MOLD CONTROL SYSTEMS, INC

MAINFRAME:

INSTALLATION INSTRUCTIONS
AND
WIRING DIAGRAMS

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MAINFRAME INSTALLATION AND OPERATING INSTRUCTIONS

INSTALLATION AND SERVICE SHOULD BE PERFORMED BY QUALIFIED PERSONNEL ONLY!

LOCATION

The proper location is important for dependable service. The control systems should be located so as to allow free air movement into and out of the mainframe consideration should be given to allow the least exposure to heat, dust, dirt, moisture and corrosive vapors. The front of the system must be readily accessible for set up and adjustment purposes.

CONNECTING INPUT POWER:

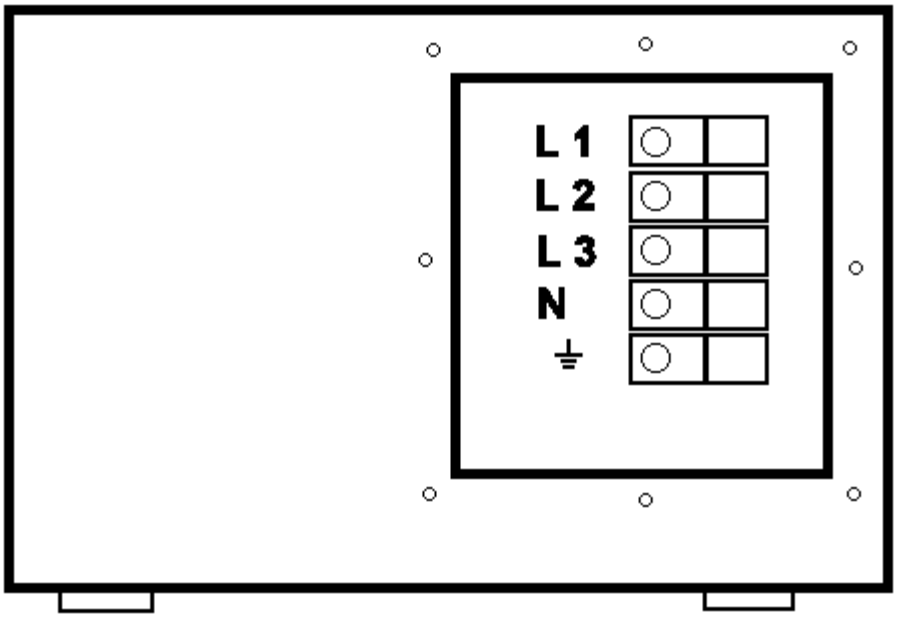
1 Remove right side panel by removing the screws around the perimeter of this panel.
2 Select input cable size and configuration based on load requirements and local electrical codes.
3 Insert input cable through cable clamp provided on the side plate of the mainframe
4 Attach leads to terminal strip as marked on inside of plate for single-phase or three-phase operation. Check serial number plate to determine how mainframe was wired when shipped.

NOTE: If single-phase operation intended, It should be specified at the time of order. All mainframes are wired for 240 volt, 50/60Hz 3 phase power when shipped.

