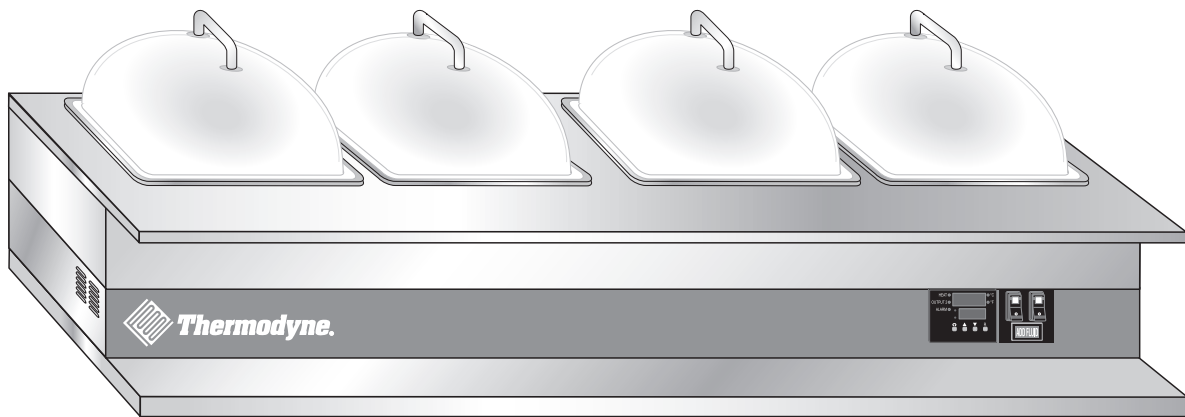




# INSTALLATION & OPERATION MANUAL



## MODELS

742-HW-CT

744-HW-CT

For additional information on Thermodyne Foodservice Products, Inc.,  
or to locate an authorized parts and service provider in your area,  
visit our website at [www.tdyne.com](http://www.tdyne.com).

Please visit our website to Register your Thermodyne unit. Registration ensures that you  
get up-to-date warranty and product information, along with fast and convenient service.

<http://www.tdyne.com/register.aspx>

Thermodyne Foodservice Products, Inc.  
4418 New Haven Avenue  
Fort Wayne, IN 46803

1-800-526-9182  
[www.tdyne.com](http://www.tdyne.com)

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## IMPORTANT FOR YOUR SAFETY

THIS MANUAL HAS BEEN PREPARED FOR PERSONNEL QUALIFIED TO INSTALL ELECTRICAL EQUIPMENT, WHO SHOULD PERFORM THE INITIAL FIELD STARTUP AND ADJUSTMENTS OF THE EQUIPMENT COVERED BY THIS MANUAL.

READ THIS MANUAL THOROUGHLY BEFORE OPERATING, INSTALLING OR PERFORMING MAINTENANCE ON THE EQUIPMENT.

**⚠ WARNING:** Failure to follow all the instructions in this manual can cause property damage, injury or death.

**⚠ WARNING:** Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death.

**⚠ WARNING:** Electrical connections should be performed only by a certified professional.

**⚠ WARNING:** Electrical and grounding connections must comply with the applicable portions of the National Electric Code and/or all local electric codes. Failure to comply with this procedure can cause property damage, injury or death.

**⚠ WARNING:** Before connecting the unit to the electrical supply, verify that the electrical and grounding connections comply with the applicable portions of the National Electric Code and/or other local electrical codes. Failure to comply with this procedure can cause property damage, injury or death.

**⚠ WARNING:** Before connecting the unit to the electrical supply, verify that the electrical connection agrees with the specifications on the data plate. Failure to comply with this procedure can cause property damage, injury or death.

**⚠ WARNING:** UL73 grounding instructions: This appliance must be connected to a grounded, metal, permanent wiring system. Or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal or lead on the appliance. Failure to comply with this procedure can cause property damage, injury or death.

**⚠ WARNING:** Appliances equipped with a flexible electric supply cord, are provided with a three-prong grounding plug. It is imperative that this plug be connected into a properly grounded three-prong receptacle. Failure to comply with this procedure can cause property damage, injury or death.

