

# OWNER'S MANUAL

## MODELS MM1, MM1C - HEAT STATION



### MANUFACTURER'S INTRODUCTION

The Model MM1 Heat Station features Marshall's own ThermoGlo™ heating technology. Heat radiates from every square inch of the upper flat plate heating surface. This eliminates the need to clean intricate calrod, wire and reflector assemblies. This unit is equipped with an accessory 120 volt receptacle at the back which is fused for a maximum of 5 amperes. It may be used for powering a timer. This receptacle is furnished only on Model MM1. The MM1C Heat Station is equipped with an infinite switch to control the temperature on the ThermoGlo™.

Supplier Name: **MARSHALL AIR SYSTEMS, INC.**  
Address: 419 Peachtree Drive South  
Charlotte, NC 28217  
Model#: \_\_\_\_\_  
Serial #: \_\_\_\_\_  
Date Received: \_\_\_\_\_  
Date Installed: \_\_\_\_\_  
Telephone #: 704-525-6230  
800-722-3474 Customer Service  
Fax #: 704-525-6229  
Service Referral #: 800-722-3474  
Local Service: \_\_\_\_\_  
Local Service #: \_\_\_\_\_

### GENERAL SPECIFICATIONS

Models: MM1, MM1C Heat Station  
Height: 19-1/4"  
Width: 13"  
Depth: 23-1/4"  
Electrical: 110/120 volts, AC 840 watts,  
50/60 Hz, 7 amps and up to 5  
amps on accessory receptacle  
220/240 volts, AC 900 watts,  
50/60 Hz, no accessory  
receptacle  
Power Cord: 6 ft 3 wire ground type UL rated  
Weight: 25 lbs.  
Approvals: UL and NSF

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TIMER MOUNTING.....FIGURE 1, PAGE 2

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WIRING SCHEMATIC (MM1 120V)..... DWG 110266

WIRING SCHEMATIC (MM1 240V)..... DWG 118272

WIRING SCHEMATIC (MM1C 120V)..... DWG 120378  
(with infinite switch, without receptacle)

WIRING SCHEMATIC (MM1C 120V)..... DWG 118710  
(without receptacle and fuse)

### INSTALLATION

#### PRE-INSTALLATION

The Heat Station is packaged to minimize the risk of shipping damage. Immediately upon receipt, make certain to inspect the unit for damage. **FILE ALL CLAIMS WITH THE FREIGHT CARRIER.**

#### FINAL INSTALLATION

1. Unpack unit and remove all protective paper or plastic covering from metal parts.
2. Place heat station on stable base.
3. If unit includes optional timer brackets, see Timer Mounting Instructions (Figure 1, page 2).
4. Plug unit into an AC 120V receptacle for 120V unit or 240V receptacle for 240V unit.

### DAILY CHECKLIST AND CLEANING GUIDE

#### TO USE THE HEAT STATION

1. Turn on the power switch.
2. Top of switch is red, in on position, indicating power is going to the heater.
3. The unit is ready to use after a 15 minute preheat period.

#### CLEANING CHECKLIST

1. Turn off the unit and allow it to cool for 30 minutes.
2. Pans, lids and wire grates should be removed, washed in the dish machine, rinsed and sanitized.
3. Clean unit and base with a damp cloth and cleaner degreaser. **DO NOT IMMERSE UNIT IN WATER!  
DO NOT USE CAUSTIC CLEANING SOLUTIONS!**
4. Allow sufficient drying time before attempting to use.

### MONTHLY MAINTENANCE

Follow the daily cleaning checklist; there are no periodic adjustments. The only user-replacement item is the 5 amp fuse located just below the accessory receptacle only on 120V unit. If this fuse blows do the following:

1. Unplug the unit.
2. Remove the fuse by unscrewing the fuse cover.
3. Replace the fuse with a manufacturer's approved replacement part.

