

---

# LM-4

## Elevating Autopsy Table

Parts Numbers: LM-4 (10130, 10135, 10140, 10145)

---

**Thermo**  
ELECTRON CORPORATION



## SAVE THESE INSTRUCTIONS

Please have the following information available when calling Thermo Electron with any questions concerning this item.

### Owner's Record

Model No.: \_\_\_\_\_

Serial No.: \_\_\_\_\_

Voltage: \_\_\_\_\_

Dealer's Name: \_\_\_\_\_

Dealer's Address: \_\_\_\_\_

\_\_\_\_\_

Date of Purchase: \_\_\_\_\_

### Service Information

For further product information or service contact Thermo Electron.

# Thermo

ELECTRON CORPORATION

**171 Industry Drive  
Pittsburgh, PA 15275**

#### General Customer Service:

**Tel: 1-800-547-7429 (outside U.S. 412-788-2460)**

**Fax: 412-788-1138 (outside U.S. 412-788-2480)**

#### Service Department:

**Tel: 1-800-253-7637 (outside U.S. 412-788-2460)**

**Fax: 412-788-6884 (outside U.S. 412-788-2480)**



## Table of Contents

	<b>Page</b>
Introduction.....	1
Manual Conventions .....	2
Safety Considerations .....	3
.....	3
Product Features and Specifications .....	4
Standard Features .....	5
Optional Features .....	8
Accessories .....	8
Product Specifications .....	9
Installation .....	10
Receiving Procedure .....	10
List of Contents.....	10
Installation Requirements.....	11
Site Preparation .....	11
Water Supply .....	11
Electrical Service .....	11
Drain .....	12
Exhaust.....	12
Installation Procedures.....	13
Operation .....	16
Waste Disposal.....	16
Continuous-Flow Rinse Bar .....	16
Drain .....	17
Gooseneck Faucets .....	17
Hand-Held Sprayer .....	17
Hydro-Aspirator.....	17
Maintenance and Service.....	18
Decontamination .....	19
Troubleshooting .....	20
Replacement Parts.....	23
Warranty Information .....	25
Appendix A (LM-4 Elevating Autopsy Table) .....	26



## Introduction

Anyone using this product should carefully and completely read the Safety Consideration, Installation, and Operation sections of this manual before attempting to install or operate the unit. These sections contain important information concerning proper installation, operation, and safety procedures. The instructions and procedures contained in this manual should be followed to protect the user and the laboratory.

The purpose of this Manual is to provide information to familiarize the user with the operation and maintenance of the LM-4 Autopsy Table.

This manual is intended to be as complete and up-to-date as possible. Thermo Electron welcomes your comments regarding this product and its use.

Thermo Electron is not responsible for improper installation or misuse of the unit.

Service personnel should carefully and completely read both the Operation and Maintenance and Service sections of this manual. Personnel not qualified to perform procedures should not attempt to service the unit. If qualified service personnel are not available at your lab site, contact Thermo Electron for instructions.

Thermo Electron reserves the right to revise this manual without the obligation to notify owners.

## Manual Conventions

1. Where dimensions are given, length (L) refers to the left to right measurement as you stand facing the sink; width (W) refers to the front to back measurement; height (H) refers to the top to bottom measurement.
2. This manual uses the the following symbols to call attention to notes, cautions, or warnings to highlight information that is critical to the operation of the unit.

**NOTICE** Notice is used to notify people of installation, operation, or maintenance information which is important but not hazard related.

### CAUTION



YELLOW BACKGROUND

Caution is used to indicate the presence of hazard which will or can cause injury or property damage if the warning is ignored.

### WARNING



ORANGE BACKGROUND

Warning is used to indicate the presence of a hazard which can cause severe injury or death if the warning is ignored.



## Safety Considerations

Please make sure that you read and understand all instructions and safety precautions contained in this manual before you install or use the LM-4 Autopsy Table. If you have any questions, contact our Technical Service Department.

1. Retain and observe all warning labels.
2. Always turn off and lock out the power to the circuit before performing any maintenance or service.
3. Consult a trained electrical technician for repair, maintenance, or adjustment of electrical components.
4. Keep hands and instruments away from the disposal while it is in use. For additional safety information, please read the operating instructions supplied with the disposal.
5. Always operate the exhaust system when working with hazardous chemicals.
6. Routinely apply disinfectants to all surfaces that have come in contact with infected materials.
7. Always wear protective gear, e.g., gloves, goggles, gown, etc.

# Product Features and Specifications

## General

At Thermo Electron, our Autopsy Tables are designed with the special needs of the user in mind. Careful consideration is given to the functional requirements and work flow patterns, as well as the need for maximum space utilization and sanitation. The autopsy table offers all the essentials; large built-in sink, an aspirator suction line, disposal, hand-held sprayer, plus some extras that simply make life easier, such as lever-handle drains, continuous-flow rinse bars, and more.

Safety is built into the design, with anti-siphon vacuum breakers, (G.F.C.I.) receptacles (110-120V), hospital grade duplex receptacles (220-240V) and our downdraft ventilation system.

The table is completely plumbed and wired, then inspected and leak-tested at 60 psi before shipping. Simply provide water, electrical, exhaust airflow, and drain connections, and the table is ready for operation.

LM-4 Tables offer a height adjustment feature, which allows the user to elevate the tabletop to a comfortable working height. The LM-4 is available with or without disposal, and come standard with perforated grid plates that serve as working surfaces for the table. In all, there are four models of each table to choose from:

### Standard LM-4 Models

- P/N 10130 - 110-120V; without disposal (UL Listed\*)
- P/N 10135 - 110-120V; with disposal (UL Listed\*)
- P/N 10140 - 220-240V; without disposal (CE Listed)
- P/N 10145 - 220-240V; with disposal (CE Listed)

\*Underwriter Laboratory (UL) Laboratory Equipment control number 8P16, file number E181227.

#### Note:

Custom units (i.e. units with part numbers C800\*\*\*\*) use UL listed components, however entire unit will not be UL or CE certified.

## Product Features

### General

The following paragraphs present the standard and optional features of the LM-4 Autopsy Tables along with a brief description of each of the features. The location of some of the features will vary between models. See drawings located in the appropriate appendix for the location of the standard features on the LM-4.

### Standard Features

The following features are supplied as standard on LM-4 Autopsy Tables. The location and the operation for the various components is covered in the Operation Section.

#### All Stainless Steel Construction

The LM-4 Autopsy Tables are constructed of stainless steel for strength, durability, and corrosion resistance. All the seams and joints are welded, then ground and polished to a smooth finish for safety and to minimize care and maintenance. The inside corners of the auxiliary and main basins are formed with large radii for easy cleaning.

#### Anti-siphon Vacuum Breaker

The Anti-siphon vacuum breakers are incorporated into each of the water inlet lines that feed the hydro-aspirator, the disposal, the table rinse assembly, and the faucet. The vacuum breaker is to prevent the potable water supply from being contaminated by pollutants in the event of a drop in water pressure.

#### Waste Disposal with Anti-siphon Vacuum Breaker (Models 10135, 10145 only)

The waste disposal is a heavy-duty, 1/2 hp. model. It is supplied completely installed and internally wired. An internal overload protector switch is provided on standard models to prevent the disposal motor from being damaged in the event the blades should become jammed. The disposal's Anti-siphon vacuum breaker prevents the potable water supply from being contaminated by pollutants in the event of a drop in the water pressure.

#### Continuous-Flow Rinse Bar with Vacuum Breaker

A 10-jet continuous-flow rinse bar, located in the end of the table, provides a continuous flow of water to flush chemicals and waste fluids from the table surface into the drain. Water to the rinse bar is controlled by its own control valve located on the front of the pedestal. The rinse bar's Anti-siphon vacuum breaker prevents the potable water supply from being contaminated by pollutants in the event of a drop in the water pressure.

## Electrical Outlets, UL Rated for Damp Locations

### GFCI (110-120 Volt units only)

The electrical outlets provided on the LM-4 series tables (110-120 volt models only) are hospital grade, dual Ground Fault Circuit Interrupter (GFCI) receptacles. The GFCI feature interrupts the electrical supply when a short or malfunction occurs, to protect against electrical shock. These receptacles are UL rated for damp locations. A hinged protective cover helps keep water from entering the receptacle when not in use.

### Duplex Receptacle (220-240 Volt units only)

The electrical outlets provided on the LM-4 series tables (220-240 volt models only) are hospital grade, duplex standard U.S. 240 volt receptacles, type NEMA 6-15. These receptacles are UL rated for damp locations. A hinged protective cover helps keep water from entering the receptacle when not in use.

#### WARNING



ORANGE BACKGROUND

240 volt receptacles must be connected to a Ground Fault Protection Circuit having a mains disconnect and appropriate overcurrent protection when installing table(s).



### Hand-Held-Sprayer with Anti-siphon Vacuum Breaker

The hand held sprayer is provided for rinsing instruments, grid plates and other surfaces. The sprayer has a thumb operated on/off control for easy operation and is equipped with eight feet (2.4 m) of flexible tubing for increased usability.

### Hydro-Aspirator with Anti-siphon Vacuum Breaker

The hydro-aspirator, which is equipped with 10 feet (3.5 m) of 3/8 in. (9 cm) clear flexible tubing, provides a high suction for the removal of body fluids while performing autopsies. A 'reverse flow' feature built into the unit enables the user to clean the tubing and to remove suction clogs by providing a reverse stream of water through the suction tubing. It is also useful for washing down the dissecting board, instruments, grid plates, etc. The aspirator's anti-siphon vacuum breaker prevents the potable water supply from being contaminated by pollutants in the event of a drop in the water pressure.

### Beehive Strainer

The beehive strainer fits in the drain opening of the down-draft ventilation system to prevent solid waste from entering the drain. The strainer is easily removed from the unit to permit cleaning.

**Downdraft Ventilation System**

The downdraft ventilation system utilizes a unique airflow system for exhausting the fumes and/or odors that occur during an autopsy. Passageways within the downdraft system separate the fumes from being contaminated by liquids.

The airflow system draws the fumes that emanate on the table down through the pedestal of the table where they are eliminated by the facility's exhaust system. Liquids from the sink travel directly through the system to the drain and into the facility's waste line.

**Lever-Handle Drain (models without disposal)**

The lever-handle operated drain allows the sink drain to be opened or closed without having to reach through collected fluids and matter. Overflow openings, provided near the top of the sink, connect directly to the drain to prevent the overflow of liquids.

**Pedestal**

The LM-4 autopsy table is mounted on a large rectangular pedestal 48in. L x 18in. W (121cm x 46cm) that gives solid support to the table. A counter balance located on the end of the table opposite the controls provides table stability. Controls on the front of the table allow the height of the tabletop to be automatically elevated 5 inches (13cm) for added comfort and convenience for the user.

The pedestal acts as an air plenum for the down-draft ventilation system. The bottom section provides a means for securing the table to the floor. In addition, the pedestal provides housing for the facility's plumbing, electrical, hydraulics, and exhaust system duct and is accessible by removing the access door.

**Table Elevation**

The elevation of the table is controlled by a hydraulic system that enables the user to vary the height of the table 5in. (13cm), from 32in. to 37in. (81cm to 94cm), to accommodate the individual user. Once the table is set at the desired height, the table elevation hand-locking knobs at the front and rear of the pedestal sides, secure the table in position to prevent additional movement.