**⚠ WARNING:** If the receptacle is not the proper grounding type, contact an electrician. Do not remove the grounding prong from the plug. Failure to comply with this procedure can cause property damage, injury or death.

**⚠ WARNING:** Before performing any service that involves electrical connection or disconnection and/or exposure to electrical components, always perform the Electrical LOCKOUT/TAGOUT Procedure. Disconnect all circuits. Failure to comply with this procedure can cause property damage, injury or death.

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**⚠ WARNING:** Before removing any sheet metal panels or servicing this equipment, always perform the Electrical LOCKOUT/TAGOUT Procedure. Be sure all circuits are disconnected. Failure to comply with this procedure can cause property damage, injury or death.

**⚠ WARNING:** Do not operate this equipment without properly placing and securing all covers and access panels. Failure to comply with this procedure can cause property damage, injury or death.

**⚠ WARNING:** Do not use or store gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance. Failure to comply can cause property damage, injury or death.

**⚠ WARNING:** In the event of a power failure, do not attempt to operate this appliance. Failure to comply can cause property damage, injury or death.

**CAUTION:** These models have glass doors. Remove carton carefully.

**FOR YOUR SAFETY**

**DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE. FAILURE TO COMPLY CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH.**

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# TABLE OF CONTENTS

INTRODUCTION .....	5
GENERAL .....	5
SPECIFICATIONS .....	5
UNPACKING .....	6
Thermodyne Damaged Goods Policy .....	6
INSTALLATION CODES AND STANDARDS .....	6
INSTALLATION .....	7
LOCATION .....	7
ELECTRICAL CONNECTION .....	7
ELECTRICAL SPECIFICATIONS .....	7
OPERATION .....	8
STARTUP .....	8
Temperature Controller Set Up Procedures .....	8
Keypad Operation .....	8
Set-Up .....	9
To Toggle Between °F and °C Readout: .....	9
Preheating .....	9
CLEANING AND MAINTENANCE .....	10
ELECTRICAL LOCKOUT/TAGOUT PROCEDURE .....	10
WHEN TO CLEAN .....	10
STAINLESS STEEL CARE .....	10
Cleaning .....	10
Preserving & Restoring .....	10
Heat Tint .....	11
DRAINING WATER FROM HOT WELLS .....	11
TROUBLESHOOTING .....	12
SCHEMATIC WIRING DIAGRAM .....	13
WARRANTY .....	14

# INTRODUCTION

## GENERAL

Thermodyne cabinets are produced with quality workmanship and materials. Proper installation, operation and maintenance will result in many years of satisfactory performance. It is suggested that you thoroughly read this manual in its entirety

and carefully follow all of the instructions provided. The cabinets described in this manual are programmable for the desired holding temperature. The factory setting is 185° F unless otherwise specified.

## SPECIFICATIONS

DIMENSIONS AND MAXIMUM TEMPERATURE									WEIGHT		
	Ext. Width inches	Ext. Depth inches	Ext. Height inches	Int. Width inches	Int. Depth inches	Int. Height inches	Max. Oper. Temp °F	Max. Oper. Temp Dry Well °F	Model	Net Weight lbs	Shipping Weight lbs
742 HW-CT	31.750	33.00	13.125	—	—	—	—	211	742 HW-CT	110	200
744 HW-CT	60.125	33.00	13.125	—	—	—	—	211	744 HW-CT	215	310

