9/99

OPERATION MANUAL

MANUAL NO. 057-616-00
REV. NO. E

LAB-LINE® IMPERIAL III RADIANT HEAT INCUBATORS

MODEL NOs.	302, 302-1, 302L, 305, 305DIG, 305-1, 305L, 305LPL, 305M, 305M-1, 305X, 310, 310R27, 310-1, 310DIG, 306, 306-1, 306M, 306M-1, 310M, 310MX, 310M-1, 311, 311-1, 311M, 311M-1
RECORDERS	302R2, 305R2 305XR3, 305-1R2 306R3, 306-1R2 310R2, 310-1R3 311R3
LEFT-HAND DOOR OPENING	302L

LAB-LINE INSTRUMENTS, INC.
DESIGNERS AND MANUFACTURERS
15th and Bloomingdale Aves. , Melrose Park, IL 60160-1491 USA
PHONE 1-800/LAB-LINE ; FAX: (319) 556-0695

CERTIFICATION OF DECONTAMINATION:

We cannot accept for service or credit a product that has been exposed to or contaminated with chemically or biologically toxic or infectious substances or subjected to radioactivity without first being certified as free from said contamination.

Please have your Medical and/or Safety Officer sign this form certifying that proper decontamination procedures have been followed to render the product safe and free from hazards.

Any product forwarded to us which is not accompanied by this form and a proper Return Goods Authorization Number will be returned to the sender. To obtain Return Goods Authorization Number, contact: Customer Relations Department at 1-800/LAB-LINE.

We hereby certify that the LAB-LINE INSTRUMENTS, INC. product:

Model No. _____ and Serial No. _____,

which is being forwarded has been properly decontaminated and is free from all toxic hazards, infectious agents, radioactivity and/or other hazards.

Company/Institution Name:

Street Address: _____

City: _____ State_____ Zip_____

Name (please print): _____ Title _____

Signature: _____

Phone: _____

DECONTAMINATION PROCEDURE (Be Specific):

_____

_____

_____

Nature of Hazard That Required Decontamination:

_____

_____

_____

[redacted]

[redacted]

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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
708/450-2600 (in Illinois)
1-800/LAB-LINE (elsewhere)

SECTION 2

DESCRIPTION

Lab-Line Radiant Heat Incubators are useful in all types of general incubating and paraffin imbedding.

Cabinets are made of heavy-gauge steel with a powder-coated finish for optimum appearance and easy cleaning, while the interior walls are sheet aluminum to spread warm-wall radiant heat evenly throughout the chamber. Sheathed, low-watt density heaters are in direct contact with chamber walls to allow close temperature control and quick recovery after door openings. This arrangement also minimizes temperature gradients and offers a large working area in the chamber.

A double set of doors, the inner of tempered glass, permit unobstructed viewing of chamber contents without disturbing the interior environment. Slide-out shelving can be positioned to meet user requirements.

Control panels feature a digital temperature display, lighted power switch, and two hydraulic thermostats with associated status lamps.

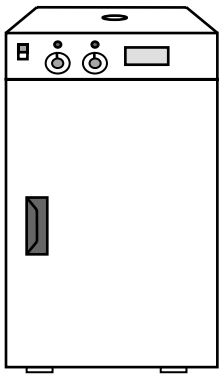
A control thermostat supplies power to heaters when chamber temperature is below the desired set point temperature, then alternates on and off to maintain set point. An overtemperature thermostat set a few degrees higher than set point by the operator, limits power to the heaters if the chamber temperature rises above the control thermostat setting. A status lamp above each thermostat is lit when the respective thermostat is controlling power to the heaters. Models 305DIG and 310DIG features a PID microprocessor based temperature controller.

Incubators are available in three sizes. A grounded 3-prong convenience outlet is supplied in midsize model chambers and 2 outlets are installed in larger models. Models are built for either 120 VAC or 240 VAC power requirements. Check the unit nameplate to be sure that the incubator is compatible with your power source.

Model numbers with an R suffix are those which have a recorder.

Models 305M, 306M, 310M and 311M have the same characteristics as those listed above but, in addition, provide mechanical convection. These models use a blower and plenum design to circulates the air within the chamber which allows for rapid temperature and uniformity recovery after door openings.