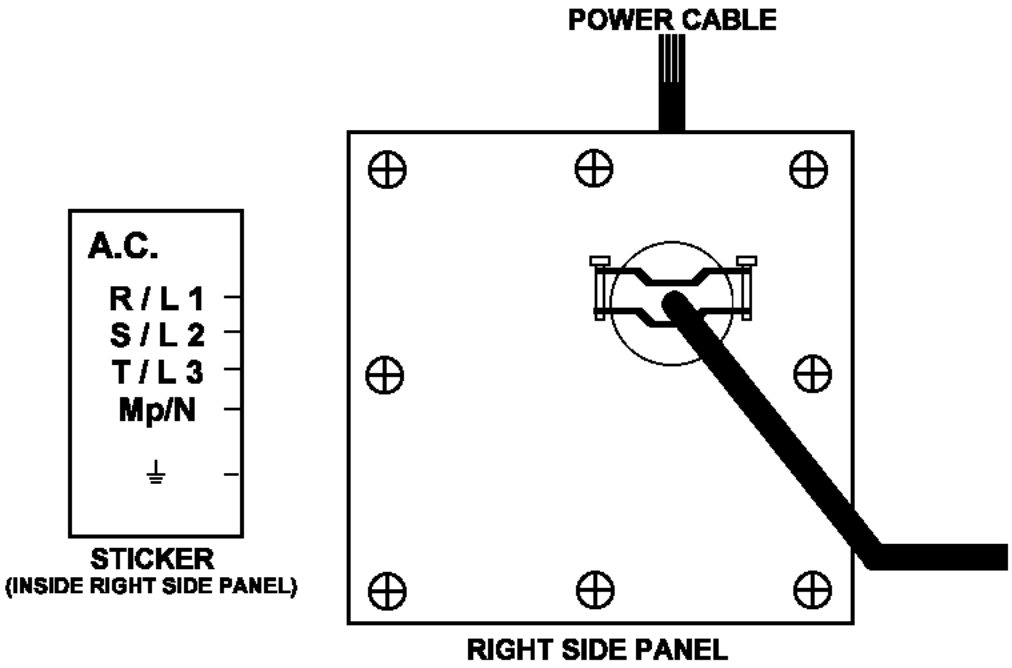
5 Note: Be sure to attach ground as shown on the terminal block diagram.
6 Replace side plate with screws.
7 Take up excess slack in the cable and secure with strain relief clamp provided on the outside of the cabinet.
8 Route AC input cable to branch circuit (service) disconnect switch and attach leads to the fused side of the switch. Be sure the ground lead is attached to a good earth ground.
9 Insert appropriate fuses in the main service fuse box.

NOTE: It is recommended that a service disconnect switch be installed. This will provide a convenient means to completely disconnect all power from the temperature control system.