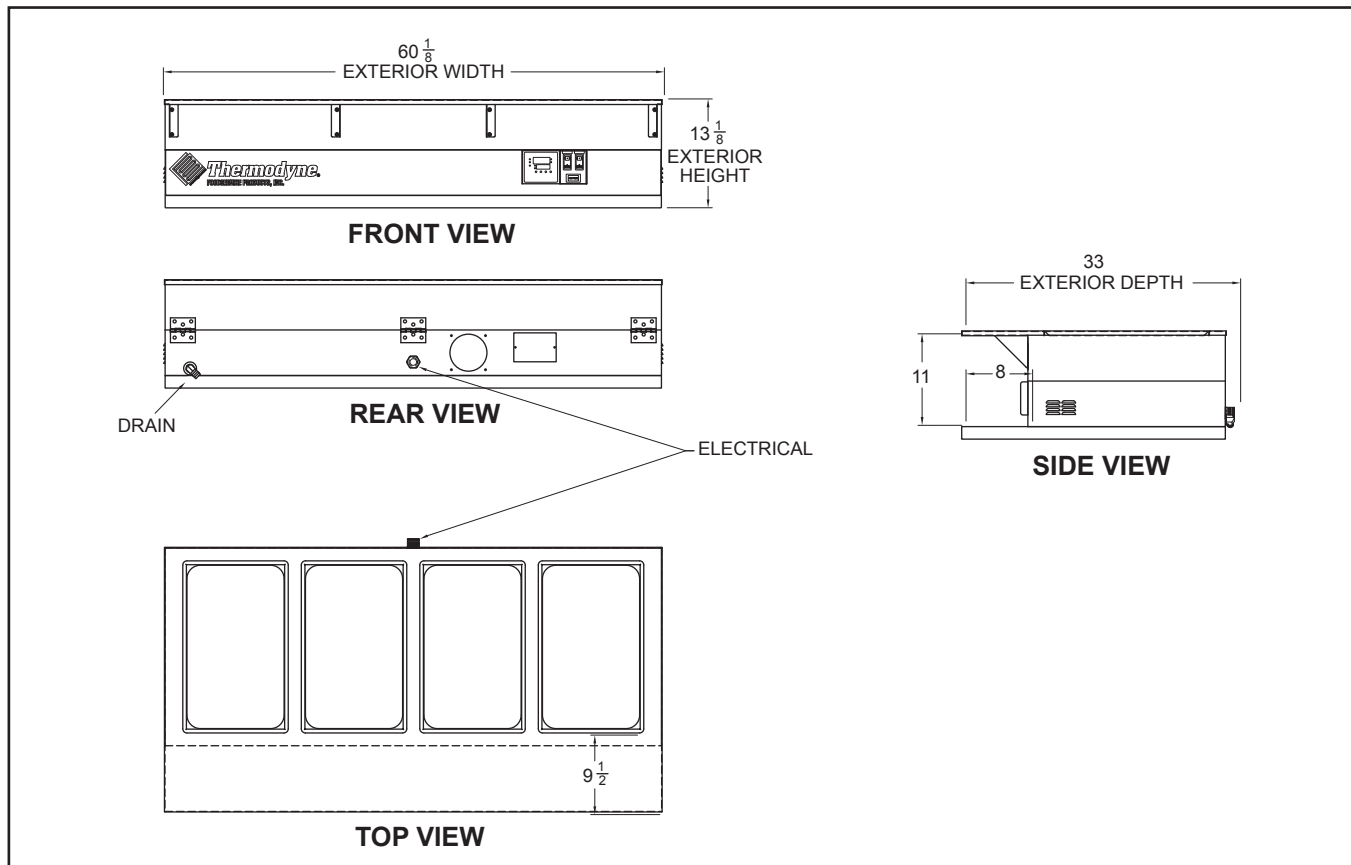


Figure 1: Outline Dimensional Drawing, 744HW-CT Tabletop

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## UNPACKING

All Thermodyne cabinets are factory tested for performance and certified free from defects.

### Thermodyne Damaged Goods Policy

There are two types of damaged merchandise:  
A. Visible Damage and B. Concealed Damage.

**A. Visible Damage:** The product being received is visibly damaged.

1. The receiver should refuse the damaged merchandise.
2. Receiver should sign the bill of lading indicating which merchandise is being refused due to damage.
3. Contact Thermodyne Customer Service Representatives immediately.

**B. Concealed Damage:** Damaged merchandise cannot be externally detected.

Your receiving operation should inspect for this type of damage. Please inspect your delivery carefully.

If the product is damaged:

1. Save all packing material.
2. Contact Thermodyne Customer Service Representatives immediately.
3. Receiver must call the carrier to schedule an inspection of the damaged merchandise within 5 business days.