# MODELS MM1, MM1C - HEAT STATION

## TROUBLESHOOTING CHART

### \*\* DISASSEMBLING HEATER VOIDS WARRANTY \*\*

Identify problem in the left column and look for probable cause and solution in right hand column. Probable causes listed in the order they are most likely to happen. This sequence should be used to isolate the problem.

<u>PROBLEM</u>	<u>PROBABLE CAUSE</u>	<u>SOLUTION</u>
1. No Heat	Unplugged	Plug in
	Circuit breaker is tripped	Reset breaker; call electrician if tripped twice
	Cord/plug defective	Replace cord/plug
	Defective power switch	Replace switch
	Defective heating unit Assembly	Call Marshall Customer Service 800-722-3474
2. No power at accessory receptacle (only on Model MM1)	Fuse blown	Replace fuse
	Accessory appliance draws more than 5 amps	Discontinue using large appliance

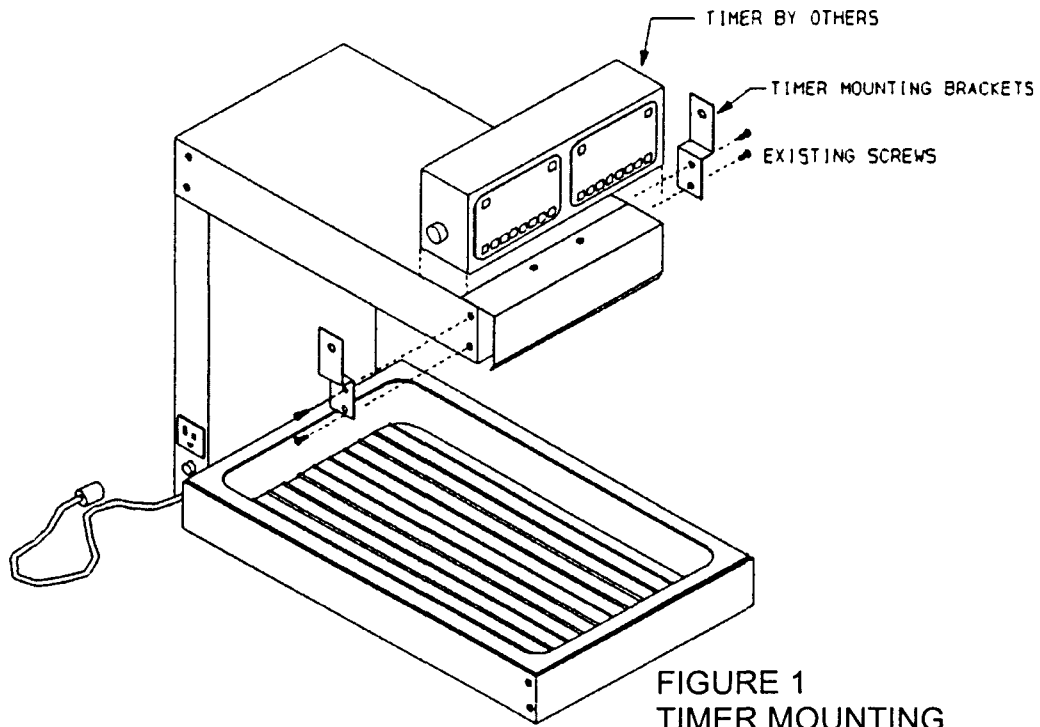


FIGURE 1  
TIMER MOUNTING  
INSTRUCTIONS

# MODELS MM1, MM1C - HEAT STATION

## REPLACEMENT PARTS LIST

ITEM	PART NO.	DESCRIPTION
1	501864	Rocker Switch (MM1 MODELS ONLY)
	500196	Infinite Control (MM1C MODELS ONLY)
	500978	Infinite Control Knob (MM1C MODELS ONLY)
2	110590	6 Ft. Cord w/Plug
3	501193	Cord Strain Relief
4	500062	Fuse 5 amp (only on 120V unit)
5	110593	Receptacle (only on 120V unit)
6	500068	Fuse Holder (only on 120V unit)
7	110579	Heat Guard
Optional	110539	Timer Brackets (see Figure 1, page 2)

