

**MARINATOR
WELLS MODEL MDMW-3**



Place this chapter in the Marinators section
of the Equipment Manual.

**MANUFACTURED
EXCLUSIVELY FOR**

**McDonald's®
BY
WELLS MANUFACTURING
COMAPNY**

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WARRANTY

This MDMW-3 Marinator manufactured by Wells is warranted to be free from defects in materials and workmanship for a period of one year from the date of original installation and is for the benefit of the original purchaser only, **BUT IS NOT AGAINST DAMAGE CAUSED BY ABUSE, FAULTY INSTALLATION, INCLUDING IMPROPER ELECTRICAL CURRENT. THIS WARRANTY IS THE COMPLETE AND ONLY WARRANTY, THERE BEING NO OTHER WARRANTIES, EXPRESSED OR IMPLIED IN LAW OR IN FACT, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, AND/OR FOR DIRECT, INDIRECT, OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH WELLS PRODUCTS.**

Wells' obligation under this warranty is limited to the repair of defects or replacement without charge by a WELLS factory authorized service agency or one of its sub-service agencies. This service will be provided on customer's premises.

Please contact the Service Department: Wells Manufacturing Company, P.O. Box 280, Verdi, Nevada 89439; to arrange service or for additional information and other details concerning the product and/or this warranty.

INTRODUCTION

This commercial, countertop Marinator Model MDMW-3 is designed to hold food at the desired serving temperature. For the best results, the MDMW-3 Marinator must be operated with water in the pan as described in the operating procedure. Wet operation distributes heat evenly to the food which is placed on the false bottom trays provided.

SAFETY

Knowledge of proper installation, operation and maintenance procedures is essential to insure safe operation of this equipment. The following guidelines should be kept in mind:

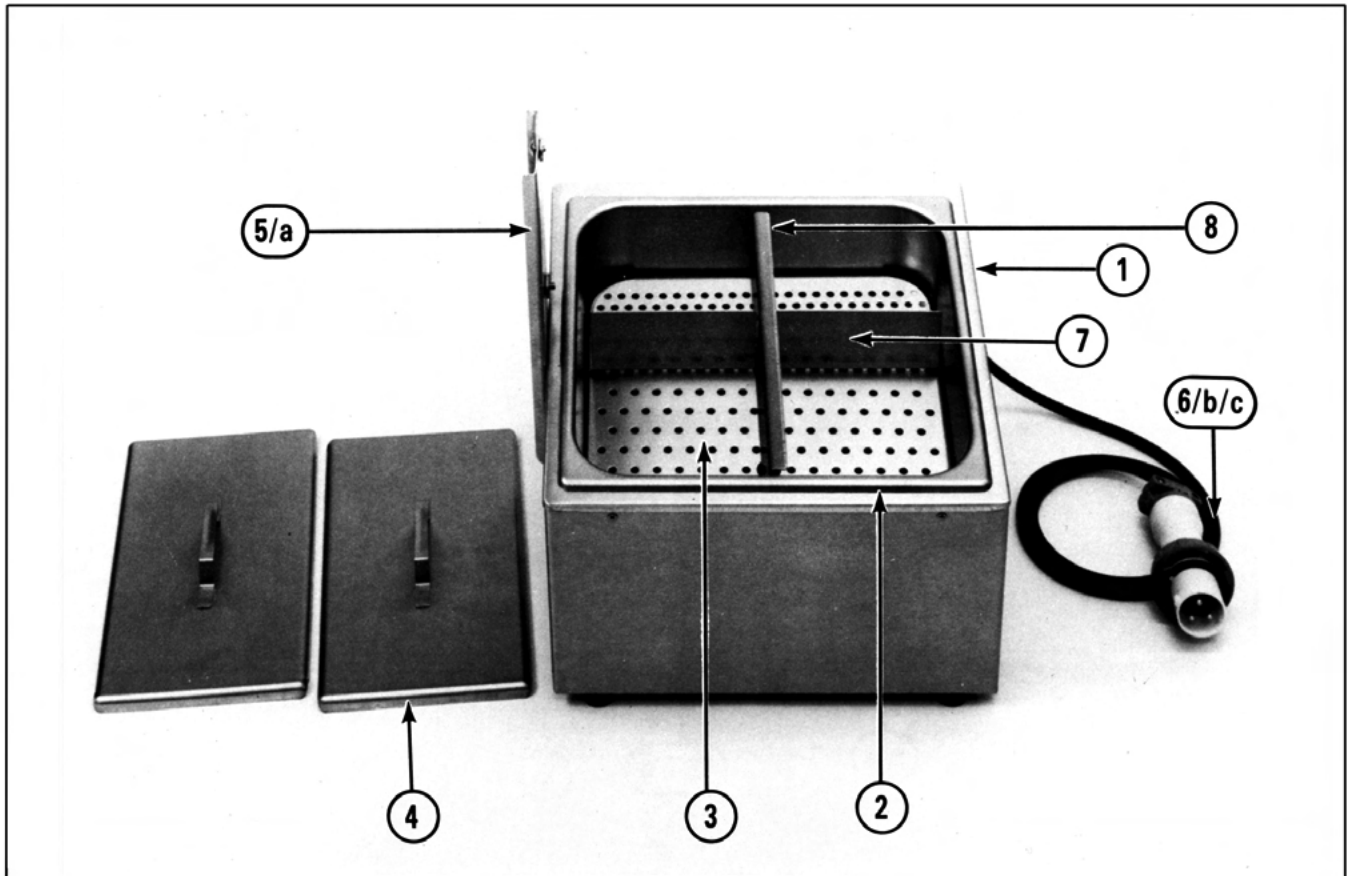
1. Use dry hands to turn power switch ON or OFF.
2. Turn OFF the power switch when the marinator is not in use.
3. If an electric shock is felt when touching the marinator, disconnect immediately. Call Wells Service Department for assistance and service.
4. Have electrical supply outlet installed by a licensed electrician. Insure that equipment is properly grounded.
5. If you find that the electrical cord is frayed, **DO NOT PLUG IT INTO A POWER RECEPTACLE.**

If it is already plugged in, disconnect the plug after shutting OFF the circuit breaker.