**Perforated Grid Plates**

Perforated grid plates for the LM-4 Autopsy Tables are made of stainless steel, and have provisions for four grid plates that serve as working surfaces on the table and are easily removed for cleaning.

**Sink, Single Compartment**

The LM-4 Autopsy Tables are equipped with single-compartment sinks, which provide ample room to accommodate typical autopsy instruments and accessories.

**Sound Absorbing Undercoating**

A sound absorbing undercoating applied to the underside of the table absorbs metallic noises and prevents condensation. A layer of silver enamel paint protects and seals the surface of the undercoating.

**Swing Spout Gooseneck Faucet with Anti-siphon Vacuum Breaker**

The swing spout gooseneck Faucet with 6 in (15 cm) long wrist-blade handles, is conveniently located on the end of the table and allows the user to open and close the faucet using the wrist or forearm. This minimizes the transfer of contaminants from the hand to the fixture. The faucet's Anti-siphon Vacuum Breaker prevents the potable water supply from being contaminated by pollutants in the event of a drop in the water pressure.

## Optional Features (Must be specified at time of ordering)

### Post-Mortem Scale Support Bracket, Part Number 820

The support bracket is welded to the edge of the table at a desired location. With the L-shaped scale support post inserted in the scale support bracket, the scale support post can be rotated to permit the post-mortem scale to be located in a convenient user position. Once the scale is in position, the scale support post is locked by the hand locking knob.

### Sink-Perimeter Rinse

The sink-perimeter rinse is a rectangular, 1/2 in. (1.3 cm) (outside diameter) stainless steel tube located at the top of the walls of the main work surface and is used to thoroughly rinse this main drainage area. Small holes bored into the tubing at regular intervals create a "jet-like" effect to provide an efficient method of cleaning. (A built-in table rinse can not be provided on a table with a perimeter rinse.)

### Measuring Rules.

Measuring Rules etched into the front or the rear lip of the sink permit rapid size determination of specimens. The rules can be scaled in either English (inches), Metric (centimeters), or both to satisfy the user's requirements.

## Available Accessories (not included)

### Solid Slats (7in. wide slat, P/N 106785, 5in. wide slat, P/N 106783)

The removable solid slats can be used with or in place of the perforated grid plates to form the working surface on the Autopsy Table. There are six solid slats, which come in two different sizes; one 7in. (L) x 24-3/8in. (W) (18cm x 62cm) and five 5in. (L) x 24-3/8in. (W) (13cm x 62cm). The desired working surface on the table can be obtained by strategically locating the slats on the table top with the wider of the two slats used under the head and the remaining five under the body.

### Built-In Sponge Bowl with Grid Plate Part Number 19210.

The built-in sponge bowl feature provides the user with a convenient area to place sponges and other utensils that require draining during an autopsy. The sponge bowl measures 10in. (L) x 13in. (W) x 1-1/4in. (D) (25cm x 33cm x 3.2cm). A specially designed perforated grid plate holds the sponge bowl in place on the table surface and both are easily removed for cleaning.

### Post-Mortem Scale

The post-mortem scale is available in analog (part number 1320) and digital (part number 1330) models. The analog model is stainless steel, including a 13 in. dia. x 5 in. (D) (33 cm x 13 cm) pan with a capacity of 1.8 gal (7L). The scale is equipped with two large, heavy-duty dash pots which provide positive and virtually instant readings. The dial is graduated to 3 kg in 10g increments with a maximum capacity of 9 kg (three revolutions). The battery-operated digital model has a bright, easy-to-read LCD that displays up to 19.99 kg. The pan has 2.4 gal (9L) capacity.

## Product Specifications

### Dimensions (L x W x H)

LM-4: 102in. L x 29.5in. W x 32in. min. to 37in. max.  
(259.1 cm x 74.9cm x 81.28cm to 93.98cm)

### Weight (depending upon options installed)

LM-4: Freestanding: 675lbs. (306.18Kg) approximate  
Crated: 7901bs. (358.34Kg) approximate

### Electrical Specifications (LM-4)

#### Outlets:

- 110-120 volt models are provided with a GFCI Receptacle

Facility to provide: 115V nominal, 60 Hz; 1 phase; 15 amp circuit  
for receptacle having appropriate overcurrent protection.

115V nominal, 60 Hz; 1 phase; 20 amp circuit for lift  
having appropriate overcurrent protection.

- 220-240 volt models are provided with a Hospital grade Duplex receptacle or point-of-use receptacle

Facility to provide: 230V nominal, 50 or 60 Hz; 1 phase; 15 amp  
**GROUND FAULT (R.C.D.) PROTECTED** circuit  
for receptacle having a mains disconnect  
and appropriate overcurrent protection.

230V nominal, 50 or 60 Hz; 1 phase; 20 amp  
**GROUND FAULT PROTECTED** circuit for lift  
having a mains disconnect and appropriate  
overcurrent protection.

#### Disposal (if equipped):

- 110-120 volt models are 1/2hp and require approx. 6.0 amp full load @ 60 Hz

Facility to provide: 115V nominal, 60 Hz; 1 phase; 15 amp circuit  
for receptacle having appropriate overcurrent protection.

115V nominal, 60 Hz; 1 phase; 20 amp circuit for lift and  
disposal having appropriate overcurrent protection.

- 220-240 volt models are 1/2hp and require approx. 3.0 amp full load @ 50 Hz or 60 Hz

Facility to provide: 230V nominal, 50 or 60 Hz; 1 phase 15 amp circuit or  
receptacle having a mains disconnect and appropriate  
overcurrent protection.

230V nominal, 50 or 60 Hz; 1 phase 20 amp circuit for lift and disposal having a mains  
disconnect and appropriate overcurrent protection.

# Installation

## General

The following paragraphs contain Receiving Procedures, Installation Requirements, and Installation Procedures to ensure proper installation of the LM-4 Autopsy Tables.

In general, careful attention to the site preparation will help to expedite the installation process. For details on site preparation and installation, refer to the drawings in the appropriate Appendix.

## Receiving Procedure

Upon delivery of the LM-4 Autopsy Table, inspect it for any visible damage. If any is found, immediately notify:

- the freight company
- Thermo Electron's Customer Service Department

Once you have completed the inspection, confirm that you have received all of the items in the List of Contents.

## List of Contents

The Autopsy Table is supplied with all its components already installed, with the exception of perforated grid plates or any options. The plates as well as the other items listed are included in the LM-4 package. If any items are missing, contact our Customer Service Department.

### **LM-4**

- Four (4) perforated grid plates
- Two (2) pieces vinyl Molding each 4ft.
- Beehive Strainer
- Operator's Manual
- Extended Warranty Card
- Rubber Strainer and Plug (for disposal units)



# Installation Requirements

## Site Preparation

Site preparation for the installation of the LM-4 Autopsy Table must comply with all city and local water and waste management requirements.

The floor on which the LM-4 Table will be situated must be as level as possible.

If leveling of the table is necessary, it will be covered in the Installation Procedures.

## Water Supply

Provide:

- one (1) cold water supply line, 3/4 in. (1.905 cm) I.D. copper with shutoff valve
- one (1) hot water supply line, 1/2 in. (1.27 cm) I.D. copper with shutoff valve
- water pressure - minimum 60 psi, maximum 90 psi.

## Electrical Service

The facility must provide the following:

### Tables without disposals (110-120V)

One 115V nominal, 1 Ph, 60 Hz, 20 amp  
Circuit for the G.F.C.I. receptacle

for: P/N's 10130, 10140

**and** one 115V nominal, 1 Ph, 60 Hz, 20 amp  
circuit for the lift

### Tables with disposals (110-120V)

One 115 V nominal, 1 Ph, 60 Hz, 15 amp  
circuit for the G.F.C.I. receptacle

**and** one 115V nominal, 1 Ph, 60 Hz, 20 amp  
circuit for the disposal and lift  
for: P/N's 10085, 10105, and 10155

### Tables without disposals (220-240V)

One Ground Fault (R.C.D.) Protected  
230V nominal, 1 Ph, 50 or 60 Hz, 15 amp circuit  
for the duplex receptacle

for: P/N's 10135, 10145

**and one** 230V nominal, 1 Ph, 50 or 60 Hz, 20 amp  
circuit for the lift

### Tables with disposals (220-240V)

One Ground Fault (R.C.D.) Protected 230V nominal,  
1 Ph, 50 or 60 Hz, 15 amp circuit  
for the duplex receptacle

**and** one 230V, 1 Ph, 50 or 60 Hz, 20 amp  
circuit for the disposal and lift  
for: P/N's 10095, 10115, and 10165

## NOTICE

Provide 3/8 in. liquid tight conduit connectors as needed.

## WARNING



ORANGE BACKGROUND

240V Hospital grade receptacles are **NOT** G.F.C.I. or R.C.D.  
protected and **must** be supplied with a Ground Fault Protection Circuit  
having a mains disconnect and appropriate overcurrent during installation.



**Drain** (All LM-4 Tables)

Provide:

one (1) standard 1-W in. (3.8 cm) copper waste line

<p><b>NOTICE</b> A trap will need to be provided by the customer below the floor line if required.</p>
--

**Exhaust**

Fumes are channeled through the downdraft ventilation assembly installed as part of the table assembly and into the facility's exhaust system. For connection to the system, provide:

- an exhaust duct that extends into the pedestal of the table must be positioned so as not to interfere with the plumbing and electrical service lines

**LM-4 Tables**

- a blower (not included) capable of providing an air flow volume of 700 to 850 cubic feet per minute (cfm) at the work surface is recommended. Pressure drop through the unit is approximately 0.90 inches w.g., at 700 cfm and 1.30 inches w.g. at 850 cfm. Additional pressure losses must be added for the facility's duct system downstream of the unit.

<p><b>NOTICE</b> The location and size of the blowers are to be determined by the customer/supplier.</p>
--

- Additional pressure losses must be compensated for by the customer's duct system downstream of the unit.
- an air volume control damper in the customer's exhaust duct, downstream of the unit

# Installation Procedures

## General

The following procedures are provided to expedite the installation of the LM-4 Autopsy Tables. Prior to installing the table, determine the exact location of all of the utilities on the underside of the unit to assure proper connections to the service lines and the interface of the exhaust duct. Also determine the best type of mounting hardware to be used.

Refer to the Installation Requirements section of this manual and the drawings in the Appendix for the specifications and the approximate location and measurements of the mounting holes used in the installation.

**NOTICE** Due to tolerances the exact mounting hole and tie-in locations may vary slightly; therefore, each table should be used as a template for exact locations.

### **NOTICE** *Leak Test*

Before shipment, the table plumbing is tested for leaks and then air dried to prevent freezing during shipment. To ensure that none of the plumbing connections were damaged during shipment, it is suggested that a 'leak test' be performed. This can be done by moving the table to a location where a water source and a suitable drain is available.

Remove the access door from the front of the pedestal to gain access to the water inlet lines. Connect flexible tubing capable of withstanding 90 psi from the water source to the water supply inlets on the table. Before applying water, close all faucets and control valves on the table.

With water applied, carefully open all faucets and control valves and check plumbing for leaks. Correct leaks, if any, and disconnect the flexible lines and drain from the table. Do not replace the access door at this time.

