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User's Manual

Micro Kjeldahl Digestors

Models

6030000
6030001

To receive important product updates,
complete your product registration card
online at register.labconco.com

Please read the User's Manual before operating the equipment.

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Warranty

Labconco Corporation provides a warranty to the original buyer for the repair or replacement of parts and reasonable labor as a result of normal and proper use of the equipment with compatible chemicals. Broken glassware and maintenance items, such as filters, gaskets, light bulbs, finishes and lubrication are not warranted. Excluded from warranty are products with improper installation, erratic electrical or utility supply, unauthorized repair and products used with incompatible chemicals.

The warranty for Micro Kjeldahl Digestors will expire one year from date of installation or two years from date of shipment from Labconco, whichever is sooner. Warranty is non-transferable and only applies to the owner (organization) of record.

Buyer is exclusively responsible for the set-up, installation, verification, decontamination or calibration of equipment. This limited warranty covers parts and labor, but not transportation and insurance charges. If the failure is determined to be covered under this warranty, the dealer or Labconco Corporation will authorize repair or replacement of all defective parts to restore the unit to operation. Repairs may be completed by 3rd party service agents approved by Labconco Corporation. Labconco Corporation reserves the rights to limit this warranty based on a service agent's travel, working hours, the site's entry restrictions and unobstructed access to serviceable components of the product.

Under no circumstances shall Labconco Corporation be liable for indirect, consequential, or special damages of any kind. This warranty is exclusive and in lieu of all other warranties whether oral, or implied.

Returned or Damaged Goods

Do not return goods without the prior authorization from Labconco. Unauthorized returns will not be accepted. If your shipment was damaged in transit, you must file a claim directly with the freight carrier. Labconco Corporation and its dealers are not responsible for shipping damages.

The United States Interstate Commerce Commission rules require that claims be filed with the delivery carrier within fifteen (15) days of delivery.

Limitation of Liability

The disposal and/or emission of substances used in connection with this equipment may be governed by various federal, state, or local regulations. All users of this equipment are required to become familiar with any regulations that apply in the user's area concerning the dumping of waste materials in or upon water, land, or air and to comply with such regulations. Labconco Corporation is held harmless with respect to user's compliance with such regulations.

Contacting Labconco Corporation

If you have questions that are not addressed in this manual, or if you need technical assistance, contact Labconco's Customer Service Department or Labconco's Product Service Department at 1-800-821-5525 or 1-816-333-8811, between the hours of 7:30 a.m. and 5:30 p.m., Central Standard Time.

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Chapter 1: Introduction

Thank you for displaying confidence in us by selecting a Labconco Micro Kjeldahl Digestor. Our design engineers, assemblers and inspectors have utilized their skills and years of experience to ensure that the new Labconco Micro Kjeldahl Digestor meets our high standards of quality and performance.



This manual should be read carefully by all the end users in order to become familiar with the operation of the Micro Kjeldahl Digestor. Recommendations are made within the manual to help you obtain maximum performance and life from your product.

We have included sections on initial set up, operation, maintenance and troubleshooting to provide you with all the tools necessary to achieve maximum performance. If you have questions or concerns, do not hesitate to call us at 1-800-821-5525 for assistance.

Components Shipped

Carefully check the contents of the carton for damage that might have occurred in transit. Do not discard the carton or packing material until all components have been checked against the following component list and the equipment has been installed and tested.

As shipped, the carton should contain the following:

Catalog #	Description	Ship Wt.
6030000	With Glass Manifold, 115 Volt AC	17 pounds
6030001	With Glass Manifold, 230 Volt AC	17 pounds
6035200	User's Manual	

General Description

Micro Kjeldahl Digestors are designed for the digestion of material containing nitrogen from micro samples.

All Micro Digestors will accommodate six Micro Kjeldahl flasks (30 ml or 100 ml sizes). This is accomplished by an adjustable glass manifold support and heaters that are recessed into the top of the unit.

Heaters are controlled by infinite heat thermostats, with individual pilot lamps to indicate "HEATER ON." A chemically resistant finish is applied to the main housing exterior.

