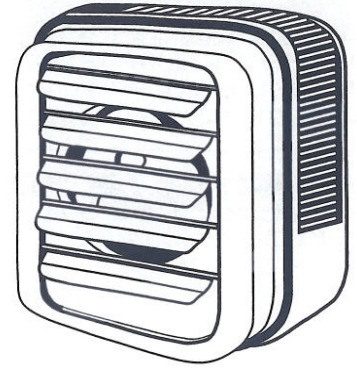




Cat# MUH 074
480V 3ph 7.5KW



c UL us
FILE #E21609



MUH Series Modular Unit Heaters

Installation, Operation & Maintenance Instructions

Dear Owner,

Congratulations! Thank you for purchasing this new heater manufactured by Marley Engineered Products. You have made a wise investment selecting the highest quality product in the heating industry. Please carefully read the installation and maintenance instructions shown in this manual. You should enjoy years of efficient heating comfort with this product from Marley Engineered Products... the industry's leader in design, manufacturing, quality and service.

*... The Employees of
Marley Engineered Products*

 WARNING 	
<p>Read Carefully - These instructions are written to help you prevent difficulties that might arise during installation of heaters. Studying the instructions first may save you considerable time and money later. Observe the following procedures, and cut your mounting time to a minimum.</p> <p>To reduce risk of fire or electric shock:</p> <ol style="list-style-type: none">1. To prevent electrical shock, disconnect all power coming to heater at main service panel before wiring or servicing.2. All wiring must be in accordance with the National and Local Electrical Codes and the heater must be grounded as a pre-caution against possible electric shock.3. Verify the power supply voltage coming to heater matches the ratings printed on the heater name plate before energizing.4. This heater is hot when in use. To avoid burns, do not let bare skin touch hot surfaces.	<ol style="list-style-type: none">5. Do not insert or allow foreign objects to enter any ventilation or exhaust opening as this may cause an electric shock, fire, or damage to the heater.6. To prevent a possible fire, do not block air intakes or exhaust in any manner. Keep combustible materials, such as crates, drapes, etc., away from heater. Do not install behind door, furniture, towels, or boxes.7. A heater has hot and arcing or sparking parts inside. Do not use it in areas where gasoline, paint or flammable liquids are stored.8. Use this heater only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or injury to persons.9. This heater is not approved for use in corrosive atmospheres such as marine, green house or chemical storage areas.

SAVE THESE INSTRUCTIONS

CAUTION

THE HEATER MUST BE MOUNTED AT LEAST 7' (2134MM) ABOVE THE FLOOR TO PREVENT ACCIDENTAL CONTACT WITH THE FAN BLADE WHICH COULD CAUSE INJURY.

CAUTION

THE CEILING MOUNTING STRUCTURE AND THE ANCHORING PROVISIONS MUST BE OF SUFFICIENT STRENGTH TO SUPPORT THE COMBINED WEIGHT OF THE HEATER AND MOUNTING BRACKET. (SEE TABLE 4).

CAUTION

ALL BUILT-IN THERMOSTATS: IF THE HEATER IS USED TO PREVENT PIPING OR LIQUIDS FROM FREEZING, AND IF THE THERMOSTAT IS SET BELOW 45° F (7°C), THE FAN MUST RUN CONTINUOUSLY.

CAUTION

TO PREVENT POSSIBLE OVERHEATING OR DAMAGE DUE TO OVERHEATING, KEEP AT LEAST 5' (1524MM) CLEARANCE IN FRONT OF HEATER. REFER TO TABLE 1 FOR SIDE, TOP, AND BACK CLEARANCE REQUIREMENTS.

DO NOT MOUNT MERCURY TYPE THERMOSTAT DIRECTLY ON UNIT. VIBRATION COULD CAUSE HEATER TO MALFUNCTION.

MANUAL RESET LIMIT (FACTORY INSTALLED OPTION ONLY.) THE LIMIT SWITCH IS LOCATED INTERNALLY ON THE REAR OF THE HEATER. ON THE 3KW AND 5KW MODELS, THE ACCESS TO THE RESET BUTTON IS ON THE RIGHT SIDE (WHEN FACING REAR OF HEATER); ON ALL OTHER MODELS IT IS NEAR THE TOP REAR OF THE HEATER.

THE MANUAL RESET LIMIT IS IN SERIES WITH THE AUTOMATIC RECYCLING PROTECTOR (LIMIT). THE MANUAL RESET LIMIT WILL NOT RESET UNTIL THE HEATER HAS COOLED AND THE BUTTON IS PUSHED IN.

HEATER LOCATION INSTRUCTIONS

Arrange units so their discharge air streams:

- are subjected to a minimum of interference from columns, machinery and partitions;
- wipe exposed walls without blowing directly at them;
- are directed away from room occupants in comfort heating;
- are directed along the windward side when installed in a building exposed to a prevailing wind.

Locate thermostats approximately 5' (1524mm) above the floor on interior partition walls or post away from cold drafts, internal heat sources and away from heater discharge air streams.

Small rooms can be heated by one unit heater.

Large rooms require multi-unit installations. Number and capacity of units will be determined by volume of building and square feet of floor area to be heated. Arrange units to provide perimeter air circulation where each unit supports the air stream from another.

MOUNTING THE HEATER - GENERAL

The heater may be mounted to discharge the heated air either horizontally or vertically. When the heater is mounted for vertical discharge, it is recommended that the heater be positioned so that the access door will open away from the wall to provide greater access to the wiring and control compartment. If the heater is to be mounted with the access door facing a wall, the heater must be mounted far enough from that wall to allow full opening of the access door (a distance approximately equal to the width of the heater ... check clearance before installing). Refer to Table 1 for wall and ceiling clearances before mounting heater.

The heater may be mounted for either vertical or horizontal discharge by the use of threaded rods. (Refer to Table 2 for threaded rod sizes required.) Observe the detailed procedures in the following installation instructions.

The heater may also be suspended from the wall or ceiling by means of an optional mounting bracket (type MMB or MCMB) which permits horizontal pivoting of the heater.

After the heater is installed, the louvers may be positioned to direct the heated air in the desired direction. When the heater is installed for horizontal discharge, the louvers should direct the air either straight ahead or downward. Directing the air upward may cause the heated air to remain in the ceiling area and waste energy.