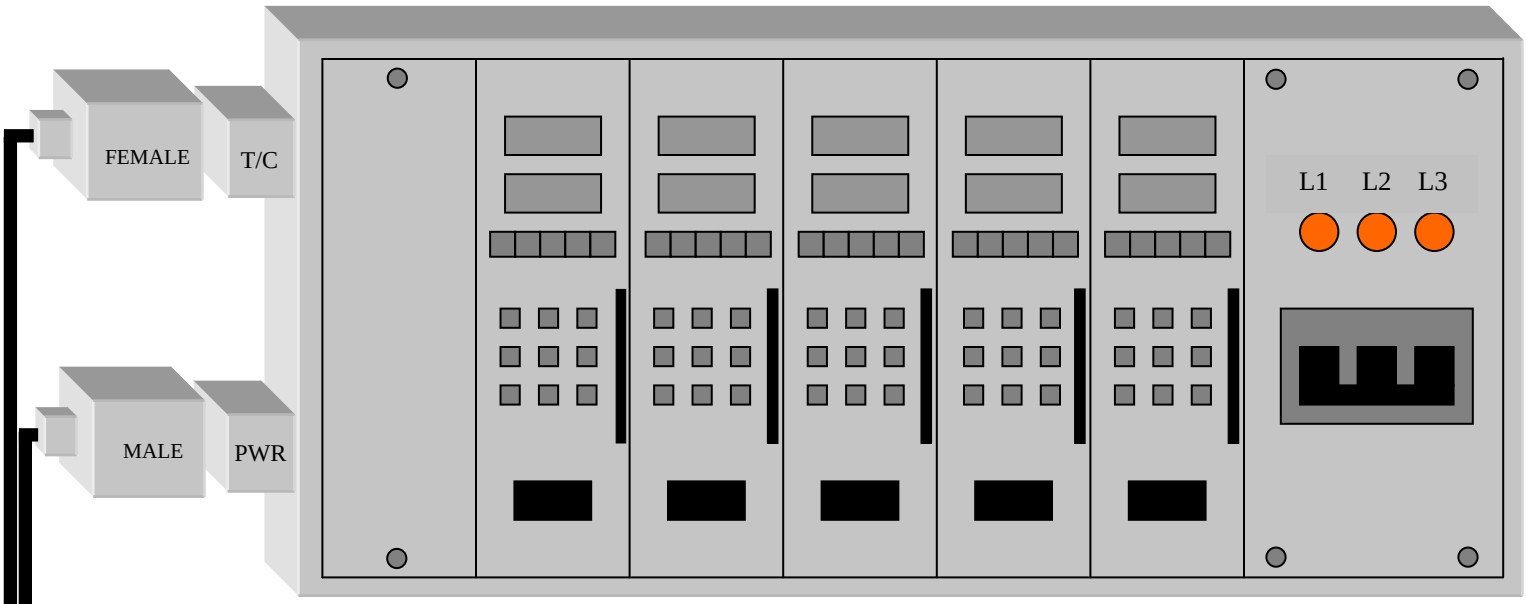
POWER CONNECTION TO MAINFRAME

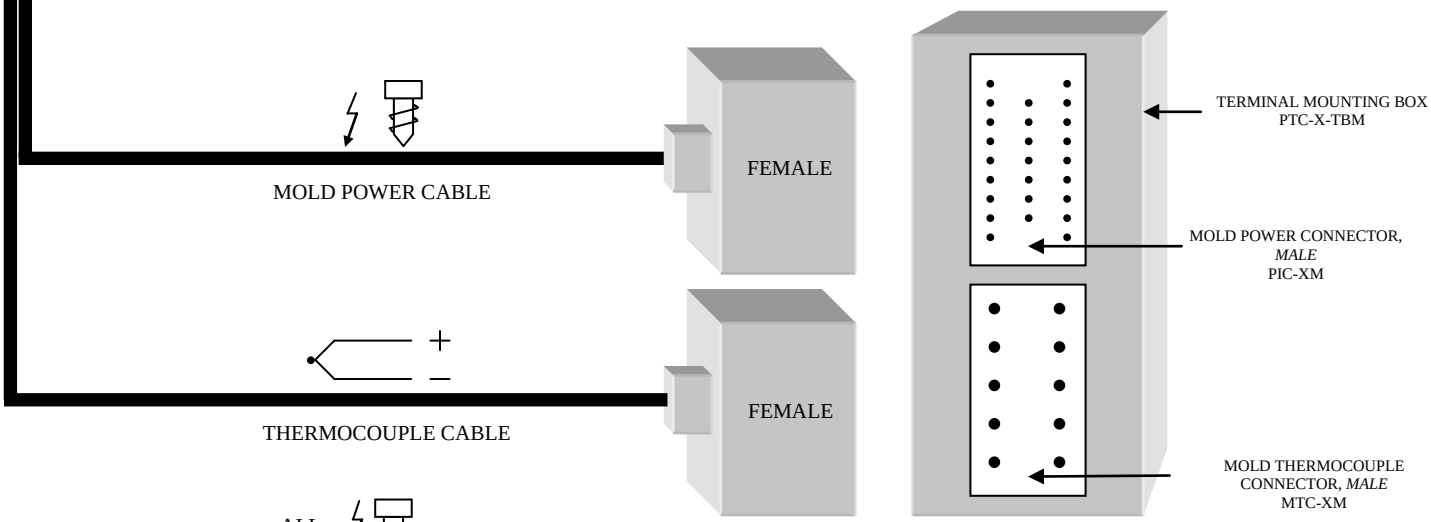


MAINFRAME

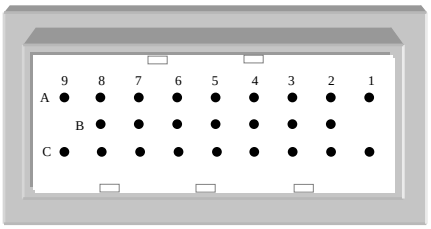


MAINFRAME TO MOLD INTERCONNECTION DIAGRAM





ALL

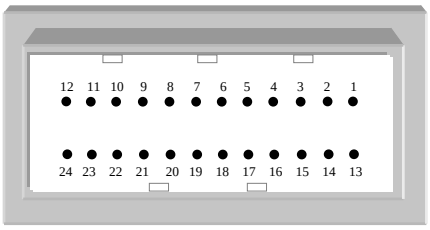


FRONT
MOLD POWER CONNECTORS

PART NUMBER:

