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Schematic/Electrical Parts

30022 & 36026X8R

42026 & 42032X7R

MILTOUCH-EX (TM) CONTROLS



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



Table of Contents

ME6HX8R1AE/25475A

Page	Description	Document
1	Component Parts List	W6X8RSPL/2025314N
7	Limited Standard Warranty	BMP720097/2025142
8	How to Get the Necessary Repair Components	BIUUUD19/20081231
9	How to Use Milnor® Electrical Schematic Diagrams	BIUUUK01/20130308
22	Sample Schematic	BMP010012/2018343
24	3 Phase Motor Connection Diagram	BMP850029/1999362B
25	3P Motor Diagram-Multivolt	W80008/2001253A
26	Control Box Layouts	W6X8RSTG1/2017434B
28	Board to board wiring	W6X8RSBW/2023443B
30	Flushing Supplies	W6X8RSCF/2024294B
32	Liquid Supplies-Interpret Relays	W6X8RSCP/2024294B
34	Flushing Supplies 6 through 15	W6X8RSCX/2023443B
36	Optional Sample Door	W6X8RSDS/2014112B
38	Extract Speed Limit	W6X8RSEC/2021325B
40	Electric Valves	W6X8RSEV/2024294B
42	Flashing Signal Light	W6X8RSFS/2023443B
44	Microprocessor Inputs	W6X8RSI1A/2016166B
46	Control Circuit Transformer	W6X8RSLV/2018486B
48	Optional 20 Programmable Outputs	W6X8RSOP/2014112B
50	Start Circuit for 30022X8R	W6X8RSS+/2023443B
52	Start Circuit for 36X8R/42X7R	W6X8RSS+A/2025475B

COMPONENT PARTS LIST

W6X8RSPL/2025314N

COMPONENT NUMBER	FUNCTION OF THIS COMPONENT NUMBER	WHERE TO FIND THIS COMPONENT			MIL NOR P/N	DESCRIPTION	LOCATION
		FUNCTION OF THIS COMPONENT	THIS COMPONENT	MIL NOR P/N			
	>>>COMPONENT LOCATIONS						
001	DETAIL-36/42 CONTROL BOX	W6X8RSTG1	B2T2014008	TAG:36/42 CONTROL BOX	CONTROL BOX		
002	DETAIL-CONTROL BOARDS INPUTS/OUTPUTS	W6X8RSTG1	B2T2014013	TAG:MIL TOUCH-EX INPUTS/OUTPUTS	CONTROL BOX		
003	DETAIL-POWER SUPPLY SETTINGS	W6X8RSTG1	B2T2014012	TAG:MIL TOUCH-EX POWER SUPPLIES	CONTROL BOX		
AC	>>>ACCELEROMETER						
ACBA	ACCELEROMETER- EXACT EXTRACT	W6X8RSEC	EACCLRM3	ASSY:ACCEL O-5V DC OP STAPH 42	MOTOR RAIL		
BA	>>>PRINTED CIRCUIT BOARDS						
BAD-1	BOARD-ANALOG TO DIGITAL CONVERTER	W6X8RSBW	08BSADCT	BD: SERIAL A-D CONVERT->TEST	CONTROL BOX		
BAFR<11/20	BOARD FUSE/RELAY	W6X8RSS+	08BHFRCT	BD-TV/X START CIRCUIT->TEST	CONTROL BOX		
BAFR>11/20	BOARD FUSE/RELAY	W6X8RSS+	08BHFRDT	BD-TV/X START CIRCUIT->TEST	CONTROL BOX		
BAS	BOARD-16 SNUBBER CIRCUITS	W6X8RSCF	08BNCMBT	COIN MACHINE SNUBBER->TESTED	CONTROL BOX		
BAS	BOARD-16 SNUBBER CIRCUITS	W6X8RSEV	08BNCMBT	COIN MACHINE SNUBBER->TESTED	CONTROL BOX		
BAS	BOARD-16 SNUBBER CIRCUITS	W6X8RSS+	08BNCMBT	COIN MACHINE SNUBBER->TESTED	CONTROL BOX		
BAS	BOARD-16 SNUBBER CIRCUITS	W6X8RSS+A	08BNCMBT	COIN MACHINE SNUBBER->TESTED	CONTROL BOX		
BBAD-1	BOARD-ACCELEROMETER EXACT EXTRACT	W6X8RSEC	08BSBADCTE	SERIAL BALANCE A-D BD EXTRACTOR-TEST	CONTROL BOX		
BDA-1	BOARD-DIGITAL TO ANALOG CONVERTER	W6X8RSBW	08BSDACHT	BD:HI-RES SERIAL D-A->TEST	CONTROL BOX		
BIO-1	BOARD-8OUTPUT/16INPUT #1	W6X8RSBW	08BS816CHT	BD 8OUT-16IN HIGH SPD->TEST	CONTROL BOX		
BIO-2	BOARD-8OUTPUT/16INPUT #2	W6X8RSBW	08BS816CHT	BD 8OUT-16IN HIGH SPD->TEST	CONTROL BOX		
BLB	BOARD-LEVEL TRANSDUCER	W6X8RSBW	08BNLTT	LEVEL TRANSDUCER BD->TEST	CONTROL BOX		
BMTH	BOARD-6 CHANNEL MOTHER	W6X8RSBW	08BS3MTHAT	SERIAL 3 CARD MOTHER BD->TEST	CONTROL BOX		
BO24-1	BOARD-24 OUTPUT #1	W6X8RSBW	08BSO24AT	BD:SERIAL 24 OUTPUT->TEST	CONTROL BOX		
BO24-2	BOARD-24 OUTPUT #2	W6X8RSBW	08BSO24AT	BD:SERIAL 24 OUTPUT->TEST	CONTROL BOX		
BPB < 2/5/16	BOARD-ARM9 PROCESSOR+TOUCHSCREEN	W6X8RSBW	08BHA9D3ET	ASSY: ARM9 PROC+OPTREX DSP>REVE-TEST	PROCESSOR BX		
BPB > 2/5/16	BOARD-ARM9 PROCESSOR+TOUCHSCREEN	W6X8RSBW	08BHA9E3GT	ASSY: ARM9 PROC+OPTREX DSP>REVG-TEST	PROCESSOR BX		
BSP	BOARD-SPEED SENSING	W6X8RSBW	08BNDSRAT	BD DRY SAFETY ROTATION->TEST	CONTROL BOX		
CD	>>>RELAY-DELAY						
CDSD	DELAY-SAMPLE DOOR	W6X8RSDS	08TF090A71	ELECT ADJ RELAY 1-90 230V 60C	CONTROL BOX		
CL	>>>RELAY-LATCH						
CLA <3-25	LATCH-DOOR SEAL	W6X8RSS+A	09CL2C-C71	RELAY-LATCH DPDT 240V 2-COIL	CONTROL BOX		
CLA	LATCH-DOOR SEAL	W6X8RSS+A	09CL2C-D71	RELAY-LATCH DPDT 240V 2-COIL	CONTROL BOX		
CP	>>>PHOTOEYE						
CPSP	PHOTOEYE-SPEED	W6X8RSBW	09RPE013	SENSOR E-Z BEAM DC	MAIN PULLEY		
CR	>>>RELAY-PILOT OR CONTROL						

COMPONENT PARTS LIST

W6X8RSPL/2025314N

COMPONENT NUMBER	FUNCTION OF THIS COMPONENT NUMBER	WHERE TO FIND			DESCRIPTION	LOCATION
		THIS COMPONENT	MIL NOR P/N	DESCRIPTION		
CRC01	RELAY-INTERPRET #1	W6X8RSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX	
CRC02	RELAY-INTERPRET #2	W6X8RSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX	
CRC03	RELAY-INTERPRET #3	W6X8RSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX	
CRC04	RELAY-INTERPRET #4	W6X8RSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX	
CRC05	RELAY-INTERPRET #5	W6X8RSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX	
CRC06	RELAY-INTERPRET #6	W6X8RSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX	
CRC07	RELAY-INTERPRET #7	W6X8RSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX	
CRC08	RELAY-INTERPRET #8	W6X8RSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX	
CRC09	RELAY-INTERPRET #9	W6X8RSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX	
CRC10	RELAY-INTERPRET #10	W6X8RSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX	
CRC11	RELAY-INTERPRET #11	W6X8RSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX	
CRC12	RELAY-INTERPRET #12	W6X8RSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX	
CRC13	RELAY-INTERPRET #13	W6X8RSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX	
CRC14	RELAY-INTERPRET #14	W6X8RSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX	
CRC15	RELAY-INTERPRET #15	W6X8RSCP	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	INTERPRET BOX	
CRD	RELAY-OK TO OPEN DOOR	W6X8RSS+	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	BAFR BOARD	
CRD	RELAY-DOOR UNLATCH	W6X8RSS+A	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX	
CRDL	RELAY-DOOR CLOSED AND LOCKED	W6X8RSS+	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	BAFR BOARD	
CRE	RELAY-OK TO LOCK DOOR	W6X8RSS+	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	BAFR BOARD	
CRS+	RELAY-START 3-WIRE	W6X8RSS+	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX	
CRS+	RELAY-START 3-WIRE	W6X8RSS+A	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX	
CRSAD	RELAY-DISABLE DOOR	W6X8RSDS	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX	
CRSAE	RELAY-SAMPLE DESIRED	W6X8RSDS	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX	
CRSDR	RELAY-SAMPLE DOOR RELEASE	W6X8RSDS	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX	
CRSG	RELAY-SIGNAL (OPITONAL FLASHING LIGHT)	W6X8RSS+	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX	
CRSG	RELAY-SIGNAL (OPITONAL FLASHING LIGHT)	W6X8RSS+A	09C024D71	RELAY 4PDT DIFGLD 14PIN 240V	CONTROL BOX	
CS	>>>CONTACTOR-MOTOR STARTER					
CSR	CONTACTOR-RECIRCULATE	W6X8RSEV	09MC04E371	32A 3P CONT.NR 240V5/6 IEC	CONTROL BOX	
CSVS	CONTACTOR-INVERTER 3022X8	W6X8RSS+	09MC08C371	16A 3P MCS CONT NR 240V5/6	CONTROL BOX	
CSVS	CONTACTOR-INVERTER 36X8, 42X7	W6X8RSS+A	09MC08G371	37A 3P MCS CONT NR 240V5/6	CONTROL BOX	
EB	>>>BUZZER OR AUDIBLE SIGNAL					
EBSG	BUZZER-SIGNAL AUDIBLE	W6X8RSS+	09H016	BUZZ. 230V W/6-32 CTR+6" LEADS	SWITCH PANEL	
EBSG	BUZZER-SIGNAL AUDIBLE	W6X8RSS+A	09H016	BUZZ. 230V W/6-32 CTR+6" LEADS	SWITCH PANEL	

COMPONENT PARTS LIST

W6X8RSPL/2025314N

COMPONENT NUMBER	FUNCTION OF THIS COMPONENT NUMBER	WHERE TO FIND THIS COMPONENT			MIL NOR P/N	DESCRIPTION	LOCATION
		EF	EL	EM			
EF	>>>FUSE OR FUSE HOLDER						
EF01	FUSE-CONTROL CIRCUIT	W6X8RSLV			09FF006AMA	FUSE BK/ABC 6 AMP 250V BUSS	CONTROL BOX
EF02	FUSE-CONTROL CIRCUIT	W6X8RSLV			09FF006AMA	FUSE BK/ABC 6 AMP 250V BUSS	CONTROL BOX
EF1	FUSE-PRIMARY INCOMING VOLTAGE	W6X8RSLV			09FF005AWN	BUSE BUSS KTK 5AMP 600V=HPS HOLDER	CONTROL BOX
EF2	FUSE-PRIMARY INCOMING VOLTAGE	W6X8RSLV			09FF005AWN	BUSE BUSS KTK 5AMP 600V=HPS HOLDER	CONTROL BOX
EF	>>>FLASHING LIGHT						
EFSG	FLASHING LIGHT-LED	W6X8RSFS			09H025V12	BEACON ROTARY AMBER LED 12VDC	SWITCH PANEL
EL	>>>LIGHT-PILOT OR INDICATOR						
ELSAO	LIGHT-OK TO OPEN SAMPLE DOOR	W6X8RSDS			09J060WH71	LAMP 1/2" WHITE 240VAC TABS	SAMPLE SWPNL
ELSDR	LIGHT-SAMPLE DESIRED	W6X8RSDS			09J060A71	LAMP 1/2" AMB 250V IDI 1051QC3	SAMPLE SWPNL
ELSES	LIGHT-ILLUMINATED EMERGENCY STOP	W6X8RSS+A			09N507E	ESTOP SWITCH HEAD RED CLEAR	SWITCH PANEL
ELSG	LIGHT-SIGNAL VISUAL	W6X8RSS+			09J060A71	LAMP 1/2" AMB 250V IDI 1051QC3	SWITCH PANEL
ELSG	LIGHT-SIGNAL VISUAL	W6X8RSS+A			09J060A71	LAMP 1/2" AMB 250V IDI 1051QC3	SWITCH PANEL
EM	>>>ELECTROMAGNET AND SOLENOID						
EMDL	SOLENOID-DOOR LATCH	W6X8RSS+			09K063C24	DOOR LOCK SOLENOID 24V	DOOR LATCH
EMDL	SOLENOID-DOOR LATCH	W6X8RSS+A			09K062A71	SOLENOID 240/60--220/50 = ILOC	DOOR LATCH
EMHR	METER-RUN TIME	W6X8RSFS			38C203	HOUR METER 3.8IN 3 HOLE MTG 230V/60C	CONTROL BOX
ES	>>>POWER SUPPLY-ELECTRONIC						
ESPS	POWER SUPPLY-CARD CAGE	W6X8RSBW			08PSS3401T	40 WATT POWER SUPPLY TESTED	CONTROL BOX
ESPS2	POWER SUPPLY-PROCESSOR	W6X8RSBW			08PSS2401T	PWR SUPPLY 40WATT 120/240V TO 12V TEST	CONTROL BOX
ET	>>>THERMAL OVERLOAD DEVICES						
ETDB	OVERLOAD-DYNAMIC BRAKE	W6X8RSS+			09F024A	OL RELAY 1P SZ1 SQD #9065-C01	CONTROL BOX
ETDB	OVERLOAD-DYNAMIC BRAKE	W6X8RSS+A			09F024A	OL RELAY 1P SZ1 SQD #9065-C01	CONTROL BOX
ETR	OVERLOAD-RECIRCULATION MOTOR	W6X8RSS+			09FTD0016T	E1 PLUS OL RELAY 1.0-5.0A	CONTROL BOX
ETR	OVERLOAD-RECIRCULATION MOTOR	W6X8RSS+A			09FTD0016T	E1 PLUS OL RELAY 1.0-5.0A	CONTROL BOX
ETVS	OVERLOAD LOAD-VARIABLE SPD	W6X8RSS+			09FTD0037T	E1 PLUS OL RELAY 3.2-16A	CONTROL BOX
ETVS	OVERLOAD-INVERTER 36X8R, 42X7R	W6X8RSS+A			09FTD0121T	E1 PLUS OL RELAY 9-45A	CONTROL BOX
EX	>>>TRANSFORMERS						
EX37	TRANSFORMER-INCOMING VOLT. 120VAC	W6X8RSLV			MESSAGE EW	SEE EX37-1, OR -2 FOR VOLTAGE	CONTROL BOX
EX37-1	TRANSFORMER-208 TO 240V	W6X8RSLV			98CMCR0902	AUTOXFMR 208V-230V 250VA	CONTROL BOX
EX37-2	TRANSFORMER-380/480 TO 240VAC	W6X8RSLV			09UA025AAB	XFMR 380-480PRI/120-240SEC250V	CONTROL BOX
MT	>>>MOTORS						
MTD	MOTOR-DRIVE	W6X8RSS+			MESSAGE SO	SEE SPECIFIC COMPONENT+NAMEPLATE	MACHINE

COMPONENT PARTS LIST

W6X8RSPL/2025314N

COMPONENT NUMBER	FUNCTION OF THIS COMPONENT NUMBER	WHERE TO FIND THIS COMPONENT			MIL NOR P/N	DESCRIPTION	LOCATION
		W6X8RSS+A	W6X8RSS+	W6X8RSS+A			
MTD	MOTOR-DRIVE	W6X8RSS+A	W6X8RSS+	W6X8RSS+A	MESSAGE SO	SEE SPECIFIC COMPONENT+NAMEPLATE	MACHINE
MTLF	FILTER-INVERTER/MOTOR POWER	W6X8RSS+	W6X8RSS+	W6X8RSS+A	09MVFILTR1	INCOMING POWER FILTER CAP	CONTROL BOX
MTLF	FILTER-INVERTER/MOTOR POWER	W6X8RSS+A	W6X8RSS+	W6X8RSS+A	09MVFILTR1	INCOMING POWER FILTER CAP	CONTROL BOX
MTR	MOTOR-RECIRCULATION	W6X8RSS+	W6X8RSS+	W6X8RSS+A	MESSAGE SO	SEE SPECIFIC COMPONENT+NAMEPLATE	MACHINE
MTR	MOTOR-RECIRCULATION	W6X8RSS+A	W6X8RSS+	W6X8RSS+A	MESSAGE SO	SEE SPECIFIC COMPONENT+NAMEPLATE	MACHINE
MTVS	FAN-INVERTER COOLING	W6X8RSS+	W6X8RSS+	W6X8RSS+A	13AF235A71	FAN 235CFM 230V 50/60	BACK C-BOX
MTVS	FAN-INVERTER COOLING	W6X8RSS+A	W6X8RSS+	W6X8RSS+A	13AF235A71	FAN 235CFM 230V 50/60	BACK C-BOX
MV	>>>MOTOR POWER INVERTERS						
MV/DBR	RESISTOR-DYNAMIC BRAKE	W6X8RSS+	W6X8RSS+	W6X8RSS+A	09MV100RES	RESISTOR 100 OHM 225WATT ADJ	BELOW C-BX
MV/DBR	RESISTOR-DYNAMIC BRAKE	W6X8RSS+A	W6X8RSS+	W6X8RSS+A	09MV100RES	RESISTOR 100 OHM 225WATT ADJ	BELOW C-BX
MV/FLT	INV FILTER-DRIVE	W6X8RSS+	W6X8RSS+	W6X8RSS+A	09MVFILTR1	INCOMING POWER FILTER CAP	CONTROL BOX
MV/FLT	INV FILTER-DRIVE	W6X8RSS+A	W6X8RSS+	W6X8RSS+A	09MVFILTR1	INCOMING POWER FILTER CAP	CONTROL BOX
MV/INR-H	INV IN LINE REACTOR 380-480V 3022 MODEL	W6X8RSS+	W6X8RSS+	W6X8RSS+A	09MX100A96	REACTOR 10HP 460V 16A	CONTROL BOX
MV/INR-H	INV IN LINE REACTOR 280-4800V 36/42 MODELS	W6X8RSS+A	W6X8RSS+	W6X8RSS+A	09MX250A96	REACTOR 25HP 460V 35A	CONTROL BOX
MV/INR-L	INV IN LINE REACTOR 200-240V 3022 MODEL	W6X8RSS+	W6X8RSS+	W6X8RSS+A	09MX100A74	REACTOR 25HP 230V 35A	CONTROL BOX
MV/INR-L	INV IN LINE REACTOR 200-240V 36/42 MODELS	W6X8RSS+A	W6X8RSS+	W6X8RSS+A	09MX200A74	REACTOR 20HP 230V 55A	CONTROL BOX
MV/INV-H	INVERTER-3022X8R 380-600 V	W6X8RSS+	W6X8RSS+	W6X8RSS+A	09MMWB00996	V1000 INVERTER 9.2AMP 460V	CONTROL BOX
MV/INV-H	INVERTER-36" X8R 380-600 VOLTS	W6X8RSS+A	W6X8RSS+	W6X8RSS+A	09MMWB01896	V1000 INVERTER 18AMP 460V	CONTROL BOX
MV/INV-H	INVERTER-42" X7R 380-600 VOLTS	W6X8RSS+A	W6X8RSS+	W6X8RSS+A	09MWA02496	F7 INVERTER 24 AMP	CONTROL BOX
MV/INV-L	INVERTER-3022X8R 200-240V	W6X8RSS+	W6X8RSS+	W6X8RSS+A	09MMWB01774	V1000 INVERTER 17.5AMP 230V	CONTROL BOX
MV/INV-L	INVERTER-36" X8R 200-240VOLTS	W6X8RSS+A	W6X8RSS+	W6X8RSS+A	09MMWB03374	V1000 INVERTER 33AMP 230V	CONTROL BOX
MV/INV-L	INVERTER-42" X7R 200-240VOLTS	W6X8RSS+A	W6X8RSS+	W6X8RSS+A	09MWA04574	F7 INVERTER 45 AMP	CONTROL BOX
PS	>>>POWER SUPPLY-ELECTRONIC						
PSFL	POWER SUPPLY-FLASHING LIGHT (OPTIONAL)	W6X8RSFS	W6X8RSFS	W6X8RSFS	08PSS3401T	40 WATT POWER SUPPLY TESTED	CONTROL BOX
RS	>>>RESISTORS						
RS01	RESISTOR 16OHM 25W	W6X8RSBW	W6X8RSBW	W6X8RSBW	ECEUMTRES	LOAD RESISTOR ASSY MILTOUCH EX	LOW VOLT BOX
SH	>>>SWITCH-HAND OPERATED						
SH01	SWITCH-208-240V SELECT	W6X8RSLV	W6X8RSLV	W6X8RSLV	09N050	TOGSW SPDT NO OFF 10A 250V	CONTROL BOX
SHDOH	SWITCH-OPEN DOOR	W6X8RS1A	W6X8RS1A	W6X8RS1A	09N405PB12	SWASS PB BLUE 1NO/2NC	SWITCH PANEL
SHDOH	SWITCH-DOOR OPEN	W6X8RSS+	W6X8RSS+	W6X8RSS+A	09N405PB12	SWASS PB BLUE 1NO/2NC	SWITCH PANEL
SHDOH	SWITCH-DOOR OPEN	W6X8RSS+A	W6X8RSS+	W6X8RSS+A	09N405PB12	SWASS PB BLUE 1NO/2NC	SWITCH PANEL
SHSAD	SWITCH-SAMPLE DESIRED	W6X8RSDS	W6X8RSDS	W6X8RSDS	09N400CBNO	CONTACT BLK ONLY 1-NO SQD#ZB2BE101	SAMPLE SWPL
SHSAR	SWITCH--SAMPLE DOOR RESET	W6X8RSDS	W6X8RSDS	W6X8RSDS	09N400CBNC	CONTACT BLK ONLY 1-NC SQD#ZB2BE102	SAMPLE SWPL

