



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

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Schematic/Electrical Parts

Milnor®

Washer-Extractor

MWR09E5, MWR18E4



PELLERIN MILNOR CORPORATION POST OFFICE BOX 400, KENNER, LOUISIANA 70063-0400, U.S.A.

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COMPONENT PARTS LIST

W1MWRPL/2014264N

<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				
	>>PRINTED CIRCUIT BOARDS				
BA	BOARD-SWITCH PANEL	W1MWRCV	98CMCR0912	BD:MMWR OPL STATUS-> TEST	SWITCH PANEL
BASP	BOARD-SWITCH PANEL	W1MWR/A	98CMCR0912	BD:MMWR OPL STATUS-> TEST	SWITCH PANEL
BAUP	BOARD-PROCESSOR W/O TEMPERATURE	W1MWRBW	98CMCR0911	BD:16OUTPUT-8INPUT OPL->TEST	CONTROL PANEL
BAUP	BOARD-PROCESSOR W/ TEMPERATURE	W1MWRBW	08BT168BT	BD:16/8 E-TIMER W/A-D -> TESTED	CONTROL PANEL
CR	>>RELAY-PILOT OR CONTROL				
CRD	RELAY-OK TO OPEN DOOR	W1MWRS+	09C024D71	RELAY 4PDT DIFGLD 14PN 240V	CONTROL PANEL
CRDL	RELAY-DOOR CLOSED AND LOCKED	W1MWRS+	09C024D71	RELAY 4PDT DIFGLD 14PN 240V	CONTROL PANEL
CRE	RELAY-OK TO LOCK DOOR	W1MWRS+	09C024D71	RELAY 4PDT DIFGLD 14PN 240V	CONTROL PANEL
CS	>>CONTACTOR-MOTOR STARTER				
CSVP	CONTACTOR-ENABLE INVERTER	W1MWRS+	98CMCR1801	12A 3P CONTACTOR NR 240V5/6	CONTROL PANEL
EF	>>FUSE OR FUSE HOLDER				
EF71A	FUSE-240V INCOMING POWER X-BUSS	W1MWRS+	09FF002F2H	2A 250V F2H CONTROL FUSE	CONTROL PANEL
EF71B	FUSE-240V INCOMING POWER Y-BUSS	W1MWRS+	09FF002F2H	2A 250V F2H CONTROL FUSE	CONTROL PANEL
EF1	FUSE-LV FEED TRANSFORMER PRIMARY	W1MWRLV	09FF006AWV	FUSE BUSS STYLE CC TYPE FNQ-R 6 AMP 60 CONTROL PANEL	CONTROL PANEL
EF2	FUSE-LV FEED TRANSFORMER PRIMARY	W1MWRLV	09FF006AWV	FUSE BUSS STYLE CC TYPE FNQ-R 6 AMP 60 CONTROL PANEL	CONTROL PANEL
EF1	FUSE-HV FEED TRANSFORMER PRIMARY	W1MWRLV	09FF003AWV	FUSE BUSS STYLE CC TYPE FNQ-R 3 AMP 60 CONTROL PANEL	CONTROL PANEL
EF2	FUSE-HV FEED TRANSFORMER PRIMARY	W1MWRLV	09FF006AWV	FUSE BUSS STYLE CC TYPE FNQ-R 3 AMP 60 CONTROL PANEL	CONTROL PANEL
	>>PILOT LIGHTS				
ELFP	LIGHT-FORMULA IN PROGRESS	W1MWRCV	MESSAGE EW	SEE COMPONENT NUMBER BASP	SWITCH PANEL
ELLR	LIGHT-LAST RINSE (ON PCB)	W1MWRCV	MESSAGE EW	SEE COMPONENT NUMBER BASP	SWITCH PANEL
EM	>>ELECTROMAGNET AND SOLENOID				
EMDL	SOLENOID-DOOR UNLOCK	W1MWRS+	09K063C24	DOOR LOCK SOLENOID 24V	DOOR LOCK
ES	>>POWER SUPPLY-ELECTRONIC				
ESPS	POWER SUPPLY-MICROPROCESSOR	W1MWRBW	98CMCR0913	PWRSUP 24V/OUT 85-264VAC/IN	CONTROL PANEL
EX	>>TRANSFORMERS				
EXHV	TRANSFORMER-INCOMING VOLT.240VAC	W1MWRLV	MESSAGE EW	SEE EX37-1 OR -3 FOR VOLTAGE	CONTROL PANEL
EXHV-1	TRANSFORMER-208VAC TO 240VAC	W1MWRLV	98CMCR0902	AUTOXFMR 208V/230V 250VA	CONTROL PANEL
EXHV-2	TRANSFORMER-120VAC TO 240VAC	W1MWRLV	09UB20AA71	XFMR 120V PRI/240V SEC 200VA	CONTROL PANEL
MR	>>>MOTORS				
MTWE	MOTOR-BASKET	W1MWRVP	MESSAGE SO	SEE SPECIFIC COMPONENT+NAMEPLATE	MACHINE BASE
MTWE	MOTOR-BASKET	W1MWRVPS	MESSAGE SO	SEE SPECIFIC COMPONENT+NAMEPLATE	MACHINE BASE

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MV	>>>MOTOR POWER INVERTERS				
MV/INV	INVERTER-BASKET MOTOR MWR12	W1MWRVP	09MV020F74	INVERTER 2HP 230V (GPD315)	CONTROL PANEL
MV/INV	INVERTER-BASKET MOTOR MWR18	W1MWRVP	09MV030F74	VAR SPEED 3HP 11A 230V GPD315	CONTROL PANEL
MV/INV	INVERTER-BASKET MOTOR MWR18	W1MWRVPA	09MMWB01174	V1000 INVERTER 11AMP 230V	CONTROL PANEL
MV/INV	INVERTER-BASKET MOTOR MWR09-120V/1P	W1MWRVPS	09MV005C37	INVERTER GPD205 5 AMPS 120V	CONTROL PANEL
PX	>>>PROXIMITY SWITCH				
SH	>>>SWITCH-HAND OPERATED				
SHDO	SWITCH-DOOR OPEN	W1MWR/A	09N400CBNO	CONT.BLOCK 1-NO SQD#ZB2BE101	SWITCH PANEL
SHDO	SWITCH-DOOR OPEN	W1MWR/S+	09N400CBNO	CONT.BLOCK 1-NO SQD#ZB2BE101	SWITCH PANEL
SHFA	SWITCH-FORMULA A	W1MWR/A	MESSAGE EW	SEE COMPONENT NUMBER BASP	SWITCH PANEL
SHFB	SWITCH-FORMULA B	W1MWR/A	MESSAGE EW	SEE COMPONENT NUMBER BASP	SWITCH PANEL
SHFC	SWITCH-FORMULA C	W1MWR/A	MESSAGE EW	SEE COMPONENT NUMBER BASP	SWITCH PANEL
SHFD	SWITCH-FORMULA D	W1MWR/A	MESSAGE EW	SEE COMPONENT NUMBER BASP	SWITCH PANEL
SHO1	SWITCH-208/240V SELECTOR	W1MWR/LV	09N050	TOGSW SPDT NO OFF 10A250V	CONTROL PANEL
SHTR	SWITCH-TERMINATE	W1MWR/A	MESSAGE EW	SEE COMPONENT NUMBER BASP	SWITCH PANEL
SM	>>>SWITCH-MECHANICAL OPERATED				
SMD	SWITCH-DOOR INTERLOCK	W1MWR/S+	09R010D	DOOR LOCK SWITCH	DOOR LOCK
SME	SWITCH-DOOR IS LOCKED	W1MWR/S+	02-04177	MICROSWITCH=W/MAN CUT LEVER	DOOR LOCK
SMVB	MECHANICAL SWITCH-VIBRATION	W1MWR/A	98CMCR0910	VIBRATION SWITCH	CONTROL PANEL
SN	>>>SNUBBER				
SNVP	SNUBBER-INVERTER ENABLE CONTACTOR	W1MWR/S+	09ARC2047J	SNUB .2MFD 470 OHM 600VDC	CONTROL PANEL
SP	>>>SWITCH-PRESSURE OPERATED				
SPHL	PRESSURE SWITCH-HIGH LEVEL-MWR18	W1MWR/A	09N101	PRESS SW ASSY TRIP 4.85"	CONTROL PANEL
SPHL	PRESSURE SW-HIGH LEVEL-MWR12&16	W1MWR/A	09N100	PRESS SW ASSY TRIP 2.5"	CONTROL PANEL
SPLL	PRESSURE SWITCH-LOW LEVEL	W1MWR/A	09N100	PRESS SW ASSY TRIP 2.5"	CONTROL PANEL
VE	>>>VALVE-ELECTRIC OPERATED				
VEC1	VALVE-FLUSH CHEM. POCKET 1	W1MWR/CV	N/A	NOT INSTALLED THIS MODEL	REAR OF MACH.
VEC2	VALVE-FLUSH CHEM. POCKET 2	W1MWR/CV	N/A	NOT INSTALLED THIS MODEL	REAR OF MACH.
VEC3	VALVE-FLUSH CHEM. POCKET 3	W1MWR/CV	N/A	NOT INSTALLED THIS MODEL	REAR OF MACH.
VECFL	VALVE-FLUSH CHEMICAL	W1MWR/CV	98CMCR0939	PERISTALTIC/WATER INLET	REAR OF MACH.
VEDR	VALVE-DRAIN (MWR09&12)	W1MWR/CV	96D25RAA71	DRAIN/ALRTANG 2"N/O 240V 50/60	REAR OF MACH.
VEDR	VALVE-DRAIN (MWR18)	W1MWR/CV	96D35RAA71	DRAIN/VAL RT-ANG 3" 240V 50/60C	REAR OF MACH.
VEWC	VALVE-COLD WATER	W1MWR/CV	98CMCR0937	3/4"DUOINLET 1/2"HOSEOUT	REAR OF MACH.

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VEWH	VALVE-HOT WATER	W1MWRVCV	98CMCR0937	3/4"DUOINLET 1/2"HOSEOUT	REAR OF MACH.

PELLERIN MILNOR CORPORATION LIMITED STANDARD WARRANTY

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

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

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

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

ANY SALE OR FURNISHING OF ANY EQUIPMENT BY MILNOR IS MADE ONLY UPON THE EXPRESS UNDERSTANDING THAT MILNOR MAKES NO EXPRESSED OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE OR PURPOSE OR ANY OTHER WARRANTY IMPLIED BY LAW INCLUDING BUT NOT LIMITED TO REDHIBITION. MILNOR WILL NOT BE RESPONSIBLE FOR ANY COSTS OR DAMAGES ACTUALLY INCURRED OR REQUIRED AS A RESULT OF: THE FAILURE OF ANY OTHER PERSON OR ENTITY TO PERFORM ITS RESPONSIBILITIES, FIRE OR OTHER HAZARD, ACCIDENT, IMPROPER STORAGE, MIS-USE, NEGLIGENCE, POWER OR ENVIRONMENTAL CONTROL MALFUNCTIONS, DAMAGE FROM LIQUIDS, OR ANY OTHER CAUSE BEYOND THE NORMAL RANGE OF USE. REGARDLESS OF HOW CAUSED, IN NO EVENT SHALL MILNOR BE LIABLE FOR SPECIAL, INDIRECT, PUNITIVE, LIQUIDATED, OR CONSEQUENTIAL COSTS OR DAMAGES, OR ANY COSTS OR DAMAGES WHATSOEVER WHICH EXCEED THE PRICE PAID TO MILNOR FOR THE EQUIPMENT IT SELLS OR FURNISHES.