## REPLACEMENT PARTS ILLUSTRATION

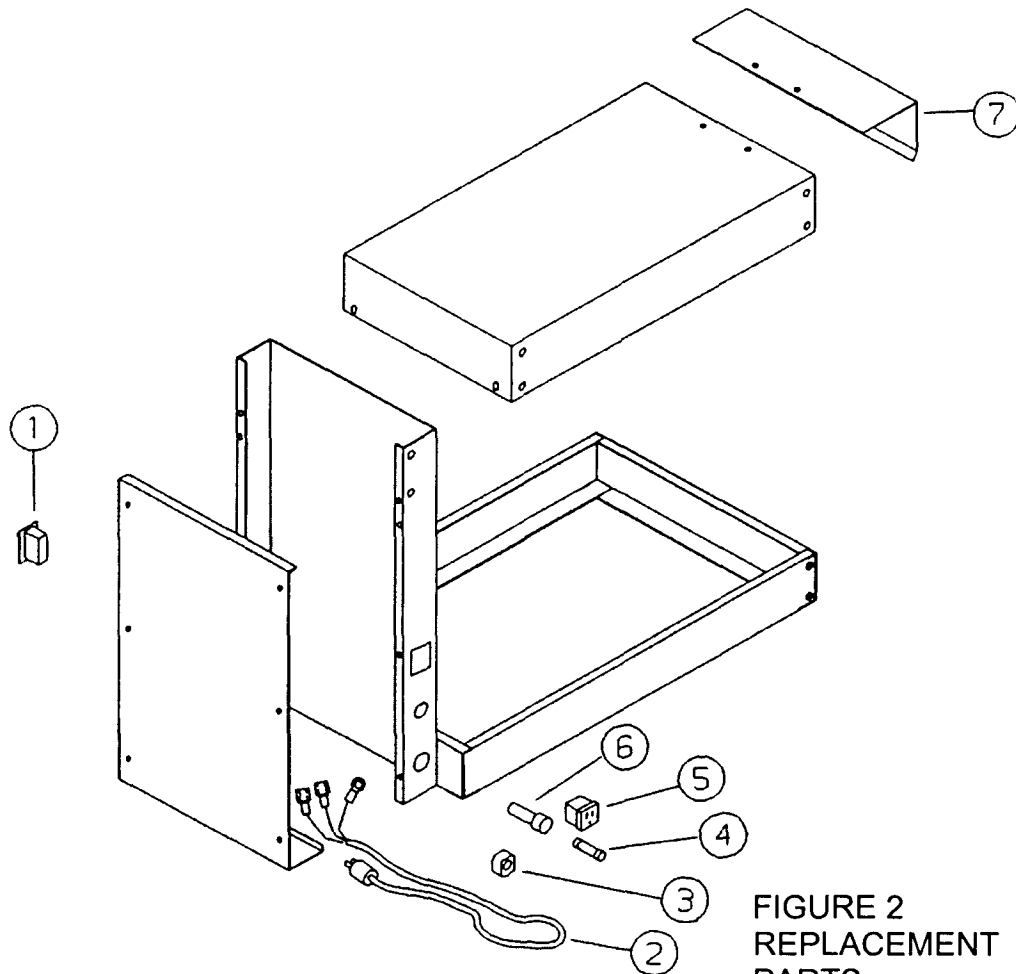


FIGURE 2  
REPLACEMENT  
PARTS  
ILLUSTRATION

**THERMOGLO™ AND HEATED HOLDING CABINET LIMITED WARRANTY**

MARSHALL AIR SYSTEMS, INC., ("Marshall") warrants to the first purchaser ("Purchaser") all new equipment of its manufacture to be free of defects in material and factory workmanship for a period of one year from date of shipment provided that (i) the equipment is installed in the Continental United States, Canada or Hawaii and operated according to the Owner's Manual while located at the original address of installation, (ii) the warranty registration card has been completed and returned to the factory within fifteen (15) days after installation. Marshall's obligation under this warranty is limited to the repair or replacement at its option of any defective part. It is understood that Marshall's obligation with respect to equipment located outside the Continental United States, Canada or Hawaii is limited to replacement parts only.