MODEL 302:



SPECIFICATIONS

POWER REQUIREMENTS:

302:	120 V, 50/60 Hz, 2.1 amps, 250 watts
302-1:	240 V, 50/60 Hz, 0.7 amps, 155 watts
305, 305M:	120 V, 50/60 Hz, 3.3 amps, 400 watts (1 ELECTRICAL OUTLET, 120 V, 500 W TOTAL LOAD)
305-1, 305M-1:	240 V, 50/60 Hz, 1.7 amps, 400 watts (1 ELECTRICAL OUTLET, 240 V, 500 W TOTAL LOAD)
306:	120 V, 50/60 Hz, 3.3 amps, 400 watts
306M:	120 V, 50/60 Hz, 3.8 amps, 450 watts
306-1:	240 V, 50/60 Hz, 1.7 amps, 400 watts
306M-1:	240 V, 50/60 Hz, 1.9 amps, 450 watts
310, 310M:	120 V, 50/60 Hz, 5.0 amps, 600 watts (2 ELECTRICAL OUTLETS, 120 V, 500 W TOTAL LOAD)
310-1, 310M-1:	240 V, 50/60 Hz, 2.5 amps, 600 watts (2 ELECTRICAL OUTLETS, 240 V, 500 W TOTAL LOAD)
311:	120 V, 50/60 Hz, 5.0 amps, 600 watts
311M:	120 V, 50/60 Hz, 5.8 amps, 700 watts
311-1:	240 V, 50/60 Hz, 2.5 amps, 600 watts
311M-1:	240 V, 50/60 Hz, 2.9 amps, 700 watts

TEMPERATURE:

Range:	From slightly above ambient to 65ºC
Selectivity:	Ungraduated thermostat dials
Digital Readout:	In increments of 0.1ºC

	TEMP. CONTROL	TEMP. UNIFORMITY
Most Models:	±0.5ºC	±0.9ºC

UNIT DIMENSIONS:	INSIDE	OUTSIDE
302 Prefix Models:	13"W x 17"D x 20"H (33 x 43 x 51 cm)	16"W x 21"D x 29½"H (41 x 53 x 75 cm)
305 Prefix Models:	17"W x 21"D x 25"H (43 x 53 x 64 cm)	20"W x 25"D x 34½"H (51 x 64 x 88 cm)
306 Prefix Models:	17"W x 21"D x 25"H (43 x 53 x 64 cm)	20"W x 25"D x 34½"H (51 x 64 x 88 cm)
310 Prefix Models:	37"W x 21"D x 25"H (94 x 53 x 64 cm)	40½"W x 25"D x 34½"H (103 x 64 x 88 cm)
311 Prefix Models:	37"W x 21"D x 25"H (94 x 53 x 64 cm)	40½"W x 25"D x 34½"H (103 x 64 x 88 cm)

	USABLE VOLUME	SHELVES	SHELF AREA
302 Prefix Models:	2.6 cu. ft.	2	2.8 sq. ft.
305 Prefix Models:	5.2 cu. ft.	3	6.9 sq. ft.
306 Prefix Models:	5.2 cu. ft.	3	6.9 sq. ft.
310 Prefix Models:	11.2 cu. ft.	6	13.8 sq. ft.
311 Prefix Models:	11.2 cu. ft.	6	13.8 sq. ft.

SPECIFICATIONS: (Con't)

UNIT WEIGHT:	
302 Prefix Models	70 lbs. (32 kg)
305, 306 Prefix Models:	110 lbs. (50 kg)
310, 311 Prefix Models:	195 lbs. (89 kg)

NOTE: MODELS WITH SUFFIXES HAVE THE SAME SPECIFICATIONS AS THE ABOVE.

UNIT'S ENVIRONMENTAL OPERATING CONDITIONS:

INSTALLATION CATEGORY:	II
ALTITUDE:	2000 Meters MSL (Mean Sea Level)
HUMIDITY:	80% maximum, non-condensing
ELECTRICAL SUPPLY:	120VAC or 240VAC
VOLTAGE TOLERANCE:	±10% of normal rated line
TEMPERATURE:	15ºC to 40ºC
PRODUCT USAGE:	This product is intended for use indoors **only**

INSTALLATION

√*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.

LOCATION:

Place the unit on a level surface protected from drafts, strong air currents and large fluctuations in ambient temperature. It must be located near an electrical outlet that meets the unit nameplate requirements. Allow clearance around the unit for free air convection, accessory equipment, and user convenience. Do not cover the vent on top of the incubator.

LEVELING:

It is important that the unit is level before operation. DO NOT REMOVE THE UNIT'S RUBBER FEET—they assist proper air circulation inside and outside of the chamber, removal can result in erratic control and excessive heat build-up beneath the unit.

SHELF INSTALLATION:

Each shelf bracket has 2 prongs at each end for attachment to the chamber side wall. Insert the longer top prongs into slots of equal height on one side of the chamber, then push the bracket up and insert the lower prongs. Push down on the bracket to insure proper seating.