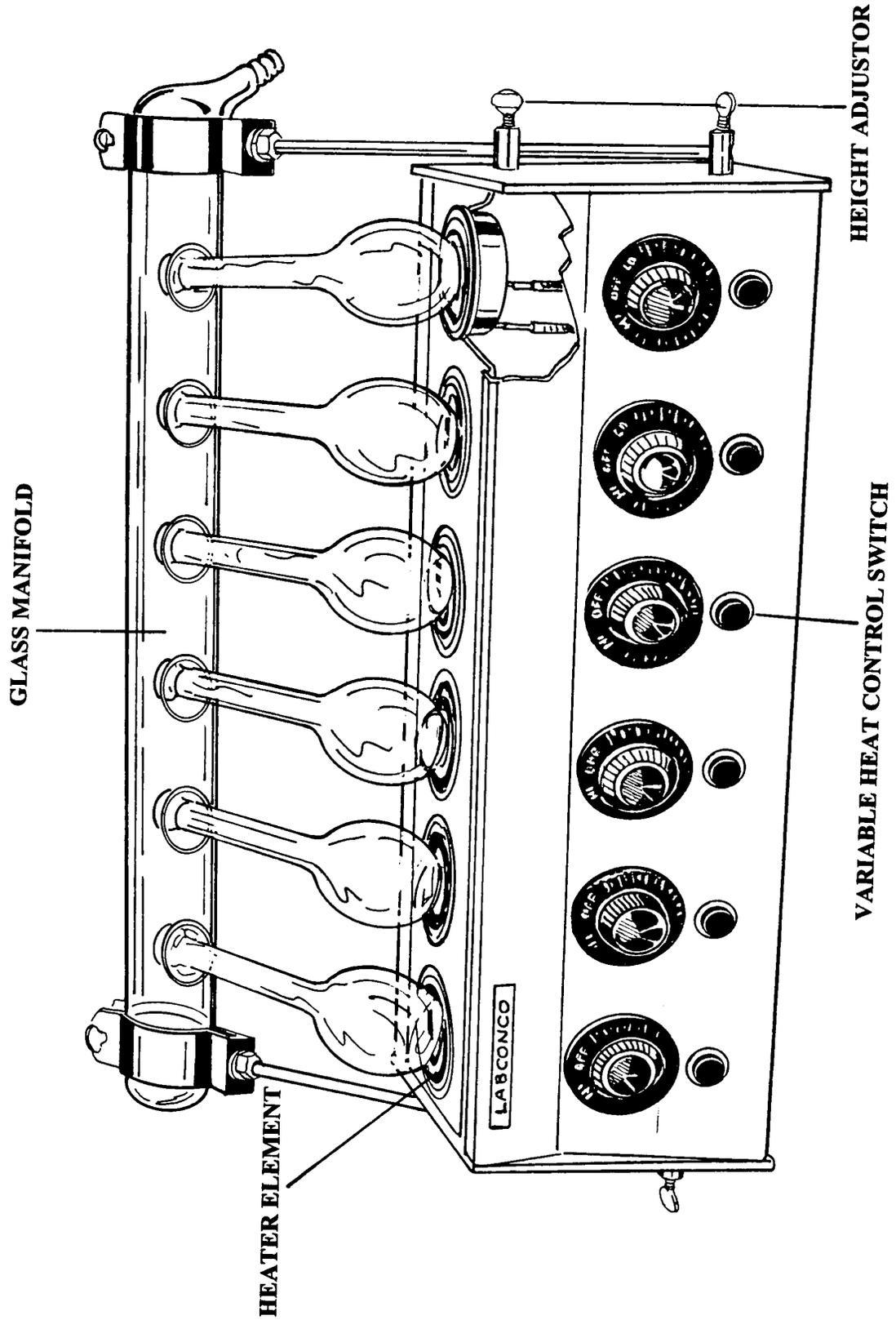
Detailed Function of Components

Heater Element. Each flask station has an individual 200 watt heater assembly which consists of a tubular heater element and a stainless steel cup. The concave design holds the flask securely and ensures even, well distributed heat.

Variable Heat Control Switch. Each heater element has an individual heat control pilot light. The infinite heat controls have variable input from 20-100% of capacity.

Heat and Chemical Resistant Cabinet. The cabinet is epoxy coated. The top is 1-1/2 inch thick Maronite I insulating board to protect wiring and controls from heat and chemicals.

Wiring. The Micro Digestion Unit is completely factory wired including a 5', 3-wire cord and plug. An electrical receptacle is all that is needed for installation.



Chapter 2: Installation

(1) Electrical

Operating Volts: 115 or 230
Current (Max): 12 amp at 115 volts; 6 amp at 230 volt
Frequency: 50 or 60 Hz

(2) Remove all “fillers” CAREFULLY and check for separate parts packed inside. Catalog #6030000 and 6030001 Digestors will have a glass manifold, 2 support brackets and related hardware packed in their cartons.