## INSTALLATION CODES AND STANDARDS

These installation instructions are for the use of **qualified installation and service personnel only**.

1. Installation or service by other than qualified personnel may result in damage to the Thermodyne cabinet and/or injury to the operator.
2. National Electrical Code (ANSI/NFPA No. 70, latest edition) available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

In Canada, the cabinet must be installed in accordance with:

1. Local codes.
2. Canadian Electrical Code (CSA C22.2 No. 3, latest edition) available from the Canadian Standards Association, 5060 Spectrum Way, Mississauga, Ontario, Canada L4W 5N6.

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# INSTALLATION

Before installing, verify the required electrical supply agrees with the specifications on the data plate located on the back or side of the unit. If the supply and equipment requirements do not agree, do not proceed with installation. Contact your dealer or Thermodyne Foodservice Products, Inc. immediately.

**CAUTION: Remove carton carefully.**

1. Allow ample overhead clearance for removal of carton.
2. Cut banding (2 pieces) and remove nails (not for all units).
3. To remove cabinet from carton, slide carton up and off the cabinet.
4. Check packing list against items received:
  - A. Installation & Operation Manual
5. Use proper lifting equipment to raise the cabinet.
6. Set cabinet on a level surface.

## LOCATION

Allow adequate space for electrical connections. The electrical cord and plug are located at the right rear of the unit. The minimum clearance for proper air circulation on back should be 4", and 2" on at least one side. Allow adequate access space for operating and servicing the unit.

**NOTICE: Louvers on the sides of the oven are used to circulate cool air throughout the electrical components. The unit must not be placed where extensive airborne grease is present, such as near deep fryers or griddles.**

## ELECTRICAL CONNECTION

**⚠ WARNING:** Electrical and grounding connections must comply with applicable portions of the National Electrical Code and/or other local electrical codes.

**⚠ WARNING:** Disconnect the electrical power to the Thermodyne unit and follow LOCKOUT/TAGOUT procedures.

Refer to the wiring diagrams in this manual for wiring information.

## ELECTRICAL SPECIFICATIONS

MODEL	VOLTS	AMPS	WATTS	HERTZ	PHASE	PLUG
742 HW-CT	208/240	17/18	3600/4200	60	1	NEMA 14-30
744 HW-CT	208/240	25/26	5400/6300	60	1	NEMA 14-30

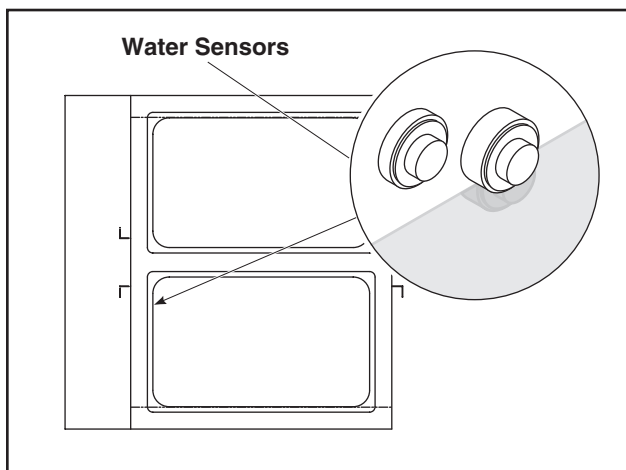
# OPERATION

## STARTUP

**⚠ WARNING:** The oven cabinet and hot wells are hot. Use care when operating, cleaning or servicing this equipment.

Once the cabinet is installed and electrical connections have been made, thoroughly test the Thermodyne cabinet before operation.

1. Check that all packing materials and other items have been removed from the cabinet.
2. Press the Power ON/OFF Switches to the ON position. The operating temperature will be reached in approximately 30 minutes.
3. Check ADD FLUID Light.
  - **HOT WELL CONTROL:** The light will come on if there is no water in the well or the water drops below the water level sensors. Add water to about  $\frac{3}{4}$ " above the water sensors.