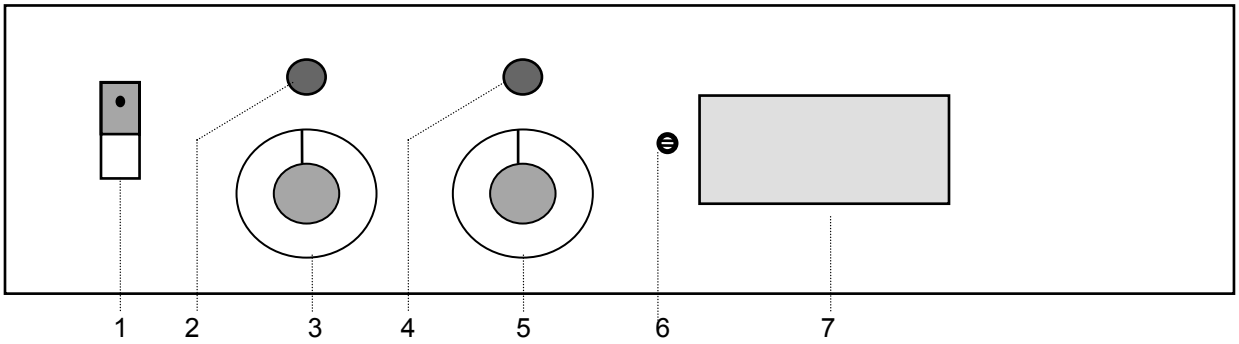
Repeat this procedure for the opposing bracket, making sure it is on the same level as the first bracket (count the slots). Install other shelf brackets in the same way, then slide shelves into place.

ELECTRICAL CONNECTION:

Before making the electrical connection, be sure outlet is properly grounded and that it matches power requirements listed on nameplate of unit. If a plug must be installed, make certain that the green ground wire of power cord is secured to the plug ground terminal. White is neutral (120V units) or to line #1 (240V units) and the black wire is phase (120V units) or to line #2 (240V units). Turn power switch to OFF and insert plug into outlet.

FEATURES

CONTROL PANEL:



1. POWER SWITCH: This 2-position rocker switch controls power to entire unit. The switch is lit when power is ON.
   #440-359-00*

2. HEATER (CONTROL) STATUS LAMP: This lamp is lit when power is being supplied to heaters and not lit when power to the heaters is OFF.
   #360-234-00 (LENS)*

3. CONTROL THERMOSTAT: This hydraulic thermostat controls power to the heaters.
   #920-301-00*

4. OVERTEMPERATURE THERMOSTAT: This hydraulic thermostat is set by the operator to back up the control thermostat and safeguards incubator contents.
   #920-301-00*

5. OVERTEMPERATURE STATUS LAMP: This lamp is lit when either an overtemperature condition exists or the overtemperature thermostat is improperly set too low.
   #360-235-00 (LENS)*

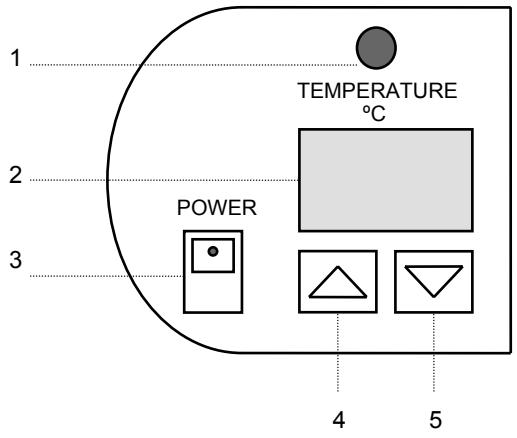
6. TEMPERATURE READOUT CALIBRATION POTENTIOMETER: Turn the set screw with a jeweler's screwdriver to calibrate and/or adjust the digital temperature display readout.

7 DIGITAL TEMPERATURE DISPLAY: Displays chamber temperature from slightly above ambient to 70.0ºC.

*AS LISTED ON UPCOMING REPLACEMENT PARTS LIST

FEATURES: (Con't)

CONTROL PANEL MODELS 305DIG, 310DIG:



1. TEMPERTURE STATUS LAMP (Amber)
   #360-235-00 (LENS), #360-233-01 (LAMP BASE)*
2. LED TEMPERATURE DISPLAY
3. POWER SWITCH (OFF/ON)
   #440-359-00 (120V) OR #440-292-00 (240V)*
4. UP ARROW KEY
5. DOWN ARROW KEY

