



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

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Schematic/Electrical Parts

36030F8R, F8S,

42032F7R, F7S

MARK V CONTROLS



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COMPONENT PARTS LIST

<u>COMPONENT NUMBER</u>	<u>FUNCTION OF THIS COMPONENT NUMBER</u>	<u>WHERE TO FIND THIS COMPONENT</u>	<u>MILNOR P/N</u>	<u>DESCRIPTION</u>	<u>LOCATION</u>
	>>>CONTROL BOX LAYOUTS				
0010	DETAIL-36030 F8S CONTROL BOX	W6F3STG1	B2TAG98021	36030 F8S CONTROL BOX	SEE FUNCTION
0020	DETAIL-186 PROCESSOR BOX	W6F3STG1	B2TAG98040	186 PROCESSOR BOX	SEE FUNCTION
0030	DETAIL-42032F7S CONTROL BOX	W6F3STG2	B2TAG98049	42032 F7S CONTROL BOX	SEE FUNCTION
0040	DETAIL-F8S CONTROL BOARD I/O	W6F3STG2	B2TAG97092	CONTROL BOARDS INPUT/OUTPUTS	SEE FUNCTION
A	>>>ACCELEROMETER				
ACBA	ACCELEROMETER-BALANCE	W6F3SEC	30K205B	ACELROMETR 0-2G IC. SEN#3145-002	DOOR LATCH
BA	>>>PRINTED CIRCUIT BOARDS				
BAD-1	BOARD-ANALOG TO DIGITAL CONVERTER	W6F3SBWA	08BSADCT	BD: SERIAL A-D CONVERT->TEST	CONTROL BOX
BBAD-1	BOARD-BALANCE A TO D CONVERTER	W6F3SEC	08BSBADCT	SERIAL BALANCE A-D BD-TEST	LOW VOLT BOX
BBB-1	BOARD-MEMORY BATTERY BACKUP	W6F3SBWA	08BSBB1T	BOARD: SER BATT BACKUP-TEST	PROCESSOR BX
BDA-1	BOARD-DIGITAL TO ANALOG CONVERTOR	W6F3SBWA	08BSDACHT	BD:HI-RES SERIAL D-A->TEST	CONTROL BOX
BDVFD	DISPLAY-MICROPROCESSOR	W6F3SBWA	08BSEVFD5V	BD: SERIAL VFD 2LINE 186-19200B-TEST	SWITCH PANEL
BIO-1	BOARD-8OUTPUT/16INPUT #1	W6F3SBWA	08BS816CHT	BD 8OUT-16IN HIGH SPD->TEST	CONTROL BOX
BIO-2	BOARD-8OUTPUT/16INPUT #1	W6F3SBWA	08BS816CT	BD 8OUT-16IN HIGH SPD->TEST	CONTROL BOX
BIO-3	BOARD-8OUTPUT/16INPUT #1	W6F3SBWA	08BS816CAT	BD 8OUT-16IN HIGH SPD->TEST	CONTROL BOX
BLB	BOARD-LEVEL TRANSDUCER	W6F3SBWA	08BNLT	LEVEL TRANSDUCER BD->TEST	CONTROL BOX
BLB	BOARD-LEVEL RECEIVER/TRANSDUCER	W6F3SEC	08BNLT	LEVEL TRANSDUCER BD->TEST	LOW VOLT BOX
BMTH	BOARD-5 CHANNEL MOTHER	W6F3SBWA	08BS5MTHAT	BD: SERIAL 5 CARD MOTHER->TEST	CONTROL BOX
BO24-1	BOARD-24 OUTPUT #1	W6F3SBWA	08BSO24AT	BD:SERIAL 24 OUTPUT->TEST	CONTROL BOX
BO24-2	BOARD-24 OUTPUT #2	W6F3SBWA	08BSO24AT	BD:SERIAL 24 OUTPUT->TEST	CONTROL BOX
BO24-3	BOARD-24 OUTPUT #3	W6F3SBWA	08BSO24AT	BD:SERIAL 24 OUTPUT->TEST	CONTROL BOX
BPB	BOARD-186 PROCESSOR	W6F3SBWA	08BSPE2T	186 PROC BD+FP->TEST	PROCESSOR BX
BSP	BOARD-SPEED SENSING	W6F3SBWA	08BNDSRAT	BD:DRY SAFETY ROTATION->TEST	CONTROL BOX
CD	>>>RELAY-TIME DELAY				
CDPCS	DELAY-DOOR SEAL SOIL SIDE	W6F3SAS	08TF030A71	ELECT ADJ RELAY .5-30 240V5/6	CONTROL BOX
CDS+N	DELAY-SOIL DOOR LATCH	W6F3SAS	08TF030A71	ELECT ADJ RELAY .5-30 240V5/6	CONTROL BOX
CL	>>>RELAY-LATCH				
CLA	LATCH-DOOR SEAL	W6F3SS+A	09CL2C-C71	RELAY-LATCH DPDT 240V 2-COIL	CONTROL BOX
CLA	LATCH-DOOR SEAL	W6F3SS+B	09CL2C-C71	RELAY-LATCH DPDT 240V 2-COIL	CONTROL BOX
CLPCC	LATCH-CLEAN SIDE	W6F3SAS	09CL2C-C71	RELAY-LATCH DPDT 240V 2-COIL	CONTROL BOX
CP	>>>PHOTOEYE				
CPSP	PHOTOEYE-SPEED	W6F3SBWA	09RPE013	SENSOR E-Z BEAM DC	MAIN PULLEY

COMPONENT PARTS LIST

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CR	>>>RELAY-PILOT OR CONTROL				
CR1	RELAY-FLASHING LIGHT	W6F3SAS	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX
CRC01	RELAY-INTERPRET RELAY #1	W6F3SCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INT RELAY BX
CRC02	RELAY-INTERPRET RELAY #2	W6F3SCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INT RELAY BX
CRC03	RELAY-INTERPRET RELAY #3	W6F3SCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INT RELAY BX
CRC04	RELAY-INTERPRET RELAY #4	W6F3SCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INT RELAY BX
CRC05	RELAY-INTERPRET RELAY #5	W6F3SCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INT RELAY BX
CRC06	RELAY-INTERPRET RELAY #6	W6F3SCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INT RELAY BX
CRC07	RELAY-INTERPRET RELAY #7	W6F3SCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INT RELAY BX
CRC08	RELAY-INTERPRET RELAY #8	W6F3SCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INT RELAY BX
CRC09	RELAY-INTERPRET RELAY #9	W6F3SCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INT RELAY BX
CRC10	RELAY-INTERPRET RELAY #10	W6F3SCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INT RELAY BX
CRC11	RELAY-INTERPRET RELAY #11	W6F3SCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INT RELAY BX
CRC12	RELAY-INTERPRET RELAY #12	W6F3SCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INT RELAY BX
CRC13	RELAY-INTERPRET RELAY #13	W6F3SCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INT RELAY BX
CRC14	RELAY-INTERPRET RELAY #14	W6F3SCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INT RELAY BX
CRC15	RELAY-INTERPRET RELAY #15	W6F3SCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INT RELAY BX
CRD	RELAY-DOOR UNLATCH	W6F3SS+A	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX
CRD	RELAY-DOOR UNLATCH	W6F3SS+B	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX
CRIF	RELAY-INVERTER FAULT	W6F3SS+B	09C02DDDD24	RELAY 3PDT SILVER 11PIN 24VDC	CONTROL BOX
CRPCC	RELAY-CLEAN SIDE HAS CONTROL	W6F3SAS	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX
CRPLL	RELAY-CLEAN SIDE DOOR CLOSED	W6F3SS+	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX
CRPLL	RELAY-CLEAN SIDE DOOR CLOSED	W6F3SS+A	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX
CRPLL	RELAY-CLEAN SIDE DOOR CLOSED	W6F3SS+B	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX
CRPOT	RELAY-SPOT SOIL DOOR	W6F3SAS	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX
CRS+	RELAY-START 3-WIRE	W6F3SS+	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX
CRS+	RELAY-START 3-WIRE	W6F3SS+A	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX
CRS+	RELAY-START 3-WIRE	W6F3SS+B	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX
CRSDR	RELAY-SOIL DOOR CLOSED	W6F3SAS	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX
CS	>>>CONTACTOR-MOTOR STARTER				
CSVS	CONTACTOR-VARIABLE SPEED	W6F3SS+	09MC08G371	37A 3P MCS CONT NR 240V5/6	CONTROL BOX
CSVS	CONTACTOR-VARIABLE SPEED	W6F3SS+A	09MC08J371	43A 3P MCS CONT NR 240V5/6	CONTROL BOX
CSVS	CONTACTOR-VARIABLE SPEED	W6F3SS+B	09MC08J371	43A 3P MCS CONT NR 240V5/6	CONTROL BOX

COMPONENT PARTS LIST

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EB	>>>BUZZER OR AUDIBLE SIGNAL				
EBPCC	BUZZER-CLEAN SIDE SIGNAL AUDIBLE	W6F3SAS	09H016	BUZZ. 230V W/6-32 CTR+6" LEADS	CLEAN SWPNL
EBSG	BUZZER-SIGNAL AUDIBLE	W6F3SS+	09H016	BUZZ. 230V W/6-32 CTR+6" LEADS	SWITCH PANEL
EBSG	BUZZER-SIGNAL AUDIBLE	W6F3SS+A	09H016	BUZZ. 230V W/6-32 CTR+6" LEADS	SWITCH PANEL
EBSG	BUZZER-SIGNAL AUDIBLE	W6F3SS+B	09H016	BUZZ. 230V W/6-32 CTR+6" LEADS	SWITCH PANEL
EF	>>>FUSE OR FUSE HOLDER				
EF01	FUSE-CONTROL CIRCUIT	W6F3SLV	09FF006AMA	FUSE BK/ABC 6 AMP 250V BUSS	CONTROL BOX
EF02	FUSE-CONTROL CIRCUIT	W6F3SLV	09FF006AMA	FUSE BK/ABC 6 AMP 250V BUSS	CONTROL BOX
EF1	FUSE-PRIMARY INCOMING VOLTAGE	W6F3SLV	09FF005AWN	BUSE BUSS KTK 5AMP 600V=HPS HOLDER	CONTROL BOX
EF2	FUSE-PRIMARY INCOMING VOLTAGE	W6F3SLV	09FF005AWN	BUSE BUSS KTK 5AMP 600V=HPS HOLDER	CONTROL BOX
EL	>>>LIGHT-PILOT OR INDICATOR				
ELPCG	LIGHT-CLEAN SIDE HAS CONTROL	W6F3SAS	09J060B71	LAMP 1/2" B/G 250V IDI 1050P73	CLEAN SWPNL
ELPCR	LIGHT-CLEAN SIDE DOES NOT CONTROL	W6F3SAS	09J060A71	LAMP 1/2" AMB 250V IDI 1051QC3	CLEAN SWPNL
ELPSG	LIGHT-SOIL SIDE HAS CONTROL	W6F3SAS	09J060B71	LAMP 1/2" B/G 250V IDI 1050P73	SWITCH PANEL
ELSG	LIGHT-SIGNAL VISUAL	W6F3SAS	09J060A71	LAMP 1/2" AMB 250V IDI 1051QC3	SWITCH PANEL
ELSG	LIGHT-SIGNAL VISUAL	W6F3SS+	09J060A71	LAMP 1/2" AMB 250V IDI 1051QC3	SWITCH PANEL
ELSG	LIGHT-SIGNAL VISUAL	W6F3SS+A	09J060A71	LAMP 1/2" AMB 250V IDI 1051QC3	SWITCH PANEL
ELSG	LIGHT-SIGNAL VISUAL	W6F3SS+B	09J060A71	LAMP 1/2" AMB 250V IDI 1051QC3	SWITCH PANEL
EM	>>>ELECTROMAGNET AND SOLENOID				
EMDL	SOLENOID-DOOR LATCH	W6F3SS+	09K062B71	SOLENOID 240/60--220/50 = ILOC	DOOR LATCH
EMDL	SOLENOID-DOOR LATCH	W6F3SS+A	09K062B71	SOLENOID 240/60--220/50 = ILOC	DOOR LATCH
EMDL	SOLENOID-DOOR LATCH	W6F3SS+B	09K062B71	SOLENOID 240/60--220/50 = ILOC	DOOR LATCH
ES	>>>POWER SUPPLY-ELECTRONIC				
ESPS	POWER SUPPLY-MICROPROCESSOR	W6F3SBWA	08PSS3401T	40 WATT POWER SUPPLY TESTED	CONTROL BOX
EST	>>>EMERGENCY STOP				
ESTOP	SWITCH-CLEAN SIDE EMERGENCY STOP	W6F3SS+	09N505	SW ASSY EMER STOP	CLEAN SWPNL
ESTOP	SWITCH-CLEAN SIDE EMERGENCY STOP	W6F3SS+A	09N505	SW ASSY EMER STOP	CLEAN SWPNL
ESTOP	SWITCH-CLEAN SIDE EMERGENCY STOP	W6F3SS+B	09N505	SW ASSY EMER STOP	CLEAN SWPNL
ET	>>>THERMAL OVERLOAD DEVICES				
ETDB	OVERLOAD-DYNAMIC BRAKE	W6F3SS+	09F024A	OL RELAY 1P SZ1 SQD #9065-C01	CONTROL BOX
ETDB	OVERLOAD-DYNAMIC BRAKE	W6F3SS+A	09F024A	OL RELAY 1P SZ1 SQD #9065-C01	CONTROL BOX
ETVS	OVERLOAD-VARIABLE SPEED	W6F3SS+B	09F024A	OL RELAY 1P SZ1 SQD #9065-C01	CONTROL BOX
EX	>>>TRANSFORMERS				

COMPONENT PARTS LIST

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EX37	TRANSFORMER-INCOMING VOLT.120VAC	W6F3SLV	MESSAGE EW	SEE EX37-1, -2, OR -3 FOR VOLTAGE	CONTROL BOX
EX37-1	TRANSFORMER-208 TO 240V	W6F3SLV	09U250AT71	AUTOXFMR 208V-230V 250VA	CONTROL BOX
EX37-2	TRANSFORMER-380/480 TO 240VAC	W6F3SLV	09U200AAB	XFMR 380-480V/240-120V-250VA	CONTROL BOX
EX37-3	TRANSFORMER-600 TO 240VAC	W6F3SLV	09UB100098	BUK/BOST 1KVA 240X480 120/240	CONTROL BOX
KB	>>>KEYBOARD-ELECTRONIC				
KBM	KEYPAD-MICROPROCESSOR	W6F3SKP	08ND5X6WE	KEYPAD:5X6MATRIX WASHER-EXT	SWITCH PANEL
MT	>>>MOTORS				
MTD	MOTOR-DRIVE	W6F3SS+	39G820AATD	10HP 4P 220/380/440 50/60HZ	MACHINE
MTD	MOTOR-DRIVE	W6F3SS+A	39G830AATD	15HP 4P 220/380/440 50/60HZ	MACHINE
MTD	MOTOR-DRIVE	W6F3SS+B	MESSAGE SO	SEE SPECIFIC COMPONENT+NAMEPLATE	MACHINE
MTLF	FILTER-INVERTERMOTOR POWER	W6F3SS+	09MVFILTR1	INCOME POWER FILTER CAP	CONTROL BOX
MTLF	FILTER-INVERTERMOTOR POWER	W6F3SS+A	09MVFILTR1	INCOME POWER FILTER CAP	CONTROL BOX
MTLF	FILTER-INVERTERMOTOR POWER	W6F3SS+B	09MVFILTR1	INCOME POWER FILTER CAP	CONTROL BOX
MTVS	FAN-INVERTOR COOLING	W6F3SS+	13AF100A71	FAN 92CFM230V/60 NEWARK #90F6926	BACK C-BOX
MTVS	FAN-INVERTOR COOLING	W6F3SS+A	13AF235A71	FAN 235CFM 230V 50/60	BACK C-BOX
MTVS	FAN-INVERTOR COOLING	W6F3SS+B	13AF235A71	FAN 235CFM 230V 50/60	BACK C-BOX
MV	>>>MOTOR POWER INVERTERS				
MVDBR	RESISTOR-DYNAMIC BRAKE	W6F3SS+	09MV100RES	RESIST 100 OHM 225WATT ADJ	BELOW C-BX
MVDBR	RESISTOR-DYNAMIC BRAKE	W6F3SS+A	09MV100RES	RESIST 100 OHM 225WATT ADJ	BELOW C-BX
MVDH	INVERTER-WASH MOTOR 380-460V	W6F3SS+	09MWA02496	F7 INVERTER 24 AMP	CONTROL BOX
MVDH	INVERTER-WASH MOTOR 380-460V	W6F3SS+A	09MWA02496	F7 INVERTER 24 AMP	CONTROL BOX
MVDL	INVERTER-WASH MOTOR 200-240V	W6F3SS+	09MWC04774	A1000 INVERTER 47 AMP	CONTROL BOX
MVDL	INVERTER-WASH MOTOR 200-240V	W6F3SS+A	09MWC04774	A1000 INVERTER 47 AMP	CONTROL BOX
MVDL	INVERTER- VARI SPEED 200-240V	W6F3SS+B	09MT042A74	BALDOR INVERTER 42AMP 230V	CONTROL BOX
MVFLT	INV FILTER-DRIVE	W6F3SS+	09MVFILTR1	INCOME POWER FILTER CAP	CONTROL BOX
MVFLT	INV FILTER-DRIVE	W6F3SS+A	09MVFILTR1	INCOME POWER FILTER CAP	CONTROL BOX
PX	>>>PROXIMITY SWITCHES				
XPOT	PROX SW-CYLINDER POSITION	W6F3WS1A	09RPS18ADU	PRXSW QK CONN 18M NO-DC UNSHLD	DRIVE PULLEY
SH	>>>SWITCH-HAND OPERATED				
SH01	SWITCH-208-240V SELECT	W6F3SLV	09N050	TOGSW SPDT NO OFF 10A250V	CONTROL BOX
SHCOR	SWITCH-TRANSFER CONTROL TO SOIL	W6F3S1A	09N405M210	SWASS M2W 1NO	CLEAN SWPNL
SHDOH	SWITCH-DOOR OPEN	W6F3SS+	09N405PB11	SWASS PBBK 1NO/1NC	SWITCH PANEL
SHDOH	SWITCH-DOOR OPEN	W6F3SS+A	09N405PB11	SWASS PBBK 1NO/1NC	SWITCH PANEL

