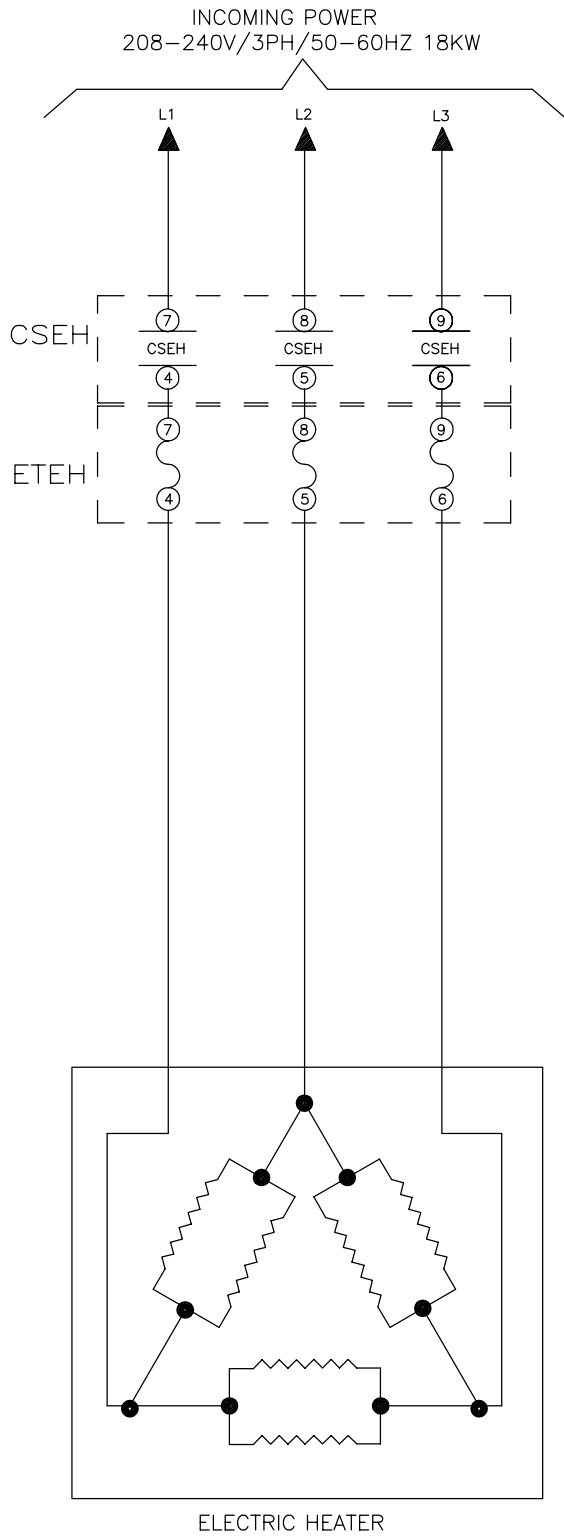
W6X8WSDS
 MICRO 6 SYSTEMS
 FOR MARK V CONTROLS X8W, X7W
 SCHEMATIC: DOOR SAMPLE
 110V1P50HZ/120V1P60HZ
 PELLERIN MILNOR CORPORATION