Because Marshall does not and cannot control Purchaser's installation, use, and maintenance of equipment manufactured by Marshall, this warranty **DOES NOT COVER:**

1. Any equipment calibration.
2. Switches.
3. Plugs and cords.
4. Blown fuses or bulbs.
5. Any component disassembled in the field or that has broken seals.
6. Any replacement parts used on the equipment which are not purchased from Marshall.
7. Accessory components not installed and/or manufactured by Marshall.
8. Water or grease accumulation, which will cause electrical failures.
9. Labor, except that provided at Marshall's factory.
10. Damage due to improper or lack of cleaning, abuse and/or service.

**SHIPPING DAMAGE** must be reported to the carrier and is not covered under this warranty. Marshall will not be liable for damage as a result of improper installation, misuse, abuse, alteration of original design, incorrect voltage, unauthorized service, breakage of fragile items, or any other damage caused by an act out of Marshall's control.

The effect of corrosion, fire, and normal wear on the equipment or component parts is not covered by this warranty. This warranty does not cover cooking performance, smoke capture or holding temperatures which is a function of food types, textures, temperatures, equipment line ups and other variables chosen by the Purchaser and over which Marshall has no control. This warranty does not apply to damage caused by accident or to damage caused by the negligence of Purchaser or the employees of Purchaser or to damage caused by lightning generated electrical current or any other Act of God whatsoever. This warranty does not apply to any equipment bearing a serial number which has been tampered with or altered. Marshall reserves the right to accept or reject any such claim in whole or in part. Marshall will not accept the return of any product without prior written approval from Marshall, and all such approved returns shall be made at Purchaser's sole expense.

**THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, OR PATENT OR OTHER INTELLECTUAL PROPERTY RIGHT INFRINGEMENT, AND EXCEPT FOR THE EXPRESS WARRANTY CONTAINED HEREIN, THE EQUIPMENT IS SOLD "AS IS." REMEDIES UNDER THIS WARRANTY AND UNDER ANY WARRANTY THAT MAY SURVIVE THE DISCLAIMER OF WARRANTIES ARE LIMITED EXCLUSIVELY TO THOSE REMEDIES DESCRIBED ABOVE. NO OTHER REMEDY IS AVAILABLE UNDER THIS WARRANTY OR ANY OTHER WARRANTY. NEITHER THIS WARRANTY NOR ANY OTHER WARRANTY COVERS, AND MARSHALL WILL NOT BE RESPONSIBLE FOR, ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO THE COST OF DISASSEMBLY AND SHIPMENT OF THE EQUIPMENT, PRODUCTION OR PRODUCT LOSSES, INJURY TO OTHER PROPERTY, OR LOST PROFITS RESULTING FROM THE USE OF OR INABILITY TO USE THE PRODUCTS OR FROM THE PRODUCTS BEING INCORPORATED IN OR BECOMING A COMPONENT OF ANY OTHER PRODUCT OR GOODS, OR OTHER LOSSES. WHERE, DUE TO OPERATION OF LAW, CONSEQUENTIAL AND INCIDENTAL DAMAGES CANNOT BE EXCLUDED, THEY ARE EXPRESSLY LIMITED IN AMOUNT TO THE PURCHASE PRICE OF THE EQUIPMENT.**

**FOR INTERNATIONAL INSTALLATIONS - PLEASE CONTACT YOUR LOCAL MARSHALL AIR SYSTEMS RECOGNIZED DISTRIBUTOR.**

**THERMOGLO™ AND HEATED HOLDING CABINET WARRANTY  
RETURN PROCEDURES:**

**I. RETURN GOODS AUTHORIZATION FOR PARTS**

For prompt warranty parts replacement and RGA processing, please call Marshall's Customer Service Department at 800-722-3474 or 704-525-6230 for assistance. In all cases, a Return Goods Authorization (RGA) number must be issued by Marshall Air Systems, Inc. Unauthorized returns will not be processed.