6. Disconnect the power cord before attempting any repairs and/or cleaning of the unit.
7. Allow unit to cool before cleaning.
8. Do not splash water onto the unit. Wet electrical components and wiring present a high shock hazard.
9. Do not remove scale build-up from pan with a sharp knife — follow cleaning procedure described on the Planned Maintenance Card 61.

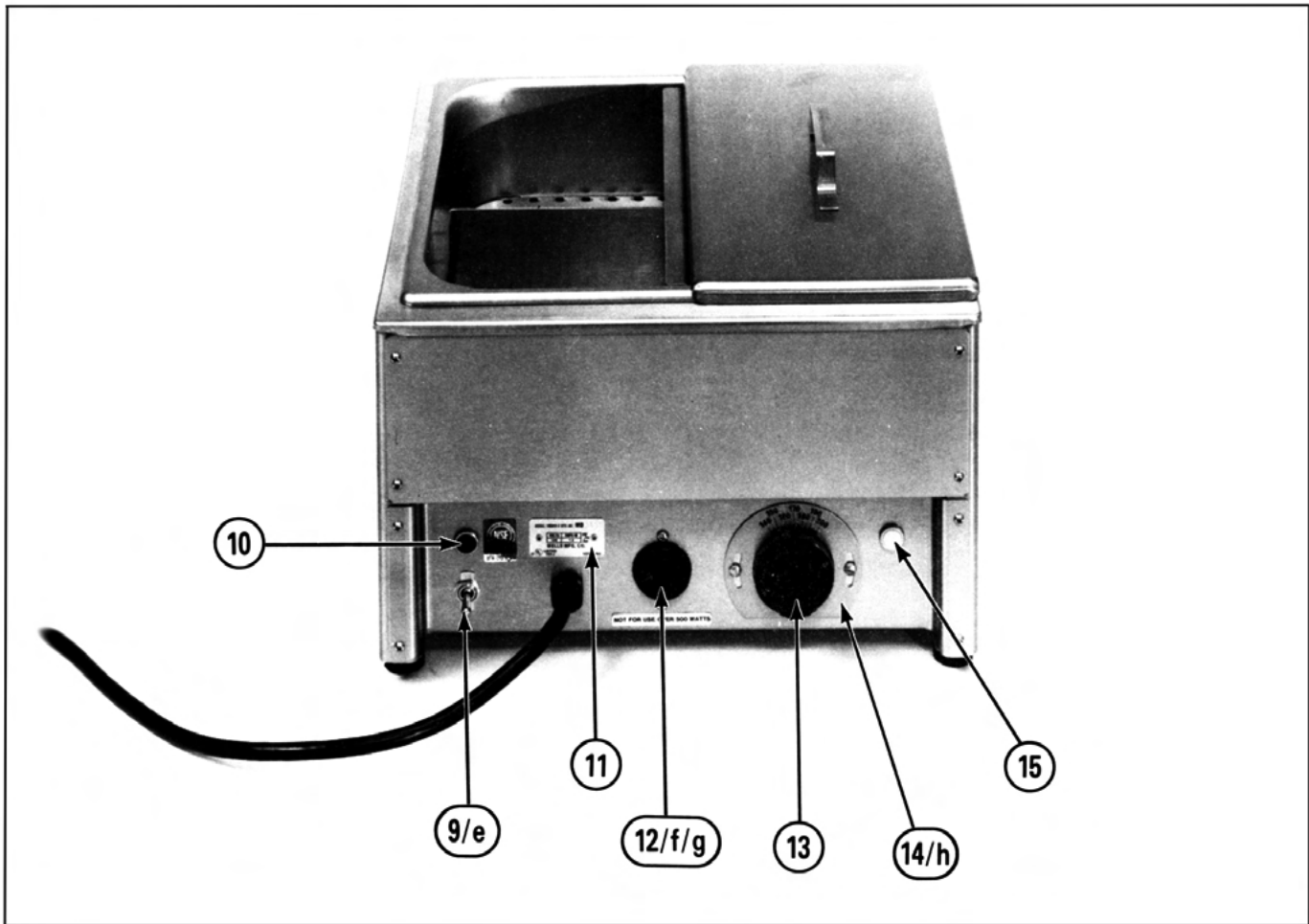
PARTS IDENTIFICATION / FUNCTION / PHOTOS

ITEM	PART NO.	DESCRIPTION	QTY.	FUNCTION	APPLICATION
1	DD-21134A	WARM MDMW-3LWC 120V 1/3	1	Marinator holds hot food in 2/3rd size pan equipped with false bottom tray, lids, 2 piece divider and timer mounting bracket.	
2	2G-41132	PAN INSERT MDMW-1 2 & 3	1	Pan equipped with false botom tray to hold food.	
3	P2-41155	BOTTOM FLASE 2/3 WARMER	1	Holds hot food and lets grease drip through holes onto water (5 fl. Oz per pan.) (148 ml)	
4	5D-21662	LID COVER	2	Lids to cover pan.	
5	P2-42777	BRKT TIMER MDMW-3	1	To mount the countdown timer.	
6	P2-42776	CORD SET ASSY 6FT 14/3 MD	1	Protective wire set to connect appliance to electrical supply system and to ground the unit.	MDMW3LWC-120
	P2-42559	CORD SET			MDMW3TL-120, MDMW3TLP-120V
	2E-41488	CORD ASM/NO PLUG 14/3 SJTO			MDMW3N-240
7	P2-41980	PRODUCT DIVIDER INSERT	1	Used to separate products.	
8	P2-41981	PRODUCT DIVIDER CENTER	1	Used to separate products.	



