

OPERATION

HSRO SERIES SINGLE RACK OVENS

MODEL

HSROG	ML-111148
HSROE	ML-111149



701 S. RIDGE AVENUE
TROY, OHIO 45374-0001

IMPORTANT FOR YOUR SAFETY

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

POST IN A PROMINENT LOCATION THE INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE SMELL OF GAS IS DETECTED. THIS INFORMATION CAN BE OBTAINED FROM THE LOCAL GAS SUPPLIER.

IMPORTANT

IN THE EVENT A GAS ODOR IS DETECTED, SHUT DOWN UNITS AT MAIN SHUTOFF VALVE AND CONTACT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE.

FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

WARNING: IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

IN THE EVENT OF A POWER FAILURE, DO NOT ATTEMPT TO OPERATE THIS DEVICE.

Operation and Care of HSRO SERIES SINGLE RACK OVENS

SAVE THESE INSTRUCTIONS FOR FUTURE USE

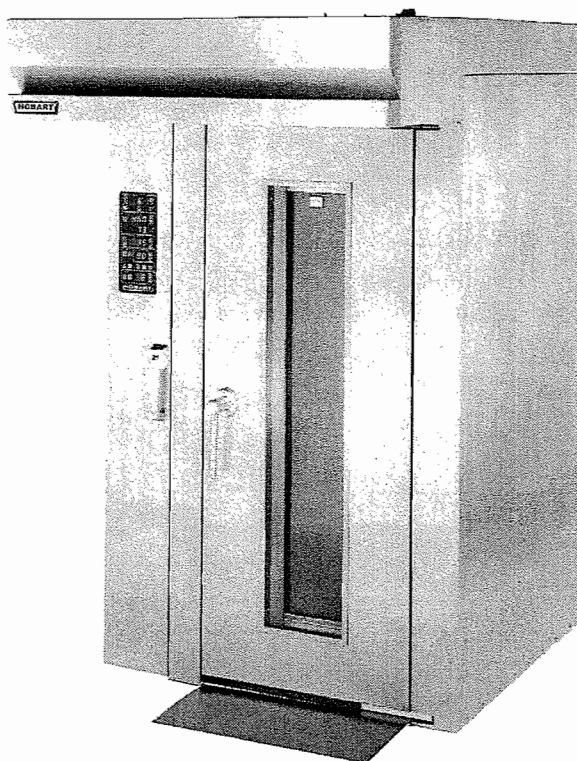
GENERAL

The model HSROG single rack oven uses efficient gas heat. Model HSROE uses electric heat. Programmable controls provide excellent baking results. A mechanism in the ceiling rotates the rack during baking.

ACCOMMODATION AND GAS / ELECTRIC DATA

MODEL	ACCOMMODATION	GAS INPUT RATING (BTU / Hr)	VOLTS / HZ / PHASE	MINIMUM CIRCUIT AMPACITY MAXIMUM PROTECTIVE DEVICE AMPS
HSROG	One Single Rack Rack Lift Device: Type C	Natural / Propane 155,000	208 - 240 / 50 - 60 / 1	30
HSROE	One Single Rack Rack Lift Device: Type C	N. A.	208 - 240 / 50 - 60 / 3 440 - 480 / 50 - 60 / 3 380 / 50 / 3	125 60 70

Do not obstruct the flow of combustion and ventilation air. Keep the appliance area free and clear from combustibles.



Model HSROG

RACKS

HSRO series accommodates standard single-size racks for 18" x 26" pans. Racks for 20" x 30" pans are available. Racks can be specified in aluminum or stainless steel, are equipped with 5" casters. Racks for HSRO ovens are equipped with Type C Rack Lift Brackets.