W6X8WSDS
 2007253B

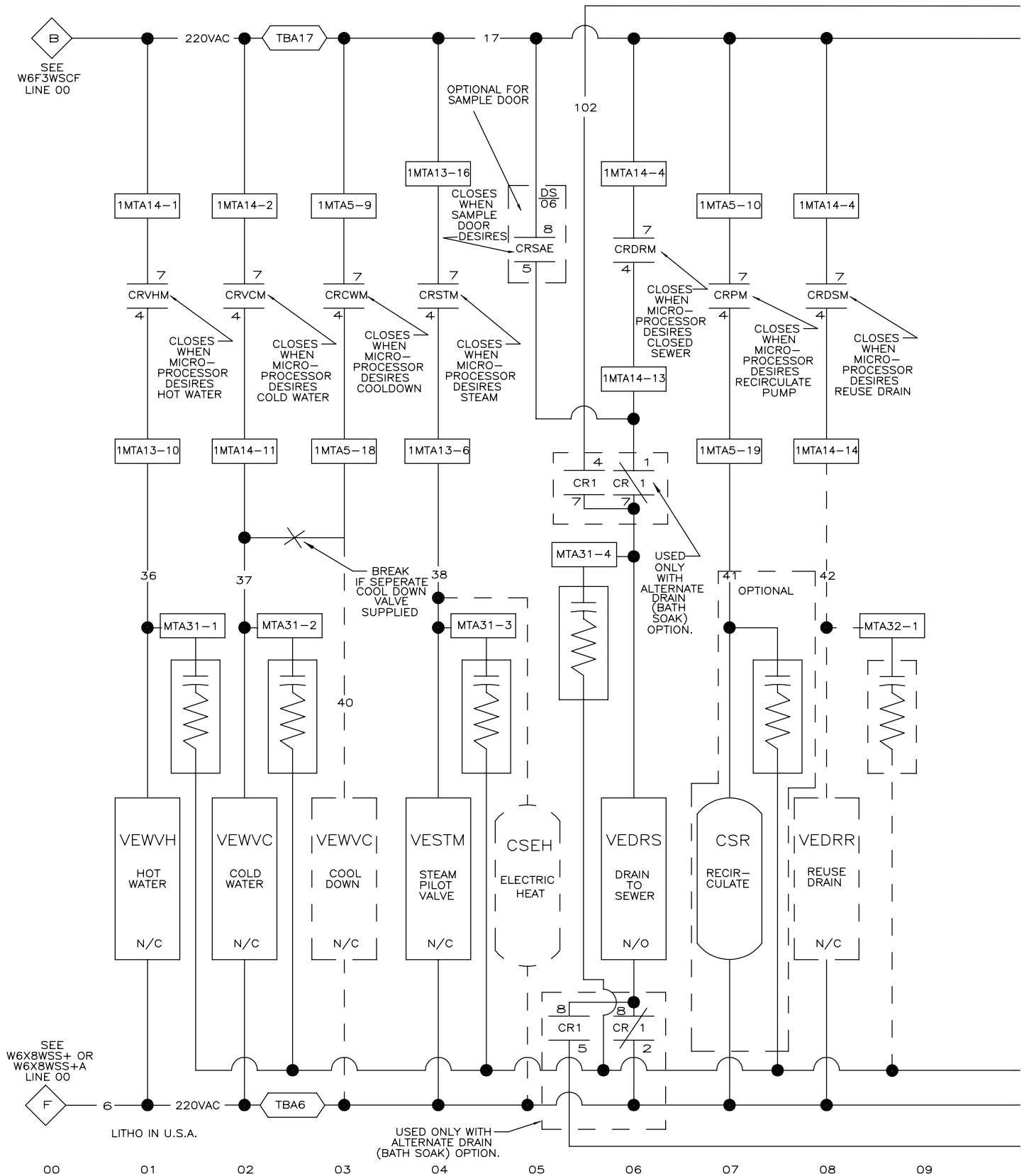
10 11 12 13 14 15 16 17 18

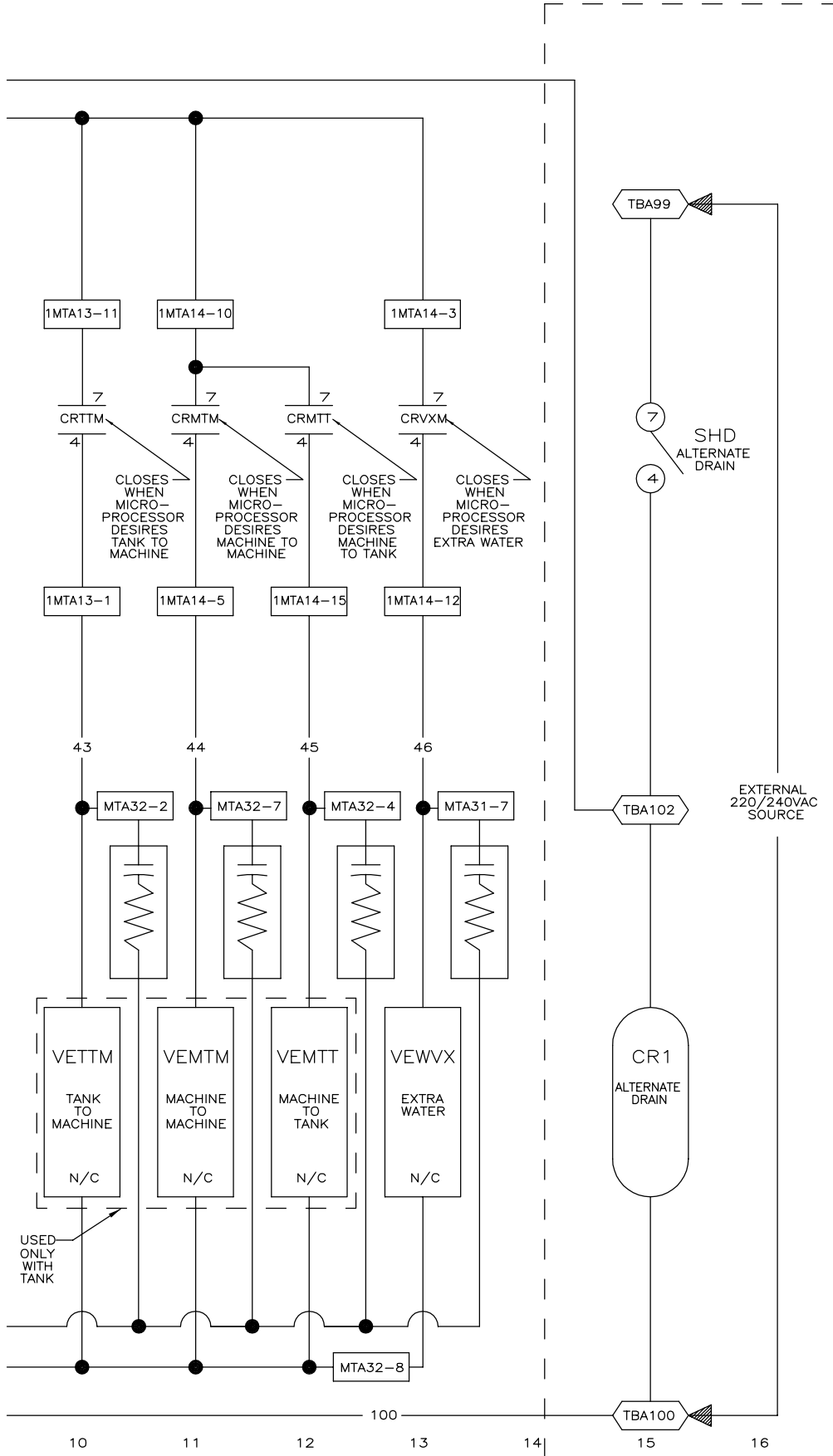
W6X8WSDS
 2007253B





W6X8WSEH
MICRO 7 SYSTEMS
SCHEMATIC: ELECTRIC HEAT
220V1P50HZ/240V1P60HZ
PELLERIN MILNOR CORPORATION





W6X8WSEV

MICRO 6 SYSTEMS

MARK V CONTROLS

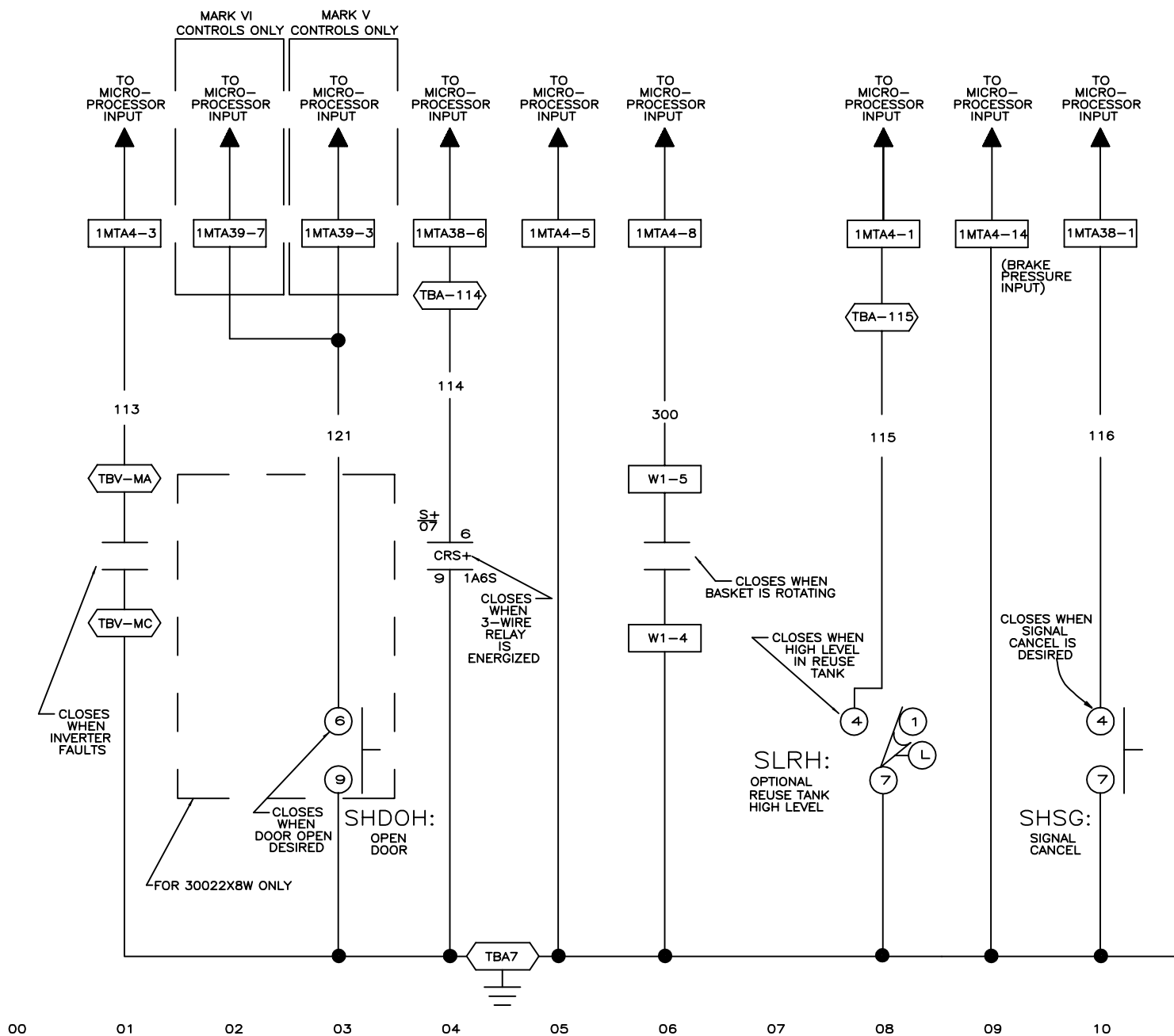
SCHEMATIC: ELECTRICAL VALVES

220V1P50HZ/240V1P60HZ

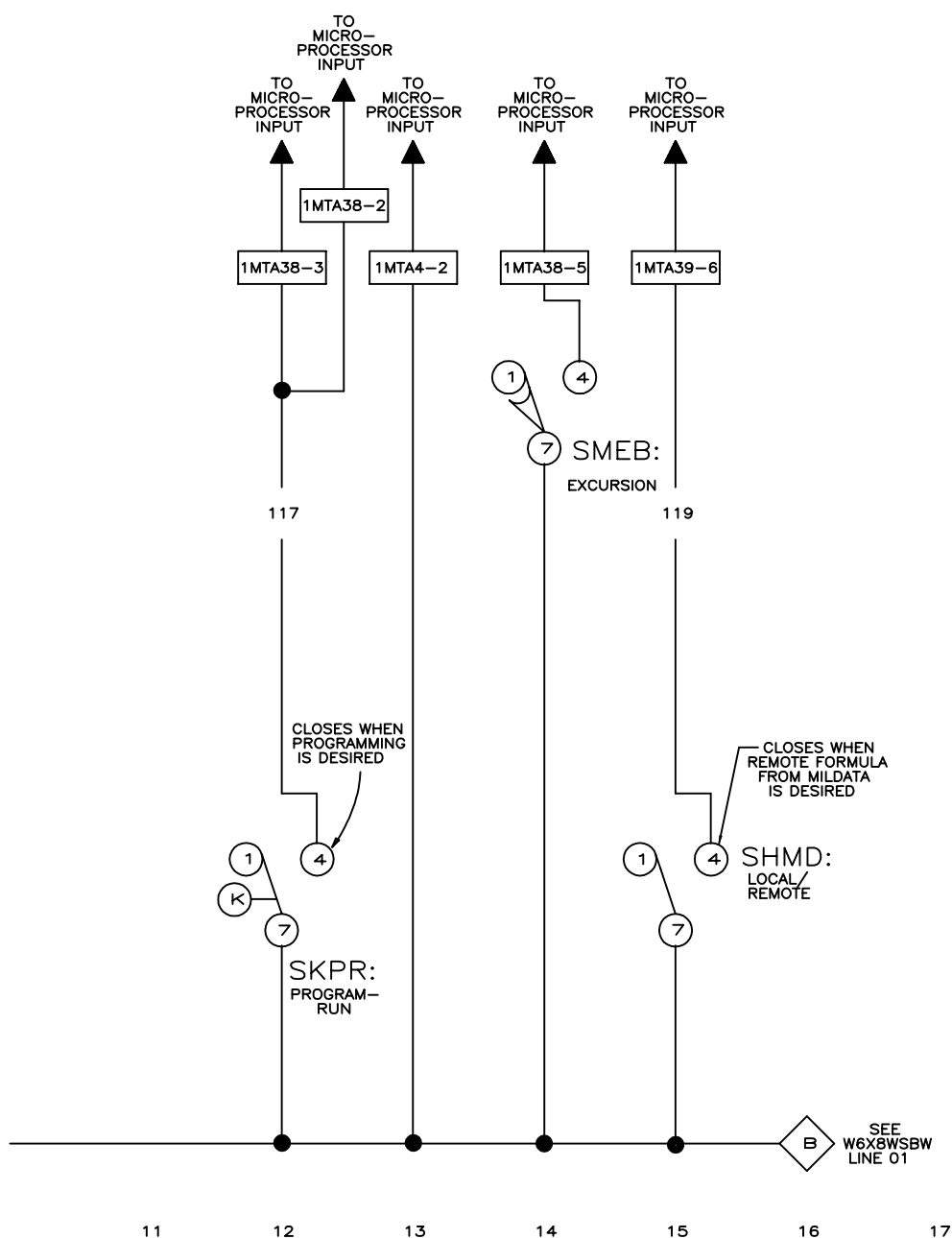
PELLERIN MILNOR CORPORATION

USED ONLY ON MACHINES WITH ALTERNATE DRAIN (BATH SOAK) OPTION. IF MACHINE IS EQUIPED WITH AIR OPERATED VALVES SEE W6F3WSDR.

NOTE: REMOVE (J1) FOR DRAIN TO REUSE OPTION.



1. 1MTA38 AND 1MTA39 ARE LOCATED ON BPB (PROCESSOR BOARD).
2. 1MTA3 AND 1MTA4 ARE LOCATED ON BIO-1 (8 OUTPUT-16 INPUT BOARD).
3. TBR, TBP, AND TB3 (COPPER BUS BAR) ARE LOCATED IN LOW VOLTAGE CONTROL BOX.
4. INVERTER FAULT CONTACTS TBV-MA AND MC ARE FOR GPD505 INVERTER. FOR GPD503 CONTACTS ARE TBV18 AND 20.
5. W1 IS LOCATED ON THE BSP (SPEED SENSING BOARD).



