

# **BASIC FUNCTIONS**

Quick Press	Long Press Pres	s & Hold Rotate
(.05 sec)	(.3 sec)	(1.5 sec) <b>5/5</b>
DHAUS'	Turn unit on (Press switch)	•
I/O – Standby Switch	Turn unit off (Press switch)	
40 BDD	Change temp settings (Rotate temp knob)	び/ひ
	Turn heater on (Long press temp knob until unit beeps & green light appears)	<b>♣ ♦</b> ••••••••••••••••••••••••••••••••••
	Change temperature settings, while heating (Rotate temp knob, the setting will blink, then quick press knob)	(If setting is idle for 6 sec, setting will return to prior value)
Temp Knob Functions	Turn heater off (Long press temp knob until unit beeps & green light fades)	
	Enter settings menu [heater & stirrer must be off] (Press & hold temp knob until "MENU" appears)	- A MENU
Speed Knob Functions	Change speed settings (Rotate speed knob)	Q/Q
	Turn stirrer on (Long press speed knob until unit beeps & green light appears)	(♣)
	Change speed settings, while stirring (Rotate speed knob, the setting will blink, then quick press knob)	Uf setting is idle for 6 sec, setting will return to prior value)
	Turn stirrer off (Long press speed knob until unit beeps & green light fades)	♣ ♣ RPM
	Enter timer settings - Guardian 7000 only [heater & stirrer must be off] (Press & hold speed knob until "HH:MM" appears)	PH-EMM

i



## **MENU** (Not applicable for Stirrers [e-G51ST07C])

To access the settings menu, the heater and stirrer must be off. Then press and hold the Temp/Menu knob until "MENU" appears on the screen. (The heater will not turn on unless the knob is released before "MENU" appears.)

To navigate the settings menu, rotate the knob then quick press the knob to choose the selection. Once in the selection, rotate the knob to change the setting and quick press the knob to confirm.

To return to the top level of the settings menu, rotate the knob to "BACK" then quick press the knob. To return to the main operating screen from the top level of the settings menu, rotate the knob to "EXIT" then quick press the knob.

To exit the menu at any time, flip the standby switch off and back on. The unit will return to the main operating screen and will be ready for normal use.

#### Menu Features:

1. "TLIM" - SmartHeat™ (Guardian 7000 units only)

SmartHeat™ allows the user to change the maximum temperature limit of the heater.

2. "PROG" – Programs (Guardian 7000 units only)

The Programs menu allows the user to load, store, delete, and run a series of heater and stirrer functions from a programmable text file on a USB storage device.

3. "RAMP" – SmartRate™ (Guardian 7000 units only)

SmartRate™ allows the user to change the rate at which the heater and/or stirrer increases temperature or speed respectively.

4. "SAFE" – SmartPresence™ & SmartLink™ (Guardian 7000 units only)

SmartPresence™ is an optional safety feature designed to automatically turn the heater off if the unit is unattended for a user-selected time limit.

SmartLink™ is an optional safety feature designed to automatically turn the heater off if the user travels out of range of the unit for a user-selected time limit.

Note: SmartLink  $\ensuremath{^{\text{TM}}}$  requires the optional Ohaus Wireless Dongle accessory.

## 5. "CAL" – Single Point Calibration

Single Point Calibration (SPC) improves the accuracy of the heater at userselected temperature points. SPC can be used during plate-controlled and probe-controlled heating.

# 6. "SYS" - System Settings

- i. Enabling / Disabling the Beeper
- ii. Changing the Timer Start Setting (Guardian 7000 units only)
- iii. Changing the Power Recovery Setting
- iv. Resetting to Factory Default Settings