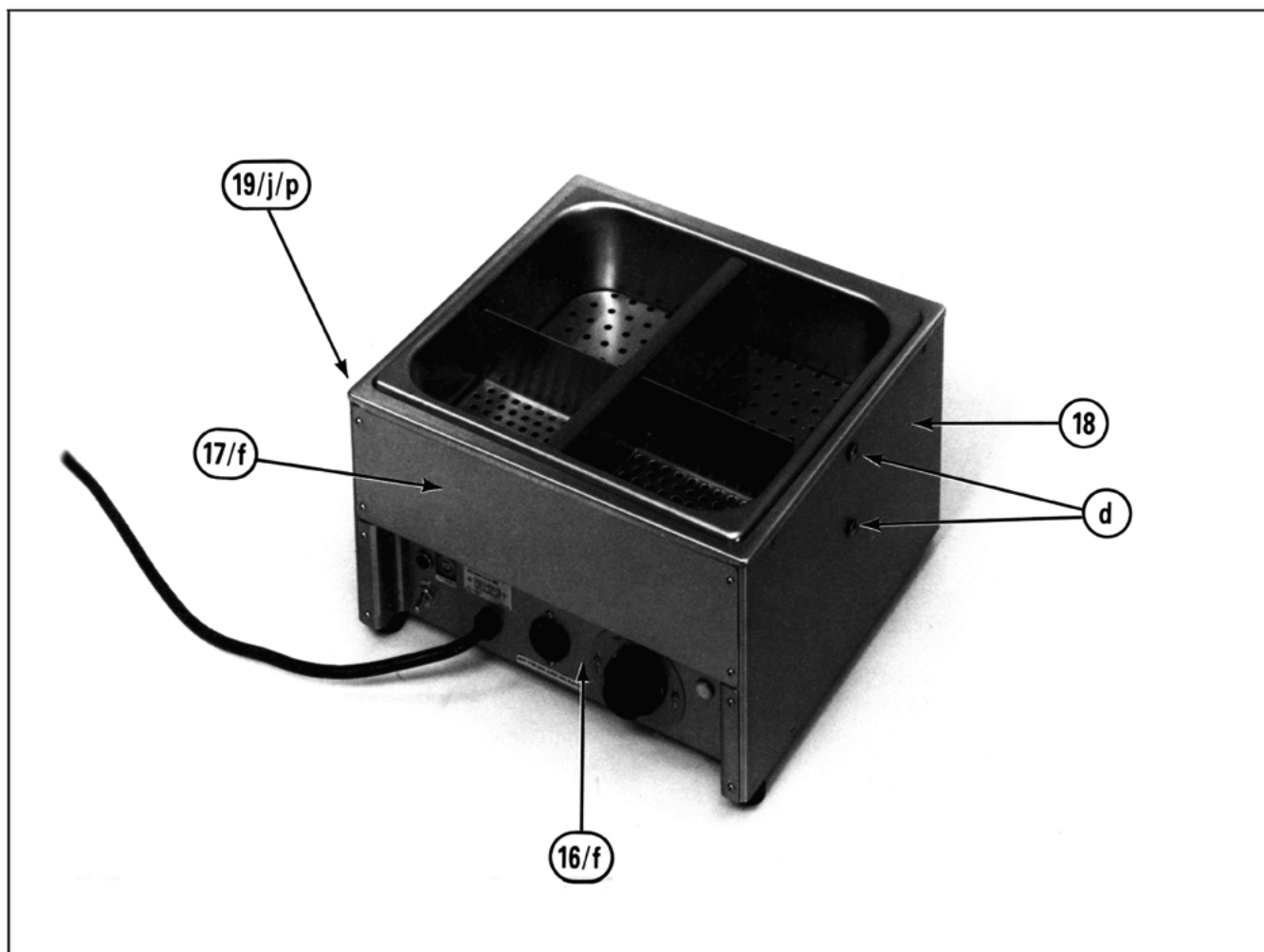
PARTS IDENTIFICATION / FUNCTION / PHOTOS

ITEM	PART NO.	DESCRIPTION	QTY.	FUNCTION	APPLICATION
9	2E-30330	SWITCH ON OFF TOGGLE 20A	1	Turns electric power ON or OFF to the marinator.	
10	2J-31157	Power Telite (Red)	1	Indicates power is ON.	
11	-	Specification Plate	1	Indicates model number, serial number and electrical rating of the marinator.	
12	2E-40590	Receptacle 5-15R	1	120V, 4Amp, 500 Watt outlet for timer.	
13	2R-Y7690	Knob Control MDMW	1	To Manually set temperature of water in the pan.	
14	2D-40587	PLATE CALIBRATION 140-200	1	Inscribed with temperature scales of 140°F to 200°F (60°C to 93°C). Permits calibration to the indicator point of the thermostat knob.	120V
	2D-40880	PLATE CALIBRATION 60-93			240V
15	2J-40563	Thermostat Telite (White)	1	Telite cycles ON/OFF with thermostat. Indicates the marinator is calling for heat.	120V
	2J-40877	LIGHT SIGNAL WHITE 250V			240V