W6X8WS11A

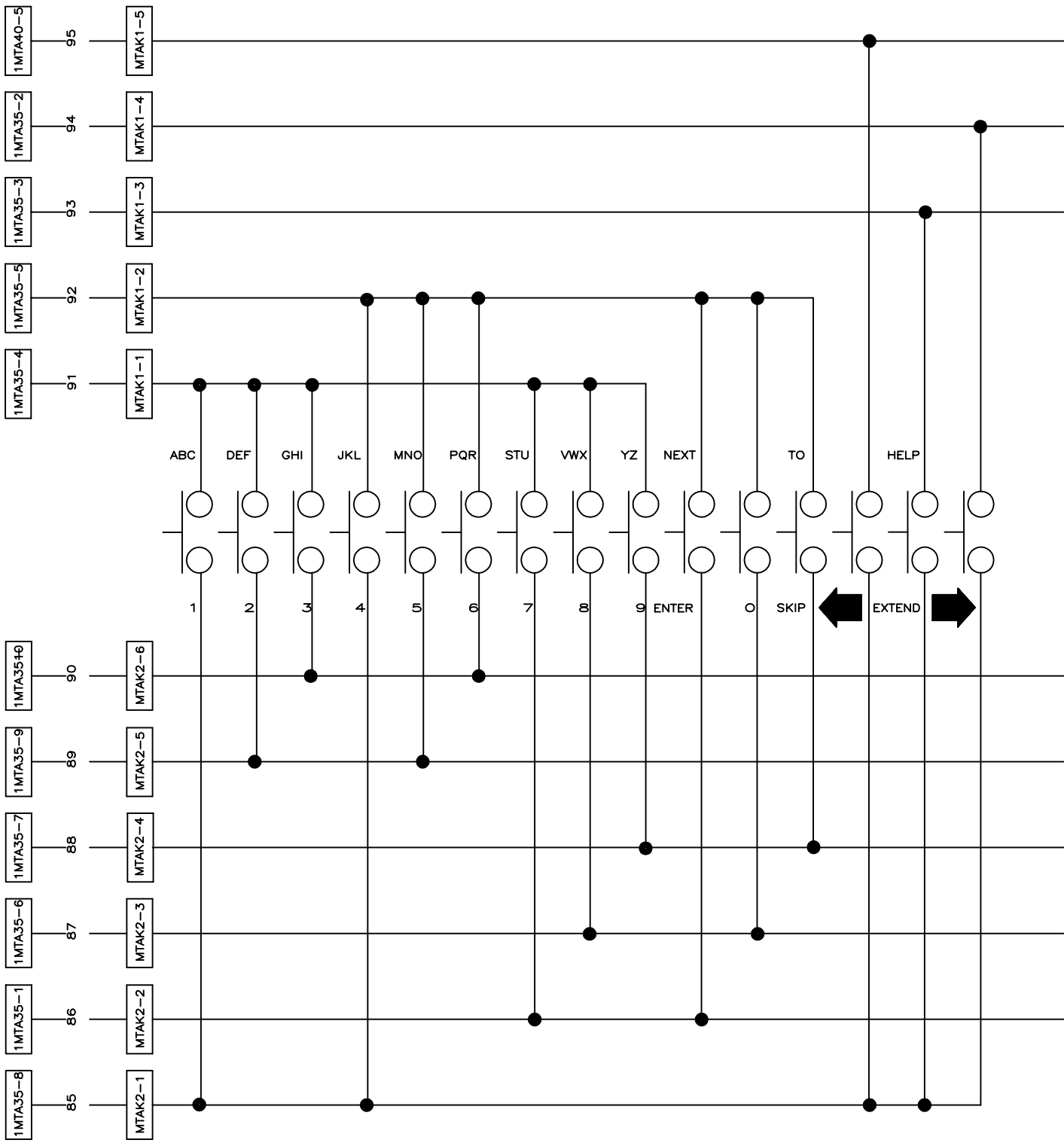
MICRO 6 SYSTEMS

MARK V CONTROLS

186 PROCESSOR

SCHEMATIC: MICROPROCESSOR INPUTS

PELLERIN MILNOR CORPORATION



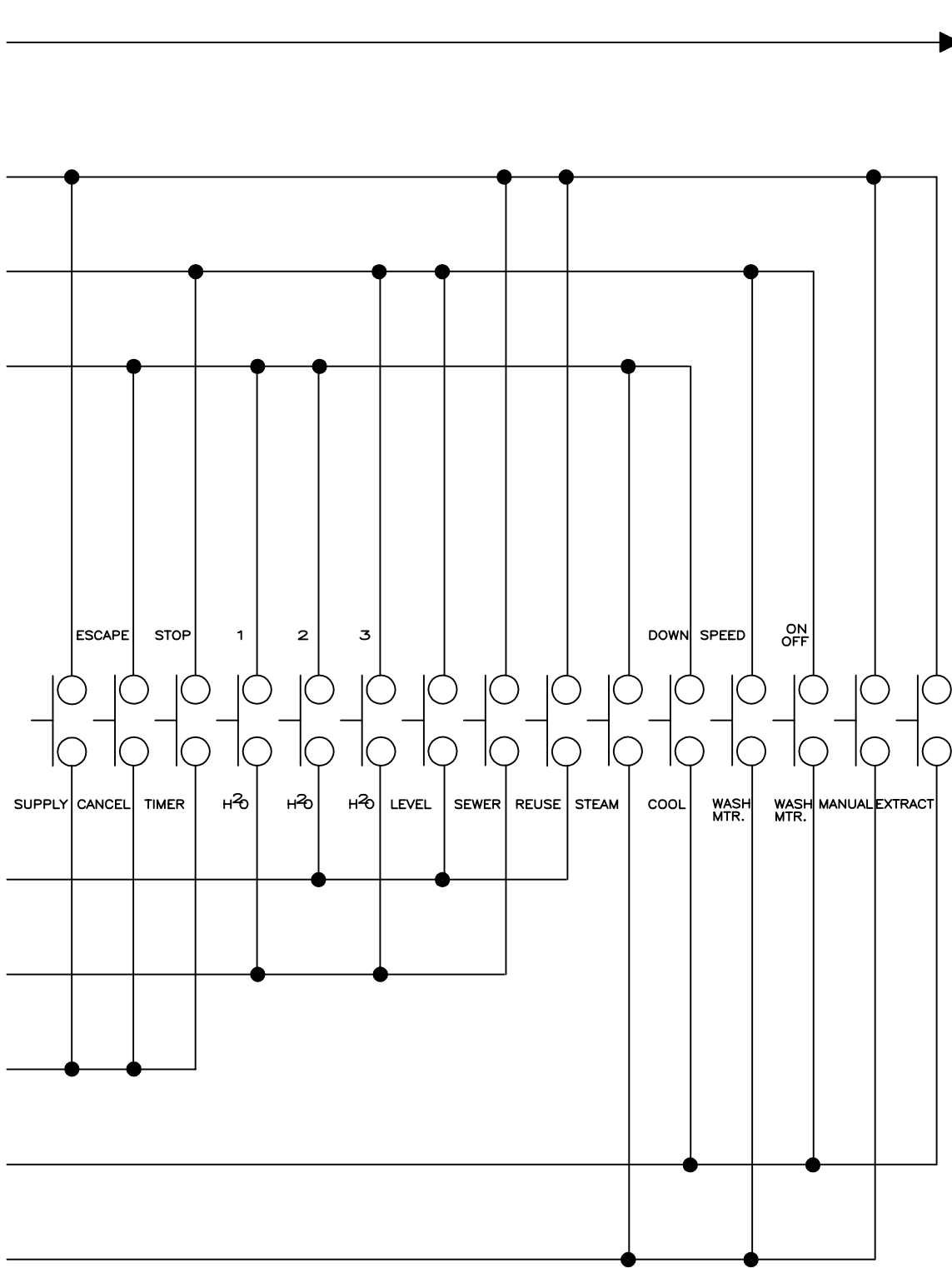
LITHO IN U.S.A.