# **DISPLAY (Guardian 7000)**



# **DISPLAY (Guardian 5000)**



- L. Heater Indicator Bar: Illuminates when the heater is ≥ 40°C.
- **M.** Heater Temperature: Switches to external probe temperature when the probe is plugged in and Z is illuminated.
- N. Heater Indicator: Illuminates when heater is running
- O. Heat Setting
- P. Stir Speed
- Q. Stirrer Indicator: Illuminates when stirrer is running
- R. Speed Setting
- S. Temperature Priority Icon
- **T. Timer:** Hours: Minutes / Minutes: Seconds
- **U.** Program Icon: Illuminates when a program is running.
- V. SmartPresence™ Icon
- W. Bluetooth® Icon: Illuminates when SmartLink™ is enabled.
- **X.** Hot Top Caution Indicator: Illuminates when the heater is  $\geq 40^{\circ}$ C.
- Y. Single Point Calibration Icon
- Z. External Probe Icon
- AA. SmartHeat™ Icon
- BB. SmartRate™ Heater Icons:
  - Turtle –slower ramp rate (more precise)
  - Rabbit –faster ramp rate
- CC. SmartRate™ Stirrer Icons:
  - Turtle –slower ramp rate (more precise)
  - · Rabbit -faster ramp rate
- **DD. Heat Setting Indicator:** Switches Heater Temperature to Heat Setting when illuminated.
- **EE. Speed Setting Indicator:** Illuminates until stirrer reaches the Speed Setting.



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### SAFETY PRECAUTIONS



**WARNING: DO NOT** use the Hotplate-Stirrer in explosive atmospheres or with materials that could cause a hazardous environment from processing. Keep in mind the material flash point relative to the target temperature that has been set. Also, the user should be aware that the protection provided by the equipment may be impaired if used with accessories not provided by the manufacturer.

Always operate unit on a level surface for best performance and maximum safety.

**DO NOT** lift unit by the top plate.



**CAUTION!** To avoid electrical shock, completely cut off power to the unit by disconnecting the power cord from the wall outlet. Disconnect unit from the power supply prior to maintenance and servicing. Spills should be removed promptly after the unit has cooled down. **DO NOT** immerse the unit for cleaning. Alkalis spills, hydrofluoric acid or phosphoric acid spills may damage the unit and lead to thermal failure. **CAUTION!** The top plate can reach 500°C, **DO NOT** touch the heated surface. Use caution at all times. Keep the unit away from explosive vapors and clear of papers, drapery, and other flammable materials. Keep the power cord away from the heater plate.



**CAUTION!** The rear panel of the 10x10-120V unit runs hot to the touch. Avoid contact during operation. Allow unit to cool before touching the rear panel.

**DO NOT** operate the unit at high temperatures without a vessel/sample on the top plate.

**DO NOT** operate the unit if it shows sign of electrical or mechanical damage.

**WARNING!** Units are NOT explosion proof. Use caution when heating volatile materials.



Earth Ground – Protective Conductor Terminal. Protective earthing of the equipment is achieved via connection of the provided power cord to a compatible grounded power outlet.



Alternating Current



### COMPLIANCE

Compliance to the following standards is indicated by the corresponding mark on the product.

Mark	Standard
CE	OHAUS Corporation declares that the Guardian series hotplates, stirrers, and hotplate-stirrers comply with directives 2011/65/EU, (EU) 2015/863, 2014/30/EU, 2014/35/EU, and standards EN 50581, EN 61010-2-010, EN 61010-2-051, EN 61326-1. The full text of the EU declaration of conformity is available at the following internet address: www.ohaus.com/ce.
X	This product complies with directive 2012/19/EU. Please dispose of this product in accordance with local regulations at the collecting point specified for electrical and electronic equipment.  For disposal instructions in Europe, refer to www.ohaus.com/weee.
	EN 61326-1
C SED US	CAN/CSA C22 261010-1, CAN/CSA C22 261010-2-010, CAN/CSA C22 261010-2-051 UL 61010-1, UL 61010-2-010, UL 61010-2-051

### **Global Notice**

Warning: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

### **Canada Notice**

This Class A digital apparatus complies with Canadian ICES-003.

#### **FCC Notice**

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Changes or modifications not expressly approved by Ohaus Corporation could void the user's authority to operate the equipment.



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## INSTRUCTION MANUAL

For the full instruction manual, please scan the QR code or click the links below: You can also visit <a href="http://www.ohaus.com/support">http://www.ohaus.com/support</a> to download user manual.



Guardian 5000 Instruction Manual



Guardian 7000 Instruction Manual

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