*AS LISTED ON UPCOMING REPLACEMENT PARTS LIST

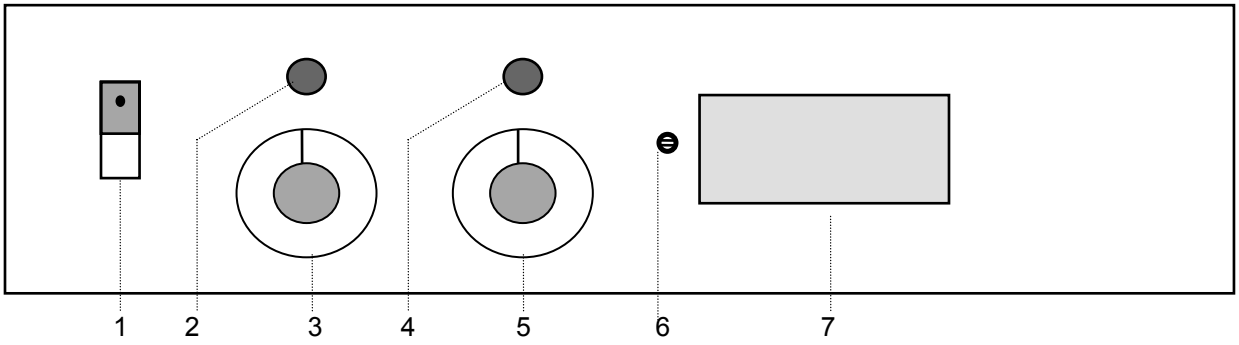
SECTION 6

OPERATION

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 WHICH WILL CAUSE IT TO EMIT TOXIC FUMES—DEATH OR SEVERE INJURY MAY RESULT

CONTROL PANEL:



START-UP:

Rotate the control thermostat (3) knob completely counterclockwise and the overtemperature thermostat (5) knob completely clockwise. After making sure the unit is plugged in, press the power switch to ON.

SETTING THE CONTROL THERMOSTAT:

- Rotate the control thermostat (3) knob clockwise until the heater status lamp (2) is lit, then continue clockwise to estimate the desired set point. Monitor the digital display (6) until either the heater status lamp is no longer lit or the temperature increases above the desired set point.

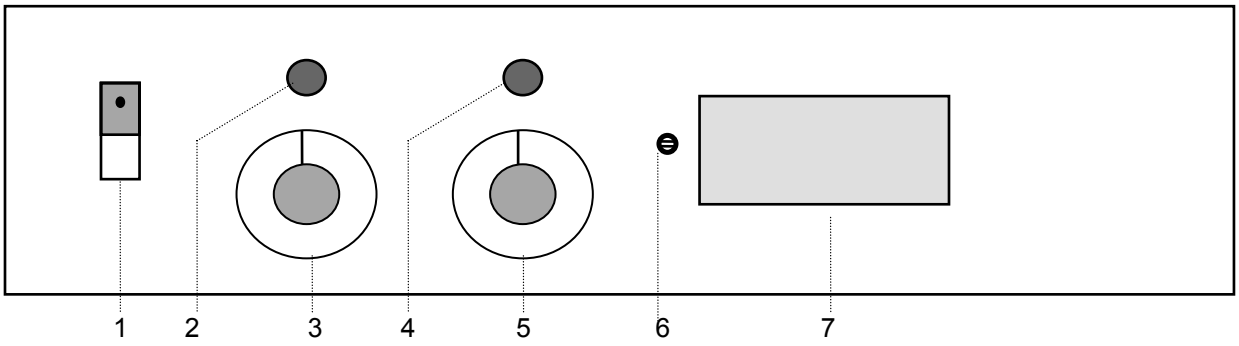
- If the digital display increases above the desired set point, rotate the control thermostat (3) knob counterclockwise until the heater status lamp (2) is not lit. If the heater status lamp goes out before set point is reached, rotate the control thermostat knob further clockwise to re-estimate the desired set

- Allow sufficient time for temperature in the chamber to stabilize before proceeding.

Repeat the second and third steps until the digital display (6) consistently shows the set point temperature.

OPERATION: (Con't)

CONTROL PANEL:



SETTING THE OVERTEMPERATURE THERMOSTAT:

Rotate the overtemperature thermostat (5) knob counterclockwise until the overtemperature status lamp (4) is lit. Then rotate it clockwise approximately 5 degrees past the point at which the lamp is no longer lit. At this point, the overtemperature thermostat will control heaters only at temperatures above the control thermostat (3) set point.

CAUTION: DO NOT OPERATE THE UNIT, IF ANY OF THE TEMPERATURE CONTROLS BECOME INOPERATIVE—A HAZARDOUS CONDITION WILL DEVELOP WHICH CAN RESULT IN INJURY OR DEATH AND PROPERTY DAMAGE.

CALIBRATING THE DIGITAL TEMPERATURE DISPLAY:

NOTE: A JEWELER'S SCREWDRIVER IS NEEDED TO MAKE THE NECESSARY ADJUSTMENTS.