W6X8WSKP

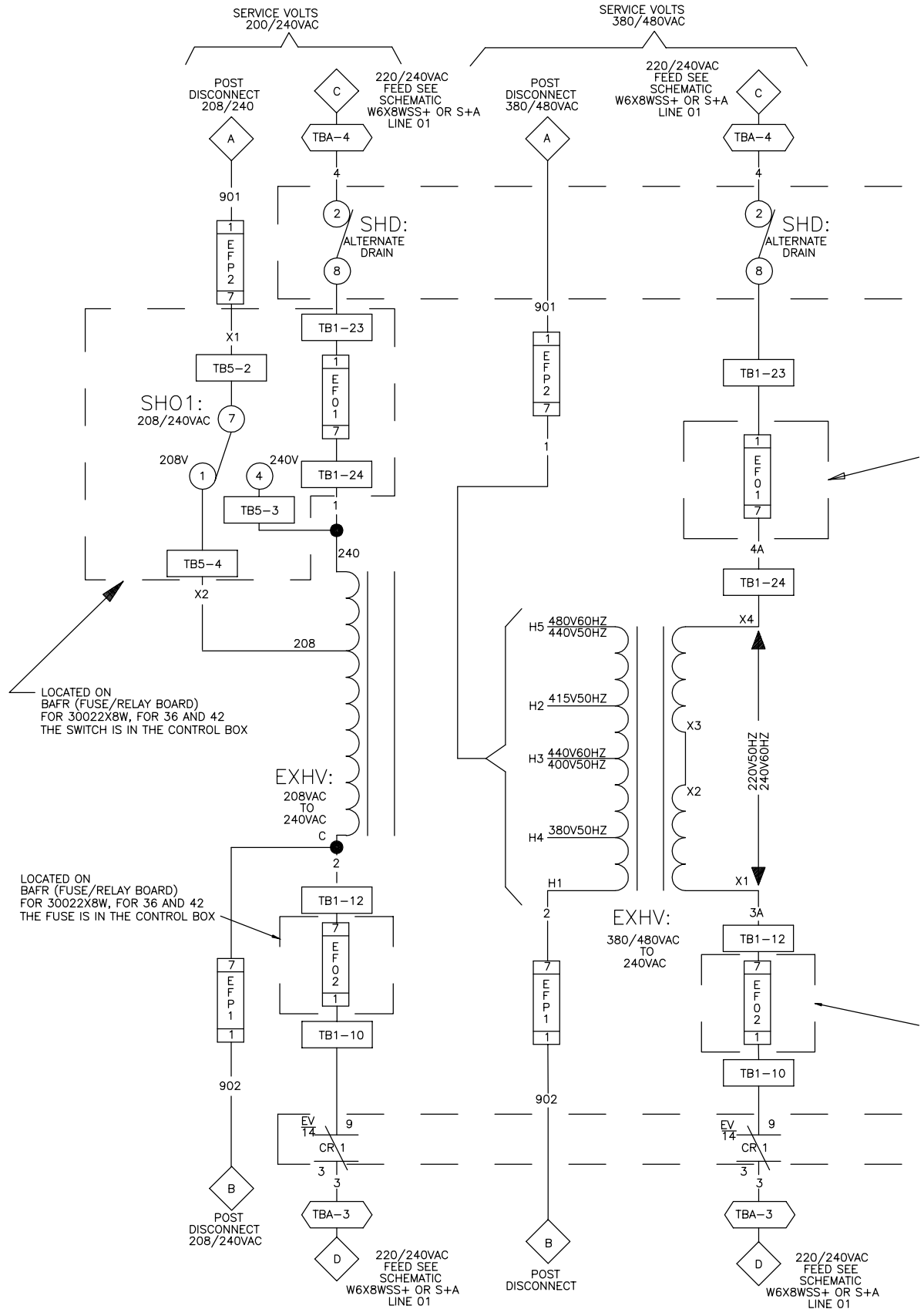
MICRO 6 SYSTEMS

SCHEMATIC: KEYPAD (SERIAL CONTROLS)

PELLERIN MILNOR CORPORATION



- NOTES:
1. MTAK1 & MTAK2 ARE LOCATED ON KEYPAD.
 2. 1MTA35 & 1MTA40 ARE LOCATED ON BPB (PROCESSOR BOARD).