Table 1. Wall and Ceiling Clearance, inches (mm)

Unit	Discharge	Ceiling	Side Wall	Back Wall
3 & 5 kW	Horiz.	2 (50.8)	6 (152.4)	9 (228.6)
	Vert.	6 (152.4)	18 (457.2)	18 (457.2)
7.5 to 10 kW	Horiz.	6 (152.4)	6 (152.4)	13 (330.2)
	Vert.	6 (152.4)	24 (609.6)	24 (609.6)
15 to 10 kW	Horiz.	6 (152.4)	9 (228.6)	12½ (317.5)
	Vert.	6 (152.4)	24 (609.6)	24 (609.6)
25 to 50 kW	Horiz.	16 (406.4)	12 (304.8)	18½ (470.0)
	Vert.	12 (304.8)	39 (914.4)	39 (914.4)

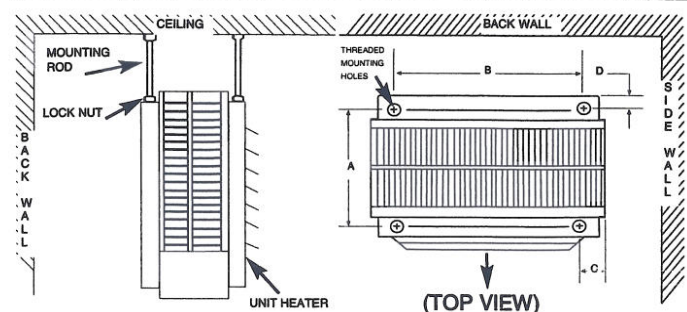


Figure 1. Horizontal Discharge Mounting and Spacing.

Table 2. Rod Thread and Spacing Dimensions, inches (mm) for Horizontal Discharge

Unit	Rod Thread Type	A	B	C	D
3 - 5 kW	5/16 - 18	6 1/16 (153.9)	6 (152.4)	4 1/16 (103.1)	3/4 (19.0)
7.5 - 10 kW		11 3/8 (289.0)	8 7/8 (225.6)	5 1/8 (130.3)	3/4 (19.0)
15 - 20 kW	3/8 - 16	10 9/16 (268.2)	14 - 12 (368.3)	6 3/16 (157.2)	5/8 (16.0)
25 - 30 kW		15 15/16 (404.9)	14 - 12 (368.3)	6 3/16 (157.2)	5/8 (16.0)

Horizontal Discharge (Rod-mount from Ceiling)

1. Install four threaded mounting rods in the threaded holes and secure in place using lock nuts. (See Table 2).
2. Securely attach the four mounting rods to the ceiling. (Refer to Table 1 for wall and ceiling clearances, and Table 2 for mounting rod spacing).

Table 3. Rod Thread and Spacing Dimensions, inches (mm) for Vertical Discharge

Unit	Rod Thread Type	E	F	G	H
3 - 5 kW	5/16 - 18	6 (152.4)	9 3/4 (247.7)	2 (50.8)	4 1/16 (103.1)
7.5 - 20 kW		8 7/8 (225.6)	14 5/8 (371.6)	2 (50.8)	5 1/8 (130.3)
25 - 30 kW	3/8 - 16	14 1/2 (368.3)	21 1/4 (539.8)	2 9/16 (56.0)	6 3/16 (157.2)

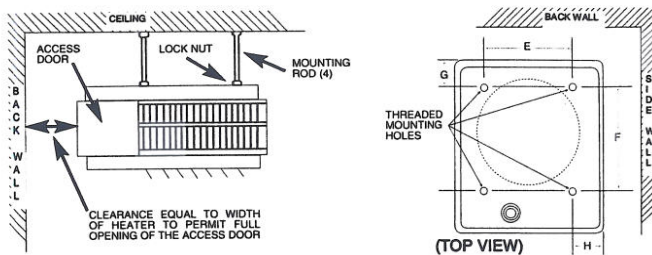


Figure 2. Vertical Discharge Mounting and Rod Spacing

Vertical Discharge (Rod-Mount from Ceiling)

1. Remove bolts from the threaded holes in the back of the heater.
2. Install four threaded mounting rods in the threaded holes and secure in place using lock nuts.
3. Securely attach the four mounting rods to the ceiling. (Refer to Table 1 for wall and ceiling clearances, and Table 3 for mounting rod spacing dimensions.)

WIRING

Branch Circuit (Power)

1. Connect heater only to the voltage, amperage and frequency specified on the nameplate.
2. Field wiring must be properly sized to carry the amperage in accordance with the NEC.
3. The access door is hinged. There are either one or two screws accessible from the side that must be loosened to gain access. These screws are the captive type; do not try to remove them.
4. A knockout is provided in the back of the heater close to the power terminal block and the control terminal board. The control terminal board knockout is 1/2 inch (12.7 mm) conduit size. The power terminal block knockout is multiple diameter. Use the diameter that fits the required conduit size.
5. A ground terminal is provided near the power terminal board. The ground wire should be connected before other connections are made.
6. The power terminal block is equipped with box terminals sized to accept the correct size power supply wire. Branch circuit wire rated min 600V, 60° C is acceptable for heaters rated up to 80 amps. For heaters rated more than 80 amps, branch circuit wire must be rated at least 75°C. Either aluminum or copper wire is satisfactory for connection to the heater power terminal block box terminal. Copper wire is recommended and must be used with built-in disconnect switch.
7. Each heater has a wiring diagram affixed to the inside of the access door. Consult this diagram before making any field connections.

Important Note - Installation Screw Lug Torque:

During transportation it is possible screw lug connections can loosen. After installation, before power is turned on to the heater, check all screw lug connections for tightness to a recommended minimum torque of 35 in-lbs. (3.9 N-m).

8. Single or three-phase power connections may be used with heater models MUH0521, MUH0581, MUH072, MUH078, MUH102, MUH108, and MUH158. These units are factory wired for single-phase operation. If these heaters are for use with three-phased power, reconnect the wires as indicated in the wiring diagram attached to the heater. Additional information can be found by looking at the wiring illustrations in Figures 3a and 3b and following the directions shown below.

On models MUH0521, MUH0581, MUH072, MUH078, MUH102, and MUH108 (Figure 3a), move only the two wires marked "A1" and marked "B1"; do not move or change any other wiring. The element lead wire marked "B1" which is factory connected to the power terminal block (terminal located closest to the elements) must be moved to terminal "B" on the three-phase terminal block.

The relay (contactor) lead wire "A1" must be moved from the end terminal of the power terminal block (terminal closest to the contactor or control terminal board) to the "A" terminal of the lower terminal block (center terminal).