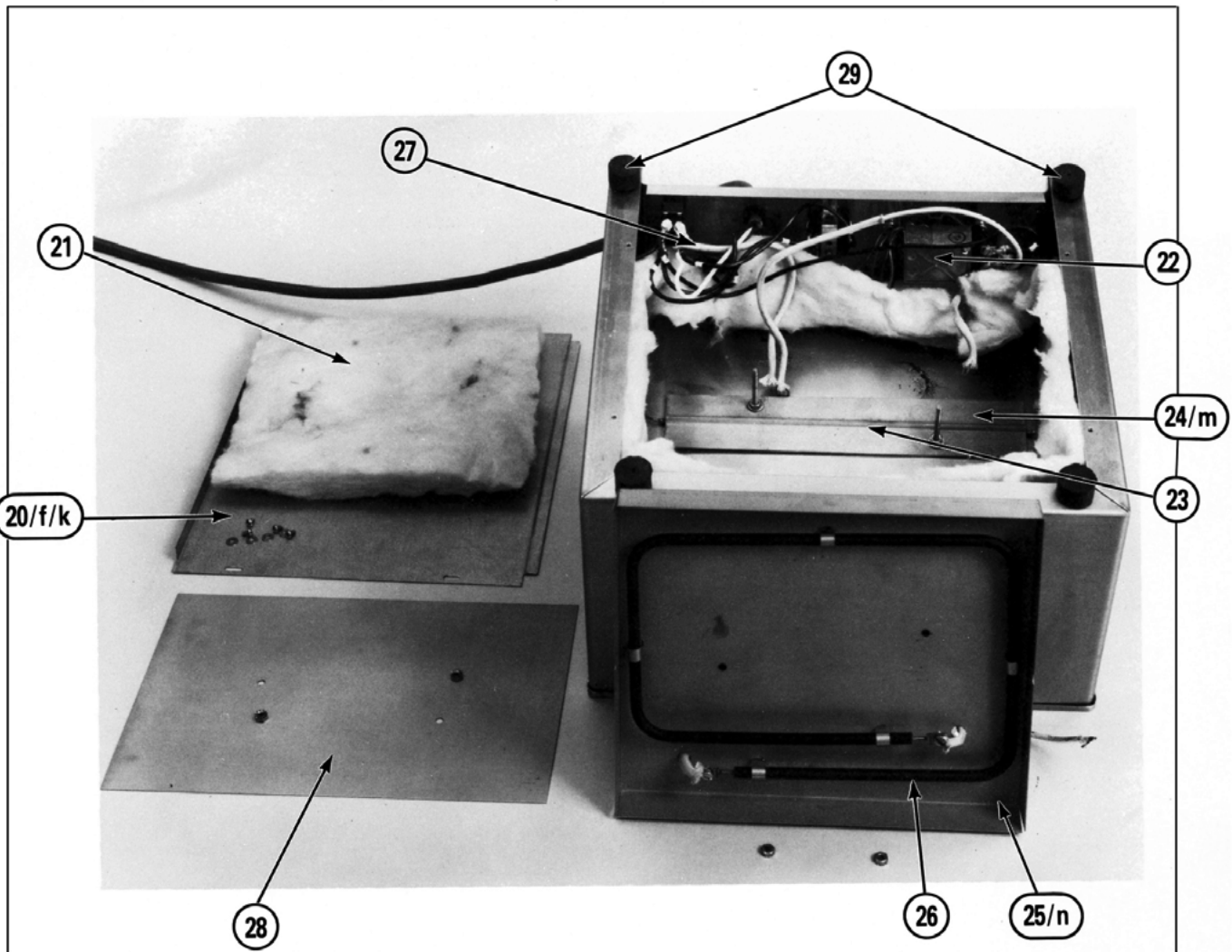
PARTS IDENTIFICATION / FUNCTION / PHOTOS

ITEM	PART NO.	DESCRIPTION	QTY.	FUNCTION
16	P2-40597	PANEL CONTROL	1	Used to mount electrical components
17	P2-42775	PANEL, REAR	1	Encloses rear of marinator.
18	P2-42774	WRAP SHELL MDMW-3	1	WRAP SHELL MDMW-3
19	DD-60594	Water Pan w/ Water Level Markings	1	Pan used to hold heated water and 2/3rd size pan.
20	WS-21659	DIVIDER WATER PAN MDMW	1	Used to support 1/3 size pans.



PARTS IDENTIFICATION / FUNCTION / PHOTOS

ITEM	PART NO.	DESCRIPTION	QTY.	FUNCTION	APPLICATION
20	P2-40639	Bottom Cover Panel	1	Panel to cover electrical components at the bottom.	
21	2H-40660	Fiberglass Insulation (sides)		Insulation to prevent heat dissipation through sides and bottom.	
	2H-40661	Fiberglass Insulation (bottom)			
22	WS-60892	Thermostat	1	To maintain water pan temperature	
23		Thermostat Bulb (Part of Item 22) (Under Thermostat Clamp Plate)	1	Temperature sensing part of the thermostat.	
24	P2-47023	Thermostat Clamp Plate	1	Clamps thermostat bulb to the water pan.	
25	WS-60599	PAN CLIP ASSY FOR ELEM MDMW	1	Clips retain heating element and elements radiates heat into water pan.	
26	2N-40566UL	Elem 120V 900W MDMW	1	Heat source for marinator.	120V
	2N-40876UL	Elem 240V 100w mdmw1,2,33			240V
27	2E-40586	Wiring Harness	1	Electrical distribution system for electrical components.	
28	P2-40638	Cover, Insulation	1	Panel to retain insulation	
29	2A-40564	Foot Rubber	4	Non-skid and raises marinator off table for proper air circulation.	



MDMW-3 HARDWARE IDENTIFICATION			
Item	Part No	Description	Qty
A	2C-40670	SCREW 1/4-20 X 3/8 SL TR MS	2
B	2K-42588	STRAIN RELIEF HUBBELL	1
C	2C-35736	NUT 8-32 HEX	1
D	2C-40612	SCREW 1/4-20 X 1/2 SL TR MS	4
E	2E-33192	PANEL ON / OFF SWITCH	1
F	2C-35135	SCREW 6-32 X 1/4 PH FIL HD	16
G	2M-40565	LABEL NOT FOR USE OVER 50	1
H	2C-40732	SCREW 6-32 X 1/4 SL TR HD	2
J	2C-35492	SCREW 8-32 X 1/2 PH FL HD	6
K	2C-35495	WASHER FLAT #6 SS	4
M	2C-35313	NUT 10-32 HEX MS SS	4
N	2C-30397	CLIP ELEM WRMR SML	5
P	2C-35137	NUT TNR 8-32 LONG	6

SET-UP AND CLOSE PROCEDURES

Set-Up:

1. Plug the power cord into the appropriate receptacle.
2. Fill the water pan with warm water up to the water level mark on the sides of the pan.
3. Turn the thermostat dial to the correct setting.
4. Install the 2/3rd size pan.
5. **Place the false bottom tray into the pan.**
6. Cover the pan with lids. Place the power switch in the ON position. The red indicator light will come ON.
7. Allow the marinator to warm up for 60 minutes before placing food product inside.