COMPONENT PARTS LIST

W6F3SPL/2011535N

<u>COMPONENT</u>	<u>FUNCTION OF THIS</u>	<u>WHERE TO FIND</u>	<u>MIL/NOR P/N</u>	<u>DESCRIPTION</u>	<u>LOCATION</u>
<u>NUMBER</u>	<u>COMPONENT NUMBER</u>	<u>THIS COMPONENT</u>			
SHDOH	SWITCH-DOOR OPEN	W6F3SS+B	09N405PB11	SWASS PBBK 1NO/1NC	SWITCH PANEL
SHDOS	SWITCH-DOOR OPEN SOIL SIDE	W6F3SS+	09N405PB12	SWASS PB BLUE 1NO/2NC	SOIL DR SWPNL
SHDOS	SWITCH-DOOR OPEN SOIL SIDE	W6F3SS+A	09N405PB12	SWASS PB BLUE 1NO/2NC	SOIL DR SWPNL
SHDOS	SWITCH-DOOR OPEN SOIL SIDE	W6F3SS+B	09N405PB12	SWASS PB BLUE 1NO/2NC	SOIL DR SWPNL
SHMD	SWITCH-MILDATA LOCAL/REMOTE	W6F3WS1A	09N405M210	SWASS M2W 1NO	PROCESSOR BX
SHPOT	SWITCH-SOIL DOOR CLOSED	W6F3SAS	09N405PB11	SWASS PBBK 1NO/1NC	SOIL DR SWPNL
SHS+	SWITCH-START	W6F3SS+	09N405PG10	SWASS PB GR 1NO	SWITCH PANEL
SHS+	SWITCH-START	W6F3SS+A	09N405PG10	SWASS PB GR 1NO	SWITCH PANEL
SHS+	SWITCH-START	W6F3SS+B	09N405PG10	SWASS PB GR 1NO	SWITCH PANEL
SHSG	SWITCH-SIGNAL CANCEL	W6F3S1A	09N405PY10	SWASS PB YELLOW 1NO	SWITCH PANEL
SHSMA	SWITCH-MASTER	W6F3SS+	09N405M220	SWASS M2W 2NO	SWITCH PANEL
SHSMA	SWITCH-MASTER	W6F3SS+A	09N405M220	SWASS M2W 2NO	SWITCH PANEL
SHSMA	SWITCH-MASTER	W6F3SS+B	09N405M220	SWASS M2W 2NO	SWITCH PANEL
SHSO	SWITCH-STOP	W6F3SS+	09N405PR01	SWASS PB RD 1NC	SWITCH PANEL
SHSO	SWITCH-STOP	W6F3SS+A	09N405PR01	SWASS PB RD 1NC	SWITCH PANEL
SHSO	SWITCH-STOP	W6F3SS+B	09N405PR01	SWASS PB RD 1NC	SWITCH PANEL
SHSOE	SWITCH-EMERGENCY STOP	W6F3SS+	09N505	SW ASSY EMER STOP	SWITCH PANEL
SHSOE	SWITCH-EMERGENCY STOP	W6F3SS+A	09N505	SW ASSY EMER STOP	SWITCH PANEL
SHSOE	SWITCH-EMERGENCY STOP	W6F3SS+B	09N505	SW ASSY EMER STOP	SWITCH PANEL
SK	>>>SWITCH-KEYLOCK				
SKPR	SWITCH-RUN/PROGRAM (KEY OP)	W6F3S1A	09N127C	KEYSW SPST 7A120VAC SCREW TERM	SWITCH PANEL
SM	>>>SWITCH-MECHANICAL OPERATED				
SMEB	SWITCH-EXCURSION	W6F3S1A	09R021	MICRO SWITCH SPDT SENSING	UNDER SHELL
SMPLC	SWITCH-DOOR CLOSED SOIL SIDE	W6F3SAS	09R012	MICSW SPDT PAINTED BZE6-RN 01	DOOR LATCH
SMPLD	SWITCH-DOOR CLOSED	W6F3SAS	09R012	MICSW SPDT PAINTED BZE6-RN 01	DOOR LATCH
SMPLL	SWITCH-DOOR CLOSED	W6F3SS+	09R014A	MINI-SW SPDT STAKON #V15G1C26	DOOR LATCH
SMPLL	SWITCH-DOOR CLOSED	W6F3SS+A	09R014A	MINI-SW SPDT STAKON #V15G1C26	DOOR LATCH
SMPLL	SWITCH-DOOR CLOSED	W6F3SS+B	09R014A	MINI-SW SPDT STAKON #V15G1C26	DOOR LATCH
SMPLM	SWITCH-2ND DOOR CLOSED	W6F3SS+A	09R014A	MINI-SW SPDT STAKON #V15G1C26	DOOR LATCH
SMPLM	SWITCH-2ND DOOR CLOSED	W6F3SS+B	09R014A	MINI-SW SPDT STAKON #V15G1C26	DOOR LATCH
SMWVB	SWITCH-VIBRATION	W6F3SS+	09R020	SWITCH NC VIBR#WZ-2RW84429-P52	CONTROL BOX
SMWVB	SWITCH-VIBRATION	W6F3SS+A	09R020	SWITCH NC VIBR#WZ-2RW84429-P52	CONTROL BOX
SMWVB	SWITCH-VIBRATION	W6F3SS+B	09R020	SWITCH NC VIBR#WZ-2RW84429-P52	CONTROL 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>
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SP	>>>SWITCH-PRESSURE OPERATED				
SPBR	PRESSURE SW-BRAKE	W6F3S1A	09N082A	PRESSW NASON CLOSE @ 62LB	CONTROL BOX
SPD	PRESSURE SW-LEVEL OK TO OPEN DOOR	W6F3WSS+	09N086A	PRESS SWITCH EATON #738-761	CONTROL BOX
SPD	PRESSURE SW-LEVEL OK TO OPEN DOOR	W6F3WSS+A	09N086A	PRESS SWITCH EATON #738-761	CONTROL BOX
VE	>>>VALVE-ELECTRIC OPERATED				
VEASB	VALVE-AUTOSPOT BRAKE	W6F3SEV	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	AIR VALVE BX
VEC01	VALVE-CHEMICAL #1 FLUSH	W6F3SCF	96P013G71	3/4" 2WAYPLASTCVL 240V/60C	SUPPLY INJEC
VEC02	VALVE-CHEMICAL #2 FLUSH	W6F3SCF	96P013G71	3/4" 2WAYPLASTCVL 240V/60C	SUPPLY INJEC
VEC03	VALVE-CHEMICAL #3 FLUSH	W6F3SCF	96P013G71	3/4" 2WAYPLASTCVL 240V/60C	SUPPLY INJEC
VEC04	VALVE-CHEMICAL #4 FLUSH	W6F3SCF	96P013G71	3/4" 2WAYPLASTCVL 240V/60C	SUPPLY INJEC
VEC05	VALVE-CHEMICAL #5 FLUSH	W6F3SCF	96P013G71	3/4" 2WAYPLASTCVL 240V/60C	SUPPLY INJEC
VEC06	VALVE-CHEMICAL #6	W6F3SCX	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	SUPPLY VLVST
VEC07	VALVE-CHEMICAL #7	W6F3SCX	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	SUPPLY VLVST
VEC08	VALVE-CHEMICAL #8	W6F3SCX	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	SUPPLY VLVST
VEC09	VALVE-CHEMICAL #9	W6F3SCX	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	SUPPLY VLVST
VEC10	VALVE-CHEMICAL #10	W6F3SCX	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	SUPPLY VLVST
VEC11	VALVE-CHEMICAL #11	W6F3SCX	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	SUPPLY VLVST
VEC12	VALVE-CHEMICAL #12	W6F3SCX	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	SUPPLY VLVST
VEC13	VALVE-CHEMICAL #13	W6F3SCX	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	SUPPLY VLVST
VEC14	VALVE-CHEMICAL #14	W6F3SCX	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	SUPPLY VLVST
VEC15	VALVE-CHEMICAL #15	W6F3SCX	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	SUPPLY VLVST
VEDRR	VALVE-REUSE DRAIN	W6F3SEV	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	SUPPLY VLVST
VEDRS	VALVE-DRAIN	W6F3SEV	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	AIR VALVE BX
VEFL	VALVE-FLUSH	W6F3SEV	96D350A71	DRINVAL 3"MTDR 240V 50/60C	REAR OF MACH
VEPCS	VALVE-DOOR SEAL SOIL SIDE	W6F3SCF	96P013G71	3/4" 2WAYPLASTCVL 240V/60C	SUPPLY INJEC
VEPL	VALVE-SOIL DOOR LATCH	W6F3SAS	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	AIR VALVE BX
VEppo	VALVE-DOOR SEAL	W6F3SAS	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	AIR VALVE BX
VEppo	VALVE-DOOR SEAL	W6F3SS+A	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	AIR VALVE BX
VESTM	VALVE-STEAM	W6F3SS+B	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	AIR VALVE BX
VEtCW	VALVE-COOLDOWN-AIR OPERATED	W6F3SEV	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	AIR VALVE BX
VEWBR	VALVE-BRAKE	W6F3SEV	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	AIR VALVE BX
VEWC	VALVE-COLD WATER	W6F3SEV	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	AIR VALVE BX
VEWH	VALVE-HOT WATER	W6F3SEV	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	AIR VALVE BX

COMPONENT PARTS LIST

<u>COMPONENT</u> <u>NUMBER</u>	<u>FUNCTION OF THIS</u> <u>COMPONENT NUMBER</u>	<u>WHERE TO FIND</u> <u>THIS COMPONENT</u>	<u>MILNOR P/N</u>	<u>DESCRIPTION</u>	<u>LOCATION</u>
VEWVX	VALVE-EXTRA WATER	W6F3SEV	96R301A71	1/8" AIRPILOT 3W NC 240V50/60	AIR VALVE BX

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, EX Factory (labor and freight specifically NOT included). 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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BMP720097/19036

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.

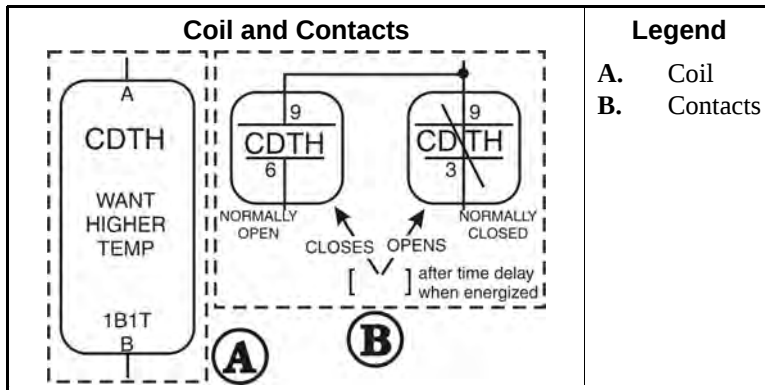
CB=Circuit Breaker (Figure 1)—Automatic switch that opens an electric circuit in abnormal current conditions (e.g., an overload).

Figure 1: Circuit Breaker (CB)



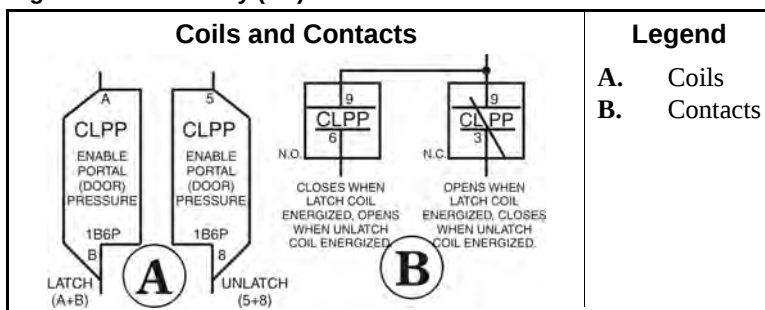
CD=Control, Time Delay Relay (Figure 2)—A relay whose contacts switch only after a fixed or adjustable delay, once voltage has been applied to its coil. The contacts switch back to normal (de-energized state) immediately when the voltage is removed.

Figure 2: Time Delay Relay (CD)



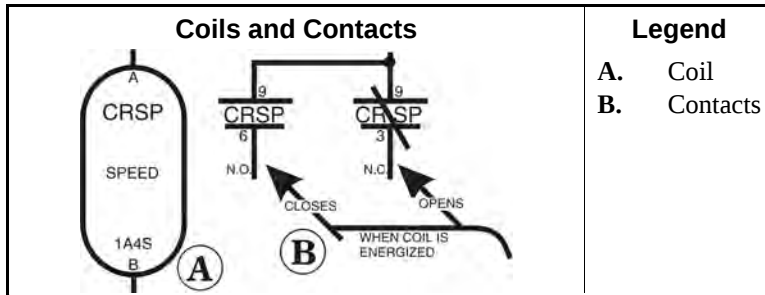
CL=Control, Latch Relay (Figure 3)—A relay which latches in an energized or set position when operated by one coil (the latch/set coil). The relay stays latched even though coil voltage is removed. The relay releases or unlatches when voltage is applied to a second coil (the unlatch/reset coil).

Figure 3: Latch Relay (CL)



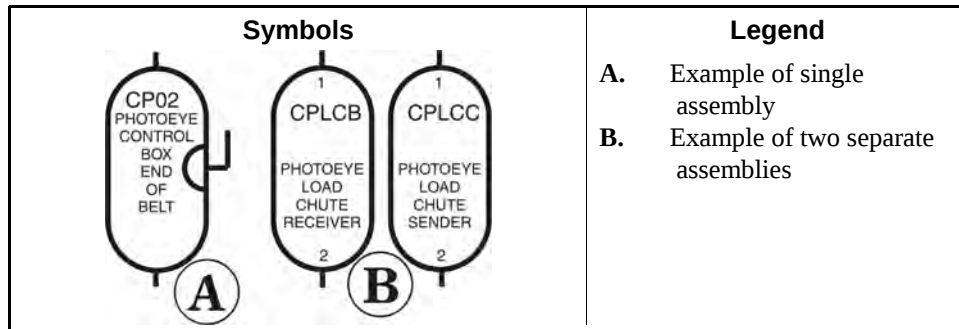
CR=Control, Relay (Figure 4)—A relay whose contacts switch immediately when voltage is applied to its coil and revert to normal when the voltage is removed.

Figure 4: Standard Relay (CR)



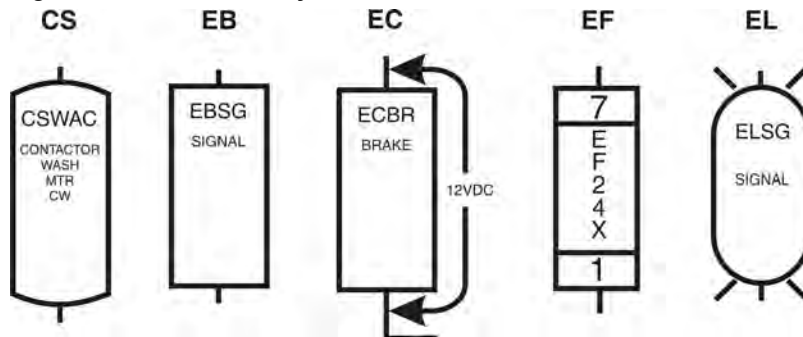
CP=Control, Photo-Eye (Figure 5)—Photo-eyes sense the presence of an object without direct physical contact. Photo-eyes consist of a transmitter, receiver, and output module. These components may be housed in one assembly with the transmitter bouncing light off of a reflector to the receiver, or these 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.

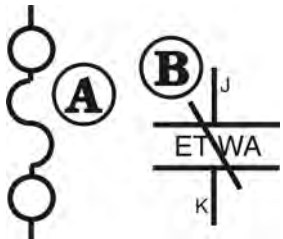
EL=Electric Light (Figure 6)—Indicator lights may be either incandescent or fluorescent.

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.

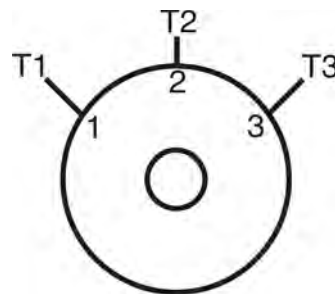
MN=Electronic Monitor (CRT)—A cathode ray tube used for visual presentation of data.

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

Figure 8: Transformer (EX)



Figure 9: Electric Motor (MR)

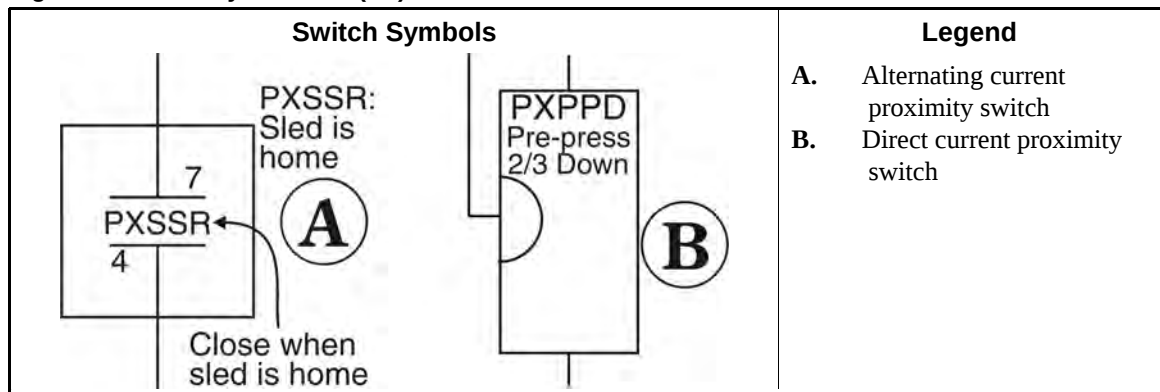


MV=Motor (Variable Speed) Inverter—To vary the speed of an AC motor, the volts to frequency ratio must be kept constant. The motor will overheat if this ratio is not maintained. The motor variable speed inverter converts three phase AC to DC. The inverter then uses this DC voltage to generate AC at the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

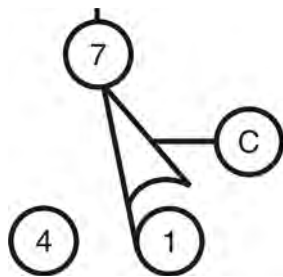
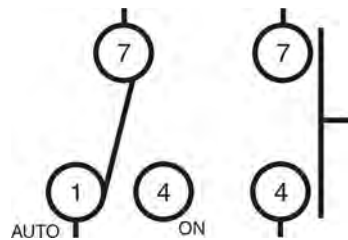


Figure 12: Hand Operated Switch (SH)



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)

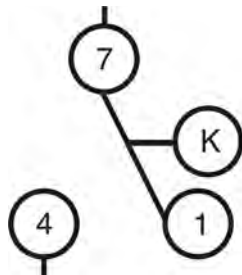
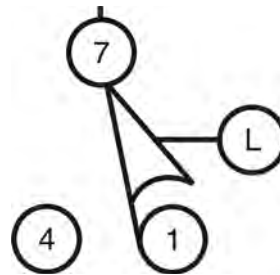


Figure 14: Level Switch (SL)



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)

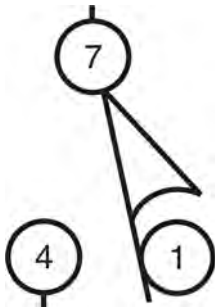
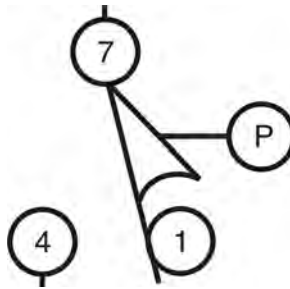


Figure 16: Pressure Switch (SP)



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)

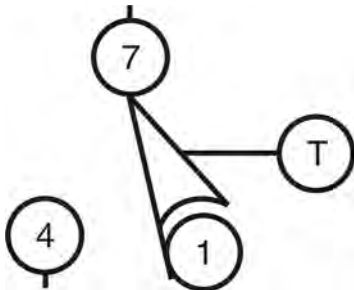
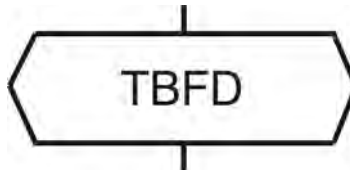


Figure 18: Terminal Board (TB)



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)

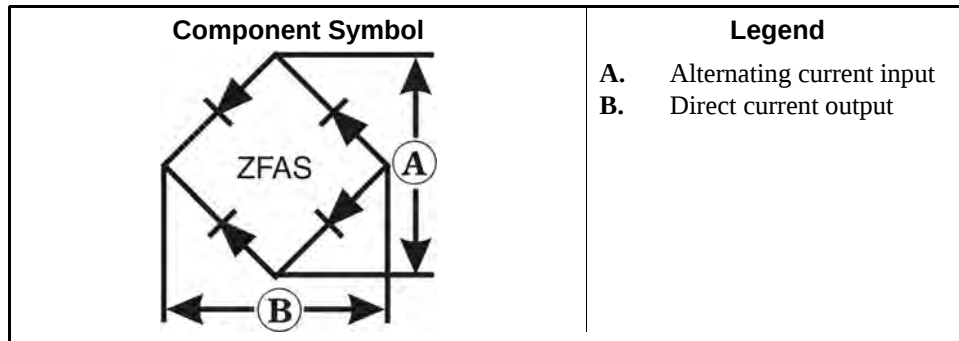
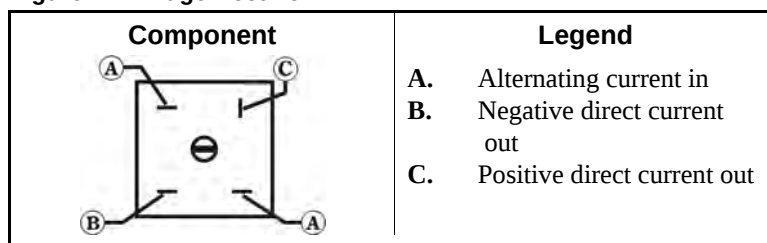


Figure 21: Bridge Rectifier



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.