COMPONENT PARTS LIST

W6X8RSPL/2025314N

COMPONENT NUMBER	FUNCTION OF THIS COMPONENT NUMBER	WHERE TO FIND THIS COMPONENT			MIL NOR P/N	DESCRIPTION	LOCATION
		THIS COMPONENT					
SHSMA	SWITCH-MASTER	W6X8RSS+	09N405M210	SWASS M2W 1NO	SWITCH PANEL		
SHSMA	SWITCH-MASTER	W6X8RSS+A	09N405M210	SWASS M2W 1NO	SWITCH PANEL		
SHSOE	SWITCH-EMERGENCY STOP	W6X8RSS+	09N505	SW ASSY EMER STOP	SWITCH PANEL		
SHSOE	SWITCH-EMERGENCY STOP (OPTION)	W6X8RSS+	09N507G	ESTOP LIGHT ONLY 240VAC NEEDS 09N507F	SWITCH PANEL		
SHSOE	SWITCH-EMERGENCY STOP	W6X8RSS+A	09N505	SW ASSY EMER STOP	SWITCH PANEL		
SHSOE	SWITCH-EMERGENCY STOP (OPTION)	W6X8RSS+A	09N507G	ESTOP LIGHT ONLY 240VAC NEEDS 09N507F	SWITCH PANEL		
SM	>>>SWITCH-MECHANICAL OPERATED						
SMDE	SWITCH-SECONDARY DOOR CLOSED	W6X8RSS+A	09RM01212S	CAPSW 12' 180DEG ROLLER SILVER	SHELL FRONT		
SMEB	SWITCH-EXCURSION	W6X8RSI1A	09R008A	MICSW SPDT BZE6-2RN183	UNDER SHELL		
SMPLL	SWITCH-DOOR CLOSED	W6X8RSS+	09R014A	MINI-SW SPDT STAKON #V15G1C26	DOOR LATCH		
SMPLL	SWITCH-DOOR CLOSED	W6X8RSS+A	09R012	MICSW SPDT PAINTED BZE6-RN 01	DOOR LATCH		
SMSDC	SWITCH-SAMPLE DOOR	W6X8RSDS	09RM01212S	CAPSW 12' 180DEG ROLLER SILVER	SAMPLE DOOR		
SMWVB	SWITCH-VIBRATION	W6X8RSS+	09R020	SWITCH NC VIBR#WZ-2RW84429-P52	CONTROL BOX		
SMWVB	SWITCH-VIBRATION	W6X8RSS+A	09R020	SWITCH NC VIBR#WZ-2RW84429-P52	CONTROL BOX		
SP	>>>SWITCH-PRESSURE OPERATED						
SPA	PRESSURE SW-AIR PRESSURE AVAILABLE	W6X8RSS+A	09N082A	PRESSW NASON CLOSE @ 62 LB.	CONTROL BOX		
SPD	PRESSURE SW-LEVEL OK TO OPEN DOOR	W6X8RSS+A	09N082B10	PRESSW NASON CLOSE @ 10 LB	CONTROL BOX		
VE	>>>VALVE-ELECTRIC OPERATED						
VEC01	VALVE-CHEMICAL #1 FLUSH	W6X8RSCF	96P013B71	3/4" 2WAY PLASTIC VALVE 240V60C	SUPPLY INJEC		
VEC02	VALVE-CHEMICAL #2 FLUSH	W6X8RSCF	96P013B71	3/4" 2WAY PLASTIC VALVE 240V60C	SUPPLY INJEC		
VEC03	VALVE-CHEMICAL #3 FLUSH	W6X8RSCF	96P013B71	3/4" 2WAY PLASTIC VALVE 240V60C	SUPPLY INJEC		
VEC04	VALVE-CHEMICAL #4 FLUSH	W6X8RSCF	96P013B71	3/4" 2WAY PLASTIC VALVE 240V60C	SUPPLY INJEC		
VEC05	VALVE-CHEMICAL #5 FLUSH	W6X8RSCF	96P013B71	3/4" 2WAY PLASTIC VALVE 240V60C	SUPPLY INJEC		
VEC06	VALVE-CHEMICAL #6 FLUSH	W6X8RSCX		SUPPLIED BY OTHERS			
VEC07	VALVE-CHEMICAL #7 FLUSH	W6X8RSCX		SUPPLIED BY OTHERS			
VEC08	VALVE-CHEMICAL #8 FLUSH	W6X8RSCX		SUPPLIED BY OTHERS			
VEC09	VALVE-CHEMICAL #9 FLUSH	W6X8RSCX		SUPPLIED BY OTHERS			
VEC10	VALVE-CHEMICAL #10 FLUSH	W6X8RSCX		SUPPLIED BY OTHERS			
VEC11	VALVE-CHEMICAL #11 FLUSH	W6X8RSCX		SUPPLIED BY OTHERS			
VEC12	VALVE-CHEMICAL #12 FLUSH	W6X8RSCX		SUPPLIED BY OTHERS			
VEC13	VALVE-CHEMICAL #13 FLUSH	W6X8RSCX		SUPPLIED BY OTHERS			
VEC14	VALVE-CHEMICAL #14 FLUSH	W6X8RSCX		SUPPLIED BY OTHERS			
VEC15	VALVE-CHEMICAL #15 FLUSH	W6X8RSCX		SUPPLIED BY OTHERS			

COMPONENT PARTS LIST

W6X8RSPL/2025314N

COMPONENT NUMBER	FUNCTION OF THIS COMPONENT NUMBER	WHERE TO FIND			MIL NOR P/N	DESCRIPTION	LOCATION
		THIS COMPONENT					
VEDL	VALVE-DOOR UNLATCH 36+42	W6X8RSS+A			96R301B71	1/8" AIR PILOT 3W NC 240V	VALVE BOX
VEDRR	VALVE-REUSE DRAIN	W6X8RSEV			96R301B71	1/8" AIRPILOT 3W NC 240V 50/60	AIR VALVE BX
VEDRS	VALVE-DRAIN	W6X8RSEV			96D350A71	DRN VAL 3" MTRDR 240V 50/60C	REAR OF MACH
VEFL	VALVE-FLUSH	W6X8RSCF			96P056A71	3/4" NC 230V 50/60 W/LEADS BURK	SUPPLY INJEC
VEPPO	VALVE-DOOR SEAL 36&42	W6X8RSS+A			96R302B71	1/8" AIR PILOT 3W NO 240V 50/60	AIR VALVE BX
VESDL	VALVE-SAMPLE DOOR LATCH	W6X8RSDS			96R301B71	1/8" AIR PILOT 3W NC 240V 50/60	AIR VALVE BX
VESTM	VALVE-STEAM 30"	W6X8RSEV			96TDC2BA71	1/2" N/C 2WAY 240V 50/60C STEAM	INLET PIPE
VESTM	VALVE-STEAM 36" & 42"	W6X8RSEV			96P040A71	3/4" STEAM VALVE 240V 50/60C 150PSI	REAR RT LEG
VEWC	VALVE-COLD WATER 30"	W6X8RSEV			96P057A71	1/2" NPT X 1/2" ORIFICE 240V 5/6	REAR OF MACH
VEWC	VALVE-COLD WATER 36"	W6X8RSEV			96P056A71	3/4" NC 230V 50/60 W/LEADS BURK	REAR RT LEG
VEWC	VALVE-COLD WATER 42"	W6X8RSEV			96P152A71	1+1/4" NC 240V W/LEADS BURK	REAR RT LEG
VEWH	VALVE-HOT WATER 30"	W6X8RSEV			96P057A71	1/2" NPT X 1/2" ORIFICE 240V 5/6	REAR OF MACH
VEWH	VALVE-HOT WATER 36"	W6X8RSEV			96P056A71	3/4" NC 230V 50/60 W/LEADS BURK	REAR RT LEG
VEWH	VALVE-HOT WATER 42"	W6X8RSEV			96P152A71	1+1/4" NC 240V W/LEADS BURK	REAR RT LEG
VEWXX	VALVE-EXTRA WATER 30022	W6X8RSEV			96P057A71	1/2" NPT X 1/2" ORIFICE 240V 5/6	REAR OF MACH
VEWXX	VALVE-EXTRA WATER 36026	W6X8RSEV			96P056A71	3/4" NC 230V 50/60 W/LEADS BURK	REAR OF MACH
VEWXX	VALVE-EXTRA WATER 42026 & 42032	W6X8RSEV			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, 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 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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WE NEITHER ASSUME, NOR AUTHORIZE ANY EMPLOYEE OR OTHER PERSON TO ASSUME FOR US, ANY OTHER RESPONSIBILITY AND/OR LIABILITY IN CONNECTION WITH THE SALE OR FURNISHING OF OUR EQUIPMENT TO ANY BUYER.

BMP720097/25142

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 —

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.

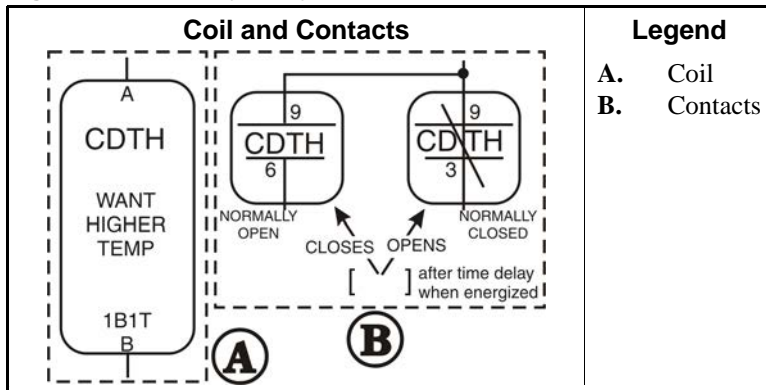
CB=Circuit Breaker (Figure 1)—Automatic switch that opens an electric circuit in abnormal current conditions (e.g., an overload).

Figure 1: Circuit Breaker (CB)



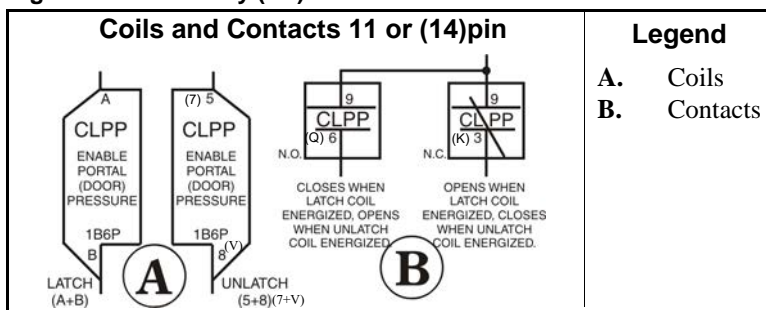
CD=Control, Time Delay Relay (Figure 2)—A relay whose contacts switch only after a fixed or adjustable delay, once voltage has been applied to its coil. The contacts switch back to normal (de-energized state) immediately when the voltage is removed.

Figure 2: Time Delay Relay (CD)



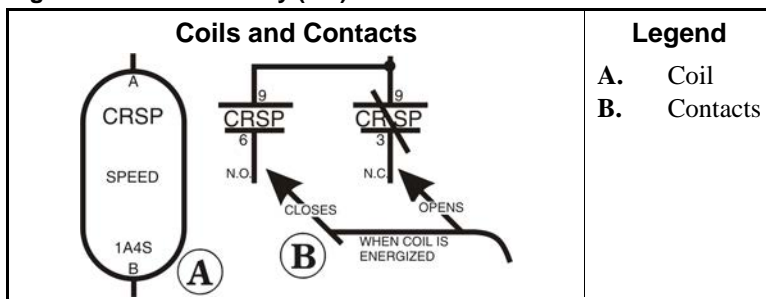
CL=Control, Latch Relay (Figure 3)—A relay which latches in an energized or set position when operated by one coil (the latch/set coil). The relay stays latched even though coil voltage is removed. The relay releases or unlatches when voltage is applied to a second coil (the unlatch/reset coil).

Figure 3: Latch Relay (CL)



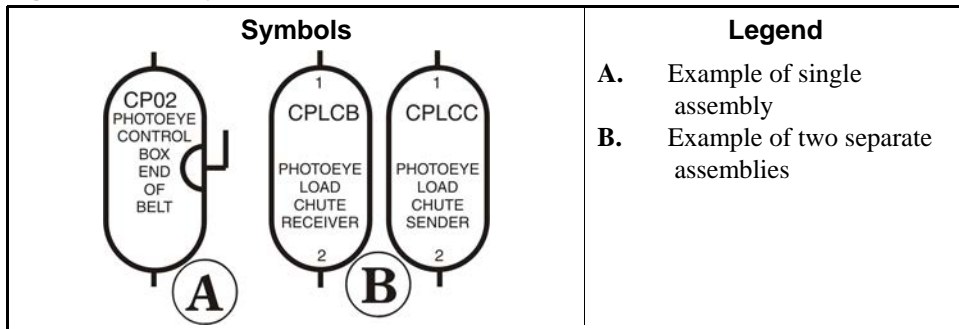
CR=Control, Relay (Figure 4)—A relay whose contacts switch immediately when voltage is applied to its coil and revert to normal when the voltage is removed.

Figure 4: Standard Relay (CR)



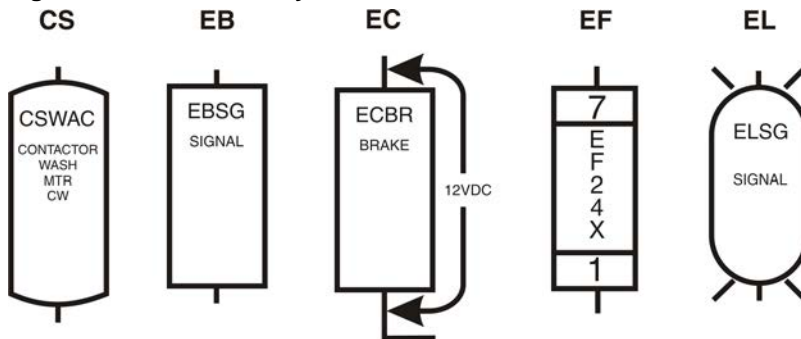
CP=Control, Photo-Eye (Figure 5)—Photo-eyes sense the presence of an object without direct physical contact. Photo-eyes consist of a transmitter, receiver, and output module. These components may be housed in one assembly with the transmitter bouncing light off of a reflector to the receiver, or these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

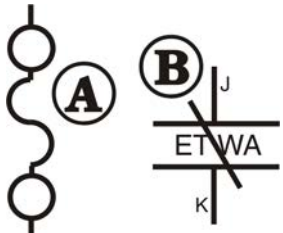
EL=Electric Light (Figure 6)—Indicator lights may be either incandescent or fluorescent.

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
	<p>A. Heater (one per phase)</p> <p>B. Overload relay; contacts open if overload condition exists</p>

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.

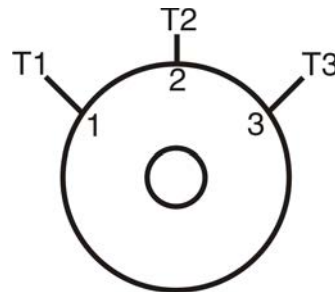
MN=Electronic Monitor (CRT)—A cathode ray tube used for visual presentation of data.

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

Figure 8: Transformer (EX)



Figure 9: Electric Motor (MR)

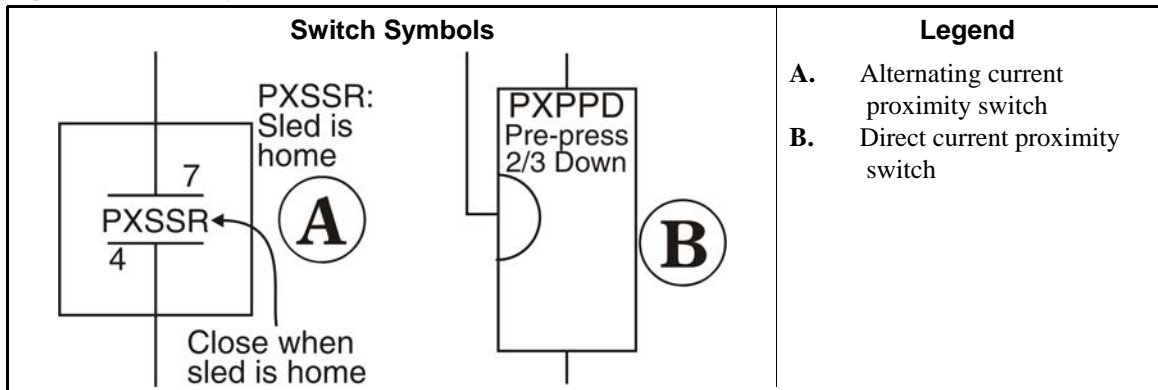


MV=Motor (Variable Speed) Inverter—To vary the speed of an AC motor, the volts to frequency ratio must be kept constant. The motor will overheat if this ratio is not maintained. The motor variable speed inverter converts three phase AC to DC. The inverter then uses this DC voltage to generate AC at the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

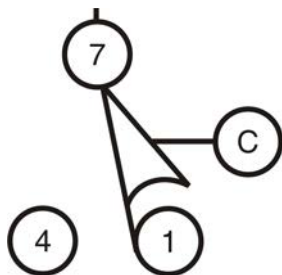
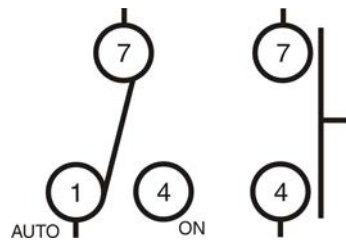


Figure 12: Hand Operated Switch (SH)



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)

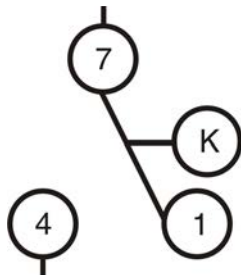
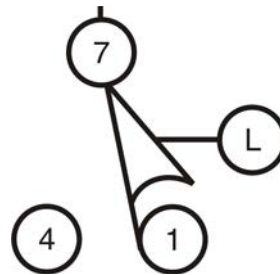


Figure 14: Level Switch (SL)



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)

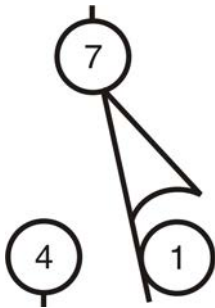
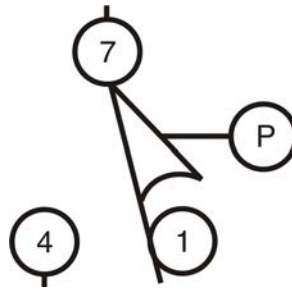


Figure 16: Pressure Switch (SP)



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)

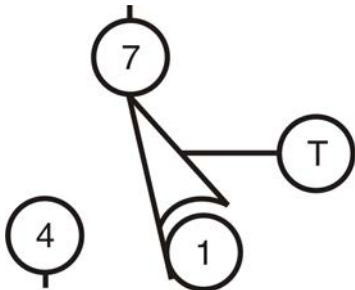
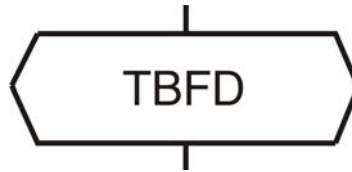


Figure 18: Terminal Board (TB)



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)

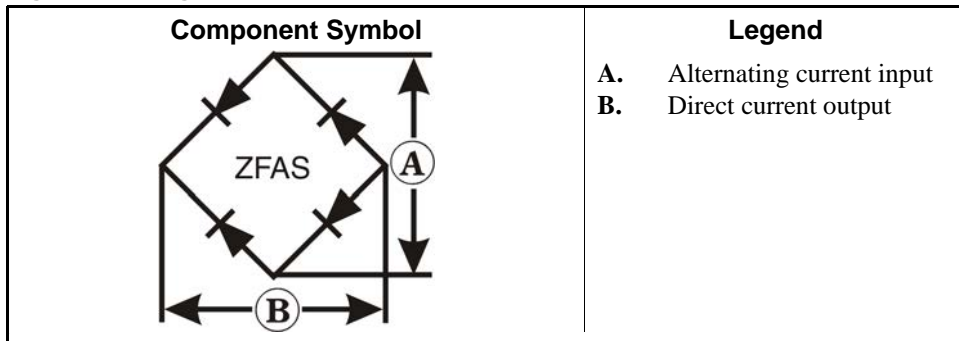
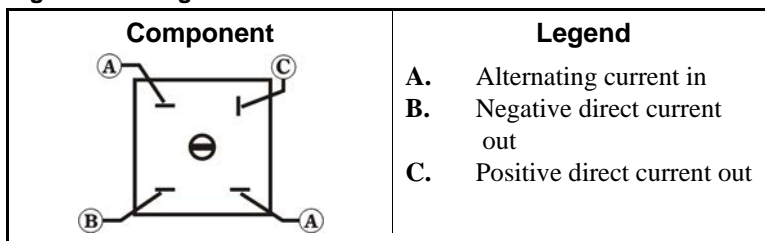


Figure 21: Bridge Rectifier



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.