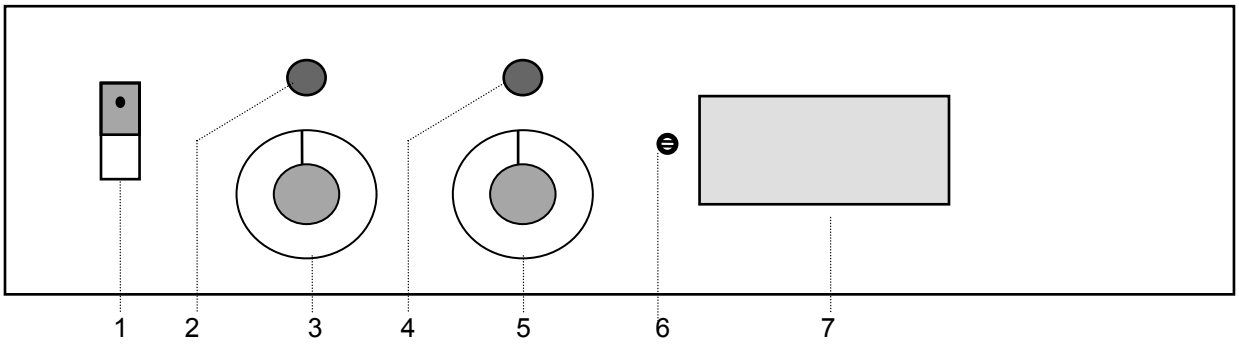
- Fill a 250 ml beaker with 150 ml of water and insert a known accurate, clearly-graduated thermometer; alternatively, use a known reliable thermocouple sensor and digital thermometer. Position the beaker with thermometer in the center of the chamber and facing the front, so that the thermometer graduations can be read easily without opening the glass door; or, position the sensor in the center of the incubator. Close the outer steel and inner glass doors.

- Set the control thermostat (3) at the desired temperature and allow the incubator to stabilize at this temperature for at least 2 hours.

- Open only the outer door and read the temperature on the thermometer versus the temperature readout on the control panel. If there is a difference, insert the jeweler's screwdriver into the digital temperature display port and adjust the temperature readout calibration potentiometer (6) until its displayed readout matches the reading on the graduated thermometer.

OPERATION: (Con't)

CONTROL PANEL:



CALIBRATING THE DIGITAL TEMPERATURE DISPLAY: (Con't)

- Using the digital thermometer, it will be necessary only to check the reading versus the digital temperature display (7) readout and adjust the calibration potentiometer as required.

NOTE: IT MAY BE NECESSARY TO REPEAT THE PREVIOUS PROCEDURE WHENEVER THE SETPOINT IS CHANGED ±10ºC OR MORE.

- Insofar as possible, keep the incubator doors closed in order to reduce possibility of fungus growth starting from airborne organisms entering the chamber.

LOADING THE INCUBATOR:

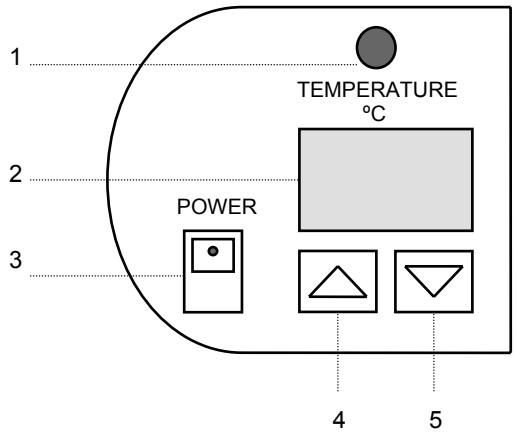
Do not overload shelves to the point at which good air circulation is hampered. Space objects evenly to allow sufficient room between them. The lowest shelf position can be used but do not place items to be incubated directly on the chamber floor.

Accessory equipment (shakers, stirrers, mixers, etc.) can be placed on the floor provided that they do not restrict air circulation.

CAUTION: DO NOT OPERATE THE UNIT, IF ANY OF THE TEMPERATURE CONTROLS BECOME INOPERATIVE—A HAZARDOUS CONDITION WILL DEVELOP WHICH CAN RESULT IN INJURY OR DEATH AND PROPERTY DAMAGE.

OPERATION: (Con't)

CONTROLS MODELS 305DIG, 310DIG:



SETTING THE TEMPERATURE:

- Turn the power switch on. The display will flash the current number for about 5 seconds, then the temperature will be displayed.
- Press and release either the UP or DOWN ARROW KEY once—the display will flash the existing set point temperature already established.
- To change a temperature set point, press the appropriate UP or DOWN key to raise or lower the temperature to a desired value and release. When the displayed temperature stops flashing—showing the actual temperature of the water at the moment— the new set point is established.