5 ZONE	PIC-5M
8 ZONE	PIC-8M
12 ZONE	PIC-12M

12 ZONE

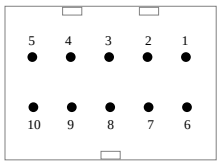


FRONT
MOLD THERMOCOUPLE CONNECTORS

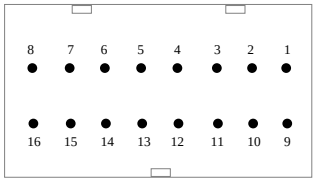
PART NUMBER:

5 ZONE	MTC-5M
8 ZONE	MTC-8M
12 ZONE	MTC-12M

5 ZONE



8 ZONE



**See connector wiring diagram on next page.*

MOLD POWER AND THERMOCOUPLE CONNECTOR DIAGRAM

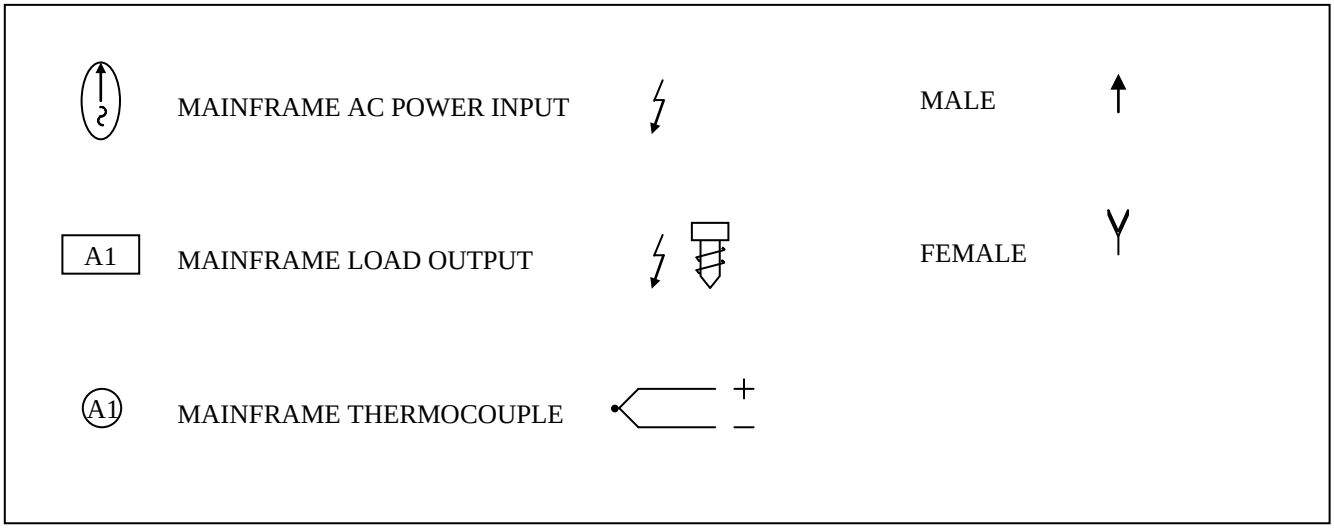
MOLD POWER INPUT

MAINFRAME	ZONE			PIN NUMBER
	1	1	1	A1, A2
	2	2	2	A3, A4
	3	3	3	A5, A6
	4	4	4	A7, A8
5 ZONE MAINFRAME	5	5	5	B2, B3
		6	6	B4, B5
		7	7	B5, B7
8 ZONE MAINFRAME		8	8	C1, C2
			9	C3, C4
			10	C5, C6
			11	C7, C8
12 ZONE MAINFRAME			12	A9, C9
GND	*GND*			*GND*