RACK ID NUMBERS For HSRO SERIES Single Rack Ovens

# of Shelves	Standard Single Racks for 18" x 26" Pans		Large Single Racks for 20" x 30" Pans	
	Stainless Steel	Aluminum	Stainless Steel	Aluminum
10	SS10C	SA10C	SS10C (20X30)	SA10C (20X30)
12	SS12C	SA12C	SS12C (20X30)	SA12C (20X30)
15	SS15C	SA15C	SS15C (20X30)	SA15C (20X30)
18	SS18C	SA18C	SS18C (20X30)	SA18C (20X30)
20	SS20C	SA20C	SS20C (20X30)	SA20C (20X30)

SPACING BETWEEN SHELVES AND RECOMMENDED PRODUCTS

# of Shelves	Spacing Between Shelves	Recommended Products
10	6"	1 Lb Bread Products
12	5"	French and Round Bread, Cheesecake
15	4"	Sub Rolls, Muffins, Cup Cakes, Kaiser Rolls, Sheet / Layer Cake, 16 Oz Pies, Hard Rolls
18	3.25"	Danish, Pastries, Eclairs, Hamburger Rolls
20	2.875"	Cookies

OPERATION

WARNING: THE OVEN AND ITS PARTS ARE HOT. USE CARE WHEN OPERATING, CLEANING OR SERVICING THE OVEN.

BEFORE FIRST USE

Before using the oven for the first time, it must be "burned in" to release any odors that might result from heating the new surfaces in the oven.

Using a clean cloth moistened in warm soapy water, wash the stainless steel interior of the oven, rinse with clean water, and dry with a clean dry cloth.

On gas fired ovens, an electric igniter and automatic controls are used to operate the gas burner.

NOTE: A 5-minute complete shutoff period is required before attempting to relight the burners.

Close the oven door and operate the oven at 350°F for 6 to 8 hours. Turn the oven off when done.

LOADING AND UNLOADING (Fig. 1)

WARNING: THE OVEN AND ITS PARTS ARE HOT. TO PREVENT BURNS, USE HOT PADS OR PROTECTIVE MITTS WHEN LOADING OR UNLOADING THE OVEN.

Roll the rack into the oven making sure that the side or end brackets on top of the rack slide onto the Rack Lifting Device hanging from the ceiling inside the oven (Fig. 1). Close and latch the door.

Refer to CONTROLS, pages 6 – 9.

When baking is done, the buzzer will sound. Press the timer STOP keypad. Wait until the rack stops rotating. Then open the door. As the door opens, the rack is lowered to the floor.

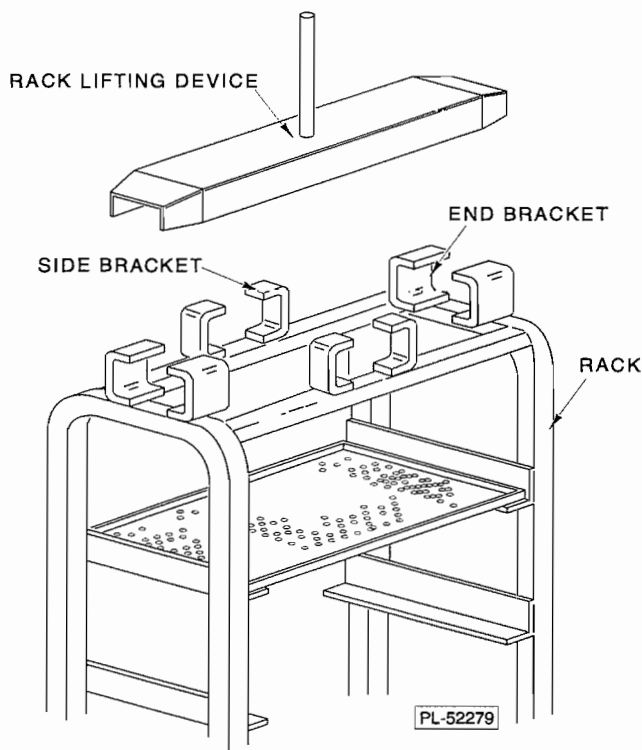


Fig. 1

DOOR HANDLE

Make sure the door handle is fully vertical (Fig. 2) to engage the door latch during baking.