THE PROVISIONS ON THIS PAGE REPRESENT THE ONLY WARRANTY FROM MILNOR AND NO OTHER WARRANTY OR CONDITIONS, STATUTORY OR OTHERWISE, SHALL BE IMPLIED.

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.

How to order repair parts

Repair parts may be ordered either from the authorized dealer who sold you this machine, or directly from the MILNOR factory. In most cases, your dealer will have these parts in stock.

When ordering parts, please be sure to give us the following information:

1. Model and serial number of the machine for which the parts are required
2. Part number
3. Name of the part
4. Quantity needed
5. Method of shipment desired
6. In correspondence regarding motors or electrical controls, please include all nameplate data, including wiring diagram number and the make or manufacturer of the motor or controls.

All parts will be shipped C.O.D. transportation charges collect only.

Please read this manual

It is strongly recommended that you read the installation and operating manual before attempting to install or operate your machine. We suggest that this manual be kept in your business office so that it will not become lost.

PELLERIN MILNOR CORPORATION

P.O. BOX 400, KENNER, LA., 70063-0400, U.S.A.

FAX: Administration 504/468-9307, Engineering 504/469-1849, Service 504/469-9777

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HOW TO USE MILNOR[®] ELECTRICAL SCHEMATICS

Milnor[®] electrical schematic manuals contain a *table of contents/component list*, a set of *schematic drawings*, and a *signal routing table*. 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.

The *schematic drawings* use symbols for each electro-mechanical 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 but are shown in the signal routing table. **Most machines (manuals) require several schematics to describe the complete control system including all available options. However, this means that there are usually some schematics that do not apply to a specific machine.** Each schematic is devoted to circuits with common functions (e.g., microprocessor inputs, motor contactors). Schematics appear in the manual in alphanumeric order.

The *signal routing table* assists in determining wire routing. It identifies each group of conductors in a control system connected with zero resistance. Groups are identified by a two or three character wire number. Each wire belonging to such a group of conductors has that group's wire number printed along the wire insulation. Although there are some exceptions, generally each group of conductors within the entire electrical system for a machine family has its own unique wire number. The signal routing table for the manual lists each wire alphanumerically by wire number and each component/pin number to which *the wire is attached*, including those not shown on the schematics (e.g., wire connectors). Milnor[®] document MST50202BE "HOW TO USE THE SIGNAL ROUTING TABLE" provides more information.

Component Prefix Classifications and Descriptions

The *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.

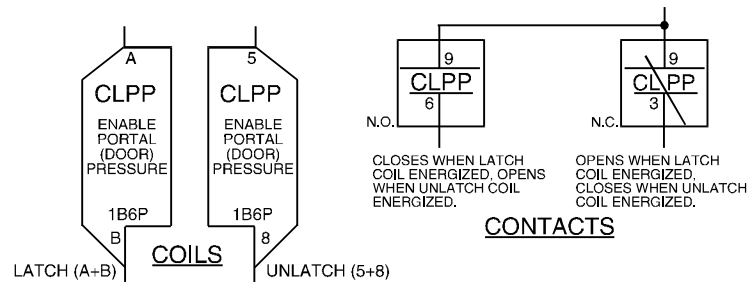
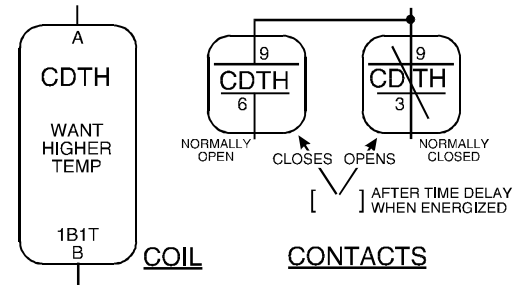
The following are descriptions of the electrical components used in Milnor[®] machines. Descriptions are in alphabetical order of the component class code (two character prefix).

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 Automatic switch that opens an electric circuit in abnormal current conditions (e.g., an overload).

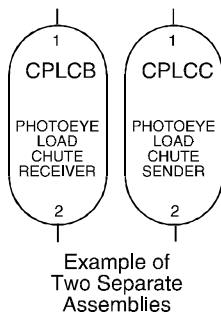
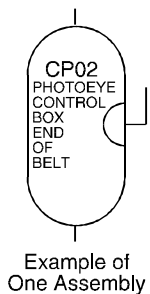
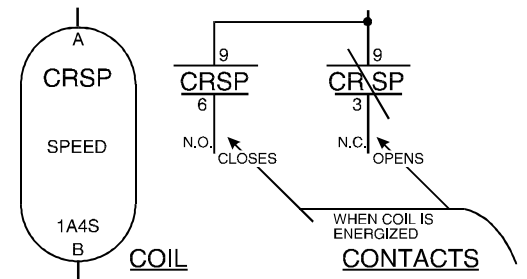


CD=Control, Time Delay Relay A relay whose contacts switch only after a fixed or adjustable delay, once voltage has been applied to its coil. The contacts switch back to normal (de-energized state) immediately when the voltage is removed.



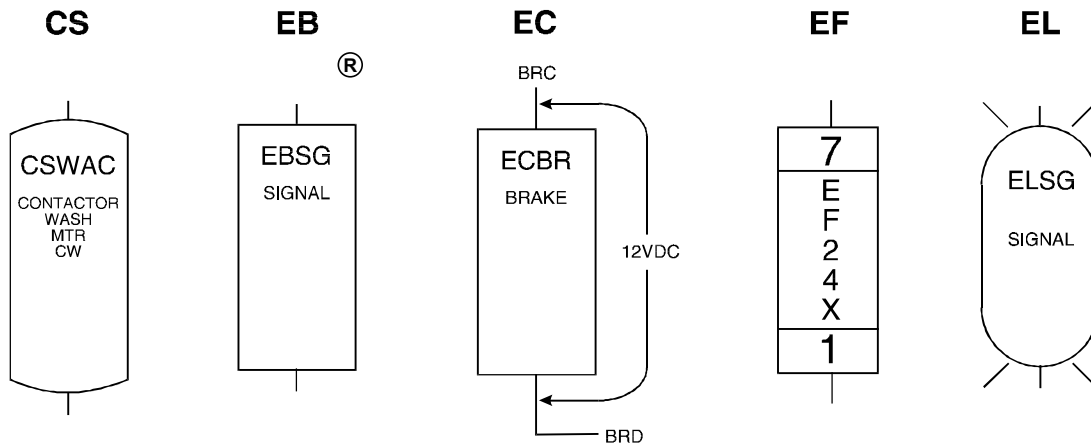
CL=Control, Latch Relay A relay which latches in an energized or set position when operated by one coil (the *latch/set coil*). The relay stays latched, even though coil voltage is removed. The relay releases or unlatches when voltage is applied to a second coil, (the *unlatch/reset coil*).

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



CP=Control, Photo-Eyes 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 unblocked (light operate).



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

EB=Electric Buzzer An audible signaling device.

EC=Electric Clutch 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 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.

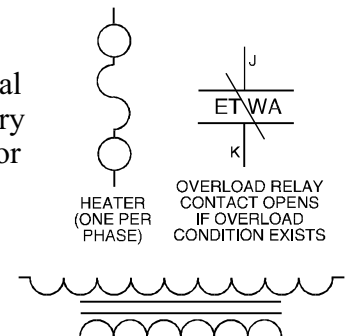
EL=Electric Light Indicator lights may be either incandescent or fluorescent.

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 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.

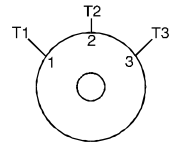
EX=Electrical Transformer A device that transfers electrical energy from one isolated circuit to another, often raising or lowering the voltage in the process.



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 Electro-mechanical device that converts electrical energy into mechanical energy.

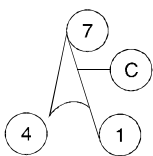
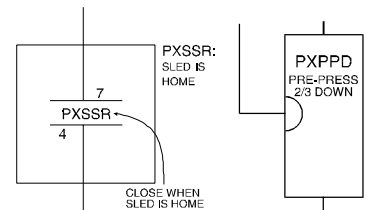


MV=Motor (Variable Speed) Inverter To vary the speed of an AC motor, the volts to frequency ratio must be kept constant. The motor will overheat if this ratio is not maintained.

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.

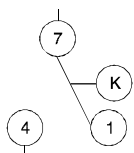
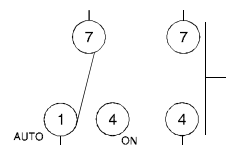
NOTE: Switch symbols used in the schematics and described below always depict the switch in its unactuated state.

PX=Proximity Switch A device which reacts to the proximity of an 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.



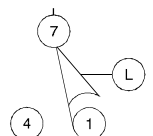
SC=Switch, Cam Operated A switch in which the electrical contacts are opened and/or closed by the mechanical action of a cam(s). Applications include 35-50 pound timer operated machines, autospot, timer reversing motor assembly, and some balancing systems.

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

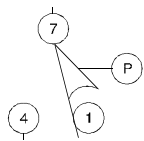


SK=Switch, Key Lock A switch that requires a key to operate. This prevents unauthorized personnel from gaining access to certain functions (e.g., the *Program Menu*).

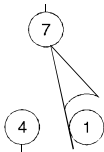
SL=Switch, Level Operated A switch connected to a float that causes the switch to open and close as the level changes.



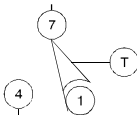
SM=Switch, Mechanically Operated A switch that is mechanically operated by a part of or the motion of the machine (e.g., door closed switch, tilt limit switches, etc.)



SP=Switch, Pressure Operated A switch consisting of a diaphragm that pushes against a switch actuator.

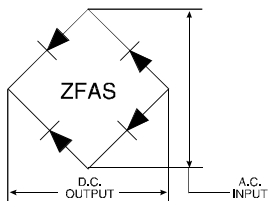


ST=Switch, Temperature Operated A switch that is actuated at a preset temperature (e.g., dryer safety probes) or has adjustable set points (e.g., Motometers or Combistats).



TB=Terminal Board A strip or block for attaching or terminating wires.

VE=Valve, Electric Operated A valve operated by an electric coil to control the flow of fluid. The fluid can be air, water or hydraulics.