Model MUH158 (Figure 3b) has two three-phase terminal blocks located adjacent to the relays (contactors). Move only the two wires marked "C1" and "D1" on each of these two three-phase terminal blocks to terminal "B". Do not move or change any other wires.

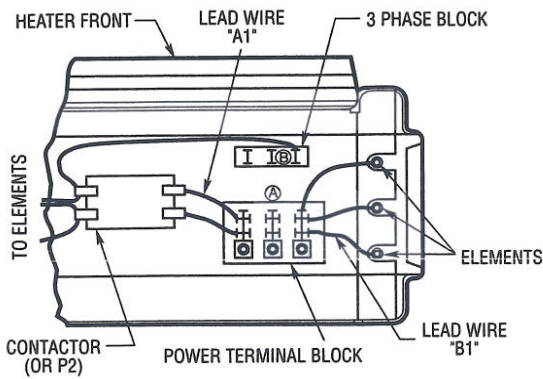
9. Electrical Accessories, either kits or factory-installed options, are shown connected by a dash line on the heater wiring diagram.
10. **208/240 VOLT HEATER:** The heaters are wired for 240V from factory. When heater is to be connected to 208V supply, the transformer leads have to be interchanged. For units rated 30/40kW or higher, interchange ORANGE and RED primary leads. The black colored lead is the COMMON for the transformer (50VA) provided with the high wattage units. For lower kW rated heaters, interchange BLACK and RED primary leads. The WHITE colored lead is the COMMON for the control transformer provided with these heaters. Always refer to the wiring diagram on the cover of the heater before making this reconnection of transformer primary leads.

Control Wiring

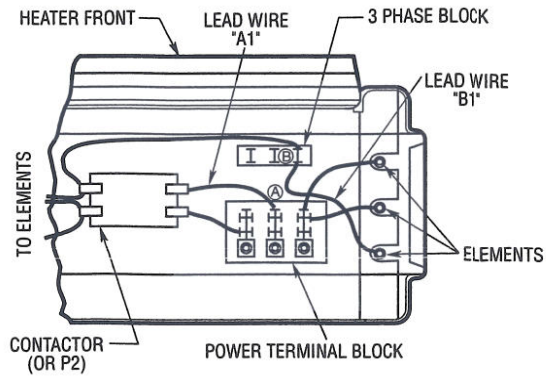
⚠ WARNING ⚠

LINE VOLTAGE IS PRESENT ON SOME OF THE TERMINALS ON THE CONTROL TERMINAL BOARD. ALWAYS DISCONNECT THE POWER FROM THE HEATER BEFORE MAKING ANY CONNECTIONS TO THE CONTROL BOARD TO PREVENT ELECTRIC SHOCK HAZARD.

1. Use min. 600 volts, NEC Class 1 insulated wire for all control circuit wiring.
 2. Use a crimp-on type fork terminal on the wire ends that attach to the control terminal board if more than one connection is to be made under the terminal screw.
 3. On units not provided with internal contactor (3 & 5 KW), refer to Figure 4 for wiring diagram.
- Note:** Thermostat and control circuit wiring must be suitable to handle the full load of the heater (example MUH0581 is rated 24 amps)
4. On units provided with internal contactor (units rated 7 KW and higher) refer to Figure 5 for wiring diagram. Control wiring must be rated minimum 18 AWG.

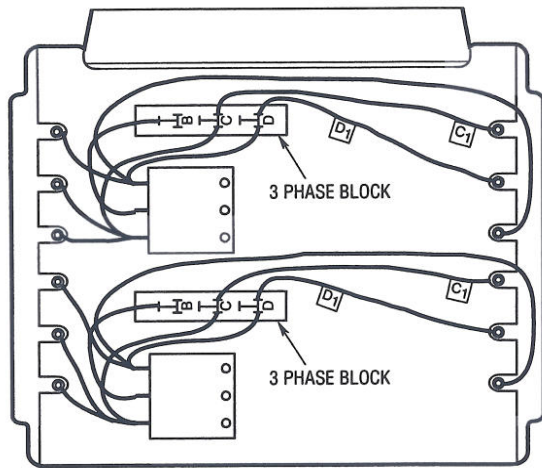


FACTORY-WIRED FOR SINGLE-PHASE POWER

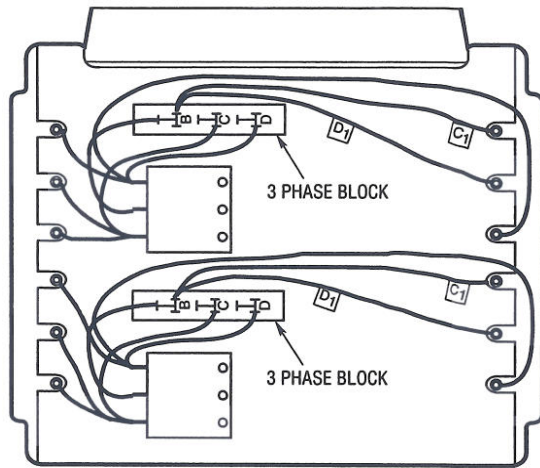


FIELD-WIRED FOR THREE-PHASE POWER

Figure 3a. Wiring Connections for Single-Phase and Three -Phase Power(MUH0521, MUH0581, MUH072, MUH078, MUH102 and MUH108)

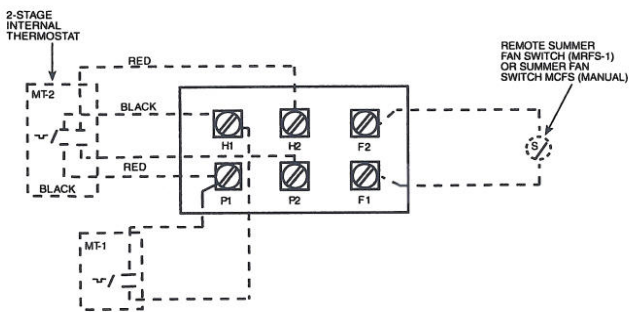


FACTORY-WIRED FOR SINGLE-PHASE POWER



FIELD-WIRED FOR THREE-PHASE POWER

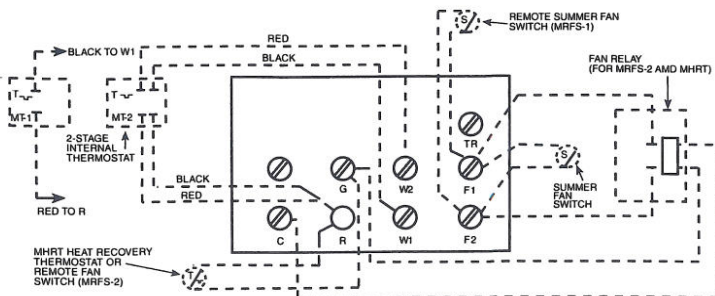
Figure 3b. Wiring Connections for Single-Phase and Three -Phase Power (MUH158)



NOTES:

1. THIS STYLE CONTROL TERMINAL BOARD USED WITH MODELS MUH0321, MUH0371, MUH0381, MUH0521, MUH0571, AND MUH0581.
2. WHEN UNIT IS WIRED FOR SINGLE-PHASE, JUMPER H1 TO H2. IF SINGLE-POLE THERMOSTAT IS USED WITH SINGLE-PHASE UNIT, CONNECT THERMOSTAT LEADS TO P1 AND H1.
3. EXTERNAL LINE VOLTAGE THERMOSTATS SHOULD BE TREATED AS SINGLE STAGE ONLY.