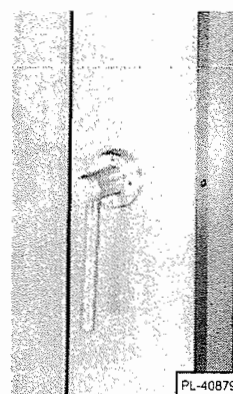
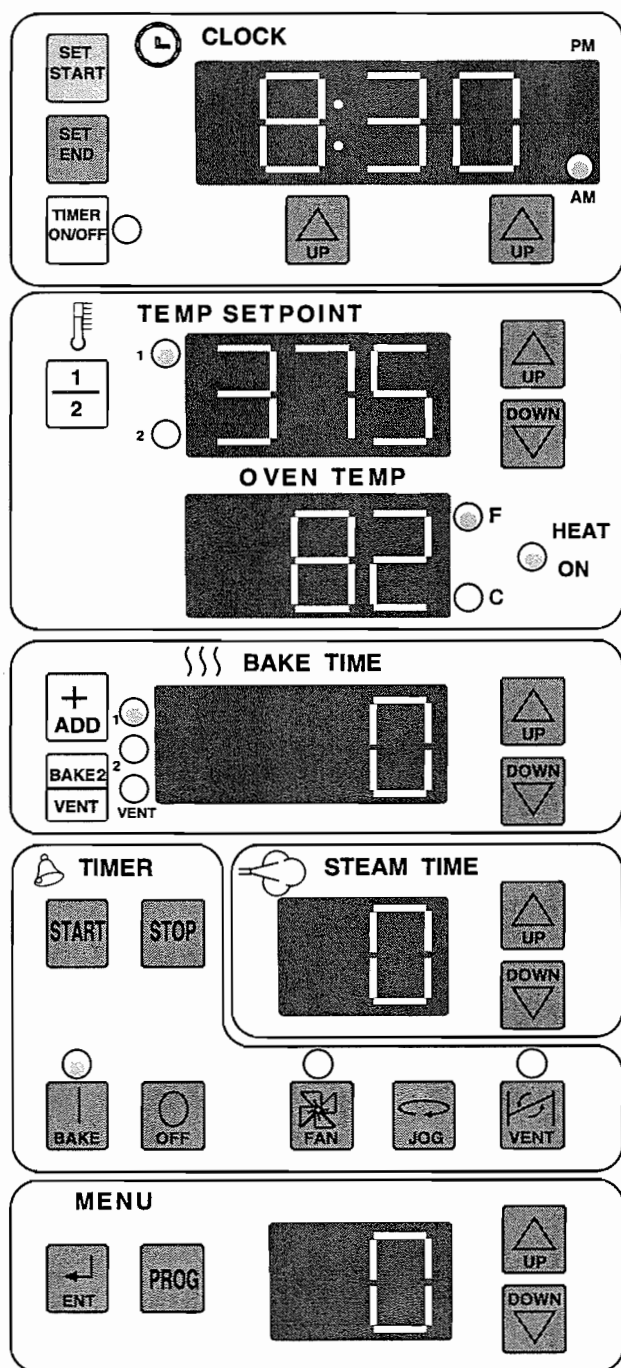


Fig. 2

CONTROLS (Fig. 3)

The control can be used in the manual baking mode by entering the needed information for the 2-stage baking process. Also, as many as 99 baking menus can be programmed into the control's memory and recalled when needed. Whether you bake in the manual baking mode or program a baking process and recall it from memory, the same parameters must be defined for any baking operation. We'll set and define those baking parameters in Manual Baking, page 9; but, first let's discuss the Time Clock, set the Time of Day, and use the clock to automatically Preheat the oven. Manual Preheating and Menu Baking and Programming are covered on page 8.



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Fig. 3

CLOCK

The time clock operates continuously: If the electric power is disconnected, the clock display goes off and a battery maintains the time of day in memory. When power is restored, the clock display resumes.

NOTE: The clock can be setup during calibration mode to operate as a 24-hour clock (0:00 – 23:59) or with AM and PM designations (01:00 – 12:59). Your service technician has access to calibration mode procedures.

SETTING THE TIME OF DAY

Press and hold the SET START and SET END keys at the same time so the colon stops flashing in the time display — while holding both keys down, press the left UP key to increase the hours and the right UP key to increase the minutes. When the correct time of day is displayed, release the keys. The flashing colon indicates the clock is operating.