TEMPERATURE CALIBRATION:

- Place a digital thermometer in the center of the chamber—allow at least 1 full hour for the temperature to stabilize.
- Press and hold both the UP and DOWN ARROW KEYS together at the same time until the display begins to flash a left and right decimal point.
- Check the digital thermometer to see if the display temperature matches the thermometer temperature.
- IF THE DISPLAYED TEMPERATURE DOES NOT MATCH THE THERMOMETER READING, press the appropriate UP or DOWN ARROW KEY to adjust the displayed temperature to match the thermometer temperature. Upon releasing the ARROW KEY, the display will stop flashing and the displayed temperature will match the thermometer temperature. Calibration data is automatically entered and stored.

NOTE: IF THE UP OR DOWN ARROW KEYS ARE NOT TOUCHED FOR 5 SECONDS THE DISPLAY WILL DEFAULT TO THE ACTUAL TEMPERATURE.

SECTION 7

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 708/450-2600 (IN ILLINOIS) OR 1-800/LAB-LINE (ELSEWHERE).

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.

CLEANING:

- Clean any spills immediately. Use only soap or mild detergent and water with a soft cloth for cleaning. Do not use abrasives or harsh detergents on aluminum interior walls or on the glass inner door.
- Wipe exterior with soft damp cloth as necessary to remove dust, fingerprints or other smudges.

CHECKING CONTROLS:

- While using the unit, occasionally check that both control panel status lamps are lit as described in the previous OPERATION section.
- During normal operation, with controls properly set, the overtemperature status lamp is not supposed to be lit. If it is and continues to be lit after recalibration as described in the previous OPERATION section, follow the procedures described in the upcoming TROUBLESHOOTING section to locate the source of the problem.

SECTION 8

TROUBLESHOOTING

The following is intended as a guide to help in servicing this unit, if problems should occur.

NOTE: BEFORE ATTEMPTING ANY REPAIR, DISCONNECT POWER CORD FROM OUTLET.

NOTE: MAINTENANCE AND REPAIRS MUST BE PERFORMED BY A QUALIFIED CONTROLS SERVICE TECHNICIAN.

SYMPTOM	POSSIBLE CAUSES OF PROBLEM
Power switch lamp is not lit when the power switch is ON:	Check that unit is plugged in and that the plug is good. Press the power switch to OFF and then back ON. If the lamp remains unlit, reset the back panel circuit breaker(s) by pushing in the reset button(s). Check the outlet to be sure power is available to the unit.
Power switch lamp is the only one lit when following the directions in the previous OPERATION section:	Rotate both the control and overtemperature thermostat knobs completely clockwise (to highest temperature settings). If unit still does not heat up, the problem most likely involves the heater status lamp. If the lamp is good, check the heaters and heater wiring. Rotate the control thermostat knob completely clockwise and regulate the temperature with the overtemperature thermostat. If this can be done, the control thermostat is faulty—replace it. Do not operate unit with only one thermostat working.
Convenience outlets are not powered when unit is plugged in:	Check that the other features of the unit are functioning. If not, proceed with the first step listed above. Remove any plugs from the convenience outlet(s). Press in the circuit breakers (located on the back panel) to reset. If the circuit breaker pops repeatedly, check the equipment that is connected to the convenience outlet; check wiring from circuit breaker to the convenience outlet.

SECTION 9

SERVICE GUIDE

NOTE: IT IS RECOMMENDED THAT THE FOLLOWING MAINTENANCE PROCEDURES AND REPLACEMENT OF PARTS BE PERFORMED BY QUALIFIED PERSONNEL ONLY.

CAUTION: DO NOT ATTEMPT REPAIR OR SERVICE OF THIS UNIT BEFORE FIRST REMOVING PLUG FROM ITS ELECTRICAL OUTLET.

HEATER REPLACEMENT:

Heaters should be replaced when the unit does not heat properly and multiple meter measurements of resistance shows a significant deviation from 144 ohms.

After unplugging the unit, move it out into an open area to provide easier access to the back of the unit. Remove the back cover, then slide heaters out from their positions under the floor and along the side walls. (Note that small models have only floor heaters.)

Disconnect heater leads from the terminals after carefully noting where the leads attach.

Re-install heaters by reversing the above procedure. Refer to upcoming wiring schematic.

THERMOSTAT REPLACEMENT:

After unplugging the unit, remove the top cover of the unit to reach control components. Loosen thermostat knob set screw and remove the knob to expose 2 screws holding thermostat to control panel. After removing thermostat from control panel, disconnect wiring while noting where each lead attaches.

Remove back cover of unit to reach thermostat bulb, set in a bracket under the chamber floor. Slide the bulb out of the bracket and through the top hole to completely remove the thermostat.

Install new thermostat by reversing above procedure. Refer to upcoming wiring schematic.