Figure 4. Control Terminal Board (for Heaters Without Contactors)



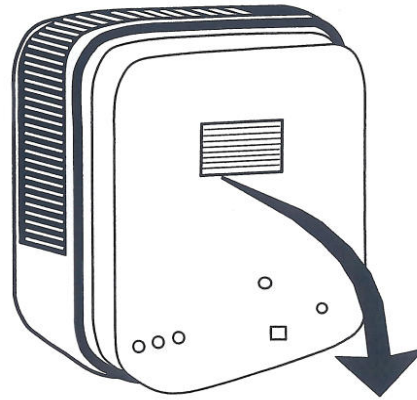
NOTES:

1. THIS STYLE CONTROL TERMINAL BOARD USED WITH MODELS EXCEPT MUH0321, MUH0371, MUH0381, MUH0521, MUH0571, AND MUH0581.
2. REMOVE JUMPER W1 TO W2 WHEN 2-STAGE THERMOSTAT IS USED.
3. *ONLY ONE OF THESE ACCESSORIES MAY BE INSTALLED IN A SINGLE HEATER.
4. EXTERNAL LINE VOLTAGE THERMOSTATS SHOULD BE TREATED AS SINGLE STAGE ONLY.

Figure 5. Control Terminal Board (for Heaters With Contactors)

Table 4. Specifications

Basic Model No.	Height in. (mm)	Width in. (mm)	Depth in. (mm)	Mounting Weight lbs. (kg)	Wiring Compartment Volume
MUH0381	16 (406.4)	14 (355.6)	7 1/2 (190.5)	27 (12.2)	90 in ³ (14.70 cm ³)
MUH0321				27 (12.2)	
MUH0371				27 (12.2)	
MUH0341				30 (13.6)	
MUH0581				27 (12.2)	
MUH0521				27 (12.2)	
MUH0571				27 (12.2)	
MUH0541				30 (13.6)	
MUH0331				30 (13.6)	
MUH0361				30 (13.6)	
MUH0531				30 (13.6)	
MUH0561				30 (13.6)	
MUH078	21 3/4 (552.5)	19 (482.6)	7 1/2 (190.5)	38 (17.2)	100 in ³ (1639 cm ³)
MUH072				38 (17.2)	
MUH077				38 (17.2)	
MUH074				38 (17.2)	
MUH108				38 (17.2)	
MUH102				38 (17.2)	
MUH107				38 (17.2)	
MUH104				38 (17.2)	
MUH073				38 (17.2)	
MUH076				38 (17.2)	
MUH103				38 (17.2)	
MUH106				38 (17.2)	
MUH158	21 3/4 (552.5)	19 (482.6)	12 3/4 (323.9)	54 (24.5)	140 in ³ (2295 cm ³)
MUH152				50 (22.7)	
MUH154				50 (22.7)	
MUH208				60 (27.2)	
MUH202				55 (24.9)	
MUH204				55 (24.9)	
MUH156				55 (24.9)	
MUH206				55 (24.9)	
MUH252	30 (76.2)	26 5/8 (676.4)	11 3/4 (298.5)	89 (40.4)	504 in ³ (8260 cm ³)
MUH254				89 (40.4)	
MUH308				89 (40.4)	
MUH302				89 (40.4)	
MUH304				89 (40.4)	
MUH256				89 (40.4)	
MUH306	89 (40.4)				
MUH402	30 (76.2)	26 5/8 (676.4)	17 1/4 (435.1)	119 (54.0)	648 in ³ (10620 cm ³)
MUH404				119 (54.0)	
MUH508				119 (54.0)	
MUH502				119 (54.0)	
MUH504				119 (54.0)	
MUH406				119 (54.0)	
MUH506				119 (54.0)	



NAMEPLATE

MODEL NO. MUH0321
MFG. NO.

DATE CODE 0395

VOLTS AC 60 HZ 208 / 240	KILOWATTS 2.2 / 3	PHASE 1	MIN. SUPPLY CIR. AMPACITY
MAX. FUSE	MOTOR	CONTROLS	CUSTOMER NO

	VAC	AMP	VAC	
	208/240	.25	208/240	
AIR FLOW	MINIMUM MOUNTING CLEARANCE			
HORIZ.	SIDE	BACK	CEILING	FLOOR
	6"	9.5"	2"	7"
VERT.	18"	18"	6"	7"

WARNING: DO NOT TURN LOUVERS ABOVE LEVEL OF THE UNIT. DISCONNECT POWER BEFORE SERVICING. IF EXTERNAL CONTROL IS USED, ALSO DISCONNECT EXTERNAL POWER SUPPLY.

NE PAS RELEVER LES LAMES AU-DEL'A DU NIVEAU PREVU DE L'APPAREIL. METTRE HORS TENSION AVANT DE PROCEDER A L'ENTRETIEN. SI UNE COMMANDE EXTERNE EST UTILISEE, COUPER AUSSE L'ALIMENTATION EXTERNE. ASSURER UN DEGAGEMENT D'AU MOINS 6 PI ENTRE L'APPAREIL DE CHAUFFAGE ET LEPLANCHER.

MARLEY ENGINEERED PRODUCTS
BENNETTSVILLE, SC 29512



774G LISTED
AIR HEATER

4104-0275-036

IMPORTANT INFORMATION

LIMITED WARRANTY

All products manufactured by Marley Engineered Products are warranted against defects in workmanship and materials for one year from date of installation, except heating elements which are warranted against defects in workmanship and materials for five years from date of installation. This warranty does not apply to damage from accident, misuse, or alteration; nor where the connected voltage is more than 5% above the nameplate voltage; nor to equipment improperly installed or wired or maintained in violation of the product's installation instructions. All claims for warranty work must be accompanied by proof of the date of installation.