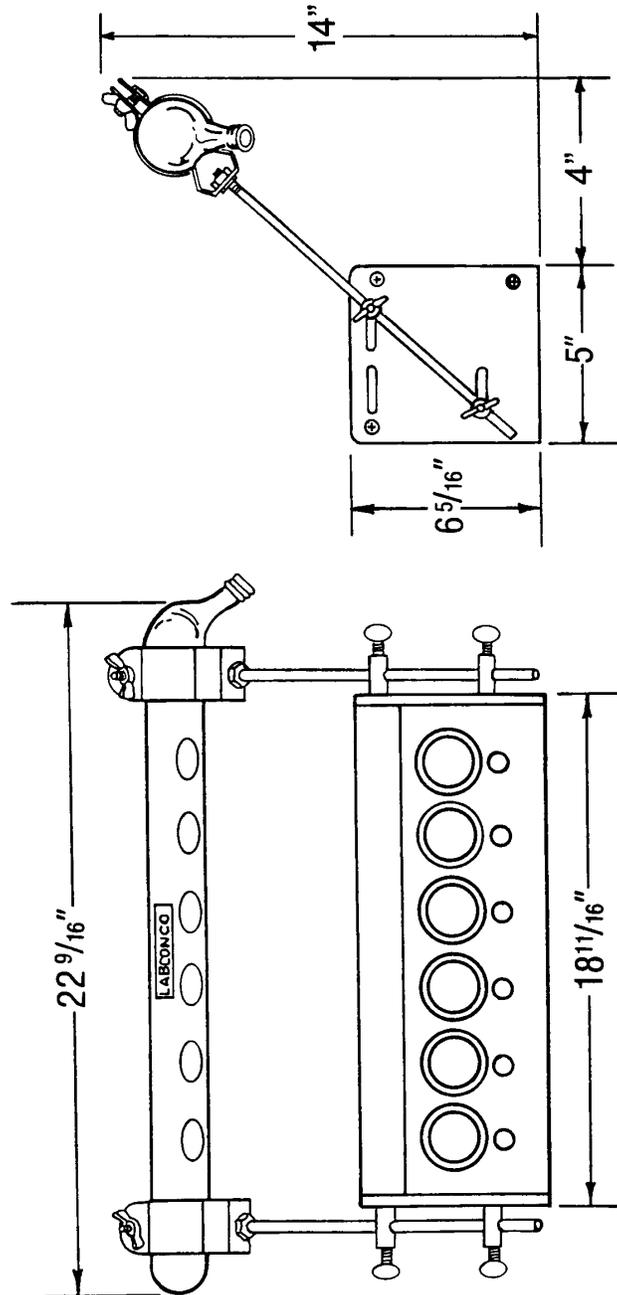
(3) Place unit in a location having a convenient 120V, AC 3-wire receptacle.

NOTE: 230V AC models require permanent wiring connections – contact your electrician for initial electrical hook-up in all cases!

(4) Mount the glass manifold support brackets into the glide rod clamps located on each side panel. Loosen the thumb screw on the bottom glide clamp. Slide the support rods in place and secure by tightening the thumb screw.

(5) Mount the glass manifold. Connect manifold outlet to a suitable water aspirator. Manifold should be adjusted to provide a minimum 1/2" of the flask neck within the manifold.

Chapter 3: Dimensional Drawing



Chapter 4: Normal Operation

Use of the Micro Kjeldahl

Applicable methods for nitrogen determination as outlined by the A.O.A.C. or other technical procedures involved with Protein (Nitrogen) determination by the Kjeldahl method, are to be referred to in all cases.

The infinite heat control in the digester uses a bi-metallic element to proportion the on and off time of the heating element. In the “high” position, the heater is on 100% of the time and in the “low” position the heater is on 20% of the time.

A digestion of extremely small samples may require less heat than available from the lowest control setting. In that event, a voltage reducing device should be used to reduce the power input to the apparatus.

CAUTION: DO NOT boil flasks dry. Breakage of the flask may occur.

Maintenance

If a problem should arise, please contact Labconco Customer Service Department at 800-821-5525 or 816-333-8811 between the hours of 7:00 a.m. to 6:00 p.m. Central Standard Time.

Please include Labconco Catalog and Serial Numbers on all phone or letter inquiries to obtain prompt action on your particular unit.

Chapter 5: Replacement Parts

Manufactured before 1968
Models 1200 & 1200-A, 1250 & 1250-A

MICRO KJELDAHL DIGESTOR (OLD STYLE)

<u>Cat. No.</u>	<u>Description</u>
6001100	Glass Manifold
6001800	Support Rod Assembly for Glass Manifold, Pr.
1315400	Infinite Control, 120 Volt, 15 Amp
1315500	Infinite Control, 240 Volt, 15 Amp
1870200	Knob for Infinite Control
6013200	Chromalox Heating Element, 115 Volt, 150 Watt
6013300	Chromalox Heating Element, 115 Volt, 200 Watt
6020500	Chromalox Heating Element, 230 volt, 250 watt
6011900	Pilot Light Assembly, 115 Volt
6020300	Pilot Light Assembly, 230 Volt
6011000	Flask Support Cone 30 ml
6000700	Flask Support Cone 100 ml
6007900	Flask Support Rod with two uprights
6001500	Bracket Assembly for #60079, Pr.
6010300	Power Cord Set Assembly