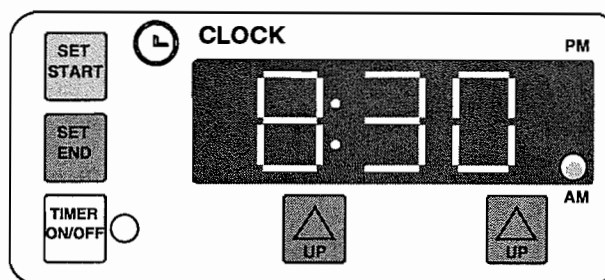


Fig. 4

USING THE CLOCK TO START AND STOP THE OVEN

The clock can start the oven at the beginning of the day and shut it off at the end of the day, just like an alarm clock, instead of using the BAKE and OFF keys to Preheat the oven.

To set a start time, press and hold SET START for about 2 seconds until the upper colon dot is lit continuously. The previous Start Time displays. Set the Start Time by using the left UP key to reset the hour and the right UP key to reset the minutes. Then press the SET END key for about 2 seconds until the lower colon dot is lit continuously. The previous Stop Time displays. Set the Stop Time by using the left UP key to set the hour and the right UP key to set the minutes. Press and hold the TIMER ON/OFF key for about 5 seconds to toggle the automatic start-and-stop function ON or OFF. The TIMER ON/OFF indicator light shows when the automatic timer function is on — and must be ON to start the oven automatically at the Start Time.

If the clock is set to start at 5:30 AM and end at 2:00 PM, and the Timer is ON, the oven turns itself on at 5:30 AM (as if the BAKE key had been pressed). The oven heats up to the Preheat Temperature (see page 8). At 2:00 PM, the oven automatically shuts down unless a timed baking cycle is in process. The displays, except for the clock, will go off and the oven will cool down. If a bake cycle is in process when the Stop Time occurs, the oven allows the bake cycle to finish and then shuts down. When the clock timer is on, the automatic Start and Stop functions work every day, seven days a week.

USING THE BAKE AND OFF BUTTONS

The manual BAKE and OFF keys (Fig. 5) turn the oven on or off independent of the clock timer.

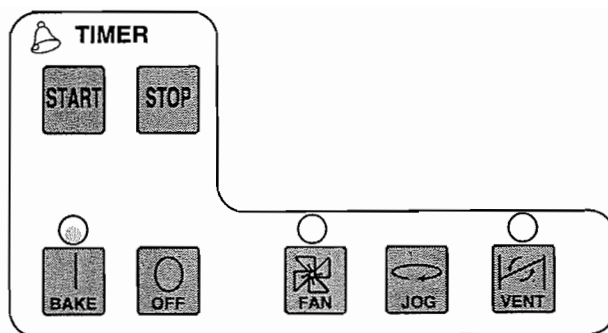


Fig. 5

OVEN PREHEAT

After the oven is turned on, the TEMP SETPOINT displays the Preheat Temperature (Fig. 6).

The OVEN TEMP displays the actual oven temperature until the Preheat Temperature is reached (Fig. 6).

The HEAT ON indicator light (Fig. 6) is lit while the oven is heating.

The UP and DOWN keys can be used to adjust the TEMP SETPOINT.

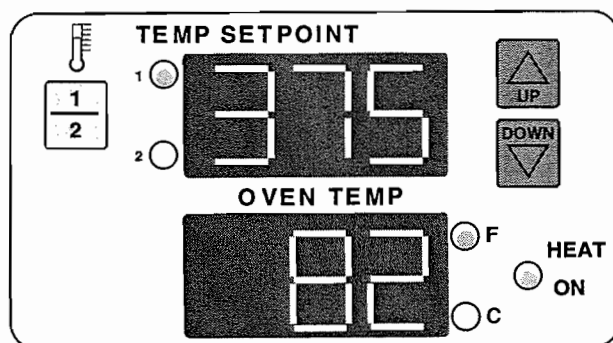


Fig. 6

NOTE: The Preheat Temp is preset at the factory at 375°F; this preset value can be changed by your service technician in calibration mode. Also, the temperature scale can be changed to Celsius by your service technician in calibration mode.