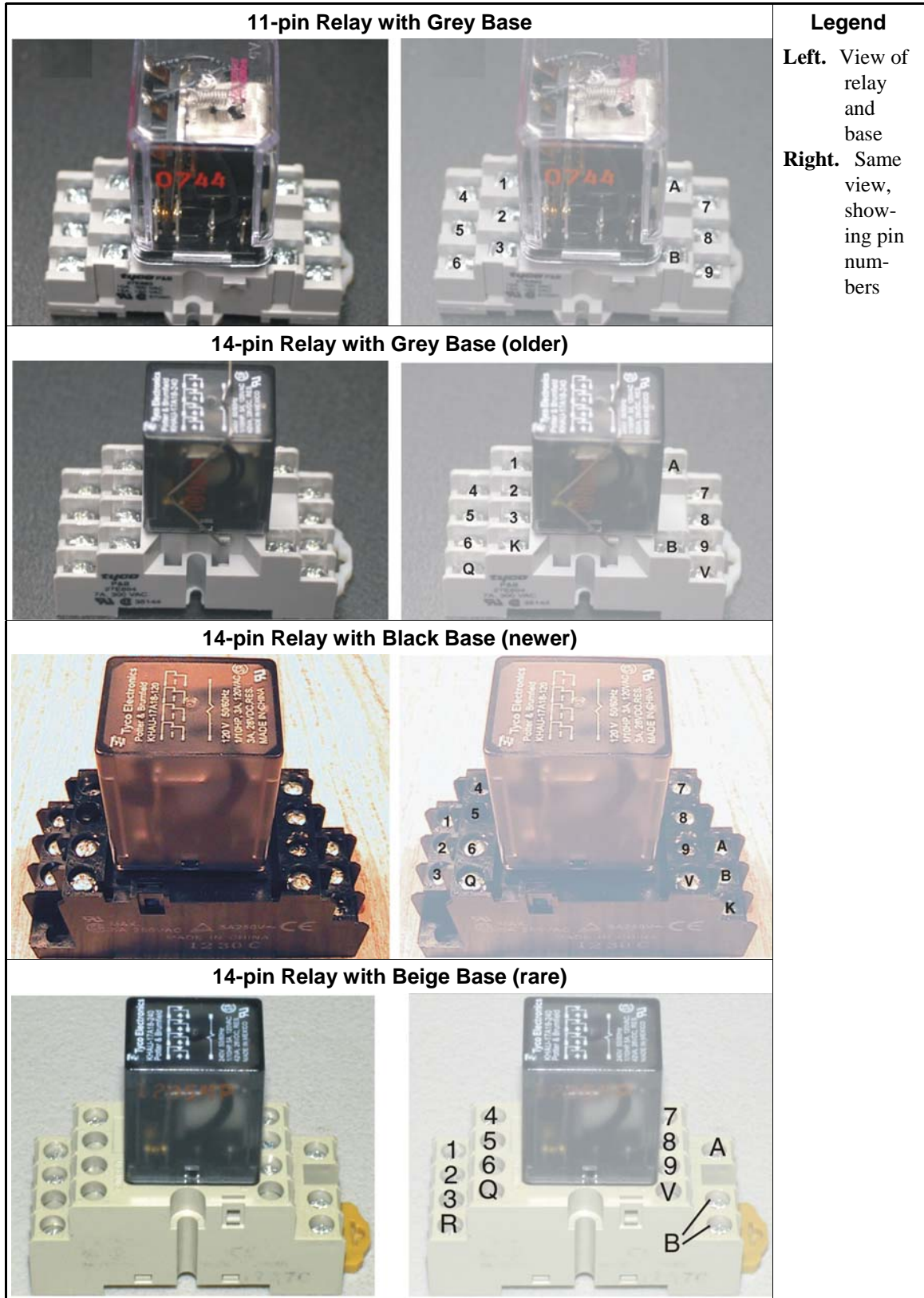
2. Component Terminal Numbering



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

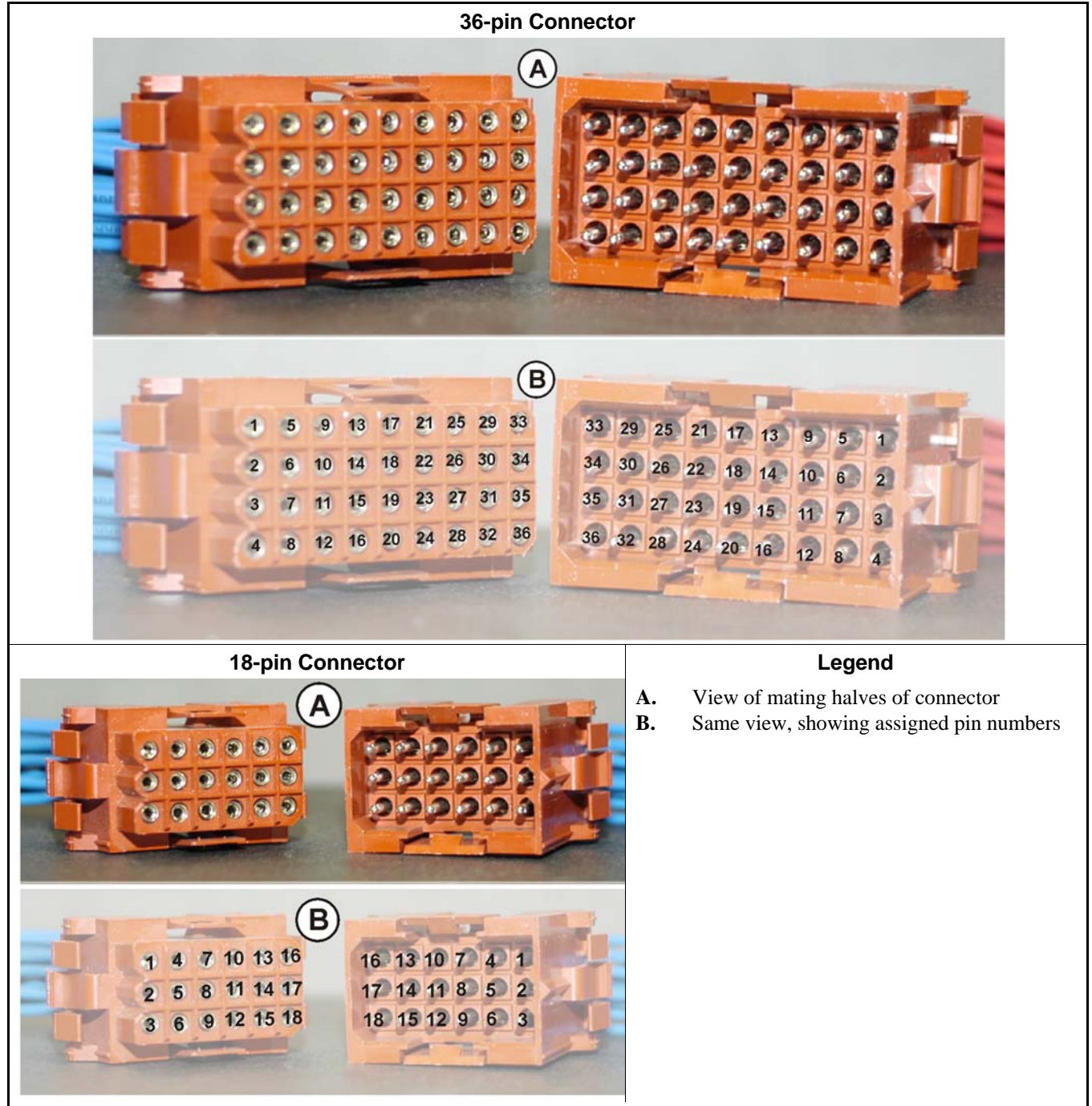


Figure 24: Molex Connector Pin Locations

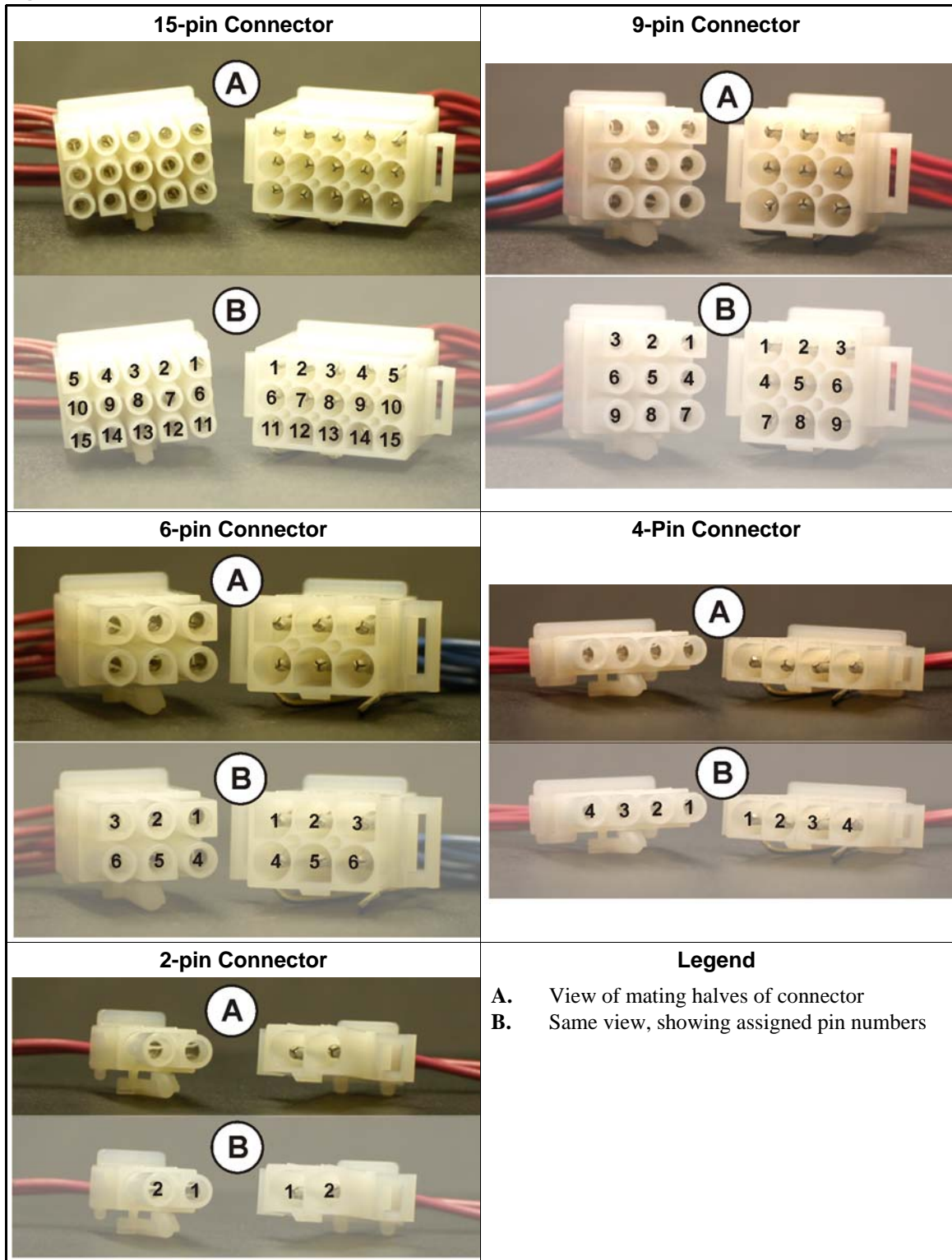


Figure 25: Pressure Switch

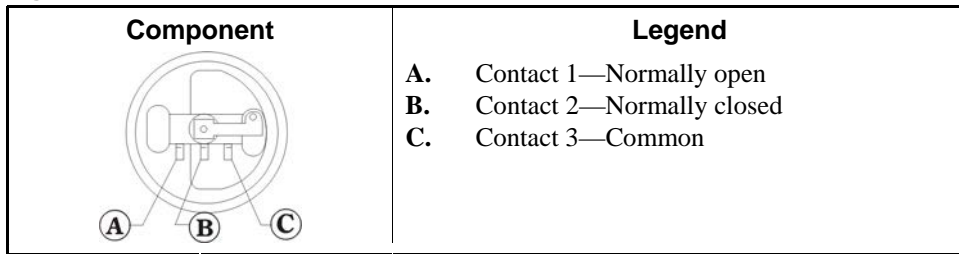


Figure 26: Toggle Switch

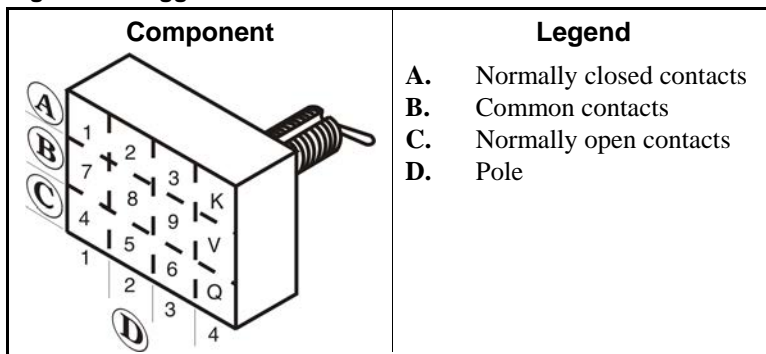
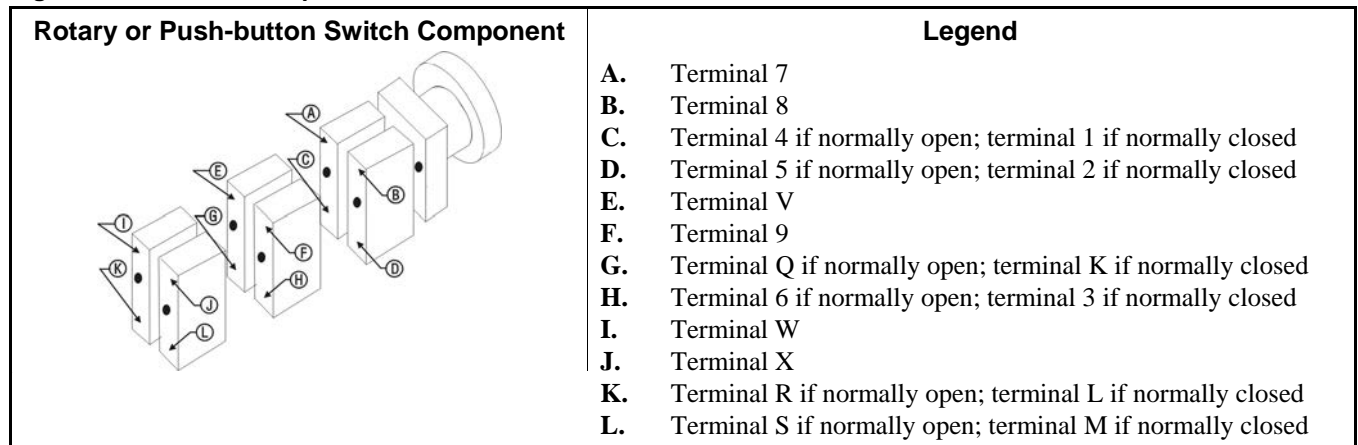


Figure 27: Switch with Replaceable Contact Blocks



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).

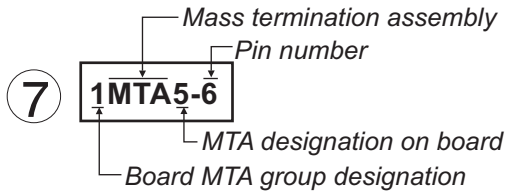
2. Included in the drawing title are the class of control system, the title of this circuit, and the circuit voltage.
3. Line numbers are provided along the bottom edge of the drawing. These permit service personnel in the field and at the Milnor® factory to quickly relate circuit locations when discussing 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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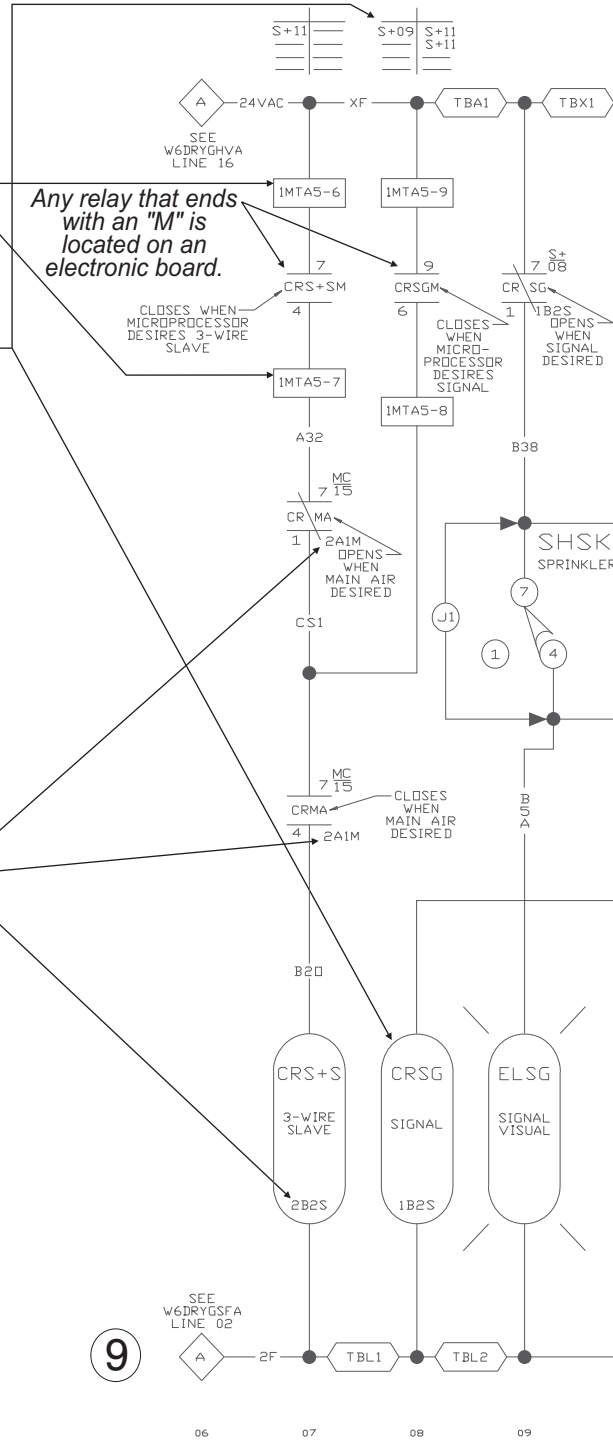
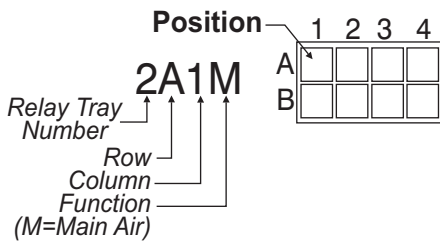
An MTA is a connection on an electronic circuit board. The notes and the tag page locate the appropriate board.

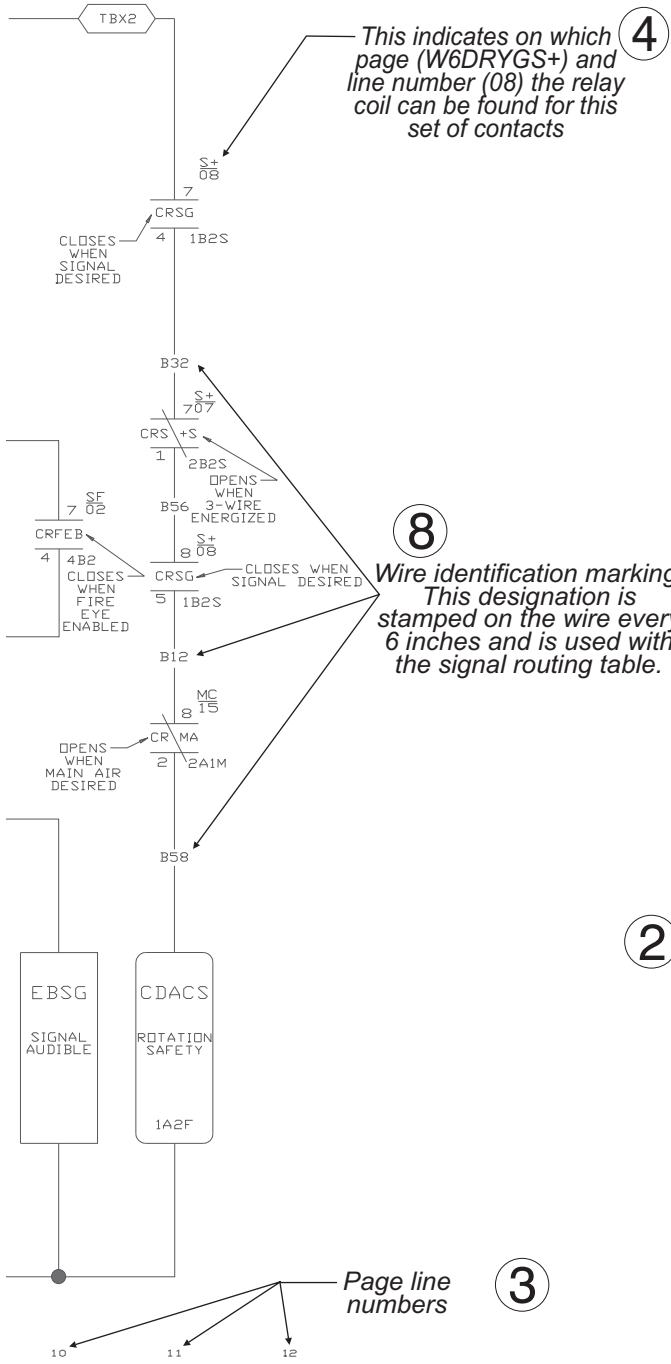
5 This indicates on which schematic page and line number the relay contacts of this coil (on Line 08) are located (i.e., W6DRYGS+, Lines 9 and 11).

	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-K contact	—	—	V-Q 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.





Major revision (letter) → A

1 Page number (S+) → S+

Machine type (Gas fired dryer) → DRYG

6th generation of controls → 6

W = Wiring → W

Class of control system → MICRO 6 SYSTEMS

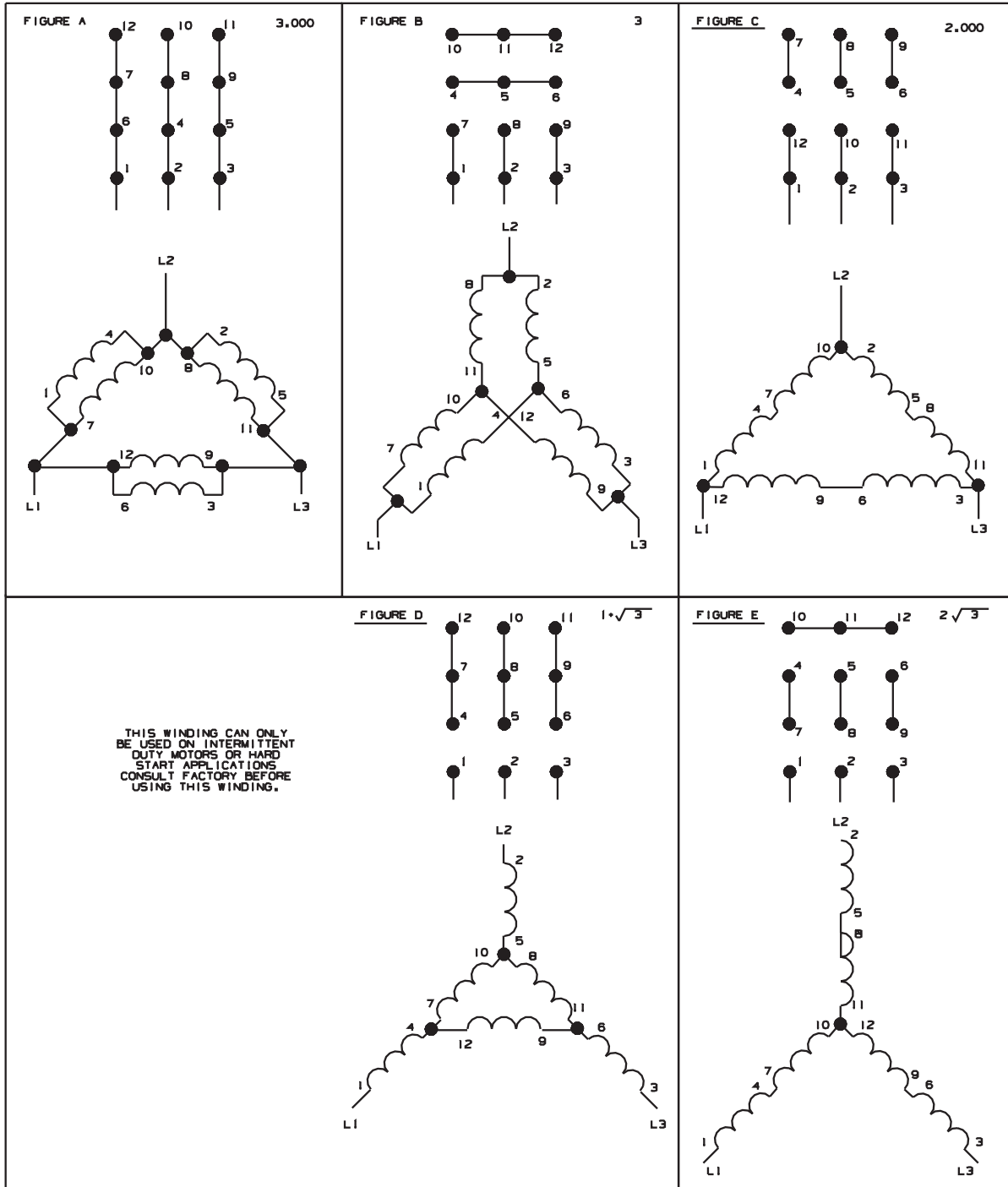
Title of this circuit → SCHEMATIC: 3-WIRE CIRCUIT

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.

