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OPERATION MANUAL

MANUAL NO. 056-088-00 REV. C

LAB-LINE® MULTI-UNIT EXTRACTION HEATER

MODEL NOs. | 5000, 5000-1



DESIGNERS AND MANUFACTURERS

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SECTION 1

INTRODUCTION

THANK YOU

for selecting Lab-Line Instruments for your equipment needs. For maximum value and ease of start-up,

PLEASE PROCEED AS FOLLOWS:

- Inspect the carton and contents for shipping damage. Notify the carrier immediately if damage is found.
- Use the Accessory Checklist when unpacking to verify that the complete unit has been received. Do not discard packing materials until all is accounted for.
- Read this Operation Manual thoroughly before deciding upon an appropriate location for the unit: you will want to consider the availability of power and other unit requirements, as well as user convenience.
- Insist that every operator of this unit becomes familiar with the Operation Section of this manual.
- Be sure to fill out the Warranty Registration Card and mail it in to Lab-Line Instruments within seven (7) days after receiving the unit.

IF

after reading this manual you should have any difficulties with the installation or operation instructions, please call:

Lab-Line Customer Relations Department (319) 556-2241 or (800) 522-5463

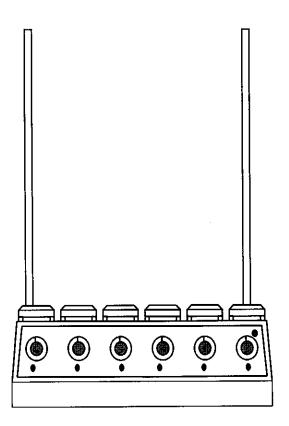
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DESCRIPTION

Lab-Line's Multi-Unit Extraction Heater has six individually controlled hotplates and a utility support rack with clamps. It is ideal for extractions, distillations, digestions and many other laboratory purposes. Each individually controlled hotplate provides heating from 104°F to 572°F (40°C to 300°C). A status lamp lights for every hotplate in use and a separate status lamp indicates when the power is on.

The support rack consists of two vertical and two horizontal rods that are held in place by clamps. Once assembled, additional clamps can be attached to the horizontal rods to hold vessels during heating. Optional clamps may be ordered from your Lab-Line dealer.



SECTION 3

SPECIFICATIONS

POWER REQUIREMENTS:

5000: 120 VAC, 50/60 Hz, 1800 Watts, 15 Amps

5000-1: 240 VAC, 50/60 Hz, 1800 Watts, 7.5 Amps

HEATING RANGE: 104°F to 572°F (40°C to 300°C)

HOTPLATE(S) DIMENSIONS: 4½" (11 cm) square

DIMENSIONS (OVERALL):

WITHOUT RACK: $30"L \times 11"W \times 9"H (76 \times 28 \times 23 \text{ cm})$

WITH RACK: 30"L x 11"W x 36"H (76 x 28 x 91 cm)

SHIPPING WEIGHT: 40 lbs. (18 kg)

UNIT'S ENVIRONMENTAL OPERATING CONDITIONS:

POLLUTION DEGREE: 2

INSTALLATION CATEGORY: II
ALTITUDE: 20

: 2000 Meters MSL (Mean Sea Level)

HUMIDITY: 80% maximum, non-condensing

ELECTRICAL SUPPLY: 120VAC or 240VAC

VOLTAGE TOLERANCE: ±10% of normal rated line

TEMPERATURE: 15°C to 40°C

PRODUCT USAGE: This product is intended for use indoors only

√SHIPPING CARTON:

This should be inspected upon delivery. When received, carefully examine for any shipping damage before unpacking. If damage is discovered, the delivering carrier should both specify and sign for the damage on your copy of the delivery receipt.

Open the carton carefully making certain that all parts are accounted for before packaging materials are discarded—after unpacking, if damage is found, promptly report it to the carrier and request a damage inspection promptly.

IMPORTANT: Failure to request an inspection of damage within a few days after receipt of shipment absolves the carrier from any liability for damage: you must call for a damage inspection promptly.

RACK SET-UP:

The heater comes with components that can be assembled into a rack.

- The vertical rods are 36" long (76 cm) and fit into a set of clamps located on the back of the unit near each end.
- Use the four frame clamps supplied to attach horizontal rods long.
 Clamps require a 1/8" Allen key to tighten the setscrews. Position the clamps at the desired heights, then install the rod. Make sure each rod is level. Fix setscrews holding clamps to vertical rods.
- Attach extraction clamps to horizontal rods. Extraction clamps (supplied) have clamp holders with thumbscrews for quick installation.

ELECTRICAL REQUIREMENTS:

120 VAC models require a 120 VAC, 50/60 Hz power source. They are supplied with a 3-wire line cord. It should be plugged into an outlet designed for 3-prong plugs. If an extension cord is used, it also should be the 3-wire grounded type. For an outlet designed to accept 2-prong plugs (ungrounded), it is required that a qualified electrician replace the outlet with a new grounded type. 240 VAC models require a 240 VAC, 50/60 Hz power source. Because of

the variety of plug configurations in use worldwide for 240 VAC power, the unit is furnished with the plug removed. The user must install a plug to conform with local code and configuration requirements.