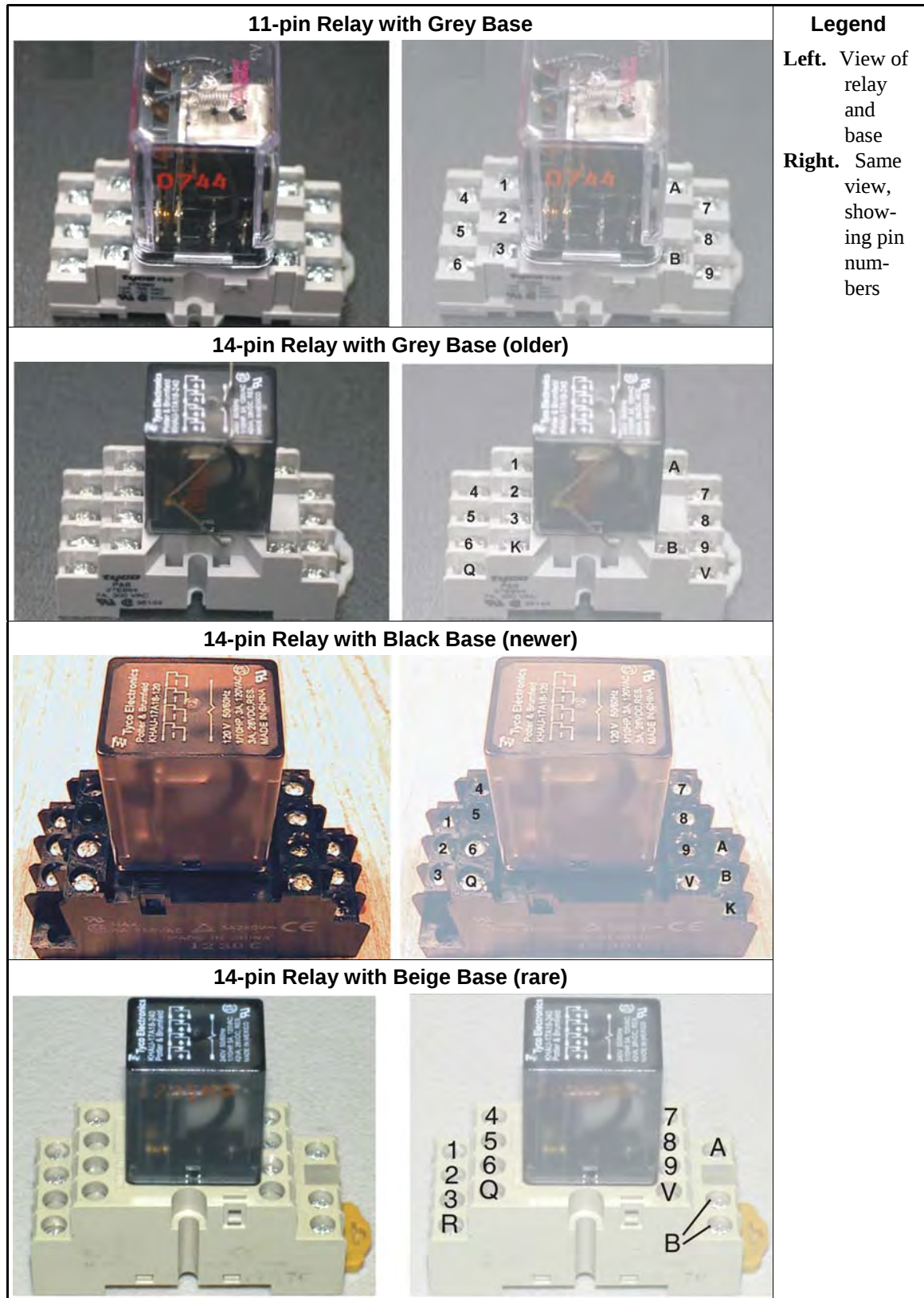
2. Component Terminal Numbering



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

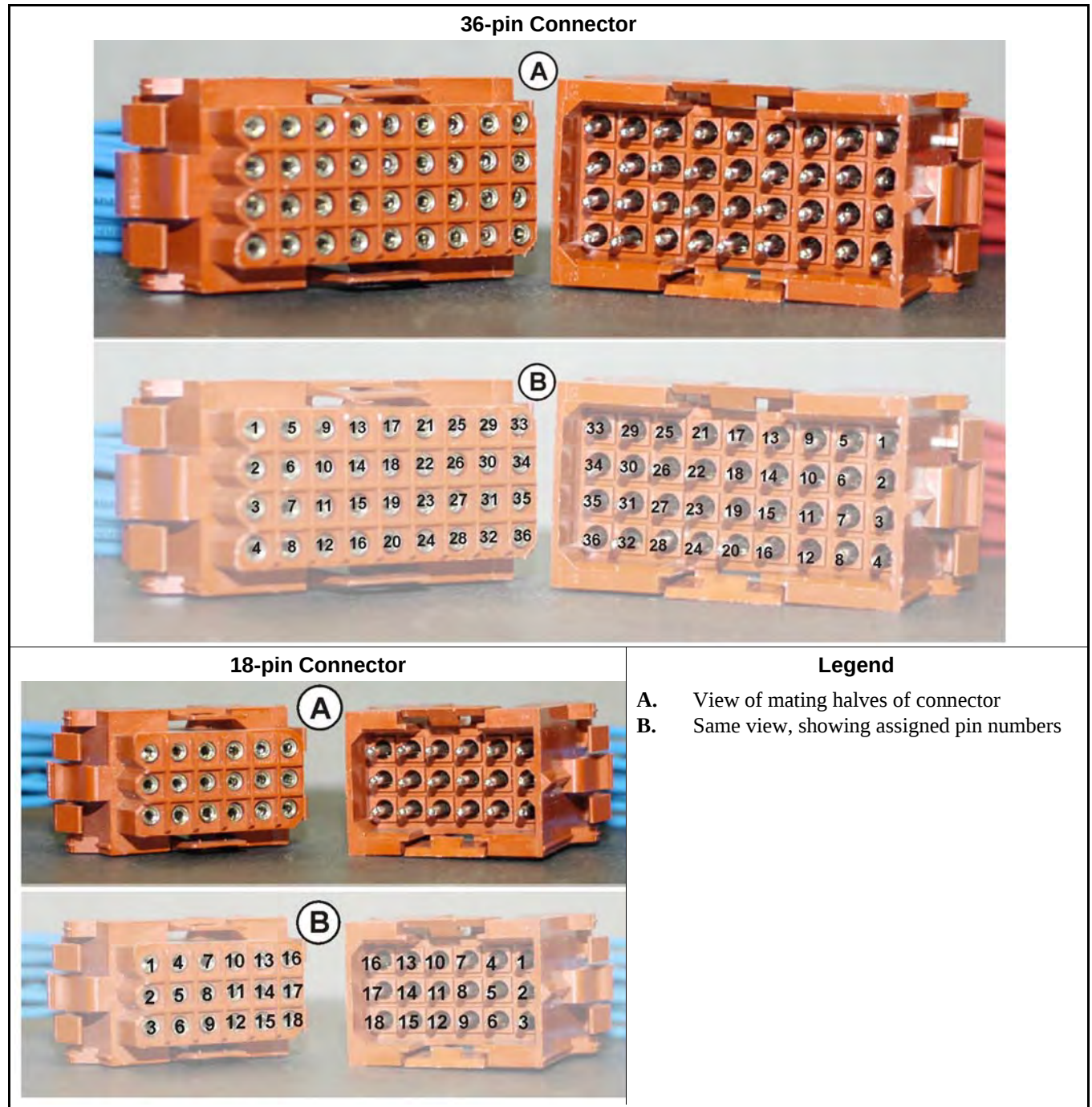


Figure 24: Molex Connector Pin Locations

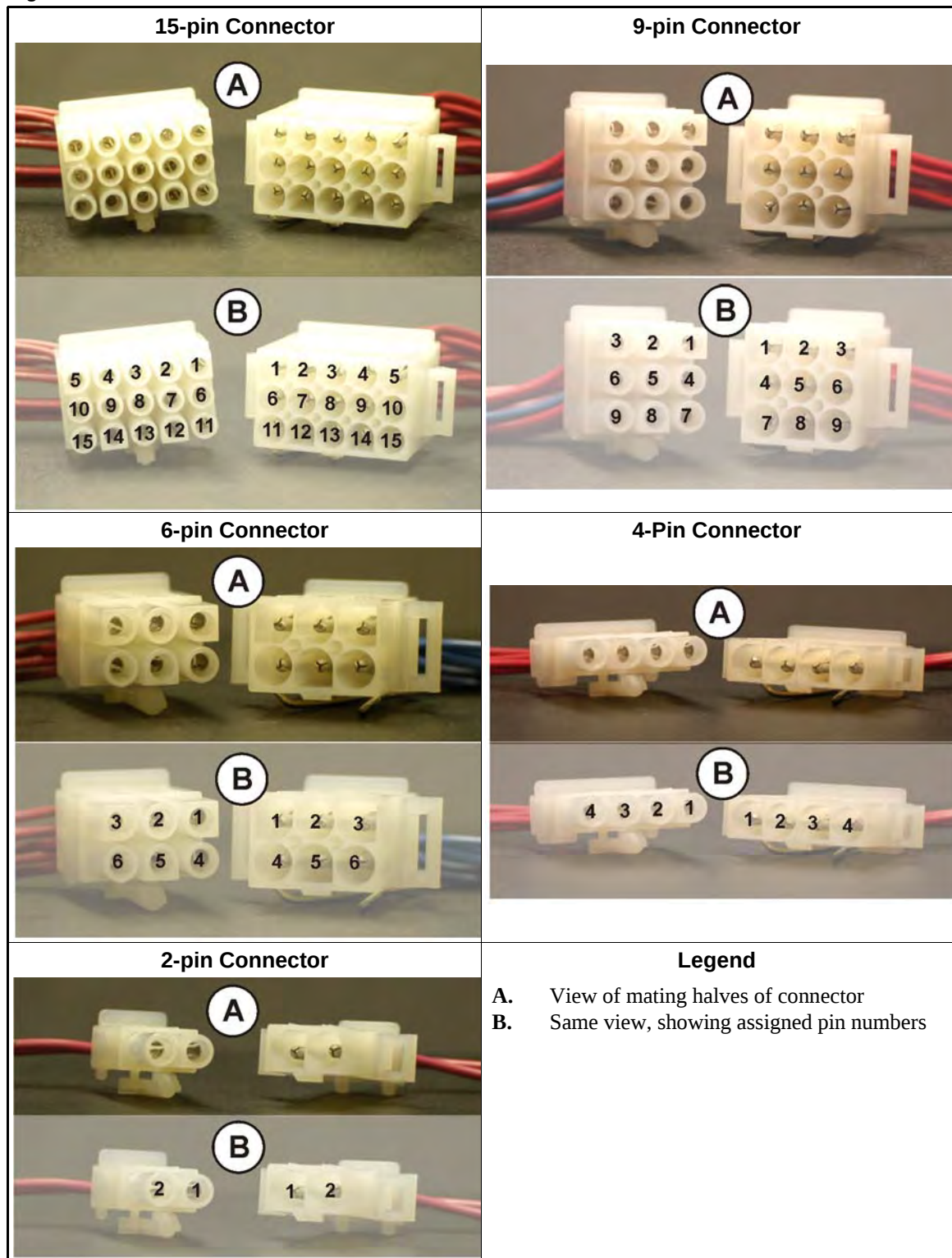


Figure 25: Pressure Switch

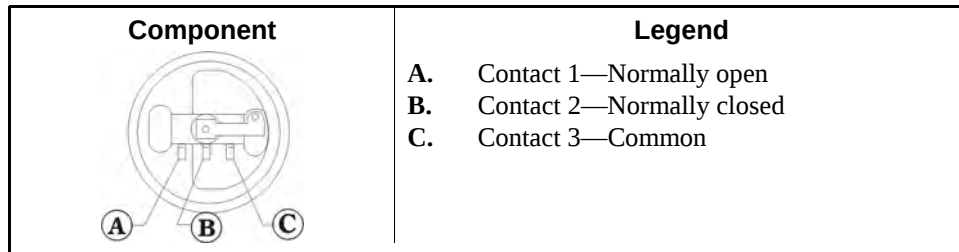


Figure 26: Toggle Switch

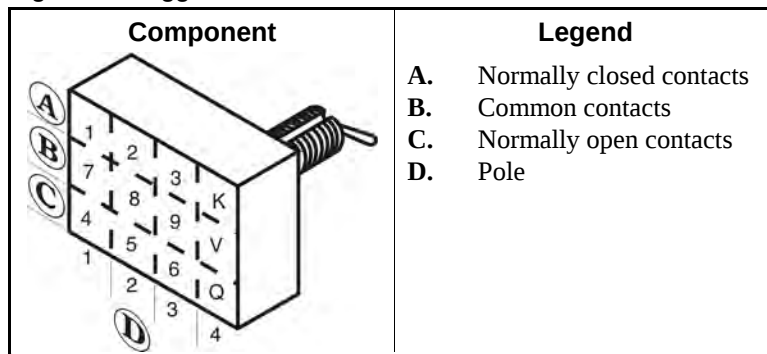
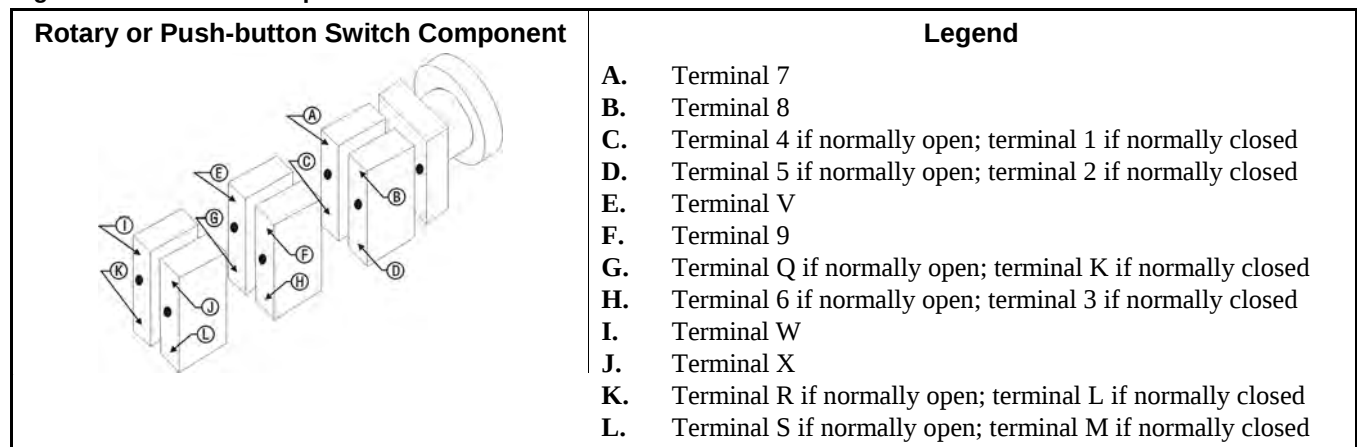


Figure 27: Switch with Replaceable Contact Blocks



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).

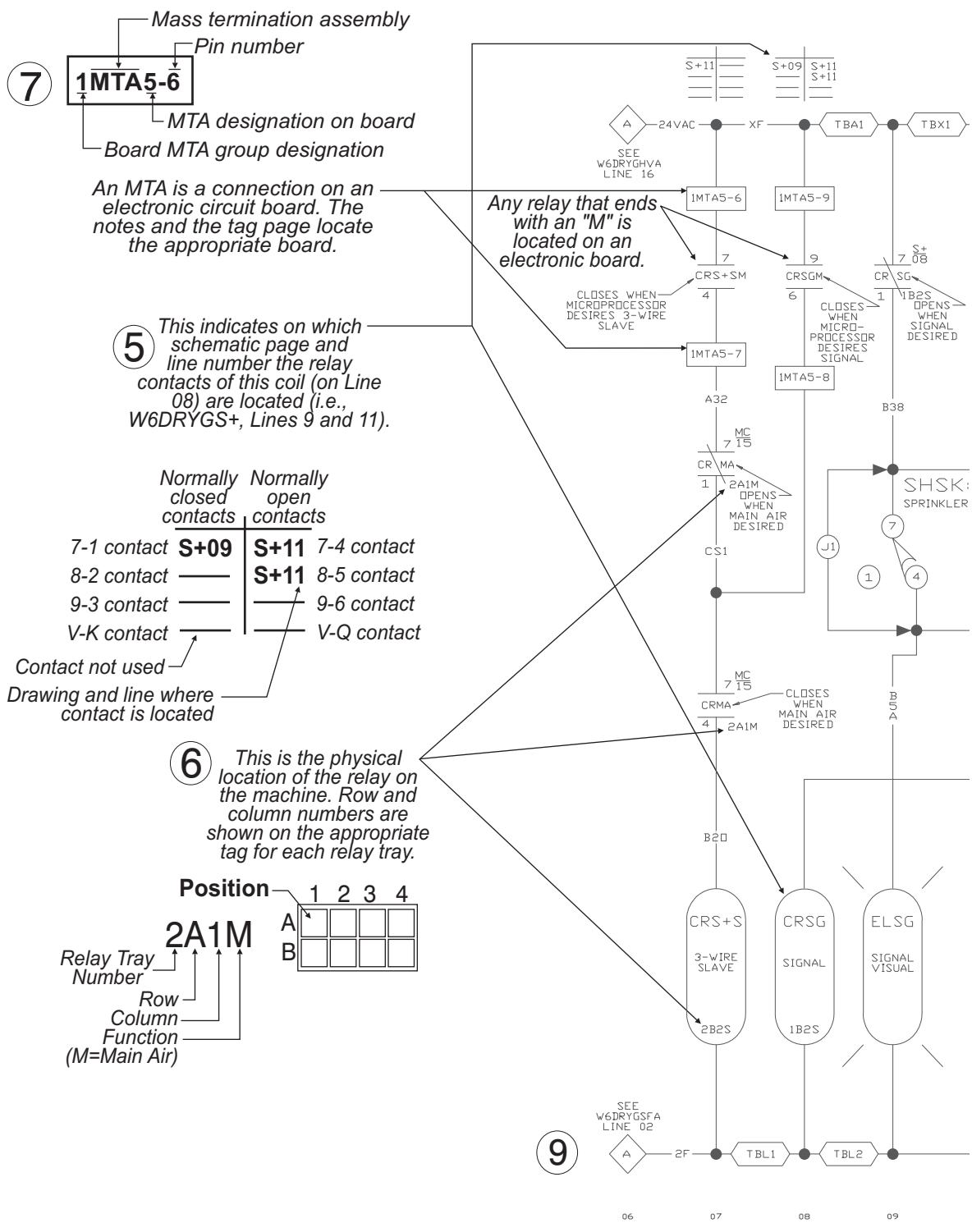
Whenever circuitry changes are significant enough to warrant publishing a new schematic drawing, the new drawing number will be the same as the old except for the major revision letter (A in the example).