FIGURE	ELECTRICAL VALUES	SUFFIXES									
		B		H		M		T		U	
		50HZ	60HZ	50HZ	60HZ	50HZ	60HZ	50HZ	60HZ	50HZ	60HZ
A	1,000	20B	230			200	220	220	240	200-220	20B-240
B	$\sqrt{3}$					20B	346	380	380	346-380	380
C	2,000	416	460	220	240	400	440	440	480	400-440	440-480
D	$1 \cdot \sqrt{3}$										600
E	$2 \cdot \sqrt{3}$			380							



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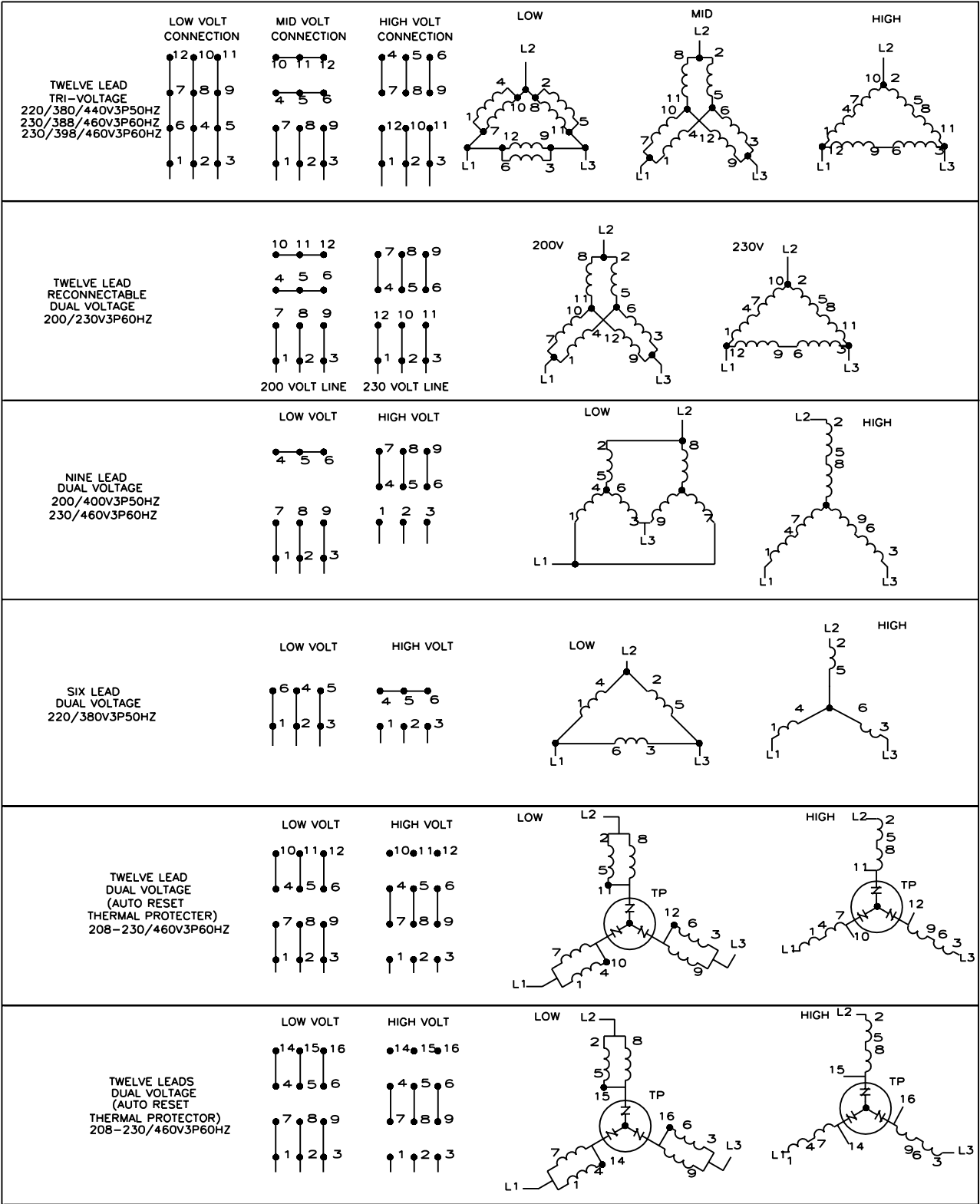
BMP850029

MOTOR CONNECTION DIAGRAMS

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

PELLERIN MILNOR CORPORATION

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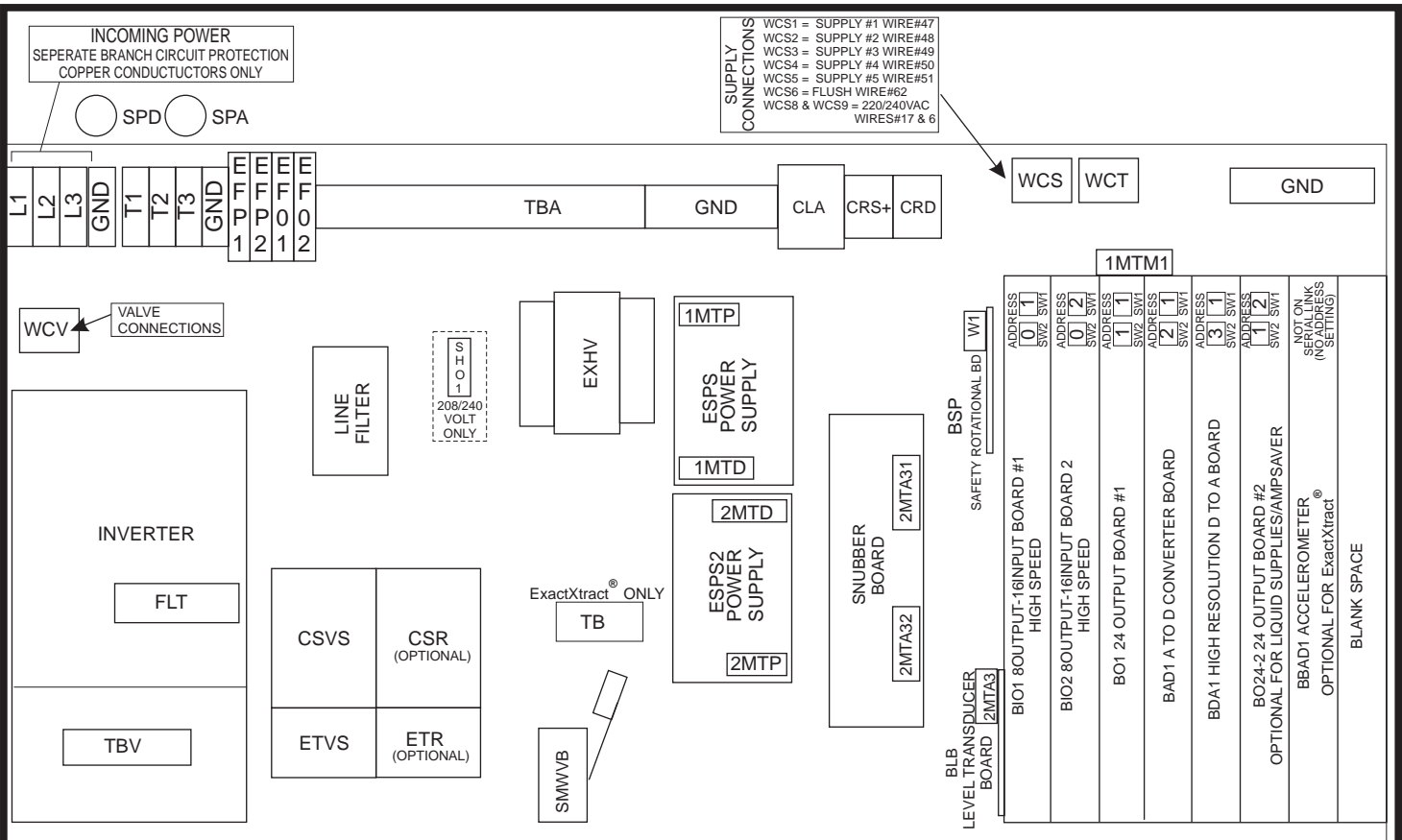


W80008

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

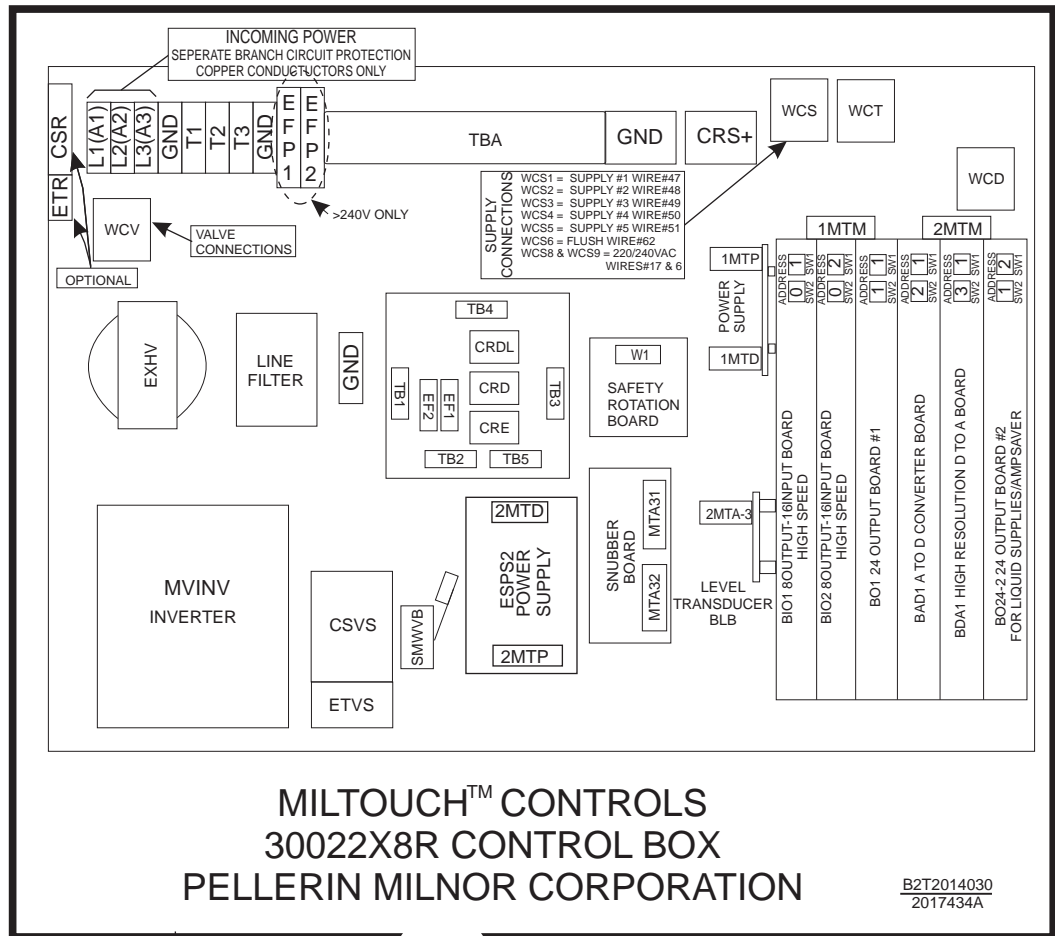
W80008
2001253A

W80008
2001253A



MILTOUCH-EX™ CONTROLS
36026X8R, 42026X7R, & 42032X7R CONTROL BOX
 PELLERIN MILNOR CORPORATION

B2T2014008
2014126A



MILTOUCH™ CONTROLS
30022X8R CONTROL BOX
 PELLERIN MILNOR CORPORATION

B2T2014030
2017434A

W6X8RSTG1
2017434B

BIO-1	BO24-1	BIO-2	BO24-2(OPTIONAL) LIQUID SUPPLIES	BO24-3(OPTIONAL) 20 PROGRAMMABLE OUTPUTS
INPUTS 0 HI LEVEL REUSE TANK 1 DOOR CLOSED 2 INVERTER FAULT 3 NOT USED 4 WASH POSITION 5 LOAD POSITION 6 DON'T ALLOW CHEM 7 BASKET ROTATING 8 EXCURSION 9 NOT USED 10 BRAKE PAD WORN 11 BRAKE IS OFF 12 DOOR OPEN DESIRED 13 EXTRACT SPEED LIMIT 14 NOT USED 15 3-WIRE ON	OUTPUTS 8 TANK TO MACHINE 9 ACCELERATE/DECELERATE 10 DOOR UNLOCK 11 CLOCKWISE WASH 12 COUNTER CLOCKWISE WASH 13 STEAM 14 SIGNAL 15 3-WIRE ENABLED 16 NOT USED 17 HOT WATER 18 COLD WATER 19 EXTRA WATER 20 DRAIN TO SEWER 21 DRAIN TO REUSE 22 MACHINE TO MACHINE 23 MACHINE TO TANK 24 NOT USED 25 NOT USED 26 NOT USED 27 NOT USED 28 NOT USED 29 NOT USED 30 NOT USED 31 NOT USED	INPUTS 16 NOT USED 17 NOT USED 18 NOT USED 19 NOT USED 20 NOT USED 21 BEARING SEAL DEFLATED 22 NOT USED 23 EXTERNAL FAULT 24 NOT USED 25 OK TO STEAM TANK 26 RECIRCULATION PUMP O/L 27 TANK PUMP O/L 28 SIGNAL CANCEL 29 FRESH METER 30 SEWER METER 31 TANK METER	OUTPUTS 40 CHEM #14 41 CHEM #9 42 CHEM #13 43 FLUSH MANIFOLD 44 CHEM #15 45 CHEM #11 46 CHEM SAVE 47 DOOR UNLOCK PULSE(30022) 48 CHEM #10 49 DOORLOCK PULSE(30022) 50 CHEM #6 51 CHEM #7 52 CHEM #8 53 CHEM #12 54 AUTO RECIRCULATION 55 NOT USED 56 NOT USED 57 NOT USED 58 DRAIN SAVER 59 MOVE TO LOAD POSITION 60 NOT USED 61 MOVING 62 NOT USED 63 MOVE TO WASH POSITION	OUTPUTS 64 OUTPUT 0 65 OUTPUT 1 66 OUTPUT 2 67 OUTPUT 3 68 OUTPUT 4 69 OUTPUT 5 70 OUTPUT 6 71 OUTPUT 7 72 OUTPUT 8 73 OUTPUT 9 74 OUTPUT 10 75 OUTPUT 11 76 OUTPUT 12 77 OUTPUT 13 78 OUTPUT 14 79 OUTPUT 15 80 OUTPUT 16 81 OUTPUT 17 82 OUTPUT 18 83 OUTPUT 19 84 NOT USED 85 NOT USED 86 NOT USED 87 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 32 FRESH WATER TO MACH 33 TANK TO SEWER 34 FRESH TO TANK 35 FLOW STOP 36 DOOR LOCK 37 STEAM TANK 38 NOT USED 39 PULSE START		

W6X8RSTG1
2017434B

**MILTOUCH-EX™ CONTROLS
WASHER EXTRACTOR
CONTROL BOARDS INPUTS/OUTPUTS**
PELLERIN MILNOR CORPORATION

B2T2014013
2014162A

W6X8RSTG1
MILTOUCH-EX™ CONTROLS
CONTROL BOX LAYOUTS
PELLERIN MILNOR CORPORATION

**IMPORTANT
SETTING MILTOUCH-EX™ POWER SUPPLIES**

! ESPS and ESPS2 ARE DIFFERENT. TAKE CARE TO NOT MIX UP PART NUMBERS. IF WRONG POWER SUPPLY IS USED PERMANENT BOARD DAMAGE WILL OCCUR.

TO TEST POWER SUPPLIES OUTPUT

1. MAKE SURE MACHINE IS ON.
2. USING HIGH QUALITY DIGITAL VOLTMETER (FLUKE MODEL 77 OR EQUAL) MEASURE THE VOLTAGE ON ANY ONE OF BOARDS IN THE CARD CAGE *MTA#2 BETWEEN PINS 3 (+5V) AND PIN 4 (GND). THE VOLTAGE RANGE SHOULD BE 5.01-5.12VDC. SEE FIGURE 1.
3. MEASURE THE VOLTAGE AT BPB ON CONNECTOR J4 BETWEEN PIN 1 (+12V) AND PIN 2 (GND). THE VOLTAGE RANGE SHOULD BE 12.2-12.4VDC. SEE FIGURE 2

TO ADJUST POWER SUPPLY VOLTAGES

1. +5V,+12V & -12V IS PROVIDED BY PART NUMBER 08PSS3401T LABELED ESPS. POWER SUPPLY PART NUMBER 08PSS2401T PROVIDES THE +12V FOR THE PROCESSOR BD LABELED ESPS2.
2. LOCATE THE VOLTAGE ADJUSTMENT POTENTIOMETER. THE POTENTIOMETER WILL BE A SMALL BLUE COMPONENT. IT IS SOLDERED ON EACH POWER SUPPLY'S PRINTED CIRCUIT BOARD. THERE MAY BE A SPOT OF SILICONE ON ADJUSTMENT SCREW. SEE FIGURE 3.
3. USING A SMALL (POCKET TYPE) SCREW DRIVER REMOVE THE SILICONE AND TURN THE POTENTIOMETER TURNING CLOCKWISE TO RAISE THE VOLTAGE AND COUNTER-CLOCKWISE TO LOWER.
4. RE-APPLY SPOT OF ELECTRONIC GRADE SILICONE ON ADJUSTMENT SCREW TO FIX IN PLACE. RE-TEST TO VERIFY +5VDC ON ESPS AND +12VDC ON ESPS2 ARE WITHIN CORRECT VOLTAGE RANGES.

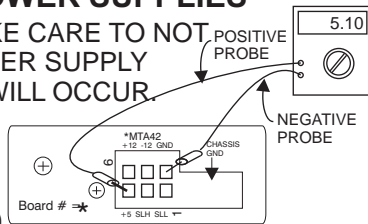


FIG 1.

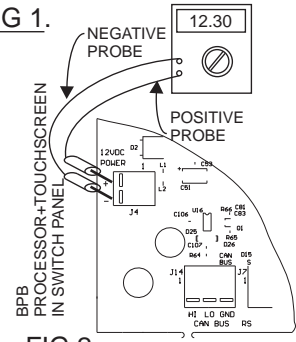


FIG 2.

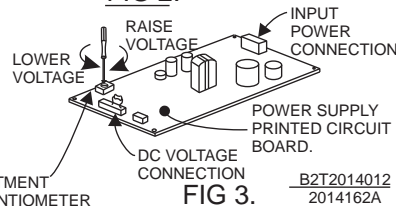
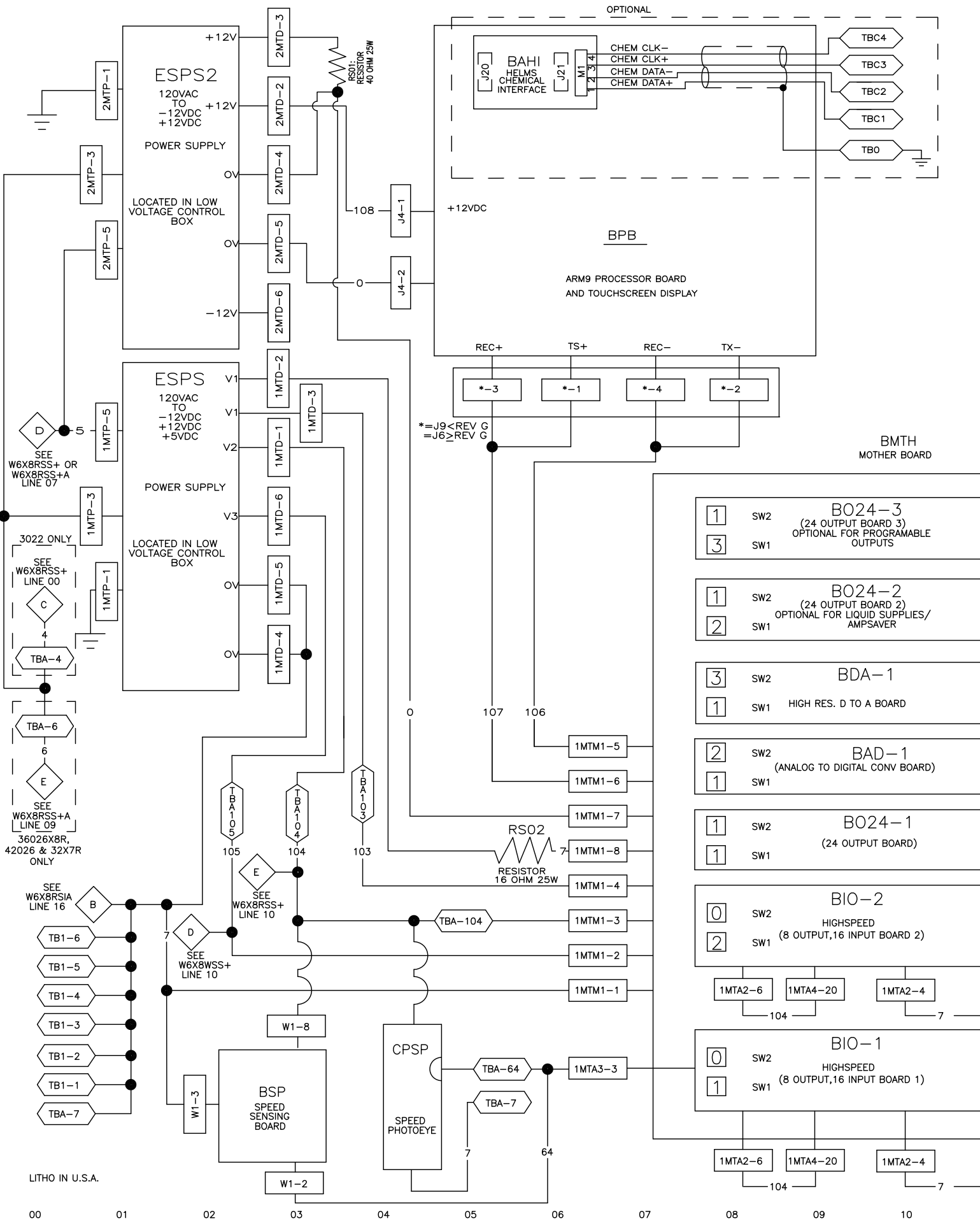