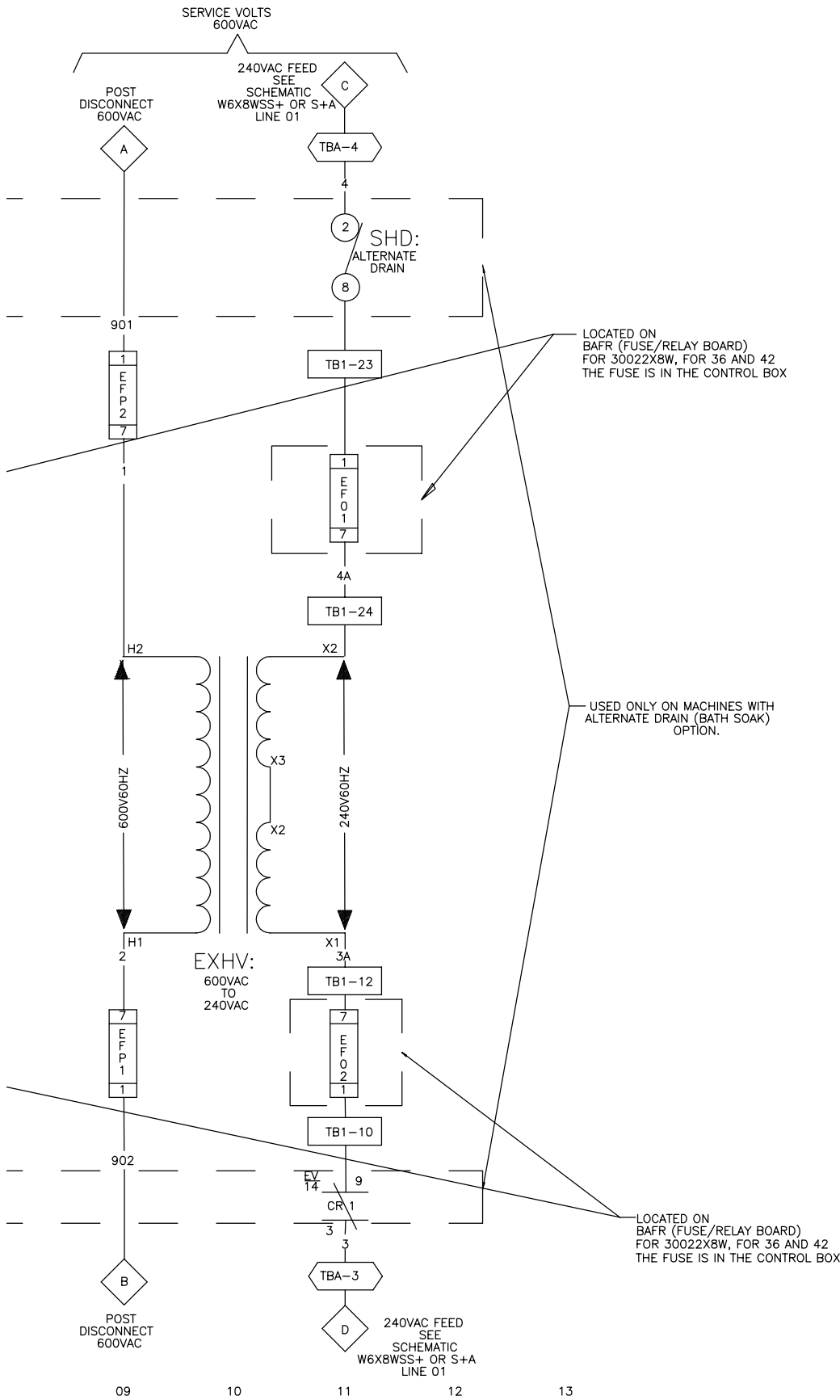
W6X8WSLV

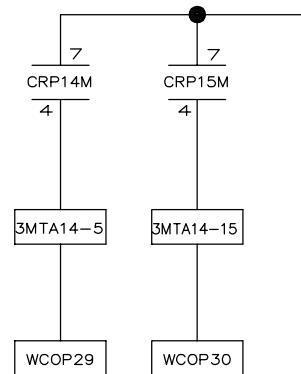
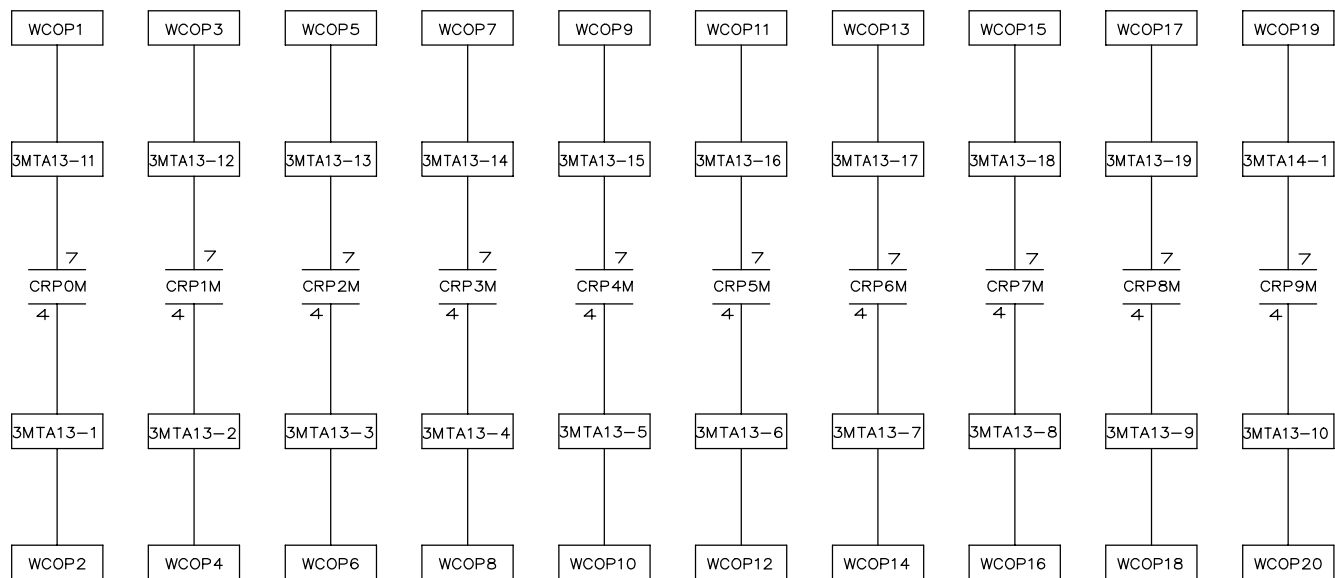
MICRO 6 SYSTEMS MARK V