Close:

1. Place the power switch in the OFF position.
2. Unplug the marinator and the timer(s).

CAUTION: Equipment and water contents are hot. Use breakfast cart to transport the marinator to sink area.

Use necessary precautions such as gloves to handle hot marinator and water or let it cool before handling.

3. Remove the lids and 2/3rd size pan.
4. Remove the timer mounting bracket.
5. Empty the water from the water pan.
6. Using a clean cloth towel, wipe the water pan.
7. Using a hot solution of McD All Purpose Concentrate (APC) from the sink proportioner and a warm solution of McD Sanitizer, wash and sanitize all lids and pans and set aside to air dry over night.

CAUTION: Do not immerse marinator in water. Damage will occur if unit is submerged in water.

8. Store the marinator in designated area.

TROUBLESHOOTING

1. DEFINE the problem and accurately determine what the malfunction is.
2. Determine the BASIC CAUSE.
3. ELIMINATE the cause and repair the malfunction.

It is very easy to define the malfunction, but sometimes very difficult to identify the cause.

If the problem remains after following the suggestions listed, contact your service representative.

TROUBLESHOOTING GUIDE

WARNING: Inspection, testing and repair of electrical equipment should be performed only by qualified service personnel. The unit should be unplugged when servicing, except when electrical test are required.

DANGER: Use extreme care during electrical circuit test. Live circuits will be exposed.

TROUBLESHOOTING GUIDE		
PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
Warmer does not heat. Red telite does not come ON.	a. Power switch not ON	a. Turn power switch ON.
	b. Store circuit breaker OFF.	b. Reset store circuit breaker.
	c. Cord-plug not plugged into the receptacle.	c. Plug in the cord and make sure twist lock in engaged.
	d. Power switch defective.	d. Replace power switch (see page 8).
	e. Cord not connected inside.	e. Call service agency.
Pans floating in water.	a. Too much water in the water pan.	a. Carefully scoop water out with a coffee cup until water level is down to the mark.
Product is too dry.	a. No water under false bottom	a. Add 5 fl. Oz (148 ml) of water under the flase bottom tray.
	b. Temperature too high.	b. Perform calibration check according to Planned Maintenance Card 61.
Power switch is ON. But:	a. Thermostat set too low, or thermostat telite defective.	a. Rotate thermostat knob to higher setting. If thermostat telite does not come on, call service agency or replace telite. (see page 9.)
a. No thermostat telite (white)		
b. No thermostat telite and no heat.		
c. No heat, but thermostat telite is ON.	c. Heating element defective or not connected.	c. Check connection. Replace heating element. (See page 10.)
Thermostat telite on and water boils at 180°F (82°C) setting.	a. Thermostat out of calibration.	a. To recalibrate follow Planned Maintenance Card 61.
	b. Defective Thermostat.	b. Replace thermostat. (see page 10.)
Thermostat Telite on but water temperature does not reach 180°F (82°C) setting.	a. 2/3rd size pan not in the unit.	a. Install the 2/3rd size pan in the unit.
	b. Thermostat out of calibration.	b. Recalibrate per Planned Maintenance Card 61.
	c. Defective thermostat or heating element.	c. Replace thermostat or heating element. (see page 10.)
	d. 2/3rd size pan has lime build-up.	d. Delime per Planned Maintenance Card 61.
Unit is working but timer does not work.	a. Timer cord does not plugged into convenience outlet.	a. Plug the timer in.
	b. Timer cord defective.	b. Try another timer.
	c. Convenience outlet on the marinator not wired.	c. Call service agency.
	d. Defective timer.	d. Call service agency.

PARTS ORDERING/SERVICE INFORMATION

If service parts or technical information is required, please contact the Factory Service Department. To help speed up your inquiry the following information is required:

1. Model Number: MDMW-3
2. Serial Number: _____
(Fill in for your records)
3. Voltage: 120V
4. Item Part Number: _____
5. Quantity Required: _____
6. Nature of service problem and symptoms.

NON-SCHEDULED MAINTENANCE

Under normal conditions, with proper use and cleaning, very little non-scheduled maintenance will be required for this unit. However, this section provides procedures for checking and replacement of the various parts used within the marinator. Before replacement of any parts, refer to the Troubleshooting section for assistance in determining the cause of any malfunction.

WARNING — Some of the procedures contained in this section involve accessing bare electrical terminals and exposure to voltages capable of producing a fatal shock; therefore, they must be done by properly trained personnel. Proper safety rules for electrical equipment must be followed.

Before performing any maintenance on your Wells Marinator:

1. Place the power switch in the OFF position.
2. Unplug the cord.

WARNING: Failure to do so may result in electrical shock.

3. Let the marinator and the water cool.
4. Perform CLOSE procedure.
5. Place the marinator bottom side up.
6. Unscrew and remove the bottom cover. (See Figure 1)
7. Refer to wiring pictorial (page 12) for wiring assistance.

Note: Loctite #242 (Purple) should be applied to all threaded parts before reassembly, except for electrical connections.

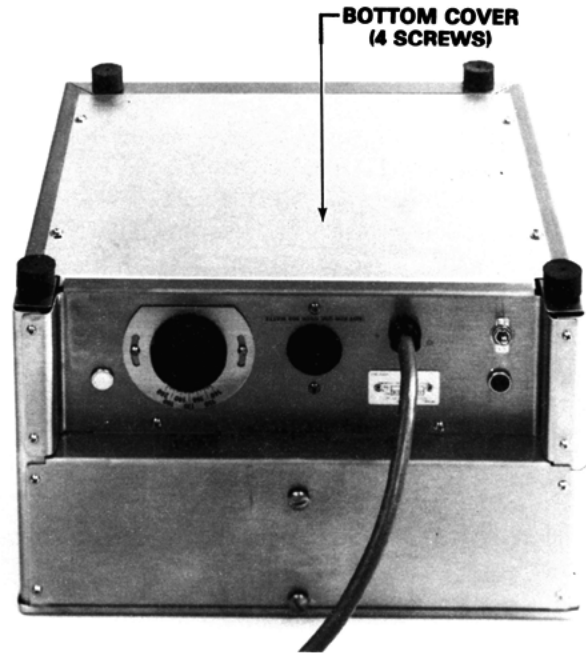


Figure 1

REPLACE THE POWER SWITCH

Tools: #2 Phillips Screwdriver, 1/4" (6 mm) Flatblade Screwdriver, 9/16" (14 mm) Open End Wrench

Parts: Power Switch (Part Number 50330) (See Figure 2)

1. Turn OFF and unplug marinator.

WARNING: Failure to do so will result in electrical shock.