1. Move table to the desired mounting location. If necessary, remove the second access door by loosening two knurled screws. (The first door is already off.)
2. Prior to positioning table in mounting location, install a 1/2in. (1.27cm) sweat union (female end) to the hot water inlet line and a 3/4in. (2cm) sweat union (female end) to the cold water inlet line of the table.

3. Carefully position table in mounting location over plumbing and electrical service lines and facility's exhaust ventilation duct.
4. Using the base as a template, carefully mark the location of the four corner mounting bolt holes on floor.
5. For the LM-4, drill four mounting holes in floor and install mounting anchors. Sizing of mounting hardware should be done in compliance with all local codes. (We recommend using a 3/8 in. stainless steel expansive screw anchor.)
6. Carefully move table into position and align mounting holes in bottom of pedestal with anchors.
7. Insert four hex-head bolts, each with flat stainless-steel washer and lockwasher, and partially tighten bolts at this time.
8. Using a four-foot (1.3m) level, check table for levelness across both its width and length. If the table is level, tighten mounting bolts and proceed to Step 10; otherwise level it as follows.
9. Using shims, (stainless steel is recommended) carefully raise pedestal enough to place required thickness shims under corner(s) of pedestal until table is level in both directions. Make certain that the shim aligns with mounting bolt and the shim is totally under mounting flange on pedestal base. Tighten all four mounting bolts.
10. Utility Hook-Up
  - a. Water
    - hook up the hot water, use the 1/2in. I.D. (1.27cm) copper pipe and fittings. Locate the hot water tie-in and use the necessary plumbing and fittings to make the final connection.
    - Using 3/4in. I.D. (1.9cm) pipe and fittings, repeat step 1 to hook up the cold water.
  - b. Drain Line
    - Starting at the outlet of the disposal or sink strainer, connect the facility drain (including trap provided by installer) to the disposal or sink strainer. Use 1 1/2in. (3.81cm) copper pipe.
  - c. Electrical tie-ins
    - Locate the junction box which is mounted on the inside of the pedestals. Make all necessary connections in compliance with all electrical codes.
11. Complete plumbing and electrical hookup and check for any leaky connections.
12. Replace the access doors on pedestal.
13. Confirm that disposal impeller blades rotate in proper direction (clockwise). If rotation is counterclockwise, refer to disposal wiring information in the Disposal Manual.

14. Insert beehive strainer into drain opening of downdraft system
15. Place perforated grid plates (four) into trough of work surface.
16. To prevent air and water from being drawn under pedestal, run a bead of silicone around bottom of pedestal. Install vinyl cove molding around base of pedestal.
17. With table completely installed and ready for use, take a moment to complete and return warranty card. (Export orders do not need to return the warranty card.)

**NOTICE** *Duct Work Hook Up*

All final duct work installations are completed by customer/contractor personnel. See drawings in the appropriate Appendix for location of duct(s) on the table.

# Operation

## General

The operation of the components that make up the LM-4 Autopsy Table should be very familiar to the user. While the operation of these components is very straightforward, the standard as well as the more specialized components are listed along with a brief description of the operation and location.

### CAUTION



To prevent damage to the tables elevating hydraulic system, make certain that the table elevating locks are released before attempting to raise or lower the table, and locked after the table is set to its desired height.

To raise or lower the table, perform the following procedures:

1. On table pedestal, locate **Table Raise/Lower Locking Knobs**. Turn both locking knobs counterclockwise to release table elevation locks.
2. To **Raise** or **Lower** the table, rotate the table **Raise/Lower Switch** to **Raise** or **Lower** and hold until the table reaches the desired level, then release. The **Raise/Lower Switch** is located on the front of the table to the right side of the pedestal.
3. Lock table in place by turning both **Table Raise/Lower Locking Knobs** clockwise until table is locked in place.

## Waste Disposal

On all models with a disposal unit is connected to the sink basin. To start or stop the disposal use the ON/OFF switch. If the load is excessive or an object becomes jammed in the blades, an internal overload protector will shut off the motor to prevent overheating or blade damage. Before resetting the switch, turn off the power at the facility's circuit breaker panel and check for obstructions.

**WARNING**

Lock out and tag the dissecting sink before attempting to service the disposal.

NEVER put hands into disposal - see disposal user manual for additional details.

To prevent damage to the disposal unit, ensure that any obstructions are removed from the unit before attempting to reset the internal overload protection switch.

To reset the internal overload protector switch, press the red rubber button (which is flat under normal conditions, raised under overload conditions) located on the power entry box of the disposal. If the motor does not start or continues to shut off upon restarting, call Thermo Electron's Service Department.

**Continuous-Flow Rinse Bar**

To turn the continuous-flow rinse bar jets on or off, use the lower control valve mounted on the table pedestal. Water jets flow continuously when the control valve is open.

**Drain**

LM-4 models without a disposal are equipped with a lever-handle drain mounted in the sink for opening and closing the drain without reaching through collected fluids.

To open the drain, turn the lever handle counterclockwise; to close, turn clockwise.

LM-4 models equipped with a disposal have a typical rubber disposal closure.

**Gooseneck Faucets**

The LM-4 have one vacuum breaker gooseneck faucet, with wrist operated handles, located on the end of the sink. The hot water is on the left and the cold water is on the right when facing the sink.

**Hand-Held Sprayer**

The hand-held sprayer rests on a J-hook on the front of the table to the right of the pedestal. LM-4 has only one sprayer.

To operate the hand-held sprayer, open the shutoff valve located on the pedestal just above the control valve for the table rinse assembly. Press the thumb control to start the spray; release to stop. When the handspray is not in use, turn the control valve to the "OFF" position.

**Hydro-Aspirator**

On the LM-4, the hydro-aspirator assembly is located on the top of the sink-end of the table.

To produce a suction, open the valve located on the right portion of the aspirator assembly.

To produce a reverse flow of water, rotate the lever arm located on the left portion of the aspirator upward. Return the lever arm to the down position to re-establish a suction.

# Maintenance and Service

## General

The LM-4 Autopsy Table were designed to be essentially maintenance-free. When minor problems arise, they can often be resolved by consulting the Troubleshooting Section of this manual. For help with problems not addressed there, feel free to call our Service Department, 1-800-253-7637 (412-788-1133, outside the U.S.), 8:00 a.m. to 5:30 p.m. Eastern time. Fax 412-788-6884 (412-788-2480, outside the U.S.).

## User Service

Thorough and frequent cleaning of your table preserves its appearance and ensures your safety. Your institution's guidelines should be adhered to when performing cleaning and decontamination procedures.

### CAUTION



Be sure to rinse the table thoroughly after performing your facility's decontamination procedure.

Aside from frequent cleaning, the only user maintenance required is replacing the hydro-aspirator tubing and the table rinse assembly tubing.

## Hydro-Aspirator Hose Replacement

The hydro-aspirator is equipped with a 10 foot (3.3m) length of clear flexible tubing.

Over time, the clear flexible tubing on the hydro-aspirator will weaken due to the force of the suctioning action. This tubing should be replaced as required to provide efficient operation. To replace the clear tubing, remove the old tubing from the barbed fitting on the side of the assembly. Carefully place the new tubing onto the barbed fitting on the side of the assembly, making certain that the tubing is completely seated on the fitting. Test by back flushing water through the tubing.

*To order replacement hose, refer to the Replacement Parts List section.*



## Decontamination

Please refer to the World Health Organization guidelines, and/or the Ministry of Health, Infectious Disease Center for policies appropriate for decontamination of pathogens in specific regard to Pathology Services. To assist you in determining the most effective decontamination procedure for your application, please also refer to the guidelines established by the National Laboratory accrediting agencies in your region.

Selection of a disinfecting/decontamination solution is the first step in the process. Define the most effective dilution of this solution and the required contact time with the contaminated surface to obtain the desired results.

### DISINFECTANT+DILUTION+CONTACT TIME=OPTIMIZED DECONTAMINATION

Contact time may vary depending on the porosity of the contaminated surface.

One should also be aware of the composition of the work surfaces to be decontaminated when selecting a disinfectant. For example, sodium hydroxide corrodes aluminum and sodium hypochlorite corrodes stainless steel. In the event one would select sodium hypochlorite to decontaminate a stainless steel table, procedural steps **must be taken** to ensure the table is thoroughly **rinsed** with water **AFTER** the necessary contact time has elapsed. Do not leave on overnight, etc.

#### WARNING



Wear personal protective equipment in accordance with your facility's guidelines when performing decontamination procedures to prevent harmful exposure.



#### CAUTION



The stainless steel surfaces of the dissecting sink are rust- and corrosion-resistant, and with proper and regular cleaning will retain their original luster throughout their service life. Always use soft cloths, sponges, etc., for cleanup; never abrasive cleaners, scouring pads, steel wool or other ferrous cleaning tools, etc. **Always rinse surfaces thoroughly after cleaning or decontamination.**

# Troubleshooting

## General

The following troubleshooting procedures are provided to aid in analyzing and correcting minor problems that may occur in the Autopsy Table. This information is presented in table form listing the Problem, Possible Cause(s) and the recommended Solution. For additional information, consult the appropriate vendor's manual supplied in the Accessory Kit.

Problems that cannot be resolved by performing these procedures should be referred to the Service Department.

## Hand-Held Sprayer or Continuous-Flow Rinse Bar

Problem	Possible Causes	Solutions
No water flow	Shut-off valve closed	Check shut-off valve

## Hydro-Aspirator

Problem	Possible Causes	Solution
No Water flow	Shut-off valve closed	Check shut-off valve
Suction is weak	Assembly partially clogged	Check for clogged condition. Rotate lever arm on right of unit upward to produce water flow. Return lever arm to down position to re-establish suction.

## Disposal Unit

Problem	Possible Causes	Solution
Disposal does not start	Disposal circuit breaker is tripped.	Check circuit breaker at main breaker panel. Reset breaker.
	On/off switch defective	Check both On/off switches. Replace switch if necessary.
	Impeller blades are jammed	Turn off power at circuit breaker and at power switch. Carefully clear any obstruction in the disposal input. Turn power back on.
	Internal overload protector switch tripped	On power entry box of disposal, press red push-button switch. Test operation by turning On/off switch to on. If disposal still does not operate, contact Thermo Electron Service Department.

**Table**

<b>Problem</b>	<b>Possible Causes</b>	<b>Solution</b>
Motor runs, table does not raise	TABLE RAISE/LOWER LOCKING KNOBS not released.	Release TABLE RAISER/LOWER LOCKING KNOBS.
	Hydraulic reservoir fluid level low	Check reservoir oil level. Add oil if necessary
Table jumping while it is going up and or down	Air in hydraulic line	At tee on input line to cylinders, bleed air from input line.
Motor will not run	TABLE RAISE/LOWER switch is defective	Replace TABLE RAISE/Lower switch if necessary.
		At circuit breaker panel check breaker and reset.
Will not remain elevated	Fluid return solenoid valve for the pump, electrical connections defective	Check solenoid valve for the pump electrical connections.
	Fluid return solenoid valve for the pump defective	Check solenoid valve for the pump for proper operation. Replace if necessary.
	TABLE RAISE/LOWER LOCKING KNOBS are not in the locked position	Turn the TABLE RAISE/LOWER LOCKING KNOBS to the locked position.
Will not lower	TABLE RAISE/LOWER LOCKING KNOBS not released.	Release TABLE RAISE/LOWER LOCKING KNOBS.
	Upper level limit switch defective or loose (This can cause the hydraulic cylinders to overextend)	Check switch wire connections and switch. Repair or replace connections. Check the hydraulic cylinders for over extension.
	Hydraulic cylinders are over extended (This can be caused by the upper limit switch being defective)	Check upper level limit switch arm and connections. Repair or replace switch, and push the table down somewhat to free up the cylinders.