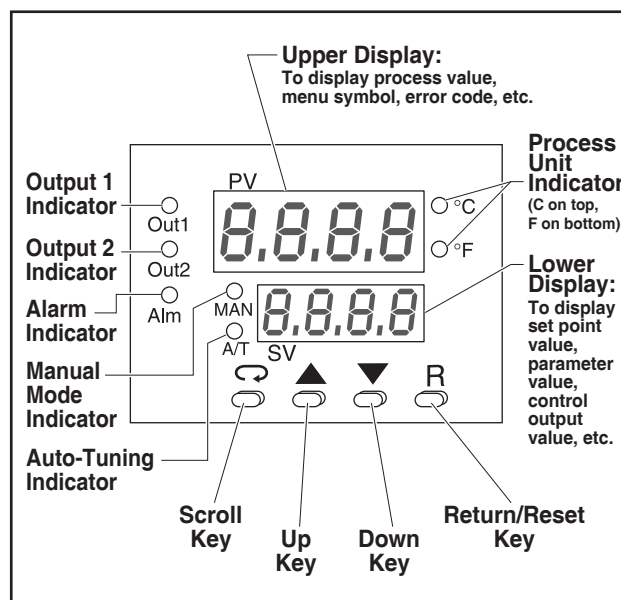


**Figure 2: Location of Water Sensors**

**NOTE:** The controller has two OUTPUT lights (red lamp). These lights blink as the controller maintains the desired temperature.

Size, weight, pan loading, and product quality will affect cooking times and should be adjusted to fit the requirements of your operation.

## TEMPERATURE CONTROLLER SET UP PROCEDURES



**Figure 3: Controller**

### Keypad Operation

**Scroll Key:**

This key is used to select a parameter to be viewed or adjusted.

**Up Key:**

This key is used to increase the value of the selected parameter.

**Down Key:**

This key is used to decrease the value of the parameter.

**Return / Reset Key: R**

This key is used to:

1. Return the display to indicate the Process Value (PV) and Set Value (SV).
2. Reset a Latching Alarm once the alarm condition has cleared.
3. Discontinue Manual Control, Auto-Tuning and Calibration Modes.
4. Clear error messages indicating communication and auto-tuning errors.
5. Re-set the dwell timer function.
6. Enter the manual control menu if the sensor has failed.



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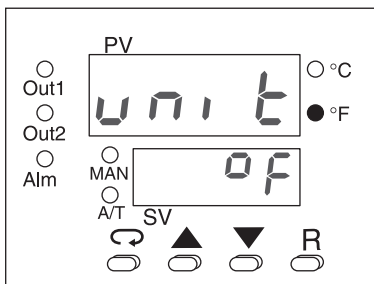
## Set-Up

1. Press the “Up” and “Down” key as needed to adjust the displayed set-point temperature.
2. The “OUTPUT1” LED will be lit up solid during warm up. (normal operation)
3. When the “OUTPUT1” LED is blinking, the unit has reached the desired temperature.

NOTE: This controller is not an indicator of fluid level in the Heater or Reservoir Tanks.

## To Toggle Between °F and °C Readout:

1. Press the “Scroll” key 2 -3 times until the upper display reads: “unit”.
2. Press the “Up” or “Down” key to choose.



## Preheating

Preheat the Thermodyne cabinet when first used for the day or whenever the unit is cold. Preheating takes approximately 30 minutes at which time the temperature set point and the actual temperature will display the same temperature. If the unit has wells, keep the pans in the wells during the preheat cycle.

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# CLEANING AND MAINTENANCE

## ELECTRICAL LOCKOUT/TAGOUT PROCEDURE

**⚠ WARNING:** Before performing any cleaning or maintenance that involves electrical connection or disconnection and/or exposure to electrical components, always follow the Electrical LOCKOUT/TAGOUT Procedure. Disconnect all circuits. Failure to comply can cause property damage, injury or death.