2. Unscrew the retaining nut from the switch located on the control panel.
3. Pull the switch from inside.
4. Unscrew wire terminals and remove wires.
5. Reverse procedure to install new switch.

Note: Make sure the ON/OFF plate or marking is in place on the control panel and around the switch bushing.

REPLACE A TELITE (WHITE OR RED)

Tools: #2 Phillips Screwdriver, Needle Nose Pliers

Parts: Telite (White or Red) Part Number 50563 (white) or 51157 (red) (See Figure 2)

1. Turn OFF and unplug marinator.

WARNING: Failure to do so will result in electrical shock.

2. Pull the wires with spade terminals off the telite.

3. Squeeze the 2 ears on the plastic body of the telite and force it out the front of the control panel.
4. Follow reverse procedure to install a new telite.

REPLACE THE CONVENIENCE OUTLET

Tools: #2 Phillips Screwdriver, 1/4" (6 mm) Flatblade Screwdriver

Parts: Convenience Outlet (Part Number 60590) (See Figure 2)

1. Turn OFF and unplug marinator.

WARNING: Failure to do so will result in electrical shock.

2. Unscrew 2 screws holding the convenience outlet to the control panel.
3. Pull the convenience outlet out through the back of the control panel.
4. Unscrew the wire terminals on the outlet and remove wires.
5. Follow reverse procedure to install new convenience outlet.

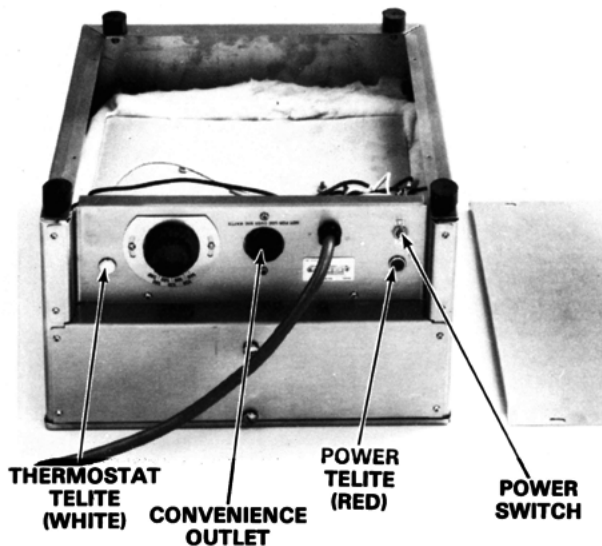


Figure 2

REPLACE THE HEATING ELEMENT PAN SUB-ASSEMBLY

Tools: #2 Phillips Screwdriver, 3/8" (10 mm) Nut Driver

Parts: Heating Element Pan Sub-Assembly Consisting of Part Number 60599 Heating Element Pan, Clip Assembly and 60566 Heating Element

1. Turn OFF and unplug marinator.

WARNING: Failure to do so will result in electrical shock.

2. Remove the 2 nuts and the insulation holding plate.
3. Remove the 9" x 11" (23 x 28 cm) piece of insulation.
4. Remove the 2 heating element retaining nuts holding the pan. (See Figure 3)
5. Remove the heating element pan from the 2 studs.
6. Unscrew the heating element wire terminals.
7. Follow reverse procedure to replace the heating element pan assembly.

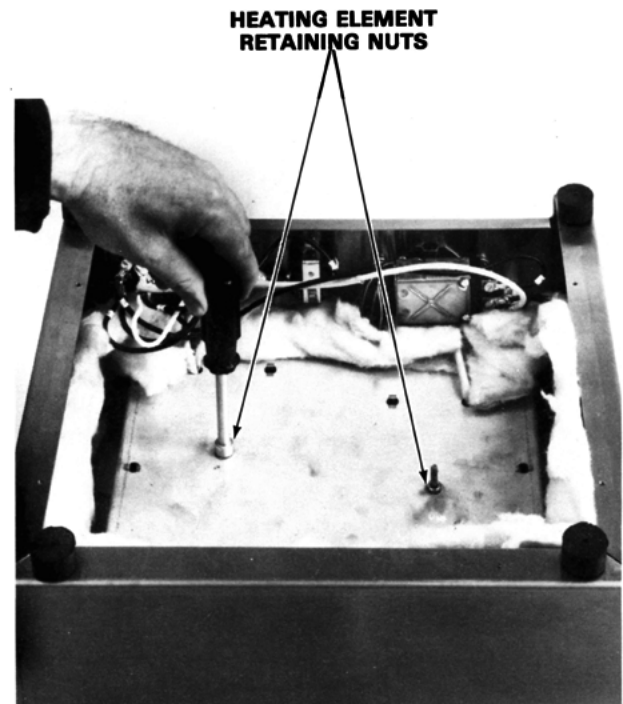


Figure 3

REPLACE THE THERMOSTAT

Tools: #2 Phillips Screwdriver, 1/4" (6 mm) Flatblade Screwdriver, 3/8" (10 mm) Nut Driver, 3/8" (10 mm) Open End Wrench

Parts: Thermostat (Part Number 58968)

1. Turn OFF and unplug marinator.

WARNING: Failure to do so will result in electrical shock.

2. Remove heating element pan assembly according to Figure 4.
3. Unscrew 2 nuts and loosen or remove the thermostat bulb clamp.
4. Slide thermostat bulb out.