Table (continued)

Problem	Possible Causes	Solution
	Fluid return solenoid valve for the pump, electrical connections defective	Check solenoid valve for the pump electrical connections.
	Fluid return solenoid valve for the pump defective	Check inline fuse. pump for proper operation. Replace if necessary.
	Fluid return solenoid valve for the pump, fuse blown (220 Volt versions only)	Check inline fuse. Replace step-down transformer inline fuse.
	Fluid return solenoid valve for the pump, step-down transformer defective (220 Volt versions only)	Check step-down transformer. Replace transformer if necessary.
	Physical obstructions	Check for physical obstructions under table.

## Replacement Parts

The following is a list of the replacement parts that are available for the LM-4 Elevating Autopsy Table and can be purchased separately.

To place an order, call Thermo Electron Customer Service Department 1-800-547-7429, (412-788-2460, outside the US) 8:00 a.m. to 5:30 p.m. Eastern Standard Time, fax 412-788-6884 (412-788-2480, outside the US).

### LM-4 Table Replacement Parts

Item No.	Description	Part No.
1	Perforated Grid Plates, 15in. W	10058
2	Beehive Strainer	10079
3	Hydro-Aspirator Assembly	10068
4	*Tubing, Clear Urethane 3/8in. I.D. (1cm)	430
5	*Tubing, Push-Lok, 3/8in. I.D. (1cm)	1000315
6	Faucet Deck	106206
7	Antisiphon Vacuum Breaker Assembly	10067
8	Door, Access, Large	10118
9	Door, Access, Small	10354
10	Knurled Thumb Screws for Access Doors	1000546
11	Disposal, Waste, 1/2 h.p. (w/disposal 120V only)	B1001205
	Disposal, Waste 1/2 h.p. (w/disposal 220V only)	B1002592
12	Switch, Disposal On/Off	1000649
13	Table Raise/Lower Switch	1000664
14	Hand-Held Sprayer	429
15	Hand-Held Sprayer Control Valve and Table-Rinse Assembly Control Valve	104445
16	Molding, Cove Black Cove, 2-1/2" x 4' vinyl	1075929
17	Receptacle, Hospital Grade (G.F.C.I.)(115V only)	105932
18	Table Raise/Lower Locking Knob	5400017
19	Gooseneck Spout w/Vacuum Breaker	106694
20	Receptacle, Duplex (220V only)	1000465
21	Coil, Solenoid 120 Volts (w/disposal 120V only)	106675
22	Coil, Solenoid 240 Volts (w/disposal 220V only)	1000516
23	Valve, Solenoid, GP-400 Series (w/disposal units only)	1000654
24	Twist Handle Drain (w/o disposal units only)	1000520

\*Sold in increments of 12 inches (30.4 cm).

**LM-4 Table Hydraulic System Replacement Parts**

The following is a list of replacement parts for the hydraulic and electrical system for the LM-4 and are located inside the pedestal. To gain access to the replacement parts, remove the access door on the back of the pedestal

**LM-4 Table Replacement Parts**

Item No.	Description	Part No.
1	Pump, Hydraulic	1075721
2	Cylinder, Hydraulic	106618
3	Valve, Flow Divider	1000218
4	Bellows, Drain Line	1001299
5	Valve, Solenoid with Coil for Pump	1000885
6	Switch, Limit	105686
7	Transformer, Step-Down (220V unit)	1000901
8	Fuse, Slo Blo (0.1 amp 250 vac) (220V unit)	1000934
9	Fuseholder (220V unit)	235082
10	Grease, Multi-Purpose Lithium	1000216
11	Fluid, Hydraulic Non-Conductive Viscosity 300, Temperature 100°F	1000219

## Warranty Information

Please complete the warranty card enclosed in your package and return to Thermo Electron to register your unit for coverage under our one-year limited warranty. Those customers outside the U.S. do not have to return the warranty card, as the warranty will be handled by the distributor in their region.

This warranty covers manufacturing defects due to materials or workmanship for a period of one year from the date of the invoice. It does not cover problems resulting from:

- unauthorized repairs
- misuse, or failure to follow use instructions
- accidents or lack of proper maintenance

### Disclaimer

Except for the express warranty set forth above, no other warranty, either expressed or implied and including a warranty of merchantability and fitness for a particular purpose, has been or will be made by or on behalf of the manufacturer or the seller or by operation of law with respect to the equipment and accessories or their installation, use, operation, replacement or repair or any services provided by or on behalf of the manufacturer or the seller.

Seller's liability to buyer in the event of loss or damage due to breach of contract, breach of any warranty or for negligence, strict liability or other tort, or other causes or otherwise shall be limited to the return of the purchase price and shall not include special, indirect or consequential damages arising out of, resulting from, or in any way connected with the equipment and accessories or their installation, use, operation, replacement or repair or any services provided even if seller is advised of the possibility of such damages.

No agent, employee, or representative of the seller, unless authorized in writing by an officer of the seller, has authority to bind the seller to any affirmation, representation, promise or warranty concerning the equipment and accessories or their installation, use, operation, replacement or repair or any services provided,

For instructions on how to obtain warranty service, call our Service Department. Please have the serial number, the part number and the operating voltage of your unit ready.

The sole obligation of Thermo Electron under this warranty shall be to repair or replace any product it delivers which is found to be defective.

### **THERMO ELECTRON**

171 Industry Drive  
Pittsburgh, PA 15275

# Appendix A

## LM-4 Elevating Autopsy Table

### List of Contents

The following is a list of the material contained in Appendix A and is provided to aid the user in the operation and service of the various components that make up the LM-4 Autopsy Table.

<b>Component Description</b>	<b>Drawing No.</b>
LM-4 Autopsy Table without Disposal, 115 volt and 230 volt	S10130
LM-4 Autopsy Table with Disposal, 115 volt and 230 volt	S10135

**Trademark Ownership**  
Thermo Electron





# LIGHT COMMERCIAL MODEL LC-50

## INSTALLATION, CARE AND USE MANUAL

The Model LC-50 food waste disposer is designed specifically for light commercial use in applications such as:

- Grocery/convenience stores
- Fast food restaurants
- Office/church kitchens
- Bed and breakfast inns

This manual clearly describes the installation procedure, operating instructions, maintenance instructions, and safety instructions. Following this manual will help you enjoy all the benefits from using a food waste disposer in your operation.

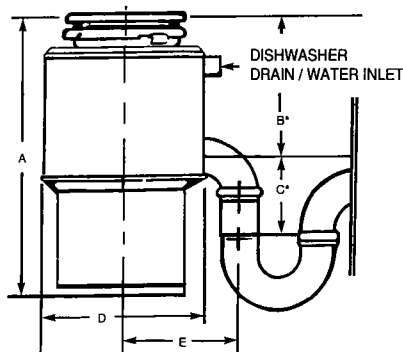
### TOOLS AND MATERIALS YOU *WILL* NEED

- Screwdriver
- Pipe wrench
- Hammer
- Plumber's putty (1/4 lb.)
- Wire nuts (2 - size 54)

### TOOLS AND MATERIALS YOU *MAY* NEED

- Plumber's drain auger or rod
- On-off electrical switch (1/2 H.P., 15-20 amps)
- Hack saw
- Worm gear clamp
- Copper wire (12 or 14 gauge)
- Connector kit (Part #8301)
- Solenoid valve (Part #11475)
- Syphon breaker (Part #11477)
- Flow control valve (Part #11033D)

### INSTALLATION DIMENSIONS



Dimension	A	B*	C*	D	E
Inches	14 $\frac{3}{4}$	6 $\frac{13}{16}$	4	8	5 $\frac{1}{4}$
Cm	37.0	17.3	10.2	20.3	14.6

B\* – Distance from bottom of sink to center line of disposer outlet. Add  $\frac{1}{2}$ " when stainless steel sinks are used.

C\* – Length of discharge tube from center line of disposer outlet to end of discharge tube.

**IMPORTANT:** Plumb waste line to prevent standing water in disposer motor housing.

For Service Information Call Toll Free 1-800-558-5700 (U.S.) or 1-414-554-5432 (Canada)



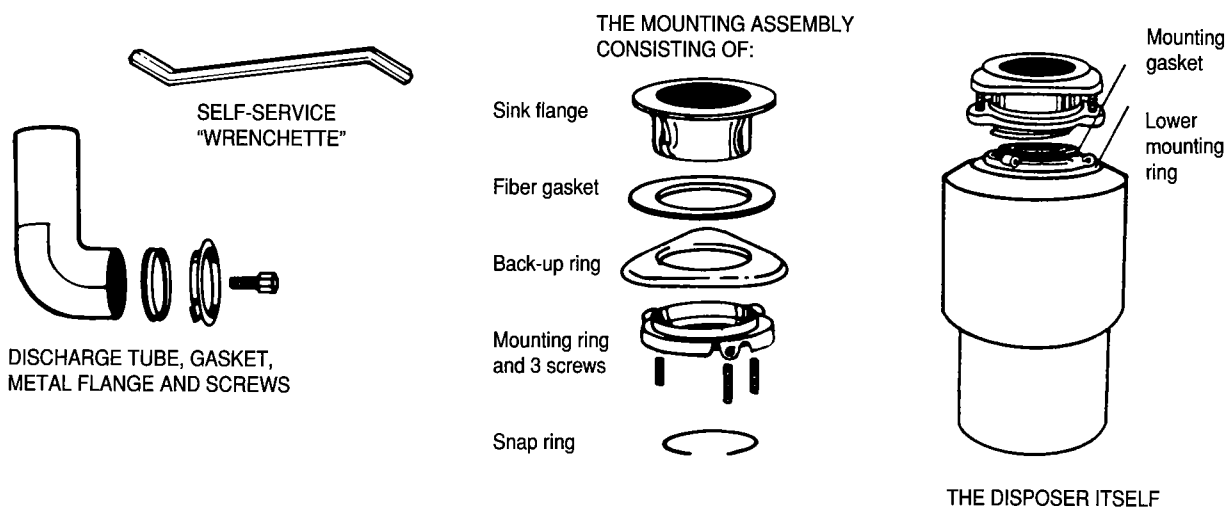
PART NO. 13693 5/97



IN-SINK-ERATOR DIVISION  
EMERSON ELECTRIC CO.  
4700 21st STREET, RACINE, WIS. 53406

# 1

**CHECK THE PARTS AGAINST THE DRAWINGS BELOW AND MAKE SURE EVERYTHING IS THERE**



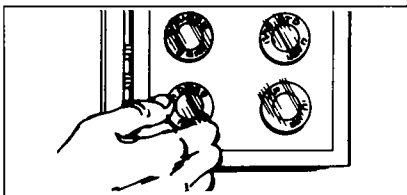
# 2

## CLEANING YOUR SINK'S DRAIN LINE

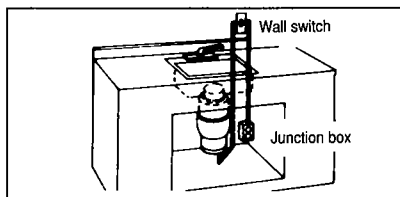
We recommend cleaning the line before connecting your new disposer. You can do the job yourself with a drain auger. Remove the drain trap and, using the auger, clean out the horizontal drain pipe that runs from the trap to the main waste pipe. Make certain that the auger removes the hardened material that forms at the intersection of the horizontal pipe and the main waste pipe.