MENU BAKING

Up to 99 menus can be stored in memory and recalled by number when needed. Use the UP or DOWN keys to change the menu number. Numbers 1 - 99 are available for menus. The bake settings for the first stage will be displayed; press BAKE 2 / VENT key (Fig. 8) to display the second stage bake settings; press BAKE 2 / VENT again for the vent and/or fan options.

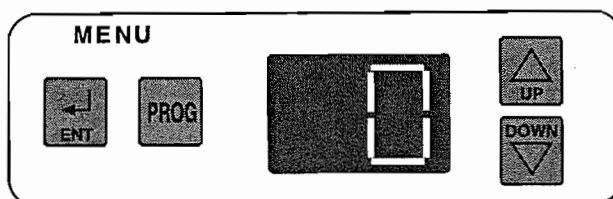


Fig. 7

Menu number zero is reserved for manual baking processes that are not assigned to memory.

PROGRAMMING A BAKING PROCESS

To program a baking process, select the menu number that is to be programmed using the UP or DOWN keys (Fig. 7). To open an unused menu, press the ENT and PROG keys until the display flashes. Then use the UP and DOWN keys to select a menu number for loading your menu. To change an existing menu, change your values only. Enter the baking parameters described in Manual Baking, page 9. Press ENT to save those baking parameters under the assigned menu number.

MANUAL BAKING

"*TWO-STAGE*" baking allows you to set two TEMP SETPOINTS and two sequential BAKE TIMES. If zero time is set for the second bake time, "*ONE-STAGE*" baking is the result.

With the 1 indicator light lit, (Fig. 6), use the UP or DOWN keys to adjust the TEMP SETPOINT.

With the 1 indicator light lit, (Fig. 8), use the UP or DOWN keys to set the first-stage BAKE TIME. The colon is present for settings below 5 minutes to indicate minutes and seconds (in ten second increments). Above 5 minutes, the setting is in whole minutes (from 6 to 999).

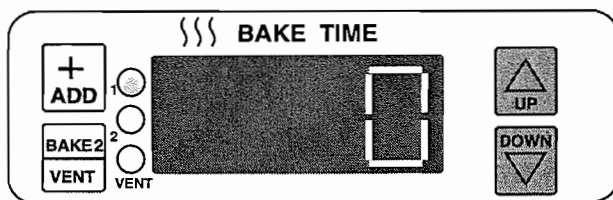


Fig. 8

If steam is needed (while the 1 indicator lights are lit), use the UP or DOWN keys to set the steam time, in seconds. The maximum amount of steaming is 20 seconds. Steam is introduced at the beginning of the first stage of the bake cycle. Any number larger than 20 will result in 20 seconds of steaming.

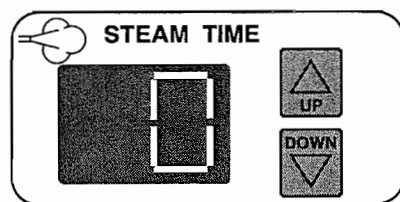


Fig. 9

Press the BAKE 2 / VENT key (Fig. 8) to shift to the Second Stage.

With the 2 indicator lights lit, use the UP or DOWN keys to adjust the TEMP SETPOINT for the second stage of the baking process.

With the 2 indicator lights lit, use the UP or DOWN keys to set the second-stage BAKE TIME.

Press the BAKE 2 / VENT key (Fig. 8) to add FAN and/or VENT; press either, neither, or both (FAN and VENT functions are described below).

Press Timer START (Fig. 5) to begin. At the end of the first stage of the baking process, oven operation pauses and the beep sounds for 15 seconds to allow the baker to open the door to let steam escape or to do any other process before the second stage of the baking process begins. During the 15 second pause, the 1 and 2 indicator lights blink alternately. After the door is shut or the 15 second pause is complete, the oven resumes operation with second stage baking. At the end of the second stage of baking, the numeric displays flash on and off and the beep sounds.

Press Timer STOP to silence the beep and restore the initial bake settings to the displays. If additional time is needed, press and hold the + ADD key (Fig. 8) while using the UP and DOWN keys to add additional bake time; release the + ADD key to begin the new countdown. When done, the numeric displays flash on and off and the beep sounds. Press Timer STOP to silence the beep and restore the initial bake settings to the displays.