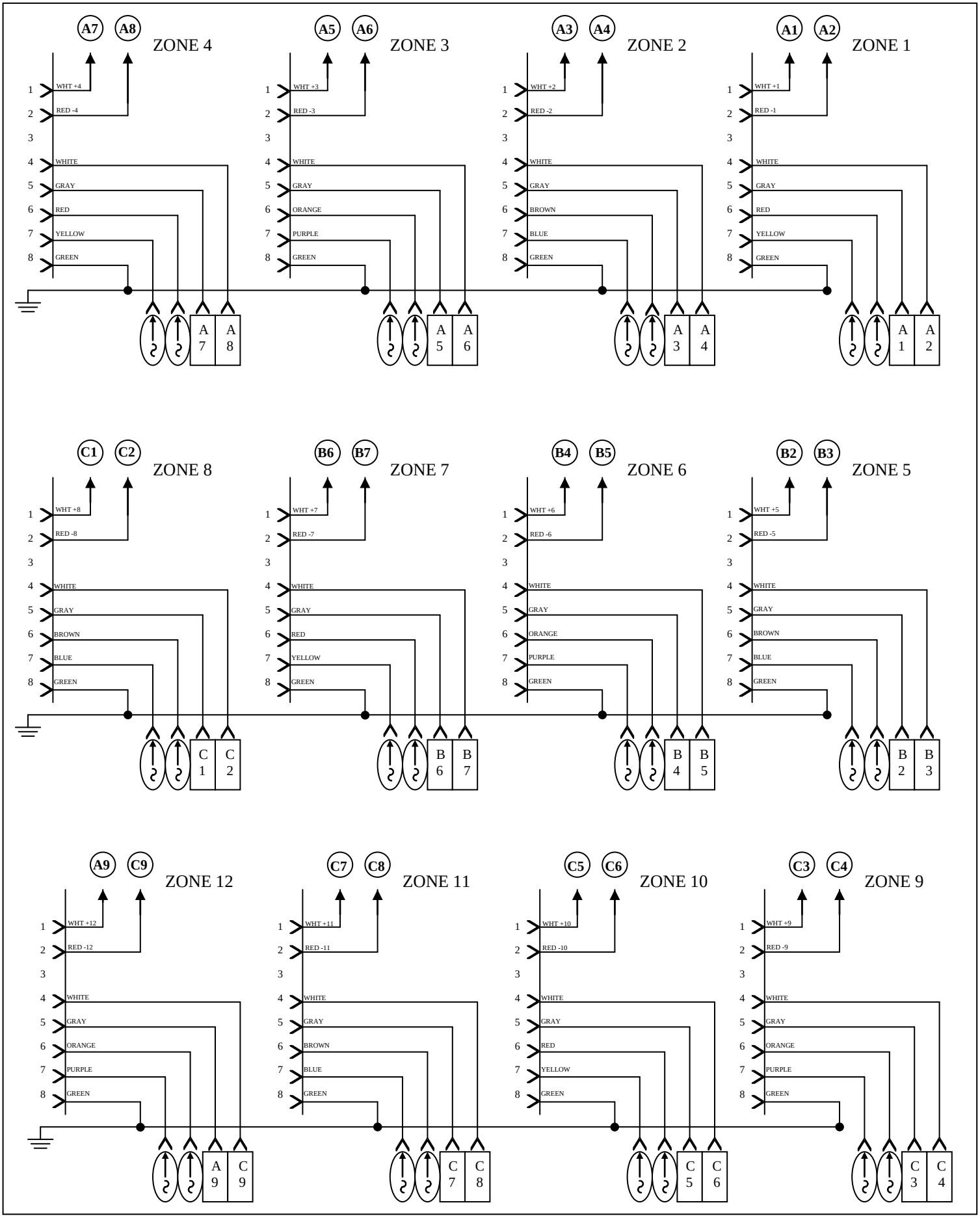
MOLD THERMOCOUPLE OUTPUT

ZONE	5 ZONE PIN NUMBER	8 ZONE PIN NUMBER	12 ZONE PIN NUMBER
1	1, 6	1, 9	1, 13
2	2, 7	2, 10	2, 14
3	3, 8	3, 11	3, 15
4	4, 9	4, 12	4, 16
5	5, 10	5, 13	5, 17
6		6, 14	6, 18
7		7, 15	7, 19
8		8, 16	8, 20
9			9, 21
10			10, 22
11			11, 23
12			12, 24