The Electrical LOCKOUT/TAGOUT Procedure is used to protect personnel working on an electrical appliance. Before performing any maintenance or service that requires exposure to electrical components, follow these steps:

1. In electrical box, place appliance circuit breaker into OFF position.
2. Place a lock or other device on electrical box cover to prevent someone from placing circuit breaker ON.
3. Place a tag on electrical box cover to indicate that appliance has been disconnected for service and power should not be restored until tag is removed by maintenance personnel.
4. Disconnect appliance power cord from electrical outlet.
5. Place a tag on the cord to indicate that unit has been disconnected for service and power should not be restored until tag is removed by maintenance personnel.

## WHEN TO CLEAN

It is recommended that all stainless steel equipment be cleaned on a regular basis. Any piece of stainless steel equipment that is soiled should be cleaned daily to ensure the long life of the equipment. Routine cleaning will also lessen stainless steel abrasion.

## STAINLESS STEEL CARE

### Cleaning

Stainless steel contains 70-80% iron, which will rust if not properly maintained. It also contains 12-30% chromium, which forms an invisible passive, protective film that shields against corrosion. If the film remains intact, the stainless steel will remain intact. However, if the film is damaged, the stainless steel can break down and rust. To prevent stainless steel breakdown, follow these steps:

**CAUTION: Never use any metal tools. Scrapers, files, wire brushes or scouring pads (except for stainless steel scouring pads) will mar the surface.**

**CAUTION: Never use steel wool, which will leave behind particles that rust.**

**CAUTION: Never use acid-based or chloride-containing cleaning solutions, which will break down the protective film.**

**CAUTION: Never rub in a circular motion.**

**CAUTION: Never leave any food products or salt on the surface. Many foods are acidic. Salt contains chloride.**

For routine cleaning, use warm water, mild soap or detergent and a sponge or soft cloth.

For heavy-duty cleaning, use warm water, a degreaser and a plastic, stainless steel or Scotch-Brite pad.

Always rinse thoroughly. Always rub gently in the direction of the steel grain.

### Preserving & Restoring

Special stainless steel polishing cleaners can preserve and restore the protective film.

Preserve the life of stainless steel with a regular application of a high quality stainless steel polishing cleaner as a final step to daily cleaning.

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If signs of breakdown appear, restore the stainless steel surface. First, thoroughly clean, rinse and dry the surface. Then, on a daily basis, apply a high-quality stainless steel polish according to manufacturer's instructions.

### Heat Tint

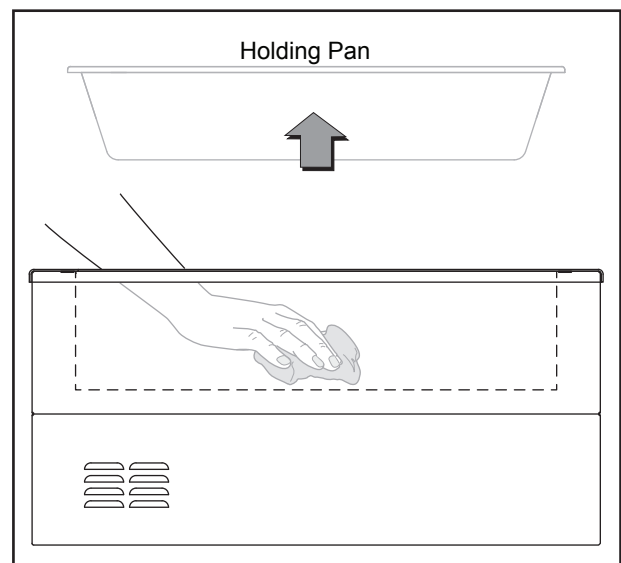
Darkened areas, called heat tint, may appear on stainless steel exposed to excessive heat, which causes the protective film to thicken. It is unsightly but is not a sign of permanent damage.

To remove heat tint, follow the routine cleaning procedure. Stubborn heat tint will require heavy-duty cleaning.

To reduce heat tint, limit the exposure of equipment to excessive heat.

### DRAINING WATER FROM HOT WELLS

1. Locate drain on rear of unit.
2. Attach drain hose to drain and run down to a bucket or floor drain.
3. Locate "Drain" switch on front of unit, next to the power switch.
4. Press "Drain" switch to "On" position, the light on the switch should be illuminated.
5. Wait for all water to evacuate the hot well area.
6. Press Drain switch to "Off" position.
7. Wipe any excess debris or water from well.