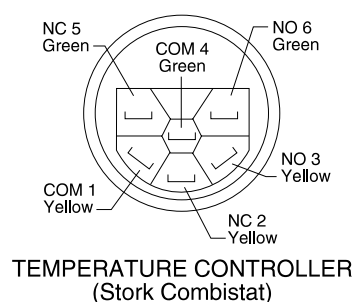
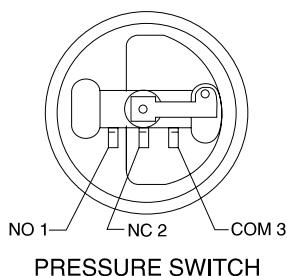
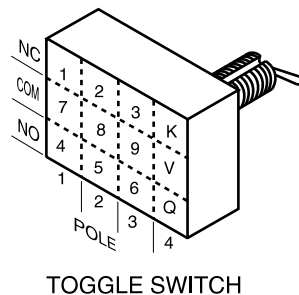
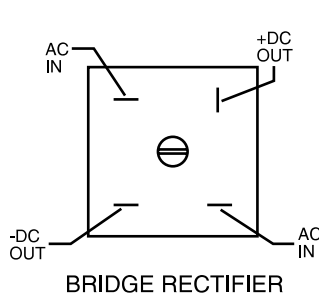
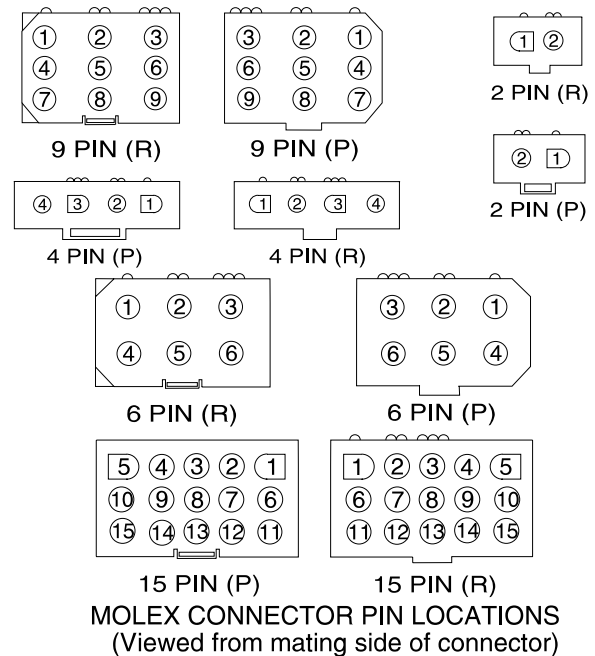
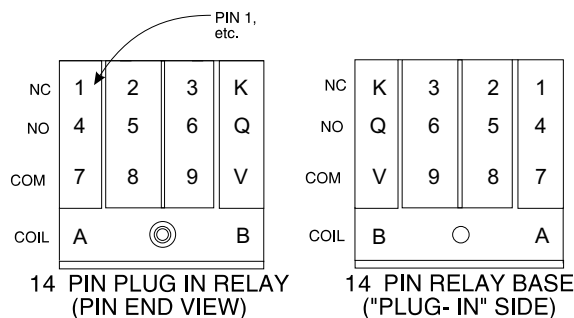
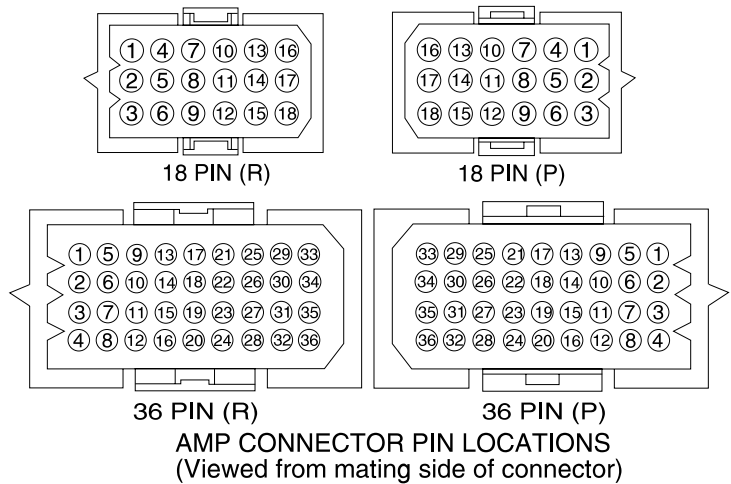
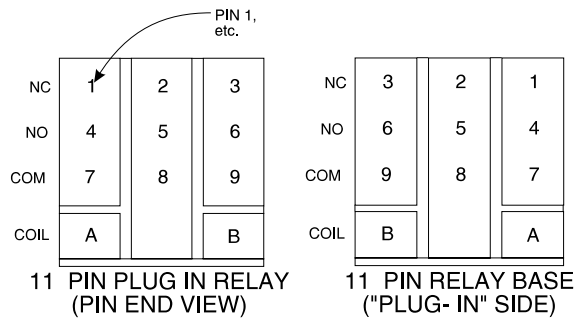
ZF=Rectifier A solid state device that converts alternating current to direct current.



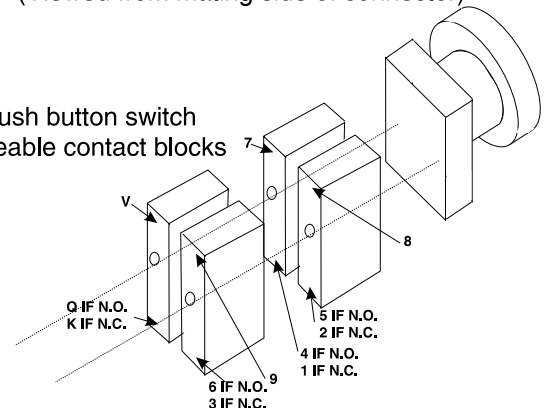
WC=Wiring Connector A coupling device for joining two cables or connecting a cable to an electronic circuit or piece of equipment. Connectors are male or female, according to whether they plug into or receive the mating connector.

Component Terminal Numbering

NOTE: Numbers shown usually appear on the component.



Rotary or push button switch with replaceable contact blocks



Features of Milnor® Electrical Schematics

Document W6DRYGS+A shown on the next page, is part of an actual schematic for the Milnor^æ Gas Dryer. For the purposes of this instruction, 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^æ 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 General functions of the circuit or portions thereof are stated across the top edge of the drawing.
- ⑤ 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.
- ⑥ Relay coils show the page and line number on which its associated contacts are located.
- ⑦ Relay contacts and relay coils show the physical location of the relay if mounted on a tray..

- ⑧ 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 II washer-extractor control and their designations are as follows:

MTA1-MTA6 = 8 output, 16 input (8/16) boards.

MTA11-MTA16 = 16 output boards

MTA30-MTA40 = processor boards

MTA41-MTA43 = digital to analog (D/A) boards

MTA51-MTA56 = analog to digital (A/D) boards

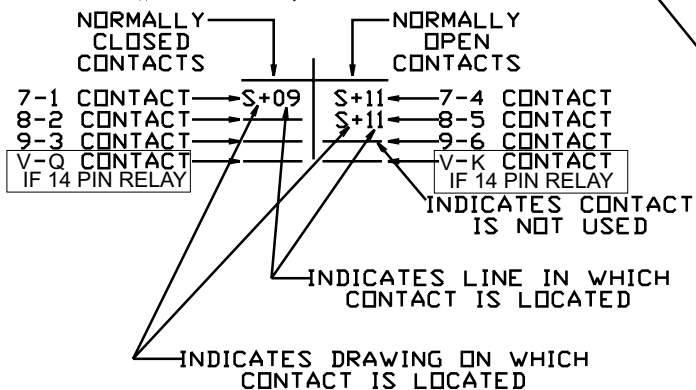
The complete listing of the boards utilized in a given control system can be found in the component list for that system.

- ⑨ The wire numbers, as described in the explanation of the signal routing table at the beginning of this section, are shown at appropriate locations on the schematic drawing.
- ⑩ 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.

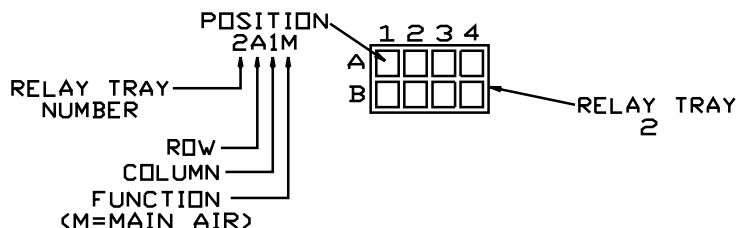
4 CIRCUIT FUNCTION

5 THIS INDICATES ON WHICH PAGE (W6DRYGS+) AND LINE NUMBER (08) THE RELAY COIL CAN BE FOUND FOR THIS SET OF CONTACTS.

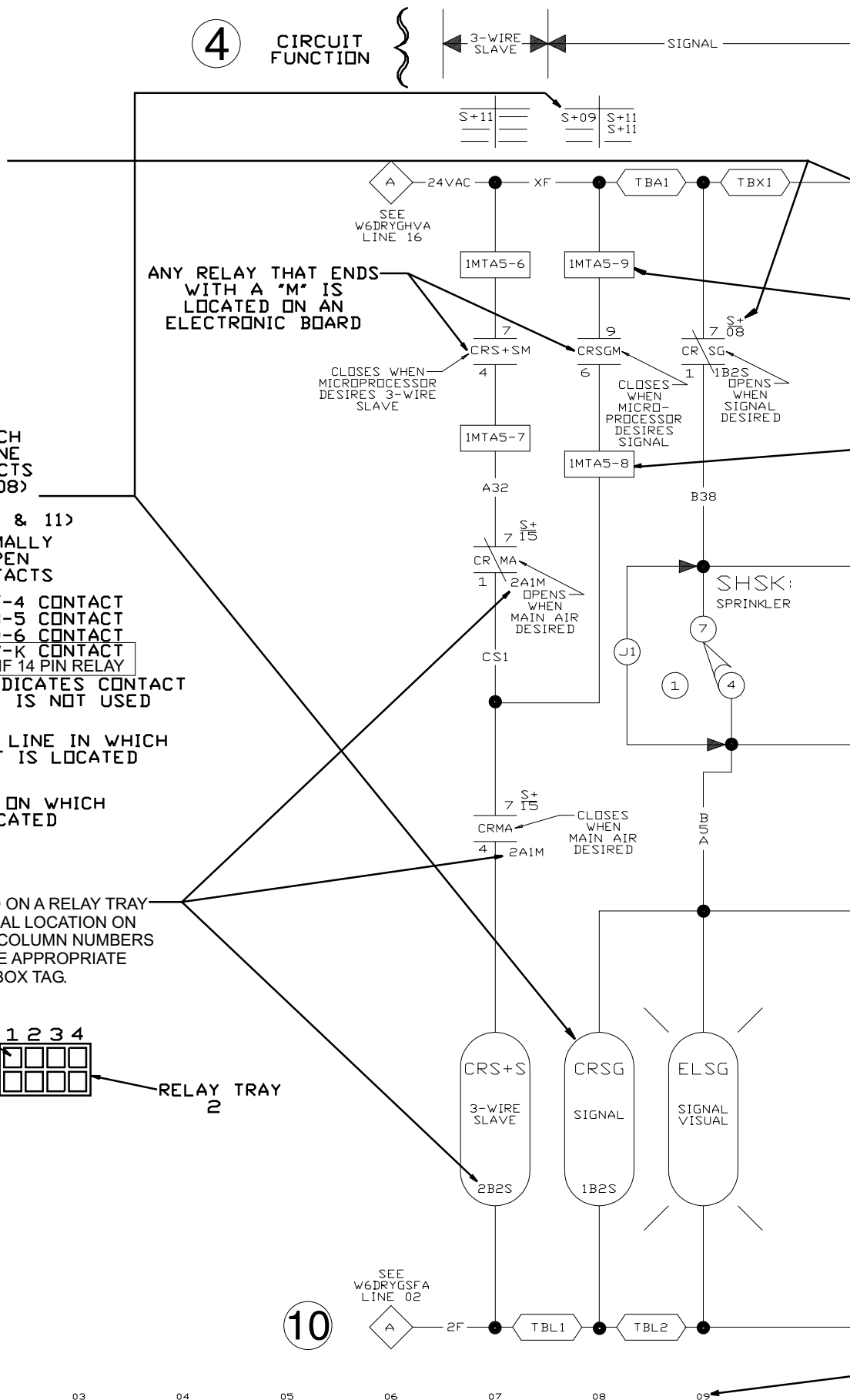
6 THIS INDICATES ON WHICH SCHEMATIC PAGE AND LINE NUMBER THE RELAY CONTACTS OF THIS COIL (ON LINE 08) ARE LOCATED. (I.E.: W6DRYGS+, LINES 9 & 11)



7 IF RELAY IS LOCATED ON A RELAY TRAY THIS IS THE PHYSICAL LOCATION ON THE TRAY. ROW AND COLUMN NUMBERS OR SHOWN ON THE APPROPRIATE CONTROL BOX TAG.