FIG 3. B2T2014012
2014162A



SEE W6X8RSS+ OR W6X8RSS+A LINE 07

3022 ONLY
SEE W6X8RSS+ LINE 00

SEE W6X8RSS+A LINE 09
36026X8R,
42026 & 32X7R ONLY

SEE W6X8RSIA LINE 16

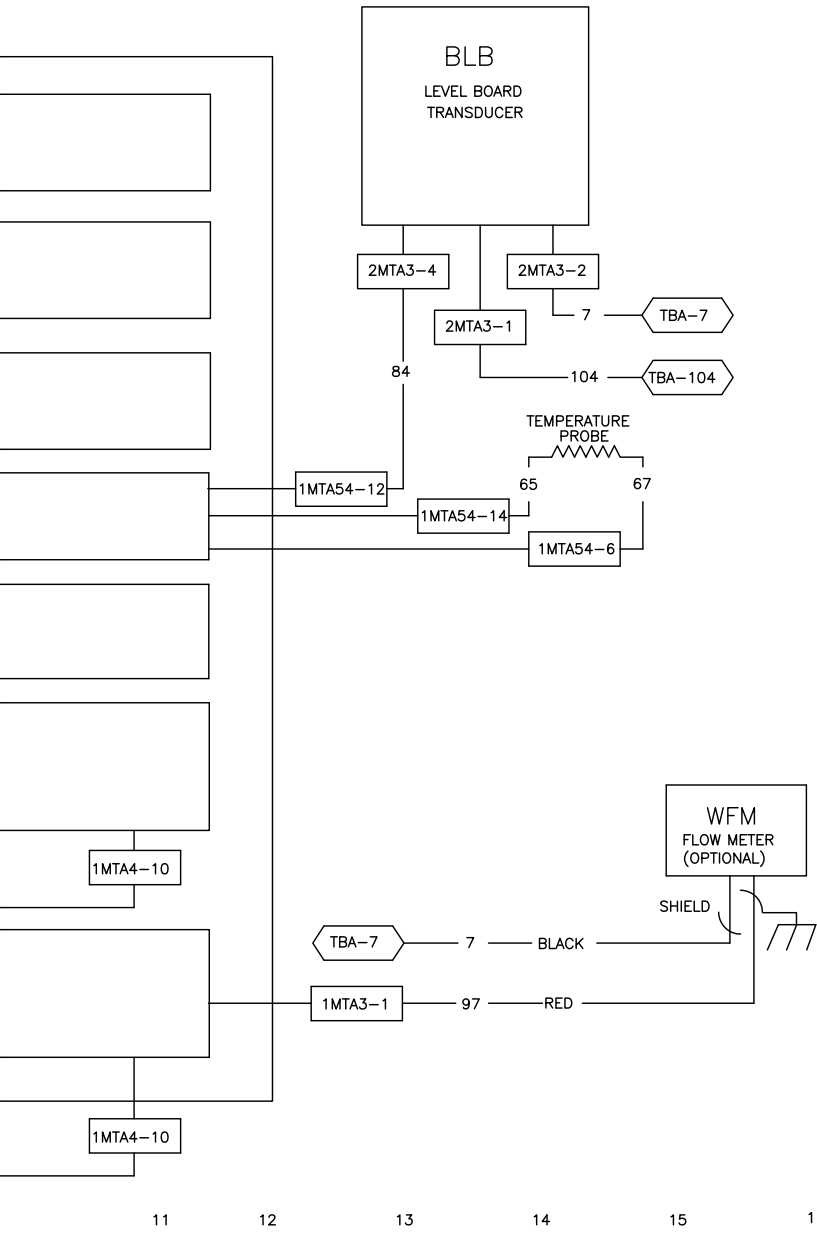
SEE W6X8WSS+ LINE 10

LITHO IN U.S.A.

00 01 02 03 04 05 06 07 08 09 10

W6X8RSBW
2023443B

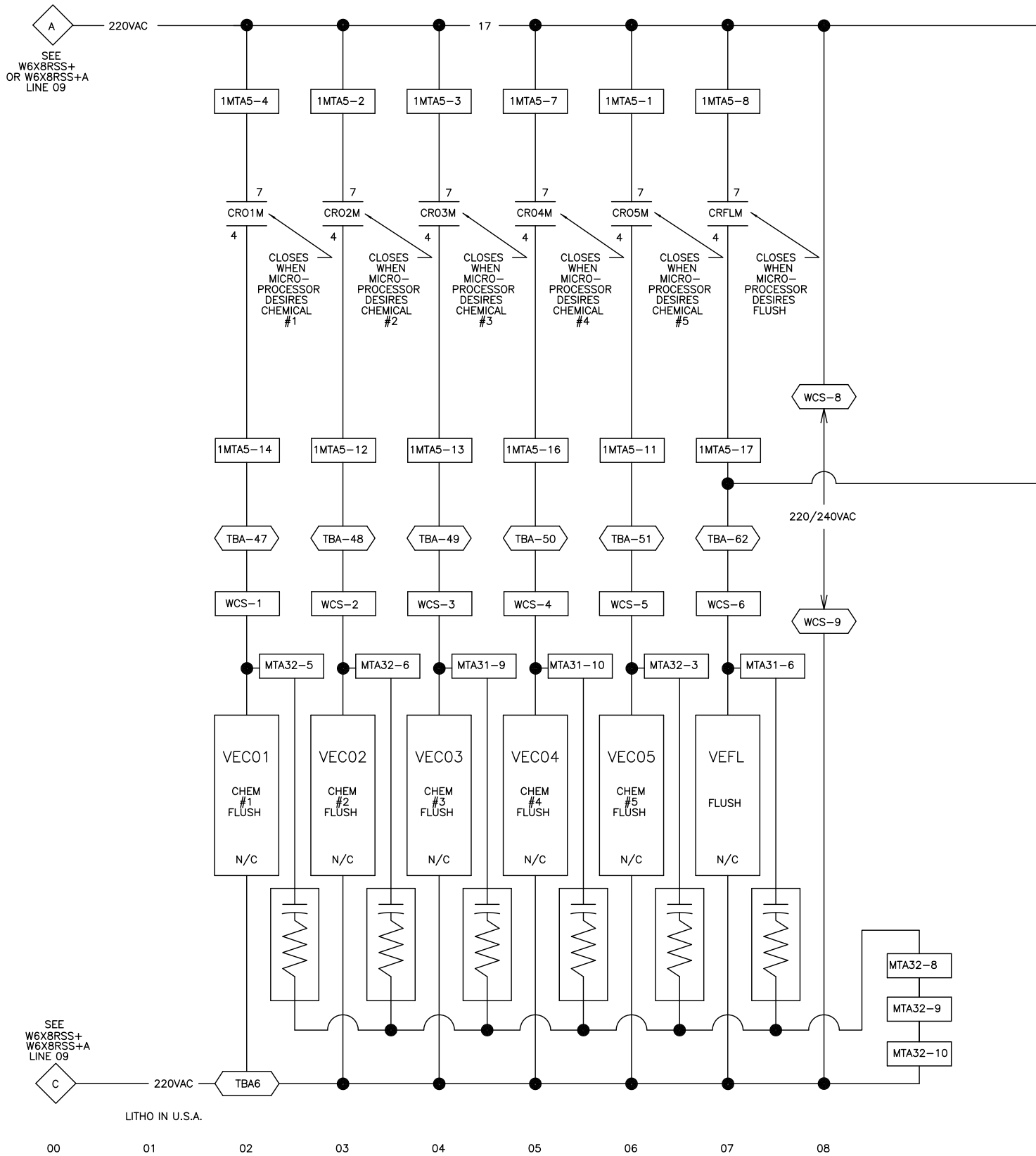
WIRE NO.	VOLTAGE	WIRE COLOR
103	+5VDC	BLUE
104	+12VDC	BLUE
105	-12VDC	BLUE
7	GROUND	BLUE
107	SERIAL HIGH	BLUE
106	SERIAL LOW	BLUE
INPUTS	-	BLUE
5	240VAC	RED
6	240VAC	RED



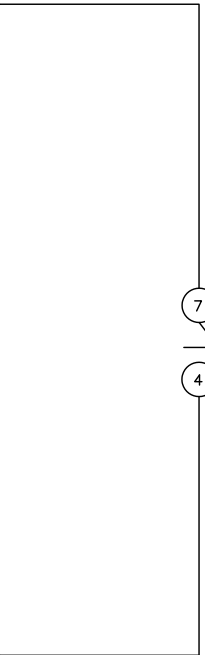
W6X8RSBW
 MILTOUCH-EX™ CONTROLS
 SCHEMATIC: BOARD TO BOARD WIRING
 PELLERIN MILNOR CORPORATION

NOTES:

1. 1MTP, 1MTD ARE LOCATED ON ESPS (POWER SUPPLY).
2. 2MTP, 2MTD ARE LOCATED ON ESPS2 (POWER SUPPLY).
3. J4 AND J9 ARE LOCATED ON BPB (ARM 9 PROCESSOR BOARD)
4. 1MTA2, 1MTA3, AND 1MTA4 ARE LOCATED ON BIO-1 (HIGH SPEED 8 OUTPUT-16INPUT BOARD).
5. 1MTA1 IS LOCATED BMTH (MOTHER BOARD).
6. 1MTA54 IS LOCATED ON BAD-1 (ANALOG TO DIGITAL BOARD).
7. TBP IS LOCATED IN LOW VOLTAGE CONTROL BOX.
8. W1 IS LOCATED ON BSP (SPEED SENSING BOARD).
9. 2MTA3 IS LOCATED ON BLB (LEVEL TRANSDUCER BOARD)



W6X8RSCF
2024294B



SHMF:
MANUAL
FLUSH

NOTES:

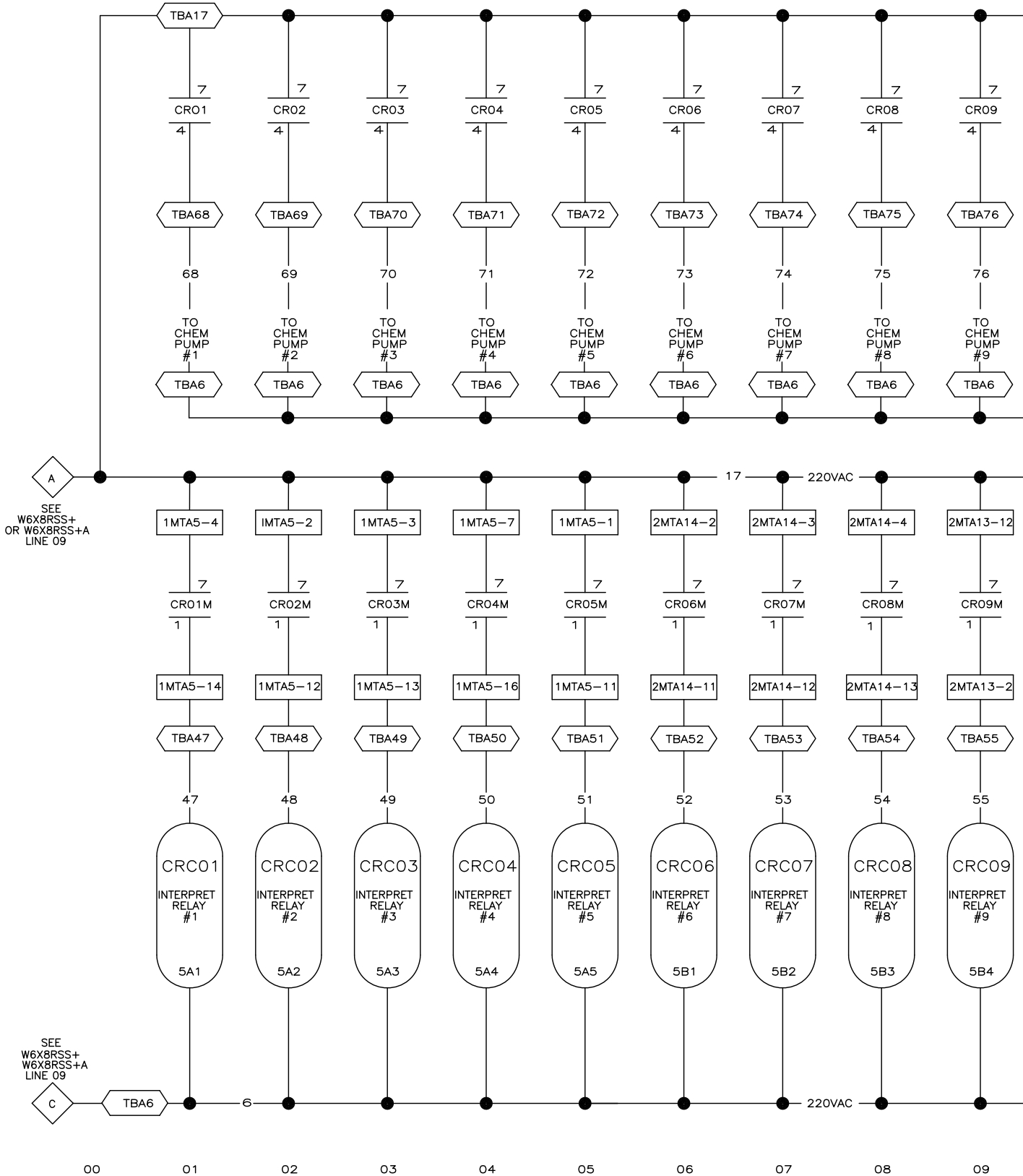
- 1. 1MTA5, 1MTA6 ARE LOCATED ON BIO-1 (8 OUTPUT-16 INPUT)

W6X8RSCF

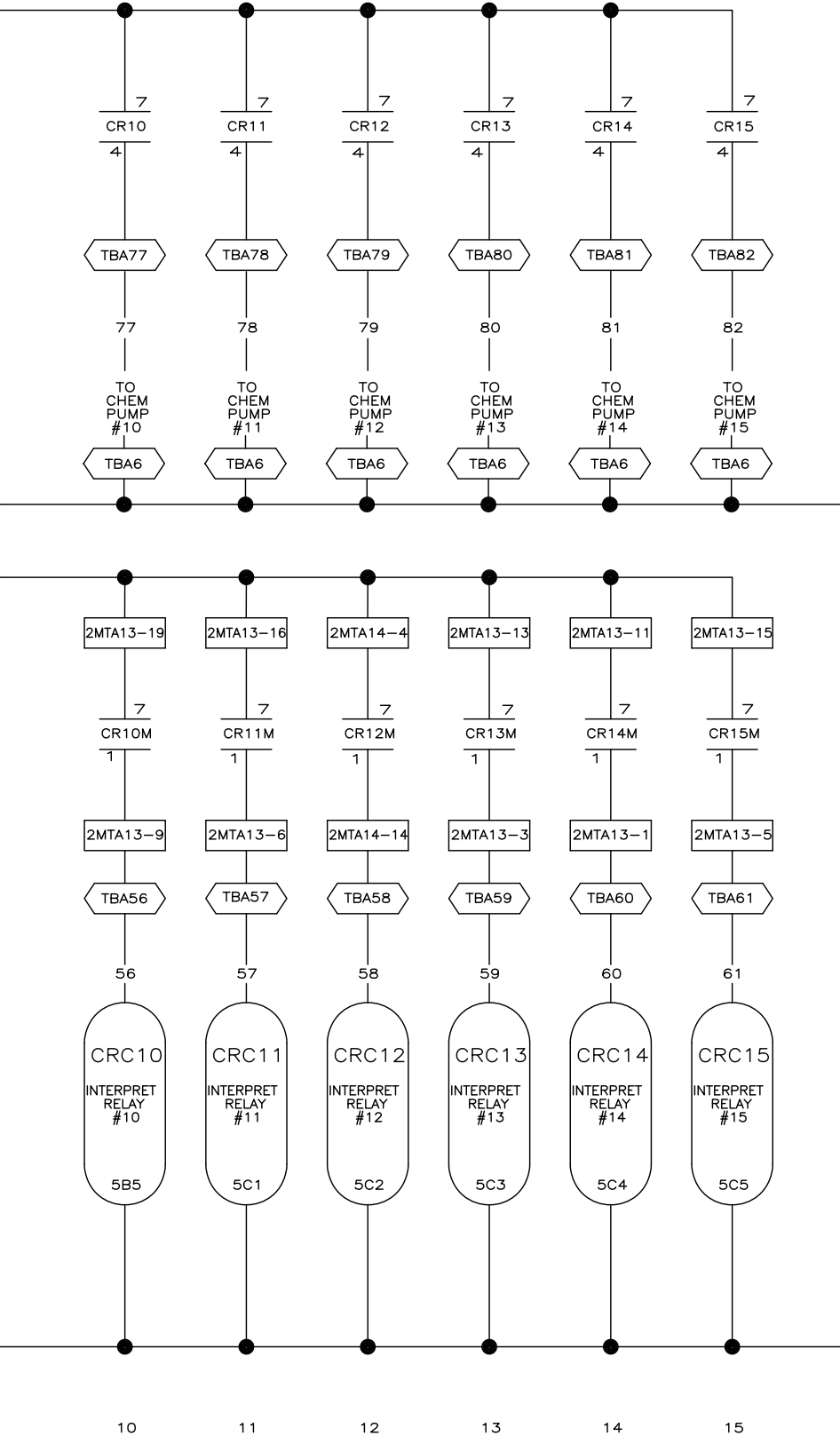
MILTOUCH-EX™ CONTROLS
SCHEMATIC: FLUSHING SUPPLIES
220V1P50HZ/240V1P60HZ

PELLERIN MILNOR CORPORATION

IF CUSTOMER IS SUPPLYING
VOLTAGE FOR CHEMICAL
PUMPS THEN TBA17 & TBA6 FEEDING
THE INTERPRET RELAY CONTACTS
MUST BE DISCONNECTED FROM
THE INTERNAL 220/240VAC SUPPLY.

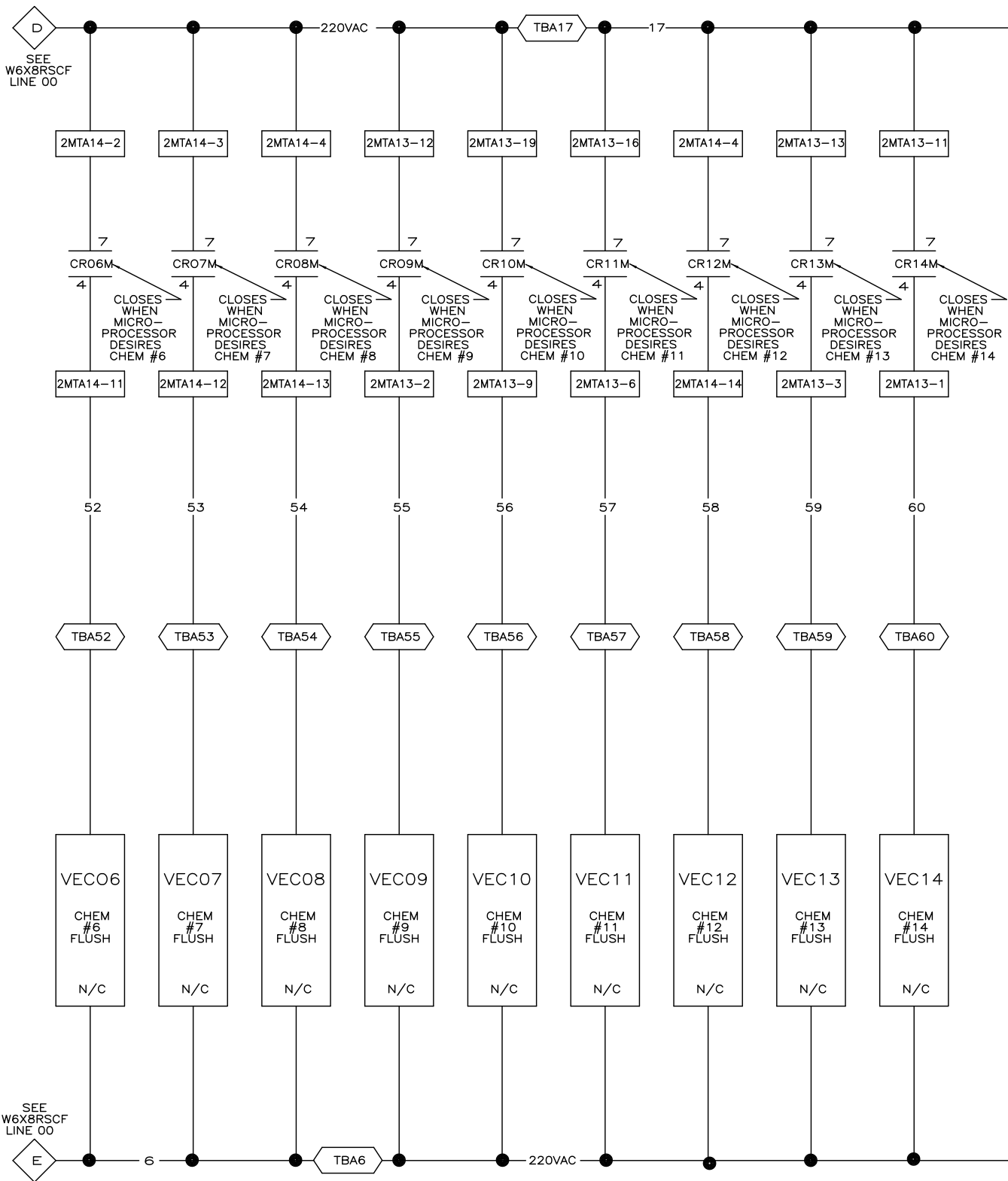


W6XBRSCP
2024294B



W6X8RSCP
MILTOUCH-EX™ CONTROLS
SCHEMATIC: LIQUID SUPPLY-INTERPRET RELAYS
220V1P50HZ/240V1P60HZ

PELLERIN MILNOR CORPORATION



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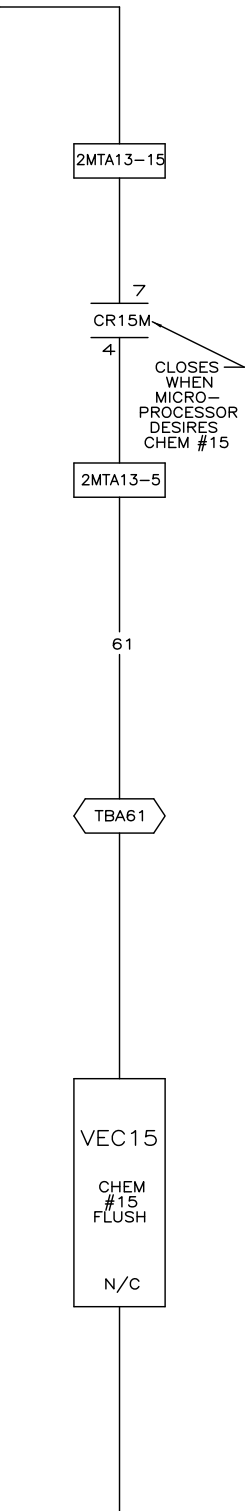
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W6X8RSCX