Option #1: Purchaser to return part(s) prepaid to Factory, Marshall to repair or replace at own expense if defective, and ship part(s) back to Purchaser prepaid.

Option #2: Marshall to furnish replacement part(s) freight prepaid with or without requesting return of the defective part(s).

Option #3: Purchaser may obtain replacement part(s) from recognized service agency.

**II. NON-WARRANTY RETURNS:**

All items returned for customer cancellations are subject to a 20% restocking fee. In the event of an error by Marshall Air Systems, Inc., a Returned Goods Authorization will be issued for full credit. Custom fabricated parts are not returnable.

**FOR INTERNATIONAL INSTALLATIONS -- PLEASE CONTACT YOUR LOCAL MARSHALL  
AIR SYSTEMS RECOGNIZED DISTRIBUTOR.**

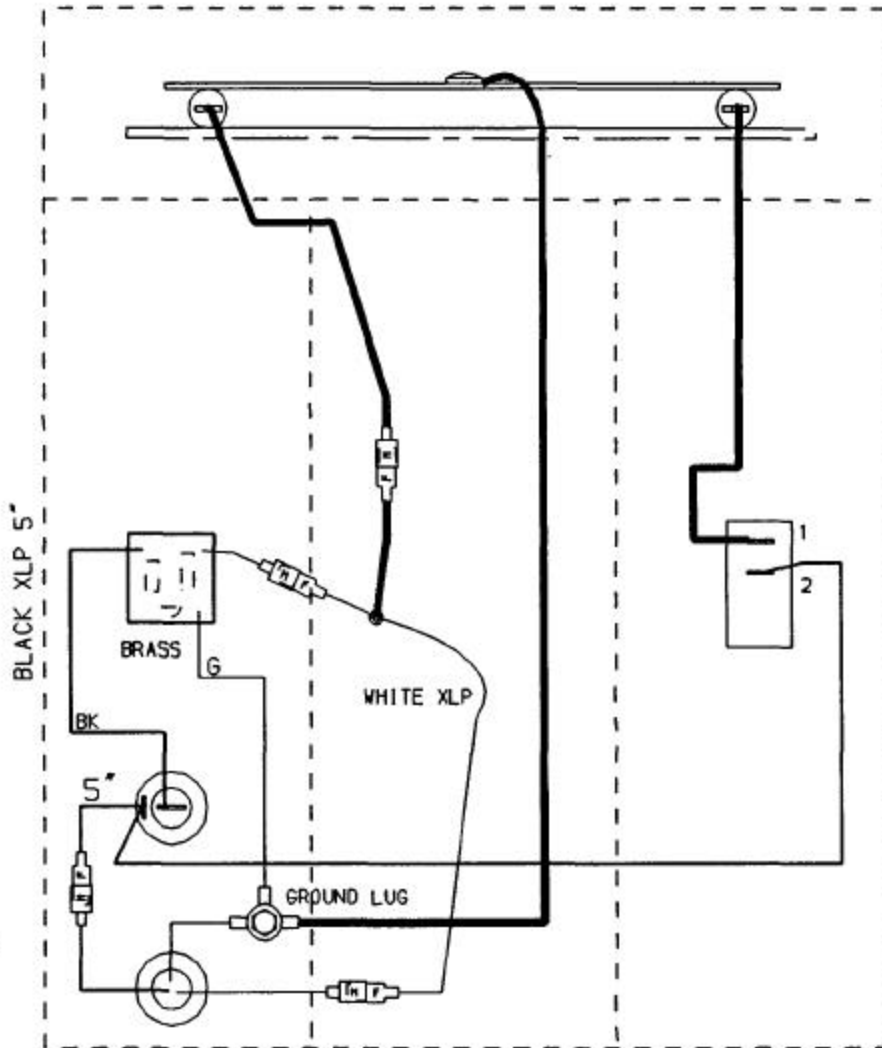
ELEMENT 840W-120V  
#501964

RECEPTACLE  
#500508

FUSE HOLDER  
#500068

CORD #501969

SPLICE CORD BACK 6" FORM END  
STRAIN RELIEF  
#501193



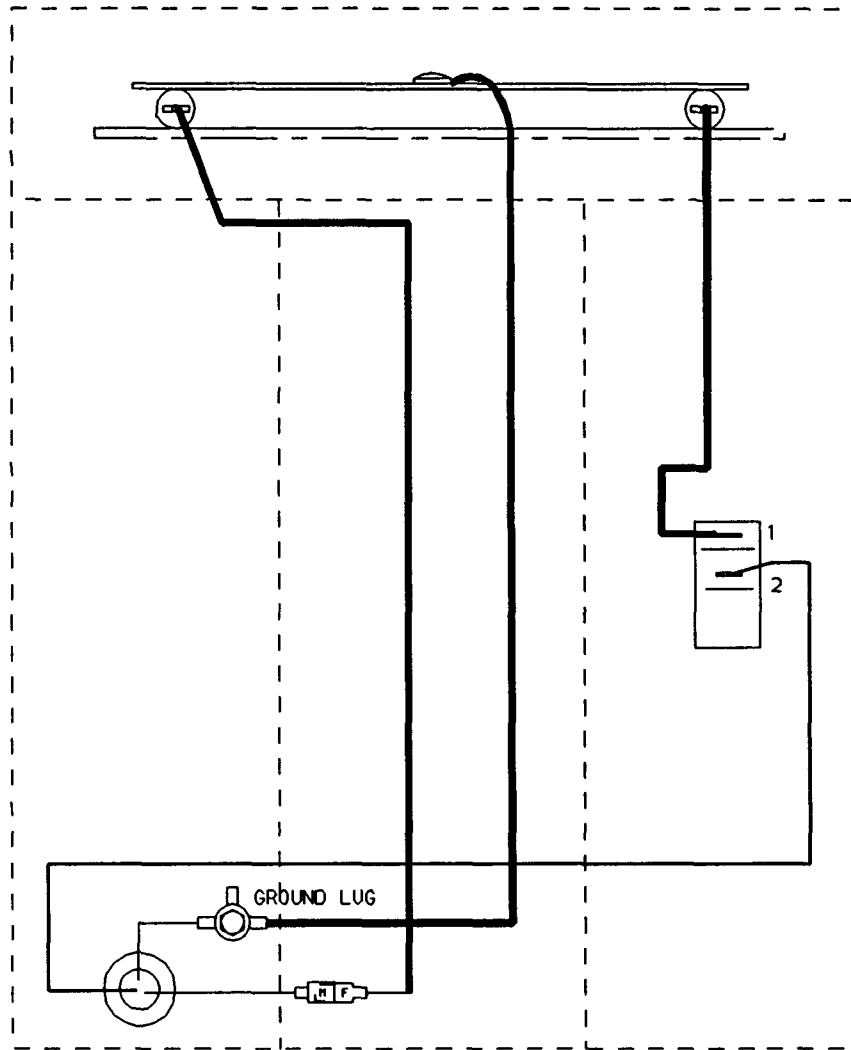
ROCKER  
SWITCH  
#501864

12 TOTAL AMPS  
W/ RECEPTACLE

REV	DATE	DESCRIPTION	J. R.	27-NOV-89	MARSHALL AIR SYSTEMS, INC.		
1	19-APR-1999	WAS 501960 19-APR-99			SCHEMATIC, MM1 120V		
			REFERENCE	A /	DWG NO.	110266	REV 1
				SCALE 1:1	DRAWING MAY BE REDUCED CODE: MM1		