5. Remove the thermostat knob and unscrew the 2 screws mounting the thermostat to the control panel.
6. Unscrew the wire terminals to the thermostat and remove wires.
7. Remove the thermostat.
8. Follow the reverse procedure for installing a new thermostat.

Note: After installing a new thermostat check thermostat calibration according to Planned Maintenance Card 61.

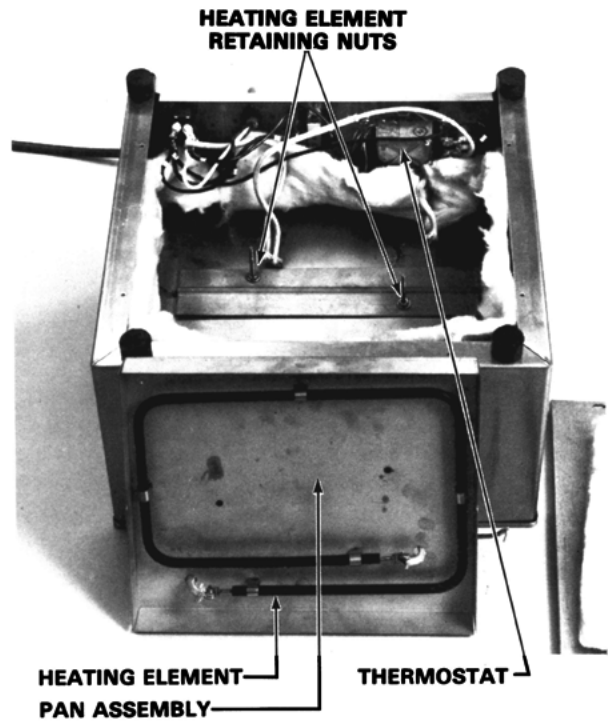
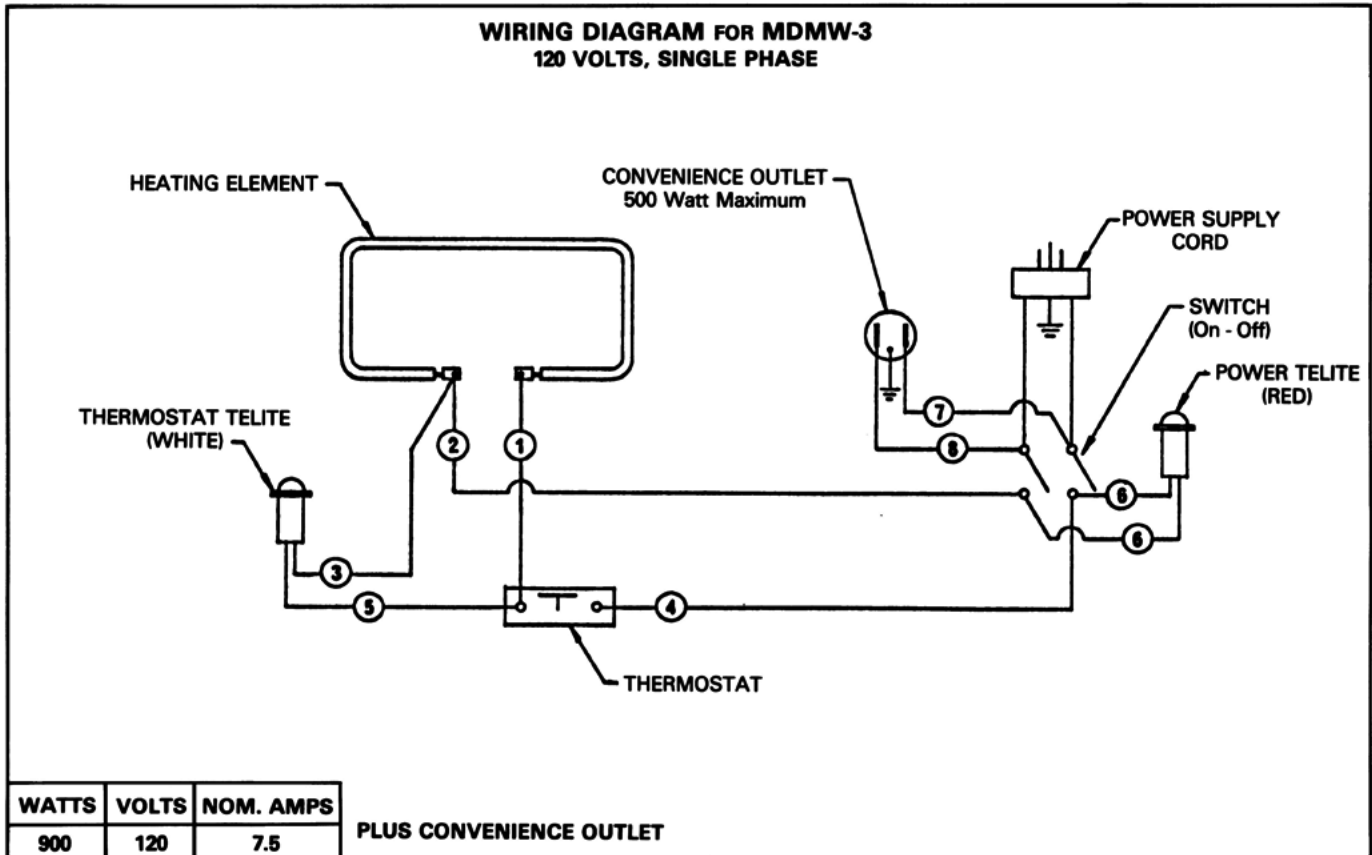
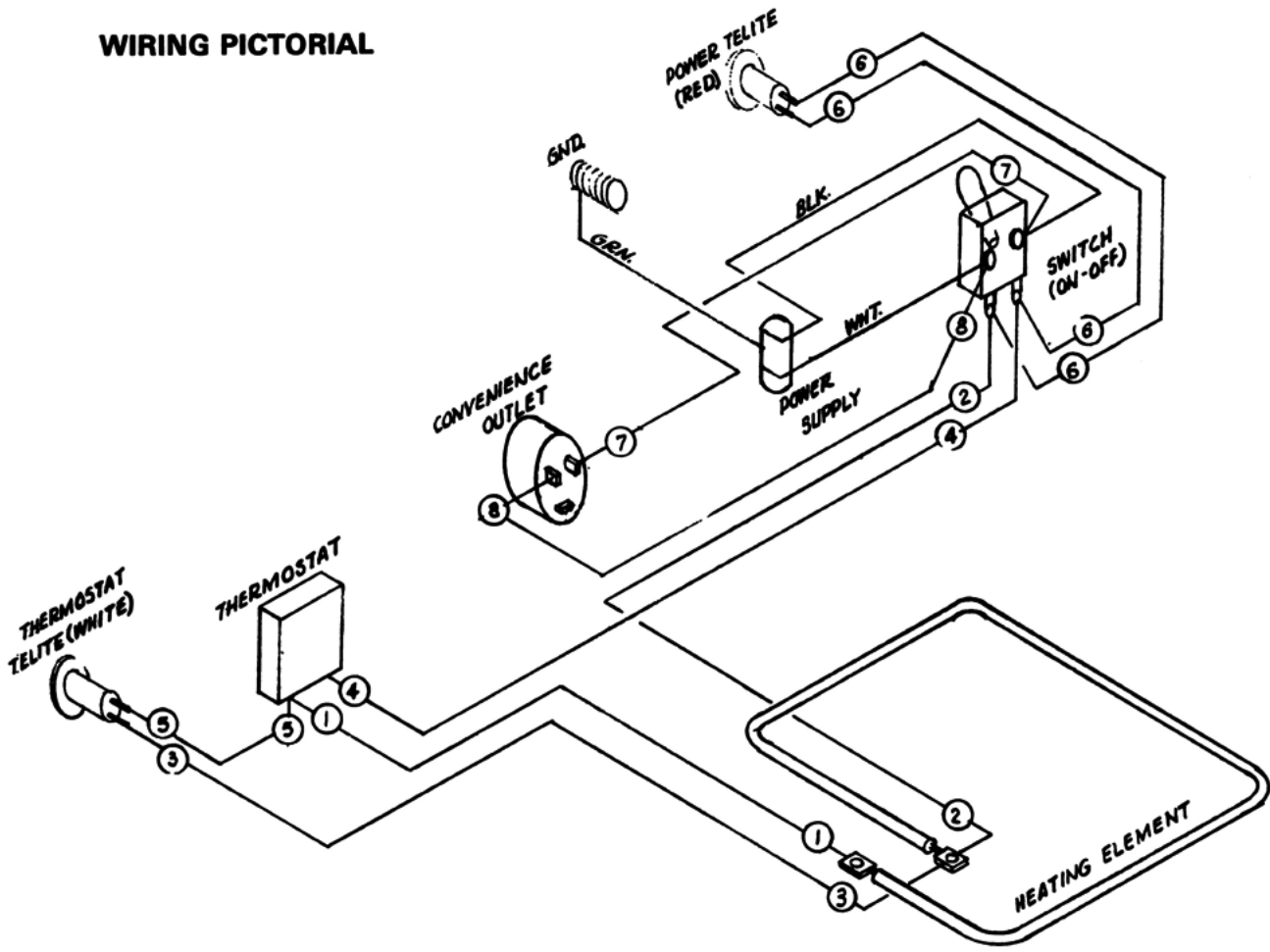