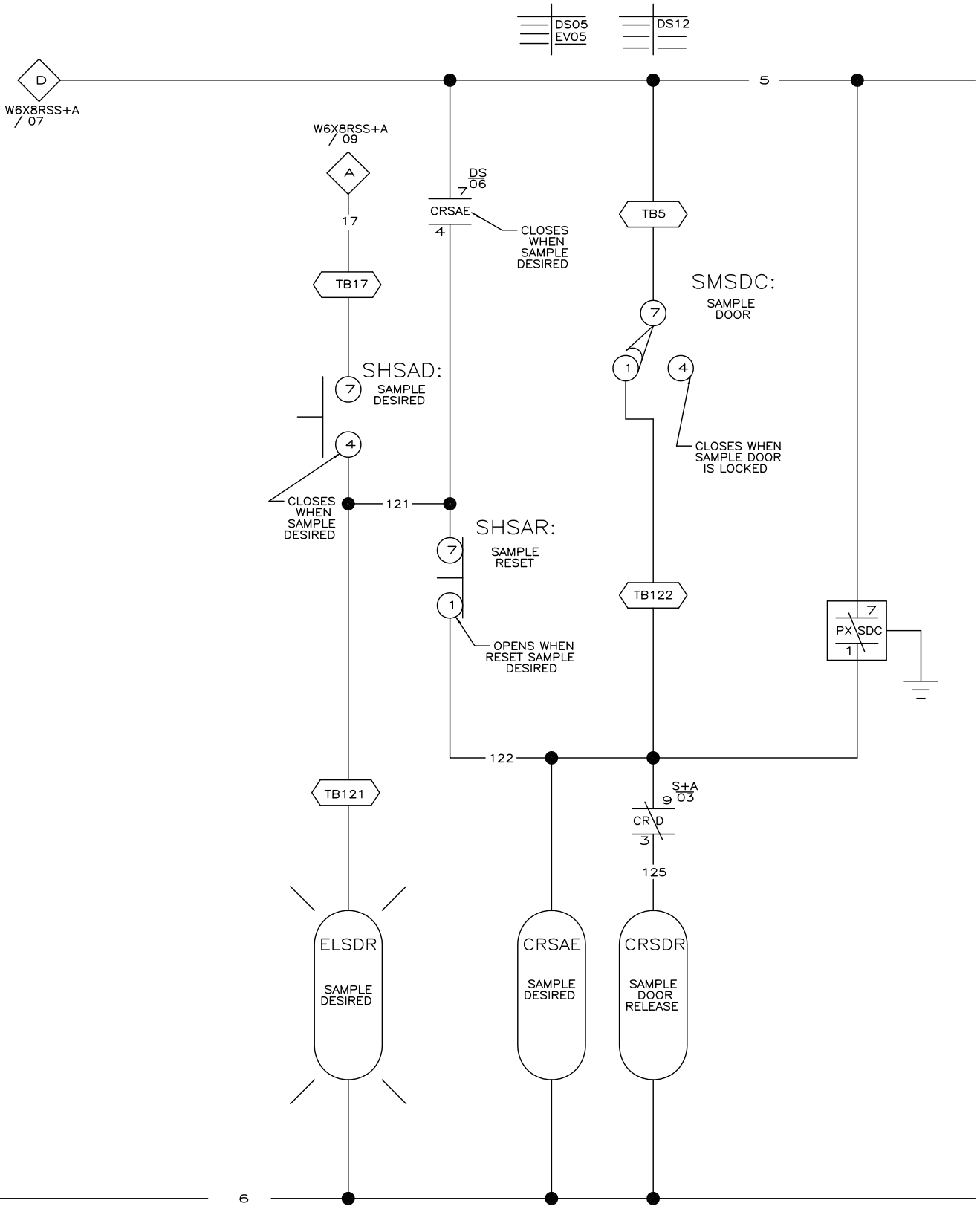
MILTOUCH-EX™ CONTROLS

SCHEMATIC: CENTRAL LIQUID SUPPLY FLUSH 6 THRU 15

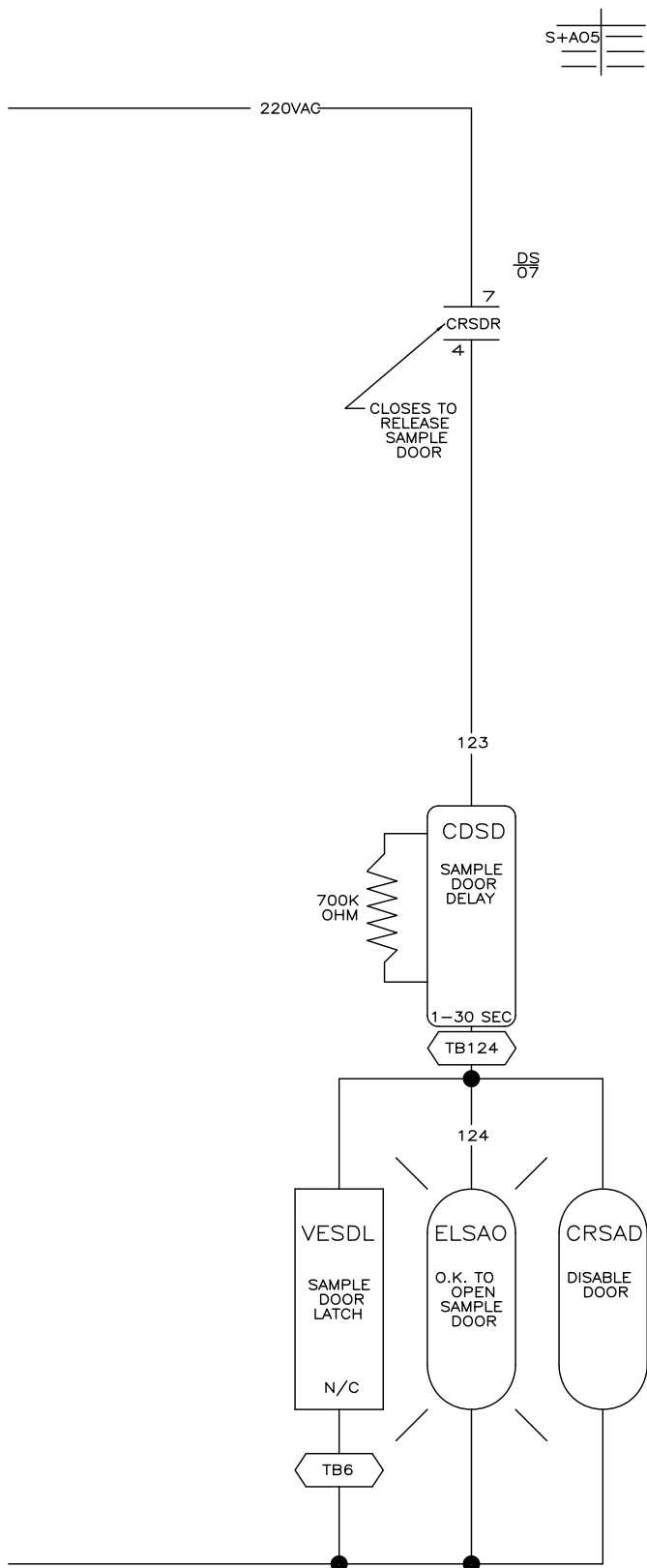
PELLERIN MILNOR CORPORATION

W6X8RSCX
2023443B

W6X8RSCX
2023443B



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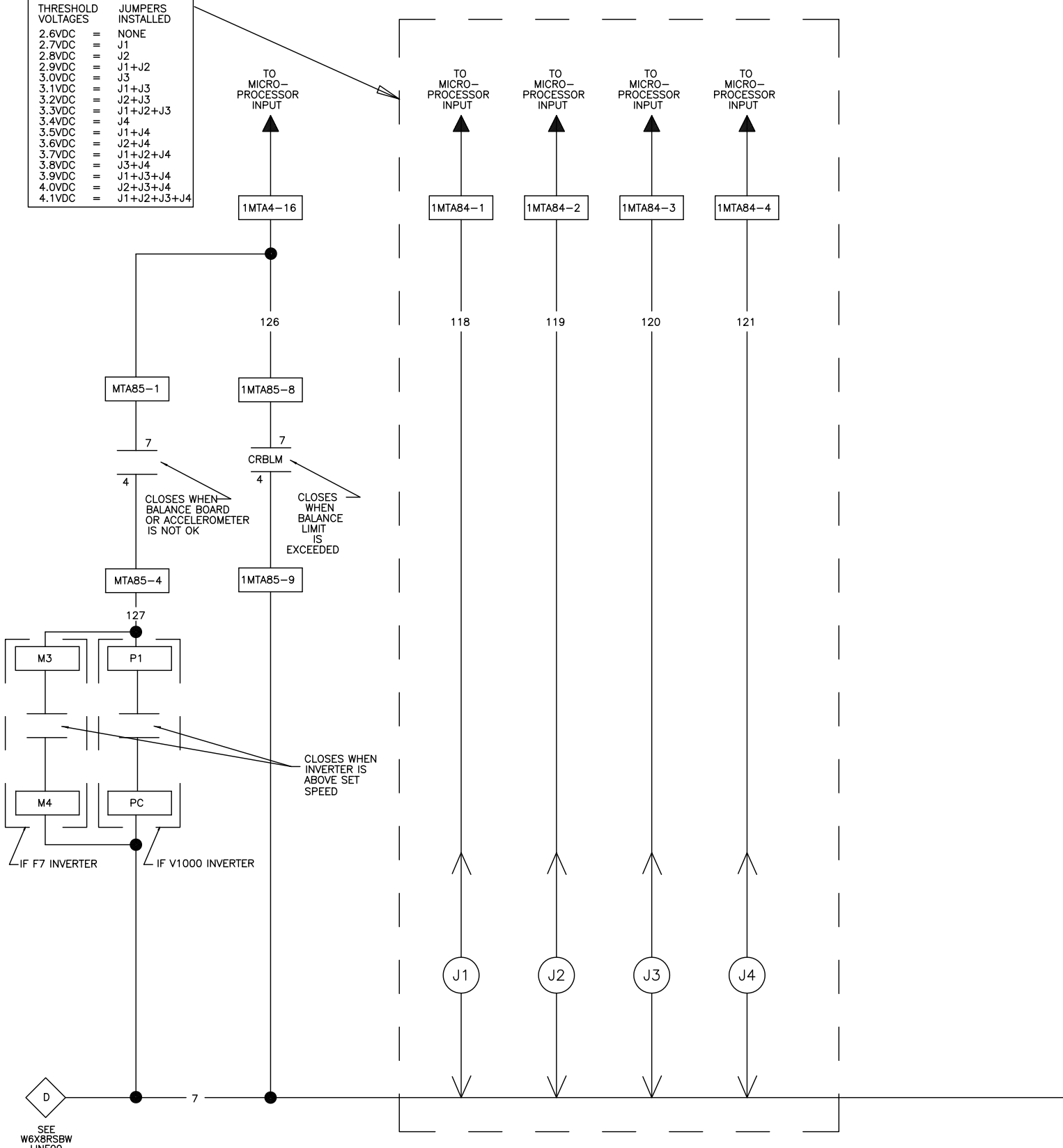


W6X8RSDS
MILTOUCH-EX™ CONTROLS
SCHEMATIC: DOOR SAMPLE
110V1P50HZ/120V1P60HZ
PELLERIN MILNOR CORPORATION

10 11 12 13 14 15 16 17 18

SPEED LIMIT THRESHOLD
 INPUTS ARE TO LIMIT
 SPEED IN EXTRACT WHEN
 THE MACHINE IS OUT OF BALANCE.
 JUMPERS ARE ADDED AT THE
 FACTORY TO ADJUST FOR VARIATIONS
 IN ACCELEROMETERS.

THRESHOLD VOLTAGES	JUMPERS INSTALLED
2.6VDC	= NONE
2.7VDC	= J1
2.8VDC	= J2
2.9VDC	= J1+J2
3.0VDC	= J3
3.1VDC	= J1+J3
3.2VDC	= J2+J3
3.3VDC	= J1+J2+J3
3.4VDC	= J4
3.5VDC	= J1+J4
3.6VDC	= J2+J4
3.7VDC	= J1+J2+J4
3.8VDC	= J3+J4
3.9VDC	= J1+J3+J4
4.0VDC	= J2+J3+J4
4.1VDC	= J1+J2+J3+J4

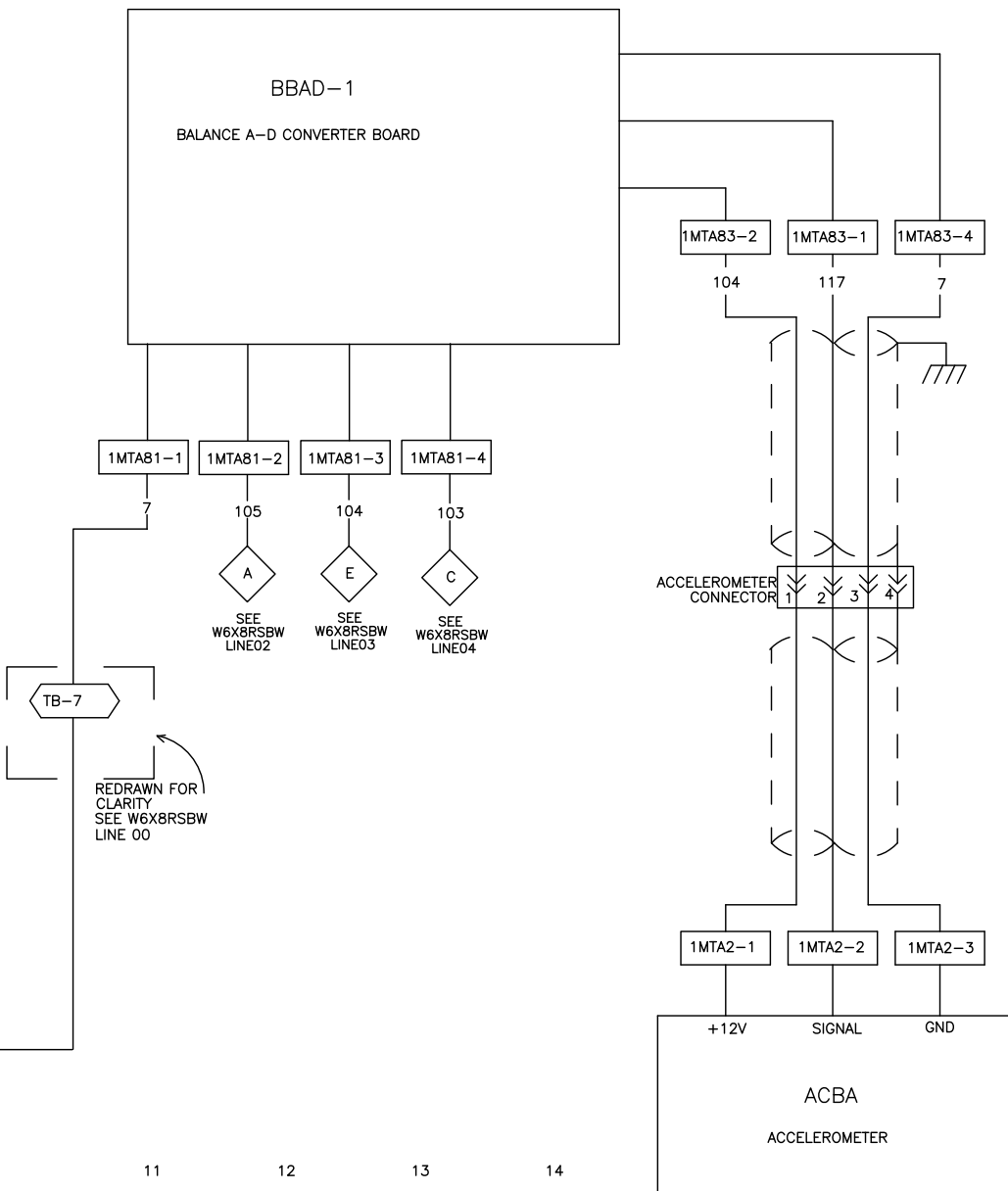


SEE
 W6XRBSBW
 LINE00

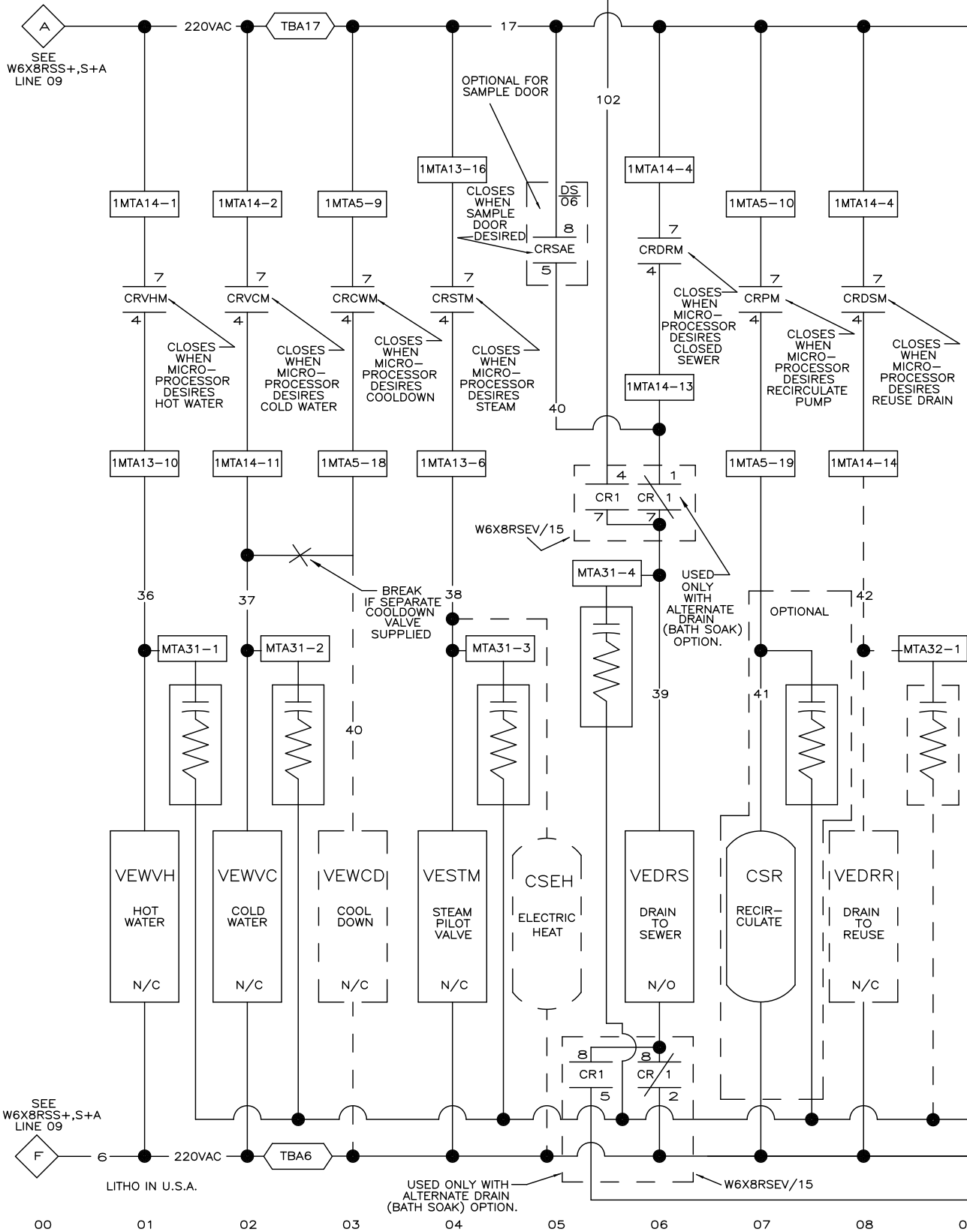
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W6XRSEC
 2021325B

W6X8RSEC
MILTOUCH-EX™ DRYELL
SCHEMATIC: EXTRACT SPEED LIMIT CONTROL
PELLERIN MILNOR CORPORATION



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SEE W6X8RSEV, S+A LINE 09

SEE W6X8RSEV, S+A LINE 09

LITHO IN U.S.A.

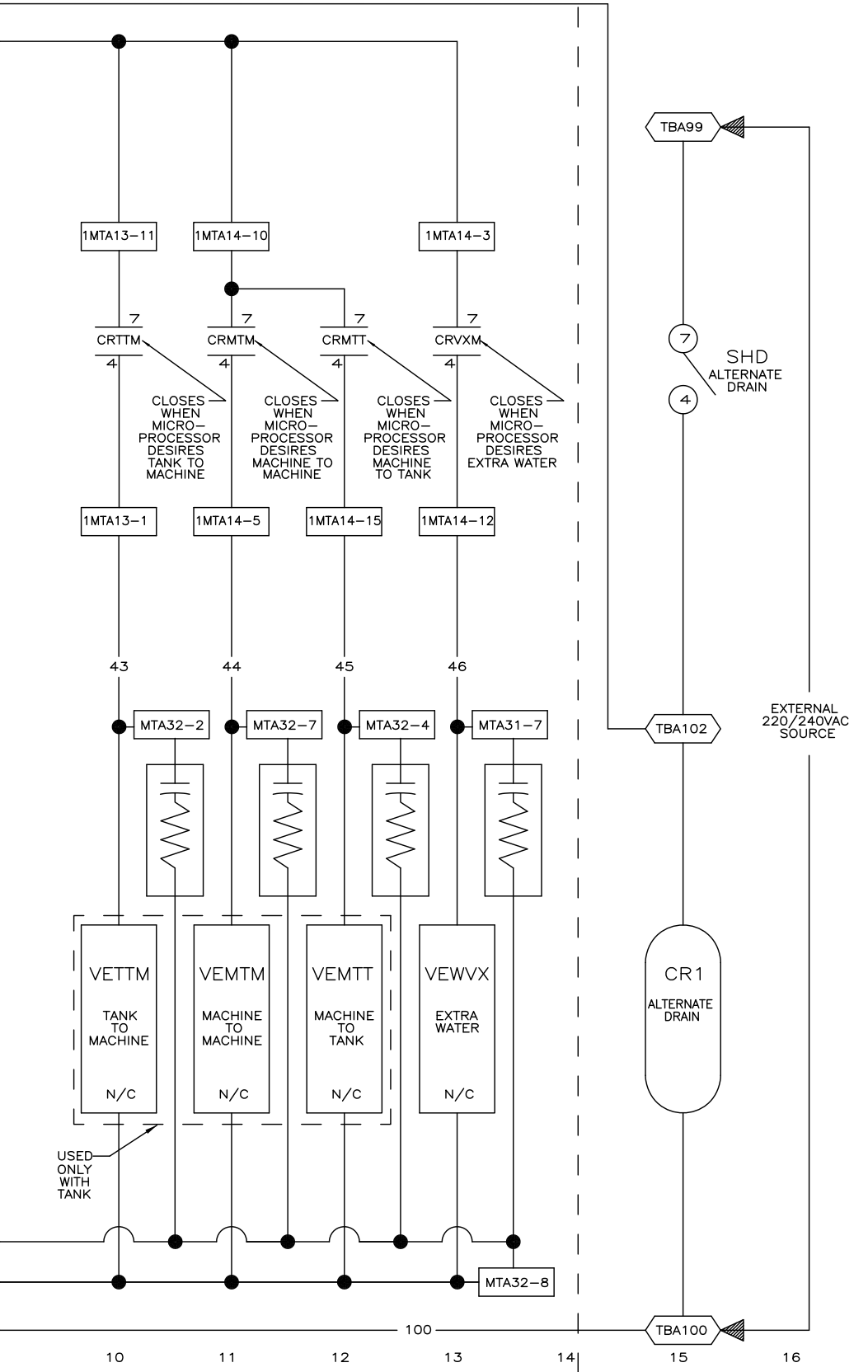
USED ONLY WITH ALTERNATE DRAIN (BATH SOAK) OPTION.