118272

ELEMENT 900W-240V  
502567

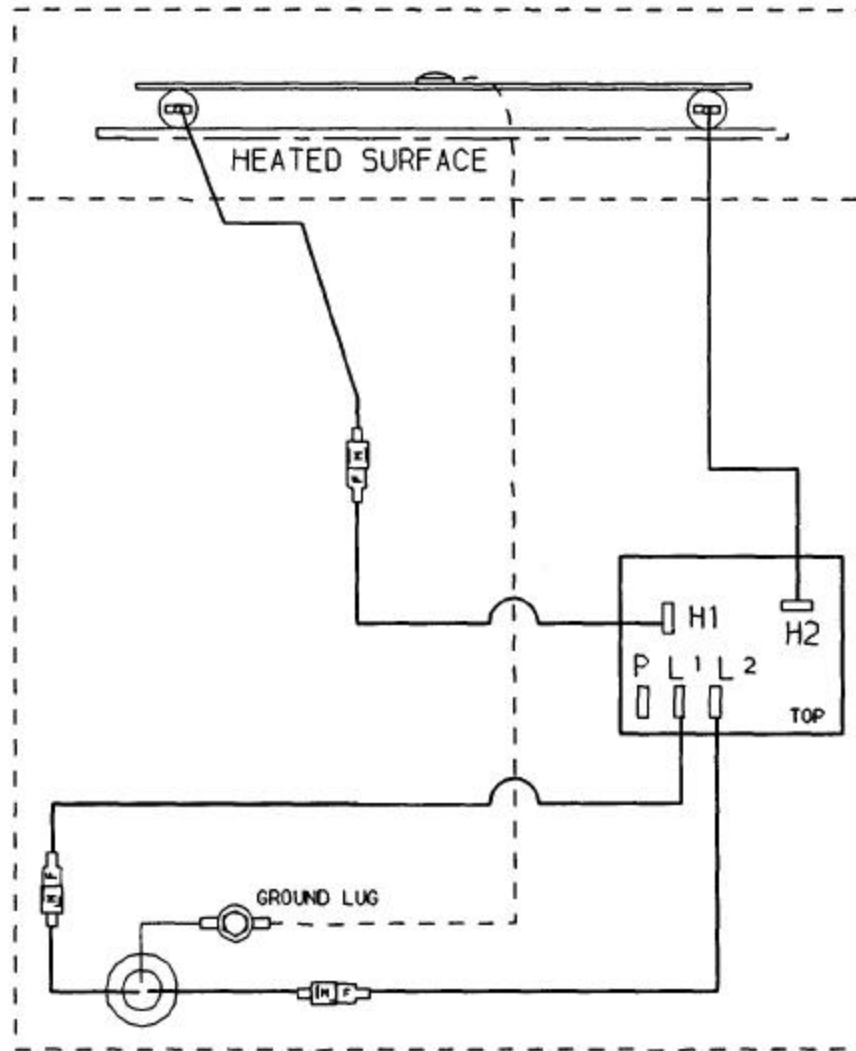


ROCKER  
SWITCH  
#501864

CORD #501969  
SPLICE CORD BACK 6" FROM END  
STRAIN RELIEF  
#501193

REV	DATE	DESCRIPTION	J. R.	27-NOV-89	MARSHALL AIR SYSTEMS, INC.		
1	19-APR-1995	SWITCH WAS LIGHTED #501960 (PW)			SCHEMATIC, MM1 240V		
			REFERENCE	A	DWG NO.	118272	REV 1
			X		SCALE IMAGE MAY BE REDUCED CODE: MM1 1:1 NTS		