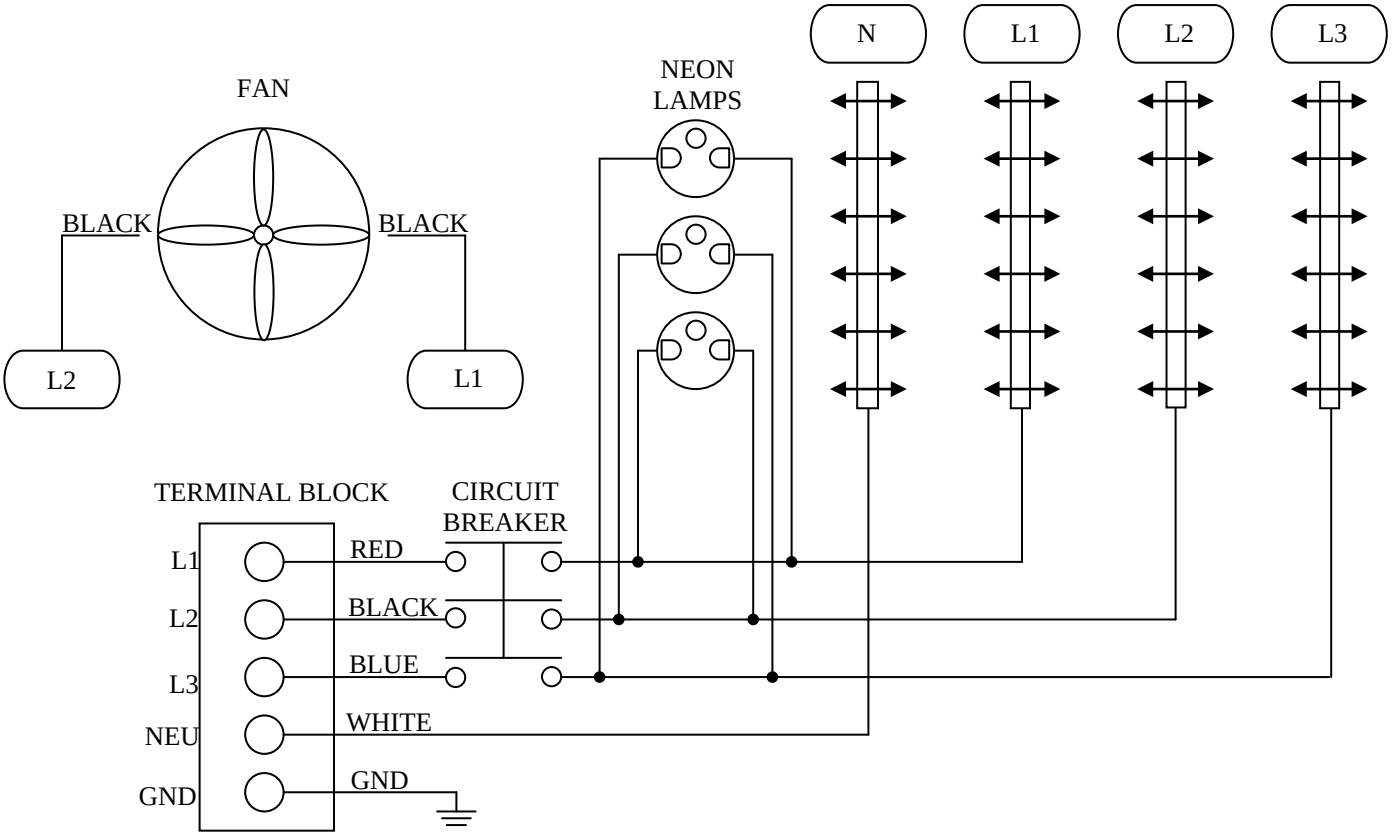
SYMBOL CHART



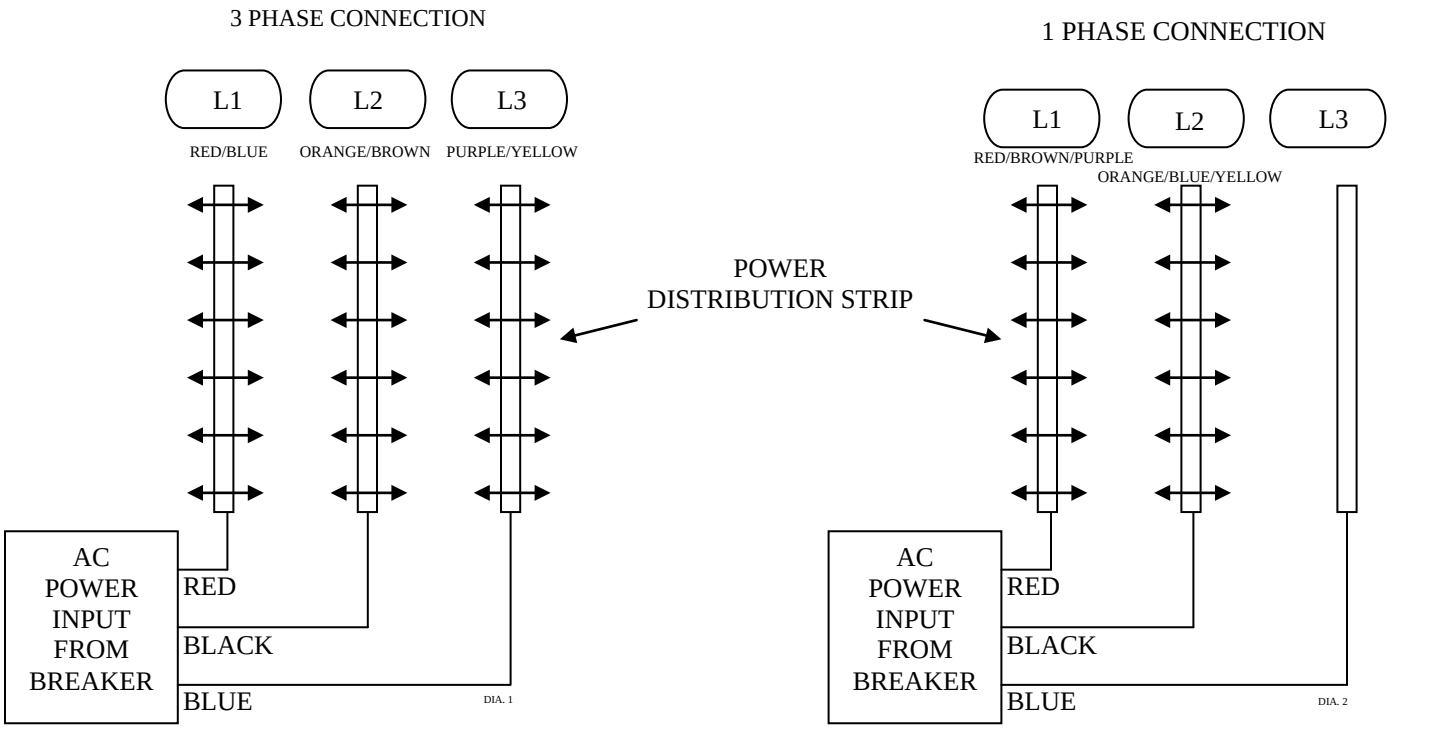
MAINFRAME WIRING DIAGRAM



POWER AND FAN CONNECTION DIAGRAM



CONVERT FROM 3 PHASE TO 1 PHASE

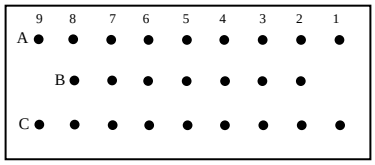


1. REMOVE REAR COVER (WIRES ARE CONNECTED IN DIAGRAM 1.
2. REMOVE WIRES FROM DISTRIBUTION TERMINALS AND SET COLORS A SHOWN FOR 1 PHASE. (DIAGRAM 2)

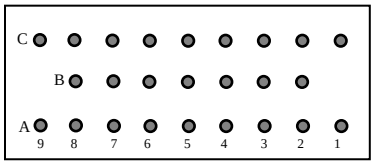
If you have any questions please call 941-648-1946 or e-mail support@moldcontrol.com