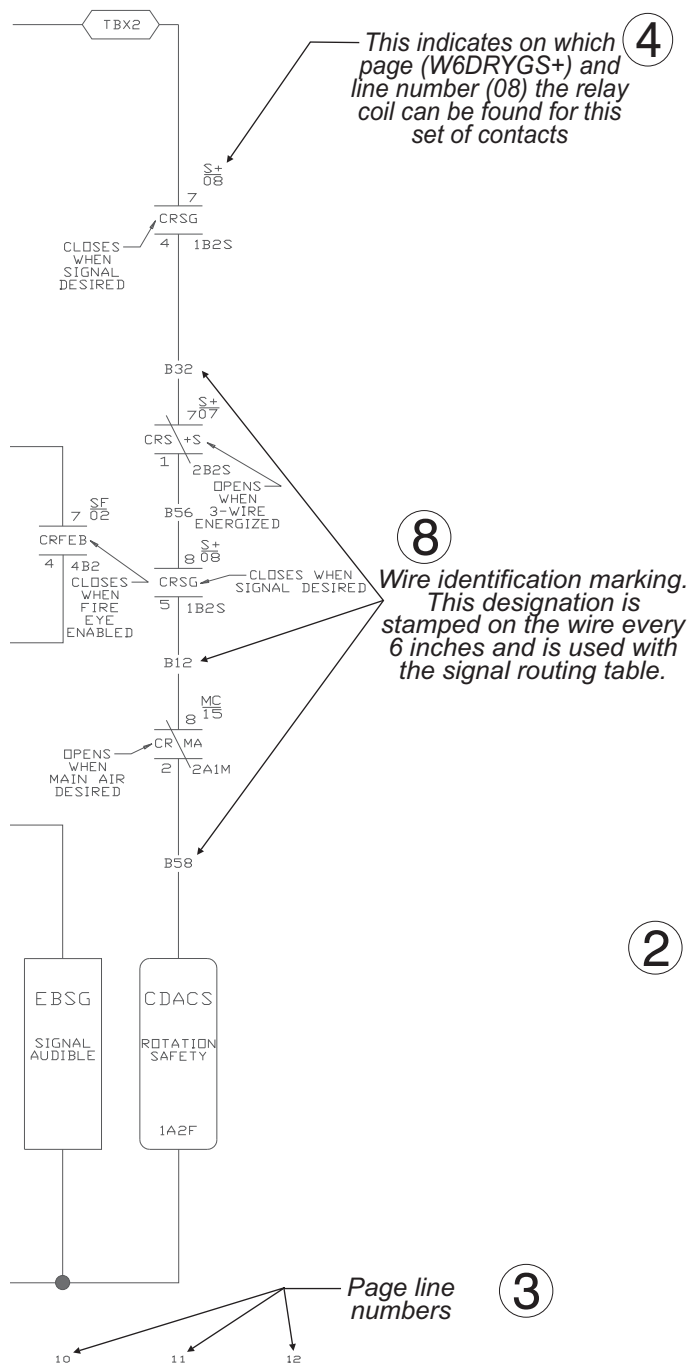
2. Included in the drawing title are the class of control system, the title of this circuit, and the circuit voltage.
3. Line numbers are provided along the bottom edge of the drawing. These permit service personnel in the field and at the Milnor® factory to quickly relate circuit locations when discussing 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 —





Major revision (letter)

1 Page number (S+)

Machine type (Gas fired dryer)

6th generation of controls

W = Wiring

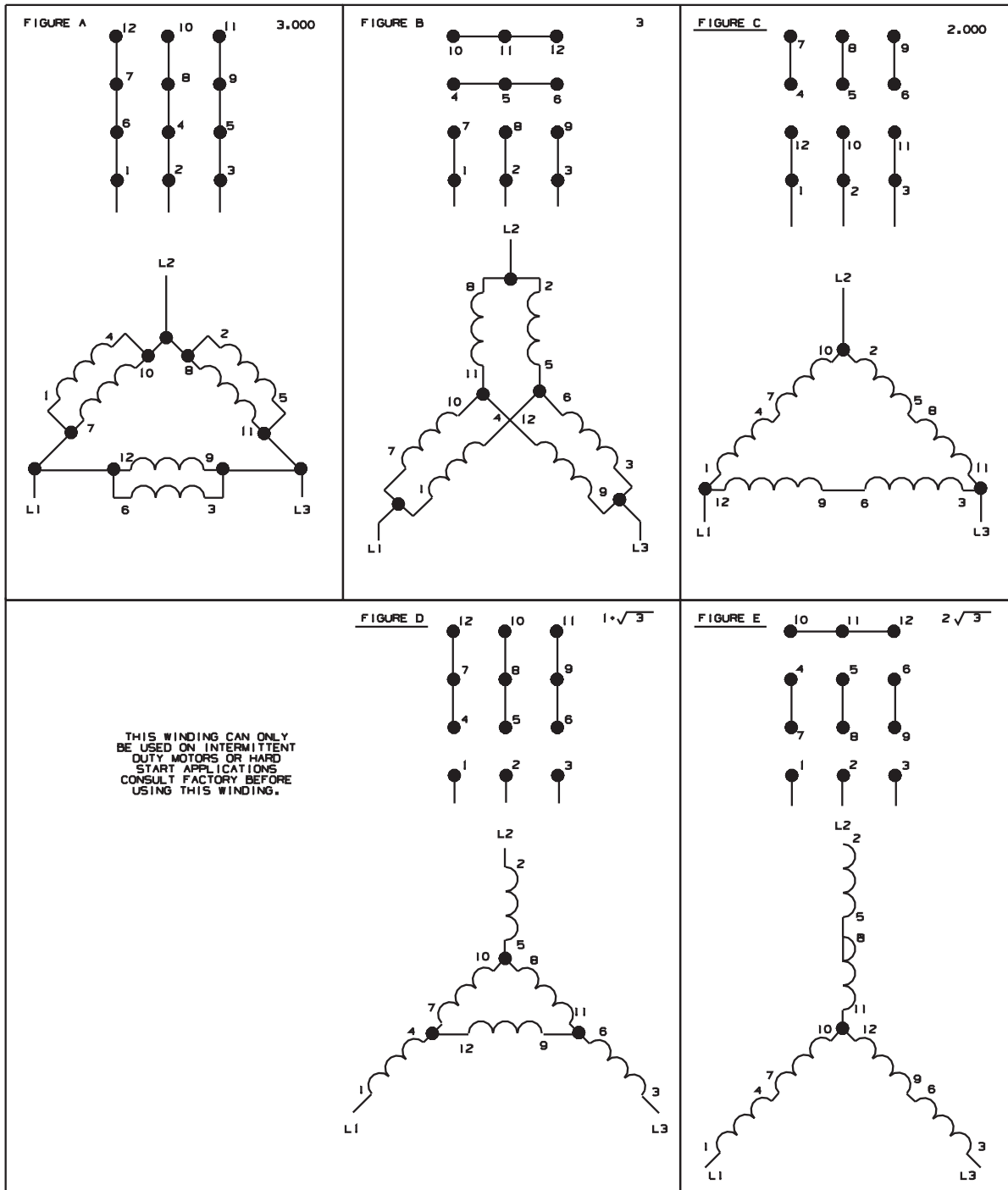
Class of control system

Title of this circuit
Voltage of this circuit

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.

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					



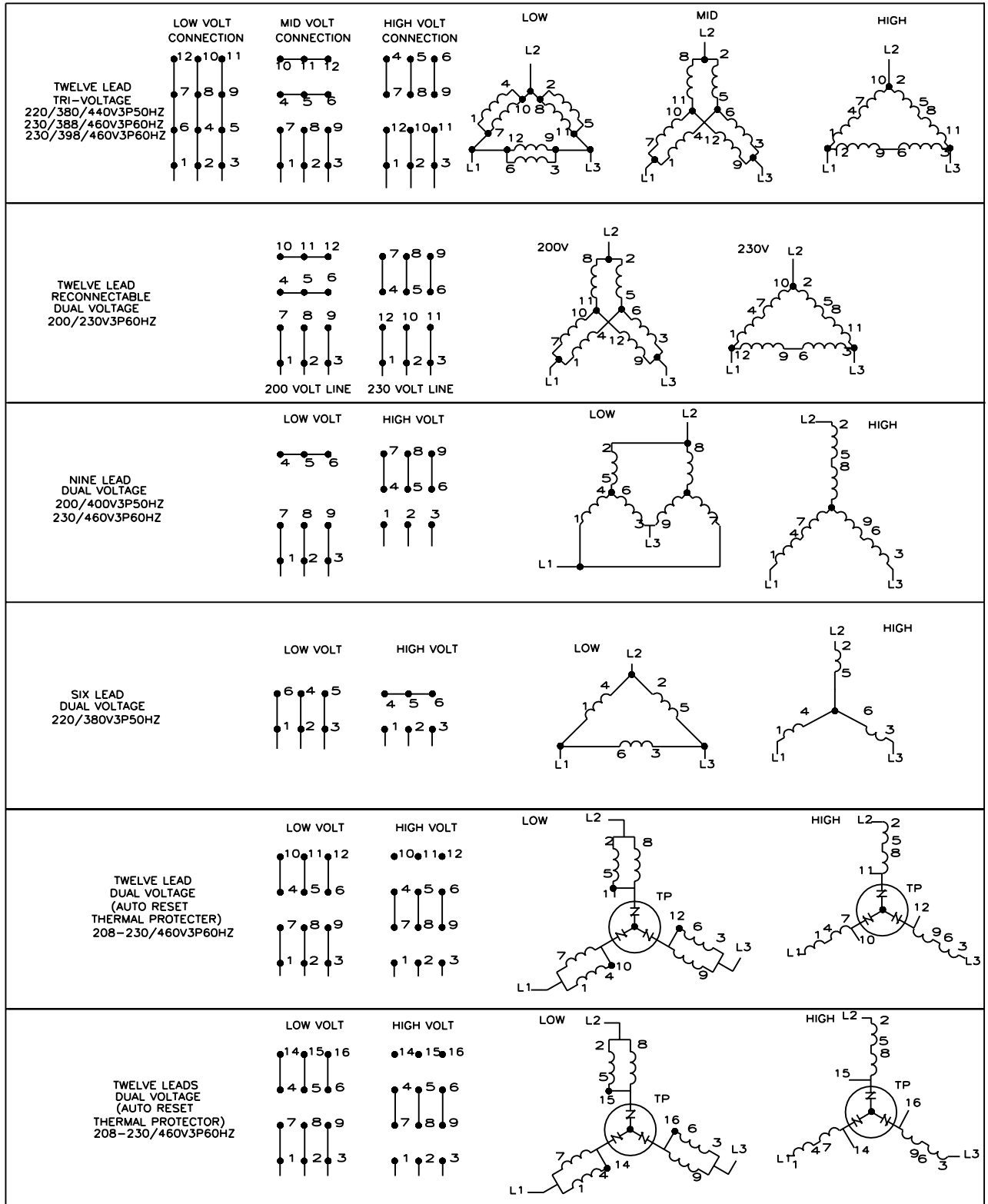
06 07 08 09 10 11 12 13 14 15 16 17

BMP850029

MOTOR CONNECTION DIAGRAMS

THREE PHASE SINGLE SPEED MOTORS WITH MULTIPLE VOLTAGE RATINGS
(ONLY FOR MOTOR SUFFIXES LISTED)

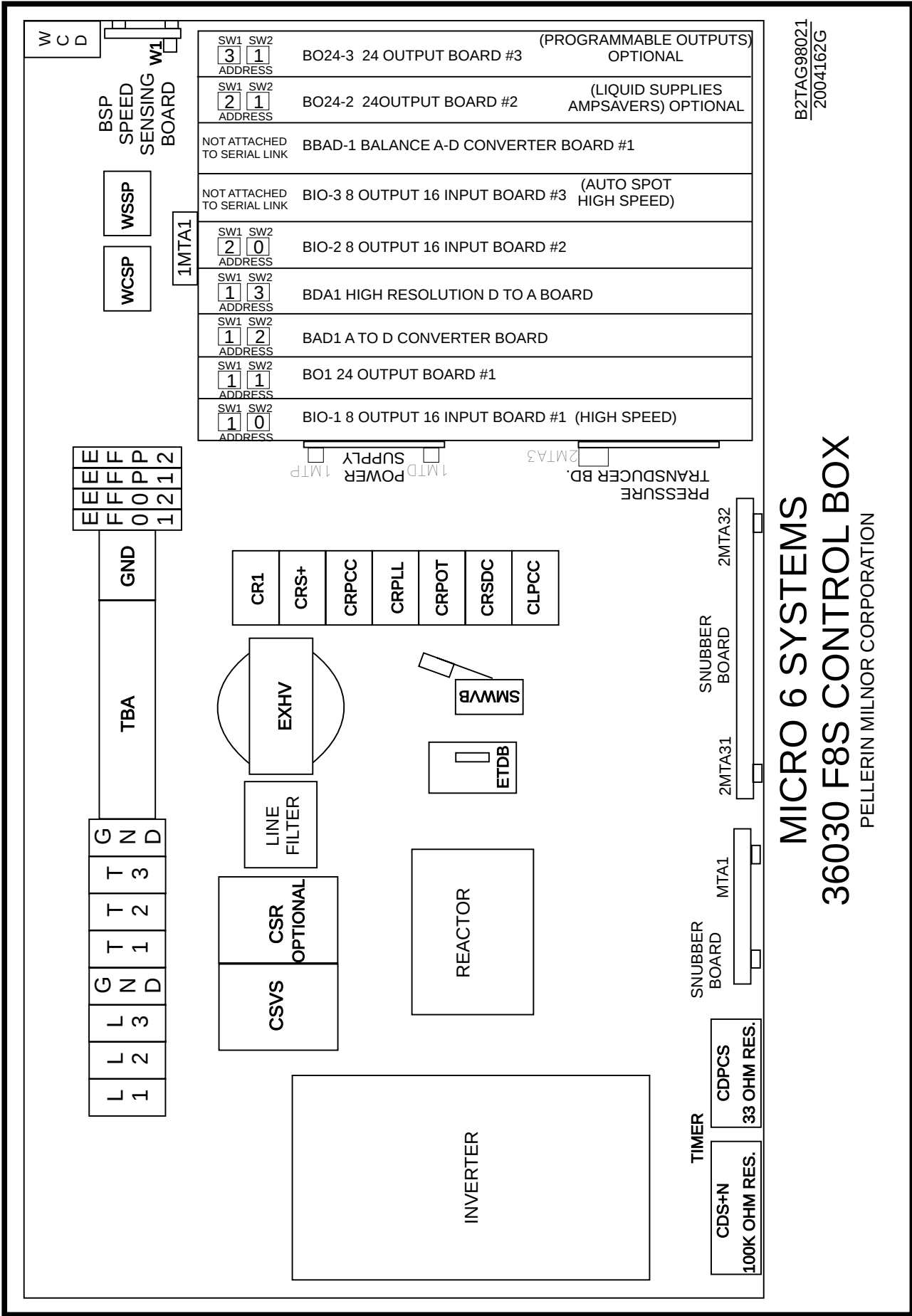
PELLERIN MILNOR CORPORATION

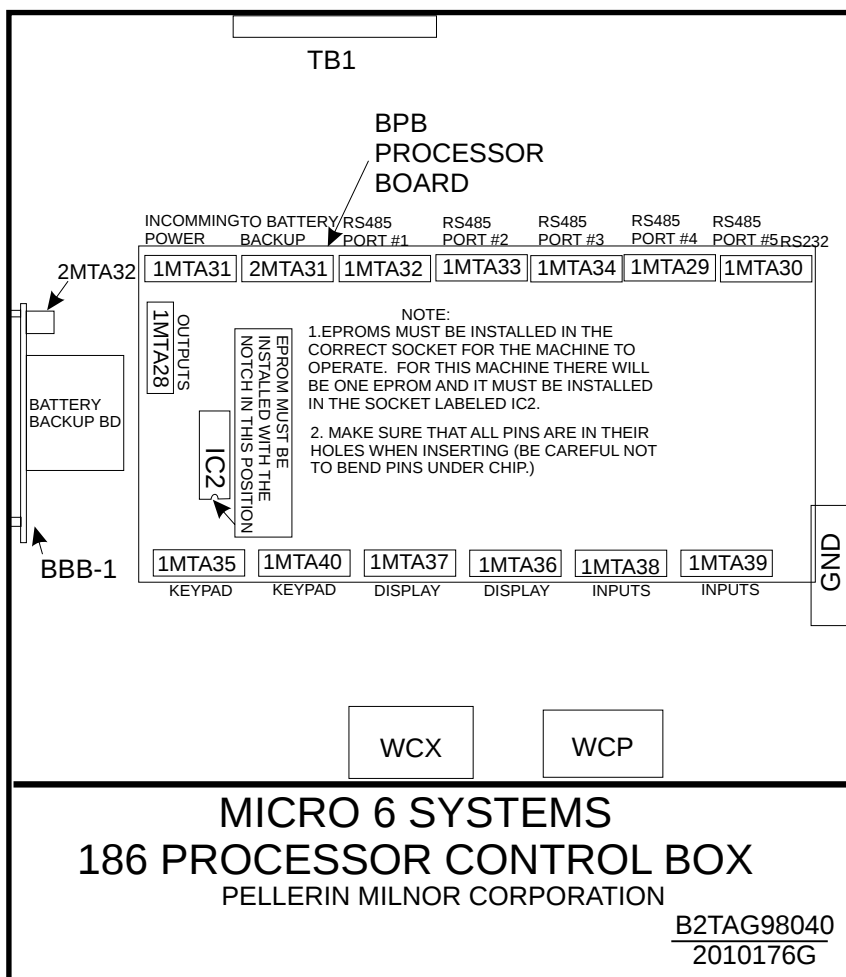


W80008

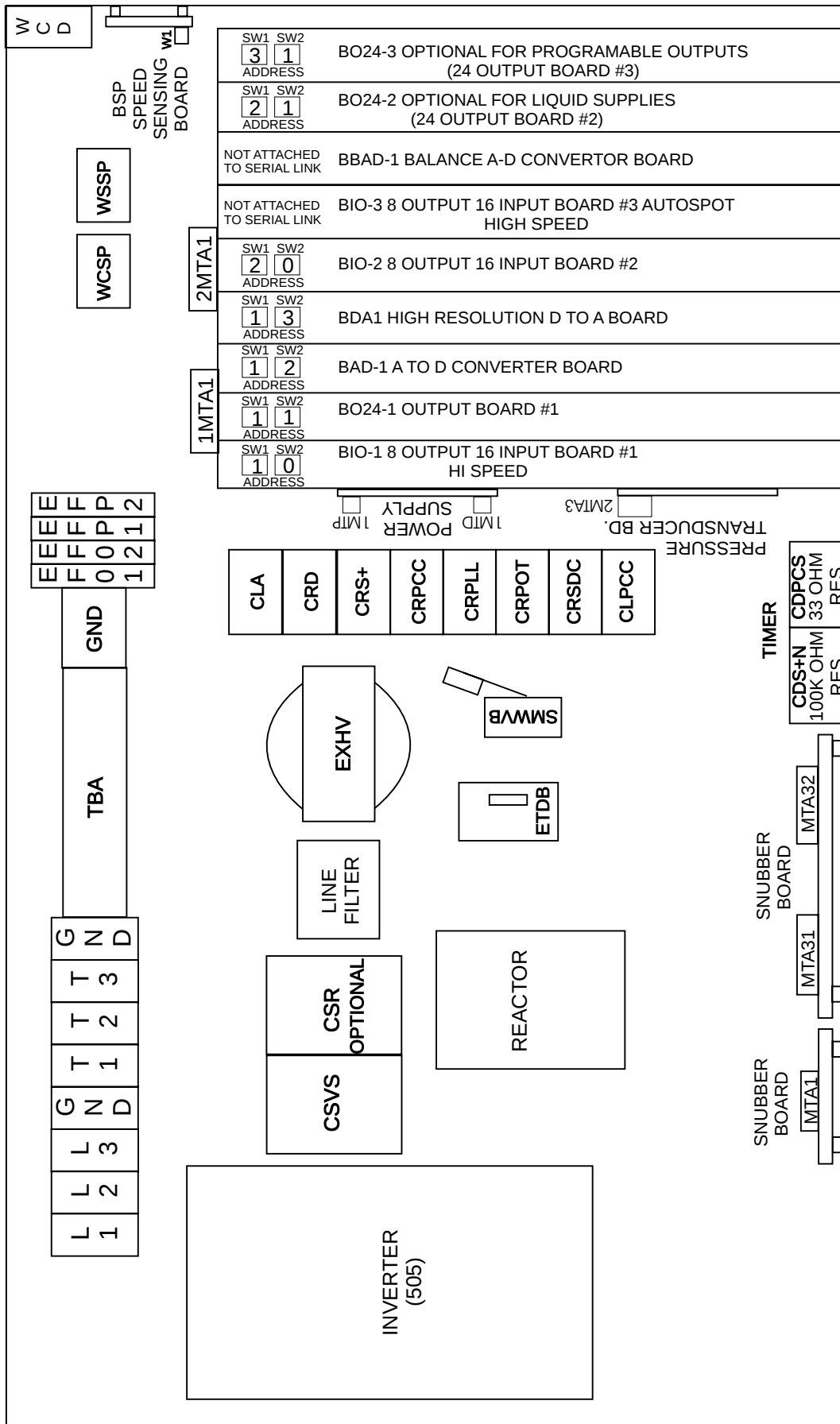
THREE PHASE
MOTOR CONNECTION DIAGRAMS
SINGLE SPEED MOTORS WITH MULTIPLE VOLTAGE RATINGS
PELLERIN MILNOR CORPORATION