# 3

## ELECTRICAL SUPPLY



First, remove the fuse or open the circuit breaker on the circuit you plan to use for your disposer. Use a separate 15 or 20 amp, 120 volt circuit for the disposer. If you are replacing a unit, skip to step 4. Next, use 15-20 amp, 120 volt cable to make a connection from the junction box to the on-off switch.



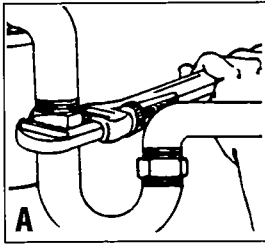
Install a junction box and switch. (Obtain 1/2 H.P., 15-20 amp rated on-off switch and electrical wiring locally.) Position the switch in any convenient location, and connect to junction box. *All wiring must comply with local electrical codes.* 14 gauge size wire is the smallest permissible for use with a 15 amp circuit, and 12 gauge is the smallest permissible for use with a 20 amp circuit.

**NOTE: See 10 & 11 for final electrical connections.**

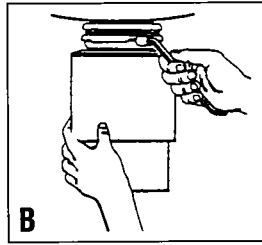
# 4

## REPLACING AN OLD DISPOSER

FIRST, TURN OFF ELECTRICAL POWER at the service panel (fuse box or circuit breaker box). If the mounting is the same as your new disposer's mounting, you can use the existing mounting. Follow instructions A, B, D and E, Step 4, then go on to Step 6.



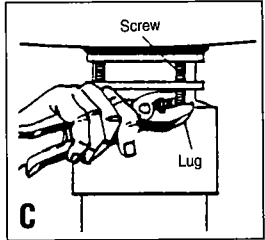
Use a pipe wrench to disconnect the drain line where it attaches to the disposer discharge tube.



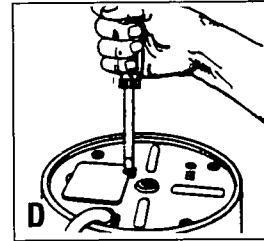
**CAUTION:** Be sure to hold the disposer with one hand while performing this step or it may fall when the mounting ring is disconnected from the sink mounting assembly. GO TO INSTRUCTION D.

IF YOUR OLD DISPOSER HAS A DIFFERENT MOUNTING THAN YOUR NEW ONE, GO ON TO INSTRUCTION C.

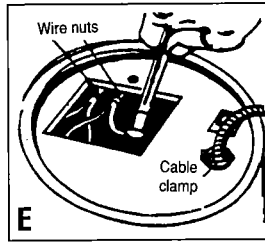
If your old disposer has the same mounting as your new one, insert the end of your "wrenchette" or screwdriver into the right side of one of the disposer mounting ring lugs at the top of the disposer. Then, turn the "wrenchette" or screwdriver to the left (counter-clockwise) until the lug lines up with one of the sink mounting assembly screws.



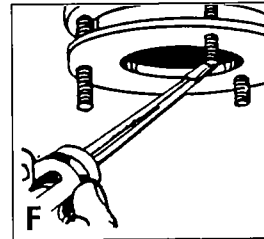
If your old disposer has a different mounting than your new one, use a pliers or adjustable wrench to remove the nuts on the mounting ring. Then remove old disposer. (Some disposers have to be removed by taking off a clamp or by twisting the disposer to remove it from its mounting. Easy to figure out.)



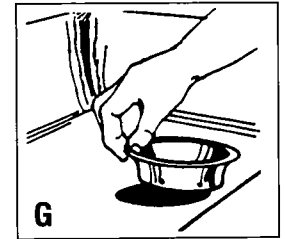
Once the disposer is off, turn it upside down and remove the electrical plate.



Now, use a screwdriver to remove ground wire. Remove the wire nuts from the power wires. Separate the disposer power wires. Separate the disposer power wires from the cable wires. Loosen the screw(s) on the cable clamp and remove the cable from the disposer. If your old disposer has a different mounting than your new one, follow steps F and G. Otherwise go on to Step 6.



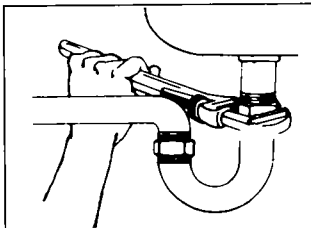
Loosen screws and remove old mounting ring and back-up ring. You may need a hammer to loosen assembly parts.



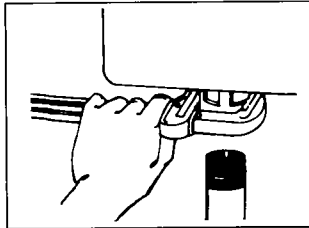
Finally, remove the old sink sleeve by pushing it up through the sink hole.

# 5

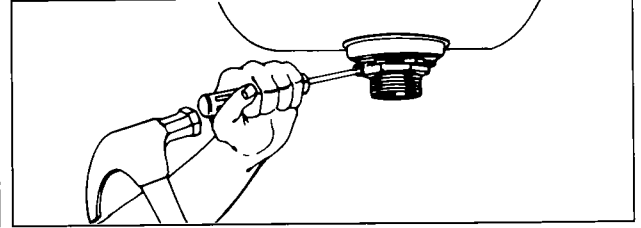
## INSTALLING A FIRST-TIME DISPOSER



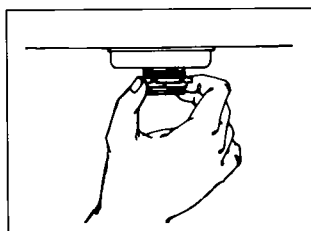
Use a wrench to loosen the nut at the top of the "P"-trap.



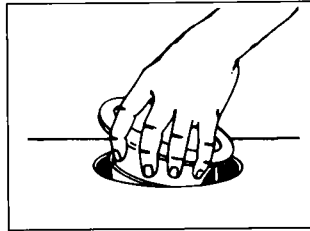
Next, remove the nut at the top of the sink strainer and remove the extension pipe.



Now, remove the large-diameter nut at the base of the strainer by placing the tip of your screwdriver on the edge of the nut. (There are usually ridges to hold your screwdriver.)



The nut should be loosened enough that you can spin it off by hand.

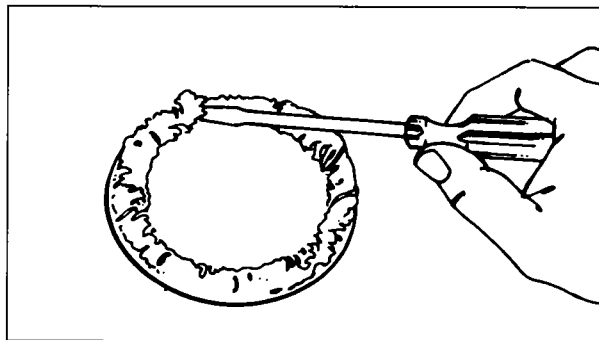


Now, push the strainer assembly up through the sink hole and remove it.

6

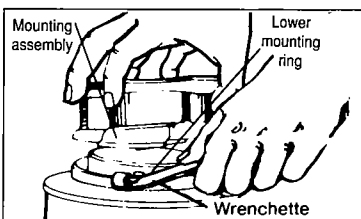
## CLEAN THE OLD SEALANT FROM THE RIM OF THE SINK HOLE

Use your screwdriver or a putty knife to scrape away all traces of the old putty or caulking from the edge of the sink drain hole. Make sure you get this as clean as possible so that you'll have a good, water-tight seal for your new disposer sink flange.

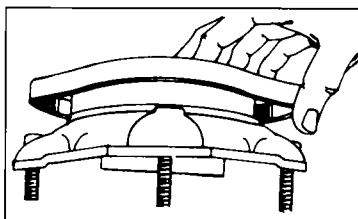


7

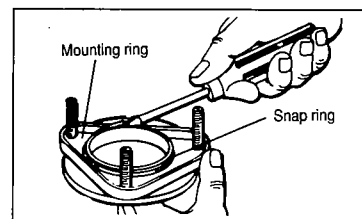
## SEPARATE THE PARTS IN THE MOUNTING ASSEMBLY



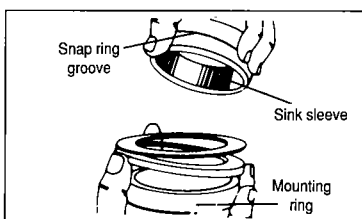
First, remove the mounting assembly from the lower mounting ring. Holding the mounting assembly with one hand, insert your wrenchette or screwdriver into one of the lugs of the lower mounting ring and turn it to the left (counterclockwise) with your other hand.



Then, loosen the screws on the mounting assembly until they are just level with the surface of the mounting ring.



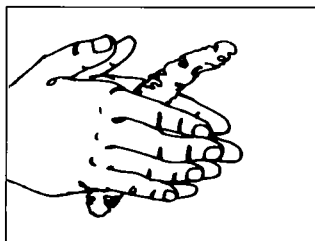
Now, use a screwdriver to pry off the snap ring.



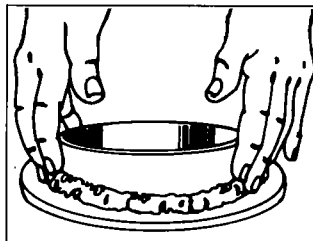
The assembly will now come apart. Set it aside and move to the next step.

8

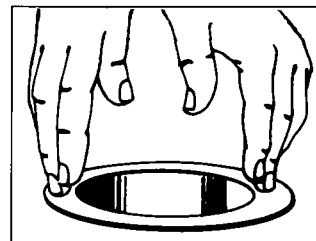
## APPLY PUTTY TO THE SINK FLANGE



Make a nice fat snake of plumber's putty by rolling it between your hands.



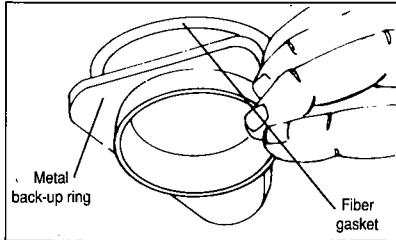
Apply this roll under the rim of the sink flange.



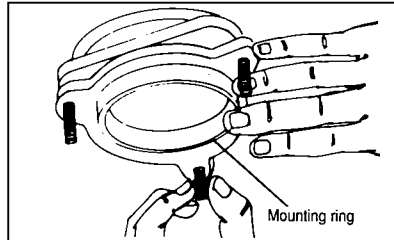
Then, place the sink flange into the sink drain hole and push down making sure it sits evenly in the putty.