Figure 4

WIRING DIAGRAM



WIRING PICTORIAL





Marinators

CARD NO.

61

Planned Maintenance System Maintenance Requirement Card

Equipment: Wells: All Models

Precaution: Exposure to hot water occurs with these procedures. Use protective gloves or allow equipment to cool. Always use dry hands when handling electrical parts.

PICTURES AND ADDITIONAL INFORMATION: Corresponding Chapter of Equipment Manual

Monthly Check Calibration

Tools:

- Digital thermometer with needle probe, flatblade screwdriver, protective gloves.
1. Ensure power cord is plugged in.
 2. If the marinator is hot, turn the power switch OFF and remove pans to allow the marinator to cool.
 3. Fill the water pan with fresh clean water to the water level mark.
 4. Place pan(s) and lid(s) into the marinator.
 5. Turn the power switch ON.
 6. Rotate the knob until the arrow points to the 180° F (82° C) mark on the calibration plate.
 7. Allow the marinator to heat for 1 hour.
 8. When the thermostat cycles OFF (**the white telite goes out**), remove 1 pan with lid. Immediately submerge the needle probe in the water. Make sure the tip of the thermocouple is not touching any metal. Obtain the actual water temperature from the thermometer. If the temperature reads between 175° and 185° F (79° and 85° C), the calibration check is complete. If not, proceed to Step 9.
 9. Loosen the 2 screws holding the calibration plate and rotate the calibration plate left or right until the thermostat knob agrees with the thermometer reading. Do not turn the thermostat knob. Retighten the screws.
 10. Place the pan with lid back into the marinator, reset knob at 180° F (82° C), and allow the heat to cycle ON and OFF for 1 cycle. Repeat Step 8.
 11. Calibration check is completed.

Monthly Deliming of the Water Pan

Tools:

- Kay Delimer, protective gloves, towel.
1. Set the marinator as described in opening procedure.
 2. Remove the pan(s) and lids.
 3. Ensure the water in the water pan is full up to 1 inch (2.5 cm) above the water level markers.
 4. Pour 2 ounces (60 ml) of Kay delimer into the water.
 5. Turn the thermostat knob CLOCKWISE all the way up.
 6. Boil the water for 1 or 2 hours.
 7. Turn the power switch to OFF and unplug the cord.
 8. Let the water cool.
 9. Transport the marinator carefully to sink area.

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10. Scrub the inside of the water pan to remove white liming stains.
 11. Pour the water into the sink.
 12. Fill the marinator with fresh warm water up to 3" (7.6 cm) depth.
 13. Scrub the marinator gently without splashing water and pour the water out into the sink.
 14. Dry the marinator with clean dry towel.
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