The customer shall be responsible for all costs incurred in the removal or reinstallation of products, including labor costs, and shipping costs incurred to return products to Marley Engineered Products Service Center. Within the limitations of this warranty, inoperative units should be returned to the nearest Marley authorized service center or the Marley Engineered Products Service Center, and we will repair or replace, at our option, at no charge to you with return freight paid by Marley. It is agreed that such repair or replacement is the exclusive remedy available from Marley Engineered Products.

THE ABOVE WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE AFORESAID EXPRESSED WARRANTIES ARE HEREBY DISCLAIMED AND EXCLUDED FROM THIS AGREEMENT. MARLEY ENGINEERED PRODUCTS SHALL NOT BE LIABLE FOR CONSEQUENTIAL DAMAGES ARISING WITH RESPECT TO THE PRODUCT, WHETHER BASED UPON NEGLIGENCE, TORT, STRICT LIABILITY, OR CONTRACT.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

For the address of your nearest authorized service center, contact Marley Engineered Products in Bennettsville, SC, at 1-800-642-4328. Merchandise returned to the factory must be accompanied by a return authorization and service identification tag, both available from Marley Engineered Products. When requesting return authorization, include all catalog numbers shown on the products.

HOW TO OBTAIN WARRANTY SERVICE AND WARRANTY PARTS PLUS GENERAL INFORMATION

- | | |
|--------------------------------|--|
| 1. Warranty Service or Parts | 1-800-642-4328 |
| 2. Purchase Replacement Parts | 1-800-654-3545 |
| 3. General Product Information | www.marleymep.com |

Note: When obtaining service always have the following:

1. Model number of the product
2. Date of manufacture
3. Part number or description



Marley
Engineered Products

470 Beauty Spot Rd. East
Bennettsville, SC 29512 USA

MUH REPLACEMENT PARTS

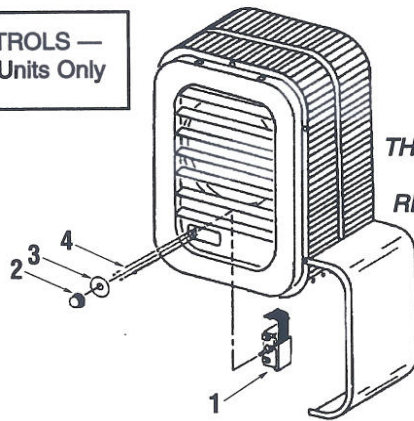
MUH Built-in Controls

Key No.	Description	Part Number
1	Thermostat, One Pole (MT-1)	5813-0036-000
	Thermostat, Two Stage (MT-2)	5813-0035-000
2	Knob, Thermostat	3301-0060-000
3	Label, Thermostat	3502-1781-000
4	Screws, Fl. Hd., 6-32 x 1/4	5202-7009-021
5	Clip, Thermostat	1403-0041-000
6	Switch, 25A, OEM	5216-0132-000
	Switch, 25A, K & N	5216-0204-000
	Switch, 63A, OEM	5216-0131-000
	Switch, 63A, K & N	5216-0203-000
	Switch 25A, Electro	5216-0200-000
7	Screw, M4 x 10, Rd. Hd., (25A)	—
	Screw, 63A, M5 x 16, Rd. Hd.	—
8	Knob, 25A, OEM "T1"	OEM "T1"
	Knob, 25A, K & N	K & N S1B 6001
	Knob, 63A, OEM	OEM "S4"
	Knob, 63A, K & N	K & N S2B G001
	Knob, Electro	EI 141747
9	Switch, Toggle, 600V	5216-0130-000
10	Relay, Fan, 24V Coil	5018-0008-000
11	Switch Assembly	5216-0199-000
12	Manual Reset Limit	4520-0012-000

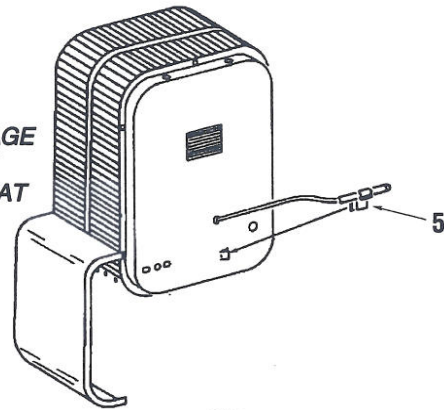
Heater Replacement Parts

Key No.	Description	Part Number
1	Spring, Element (used on MUH03 thru MUH-20 only)	5208-0073-000
	Spring, Element (used on MUH-25 thru MUH-50 only)	5208-0073-001
2	Spring, Capillary Tube	5208-0072-000
3	Spring, Element Retainer	5208-0074-000
4	Switch (used on MUH-25 thru MUH-50 only)	5216-7076-001
5	Insulator (used on MUH-25 thru MUH-50 only)	2900-0031-000
6	Bracket Extension (used on MUH-15, MUH-20, MUH-40 and MUH-50 only)	1215-0282-000
7	Switch Bracket	1215-0256-000
8	Fan Delay	4520-0010-000
14	Speed Nut	4100-7036-026
15	Bracket, Captive Screw (used on MUH-03 thru MUH-20 only)	1215-0291-000
	Bracket, Captive Screw (used on MUH-25 thru MUH-50 only)	1215-0289-000
17	Protector, Linear Limit (used on MUH03 thru MUH05 only)	4520-0011-000
	Protector, Linear Limit (used on MUH-07 thru MUH-20 only)	4520-0011-001
	Protector, Linear Limit (used on MUH-25 thru MUH-50 only)	4520-0011-002
20	Clamp (used on MUH-20 thru MUH-50 only)	1417-5004-000
	Bracket, Mounting Capacitor (used on MUH-20-8 only)	1215-0314-000
22	Terminal Lug (used on MUH-07 thru MUH-50 only)	3504-7002-001
25	Bushing (used on MUH-20 thru MUH-50 only)	25221-60131
26	Washer, Ground (used on MUH03 thru MUH05 only)	6401-0084-000
27	Screw, Ground (used on MUH03 thru MUH05 only)	5202-0290-002
28	Louver (used on MUH03 thru MUH05 only)	3503-0036-000
	Louver (used on MUH-07 thru MUH-20 only)	3503-0036-001
	Louver (used on MUH-25 thru MUH-50 only)	3503-0036-002
29	Spring, Louver	5208-7005-001
32	Terminal Block, 3-Phase (used on MUH05-21, MUH-07-02, and MUH-10-2 only)	5823-0003-000
	Terminal Block, 3-Phase (used on MUH05-81, MUH-07-8, and MUH-15-8 only)	5823-0003-000
33	Terminal Doublers (used where required)	5819-7012-005