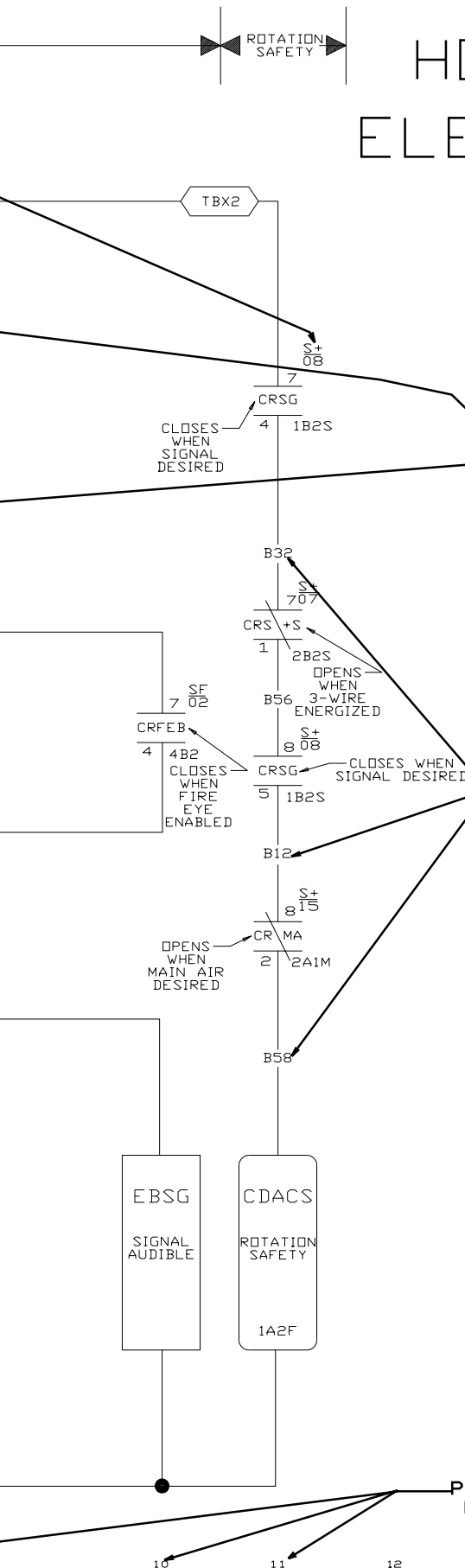


10



HOW TO READ MILNOR ELECTRICAL SCHEMATICS

W6DRYGS+A
93226D



8

MASS TERMINATION ASSEMBLY
MTA DESIGNATION ON BOARD
1MTA5-9
PIN NUMBER
BOARD MTA GROUP DESIGNATION

AN MTA IS A CONNECTION ON AN ELECTRONIC CIRCUIT BOARD. THE NOTES AND THE TAG PAGE CAN LOCATE THE APPROPRIATE BOARD.

9

WIRE IDENTIFICATION MARKING. THIS DESIGNATION IS STAMPED ON THE WIRE EVERY 6." THIS MARKING IS USED IN CONJUNCTION WITH THE SIGNAL ROUTING TABLE.

1

MAJOR REVISION (LETTER)

PAGE NUMBER (S+)

TYPE OF MACHINE (GAS FIRED DRYER)

6TH GENERATION OF CONTROLS

W=WIRING

CLASS OF CONTROL SYSTEM

TITLE OF THIS CIRCUIT

VOLTAGE OF CIRCUIT SHOWN

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.