SWITCH OR STATUS LAMP REPLACEMENT:

Power switch and status lamps are snap-in mounting type.

Unplug unit, remove top cover and disconnect leads after noting where each attaches. Push the switch or lamp out from the back.

Press replacement in from the front of the panel and then reconnect the leads as noted. Refer to upcoming wiring schematic.

REPLACEMENT PARTS

DESCRIPTION	PART NUMBER
Axial Fan	160-136-00
Cordset	470-105-00
Circuit Breakers:	
Model 302, 5 amp	330-118-00
Model 302-1, 5 amp (2)	330-118-00
Model 305, 10 amp	330-119-00
Model 305, 5 amp	330-118-00
Model 305XR3	330-159-00
Model 305-1, 5 amp	330-118-00
Model 305-1, 3 amp	330-125-00
Model 306, 306M, 10 amp	330-119-00
Model 306-1, 5 amp	330-118-00
Model 310, 15 amp	330-124-00
Model 310, 5 amp	330-118-00
Model 310-1, 7 amp (2)	330-113-00
Model 310-1, 3 amp (2)	330-125-00
Model 311, 15 amp	330-124-00
Model 311-1, 7 amp	330-113-00
Gasket, Body:	
Models 302, 302-1	530-186-00
Models 305, 305-1	530-182-00
Models 306, 306M, 306-1	530-182-00
Models 310, 310-1(2)	530-182-00
Models 311, 311-1(2)	530-182-00
Gasket, Outer Door:	
Models 302, 302-1	530-185-00
Models 305, 305-1	530-181-00
Models 306, 306M, 306-1	530-181-00
Models 310, 310-1(2)	530-181-00
Models 311, 311-1(2)	530-181-00
Heaters, 100 watts:	
Models 302, 302-1 (4)	340-152-00
Models 305, 305-1 (4)	340-152-00
Models 306, 306M, 306-1 (4)	340-152-00
Models 310 & 310-1(6)	340-152-00
Models 311, 311-1(6)	340-152-00
Inner Door, Tempered Glass:	
Model 302	540-177-00
Model 305, 306, 306M, 310 (2)	540-176-00
Model 310 (2)	540-176-00

REPLACEMENT PARTS: (Con't)

DESCRIPTION	PART NUMBER
Inner Door, Tempered Glass: (Con't)	
Motor, 305M, 306M, 306M-1, 305M-1, 310M, 310M-1, 311M, 311M-1	370-278-00
Receptacle (120 V), Models 305 & 310	420-036-00
Receptacle (240 V), Models 305-1 & 310-1	420-214-00
Recorder, R3 (Optional) (240V)	920-339-02
Shelves:	
Models 302 & 302-1 (2)	810-353-01
Models 305 & 305-1(3), 306 & 306-1(3), 310 & 310-1(6), 311 & 311-1(6)	810-352-00
Status Lamp Base (2)	360-233-01
Status Lamp Lens (Amber)	360-235-00
Status Lamp Lens (Red)	360-234-00
Lamp Base	360-233-01
Switch, Power, 120V	440-359-00
Switch, Power. 240V	440-292-00
Thermometer, Digital	910-134-00
Thermostat, Control or Overtemperature (2)	920-301-00
Temperature Controller 305DIG, 310DIG	485-197-00
Temp. Sensor, Model 305DIG, 310DIG	460-305-00
Wiring Schematics:	
Model 302	227-737-00
Model 302-1	227-753-00
Model 305	227-736-00
Model 305-1	227-754-00
Model 305M	228-575-00
Model 305M-1	228-581-00
Model 306	227-873-00
Model 306-1	227-874-00
Model 306M	228-560-00
Model 306M-1	228-582-00
Model 310	227-735-00
Models 305DIG, 310DIG	228-589-00
Model 310-1	227-755-00
Model 310M	228-576-00
Model 310M-1	228-583-00
Model 311	227-875-00
Model 311-1	227-876-00
Model 311M	228-577-00
Model 311M-1	228-921-00

NEED A PART? CALL THE LAB-LINE PARTS HOTLINE.
CALL: 1-800/LAB-LINE; FAX: (319) 556-0695.

WARRANTY

LAB-LINE INSTRUMENTS, INC., for itself and all of its subsidiaries ("Lab-Line"), does hereby offer a warranty for products from the date of receipt by the user, under normal and proper usage, against defects in workmanship and material, and will repair or replace any defective part(s) without charge when same is shipped prepaid to the authorized Lab-Line distributor from which the product was originally purchased.

Should the nature of any defect require that the product, or any constituent portion thereof, be returned to Lab-Line's factory in Melrose Park, Illinois, prepaid, for service, a condition precedent to any return shall be the procurement of written authorization from Lab-Line assigning a Return Goods Number to the product or part requiring service.