ELEMENT 840W-120V  
#501964



120 VOLTS 7 AMPS

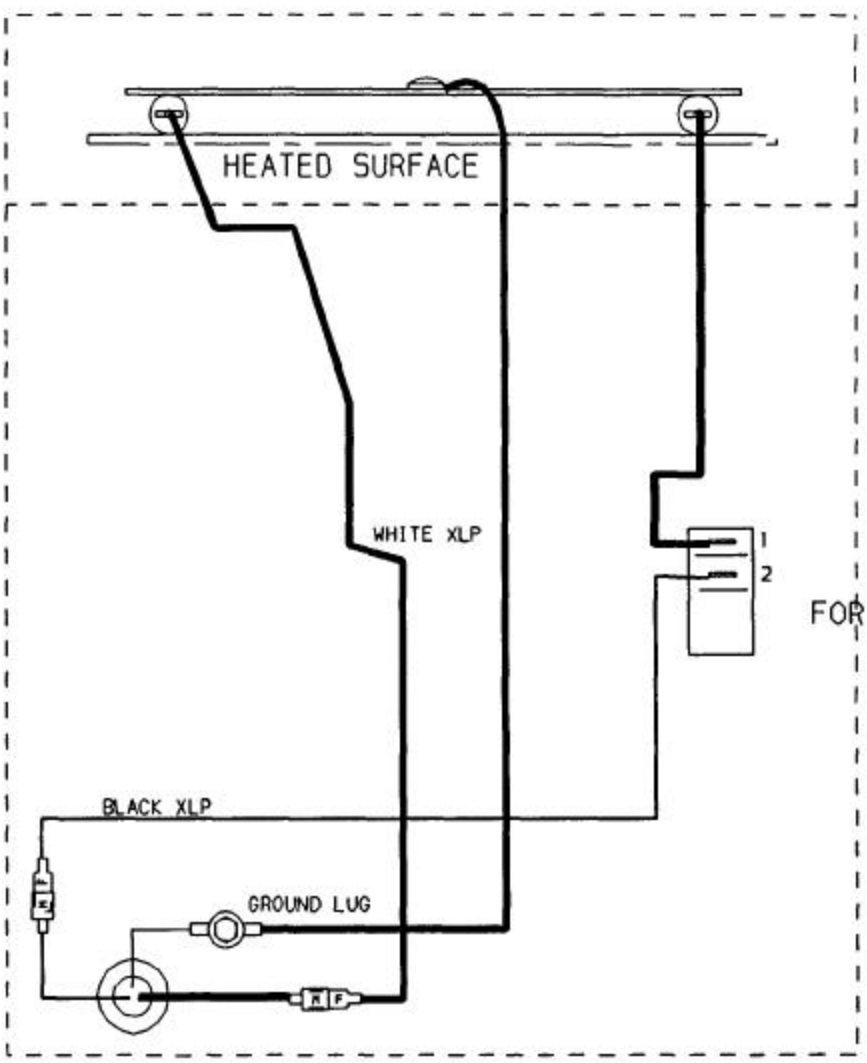
CORD #501969

SPLICE CORD BACK 6" FROM END

STRAIN RELIEF

#501193

REV	DATE	DESCRIPTION	J.R.	27-NOV-89	MARSHALL AIR SYSTEMS, INC.			
1	02-JUL-1999	UPDATED TITLE BLOCK, NO CHANGE TO MM1 DESIGN [CP]			SCHEMATIC, MM1C 120V W/FINITE SWITCH, W/O RECEPTACLE			
			REFERENCE	SIZE	PROJ.	DWG NO.	120378	REV
			"X"	1:1	NTS	SCALE	MM1C	1



ROCKER SWITCH  
#501864  
FOR MM1 CA4 SERIES

TOGGLE SWITCH  
#500789  
FOR AP8 SERIES

120 VOLTS 8.3 AMPS

CORD #501969  
SPLICE CORD BACK 6" FROM END  
STRAIN RELIEF  
#501193

REV	DATE	DESCRIPTION	J.R.	27-NOV-89	MARSHALL AIR SYSTEMS, INC.		
1	18-OCT-96	CORRECTED RATING FROM 9 TO 8.3 TO MATCH OWNERS MANUAL AND NAMEPLATE (CP)			SCHEMATIC, AP8 MM1 CA4 120V W/O RECEPTACLE AND FUSE		
2	19-APR-1999	SWITCH WAS LIGHTED #501960 (PW)			SIZE PROJ.	DWG NO.	REV
3	27-AUG-1999	ADDED SWITCH 500789 FOR AP8 SERIES (CP)	REFERENCE		A	118710	3
			"X"		SCALE IMAGE MAY BE REDUCED 1:1 NTS	CODE:	MM1 AP8 AP8C CA4