2

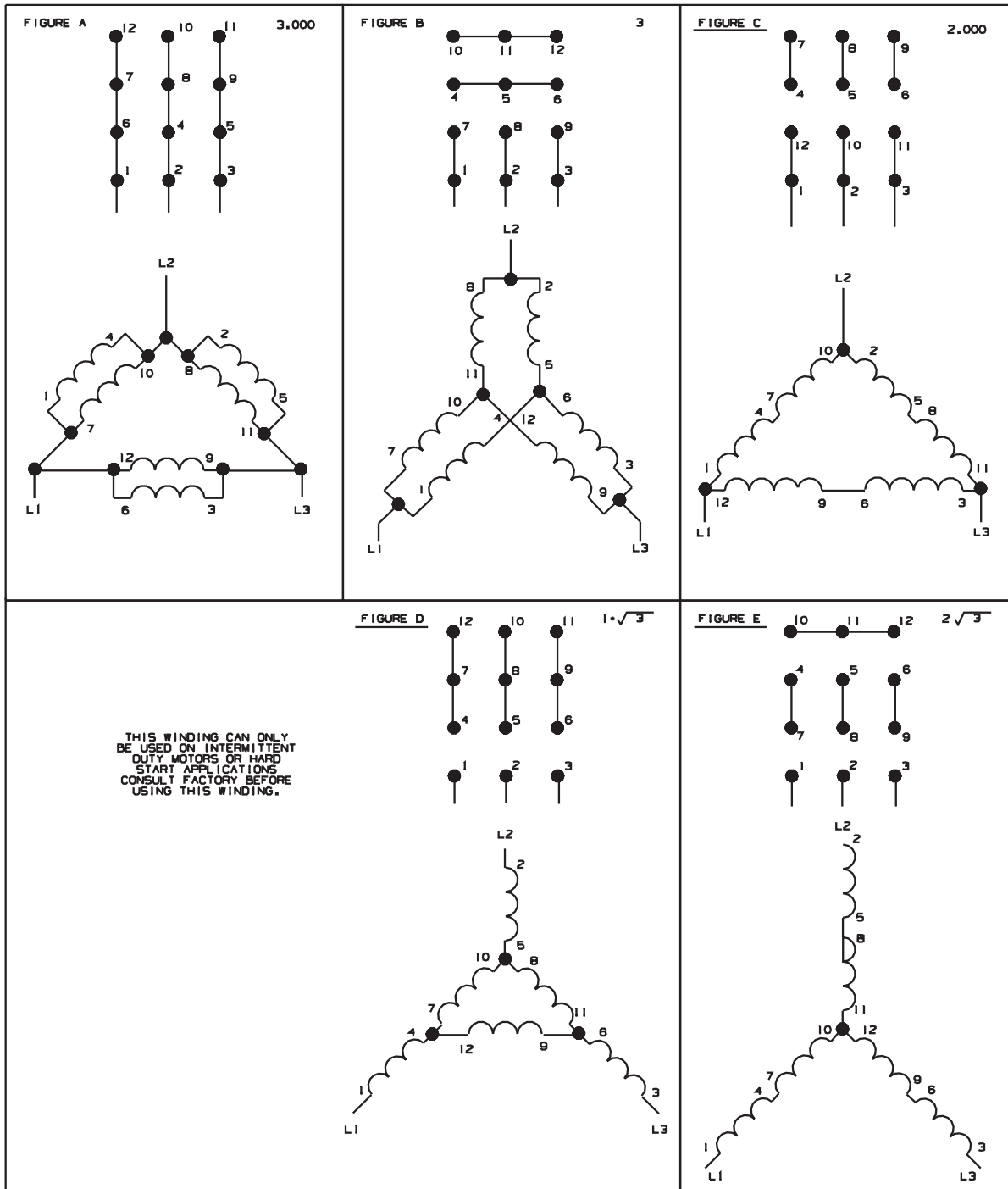
PAGE LINE NUMBERS

3

W6DRYGS+A
93226D

MICRO 6 SYSTEMS
SCHEMATIC: 3-WIRE CIRCUIT
24V1P50HZ/24V1P60HZ
PELLERIN MILNOR CORPORATION

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

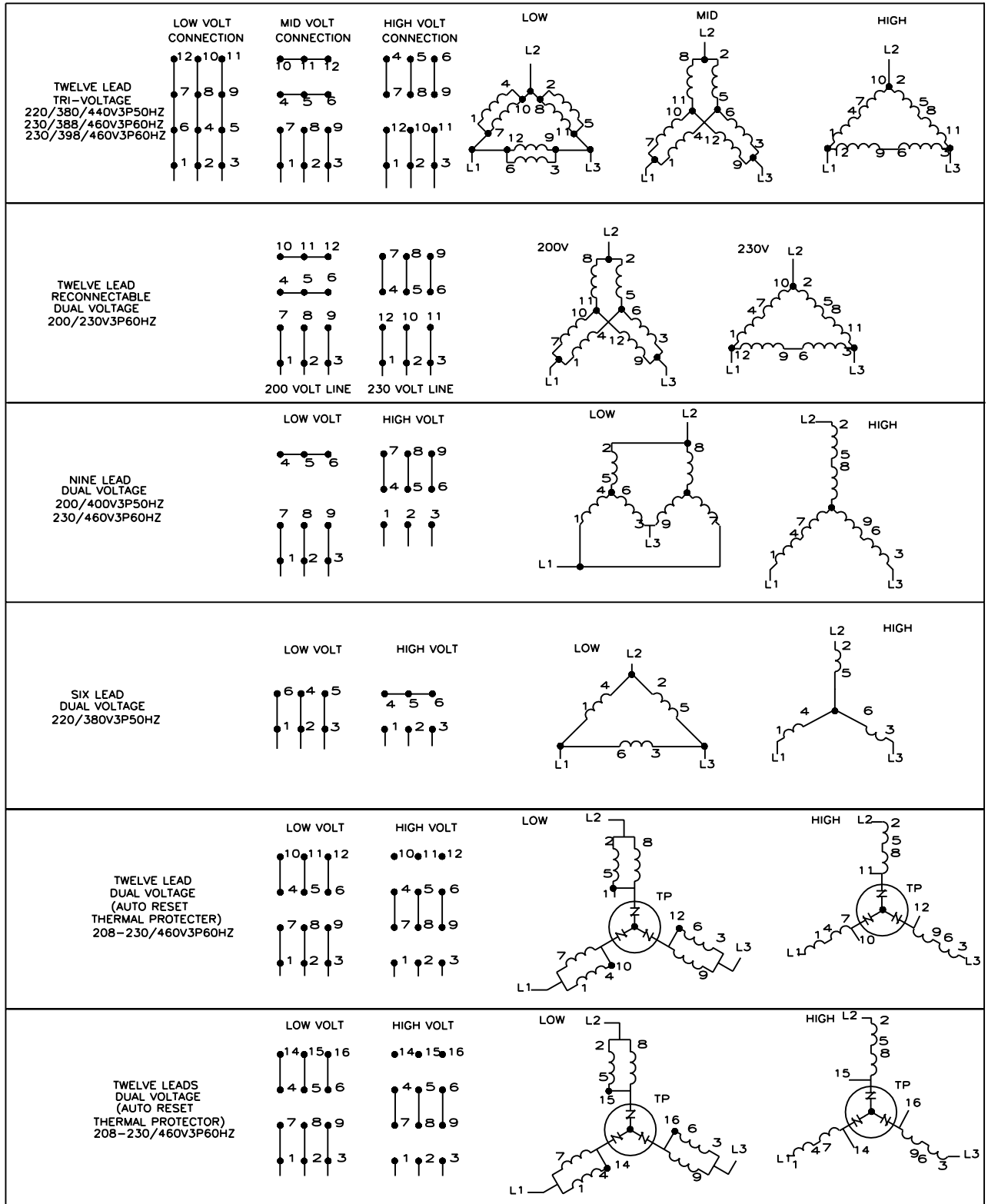
17

BMP850029

MOTOR CONNECTION DIAGRAMS

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

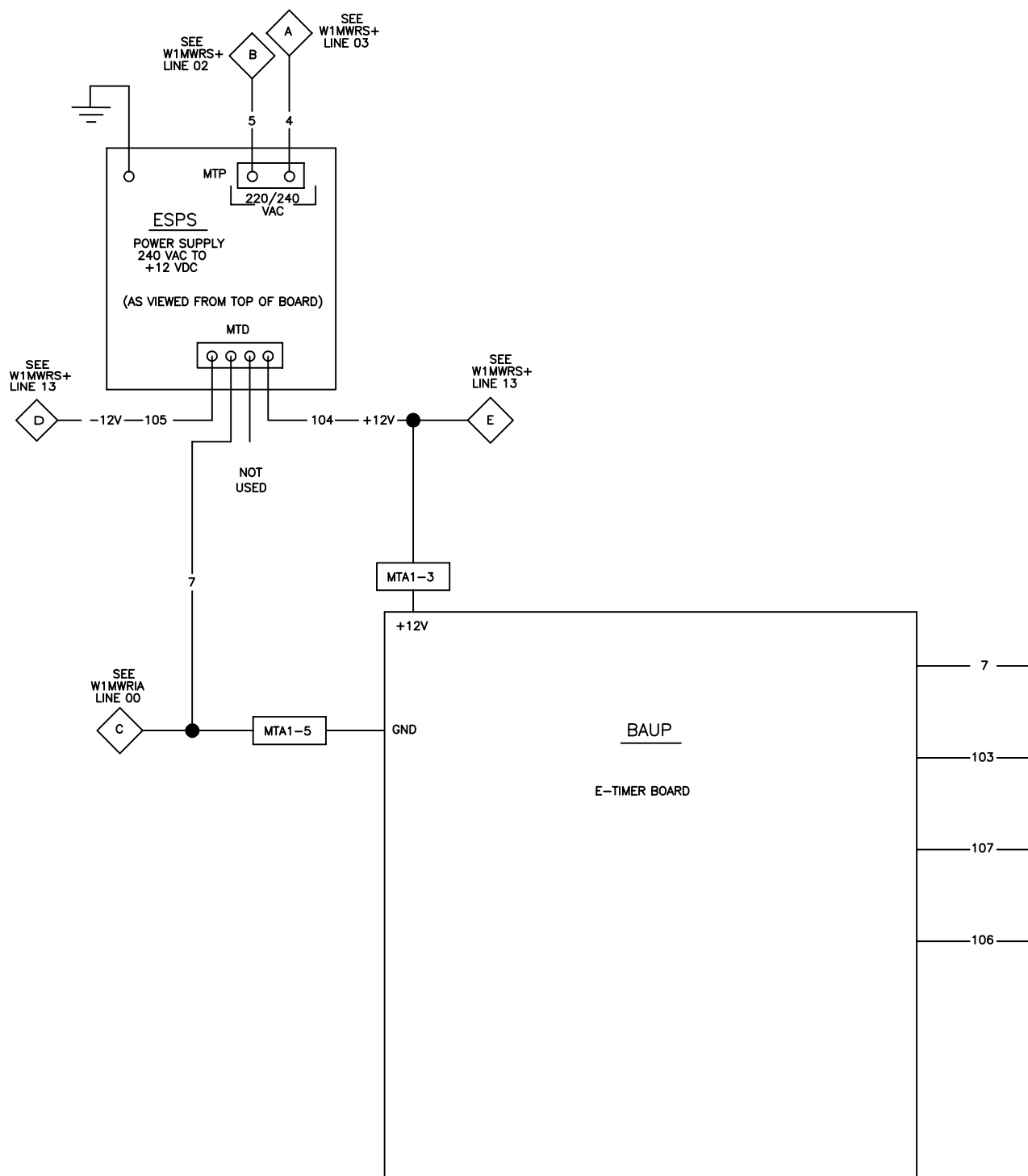
PELLERIN MILNOR CORPORATION



W80008

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

W80008
2001253A

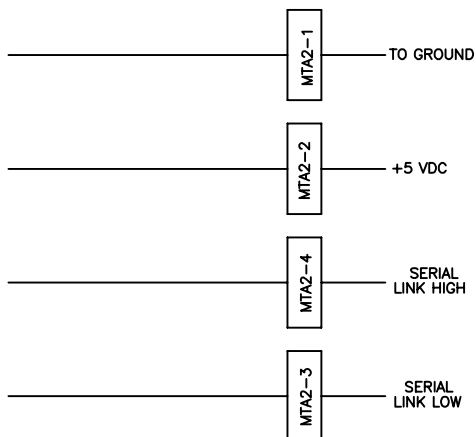


WIRE COLOR CODE

WIRE COLOR	APPLICATION
RED	A.C. CONTROL
RED/WHITE	A.C. COMMON
BLUE -103	+5 VDC
BLUE/ORANGE -104	+12VDC
YELLOW/GREEN	GROUND
BLUE/WHITE -7	D.C. GROUND
BLUE/BLACK -105	-12VDC