# 9

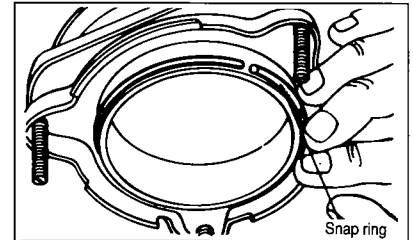
## ATTACH THE UPPER MOUNTING ASSEMBLY



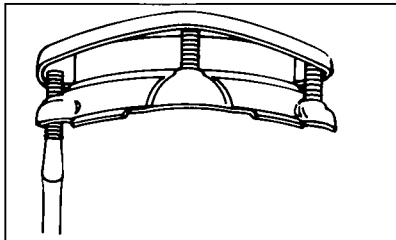
First, working from under the sink, slip the **fiber gasket** and next the **metal back-up ring** (flat side up) up and over the sink flange.



Hold the fiber gasket and metal back-up ring in place with one hand and place the mounting ring with its three screws *onto the sink sleeve*.



Now, push the fiber gasket, metal back-up ring and the mounting ring further up on the sink sleeve. Slide the snap ring onto the sink sleeve until it pops into place in the groove on the sleeve.



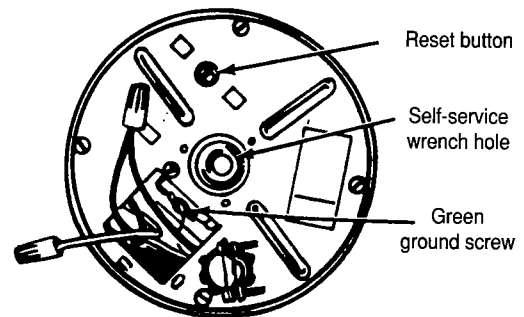
Tighten the three mounting screws with your screwdriver until the whole mounting assembly is seated evenly and tightly against the sink.

# 10

## ELECTRICAL CONNECTIONS

Remove the electrical plate from the bottom of the disposer and pull out the two electrical wires. The ground screw is also under the plate.

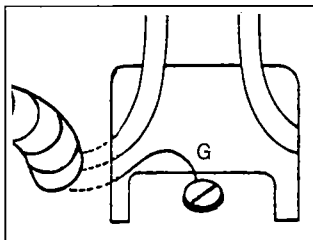
Connect the wires from the switch to the disposer wires. In making this connection, electrical wire nuts can be used or wires may be securely soldered together. *Be sure to connect white to white and black to black.* Wrap wire connections with electrical tape and put wires inside of disposer housing. Check for proper grounding, then replace the electrical cover.



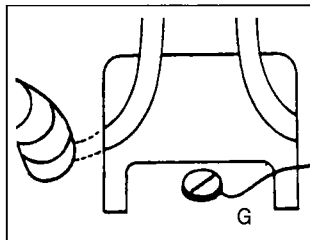
# 11

## GROUNDING THE DISPOSER

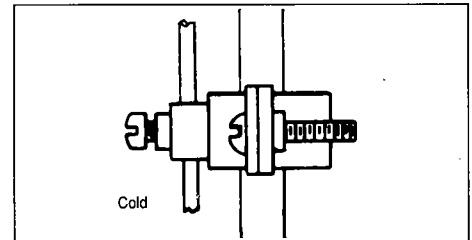
**WARNING: IF NOT PROPERLY GROUNDED, a hazard of electrical shock may exist.** DO NOT reconnect electrical current at main service panel until proper ground is installed. For your safety, DO NOT ground to a gas supply pipe.



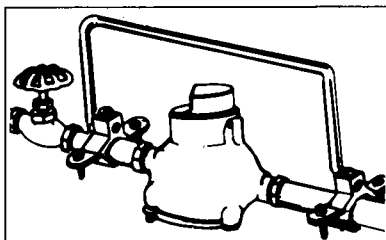
Simply attach the third green wire to the green ground screw on the unit.



If you don't have a ground supply conductor, buy a length of copper wire from your hardware store that is no smaller in size than the supply wire and attach one end to the green ground screw on the unit.



Attach the other end of this ground wire to the **METAL** cold water pipe. **NOTE:** Be sure that this cold water pipe is continuous METAL pipe from the sink to the ground. Use (Underwriters Laboratories Inc., listed for the U.S.A.) ground clamp to attach wire to pipe. If any doubt, or if **NON-METAL** pipe is used in your home water connections or if plastic pipe is used in your water supply pipe, you will need a qualified electrician to install a proper ground.



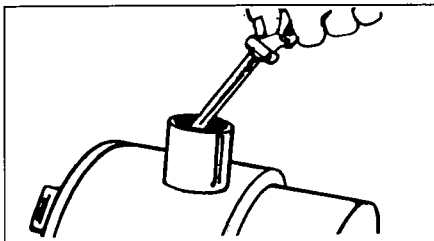
If you have a water meter in your home, check the meter to see if there is a wire that comes across it. If there is no wire, your cold water pipe is **NOT GROUNDED**. To properly ground it, add a #6 copper wire as shown for 200 amp service or less. Use (Underwriters Laboratories Inc., listed for the U.S.A.) ground clamps to attach wire to pipe.

# 12 OPTIONAL STEP

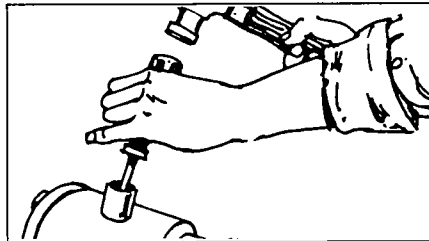
If you do **NOT** plan to use this step, go to step 13.

The model LC-50 is designed to be used with water from an overhead faucet. As an option, the water/dishwasher drain inlet can be used for direct water connections, or as a connection for your dishwasher drain.

## A. Preparing the water/dishwasher drain inlet

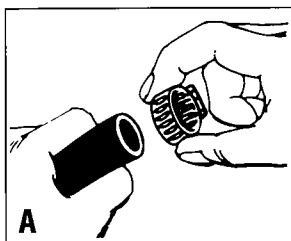


Lay the disposer on its side and insert the tip of your screwdriver into the water/drain inlet opening at an angle.

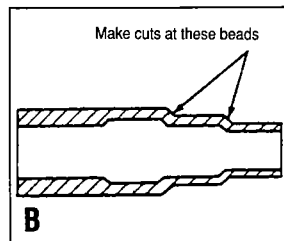


Tap the end of the screwdriver with a hammer until the molded plug pops out. **MAKE SURE YOU TAKE THE LOOSE PLUG OUT OF YOUR DISPOSER.**

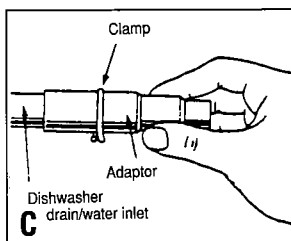
## B. Connecting direct water line or dishwasher drain hose to the disposer. This is done after step 13.



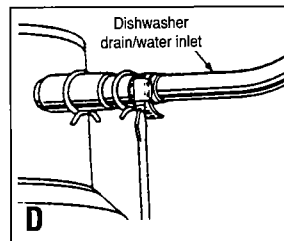
Remove the clamp or fittings from the end of your dishwasher drain hose. (Dishwasher application only.)



Then determine the outside diameter of dishwasher drain line and cut rubber adaptor to correct size. (Most commercial water lines are 1/2" so no cuts are necessary.)



Slide large end of adaptor over inlet tube of disposer. Fasten the adaptor to the disposer with a proper size clamp.

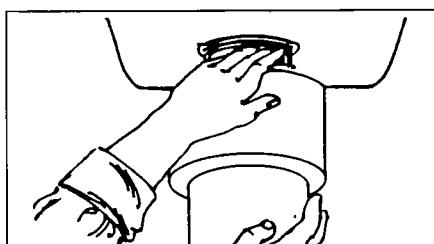


Slip the remaining clamp over the water line or dishwasher drain hose and back two or three inches. Now, slip the drain hose or water line into the adaptor. Then slide clamp into position and tighten.

**NOTE:** Both types of connections are recommended to be used with an In-Sink-Erator Connection kit, part number 8301 (shown above).

**IMPORTANT:** If you connect your dishwasher drain hose to the disposer, the discharge water must go through an air gap. Direct water connections *require* a solenoid valve (Part #11475), and a syphon breaker (Part #11477). If your water line velocity is greater than 3 GPM, it is recommended you use a flow control valve (Part #11033D). Connections should comply to local plumbing codes. Check the three clamps to make sure all of them are tightened.

# 13 CONNECTING THE DISPOSER TO ITS MOUNTING ASSEMBLY



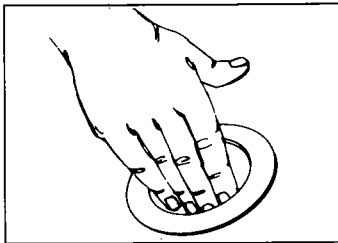
Lift the disposer and position it so that the disposer's three mounting lugs are lined up **under** the three sink mounting assembly screws.



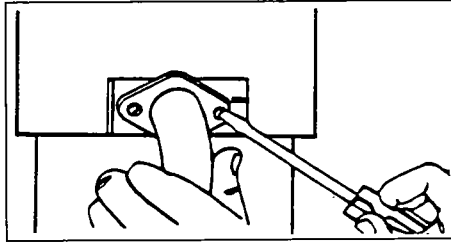
Then, while holding the disposer in place, turn the lower mounting ring with the lugs to the right until **all three** ears are engaged on the mounting assembly. You will lock this ring later, after the plumbing connections are made.

# 14

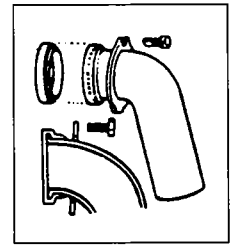
## ATTACH THE DISPOSER DISCHARGE TUBE TO YOUR SINK'S DRAIN TRAP



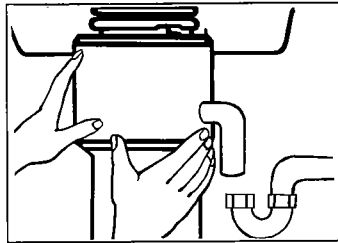
First, check inside the disposer grinding chamber to remove any ob-jects or dirt that might have dropped in.



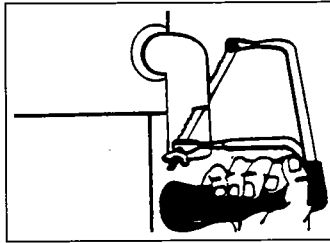
Rotate the disposer around and attach the discharge tube to the disposer. First, insert the rubber washer in the discharge opening. Then, put the metal flange over the discharge tube and screw the tube into place using the bolts provided.



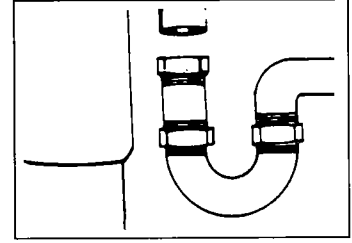
Install the discharge tube gasket onto the discharge tube. Gasket must be installed as shown to assure a leak-proof installation.