W6X8RSEV/15

W6X8RSEV
2024294B

EV06	EV05
EV06	EV05
LV03,07	

W6X8RSEV
2024294B

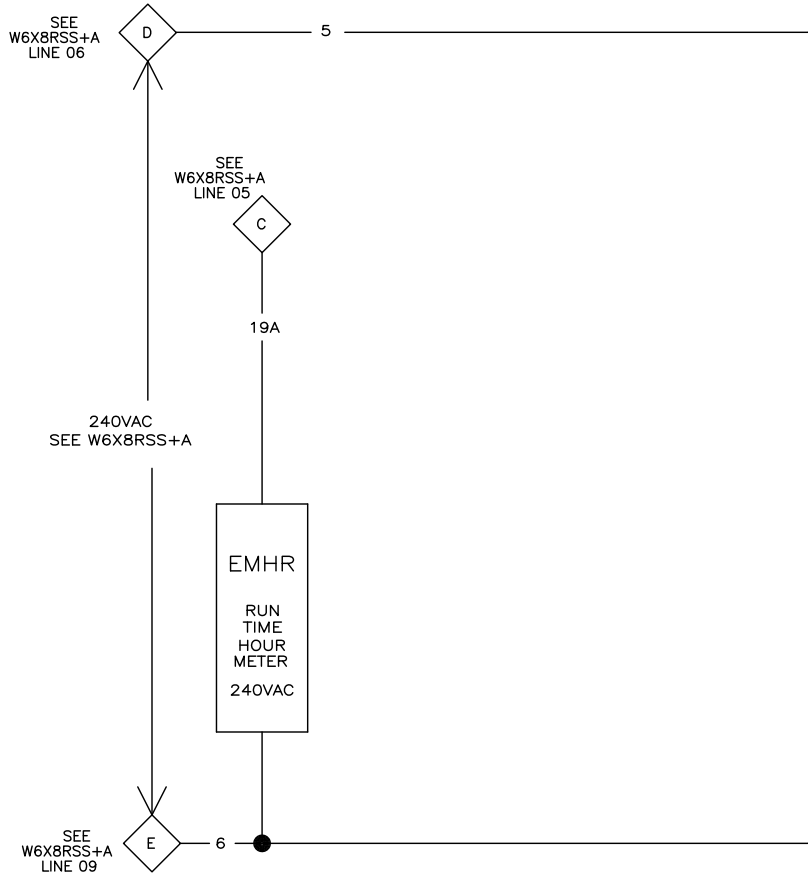


W6X8RSEV
MILTTOUCH-EX™ CONTROLS
SCHEMATIC: ELECTRICAL VALVES
220V1P50HZ/240V1P60HZ
PELLERIN MILNOR CORPORATION

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

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

W6X8RSEV
2024294B



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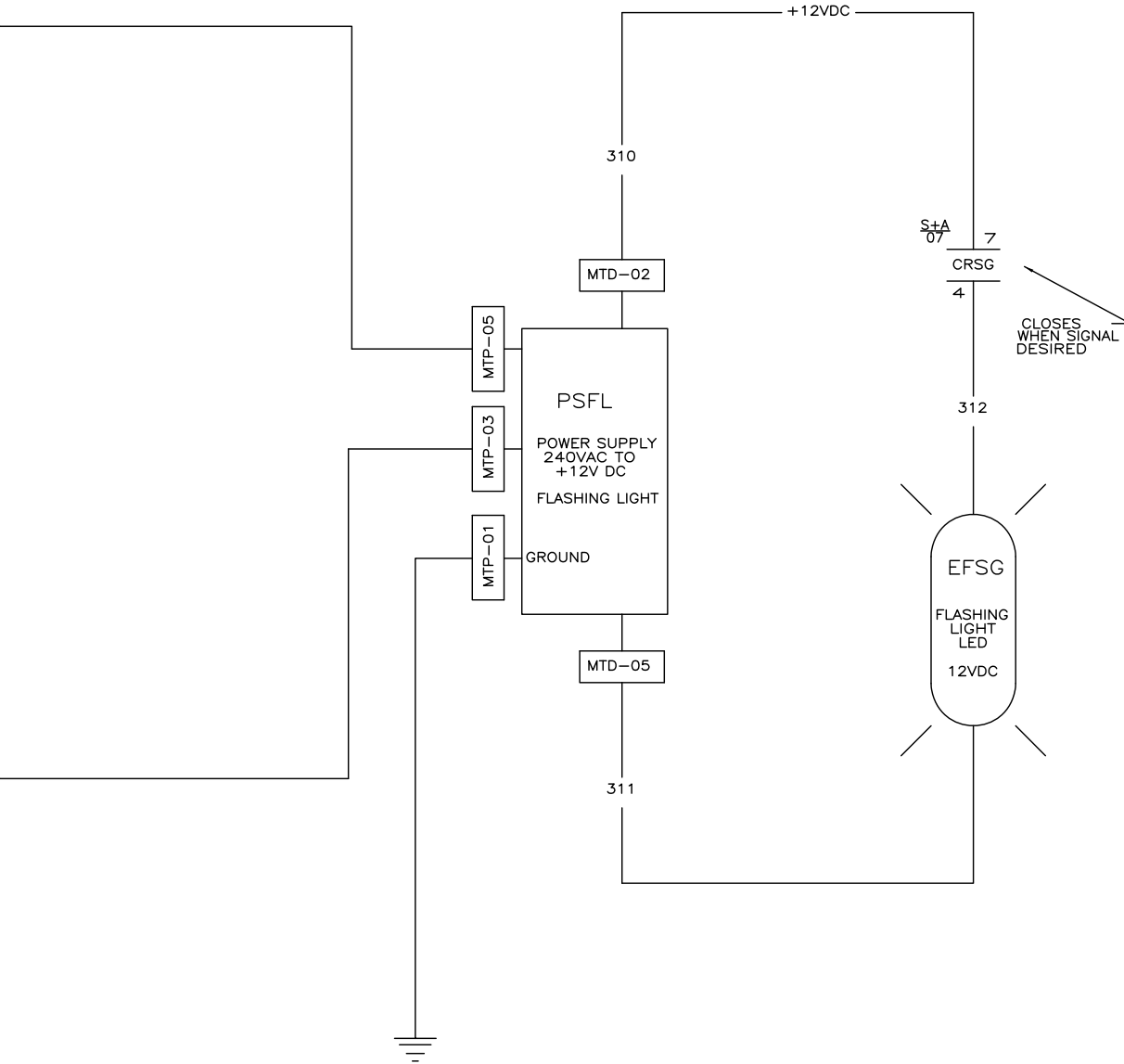
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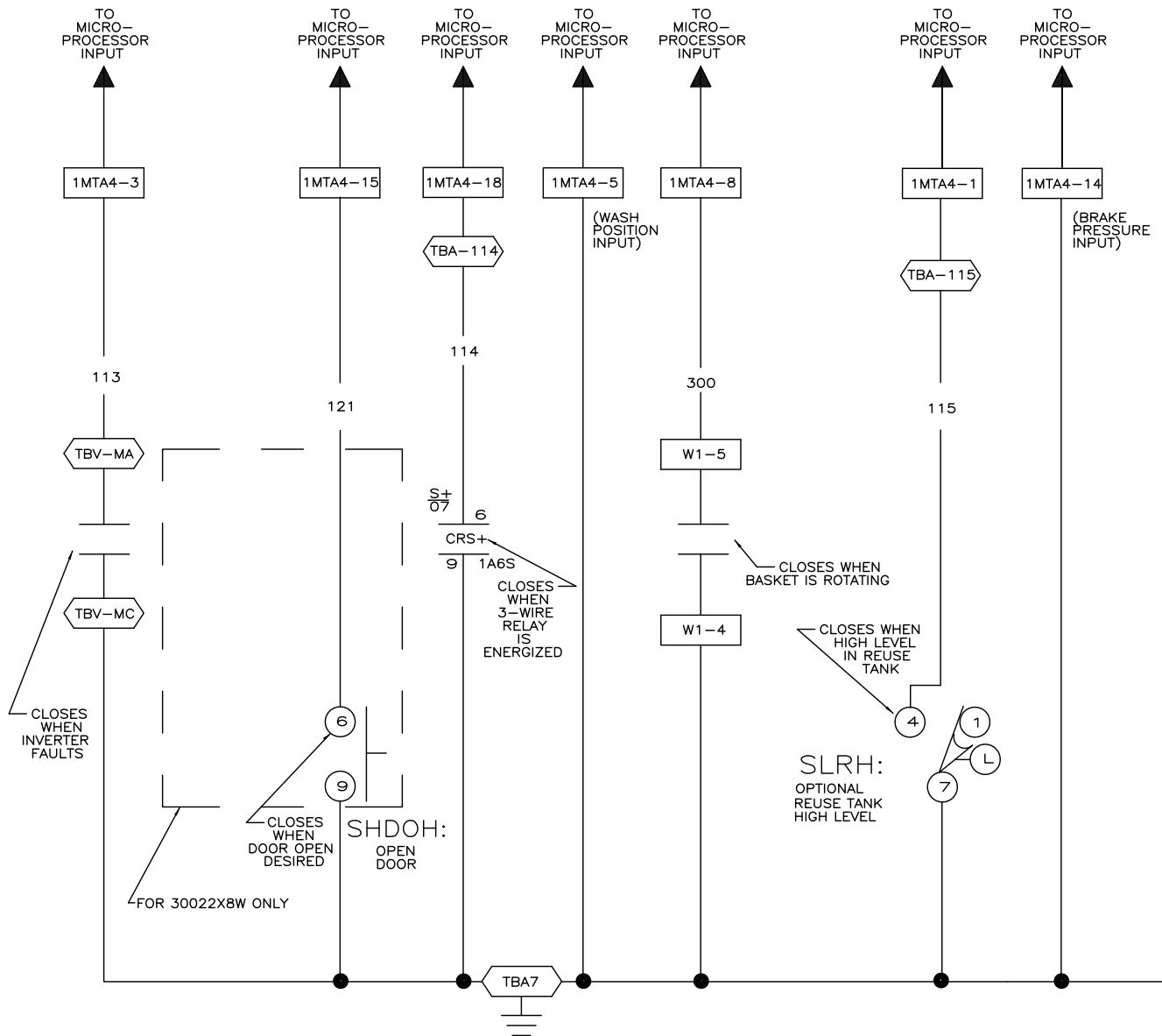
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W6X8RSFS
2023443B

W6X8RSFS

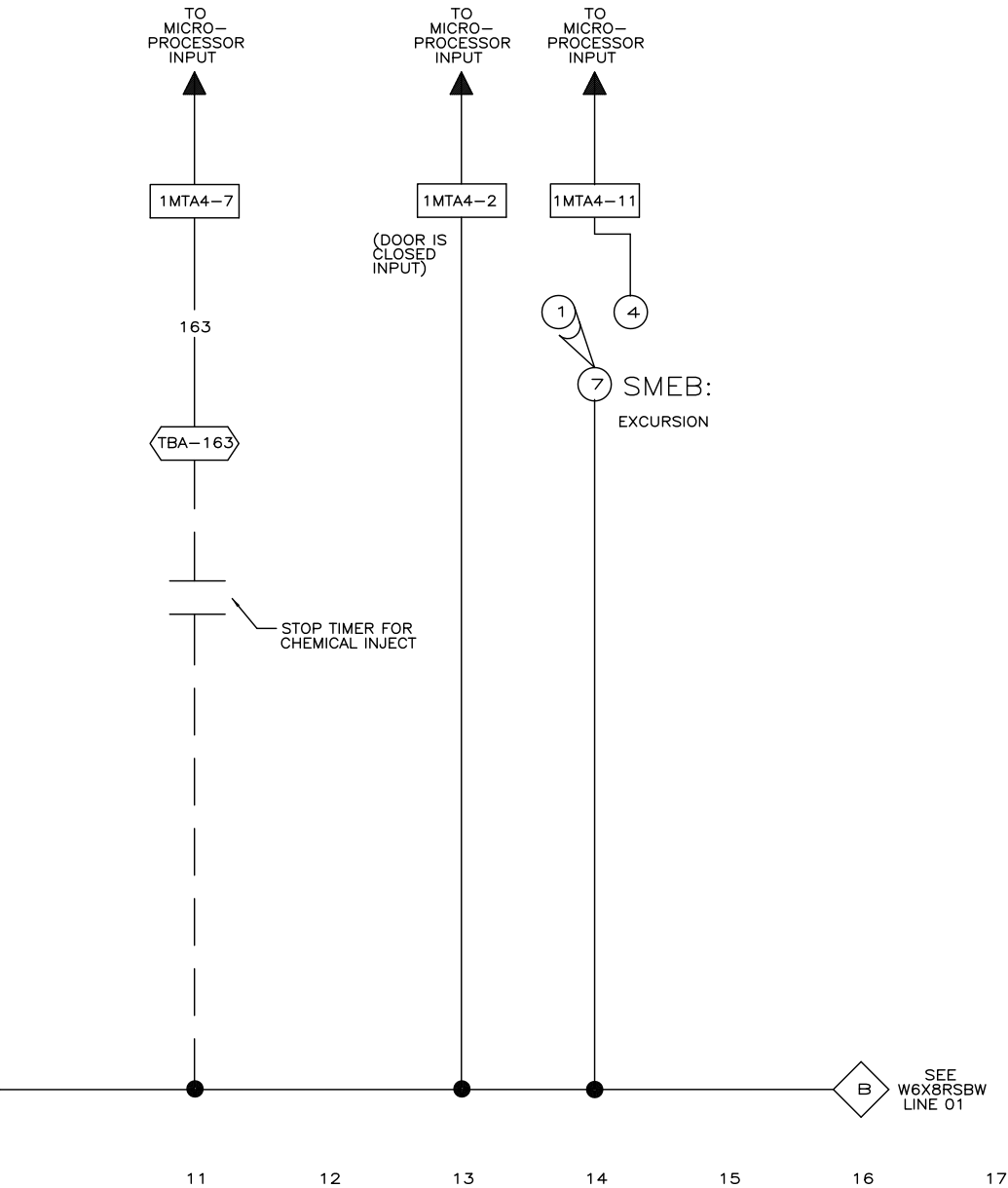
SCHEMATIC: FLASHING SIGNAL LIGHT
FOR V.A. MEDICAL CENTER
PELLERIN MILNOR CORPORATION

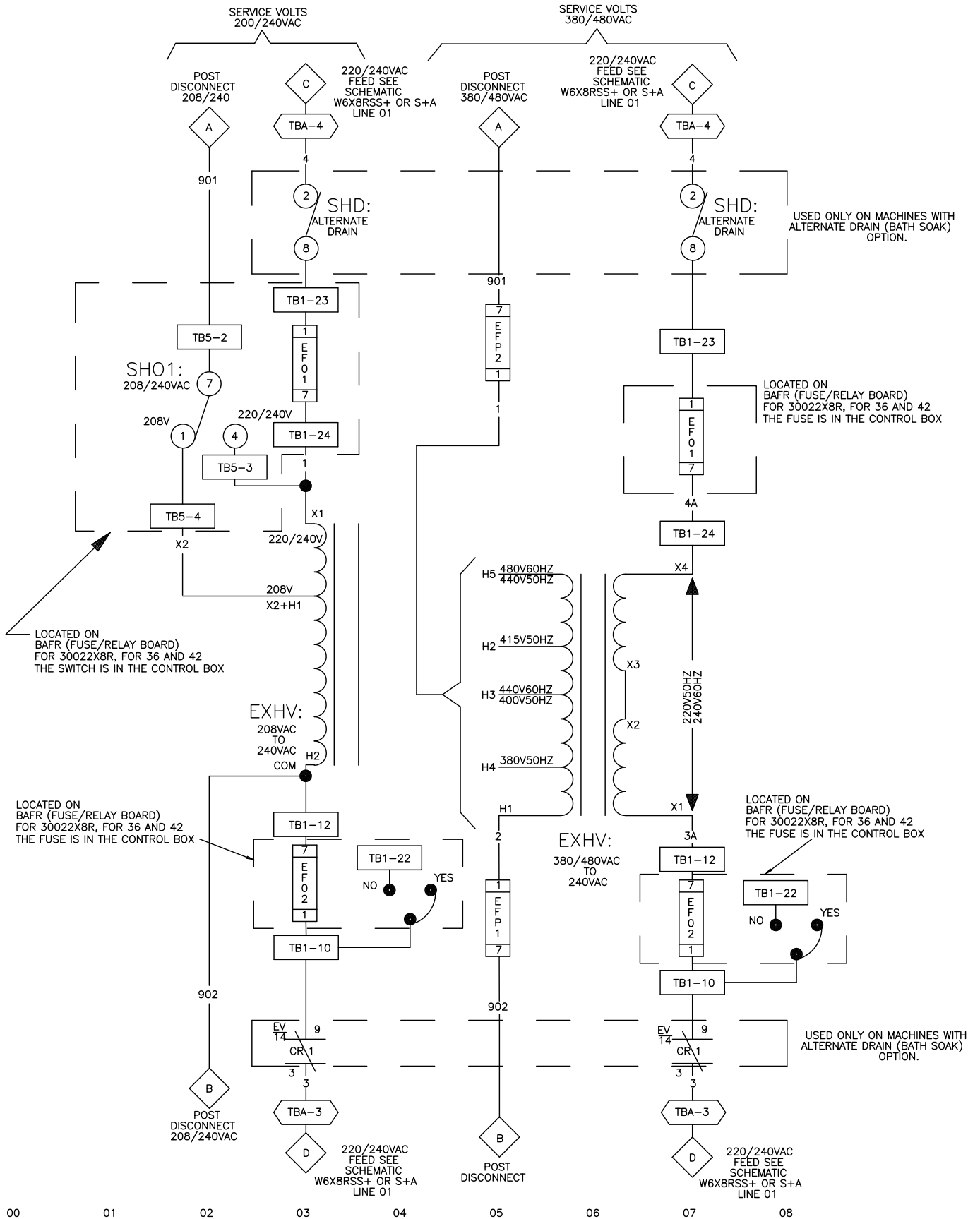




1. 1MTA3 AND 1MTA4 ARE LOCATED ON BIO-1 (8 OUTPUT-16 INPUT BOARD).
2. TBR, TBP, AND TB3 (COPPER BUS BAR) ARE LOCATED IN LOW VOLTAGE CONTROL BOX.
3. INVERTER FAULT CONTACTS TBV-MA AND MC ARE ON INVERTER.
4. W1 IS LOCATED ON THE BSP (SPEED SENSING BOARD).