If a plug must be installed, use only the 3-prong grounded type, rated for the unit load requirements and matching the power outlet. Make sure the green ground wire is secured to the plug ground terminal.

NOTE: LEAVE THE ROTATOR DISCONNECTED WHEN NOT IN USE.

SECTION 5

DANGER: DO NOT USE IN THE PRESENCE OF FLAMMABLE OR COMBUSTIBLE MATERIALS OR EXPLOSIVE GASES. DO NOT USE IN THE PRESENCE OF PRESSURIZED OR SEALED CONTAINERS—FIRE OR EXPLOSION MAY RESULT, CAUSING DEATH OR SEVERE INJURY.

WARNING: DO NOT HEAT ANY SUBSTANCE ABOVE A TEMPERATURE THAT WILL CAUSE IT TO EMIT TOXIC FUMES—DEATH OR SEVERE INJURY MAY RESULT.

A status lamp in the right-hand corner lights to indicate when power is being supplied to the unit—the lamp will remain lit even if all heaters are in the

off position.

Each hotplate is controlled by its own thermostat. The thermostat dial has reference markings to assure uniform settings of all six hotplates and to improve repeatability of settings. The reference markings DO NOT relate to specific temperatures. Each hotplate may be set for a different temperature, depending on the application.

A status lamp below the thermostat will light to indicate when the

hotplate is heating.

SECTION 6

MAINTENANCE

BE ADVISED:

NOTE: MAKE NO ATTEMPT TO SERVICE OR REPAIR A LAB-LINE PRODUCT UNDER WARRANTY BEFORE CONSULTING YOUR LAB-LINE DEALER. AFTER THE WARRANTY PERIOD, SUCH CONSULTATION IS STILL ADVISED, ESPECIALLY WHEN THE REPAIR MAY BE TECHNICALLY SOPHISTICATED OR DIFFICULT.

IF ASSISTANCE IS NEEDED BEYOND WHAT THE DISTRIBUTOR CAN PROVIDE, PLEASE CALL THE LAB-LINE CUSTOMER RELATIONS DEPARTMENT AT (319) 556-2241 OR (800) 522-5463. NO MERCHANDISE, HOWEVER, SHOULD BE RETURNED DIRECTLY TO LAB-LINE WITHOUT PRIOR APPROVAL FROM LAB-LINE.

CAUTION: DISCONNECT PLUG FROM ELECTRICAL OUTLET BEFORE ATTEMPTING ANY MAINTENANCE OR REPAIR OF THIS UNIT.

ROUTINE CLEANING:

Disconnect unit from power source.

The stainless steel case should be cleaned with a damp cloth or washed with a solution of mild soap and water, then rinsed thoroughly and dried.

Aluminum hotplates may be cleaned with mild soap and water. Do not use abrasive-like cleansers, they will scratch the surface. Wipe up spills immediately to prevent them from baking on.

REPAIRS AND SERVICING:

Disconnect unit from power supply.

Remove the rack by loosening the clamping on the back of the unit holding the rack in place.

Turn unit on its back-side to expose the bottom. Remove screws holding bottom panel to gain access to components.

Contact your Lab-Line dealer for servicing and necessary replacement parts.

SECTION 7

REPLACEMENT PARTS

DESCRIPTION

PART NUMBER

Cat. No. 5014 Extraction Clamps w/holders (2): Frame Clamps (4): Frame Rod, Horizontal (30") (2): Cat. No. 7050-1 Cat. No. 7100-12 Frame Rod, Vertical (36") (2): Cat. No. 7100-5 Heat Control, 120 V (6): 920-251-00 Heat Control, 240 V (6): 920-252-00 Heater, 120 V (3): Heater, 240 V (6): 340-004-00 340-004-01 Knobs (6): 560-177-00 Rubber Feet (4): 790-214-00 Status Lamp Lens, Amber: 360-235-00 Status Lamp Lens, Green: 360-238-00 Status Lamp Base, Amber (6): 360-233-01 Status Lamp Base, Green: 360-249-01 227-165-00 Wiring Schematic:

NEED A PART? CALL THE LAB-LINE PARTS HOTLINE. CALL: (319) 556-2241 or (800) 522-5463; FAX: (319) 589-0516.

LAB-LINE RESERVES THE RIGHT TO MAKE CHANGES TO SPECIFICATIONS WITHOUT PRIOR NOTICE.

WARRANTY

Page 1 of 2

LAB-LINE INSTRUMENTS, INC. ("Lab-Line") warrants that the product manufactured by Lab-Line shall be free of defects in materials and workmanship for a period of time defined on the following page from the first to occur of (i) the date the product is sold by Lab-Line or (ii) the date the product is purchased by the original retail customer (the "Commencement Date"). Except as expressly stated above,