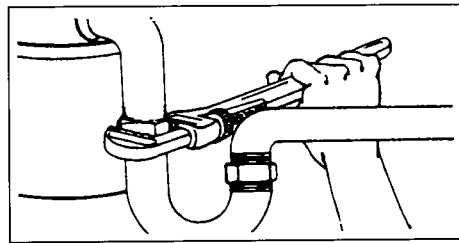
Turn the disposer so that the discharge tube aligns with your drain trap.



**TUBE TOO LONG?** Simply cut off as much as necessary with a hack saw, making sure you have a clean, straight cut.



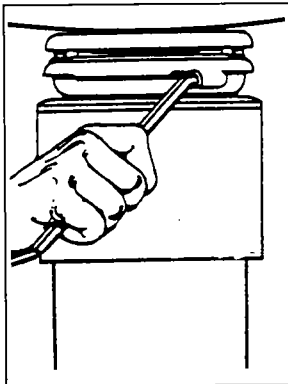
**TUBE TOO SHORT?** If the discharge tube doesn't reach your drain outlet, measure the difference and buy a drain trap extension tube.



**IF IT FITS** – Simply tighten the slip nut on the trap to make your connection to the discharge tube complete. **IF DOUBLE SINK EXISTS, WE RECOMMEND USE OF SEPARATE TRAPS FOR DISPOSER AND SECOND SINK.**  
**NOTE:** Be sure to comply with all applicable plumbing codes.

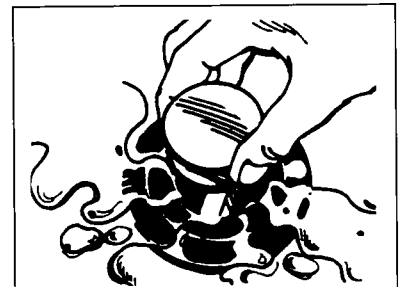
# 15

## LOCK DISPOSER IN PLACE AND CHECK FOR LEAKS



Place the end of your "wrenchette" or a screwdriver into the left side of one of the disposer mounting lugs . . . at the top of the disposer. Then, turn the "wrenchette" or screwdriver to the right until the disposer locks in place.

Run water slowly through the unit. Then, place the stopper in seal position and fill the sink with water.



Finally, remove the stopper and permit the water to flow. check for leaks and correct, if necessary.

# IN-SINK-ERATOR DISPOSER WARRANTY INFORMATION

## MODEL LC-50 FULL 1 YEAR WARRANTY

Covers all **replacement parts** and **repair labor** to correct defects in material or workmanship for the full warranty period from the date of installation. If service is required during the warranty period, an In-Sink-Erator Factory Authorized Service Center must be contacted to **replace or repair the disposer at no charge to the customer**.

If the manufacturer determines the unit should be replaced rather than repaired, the warranty on the replacement unit will be limited to the unexpired term of the original warranty.

### HOW TO OBTAIN SERVICE

If you have questions concerning your disposer, or when service is needed, please call In-Sink-Erator's **Automated Service Information System** at 1-800-558-5700 for the nearest In-Sink-Erator Factory Authorized Service Center. In Canada call 1-414-554-5432.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

### NO OTHER EXPRESS WARRANTY, WRITTEN OR ORAL APPLIES

If your disposer will not operate, follow these steps, in order:

1. Check the things you can do yourself. Be sure disposer is plugged firmly into appropriate receptacle or is properly electrically connected in some other manner. Be sure fuses and circuit breakers are in good order. Reread instruction booklet to assure that you are using correct operating procedure. Many unnecessary service calls result in the service man doing what you can do yourself.
2. Check with your local authorized service center. For the location of your nearest factory authorized service center call toll free 1-800-558-5700 or 1-414-554-5432.
3. Write to us if a satisfactory solution is not reached in steps 1 and 2. Our address is:

IN-SINK-ERATOR, SERVICE DEPARTMENT  
4700 - 21st Street  
Racine, Wisconsin 53406 U.S.A.

**IMPORTANT:** The model LC-50 is designed specifically for **light** commercial use. Examples of these applications include: grocery/convenience store deli's, fast food restaurants, office/church kitchens, and bed and breakfast inns. Use of this disposer in applications other than those named above may void your warranty. If you are unsure of a potential application, call the factory at 1-800-558-5712, ext. 3536 or 3537.

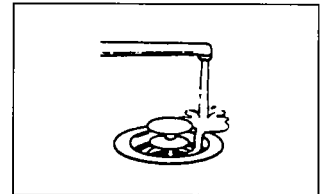
## OPERATING INSTRUCTIONS

### MODEL LC-50

1. Remove the stopper from the disposer sink sleeve and turn on the *cold water full flow*. (Water should remain on during complete disposer operation.) Failure to turn on a full flow of water before turning on the disposer can cause drain blockages.

2. "Flip" the switch to the *on* position to start disposer. Feed food waste into the disposer while it is running.

To avoid drain pipe blockage allow water to flow sufficient time after grinding is completed to be sure all waste is flushed away. Ground waste and water mixture flows at the rate of 2 seconds per foot in a horizontal drain line.



Stopper in drain/grind position.

**NOTE:** After all the food waste has been fed into the disposer place the stopper in the sink sleeve in the **drain/grind position** (see illustrations) to minimize the possible ejection of material while grinding.

**DO NOT INSERT HAND INTO DISPOSER.**

## DO'S AND DON'TS

### DO . . .

- use a strong flow of cold water while grinding
- grind hard materials such as bones, fruit pits, etc.
- grind citrus and melon rinds
- grind coffee grounds
- dispose of grease/fats with strong flow of cold water
- flush disposer for cleaning

### DON'T . . .

- use hot water while grinding food waste
- turn off disposer or water until grinding is complete
- grind extremely fibrous materials like corn husks, artichokes, etc. to avoid possible drain blockage
- grind plastic, plastic wrap, glass, cardboard, metal, clam and oyster shells, or large whole bones

## SAFETY

### IMPORTANT SAFETY INSTRUCTIONS

**WARNING:** When using electric appliances, basic precautions should always be followed, including the following:

1. Read all the instructions.
2. To reduce the risk of injury, close supervision is necessary when used near children.
3. Do not put fingers or hands into disposer.
4. Turn the power switch to the off position before attempting to clear a jam or remove an object from the disposer.
5. When attempting to loosen a jam in a waste disposer, use a self service wrenchette as described below.
6. When attempting to remove objects from a waste disposer use long-handled tongs or pliers.
7. To reduce the risk of injury by materials that may be expelled by a garbage disposer place the stopper in the drain/grind position when grinding. Do not put the following into a disposer:
  - a. Clam and oyster shells
  - b. Drain cleaner
  - c. Glass, china, plastic or plastic wrap
  - d. Large whole bones
  - e. Metal objects

*Continued on next page.*



### **Safety instructions continued.**

8. When not operating a disposer, leave the stopper in place to reduce the risk of objects falling into the disposer.
9. **Before pressing red reset button, (see Fig. 4), be sure the wall switch is in the off position.**
10. **GROUNDING INSTRUCTIONS FOR PERMANENTLY CONNECTED UNITS:** This appliance must be connected to a permanent metal ground, per National Electric Code, and in accordance with all local codes.

**DANGER** - Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or serviceman if you are in doubt as to whether the appliance is properly grounded.

### **SAVE THESE INSTRUCTIONS**

## **TROUBLE SHOOTING**

Loud noises while your disposer is operating are usually caused by the accidental entry of a spoon, bottle cap, or similar object. To correct this, turn off the disposer switch and water. After grinding disc has stopped turning, investigate.

Motor stops while your disposer is operating. This can be caused by overloading the unit. First, check the cause of the overload – often some foreign material is in the disposer. **To avoid personal injury** turn off the disposer switch and water. Remove object as previously explained. If motor remains inoperative, check your fuse box and replace any blown fuses, or look for a tripped circuit breaker.

NOTE: If the water does not drain as readily as you think it should and food waste tends to float or take too long to grind, don't reduce water flow to solve this problem. It is very likely that the drain line is partially clogged. To save the cost of a service call, use applications of a disposer safe cleaner and degreaser until drain runs smoothly. If you see no improvement after several applications, a drain auger should be used to remove the blockage. Like any precision machine, your disposer was built to perform a particular job. If unusual demands are placed on it, service interruptions are possible. These service interruptions, mentioned below, are usually not serious and in most cases, can be remedied without calling a service man.

## **TO FREE JAMS FROM FOREIGN OBJECTS**

**To save the cost of a service call to free a jam.** The accidental entry of foreign material will cause any disposer to jam occasionally. To free jammed material, follow these steps **to avoid personal injury**:

1. Turn off disposer and shut off cold water.
2. Insert one end of your Self Service Wrench provided with your disposer, into the center hole of the bottom of the disposer as shown.
3. Work the wrench back and forth until it moves freely for at least one complete revolution. Remove wrench before restarting disposer.
4. Wait 3 to 5 minutes to allow disposer motor to cool and then push red reset button, (Fig. 4). **Before pressing red reset button be sure the wall switch is in the off position.**

Follow this procedure to save the cost of a service call to free a tight jam.

Be sure wall switch is turned off. Use a flashlight to determine the direction the unit was running at the time of the jam. A pry bar or tool should be inserted through the sink opening into the disposer. The end then must be placed alongside the grinding protrusion near the outside edge of the grinding disc. Be sure to place the pry tool on the proper side of the protrusion so when pressure is applied the grinding disc will move in the proper direction to unjam the disposer (see figure 5).

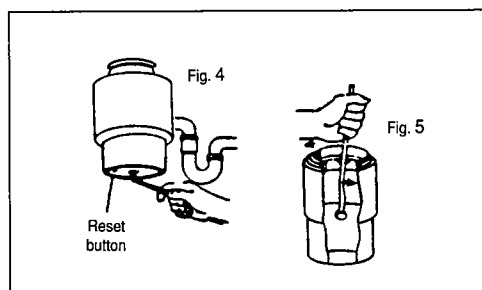
Do not drop or hammer on pry bar.

### **Lose Your Self Service Wrenchette?**

If you should ever lose your Self Service Wrench just write to us and a replacement will be sent at no charge.