FAN: If selected, the fan operates in a pulsed mode: Fan is On for 15 seconds and Off for 15 seconds for the first few minutes of the bake cycle. After the first few minutes of the baking cycle, the fan remains On continuously. The "number of minutes" that the fan is in pulsed mode is set in calibration mode.

VENT: If selected, the vent will open automatically a few minutes before the end of the baking cycle. The "number of minutes" is set in calibration mode.

The 1/2 key (Fig. 6) allows you to view both the Temp Setpoints if the oven has not yet started baking.

REHEATING AN ENTIRE RACK OF FROZEN FOOD

All cooking processes are suggested only — prove your own recipes and temperature / time settings.

The oven is capable of reheating an entire rack of frozen food. Preheat the oven to 300°F. Place fully loaded 15 shelf rack of frozen solid product in oven until a temperature of 170°F is reached. The amount of time required to achieve completely satisfactory results will vary depending on the product(s) being cooked.

COOLING THE OVEN

At end of day after all baking is done and you want to cool the oven, press the FAN key. The FAN and VENT lights will be lit. The vent will open, heat will be exhausted, and the fan will run. The door may be open or closed. Press OFF when the oven is cooled to idle the oven.

CLEANING

WARNING: THE OVEN AND ITS PARTS ARE HOT. USE CARE WHEN OPERATING, CLEANING, OR SERVICING THE OVEN.

WARNING: DISCONNECT ELECTRICAL POWER BEFORE CLEANING OR SERVICING.

Interior

Do not use any type of cleaner on the inside of the oven. Just sweep out any debris.

If anything sticks to the floor, bring the oven up to 475°F for 45 – 60 minutes. As the oven cools, the spill should flake off. After the oven is cool, the debris can be swept out.

The inside glass on the door will become brown from sugars in the product. This can be scraped off when the door is cool.

For USDA applications where required, regularly use a mild soap and water solution to wipe down the oven, if necessary.

Exterior

Use mild soap and water solution or stainless steel polish (not cleaner) and be sure to wipe with the grain of the stainless steel.

Do not use a cleaner on the stainless steel as it is abrasive and could mar or etch the surface.

A glass cleaner can be used on the outside of the glass window when cool.

MAINTENANCE

WARNING: DISCONNECT ELECTRICAL POWER BEFORE CLEANING OR SERVICING.

FLUE VENT

Annually check the flue vent to make sure it is not obstructed (when equipped).

LUBRICATION

The bearing in the rack rotation mechanism should be lubricated annually by your service technician.

LIGHT BULBS

Six 40 watt incandescent appliance bulbs are used in the oven. Replace only with same type: Remove bezel mounting screws with screwdriver; replace bulb(s); reassemble bezel and screws.

TROUBLESHOOTING

BATTERY IN CONTROL BOX

If the clock battery goes dead, the message "dCEE" or "EEEE" appears in the time display. The clock battery is inside the control box and can be replaced by your service technician. If the battery is dead, the oven controls can still be used for baking — only the time clock will need to be reset to the correct time of day after any power interruption.

CALIBRATION MODE — FACTORY SETTINGS

The control is shipped from the factory with Calibration Mode Settings, P1 – P8, set as follows:

FACTORY CALIBRATION MODE SETTINGS

P1	Preheat Temp	375	Degrees
P2	Max Setpoint	550	Degrees
P3	Temp Offset	0	Degrees
P4	Hysteresis	5	Degrees
P5	Max Steam	20	Seconds
P6	Vent Parameters	2	Minutes
P7	Fan Pulse	2	Minutes
P8	Temperature Scale Clock Mode	F AP	Fahrenheit AM / PM

Any adjustments that need to be made to the factory settings, P1 – P8, can be done by your service technician.

NOTE: If the control is changed to operate in the Celsius temperature scale, the settings in the Calibration Mode should be revalued by your service technician to proportionate Celsius values.

SERVICE

Contact your local Hobart-authorized service office for any repairs, maintenance, or adjustments needed on this equipment.