W80008
2001253A





W6F3STG1
**MICRO 6 SYSTEMS
CONTROL BOX LAYOUTS**
PELLERIN MILNOR CORPORATION



MICRO 6 SYSTEMS **42032 F7S CONTROL BOX** PELLERIN MILNOR CORPORATION

B2TAG98049
 2008285G

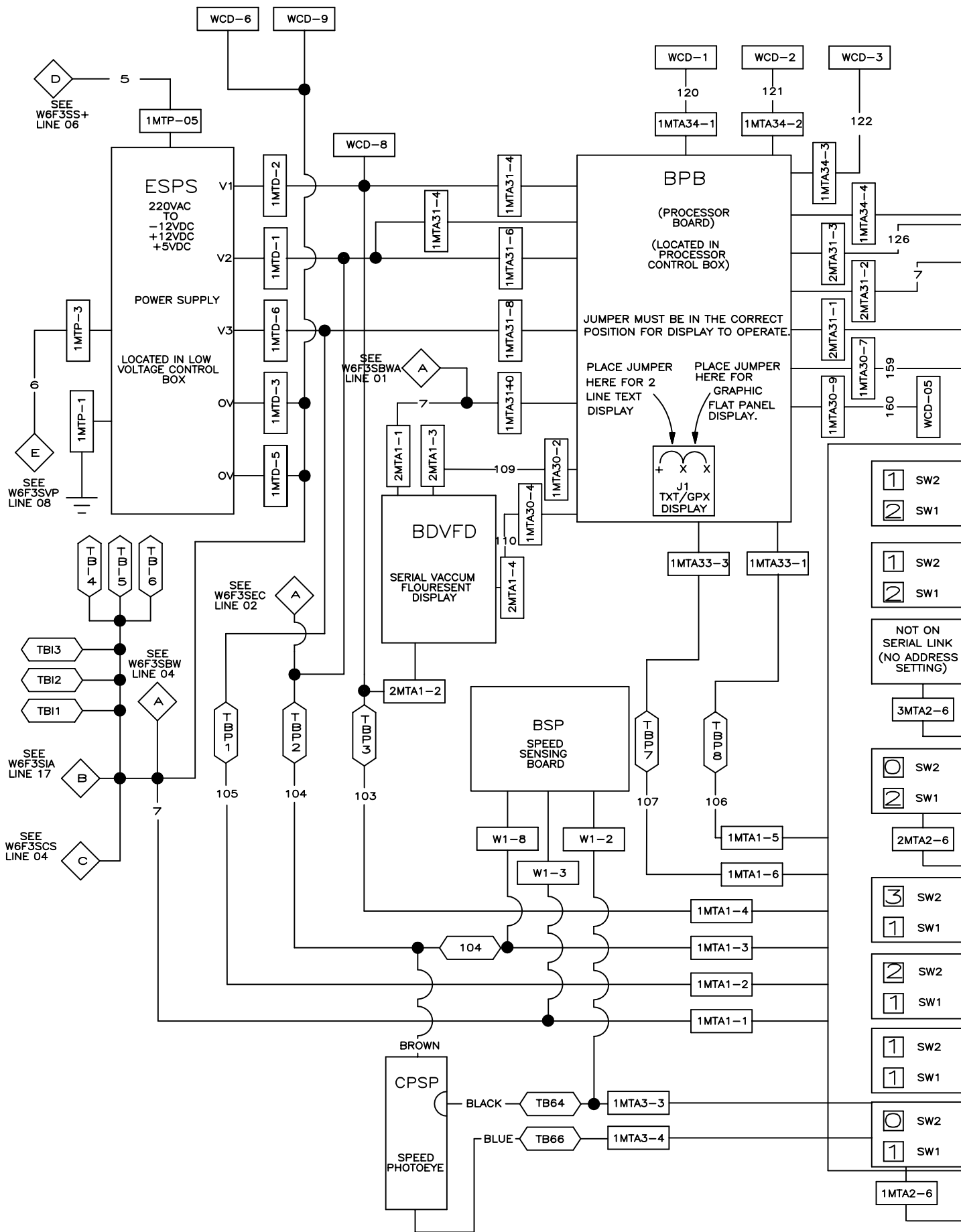
BIO-1	BO24-1	BO24-2(OPTIONAL)
INPUTS 0 HI LEVEL REUSE TANK 1 DOOR CLOSED 2 INVERTER FAULT/HI LEVEL 3 MED. LEVEL 4 LOW LEVEL 5 NOT USED 6 DONT ALLOW CHEM 7 NOT USED 8 AMPSAVER 9 NOT USED 10 NOT USED 11 NOT USED 12 NOT USED 13 NOT USED 14 NOT USED 15 NOT USED OUTPUTS 0 RECIRCULATE PUMP 1 COOLDOWN 2 CHEMICAL FLUSH 3 CHEMICAL #4 4 CHEMICAL #1 5 CHEMICAL #3 6 CHEMICAL #2 7 CHEMICAL #5	OUTPUTS 0 TANK TO MACHINE 1 ACCELERATE/DECELERATE 2 DOOR UNLOCK 3 CLOCKWISE WASH 4 COUNTER CLOCKWISE WASH 5 STEAM 6 SIGNAL 7 3-WIRE ENABLED 8 NOT USED 9 HOT WATER 10 COLD WATER 11 EXTRA WATER 12 DRAIN TO SEWER 13 DRAIN TO REUSE 14 MACHINE TO MACHINE 15 MACHINE TO TANK 16 NOT USED 17 NOT USED 18 NOT USED 19 NOT USED 20 NOT USED 21 NOT USED 22 NOT USED 23 NOT USED	OUTPUTS 0 CHEM #14 1 CHEM #9 2 CHEM #13 3 FLUSH MANIFOLD 4 CHEM #15 5 CHEM #11 6 CHEM SAVE 7 NOT USED 8 CHEM #10 9 AMPSAVER 10 CHEM #6 11 CHEM #7 12 CHEM #8 13 CHEM #12 14 AUTO RECIRCULATION 15 NOT USED 16 NOT USED 17 NOT USED 18 NOT USED 19 NOT USED 20 NOT USED 21 NOT USED 22 NOT USED 23 NOT USED
BIO-2	BIO-3	
INPUTS 0 I WANT CLEAN CONTROL 1 AUTOSPOT DESIRED 2 I AM SPOTTED 3 CNTRL IS ON SOIL SIDE 4 NOT USED 5 NOT USED 6 NOT USED 7 NOT USED 8 NOT USED 9 NOT USED 10 NOT USED 11 NOT USED 12 NOT USED 13 NOT USED 14 NOT USED 15 NOT USED OUTPUTS 0 TRANSFER CONTROL 1 X-FER CONTROL NOT 2 X-FER CONTROL 1 3 X-FER CONTROL NOT 1 4 CLEAN SIDE SIGNAL 5 BRAKE RELEASE 6 DOOR UNLOCK 1 7 NOT USED	INPUTS 0 NOT USED 1 NOT USED 2 I AM SPOTTED 3 NOT USED 4 NOT USED 5 NOT USED 6 NOT USED 7 NOT USED 8 NOT USED 9 AUTOSPOT DESIRED 10 NOT USED 11 NOT USED 12 NOT USED 13 NOT USED 14 NOT USED 15 NOT USED OUTPUTS 0 NOT USED 1 SPOTTING IN PROGRESS 2 CLOCKWISE 3 AUTOSPOT BRAKE 4 NOT USED 5 AUTOSPOT DESIRES SIGNAL 6 NOT USED 7 NOT USED	

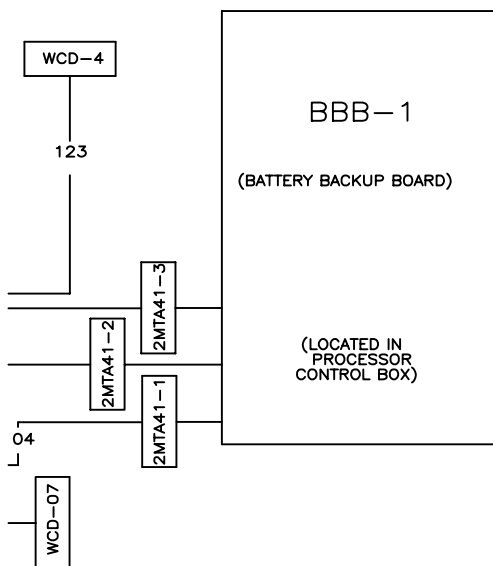
MICRO 6 SYSTEMS
36030F8S/42032F7S STAPHGUARD
CONTROL BOARDS INPUTS/OUTPUTS
PELLERIN MILNOR CORPORATION

B2TAG97092
2004162G

W6F3STG2
MICRO 6 SYSTEMS
CONTROL BOX LAYOUTS
PELLERIN MILNOR CORPORATION





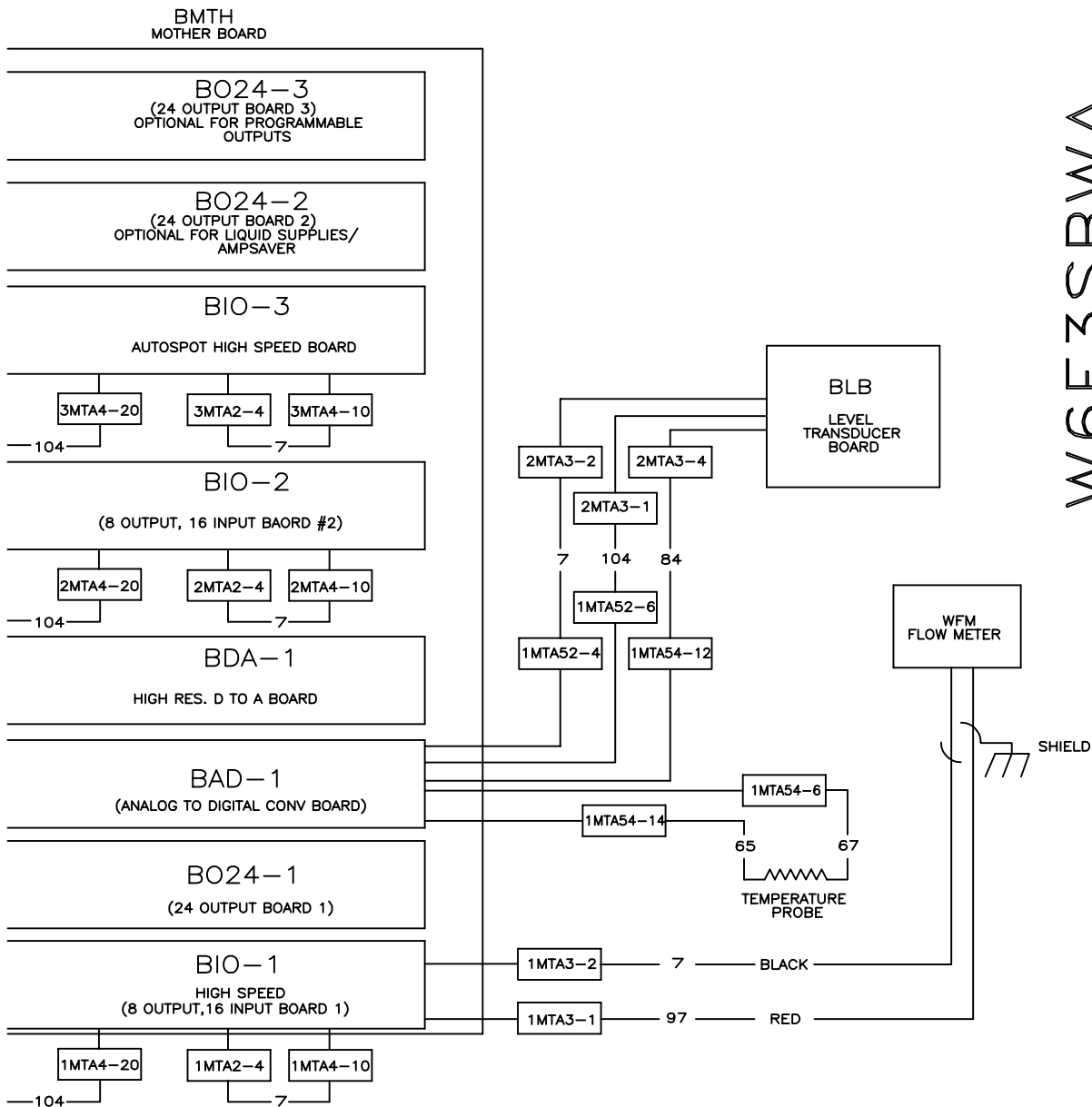


WIRE NO.	VOLTAGE	WIRE COLOR
103	+5VDC	BLUE
104	+12VDC	BLUE/ORANGE
105	-12VDC	BLUE/BLACK
7	GROUND	BLUE/WHITE
107	SERIAL HIGH	BLUE/RED
106	SERIAL LOW	BLUE/BLACK
INPUTS		
5	240VAC	RED
6	240VAC	RED/WHITE

NOTES:

1. 1MTP AND 1MTD ARE LOCATED ON ESPS (POWER SUPPLY).
2. 1MTA31, 1MTA30, 1MTA33, 1MTA39 AND 2MTA31 ARE LOCATED ON BPB (PROCESSOR BOARD).
3. 1MTA2 AND 1MTA3 ARE LOCATED DIO-1 (8 INPUT, 16 OUTPUT).
4. 1MTA52 AND 1MTA54 ARE LOCATED ON BAD-1 (ANALOG TO DIGITAL BOARD).
5. 2MTA41 IS LOCATED ON BBB-1 (BATTERY BACKUP BOARD).
6. WCD IS DOWN LOAD/PRINTER/MILDATA CONNECTOR.
7. TB1 IS LOCATED IN THE PROCESSOR BOX.
8. 2MTA3 IS LOCATED ON BLB (LEVEL TRANSDUCER BOARD).
9. W1 IS LOCATED ON BSP (SPEED SENSING BOARD).

W6F3SBWA
2008046B



W6F3SBWA

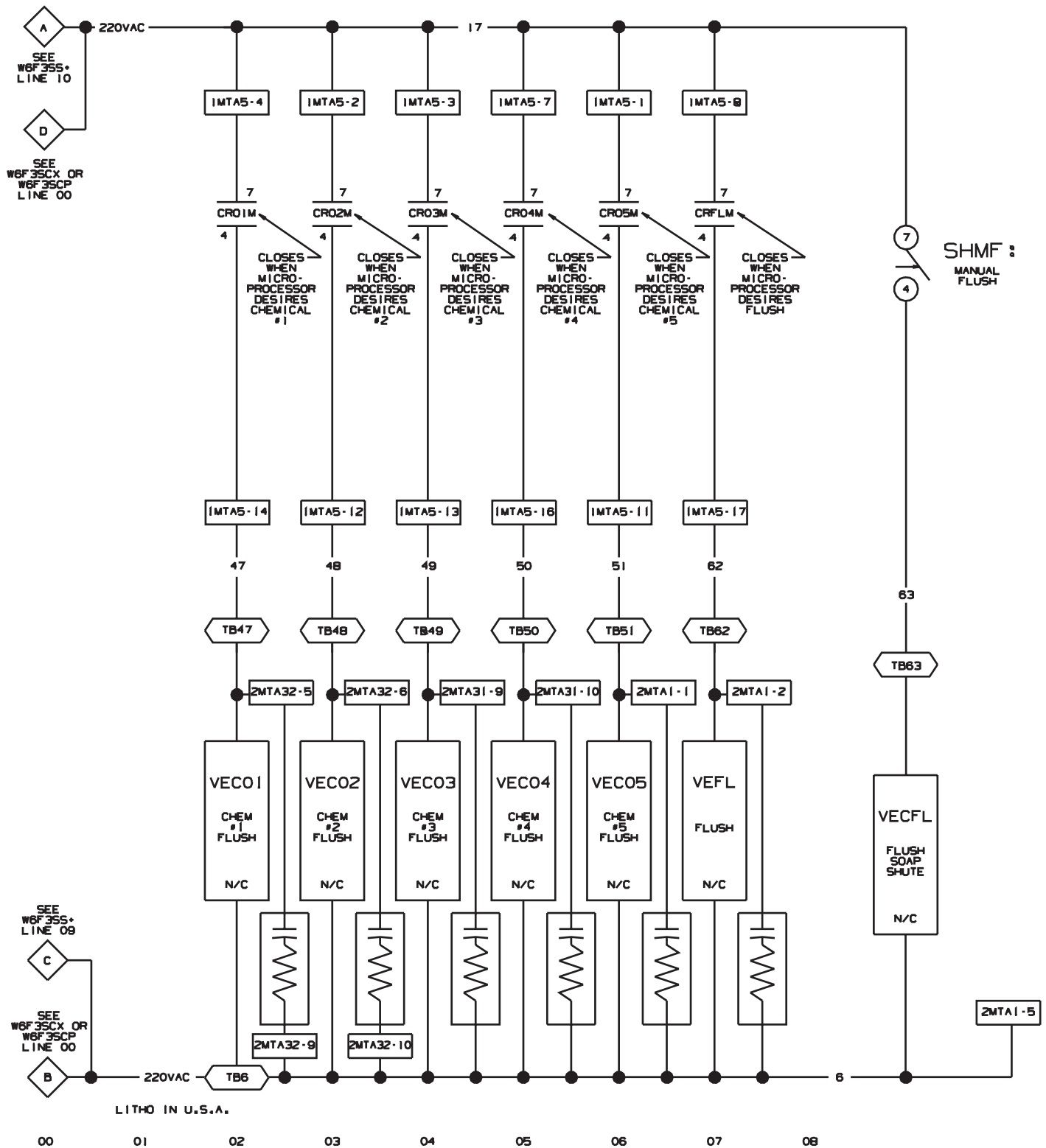
MICRO 6 SYSTEMS SERIAL CONTROLS MARK V

SCHEMATIC: BOARD TO BOARD WIRING (SERIAL CONTROLS)