### **WRITE TO: WRENCHETTE**

c/o IN-SINK-ERATOR  
SERVICE DEPT.  
4700 21st Street  
Racine, Wisconsin 53406



DRAWING NUMBER:  
**S10130**

REVISIONS

A

BUCKOK  
7-22-98  
J.J.Z.  
7-22-98

CHANGED: VIEW A-A REDESIGN AND REDRAWING. NOTE TO NOTES: NOTE 1 TO A; 2 TO B; 3 TO C; 4 TO D; 5 TO E; 6 TO F; 7 TO G; 8 TO H; 9 TO I; 10 TO J; 11 TO K; 12 TO L; 13 TO M; 14 TO N; 15 TO O; 16 TO P; 17 TO Q; 18 TO R; 19 TO S; 20 TO T. NOTE 5 FROM DOWN-DRAFT C.F.M. NOT SHOWN. RESPONSIBILITY TO DOWN-DRAFT DUCTING CAN BE LOCATED ANYWHERE IN THE SHADED AREA WITH THE EXCEPTIONS OF DIRECTLY BELOW THE DOWN-DRAFT DRAIN AND AT THE WASTE LINE FLOOR PENETRATION LOCATION. FOR REMOTE BLOWER SELECTION, RECOMMENDED AIR VOLUME IS 700 TO 850 C.F.M. PRESSURE DROP THROUGH UNIT IS APPROX. 0.9 INCHES W.G. AT 700 C.F.M. AND 1.3 INCHES W.G. AT 850 C.F.M. ADDITIONAL PRESSURE LOSSES MUST BE INCLUDED FOR CUSTOMER DUCT SYSTEM DOWNSTREAM OF UNIT. NOTE 1 115/1/80 TO 120V, 1 PH, 60HZ TYP (2) PLCS.; FOR GFCI OUTLET TO FOR HOSPITAL GRADE DUPLEX GFCI RECEPTACLE, 15 AMP TO 20 AMP, ITEM #3 FROM #441 DOWN-DRAFT SYSTEM TO #10339 DOWN-DRAFT SYSTEM. FAUCET 8" TO 4" CENTERS; NOTE #6 TO #4 TYP. (2) PLCS.; 30" TO 29.50" IN PLAN VIEW. ROTATE ASPIRATOR CONTROL VALVE 90° IN PLAN, FRONT AND SIDE ELEV. VIEWS; 6" TO 5.88"; FLIP VIEW A-A ILLUSTRATION LINE TO LOOK DOWN IN FRONT ELEV. VIEW, SHOW PROPER PLUMBING CONFIGURATION IN FRONT AND SIDE ELEV. VIEWS; SEE NOTE #7 TO #5; FAUCET 8" TO 4" CENTERS IN SIDE ELEV. VIEW; W/ TO WITH IN ITEM 13, 15 AND 18; TWO (2) COLD WATER SUPPLIES TO ONE (1) IN NOTE 1-B; TITLE BLOCK FROM ELEVATING AUTOPSY TABLE TO LM-4 AUTOPSY TABLE 120 VOLT SYSTEM (P/N 10130), AND 220 VOLT SYSTEM (P/N 10140); J-HOOK CONFIGURATION; ADD: 51" SEE NOTE 4 TO PLAN VIEW; ASPIRATOR HOSE TO PLAN, FRONT AND SIDE ELEV. VIEWS; "S" HOOK TO FRONT ELEV. VIEW; ITEM 19; 12" X 40" TO ITEM 18; BLADE HANDLES TO ITEM 18; FOR TABLE RINSE AND HAND SPRAY TO ITEM 10 IN PARTS LIST; NOTE 6 AND 7; BALLOON #19 IN FRONT ELEV. VIEW; 220 VOLT SPECIFICATIONS; P/N 10130; FOR EITHER P/N 10130 OR 10140 TO NOTE 1-A; 220V SPECIFICATIONS TO ITEM 6; FACILITY TO PROVIDE; DELETE: (-) FROM ITEM 3; PROVIDE FROM 1-A,B,C IN NOTES; PER ECR # 98239

B

BY: BUCKOK  
DATE: 5-13-97  
APP: J.J.Z.  
DATE: 5-13-97

CHANGED ELECTRICAL REQUIREMENTS AS FOLLOWS:  
CHANGED ALL 120 VOLT DESIGNATIONS TO 115 VOLT, & ALL 220 VOLT DESIGNATIONS TO 230 VOLT, CHANGED THE AMPERAGE FOR HYDRAULIC LIFT CIRCUIT FROM 20 TO 15 ON MODEL #10130. ADDED THE FOLLOWING TO WASTE PLUMBING NOTE #1C: "IF DRAIN TRAP IS REQUIRED, ABOVE CHANGES PER E.C.R. #97198

C

BY: KWL  
DATE: 4-2-98  
APP: J.J.Z.  
DATE: 4-2-98

IN VIEW A-A DIM. 4.75" WMS 5.00"; DIM 3.75" WMS 3.03"; DIM 18.25" WMS 13.25"; INLET PLUMBING WMS 4" X 5" AREA, NOW 4" X 4" AREA; ADDED ITEM 20, PER ECR/O 97244, ECR/O 97246 AND ECR/O 98019

102.00" [259.07 cm]  
① SEE NOTE #4  
51.00" [129.53 cm]  
SEE NOTE #4  
29.50" [74.93 cm]  
SEE NOTE #4  
5.88" [14.95 cm]  
32" MIN. [81.28CM]  
37" MAX. [93.98CM]  
SEE NOTE #5  
27.00" [68.58CM]  
48.00" [121.92 cm]  
40.25" [102.25 cm]  
39.00" [99.06 cm]  
24.00" [60.97 cm]  
9.00" [22.86 cm]  
4.75" [12.07CM]  
10.00" [25.40CM]  
20.00" [50.80CM]  
1.75" [4.45CM]  
16.25" [41.28CM]  
3.75" [9.52 cm]  
1.12" [2.86 cm]  
1.75" [4.45CM] WEB  
0.62" [1.59CM] DIA. HOLE (4) PLCS.  
WASTE PLUMBING THIS 3.00" [7.62CM] DIA. AREA, SEE NOTE C  
② INLET PLUMBING THIS 4" [10.16CM] X 4" [10.16CM] AREA, SEE NOTE B  
ELECTRICAL THIS 4" [10.16CM] X 4" [10.16CM] AREA, SEE NOTE A  
③ VIEW A -A

ITEM	QTY.	DESCRIPTION
1	1	TABLE RINSE ASSEMBLY
2	4	GRID PLATE, 18" [45.72 CM] WIDE
3	1	DOWNDRAFT ASSEMBLY
4	1	SINK, 14" [35.56 CM] X 14" [35.56 CM] X 5" [12.70 CM] DEEP
5	1	UP - DOWN ELECTRO HYDRAULIC SWITCH
6	-	NOT USED
7	-	ACOUSTICAL COATING
8	1	115 VOLT ONLY, HOSPITAL GRADE G.F.C.I. RECEPTACLE (P/N 10130) -OR-
9	1	230 VOLT ONLY, HOSPITAL GRADE RECEPTACLE (P/N 10140)
10	2	CONTROL VALVE, FOR TABLE RINSE AND HAND SPRAY
11	1	HAND SPRAY ASSEMBLY
12	-	NOT USED
13	1	1-1/2" [3.81 CM] WASTE LINE WITH ASPIRATOR AIR GAP
14	1	J-HOOK
15	1	ASPIRATOR AND CONTROL VALVE WITH REVERSE FLOW
16	1	GOOSENECK FAUCET WITH VACUUM BREAKER AND BLADE HANDLES
17	2	VACUUM BREAKER
18	1	ACCESS DOOR, 12" [30.48 cm] X 40" [101.60 cm]
19	1	ACCESS DOOR, 12" [30.48 cm] X 8" [20.32 cm]
20	1	STRAINER, DOWNDRAFT, PERFORATED

NOTES: 1) FACILITY TO PROVIDE:  
② A) ELECTRICAL: FOR P/N 10130 ONE (1) 115V, 1PH, 60HZ, 15 AMP CIRCUIT FOR THE HOSPITAL GRADE DUPLEX G.F.C.I. RECEPTACLE AND ONE (1) 115 VOLT, 1PH, 60 Hz, 15 AMP CIRCUIT FOR THE HYDRAULIC LIFT.  
- OR -  
FOR P/N 10140 ONE (1) 230 VOLT, 1PH, 50/60 Hz, 15 AMP GROUND FAULT R.C.D. PROTECTED CIRCUIT FOR THE DUPLEX RECEPTACLE AND ONE (1) 230 VOLT, 1PH, 50/60 Hz, 15 AMP CIRCUIT FOR HYDRAULIC LIFT. FOR EITHER P/N 10130 OR 10140, PROVIDE 3/8" LIQUID TIGHT CONDUIT CONNECTORS.  
③ B) INLET PLUMBING: ONE (1) COLD WATER SUPPLY LINE, 3/4" [1.91 CM] HARD COPPER STUBBED OUT 6" [15.24 CM], ONE (1) HOT WATER SUPPLY LINE, 1/2" [1.27 CM] HARD COPPER STUBBED OUT 6" [15.24 CM].  
③ C) WASTE PLUMBING: ONE (1) STANDARD 1-1/2" [3.81 CM] COPPER WASTE LINE STUBBED OUT 2.8" [7.13 CM] FROM FLOOR LINE. IF A DRAIN TRAP IS REQUIRED, THE CUSTOMER WILL NEED TO HAVE THE TRAP INSTALLED BELOW THE FLOOR LINE.  
④ 2) ALL PLUMBING IS FACTORY INSTALLED. ALL LINES RUN INTO PEDESTAL FOR CONNECTION DURING INSTALLATION.  
④ 3) DOWNDRAFT DUCTING CAN BE LOCATED ANYWHERE IN THE SHADED AREA WITH THE EXCEPTIONS OF DIRECTLY BELOW THE DOWNDRAFT DRAIN AND AT THE WASTE LINE FLOOR PENETRATION LOCATION. FOR REMOTE BLOWER SELECTION, RECOMMENDED AIR VOLUME IS 700 TO 850 C.F.M. PRESSURE DROP THROUGH UNIT IS APPROX. 0.9 INCHES W.G. AT 700 C.F.M. AND 1.3 INCHES W.G. AT 850 C.F.M. ADDITIONAL PRESSURE LOSSES MUST BE INCLUDED FOR CUSTOMER DUCT SYSTEM DOWNSTREAM OF UNIT.  
④ 4) TOLERANCE EQUALS +0.25" OR -0.38", +0.635 CM OR -0.965 CM.  
④ 5) TOLERANCE EQUALS ±0.25", ±0.635 CM.  
④ 6) R.C.D. IS RESIDUAL CURRENT DEVICE.  
④ 7) AS PART OF OUR POLICY OF CONTINUING DEVELOPMENT, WE RESERVE THE RIGHT TO ALTER SPECIFICATIONS WITHOUT PRIOR NOTICE.

THIS PRINT IS THE PROPERTY OF THERMO ELECTRON. THE INFORMATION CONTAINED HEREIN IS CONFIDENTIAL, IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM. WITHOUT THE WRITTEN PERMISSION FROM THE OWNER AND IS RETURNABLE UPON DEMAND. ANY INFRINGEMENT UPON THE PATENT RIGHTS SHOWN HEREIN, WHETHER IN WHOLE OR PART, WILL BE SEVERELY PROSECUTED.

**Thermo**  
ELECTRON CORPORATION  
171 Industry Drive  
Pittsburgh, PA 15275-1034  
Phone: 1.800.547.7429  
Fax: 1.412.788.1138  
Clinical Diagnostics  
Anatomical Pathology  
www.thermo.com

TOLERANCES UNLESS OTHERWISE SPECIFIED

LINEAR VARIATIONS:  
UP TO 24" ±0.032"  
24" TO 48" ±0.063"  
48" TO 72" ±0.125"  
72" TO 120" ±0.250"

ANGULAR VARIATIONS: ±1°

INTERNAL USE ONLY  
QUOTE NUMBER: .  
S.O. NUMBER: .  
DRAWN BY: WILSON  
DATE: 4-29-93  
SCALE: 1/16" = 1"  
REF. NUMBER: .  
PART NUMBER: LM-4  
CHECKED BY: H.A.Y.  
DATE: 1-31-94  
APPROVED BY: J.J.Z.  
DATE: 1-31-94  
DRAWING NUMBER: S10130  
SHEET 1 OF 1  
REVISION: C