CONNECTOR DIAGRAM FOR POWER AND THERMOCOUPLE CABLES

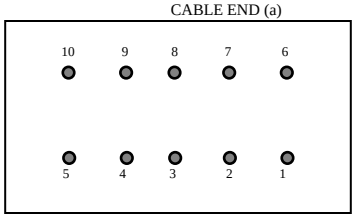
MOLD POWER CABLES					TERMOCOUPLE CABLES					
MAINFRAME *MALE*			MOLD *FEMALE*		MAINFRAME *FEMALE*			MOLD *FEMALE*		
ZONE	PINS CONN. (a)	WIRE COLOR	PINS CONN. (b)	ZONE	ZONE	PINS CONN. (b)	WIRE COLOR	PINS 5 (c)	PINS 8 (d)	PINS 12 (e) / ZONE
	GND	5&8 ZONE WHITE/RED 12 ZONE GREEN/YELLOW	GND							
1	A1	BLACK	A1	1	1	A1	WHITE 1	1	1	1 / 1
	A2	WHITE	A2			A2	RED 1	6	9	13
2	A3	RED	A3	2	2	A3	WHITE 2	2	2	2 / 2
	A4	GREEN	A4			A4	RED 2	7	10	14
3	A5	ORANGE	A5	3	3	A5	WHITE 3	3	3	3 / 3
	A6	BLUE	A6			A6	RED 3	8	11	15
4	A7	WHITE/BLACK	A7	4	4	A7	WHITE 4	4	4	4 / 4
	A8	RED/BLACK	A8			A8	RED 4	9	12	16
5	B2	GREEN/BLACK	B2	5	5	B2	WHITE 5	5	5	5 / 5
	B3	ORANGE/BLACK	B3			B3	RED 5	10	13	17
5 ZONE POWER CABLE PART NUMBER MPC5-C10M, MPC5-C20M					5 ZONE THERMOCOUPLE CABLE PART NUMBER TC5-C10M, TC5-C20M					
6	B4	BLUE/BLACK	B4	6	6	B4	WHITE 6		6	6 / 6
	B5	BLACK/WHITE	B5			B5	RED 6		14	18
7	B6	RED/WHITE	B6	7	7	B6	WHITE 7		7	7 / 7
	B7	GREEN/WHITE	B7			B7	RED 7		15	19
8	C1	BLUE/WHITE	C1	8	8	C1	WHITE 8		8	8 / 8
	C2	BLACK/RED	C2			C2	RED 8		16	20
8 ZONE POWER CABLE PART NUMBER MPC8-C10M, MPC8-C20M					8 ZONE THERMOCOUPLE CABLE PART NUMBER TC8-C10M, TC8-C20M					
9	C3	WHITE/RED	C3	9	9	C3	WHITE 9			9 / 9
	C4	ORANGE/RED	C4			C4	RED 9			21
10	C5	BLUE/RED	C5	10	10	C5	WHITE 10			10 / 10
	C6	RED/GREEN	C6			C6	RED 10			22
11	C7	ORANGE/GREEN	C7	11	11	C7	WHITE 11			11 / 11
	C8	BLACK/YELLOW	C8			C8	RED 11			23
12	A9	WHITE/YELLOW	A9	12	12	A9	WHITE 12			12 / 12
	C9	RED/YELLOW	C9			C9	RED 12			24
12 ZONE POWER CABLE PART NUMBER MPC12-C10M, MPC12-C20M					12 ZONE THERMOCOUPLE CABLE PART NUMBER TC12-C10M, TC12-C20M					



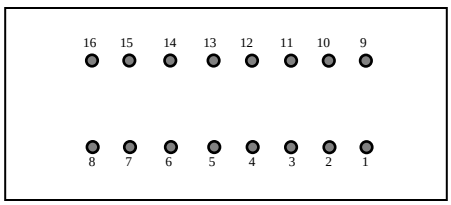
CABLE END (a)



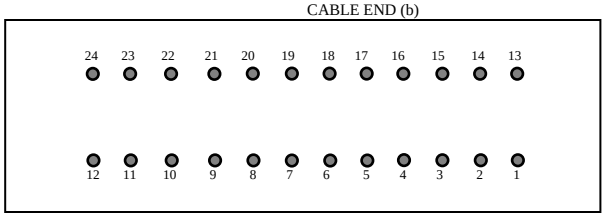
CABLE END (b)



5 ZONE MOLD END (c)



8 ZONE MOLD END (d)



12 ZONE MOLD END (e)