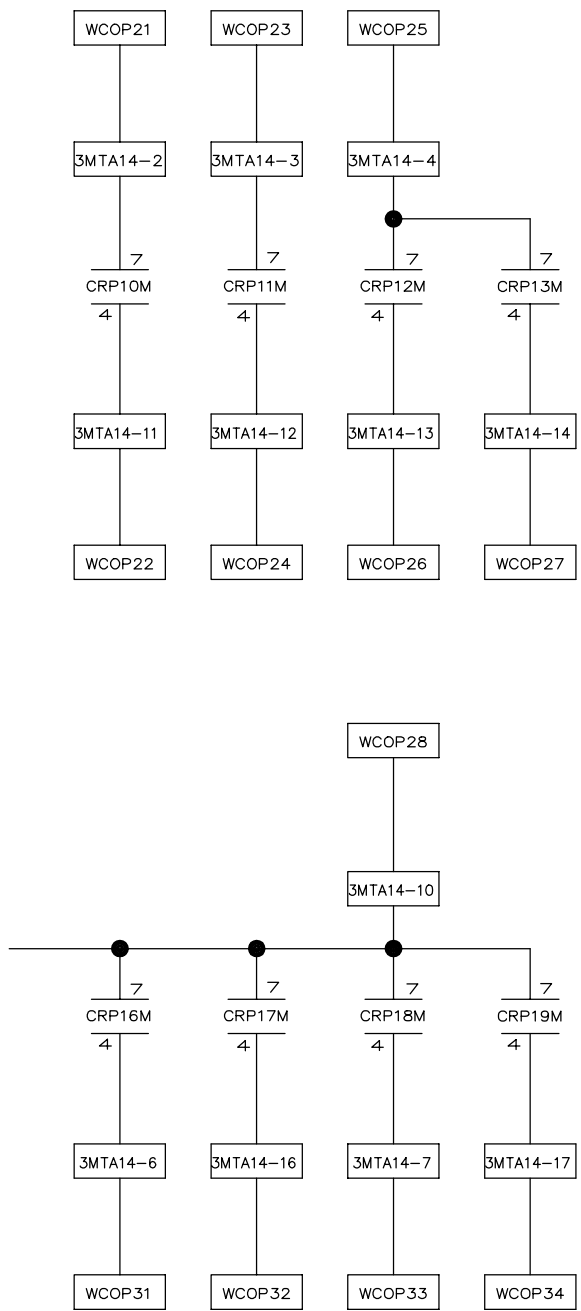
SCHEMATIC:CONTROL CIRCUIT TRANSFORMER

220V1P50HZ/240V1P60HZ

PELLERIN MILNOR CORPORATION







11 12 13 14 15 16 17

W6X8WSOP

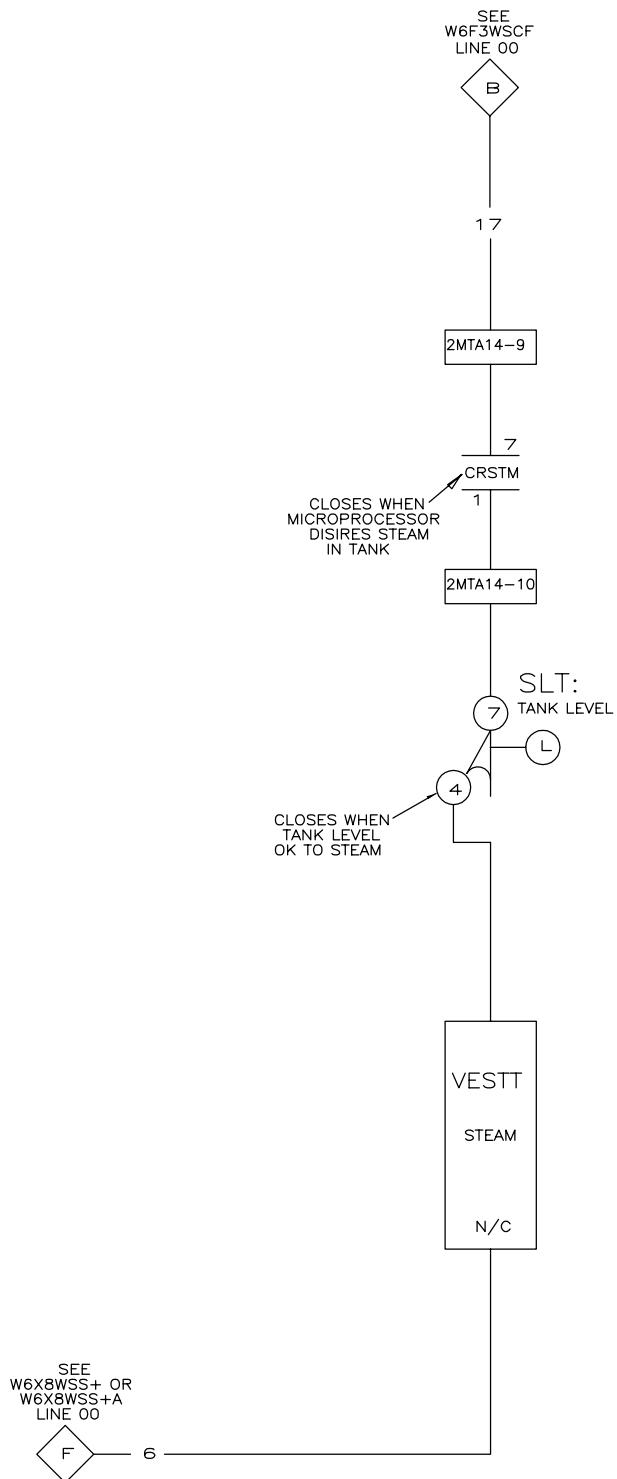
MICRO 6 SYSTEMS SERIAL CONTROLS

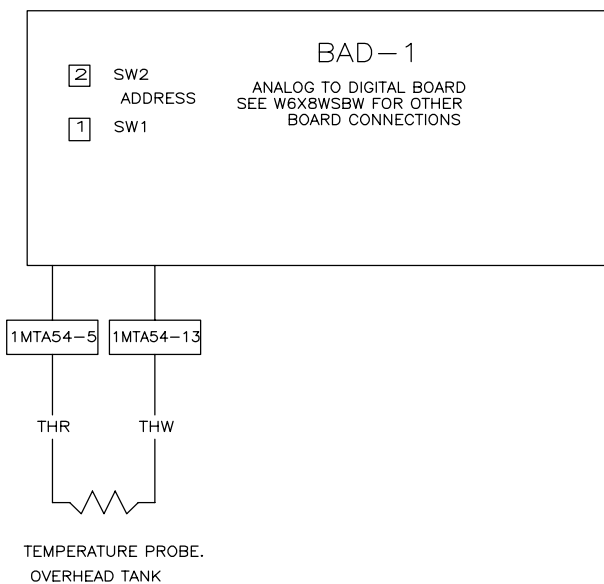
SCHEMATIC: 20 OPTIONAL PROGRAMABLE OUTPUTS