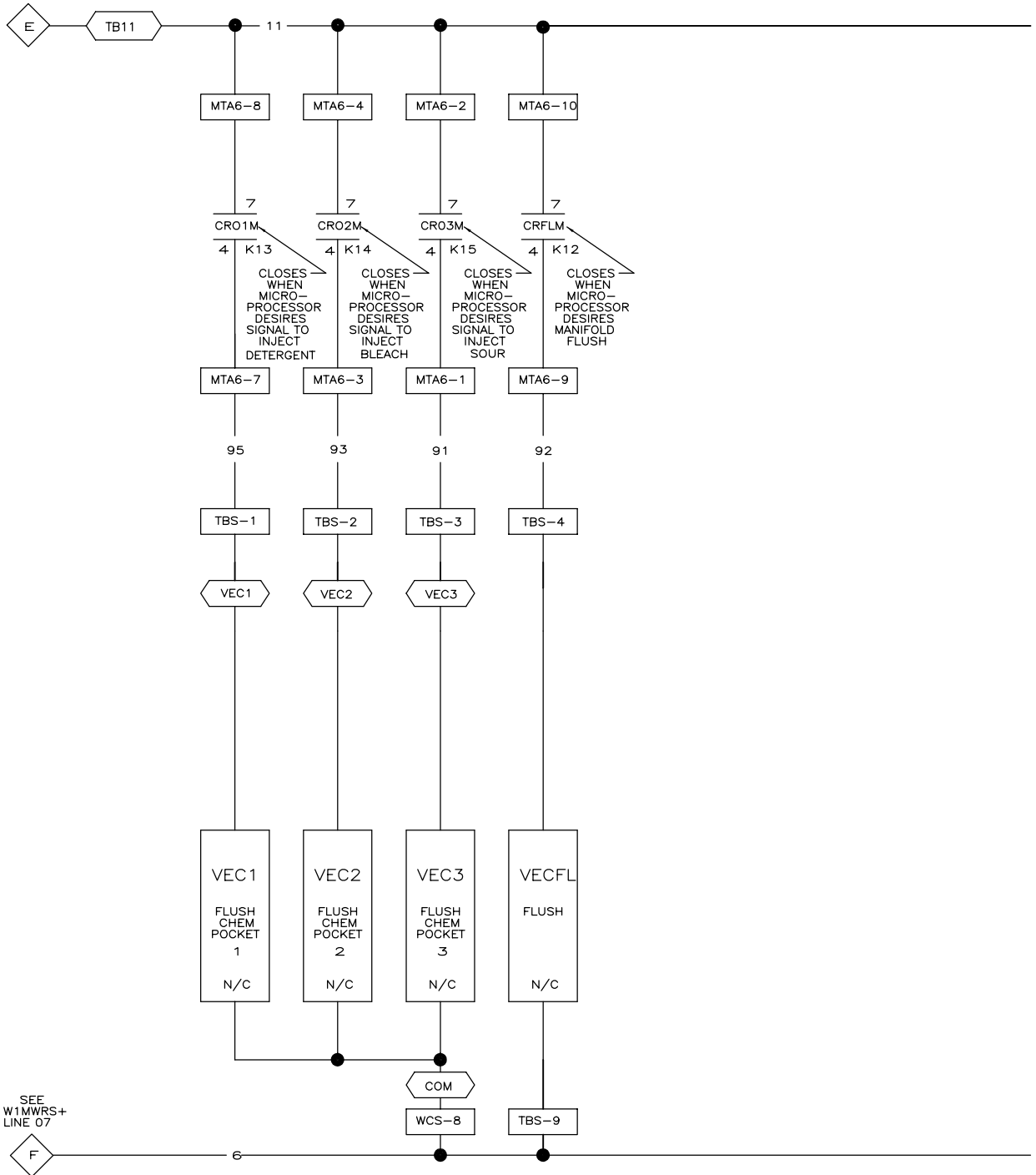
NOTES

1. MTA1 AND MTA2 ARE LOCATED ON BAUP E-TIMER PROCESSOR BOARD.



W1MWRBW
E-P ONE TOUCH CONTROLS
SCHEMATIC: BOARD TO BOARD WIRING
PELLERIN MILNOR CORPORATION

SEE
W1MWRS+
LINE 12



SEE
W1MWRS+
LINE 07

00

01

02

03

04

05

06

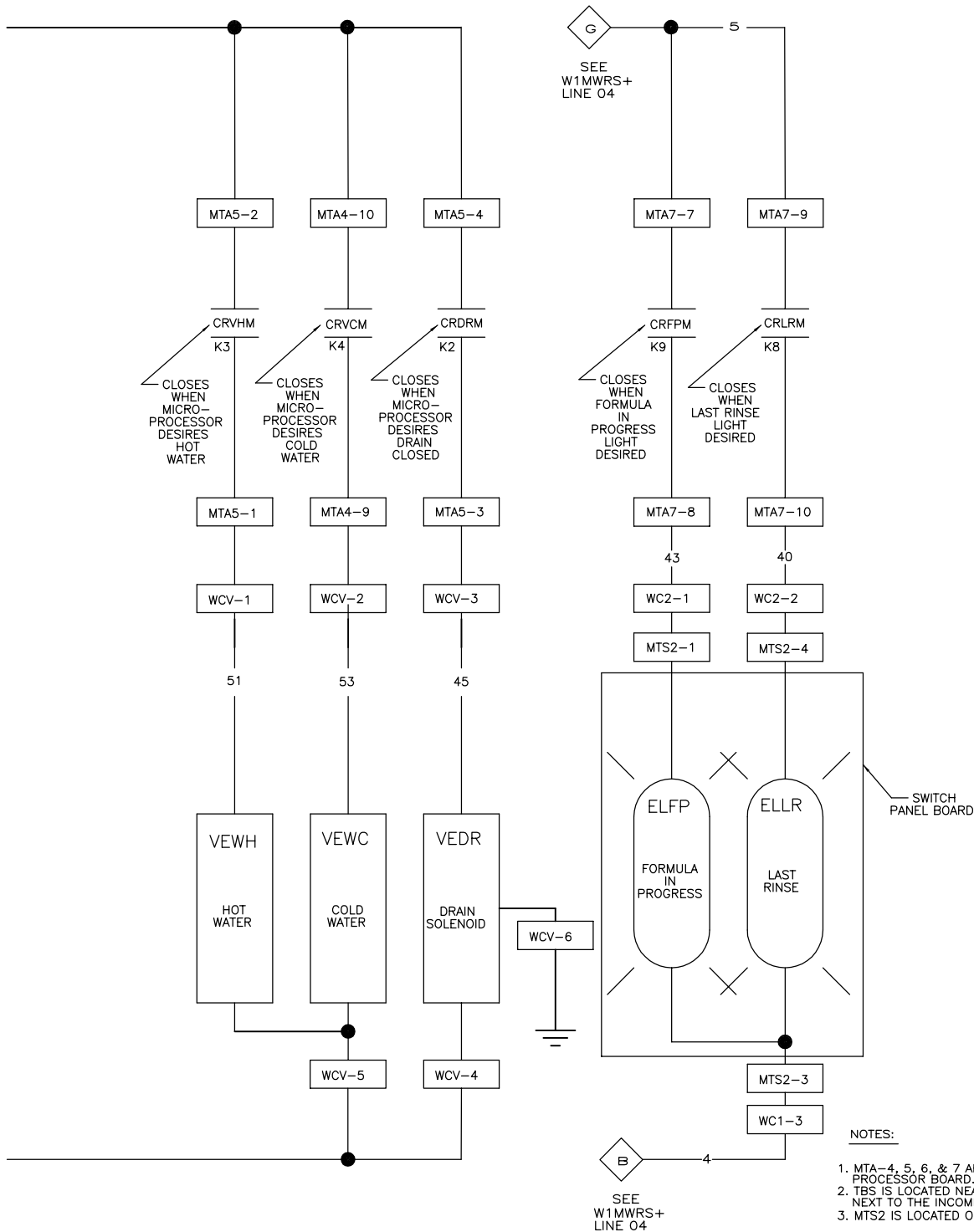
07

08

08

W1MWRCV
2007506B

LITHO IN U.S.A.