PELLERIN MILNOR CORPORATION

10 11 12 13 14 15 16 17 18 19

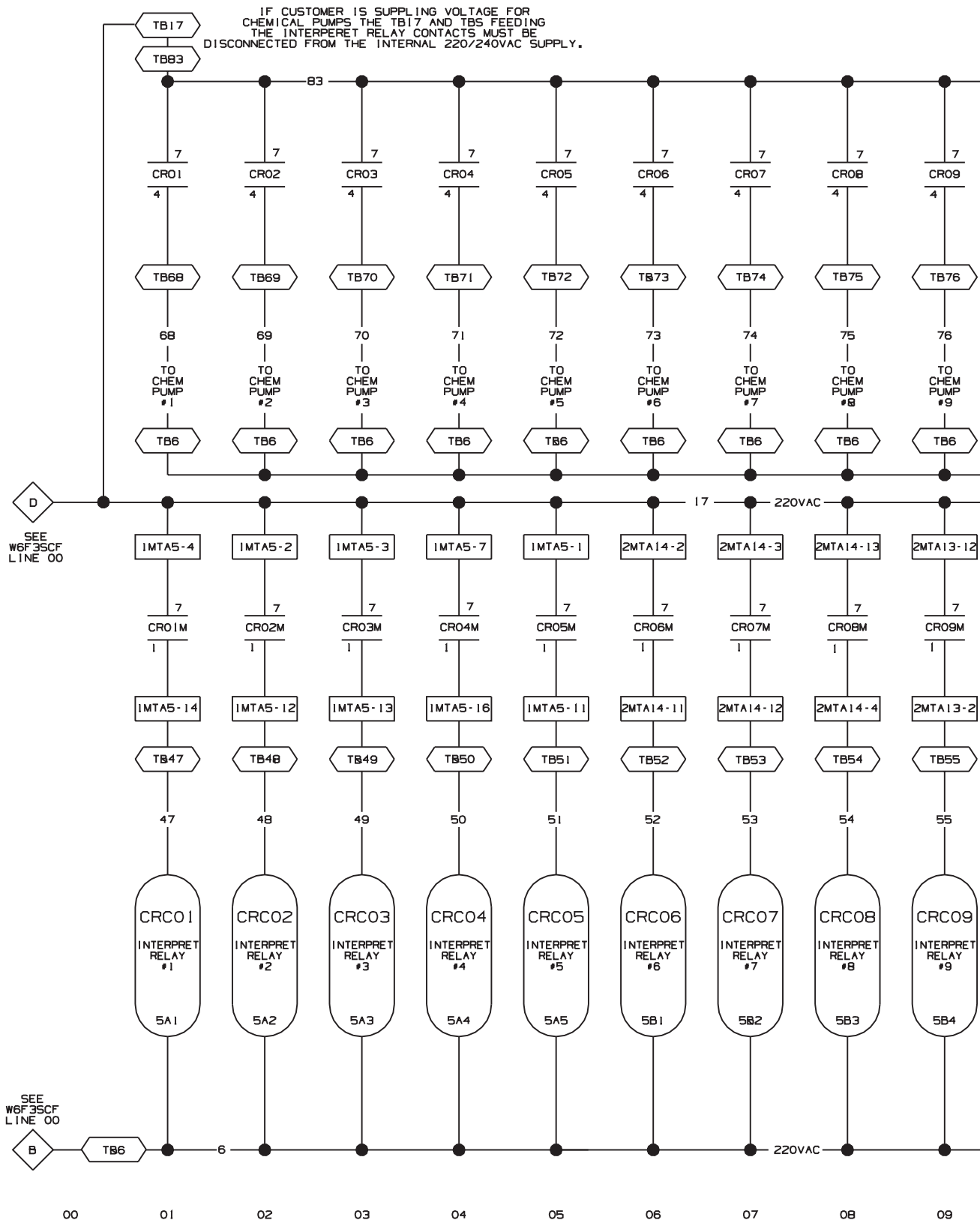
W6F3SBWA
2008046B

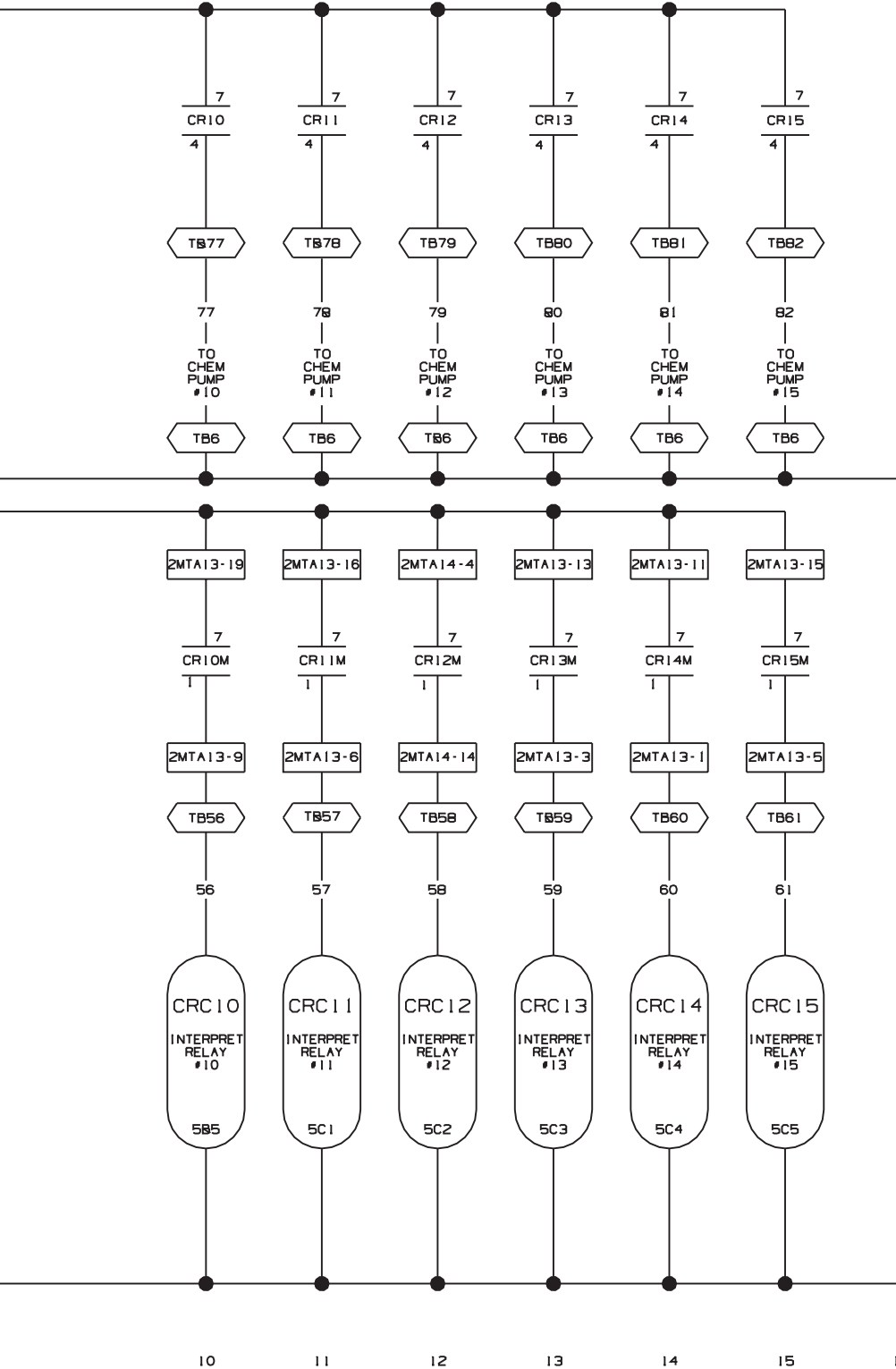


NOTES:

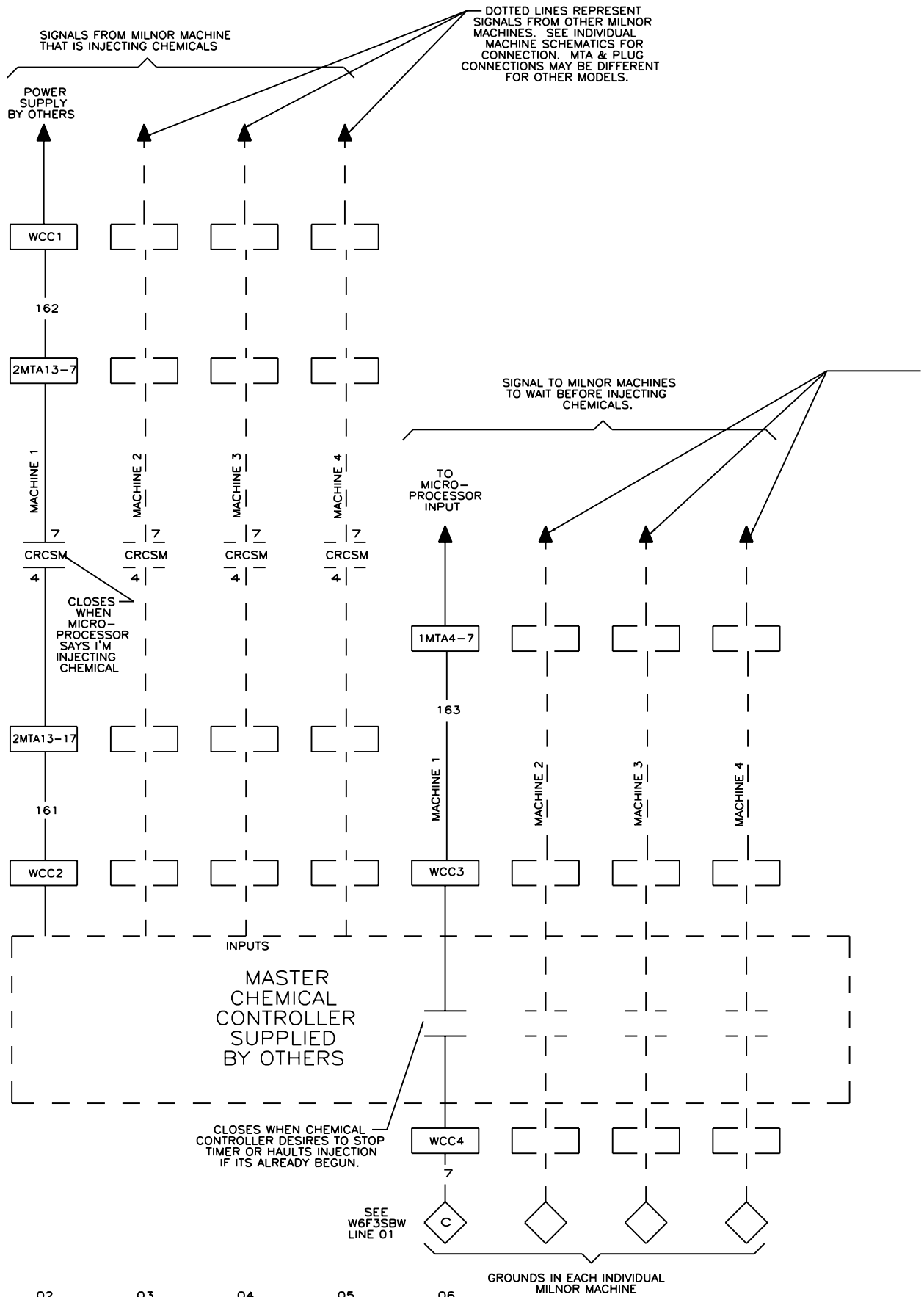
1. IMTA5, IMTA6 ARE LOCATED
ON BIO-1 (B OUTPUT-1B INPUT)

W6F3SCF
MICRO 6 SYSTEMS
MARK V
SCHEMATIC: FLUSHING SUPPLIES
220V1P50HZ/240V1P60HZ
PELLERIN MILNOR CORPORATION





W6F3SCP
MICRO 6 SYSTEMS
MARK V
SCHEMATIC: LIQUID SUPPLY - INTERPRET RELAYS
220V1P50HZ/240V1P60HZ
PELLERIN MILNOR CORPORATION



00 01 02 03 04 05 06

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

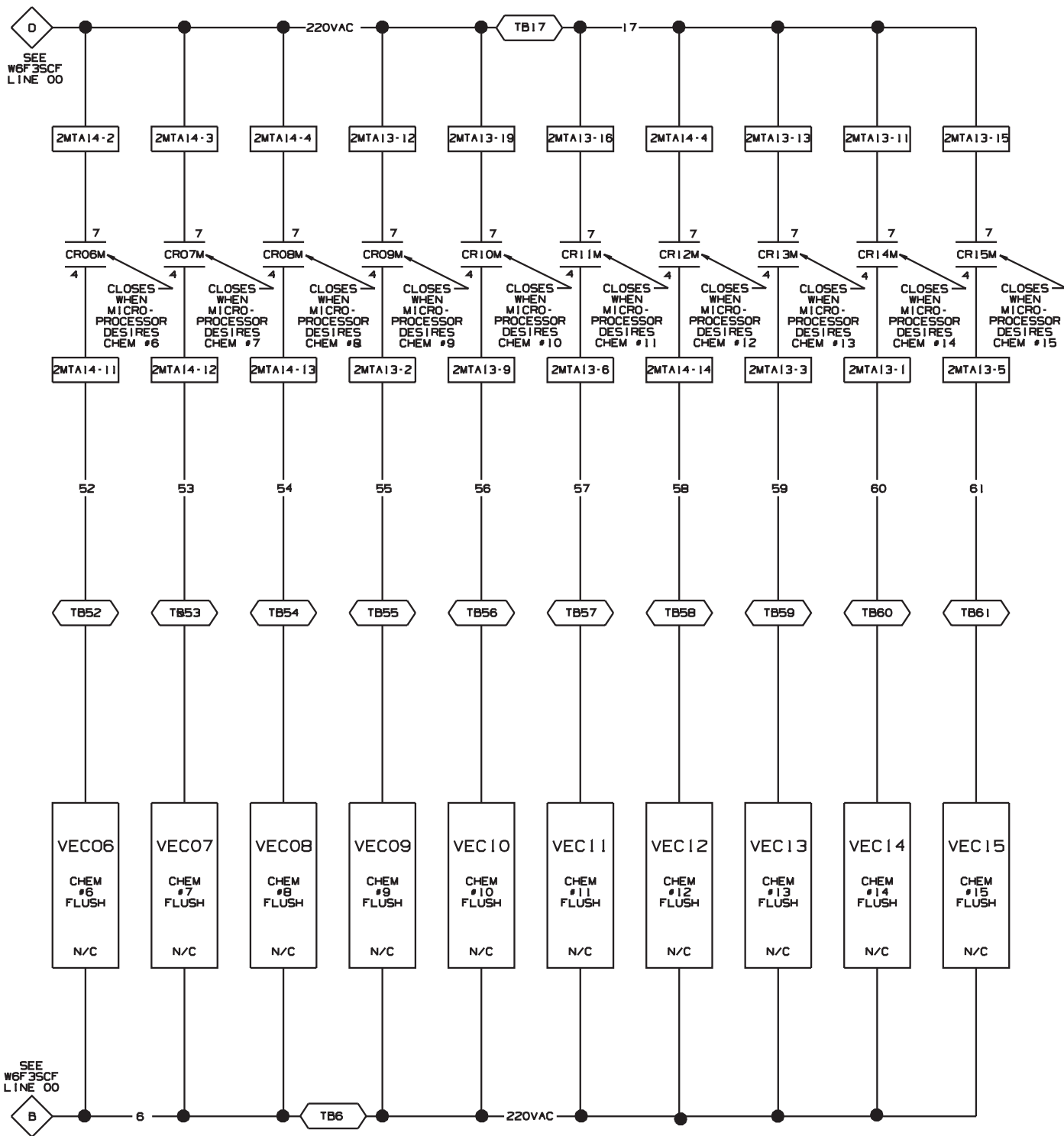
NOTES:

1. WCC IS LOCATED IN THE RIGHT
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.

W6F3SCS
MICRO 6 SYSTEMS
MARK V
SCHEMATIC: CHEMICAL SAVE (OPTIONAL)
PELLERIN MILNOR CORPORATION

W6F3SCS
2004056B

W6F3SCS
2004056B



00 01 02 03 04 05 06 07 08 09 10 11

W6F3SCX

MICRO 6 SYSTEMS MARK V

SCHEMATIC: CENTRAL LIQUID SUPPLY FLUSH 6 THRU 15

PELLERIN MILNOR CORPORATION

SEE
W6F3SBWA
LINE 01



7

1MTA85-9

CRBLM
7
4

1MTA85-8

115

1MTA38-4

TO
MICRO-
PROCESSOR
INPUT

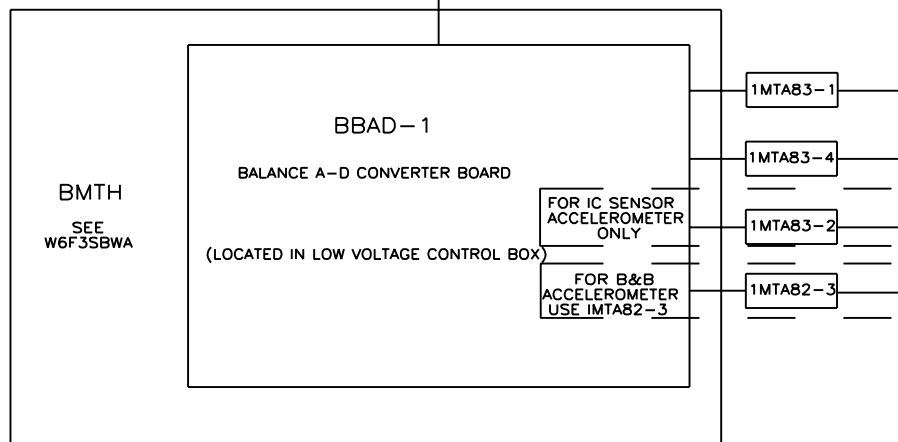
CLOSES
WHEN
BALANCE
LIMIT
IS
EXCEEDED

CONNECTS TO
OUTPUT OF CPSP
SPEED PHOTOEYE
SEE W6F3SEC LINE 6

TB64

64

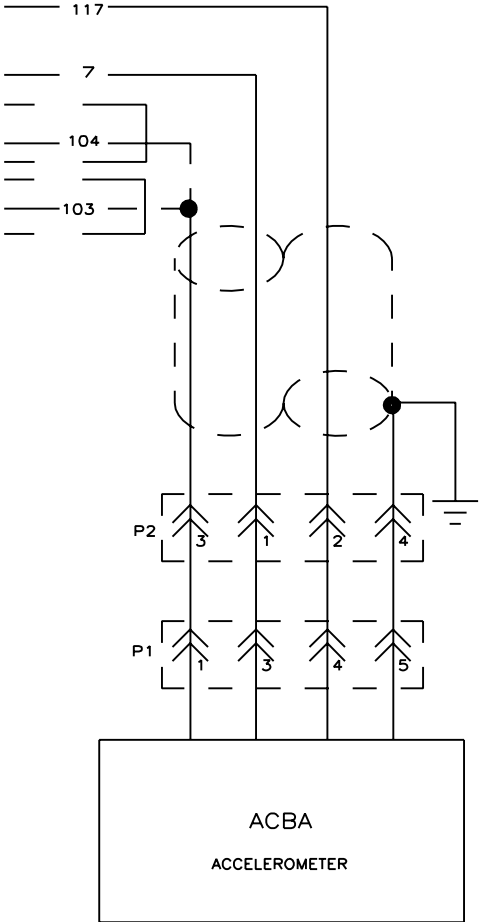
1MTA84-4



00 01 02 03 04 05 06 07 08 09 10

W6F3SEC
2005032B

WIRING	VOLTAGE	WIRE COLOR
103	+5VDC	BLUE
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
—	24VAC	BLUE/RED
—	120VAC	RED
6	CONTROL GROUND	RED/WHITE