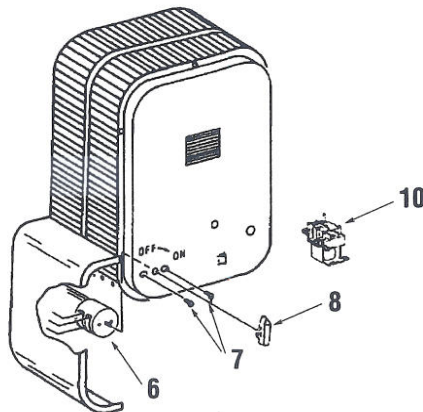
**BUILT-IN CONTROLS —
Made-to-Order Units Only**



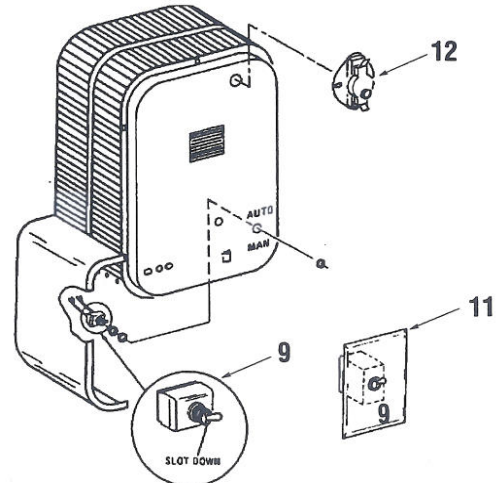
**SINGLE-POLE
THERMOSTAT, TWO-STAGE
THERMOSTAT, HEAT
RECOVERY THERMOSTAT**

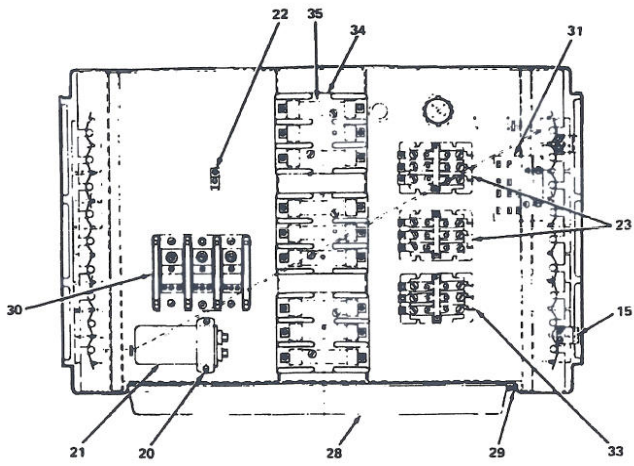


**POWER
DISCONNECT
SWITCH**

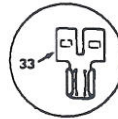


**SUMMER
FAN
SWITCH**

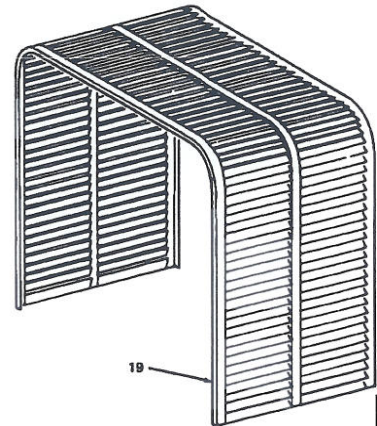




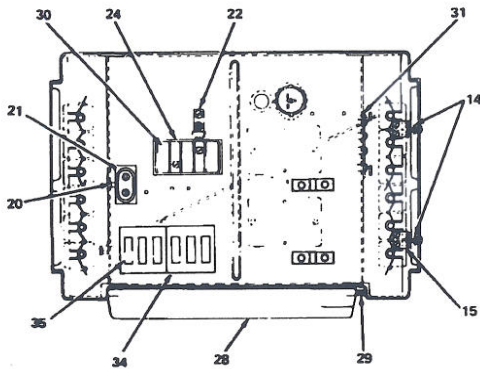
VIEW D-D
(MUH-25 THRU MUH-50 ONLY)



TERMINAL DOUBLER
(USED AS REQUIRED)



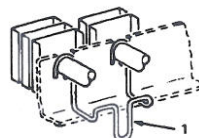
19



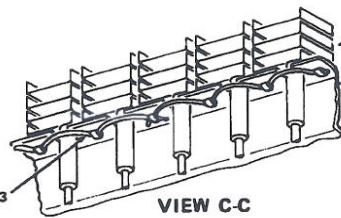
VIEW D-D
(MUH-07 THRU MUH-20 ONLY)