W1MWRCV

E-P ONE TOUCH CONTROLS

SCHEMATIC: ELECTRIC VALVES

220V1P50HZ/240V1P60HZ

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SEE
W1MWRS+
LINE 12



TB11

MTA7-3

7
CREHM
4 K10

MTA7-4

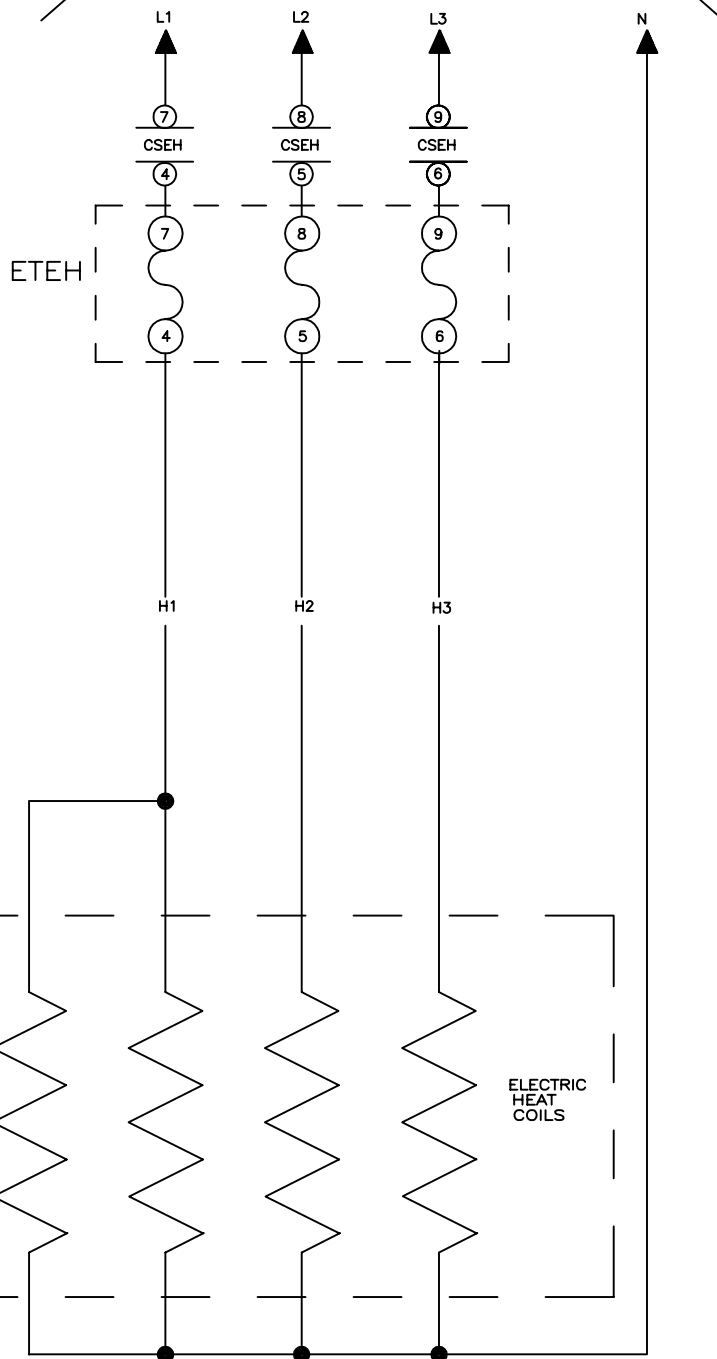
CSEH
ELECTRIC
HEAT

SEE
W1MWRS+
LINE 07



TB6

380V/3PH/50HZ



00

01

02

03

04

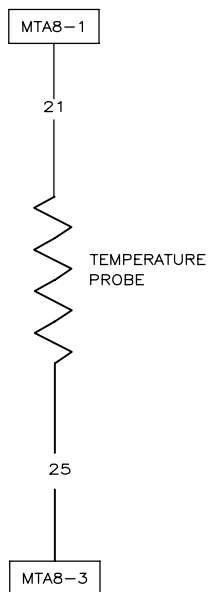
05

06

07

08

09



NOTES

1. MTA-7 AND 8 ARE LOCATED ON THE PROCESSOR BOARD.

W1MWREH

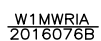
E-P ONE TOUCH CONTROLS

SCHEMATIC: ELECTRIC HEAT

PELLERIN MILNOR CORPORATION

W1MWREH
2006212B

W1MWREH
2006212B

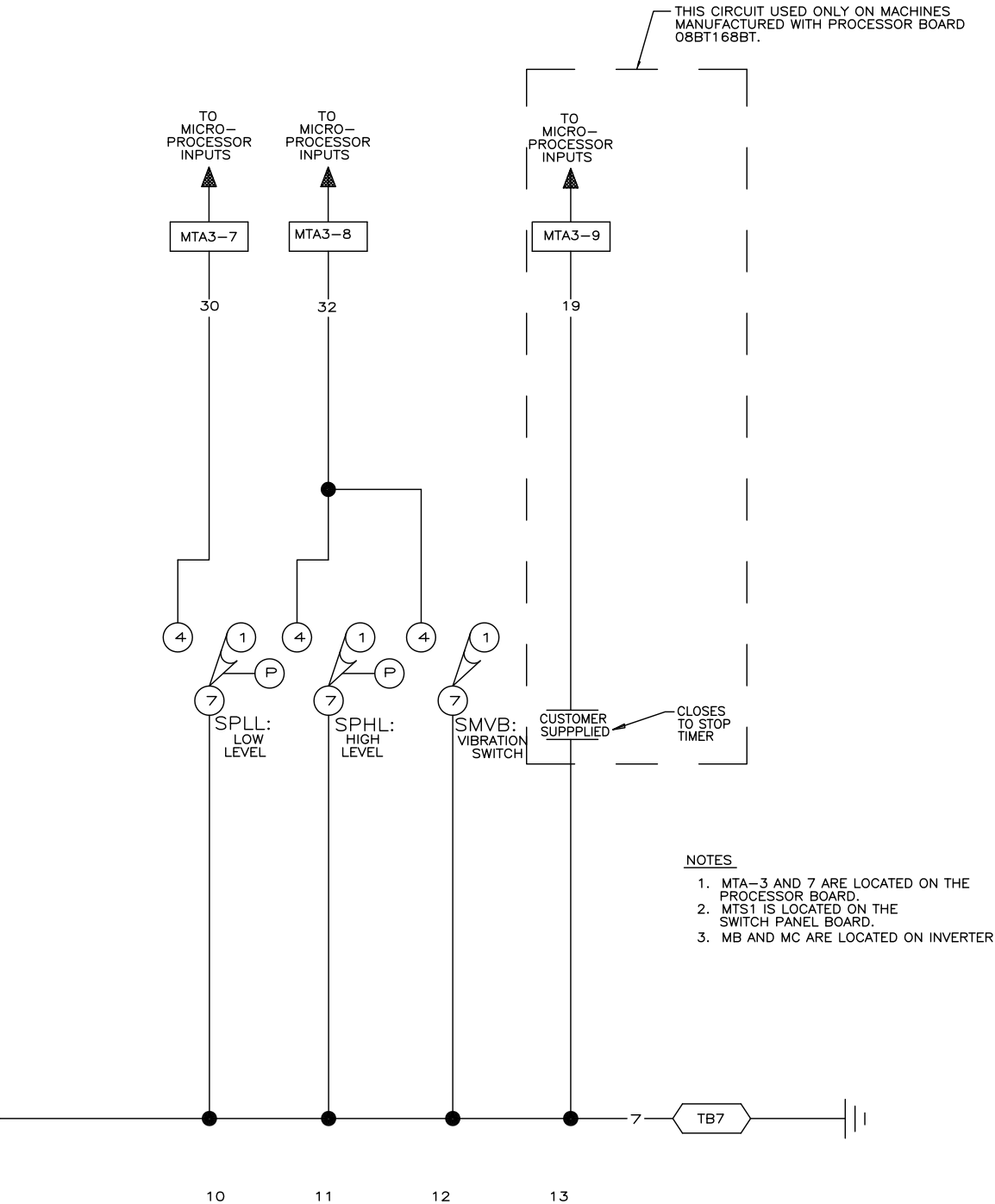


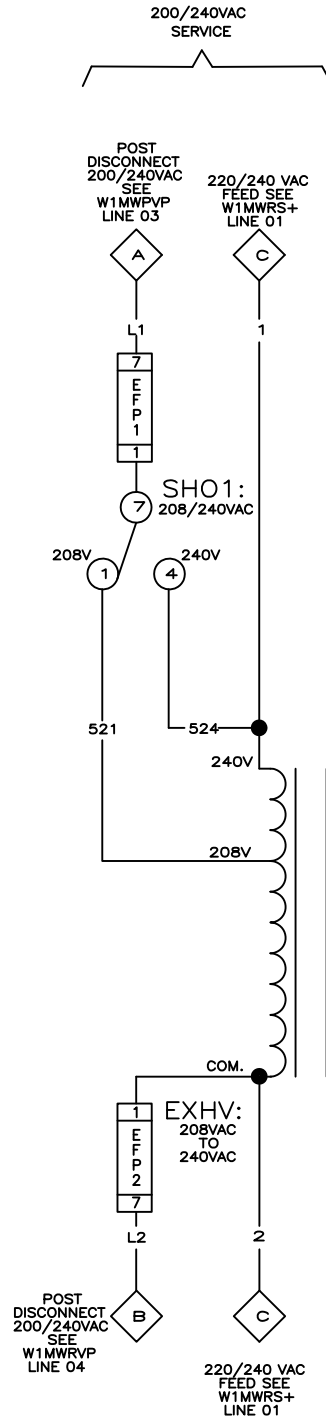
W1MWRIA

E-P ONE TOUCH CONTROLS

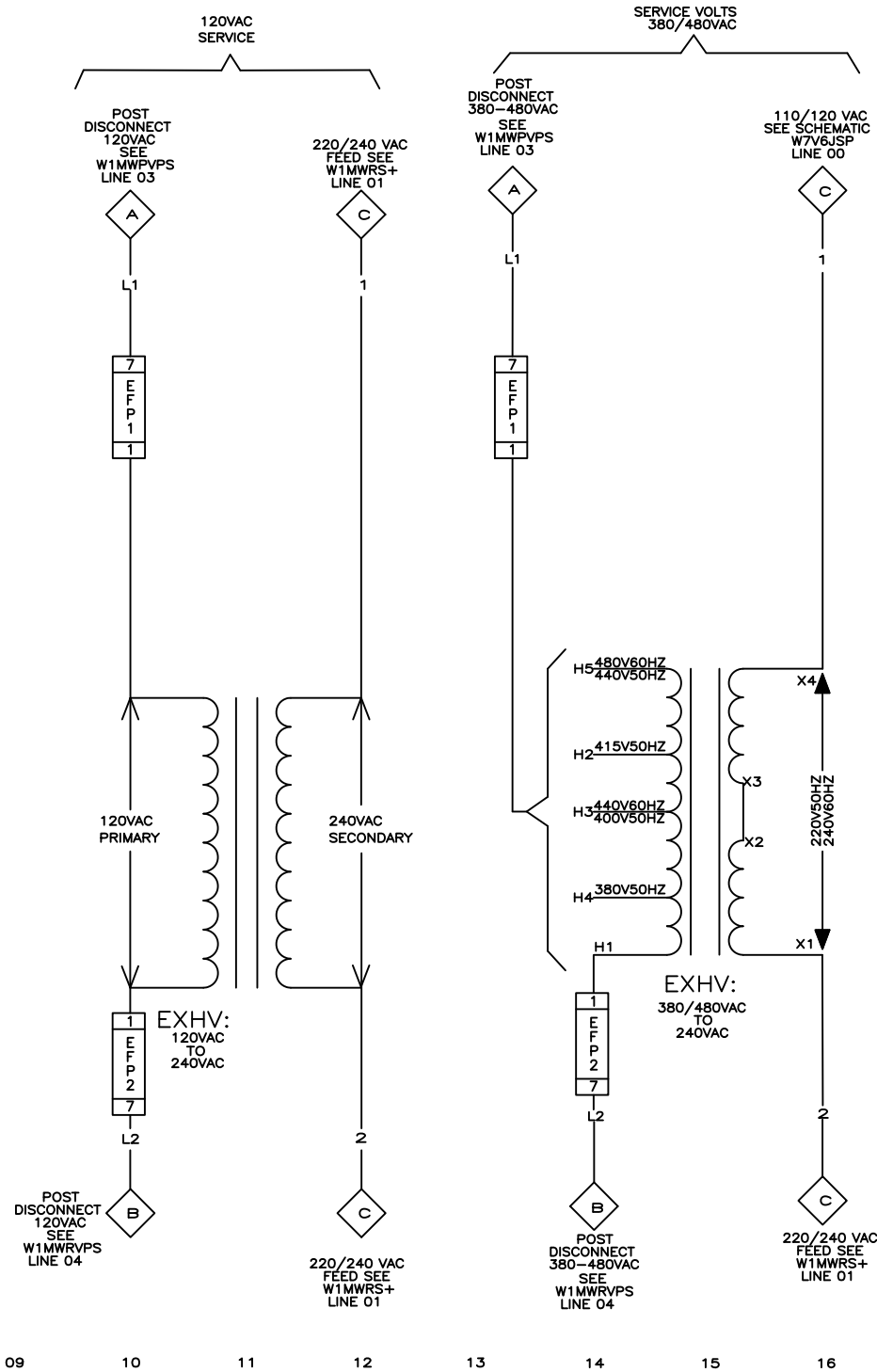
SCHEMATIC: MICROPROCESSOR INPUTS

PELLERIN MILNOR CORPORATION





00 01 02 03 04 05 06 07 08



W1MWRLV

E-P ONE TOUCH CONTROLS

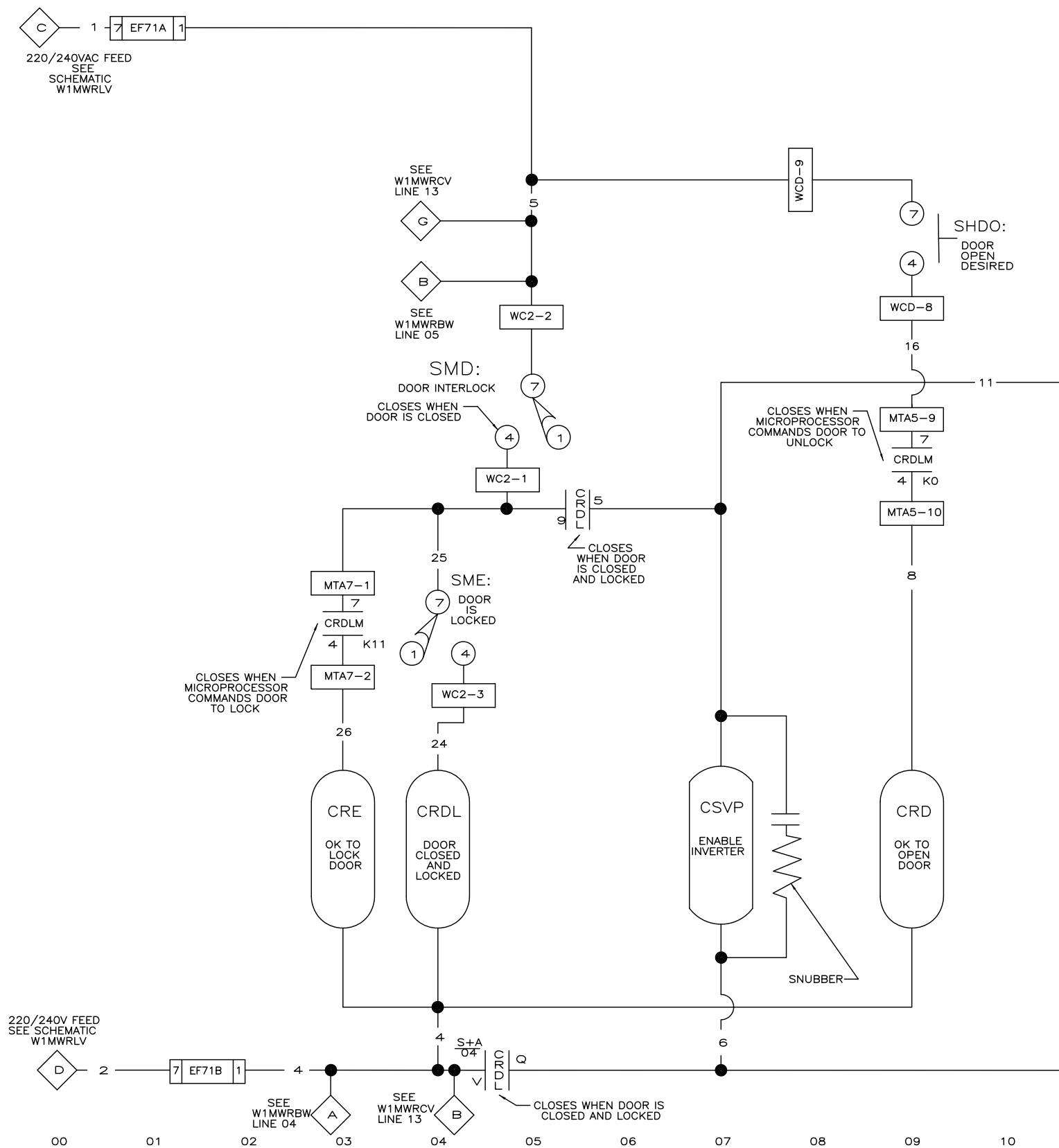
SCHEMATIC: CONTROL CIRCUIT TRANSFORMER

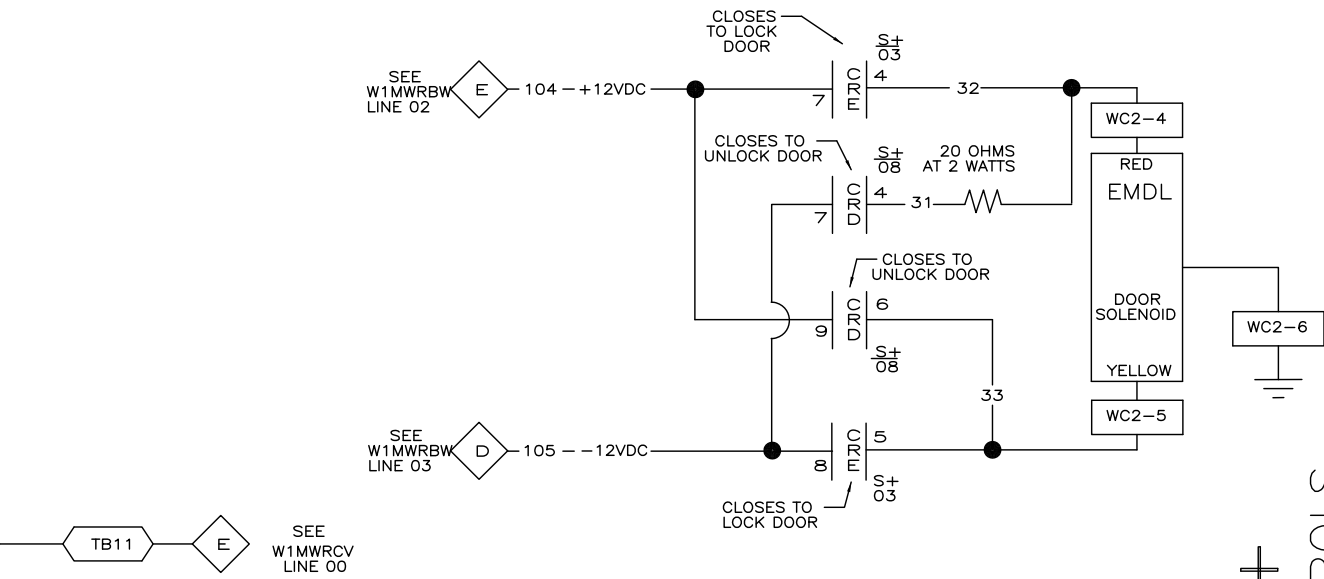
220V1P50HZ/240V1P60HZ