**Figure 4: Cleaning the Dry Well**

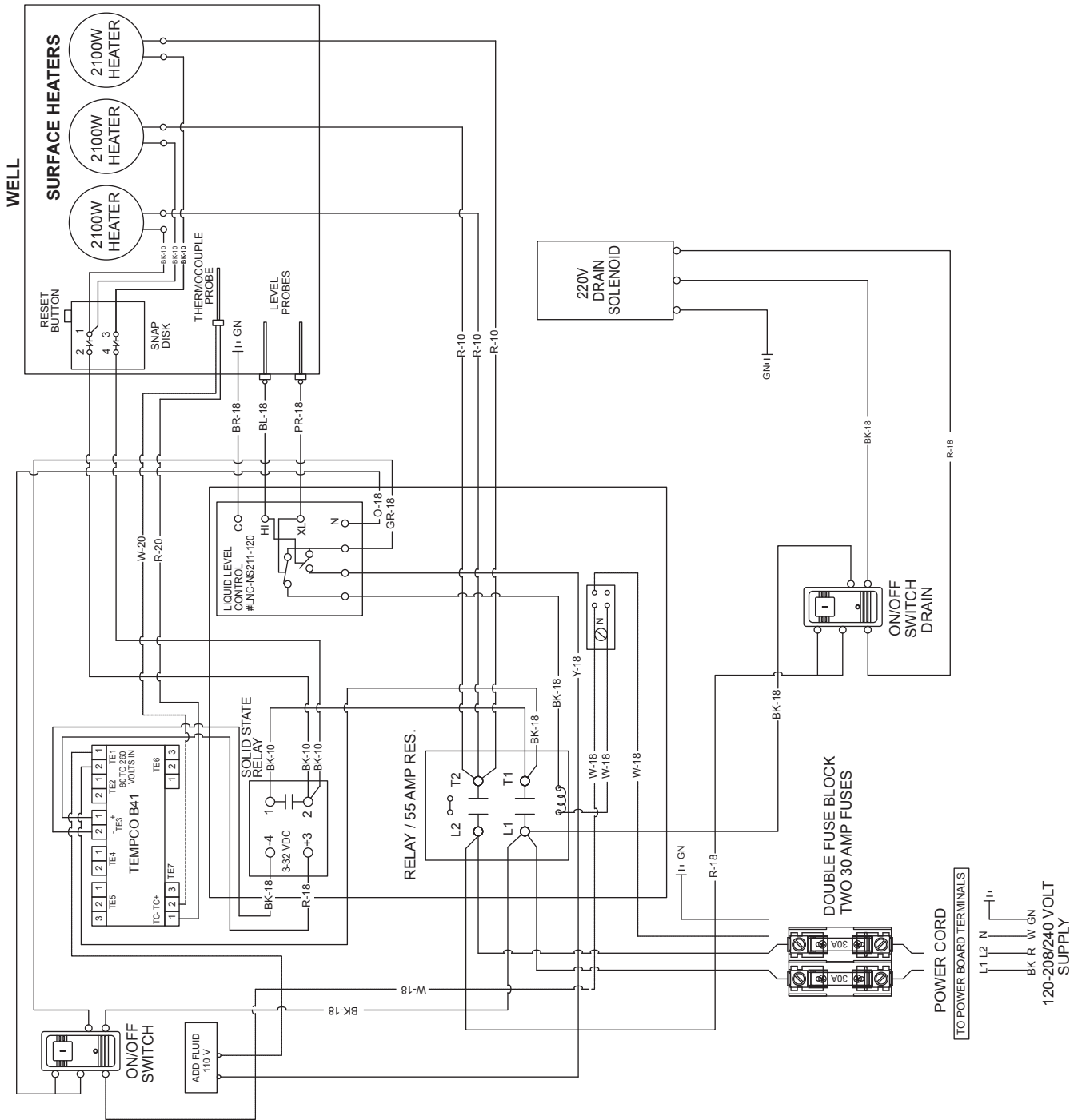
# TROUBLESHOOTING

Most problems associated with the holding cabinet are due to low water level.  
Always check water level first.