W6X8WSOP
2004326B

PELLERIN MILNOR CORPORATION

W6X8WSOP
2004326B





W6X8WSRT

MICRO 6 SYSTEMS

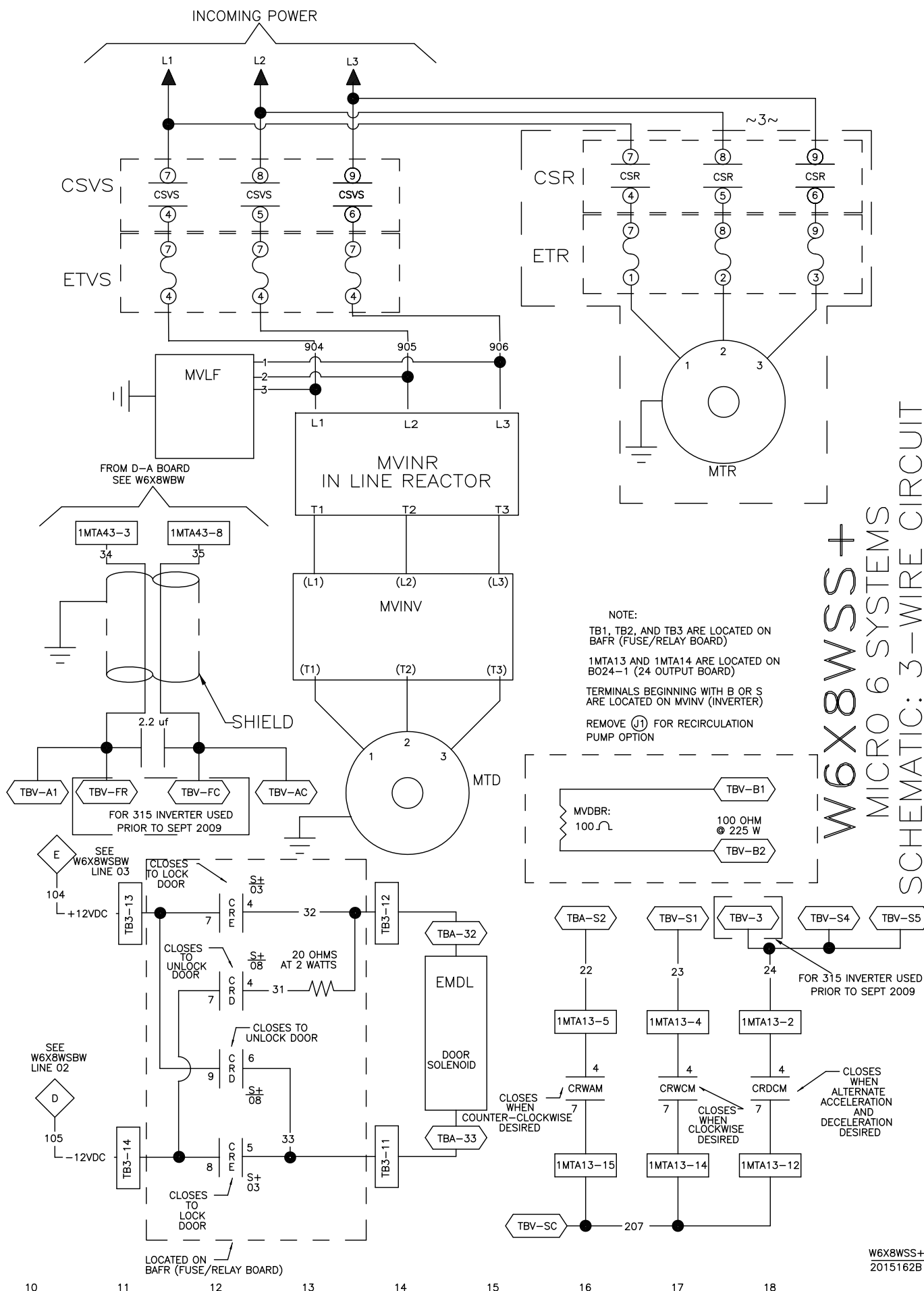
MARK V CONTROLS

SCHEMATIC: TANK WITH STEAM

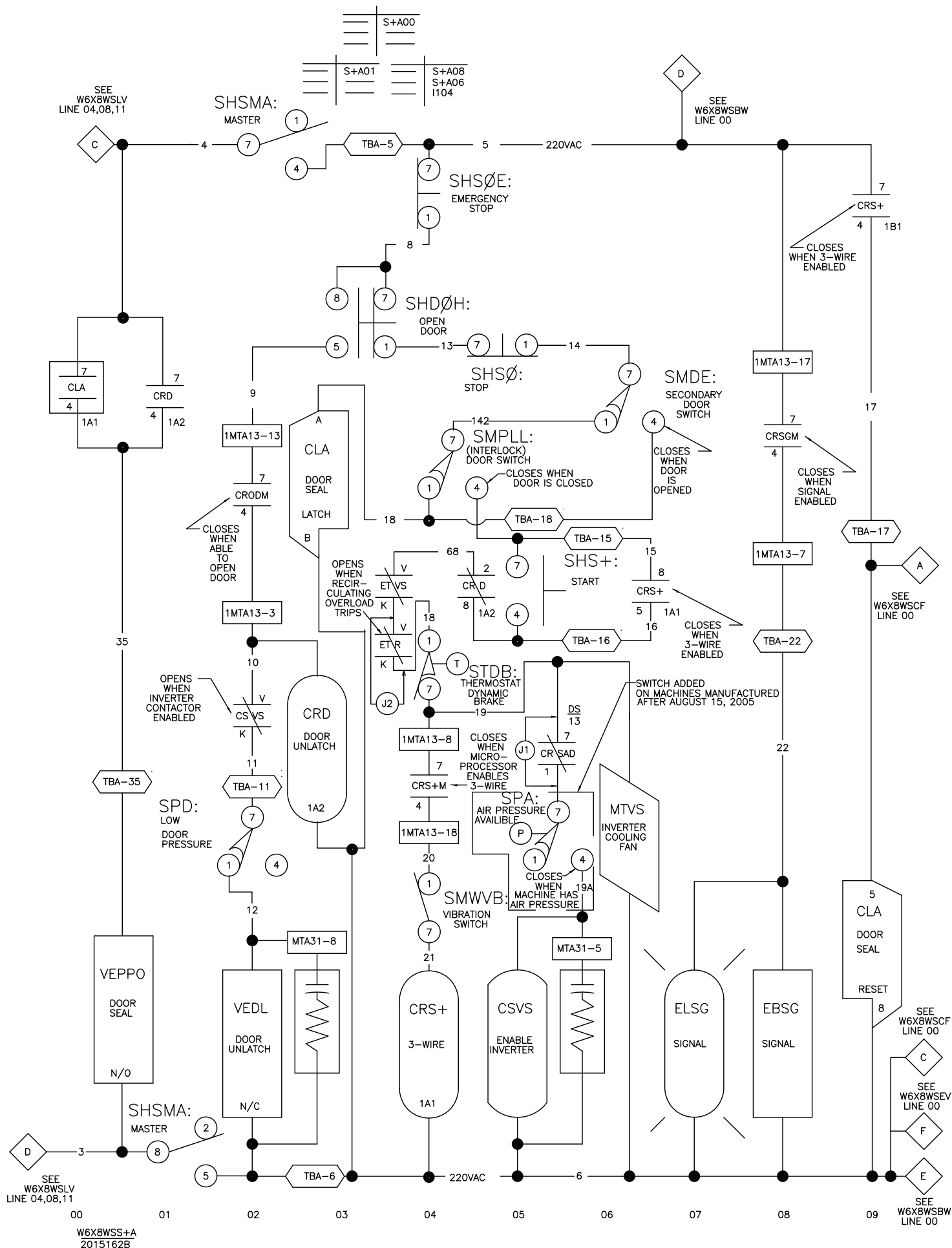
220V1P50HZ/240V1P60HZ

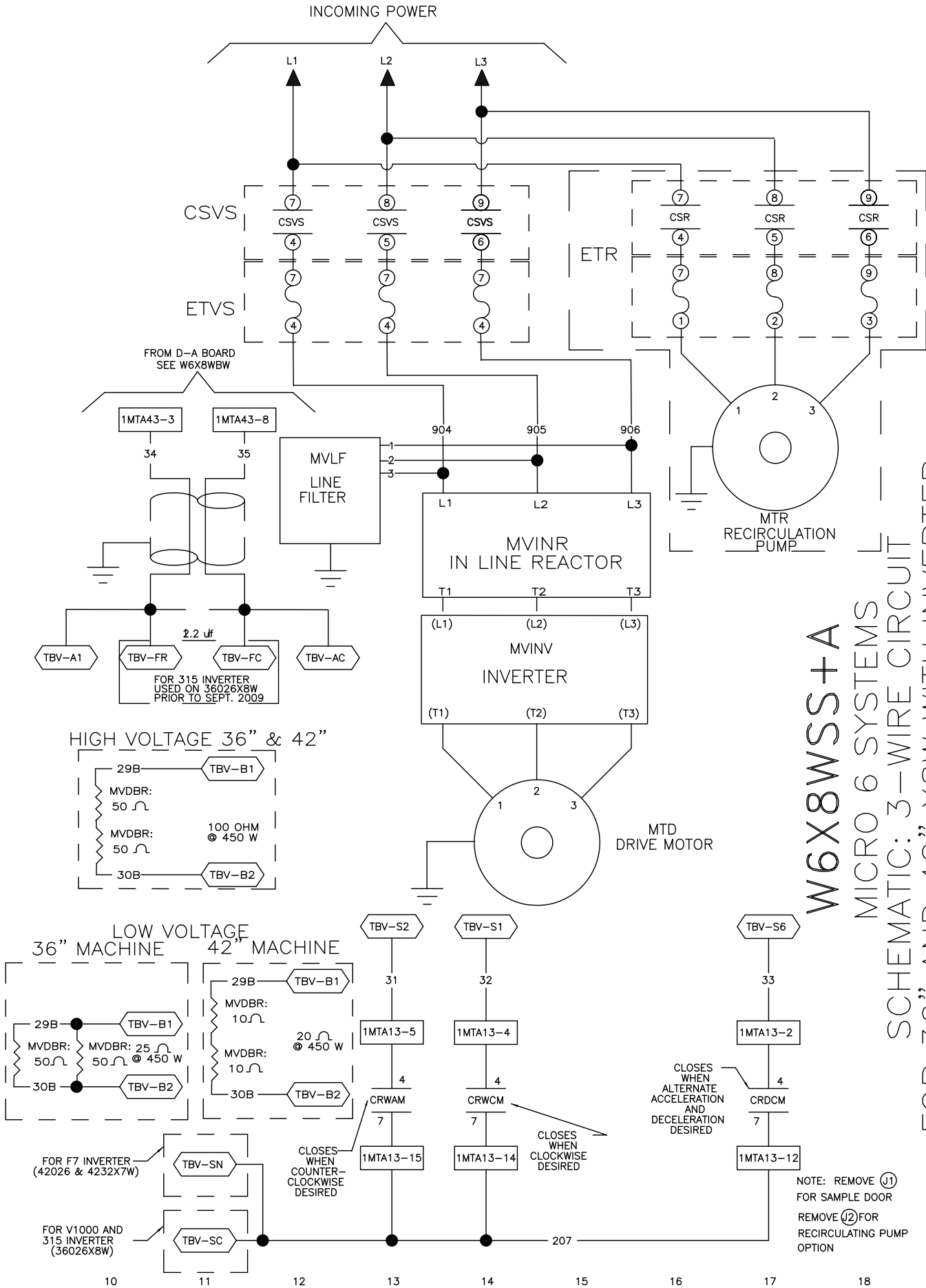
PELLERIN MILNOR CORPORATION

W6X8WSRT
2012216B



W6X8WSS+
2015162B





W6X8WSS+A
MICRO 6 SYSTEMS
SCHEMATIC: 3-WIRE CIRCUIT
FOR 36" AND 42" X8W WITH INVERTER
220V1P50HZ/240V1P60HZ
PELLERIN MILNOR CORPORATION