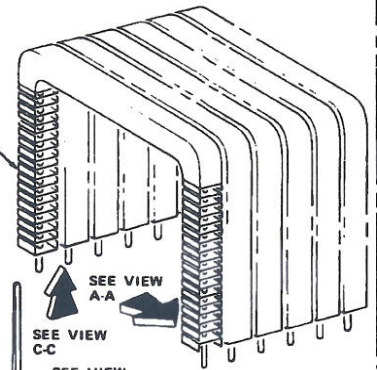
VIEW A-A



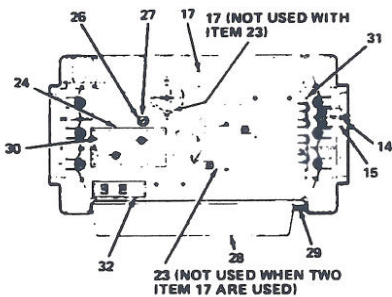
VIEW B-B



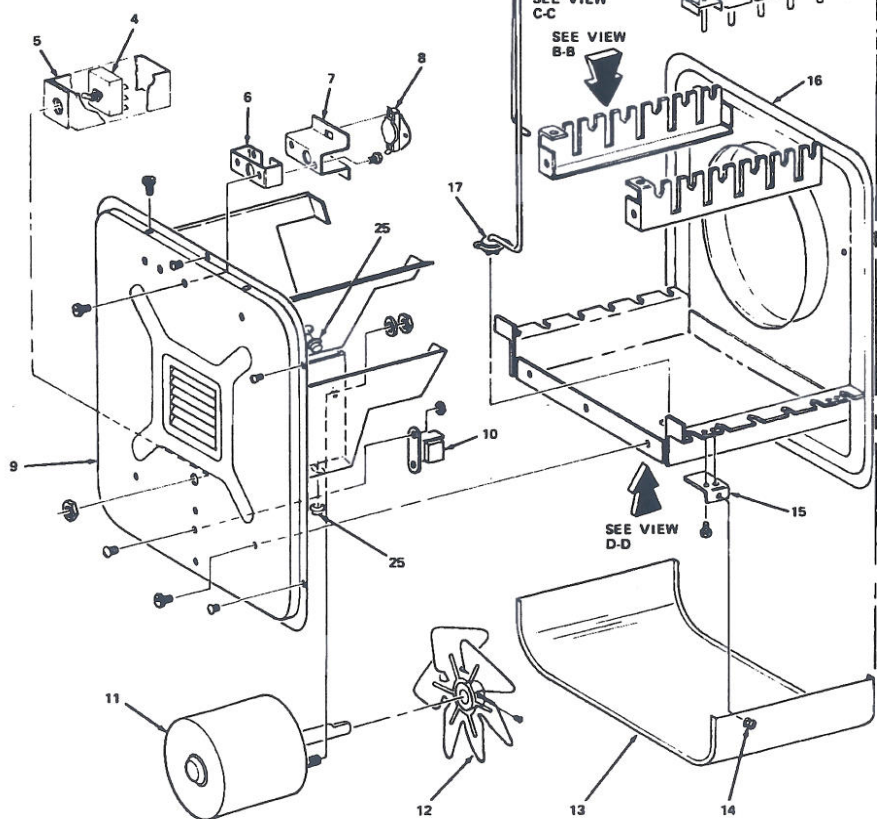
VIEW C-C



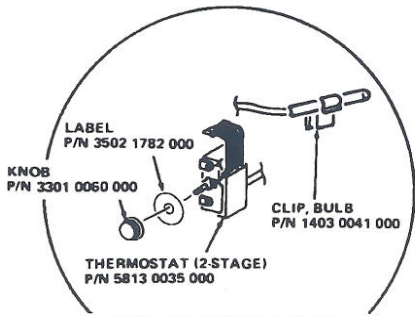
SEE VIEW
A-A
SEE VIEW
C-C



VIEW D-D
(MUH03 THRU MUH05 ONLY)



SEE VIEW
D-D



THESE PARTS ARE USED
ON MODEL MUH05-21T ONLY

MUH (Con't.)

Model No.	⑨ Back Case	⑩ Transformer**	⑪ Motor	⑫ Fan Blade	⑬ Cover	⑯ Front Case	⑱ Element Assy.	⑲ Element Guard	⑳ Capacitor
MUH03-21	1425-2004-000	-	3900-2002-006	1210-2000-000	1402-0336-001	1425-0009-005	1802-0087-000	2504-0011-000	-
MUH03-41	1425-2004-000	5814-0003-002	3900-2005-000	1210-2000-000	1402-0336-001	1425-0009-005	1802-0087-002	2504-0011-000	-
MUH03-71	1425-2004-000	-	3900-2002-007	1210-2000-000	1402-0336-001	1425-0009-005	1802-0087-001	2504-0011-000	-
MUH03-81	1425-2004-000	-	3900-2002-006	1210-2000-000	1402-0336-001	1425-0009-005	1802-0087-024	2504-0011-000	-
MUH05-21MG	1425-2004-000	-	3900-2002-006	1210-2000-000	1402-0336-001	1425-0009-005	1802-0087-003	2504-0011-000	-
MUH05-41	1425-2004-000	5814-0003-002	3900-2005-000	1210-2000-000	1402-0336-001	1425-0009-005	1802-0087-005	2504-0011-000	-
MUH05-71	1425-2004-000	-	3900-2002-007	1210-2000-000	1402-0336-001	1425-0009-005	1802-0087-004	2504-0011-000	-
MUH05-81MG	1425-2004-000	-	3900-2002-006	1210-2000-000	1402-0336-001	1425-0009-005	1802-0087-025	2504-0011-000	-
MUH-07-2	1425-0010-004	5814-0003-000	3900-2014-002	1210-0090-000	1402-0339-002	1425-0009-006	1802-0087-006	2504-0013-001	-
MUH-07-4	1425-0010-004	5814-0003-002	3900-0347-005	1210-0090-000	1402-0339-002	1425-0009-006	1802-0087-008	2504-0013-001	-
MUH-07-7	1425-0010-004	5814-0003-001	3900-2014-003	1210-0090-000	1402-0339-002	1425-0009-006	1802-0087-007	2504-0013-001	-
MUH-07-8	1425-0010-004	5814-0003-000	3900-2014-001	1210-0090-000	1402-0339-002	1425-0009-006	1802-0087-031	2504-0013-001	-
MUH-10-2	1425-0010-004	5814-0003-000	3900-2014-002	1210-0090-000	1402-0339-002	1425-0009-006	1802-0087-031	2504-0013-001	-
MUH-10-4	1425-0010-004	5814-0003-002	3900-0347-005	1210-0090-000	1402-0339-002	1425-0009-006	1802-0087-011	2504-0013-001	-
MUH-10-7	1425-0010-004	5814-0003-001	3900-2014-003	1210-0090-000	1402-0339-002	1425-0009-006	1802-0087-010	2504-0013-001	-
MUH-10-8	1425-0010-004	5814-0003-000	3900-2014-001	1210-0090-000	1402-0339-002	1425-0009-006	1802-0087-036	2504-0013-001	-
MUH-15-2	1425-0014-000	5814-0003-000	3900-0361-000	1210-0090-001	1402-0339-003	1425-0009-007	1802-0087-012	2504-0012-001	-
MUH-15-4	1425-0014-000	5814-0003-002	3900-0361-001	1210-0090-001	1402-0339-003	1425-0009-007	1802-0087-013	2504-0012-001	-
MUH-15-8	1425-0014-000	5814-0003-000	3900-0361-002	1210-0090-001	1402-0339-003	1425-0009-009	1802-0087-031	2504-0012-001	-
MUH-20-2	1425-0013-000	5814-0003-000	3900-0362-000	1210-0096-000	1402-0339-003	1425-0009-007	1802-0087-014	2504-0012-001	1432-0002-003
MUH-20-4	1425-0013-000	5814-0003-002	3900-0362-001	1210-0096-000	1402-0339-003	1425-0009-007	1802-0087-015	2504-0012-001	1432-0002-003
MUH-20-8	1425-0013-000	5814-0003-000	3900-0362-002	1210-0096-000	1402-0339-003	1425-0009-011	1802-0087-026	2504-0012-001	1432-0002-003
MUH-25-2	1425-0011-003	5814-0003-000	3900-0364-000	1210-0098-000	1402-0340-002	1425-0012-003	1802-0087-016	2504-0014-001	1432-0002-001
MUH-25-4	1425-0011-003	5814-0003-002	3900-0363-001	1210-0098-000	1402-0340-002	1425-0012-003	1802-0087-017	2504-0014-001	1432-0002-003
MUH-30-2	1425-0011-003	5814-0003-000	3900-0364-000	1210-0098-000	1402-0340-002	1425-0012-003	1802-0087-018	2504-0014-001	1432-0002-001
MUH-30-4	1425-0011-003	5814-0003-002	3900-0363-000	1210-0098-000	1402-0340-002	1425-0012-003	1802-0087-019	2504-0014-001	1432-0002-003
MUH-30-8	1425-0011-003	5814-0003-000	3900-0364-000	1210-0098-000	1402-0340-002	1425-0009-009	1802-0087-028	2504-0014-001	1432-0002-001
MUH-40-2	1425-0011-001	5814-0003-000	3900-0350-000	1210-0097-000	1402-0340-003	1425-0012-002	1802-0087-020	2504-0015-001	1432-0002-004
MUH-40-4	1425-0011-001	5814-0003-002	3900-0350-001	1210-0097-000	1402-0340-003	1425-0012-002	1802-0087-021	2504-0015-001	1432-0002-004
MUH-50-2	1425-0011-001	5814-0003-000	3900-0350-000	1210-0097-000	1402-0340-003	1425-0012-002	1802-0087-022	2504-0015-001	1432-0002-004
MUH-50-4	1425-0011-001	5814-0003-002	3900-0350-001	1210-0097-000	1402-0340-003	1425-0012-002	1802-0087-023	2504-0015-001	1432-0002-004
MUH-50-8	1425-0011-001	5814-0003-000	3900-0350-002	1210-0097-000	1402-0340-003	1425-0012-002	1802-0087-030	2504-0015-001	1432-0002-004