Parts and accessories manufactured by others are warranted only to the extent of the regular warranty of the manufacturer or supplier of such materials and only insofar as Lab-Line is able to transfer the benefits of warranty coverage, if any, to the user. Any adequately warranted defective part or accessory manufactured or supplied by others may be exchanged through an authorized Lab-Line dealer for a replacement part, and no charge, in respect thereof, shall be assessed if the defective part is shipped prepaid and received at Lab-Line's factory within 30 days from the date any replacement part is obtained by the user.

This warranty supersedes and is given in lieu of all implied warranties, and is void if the user does not provide the unit with continuous ample electric power at constant voltage, consistent with the specifications of the product.

TO OBTAIN BENEFITS CONFERRED BY THIS WARRANTY, USER MUST RETURN THE PRODUCT REGISTRATION CARD TO LAB-LINE WITHIN SEVEN (7) BUSINESS DAYS AFTER RECEIPT OF THE PRODUCT.

LAB-LINE INSTRUMENTS, INC.
(and all of its subsidiaries)
15th & Bloomingdale Avenues
Melrose Park, IL 60160-1491 USA
1-800/LAB-LINE

MODEL NUMBER _____

SERIAL NUMBER _____

DATE OF PURCHASE: _____

COMPANY NAME: _____

STREET ADDRESS: _____

CITY, STATE, ZIP CODE: _____

CONTACT & PHONE NUMBER: _____

See reverse side for warranty coverage

WARRANTY: (Con't)

<u>12 MONTH PARTS WARRANTY</u>:

- All E.C. Chambers, Furnaces
- Cold Rooms (5 yrs. parts warranty on compressor only)
- Low Temperature B.O.D. Incubators
- Animal Study Chamber and Aviary
- Controlled Environment Centers
- Biological Work Station
- Refrigerators, Freezers
- Chromatography Refrigerators (5 yrs. parts warranty on compressor only)
- Large Capacity Refrigerators and Freezers (5 yrs. parts warranty on compressor only)
- Circulators, Chillers

<u>24 MONTH PARTS WARRANTY:</u>

- Frame Clamps, Frame Sets, Lab Jacks
- Saybolt Viscosimeter
- Timers, Samplers, Flasks
- Saf-T-Shield, Safety Tongs
- All Incubators & Ovens
- Dual Action Open Air Shaker
- Reciprocating Shakers (open air and water bath)
- Rockers and Rotators
- Low Cost Shakers
- Environ Blok Shaker
- Titer Plate Shaker
- Multi Wrist Shaker
- Water Baths (excluding Aquabaths)
- Slide Warmers, Ultrasonic Cleaners
- Mixers, Stirrers, Hotplates
- Thermal Cyclers
- Frigid Blok
- Blok Heaters

<u>LIFETIME PARTS WARRANTY:</u>

- Aquabaths
- All **ORBITAL** Shakers (not carrying a 24 month parts warranty) offer a lifetime parts warranty on the drive mechanism and 5 yrs. warranty on all other parts

Refrigerated Orbital Shakers carry a lifetime warranty on the drive mechanism, 1 yr. parts warranty on the compressor, and 5 yrs. warranty on all other

FIRST IN INSTRUMENTS SERVICING SCIENCE, INDUSTRY, RESEARCH AND EDUCATION SINCE 1908.

ACCESSORY CHECKLIST

The following loose parts and accessories are packed with this unit. Before discarding any packing materials, please be sure that nothing has been overlooked.

MODEL NO. S: 302, 302-1, 305, 305DIG, 305-1, 305M, 305M-1, 305X, 310, 310DIG, 310-1, 306, 306-1, 306M, 306M-1, 310M, 310M-1, 311, 311-1, 311M, 311M-1
UNITS W/RECORDERS: 302R2, 305R2, 306R3, 306-1R2, 310R2, 310-1R3, 311R3
UNITS WITH LEFT-HAND DOOR OPENING: 302L, 305L, 305LPL
UNITS WITH SPECIAL CORD: 305-1BEUN
UNITS WITH 2-INCH PORTS: 310P2X

CHECKED BY: _____

DATE _____

PACKED BY _____

CHECKED	ITEM	PART NUMBER	QUANTITY
_____	Operation Manual	057-616-00	1
	Shelves:		
_____	Models 302 & 302-1	810-353-00	2
_____	Models 305 & 305-1	810-352-00	3
_____	Models 306 & 306-1	810-352-00	3
_____	Models 310 & 310-1	810-352-00	6
_____	Models 311 & 311-1	810-352-00	6
_____	Temperature Readout	935-021-00	1
	Calibration Potentiometer Trimmer Pot Tool	935-021-00	1
_____	Warranty Card	528-020-00	1