W6F3SEC
MICRO 6 SYSTEMS
MARK V
SCHEMATIC: ELECTRONIC BALANCE

PELLERIN MILNOR CORPORATION



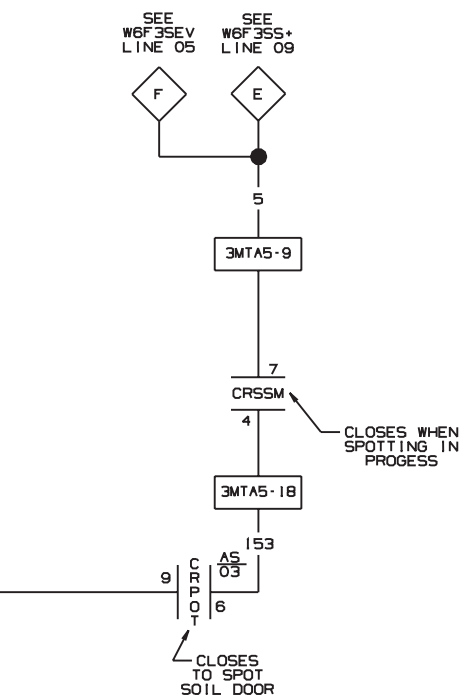
W6F3SEV

MICRO 6 SYSTEMS

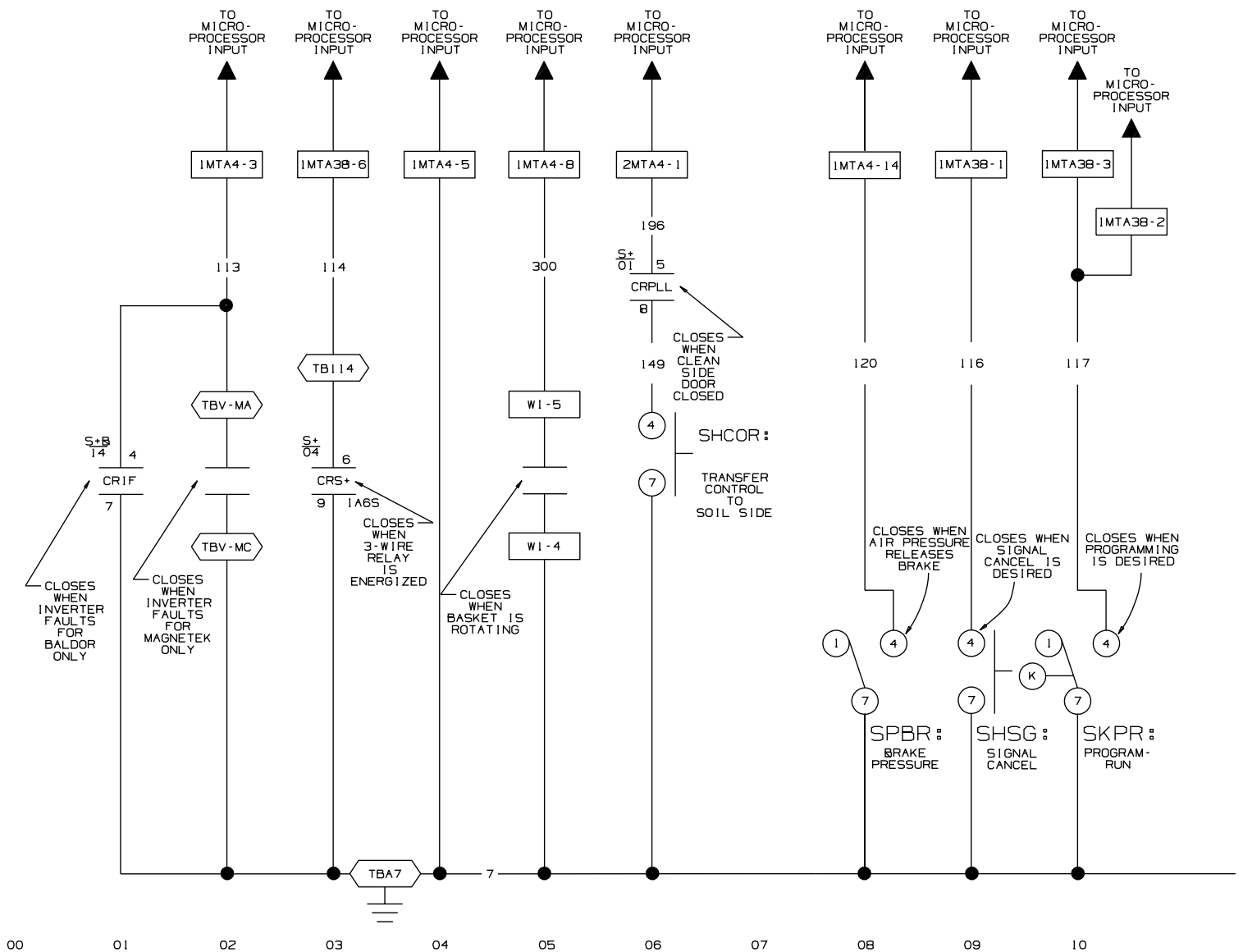
MARK V

SCHEMATIC: ELECTRICAL VALVES

220V1P50HZ/240V1P60HZ
PELLERIN MILNOR CORPORATION



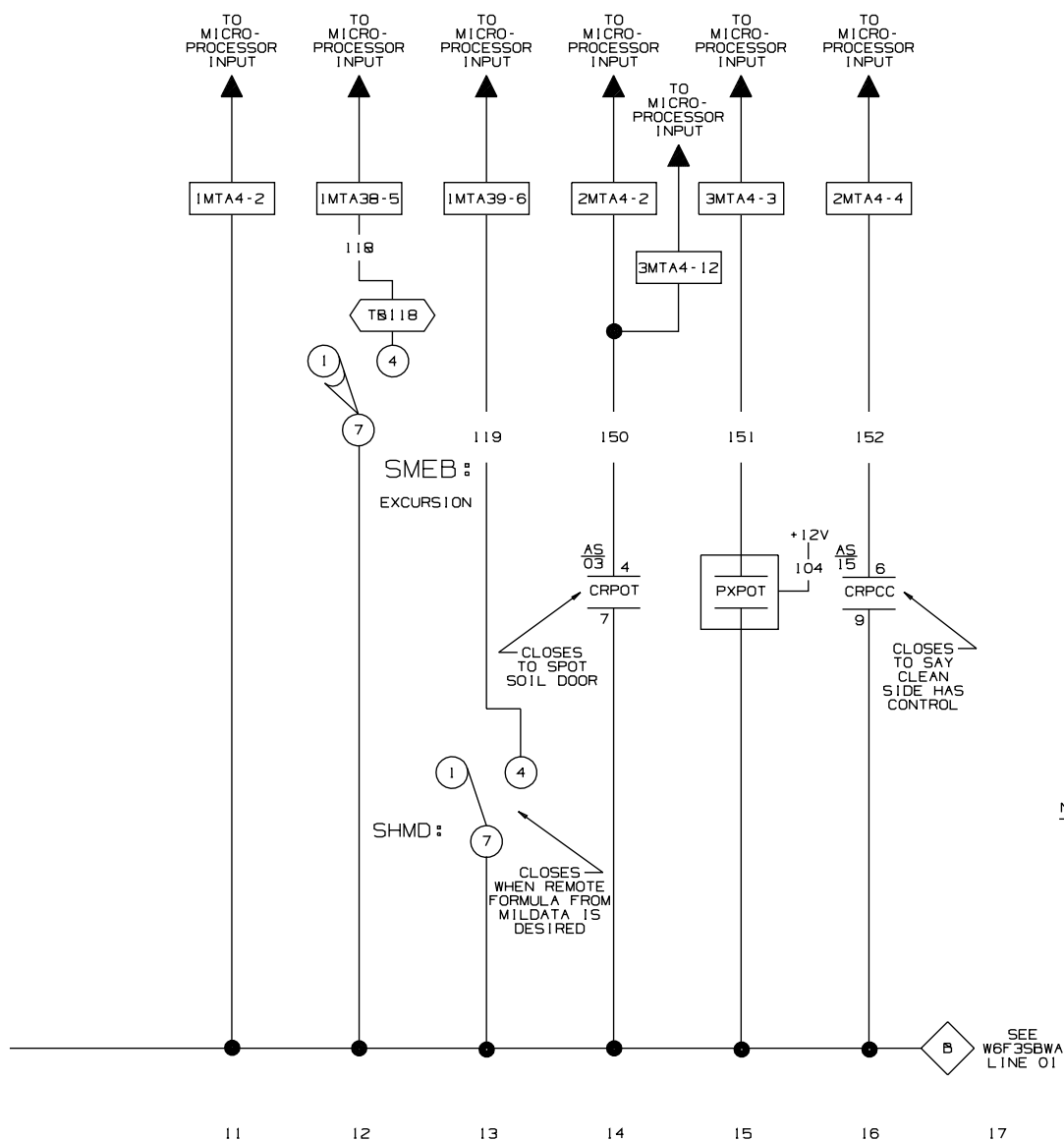
11 12 13 14 15 16



LITHO IN U.S.A.

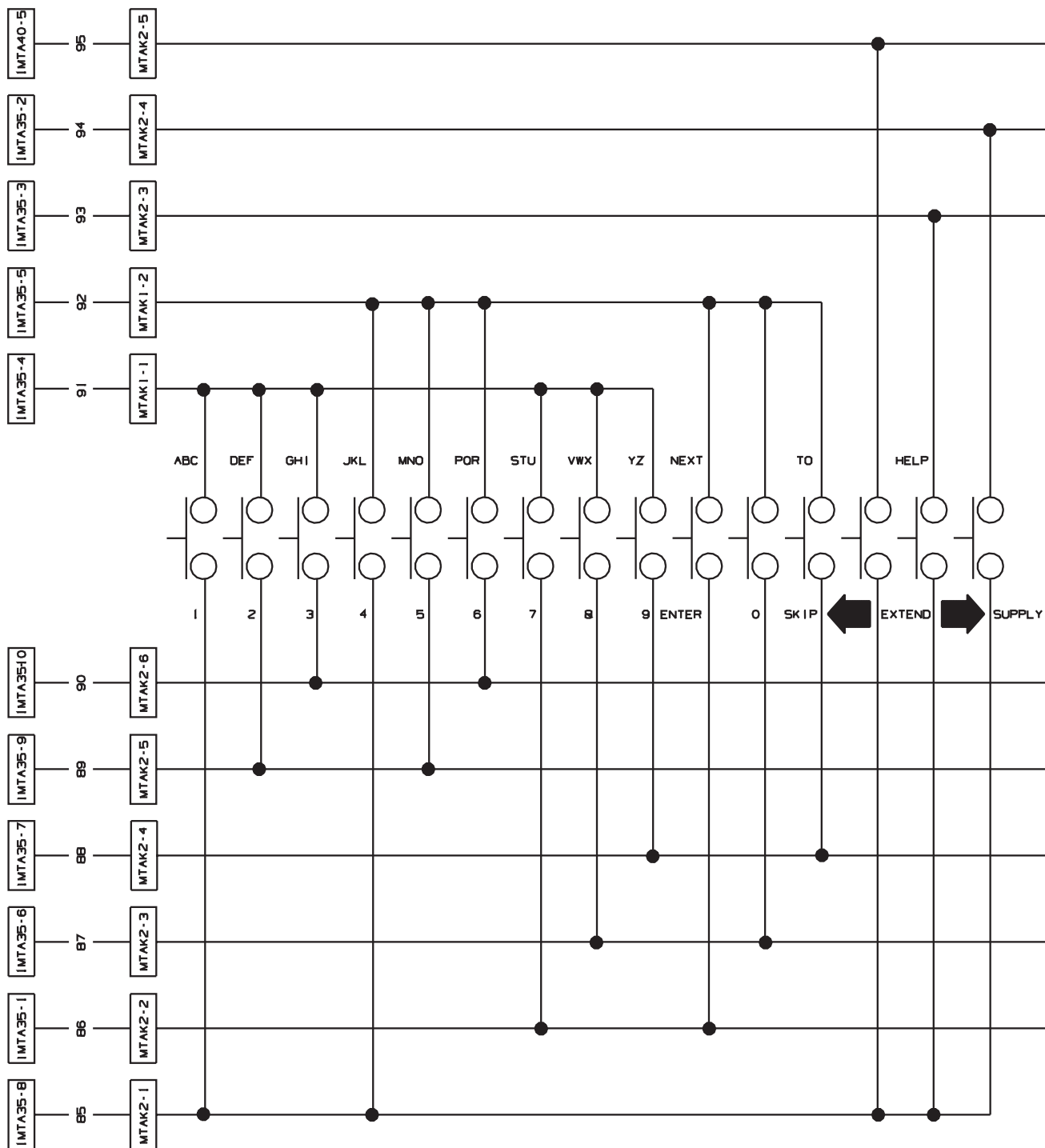
W6F3S11A
2000093B

W6F3SI1A
MICRO 6 SYSTEMS
MARK V
SCHEMATIC: MICROPROCESSOR INPUTS
PELLERIN MILNOR CORPORATION



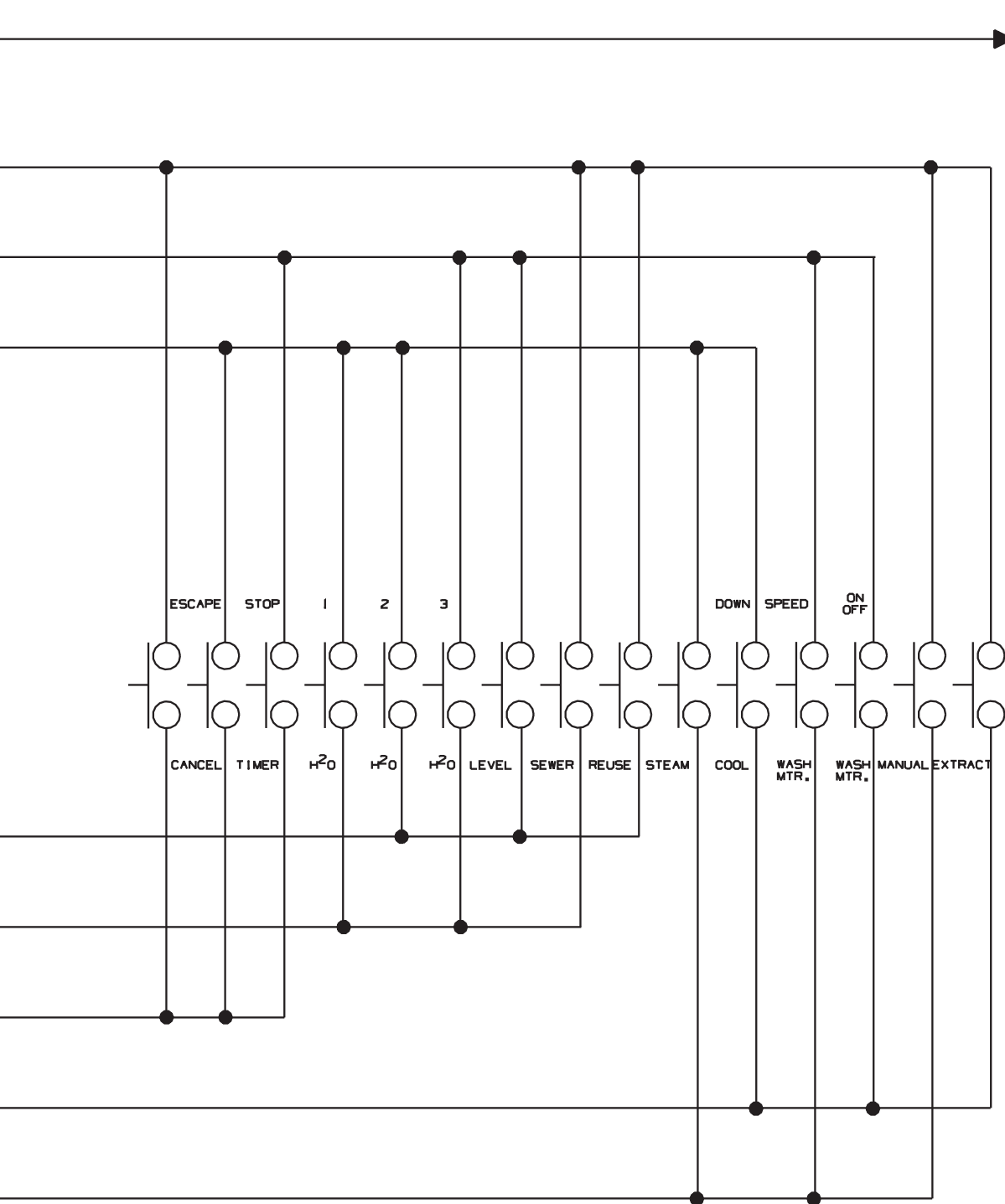


KEYPAD TO PROCESSOR BOARD



LITHO IN U.S.A.

00 01 02 03 04 05 06 07 08 09 10



NOTES:

1. MTA1 & MTA2 ARE LOCATED ON KEYPAD.
2. IMTA35 & IMTA40 ARE LOCATED ON BPB (PROCESSOR BOARD).

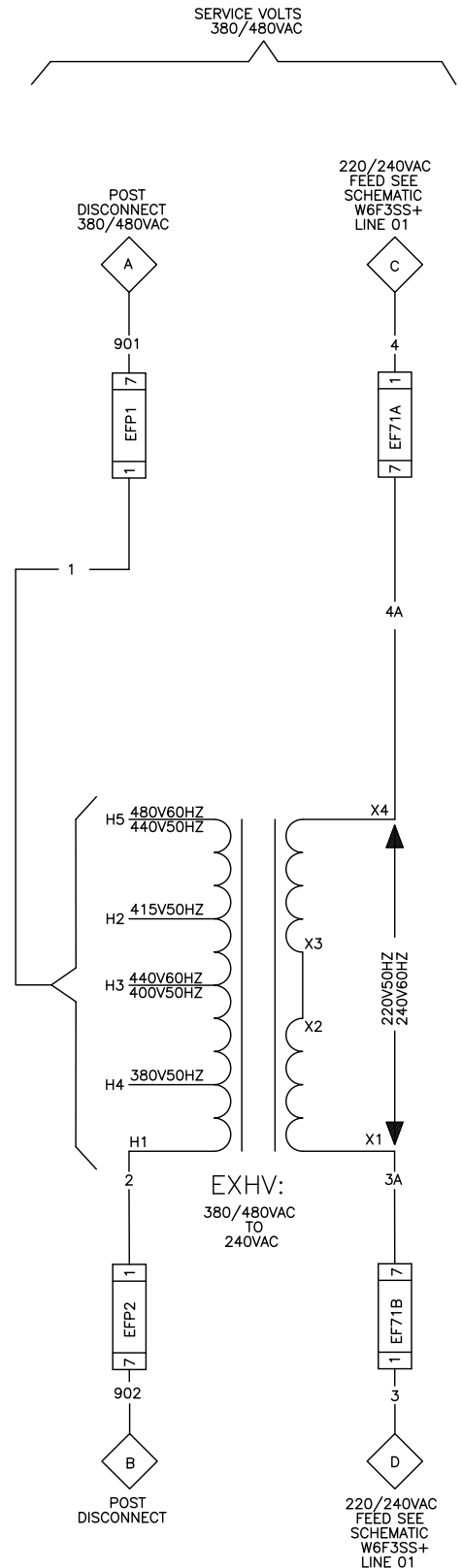
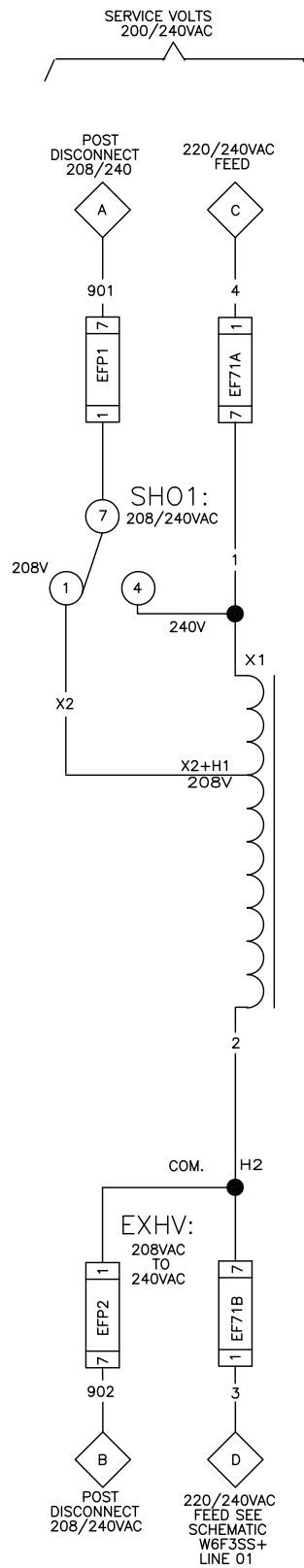
W6F3SKP

MICRO 6 SYSTEMS MARK V

SCHEMATIC: KEYPAD (SERIAL CONTROLS)