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
No Power	<ol style="list-style-type: none"> <li>1. Main power switch off.</li> <li>2. Not plugged in.</li> <li>3. Breaker off or tripped.</li> <li>4. Bad contactor.</li> </ol>	<ol style="list-style-type: none"> <li>1. Turn switch on.</li> <li>2. Check plug.</li> <li>3. Check breaker.</li> <li>4. Replace contactor.</li> </ol>
LOW FLUID light is on – Oven heating properly	<ol style="list-style-type: none"> <li>1. Oven is low on water.</li> </ol>	<ol style="list-style-type: none"> <li>1. Add water per instructions.</li> </ol>
LOW FLUID light is on – Oven not heating properly	<ol style="list-style-type: none"> <li>1. Oven disabled due to low water level cut out.</li> <li>2. Water level probe defective.</li> <li>3. System leak.</li> </ol>	<ol style="list-style-type: none"> <li>1. Main heater tanks low on water. Add water and determine cause of water loss.</li> <li>2. Repair or replace.*</li> <li>3. Repair leak.*</li> </ol>
Heater(s) not working	<ol style="list-style-type: none"> <li>1. Unit not properly wired.</li> <li>2. Bad heater(s).</li> <li>3. Contactor or solid state relays not working.</li> <li>4. Off due to low water cutout.</li> <li>5. Failed temperature controller.</li> <li>6. High limit snap disc tripped.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check wiring.*</li> <li>2. Replace heater(s).*</li> <li>3. Repair or replace.*</li> <li>4. Add water per instructions.</li> <li>5. Replace temperature controller.*</li> <li>6. Reset snap disc and check for cause.*</li> </ol>
Oven heats up too slow	<ol style="list-style-type: none"> <li>1. Heater(s) not working.</li> </ol>	<ol style="list-style-type: none"> <li>1. See “Heater(s) not working”.</li> </ol>

\*Recommended service to be done by a qualified service agency.

# SCHEMATIC WIRING DIAGRAM



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## WARRANTY

Thermodyne Foodservice Products, Inc. warrants to the original purchaser for use of each new Thermodyne Conductive Cooking/Holding Oven the following: Any part which proves to be defective in materials or workmanship within the warranty period will, subject to the terms of this warranty, be repaired or replaced at Thermodyne Foodservice, Inc.'s option. Claims under this warranty must be presented to Thermodyne Foodservice Products, Inc. in writing, promptly.

Thermodyne stainless steel cabinets are warranted for 5 years and all other original equipment parts such as heat transfer plates, doors, casters, fluid system components and electrical components are warranted against defect for 2 years from the date of purchase.

This warranty applies only to Thermodyne Conductive Cooking/Holding Ovens in the Continental United States. This warranty shall not apply if the oven or any part is subjected to accident, casualty, alteration, misuse, abuse, neglect, faulty installation, or if the date of manufacture is altered or removed.

The obligation of Thermodyne Foodservice Products, Inc. is limited specifically to the aforementioned. No additional guarantees or warranty, expressed or implied, to include without limitation warranties of Fitness or Merchantability with respect to Thermodyne Conduction Ovens and Thermodyne Foodservice Products, Inc. regarding other liability with respect thereto including, without limitation, liability for incidental, special, or consequential damages.

### RESPONSIBILITIES OF PURCHASER

It is the responsibility of the purchaser to:

1. Arrange on site electrical services in accordance with Thermodyne specifications.
2. Receive shipment of Thermodyne conduction oven to include unloading, uncrating, inspecting for damage in shipment, and installation of the oven in its proper location; in accordance with installation instructions.
3. Arrange that the electric services are connected properly by a qualified technician. All such connections must be in accordance with applicable code requirements and Thermodyne installation procedures.

Please note the specific details on the Warranty and make certain that service connections are made to the proper utility services. This warranty and purchasers responsibility information should be retained for future reference.

### **For assistance please call:**

Toll Free: (800) 526-9182

Local: (260) 428-2535