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1A03
S+05
S+04

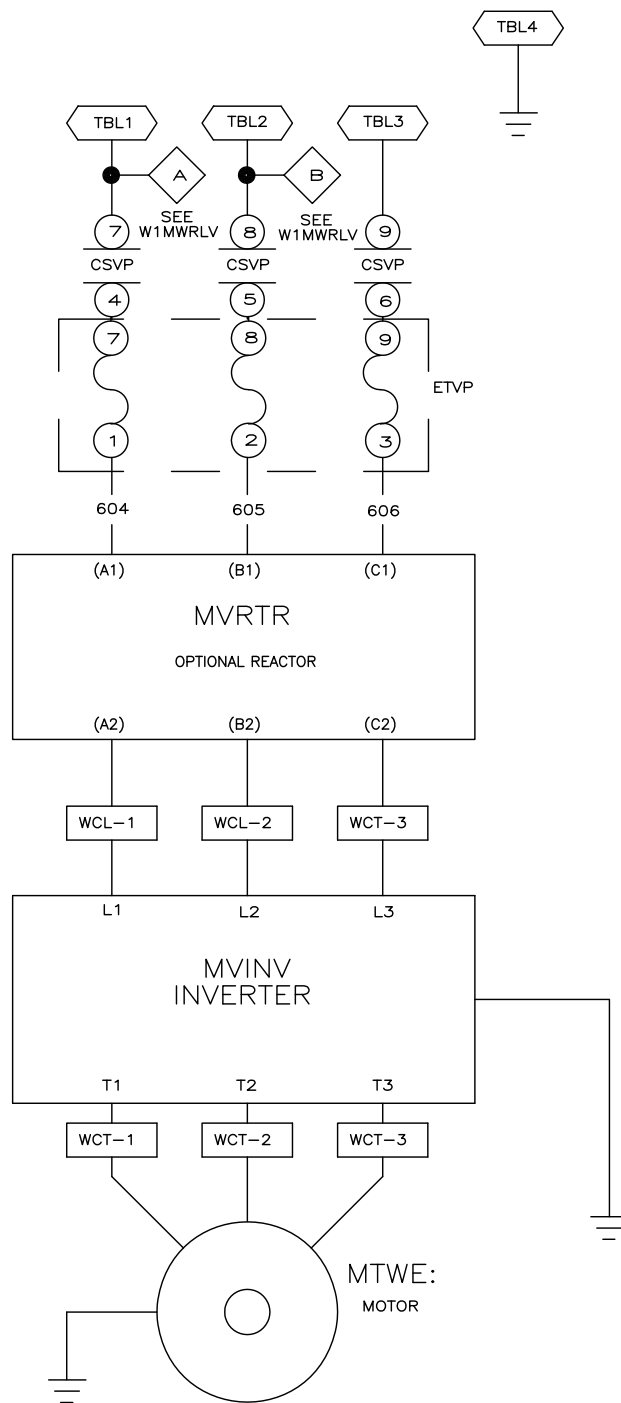
S+16
S+16





W1MWR5+
E-P ONE TOUCH CONTROLS
SCHEMATIC:START CIRCUIT & DOOR INTERLOCK
FOR MWR12 AND MWR18

220V, 1P, 50HZ/240V, 1P, 60HZ
PELLERIN MILNOR CORPORATION



SC

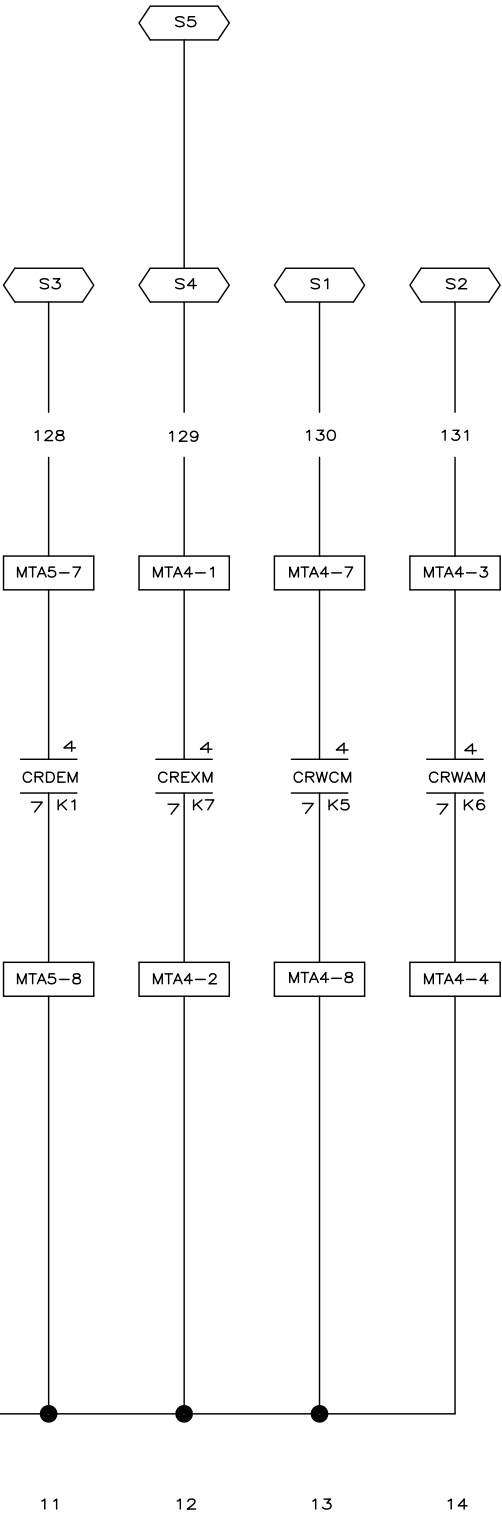
SC

LITHO IN U.S.A.

00 01 02 03 04 05 06 07 08 09 10

W1MWRVP
2015156B

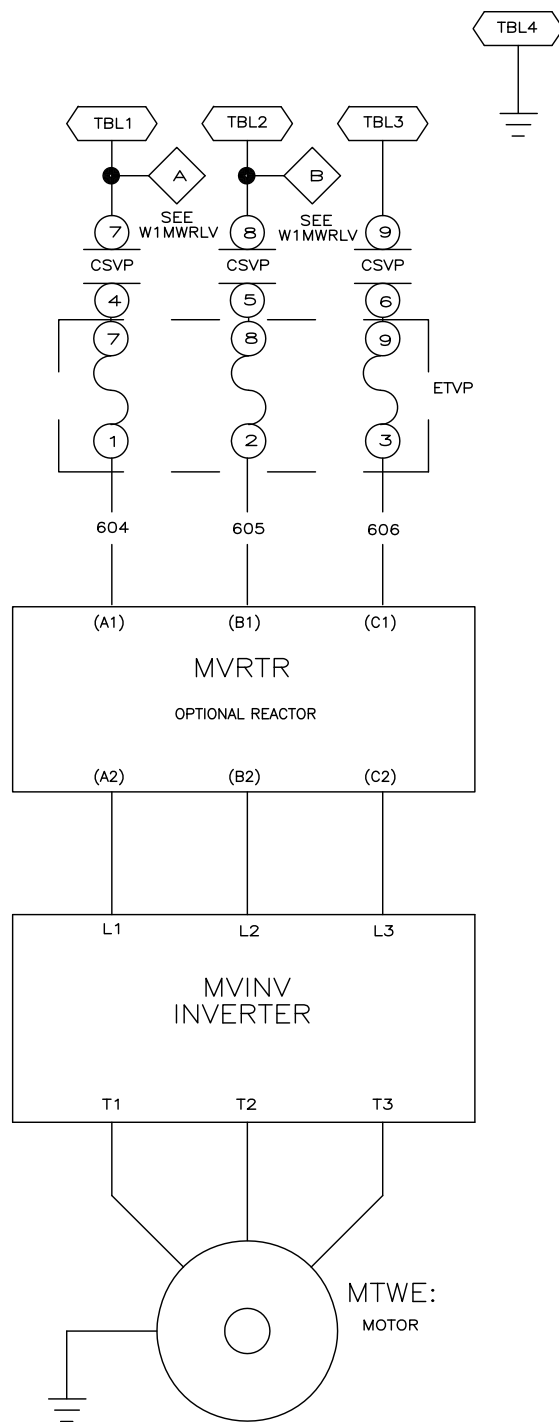
	CW		CCW	
	K5	K6	K1	K7
WASH	X			
DRAIN	X		X	
EXTRACT	X			X



NOTES
MTA4 & MTA5 ARE LOCATED
ON THE E-TIMER PROCESSOR
BOARD.

W1MWRVP
E-P ONE TOUCH CONTROLS
SCHEMATIC: VARIABLE SPEED INVERTER
FOR MODELS MWR12 AND MWR18
(GPD315)

PELLERIN MILNOR CORPORATION



SC

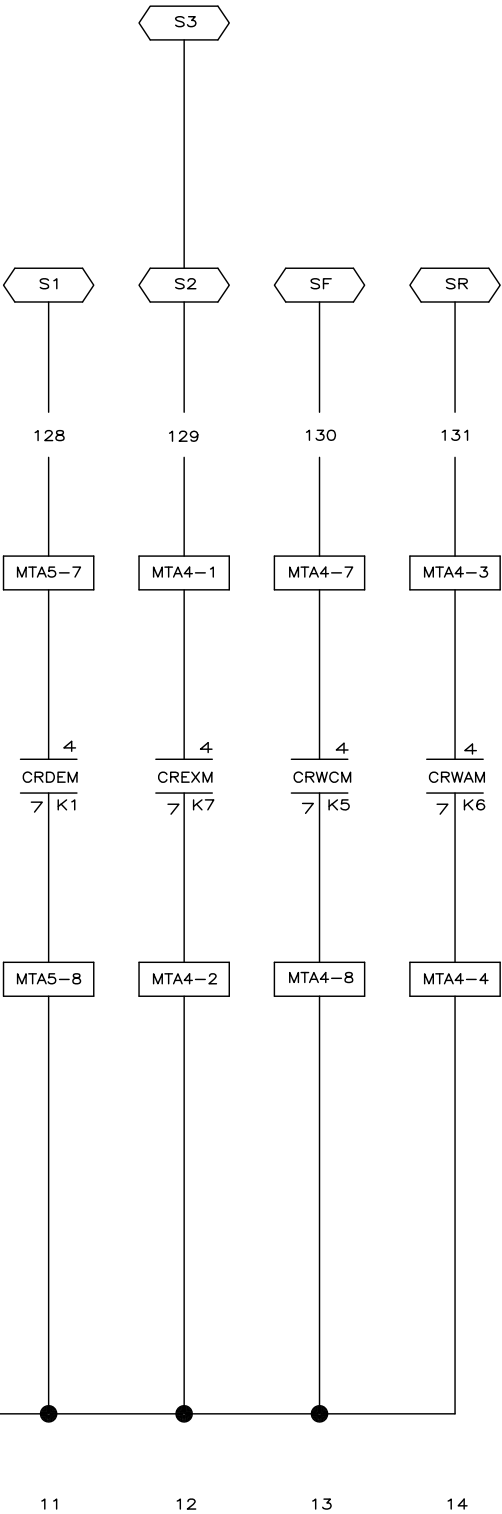
SC

LITHO IN U.S.A.

00 01 02 03 04 05 06 07 08 09 10

W1MWRVPS
2015156B

	CW		CCW	
	K5	K6	K1	K7
WASH	X			
DRAIN	X		X	
EXTRACT	X			X



NOTES
MTA4 & MTA5 ARE LOCATED
ON THE E-TIMER PROCESSOR
BOARD.

W1MWRVPS
E-P ONE TOUCH CONTROLS
SCHEMATIC: VARIABLE SPEED INVERTER
FOR MODELS MWR12 120VAC/1 PHASE
(GPD205)

PELLERIN MILNOR CORPORATION