Model No.	⑳ Relay***	㉑ Insulator	㉓ Terminal Block, Power	㉔ Terminal Block, Control	㉕ Fuse Block	㉖ Fuse
MUH03-21	-	-	5823-0004-000	5823-0001-000	-	-
MUH03-41	5018-0004-100	2900-0030-000	5823-0004-000	5823-0002-000	-	-
MUH03-71	-	2900-0030-000	5823-0004-000	5823-0001-000	-	-
MUH03-81	-	-	5823-0004-000	5823-0001-000	-	-
MUH05-21MG	5018-0003-002	-	5823-0004-000	5823-0002-000	-	-
MUH05-41	5018-0004-100	2900-0030-000	5823-0004-000	5823-0002-000	-	-
MUH05-71	-	2900-0030-000	5823-0004-000	5823-0001-000	-	-
MUH05-81MG	5018-0003-002	-	5823-0004-000	5823-0002-000	-	-
MUH-07-2	5018-0003-000	-	5823-0004-000	5823-0002-000	-	-
MUH-07-4	5018-0004-100	2900-0030-000	5823-0004-000	5823-0002-000	-	-
MUH-07-7	5018-0004-100	2900-0030-000	5823-0004-000	5823-0002-000	-	-
MUH-07-8	5018-0003-000	-	5823-0004-000	5823-0002-000	-	-
MUH-10-2	5018-0003-000	-	5823-0004-000	5823-0002-000	-	-
MUH-10-4	5018-0004-100	2900-0030-000	5823-0004-000	5823-0002-000	-	-
MUH-10-7	5018-0003-000	2900-0030-000	5823-0004-000	5823-0002-000	-	-
MUH-10-8	5018-0004-100	-	5823-0004-000	5823-0002-000	-	-
MUH-15-2	5018-0005-004	-	5823-0004-001	5823-0002-000	-	-
MUH-15-4	5018-0004-100	2900-0030-000	5823-0004-000	5823-0002-000	-	-
MUH-15-8	5018-0005-008	-	5823-0004-003	5823-0002-000	2025-0002-000	2019-0007-010
MUH-20-2	5018-0006-000	-	5823-0004-002	5823-0002-000	-	-
MUH-20-4	5018-0004-100	2900-0030-000	5823-0004-000	5823-0002-000	-	-
MUH-20-8	5018-0005-000	-	5823-0004-002	5823-0002-000	2025-0002-000	2019-0007-008
MUH-25-2	5018-0005-004	-	5823-0004-002	5823-0002-000	2025-7002-000	2019-7008-077
MUH-25-4	5018-0005-004	2900-0030-000	5823-0004-001	5823-0002-000	-	-
MUH-30-2	5018-0005-004	-	5823-0004-003	5823-0002-000	2025-7002-000	2019-7008-079
MUH-30-4	5018-0005-004	2900-0030-000	5823-0004-001	5823-0002-000	-	-
MUH-30-8	5018-0006-000	-	5823-0005-000	5823-0002-000	2025-7002-000	2019-7008-080
MUH-40-2	5018-0005-004	-	5823-0005-000	5823-0002-000	2025-7002-000	2019-7008-079
MUH-40-4	*	2900-0030-000	5823-0004-002	5823-0002-000	2025-7002-000	2019-7008-079
MUH-50-2	5018-0005-004	-	5823-0005-000	5823-0002-000	2025-7002-000	2019-7008-080
MUH-50-4	*	2900-0030-000	5823-0004-002	5823-0002-000	-	-
MUH-50-8	5018-0006-000	-	5823-0005-000	5823-0002-000	2025-7002-000	2019-7008-078

* Two relays are used: 35A relay P/N 5018-0004-000 and 40A relay P/N 5018-0006-000.

** 24V secondary shown. For 120V secondary, increase last digit by 3. (i.e. for MUH03-41, 24V secondary use 5814-0003-002; for 120V secondary use 5814-0003-005.)

*** 24V H.C. shown. For 120 H.C., increase last digit by 1. (i.e.: for MUH03-41, 24V H.C. use 5018-0004-000; for 120V H.C. use 5018-0004-001.)

5200-2333-003

ECR 36799

4/06



Marley
Engineered Products

470 Beauty Spot Rd. East
Bennettsville, SC 29512 USA