Manufactured from 1968 to 1972
Serial Numbers 1001 to 21858

MICRO KJELDAHL DIGESTOR (OLD STYLE)

<u>Cat. No.</u>	<u>Description</u>
6001100	Glass Manifold
6031700	Upright Bracket Assembly (for #60011), Pr.
6002700	Horizontal Flask Support Assembly
6031800	Upright Supports (for #60027), Pr.
6030700	Heater Assembly – 115 Volt, 200 Watt
6030701	Heater Assembly – 230 Volt, 200 Watt
1315400	Infinite Control, 115 Volt, 15 Amp
1315500	Infinite Control, 230 Volt, 15 Amp
6011900	Pilot Lamp, 115 Volt
6020300	Pilot Lamp, 230 Volt
1870200	Knob for Infinite Control
6031100	Heater Housing, Ceramic
6032100	Guide Rod Clamp (with thumb screw)
6010300	Power Cord Set, 115 Volt
6020700	Power Cord Set, 230 Volt
6030900	Top Plate, only (Marinite #23)
1925300	Aluminum Vent Louvers
6035700	Heater Conversion Kit, 115 Volt
6035800	Heater Conversion Kit, 230 Volt
6037500	Flask Kit, 6 @ 100 ml each

Manufactured from January 1972 and September 1972

MICRO KJELDAHL DIGESTOR (NEW STYLE)

<u>Cat. No.</u>	<u>Description</u>
6001100	Glass Manifold
1315400	Infinite Control, 115 Volt, 15 Amp
1315500	Infinite Control, 230 Volt, 15 Amp
6011900	Pilot Lamp, 115 Volt
6020300	Pilot Lamp, 230 Volt
1870200	Knob for Infinite Control
6032100	Guide Rod Clamp (with thumb screw)
6002700	Horizontal Flask Support Assembly
6033600	Top Plate, only (Marinite I)
6035000	Heater Assembly, 115 Volt, 200 Watt
6035100	Heater Assembly, 230 Volt, 200 Watt
6034200	Upright Supports (for #60011), Pr.
6034300	Upright Supports (for #60027), Pr.
6010300	Power Cord Set, 115 Volt
6020700	Power Cord Set, 230 Volt
6037500	Flask Kit, 6 @ 100 ml each

Manufactured January 1972 to Present

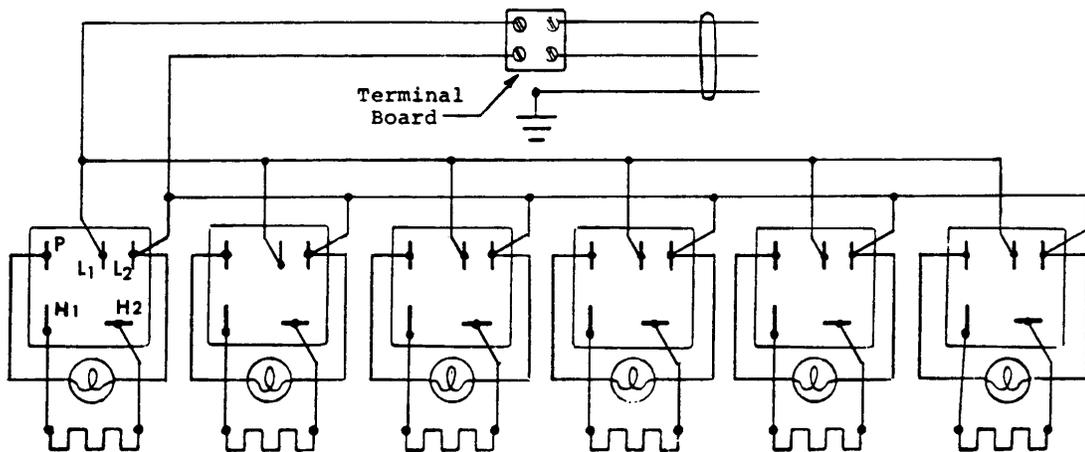
Models 60300C, 60300-01C, 60301C & 60301-01C, Same as above except:

<u>Cat. No.</u>	<u>Description</u>
6034600	Heater Assembly – 115 Volt, 200 Watt (with Heater Cup)
6034700	Heater Assembly – 230 Volt, 200 Watt (with Heater Cup)

Chapter 6: Wiring Diagrams

Catalog No. 6030000 & 6030100 Models

Note: 120V - AC Models
are equipped with 3
wire cord



Catalog No. 6030001 & 6030101 Models

Note: 230V AC Models
are to be wired by
customer. See "Tag"
attached to lead wires