PELLERIN MILNOR CORPORATION

11 12 13 14 15 16 17 18 19



00

01

02

03

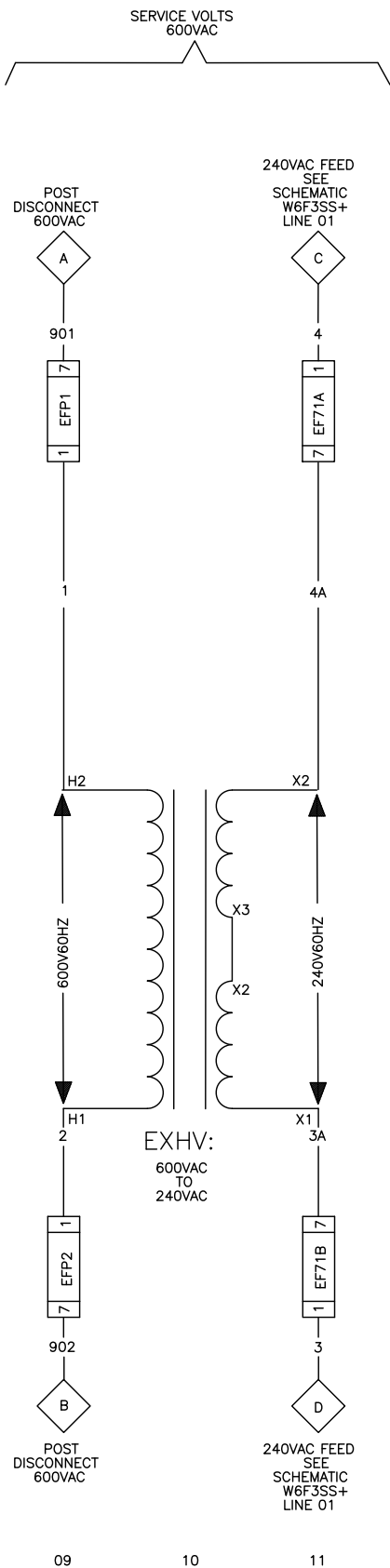
04

05

06

07

08



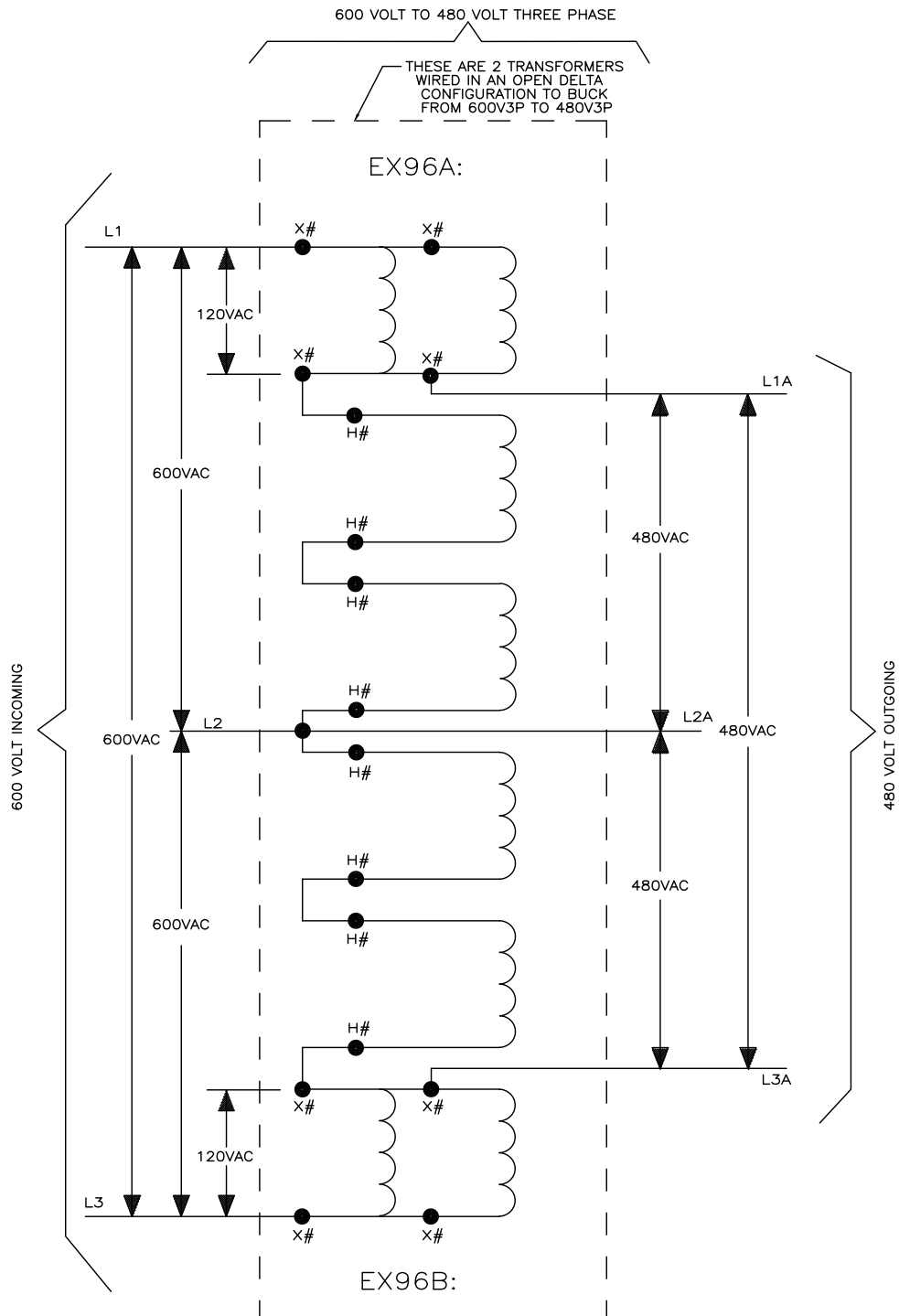
W6F3SLV

MICRO 6 SYSTEMS MARK V

SCHEMATIC:CONTROL CIRCUIT TRANSFORMER

220V1P50HZ/240V1P60HZ

PELLERIN MILNOR CORPORATION



REFER TO TRANSFORMER WIRING DIAGRAM FOR APPROPRIATE WIRE NUMBERS.

THE PRIMARY OF EACH TRANSFORMER NOTED BY H# MUST BE WIRED FOR 480 VOLTS. THE SECONDARY OF EACH TRANSFORMER NOTED BY X# MUST BE WIRED FOR 120 VOLTS.

INPUT (SUPPLY SYSTEM)	DESIRED OUTPUT CONNECTION	
DELTA 3 WIRE	WYE 3 OR 4 WIRE	DO NOT USE
OPEN DELTA 3 WIRE	WYE 3 OR 4 WIRE	DO NOT USE
WYE 3 OR 4 WIRE	CLOSED DELTA 3 WIRE	DO NOT USE
WYE 4 WIRE	WYE 3 OR 4 WIRE	OK
WYE 3 OR 4 WIRE	OPEN DELTA 3 WIRE	OK
CLOSED DELTA 3 WIRE	OPEN DELTA 3 WIRE	OK

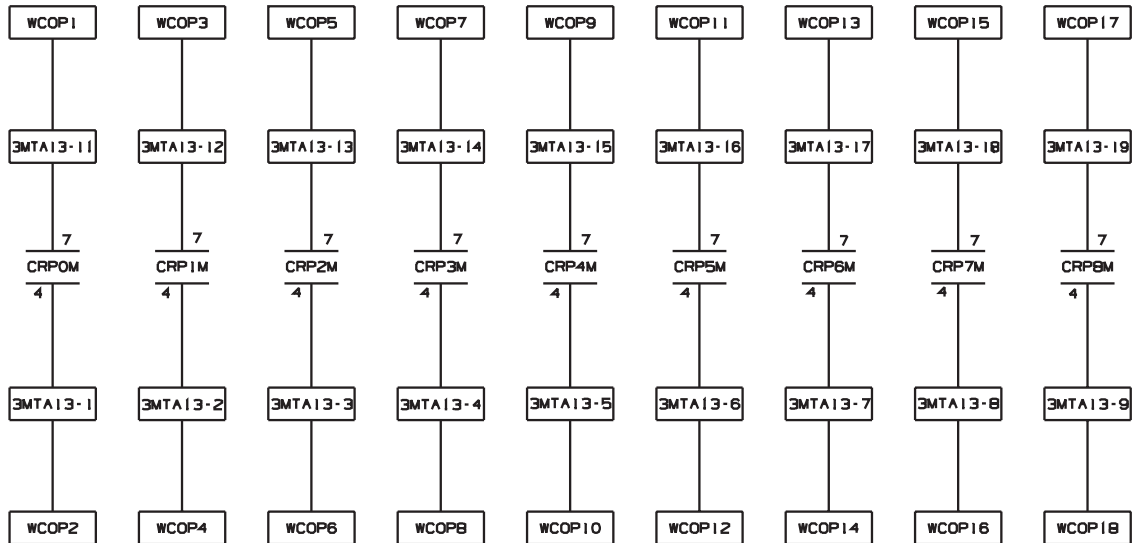
00 01 02 03 04 05 06 07 08 09 10

W6F3SMT6
2019472B

W6F3SMT6
MICRO 6 SYSTEMS
MARK V CONTROLS
SCHEMATIC: 600V MACHINES
600V TO 480 VOLT STEP DOWN
PELLERIN MILNOR CORPORATION

W6F3SMT6
2019472B

W6F3SMT6
2019472B



00

01

02

03

04

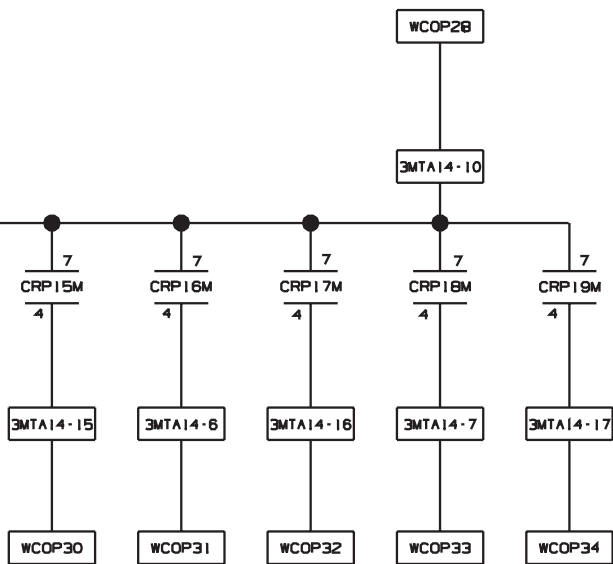
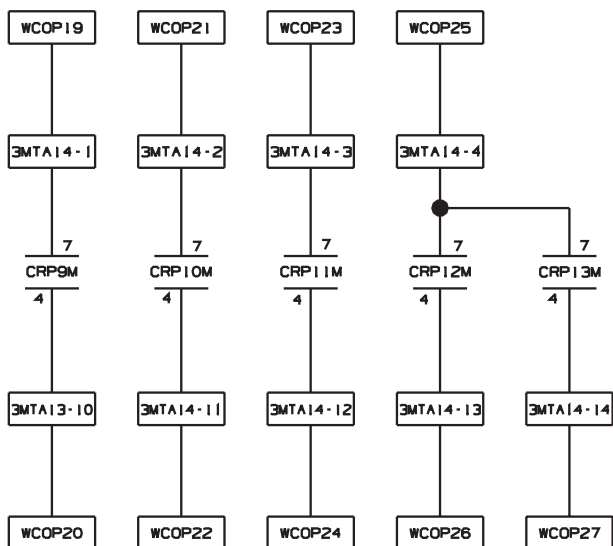
05

06

07

08

09



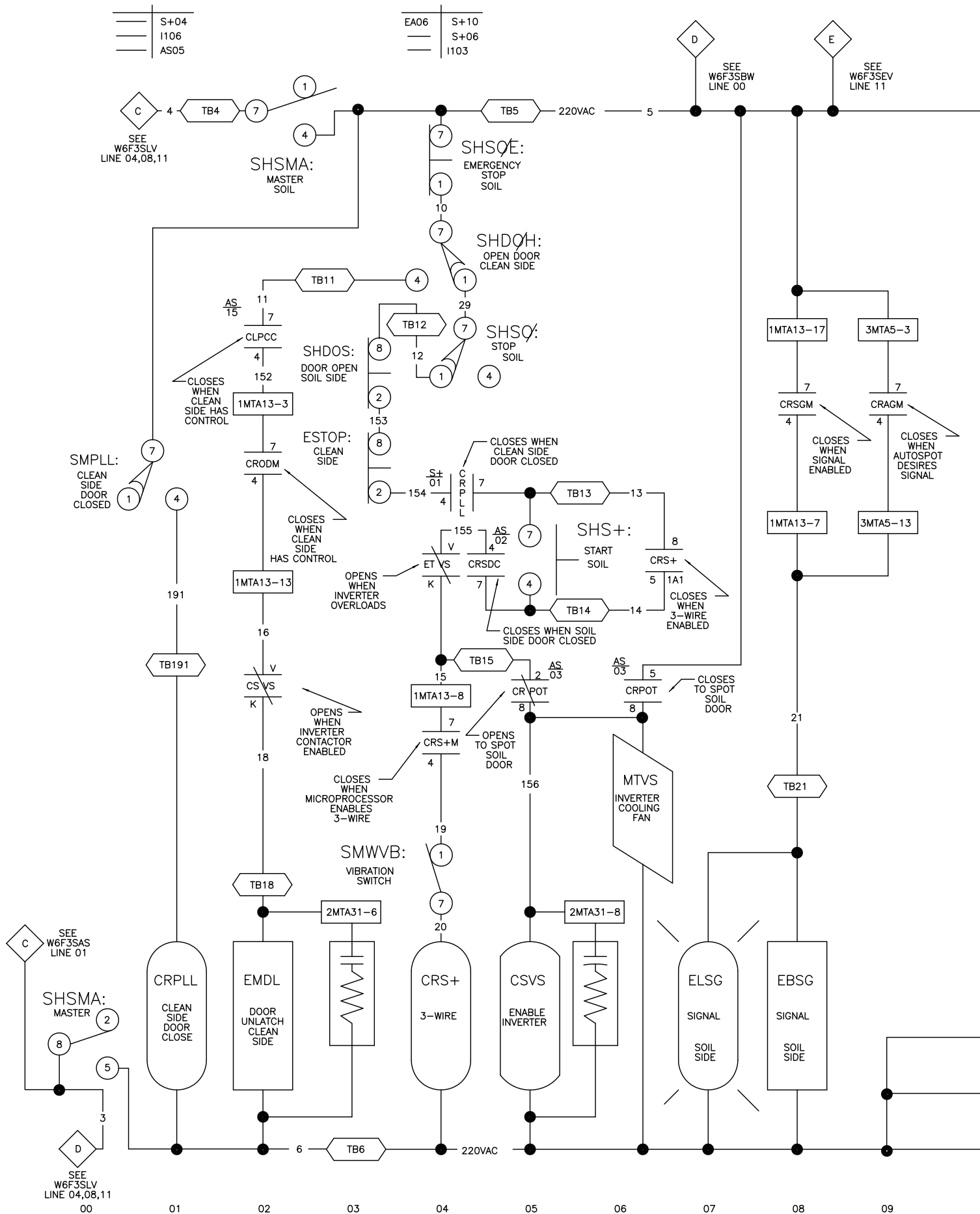
W6F3SOP

MICRO 6 SYSTEMS SERIAL CONTROLS

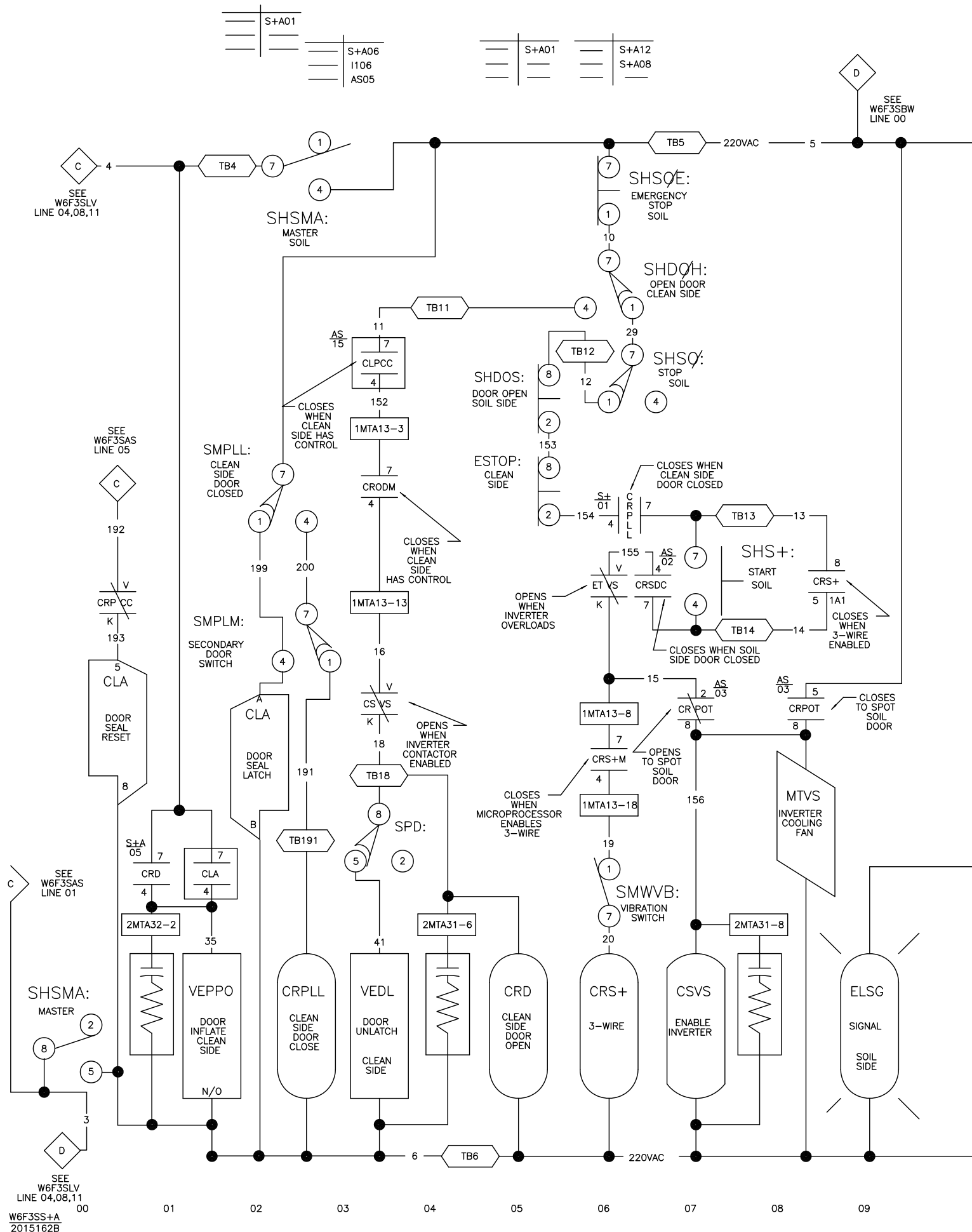
SCHEMATIC: 20 OPTIONAL PROGRAMMABLE OUTPUTS

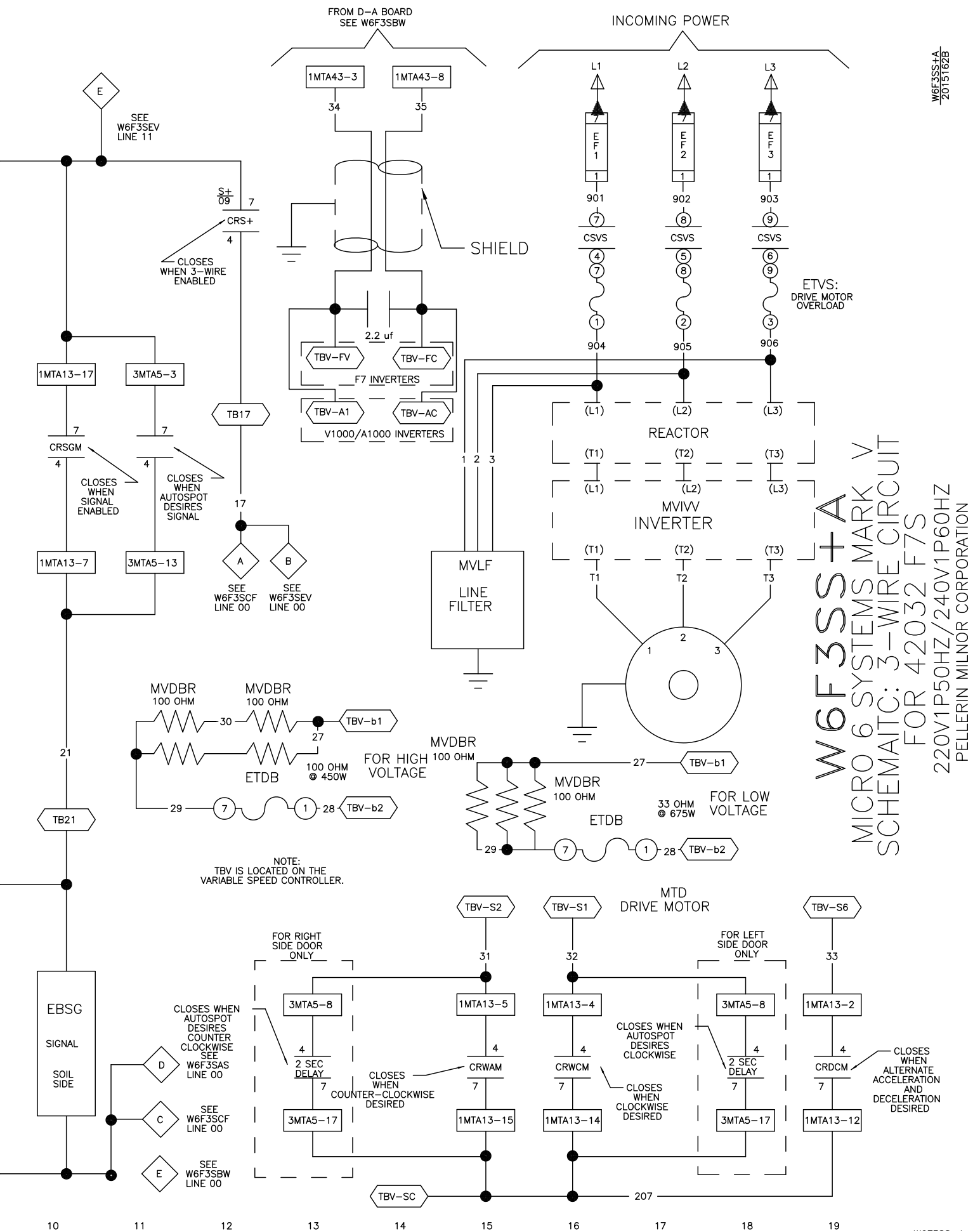
PELLERIN MILNOR CORPORATION

10 11 12 13 14 15 16 17









W6F3SS+A
2015162B

W6F3SS+A
2015162B