W6X8RS11A
 MILTOUCH-EX™ CONTROLS
 SCHEMATIC: MICROPROCESSOR INPUTS
 PELLERIN MILNOR CORPORATION





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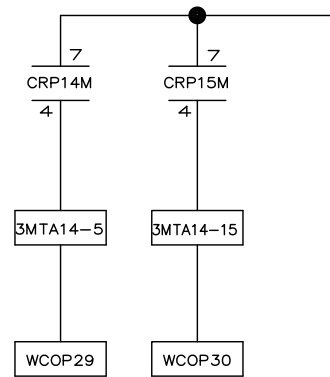
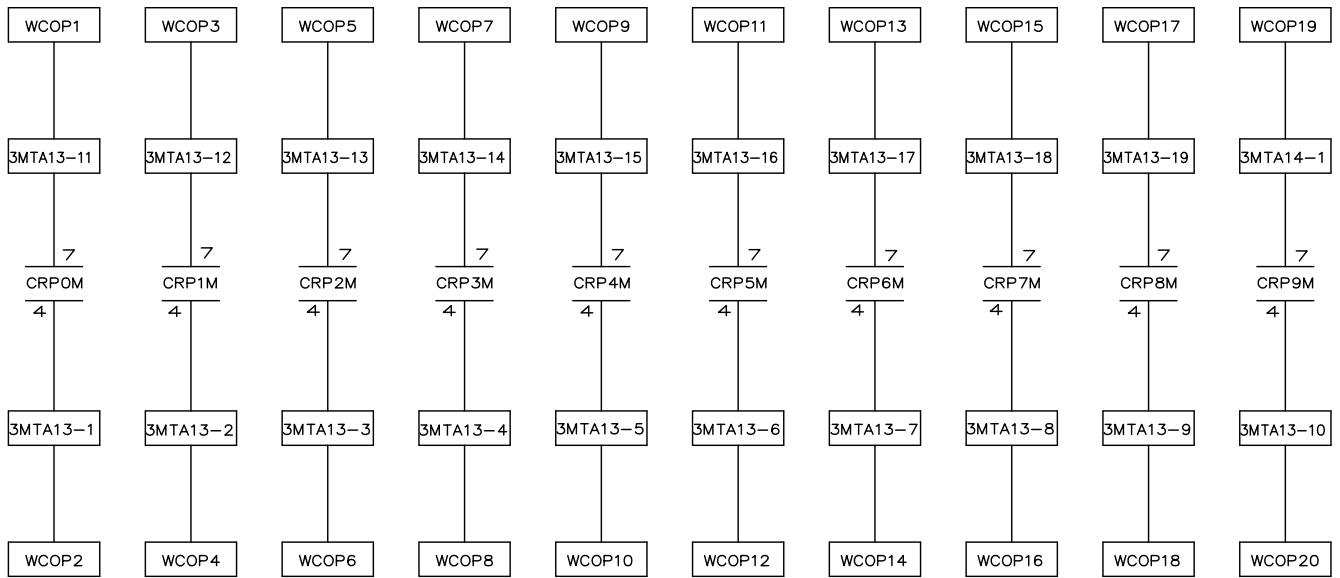
08

W6X8RSLV
2018486B

W6X8RSLV

MILTOUCH-EX™ CONTROLS
SCHEMATIC:CONTROL CIRCUIT TRANSFORMER
220V1P50HZ/240V1P60HZ

PELLERIN MILNOR CORPORATION



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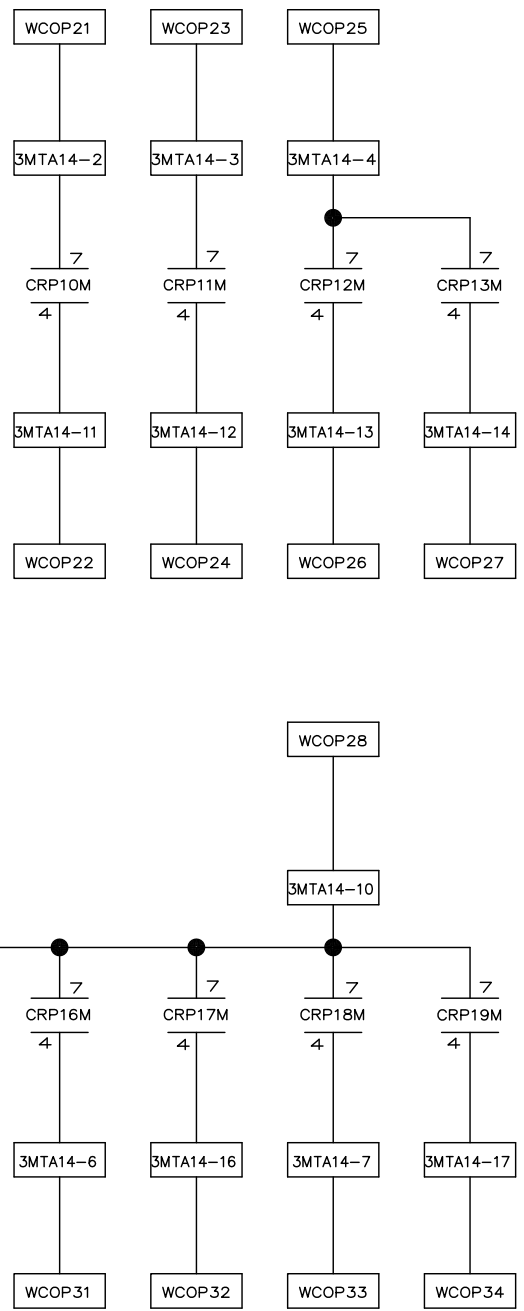
W6X8RSOP
2014112B

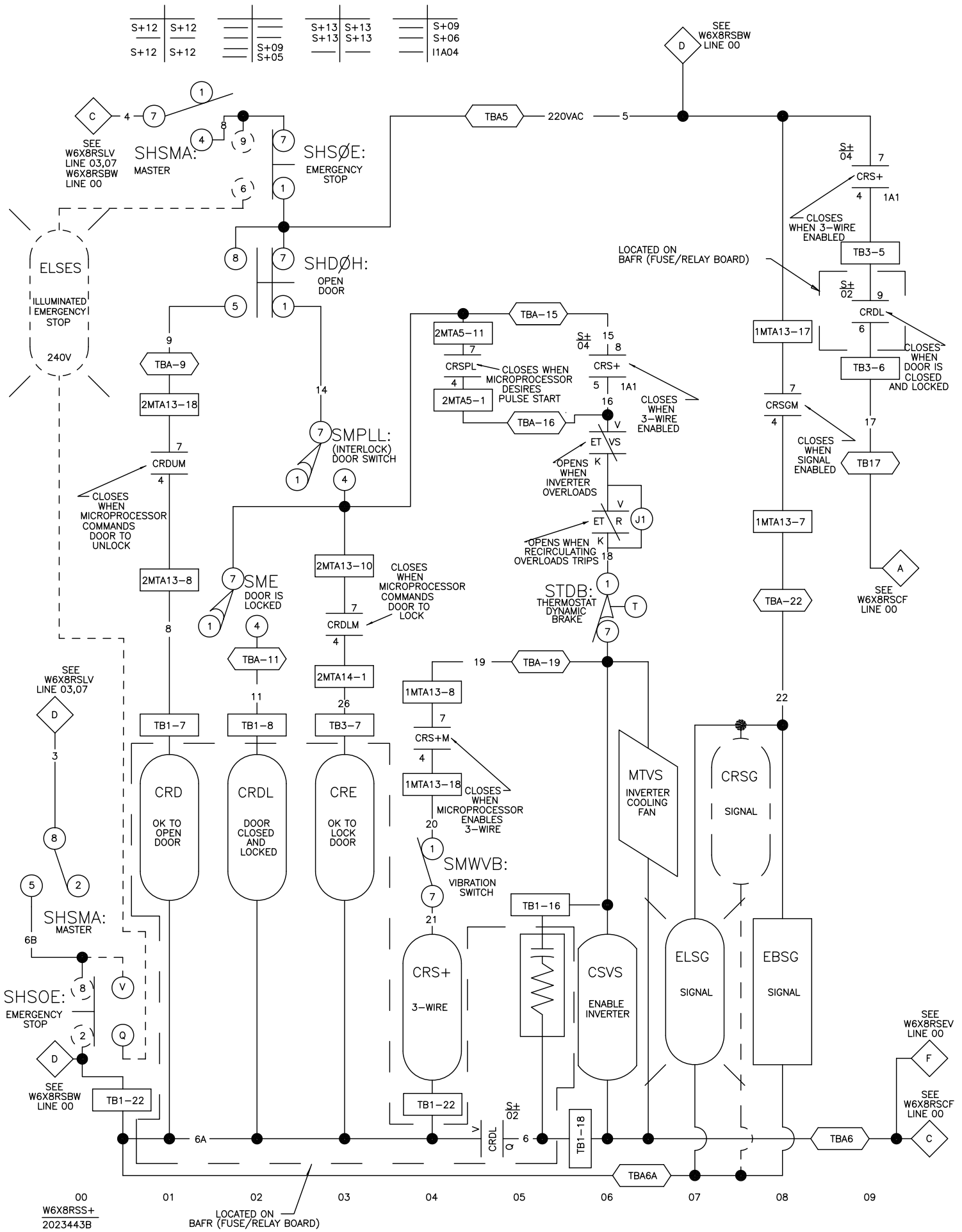
W6X8RSOP

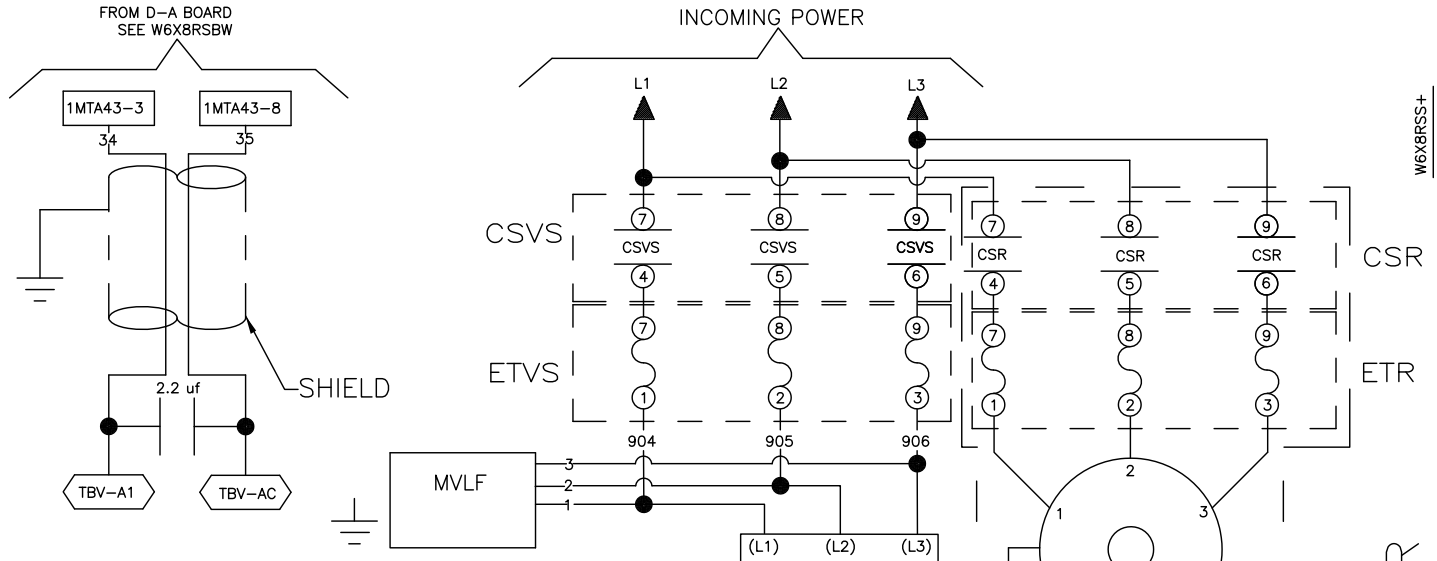
MILTOUCH-EX™ CONTROLS

SCHEMATIC: 20 OPTIONAL PROGRAMMABLE OUTPUTS

PELLERIN MILNOR CORPORATION

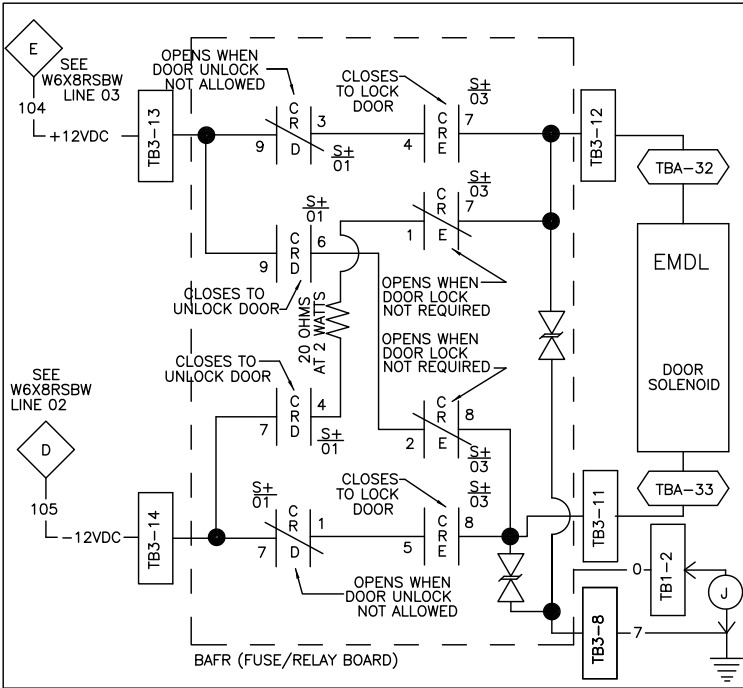




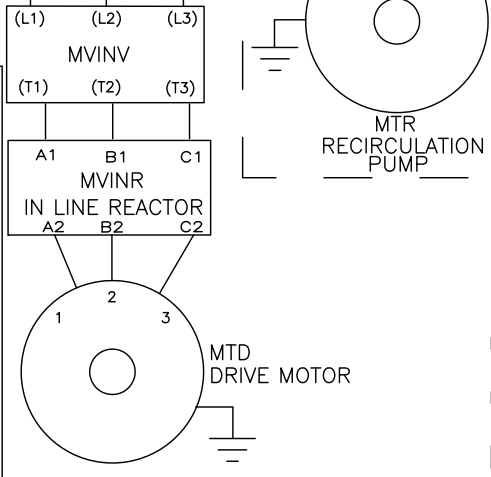
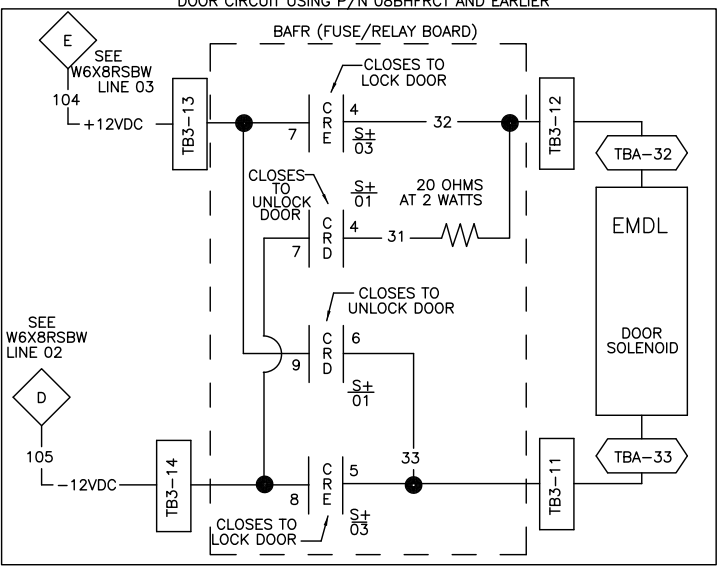


W6X8RSS+
2023443B

DOOR CIRCUIT USING P/N 08BHFRDT AND LATER



DOOR CIRCUIT USING P/N 08BHFRCT AND EARLIER

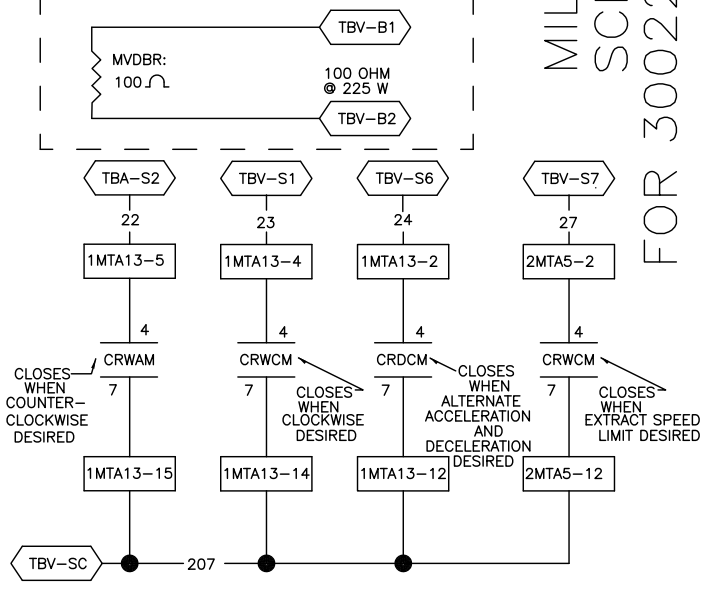


NOTE:
TB1, TB2, AND TB3 ARE LOCATED ON BAFR (FUSE/RELAY BOARD)

1MTA13 AND 1MTA14 ARE LOCATED ON B024-1 (24 OUTPUT BOARD)

TERMINALS BEGINNING WITH B OR S ARE LOCATED ON MVINV (INVERTER)

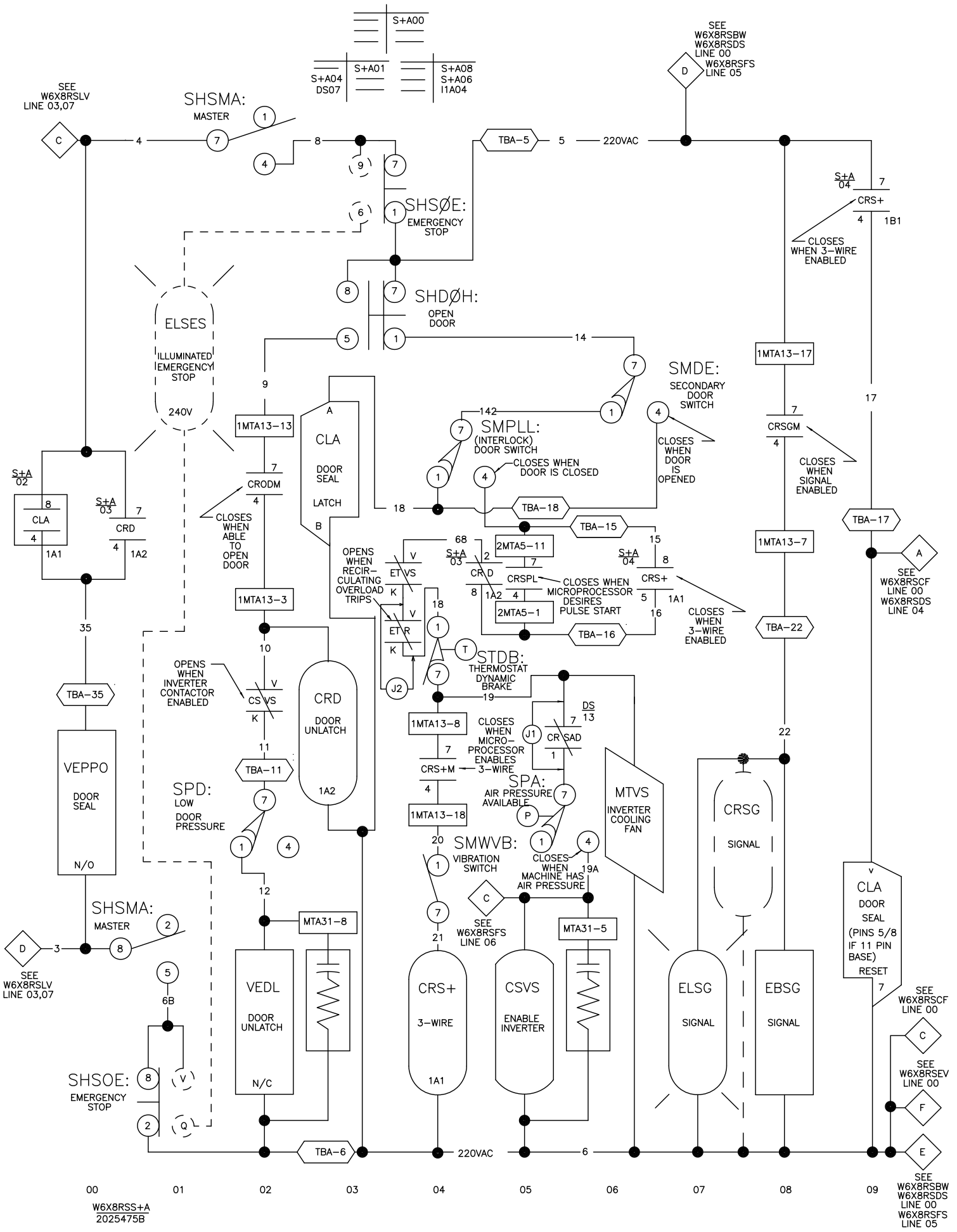
REMOVE (J) FOR RECIRCULATION PUMP OPTION



W6X8RSS+
MILTOUCH-EX™ CONTROLS
SCHEMATIC: 3-WIRE CIRCUIT
FOR 30022X8R WITH V1000 INVERTER
220V1P50HZ/240V1P60HZ
PELLERIN MILNOR CORPORATION

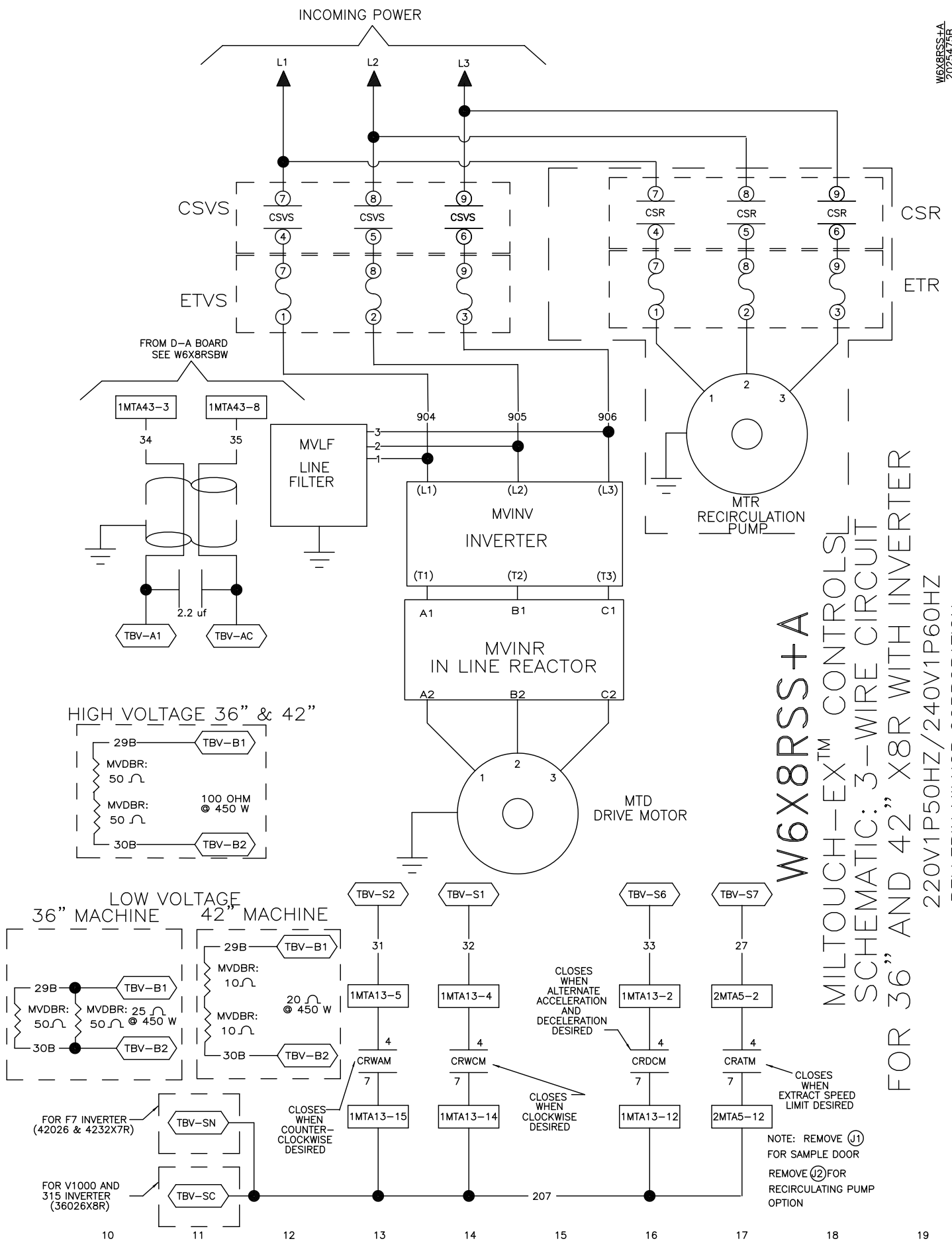
W6X8RSS+
2023443B

10 11 12 13 14 15 16 17 18



00
W6X8RSS+A
2025475B

09
SEE
W6X8RSBW
W6X8RSDS
LINE 00
W6X8RSFS
LINE 05



W6X8RSS+A
 MILTOUCH-EX™ CONTROLS
 SCHEMATIC: 3-WIRE CIRCUIT
 FOR 36" AND 42" X8R WITH INVERTER
 220V1P50HZ/240V1P60HZ
 PELLERIN MILNOR CORPORATION