
Grosslab SeniorTM

All Models of the 9700 Series

Thermo
ELECTRON CORPORATION

SAVE THESE INSTRUCTIONS

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 Corporation

Thermo Electron Corporation
171 Industry Drive
Pittsburgh, PA 15275

General Customer Service
Tel.: 1-800-547-7429 (outside US, 412-788-2460)
Fax: 1-412-788-1138 (outside US, 412-788-2480)

Service Department:
Tel.: 1-800-253-7637 (outside US, 412-788-1133)
Fax: 1-412-788-6884

TABLE OF CONTENTS

Section	Page
Manual Intent	4
Introduction	5
Standard Models	5
Customer Support	8
Notification	8
Performance Characteristics	9
Safety Considerations	9
Symbols Used in This Manual	10
Manual Conventions	10
About the Grosslab Senior™	12
Grosslab Features	12
Installation	15
Guidelines	15
Receiving the Grosslab Senior™	15
Selecting the Location	16
Unpacking	16
Accessories Supplied	17
Installation Procedure	18
Controls	22
Program Module	22
Grosslab Controls and Indicators	24
Operation	25
Turning on Power	25
Setting the Clock	26
Proximity Sensors Calibration	28
Setting and Resetting Filter Timer	30
Display Filter Used Time	31
Elevator	31
Proximity Switches	32
Disposal	33
Rinse Jets	33
Cold Water/Hot Water	34
Manual Controls	35
Exhaust System	35
Optional Dictation System Activation	35
Optional Microphone Proximity Sensor	36
Optional Remote Foot Switch	36
Optional Tape Recorder Console	37
Hand-Held Sprayer	38
Specimen Strainer Rinse	38
Service	38
Service Contracts	39
Routine Maintenance	39
Troubleshooting	41
Replacement Parts	46
Specifications	47
Installation Drawing	Pocket

MANUAL INTENT

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

Anyone using this product should carefully and completely read the Safety Considerations, Installation, and Operation section 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 users, the unit, and the laboratory.

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

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

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

INTRODUCTION

The Grosslab Senior™, 9700 Series, is designed to be used in pathology laboratories. Ergonomic design provides a comfortable and efficient work area for gross dissection and dissection of tissue. The Grosslab Senior™ includes a plumbed worktable with disposal and ventilation. Storage shelves, paper towel dispenser and magnetic tool bar put convenience at your fingertips.

Standard Models

- | | |
|--------------|---|
| 9700 | Elevating, 110/120 VAC, 60 Hz with integral blower, particulate and formaldehyde vapor filters for in-service room recirculation. Waters and disposal are controlled by proximity sensors. |
| 97001 | Elevating, 110/120 VAC, 60 Hz with integral blower, particulate and formaldehyde vapor filters and flexible exhaust duct connector for short distance exhaust. Waters and disposal are controlled by proximity sensors. |
| 97002 | Elevating, 110/120 VAC, 60 Hz with flexible exhaust duct connector for connection to facility remote exhaust. Waters and disposal are controlled by proximity sensors. |
| 97003 | Non-elevating, 110/120 VAC, 60 Hz with integral blower, particulate and formaldehyde vapor filters for in-service room recirculation. Waters and disposal are controlled by proximity sensors. |
| 97004 | Non-elevating, 110/120 VAC, 60 Hz with integral blower, particulate and formaldehyde vapor filters and flexible exhaust duct connector for short distance exhaust. Waters and disposal are controlled by proximity sensors. |
| 97005 | Non-elevating, 110/120 VAC, 60 Hz with flexible exhaust duct connector for connection to facility remote exhaust. Waters and disposal are controlled by proximity sensors. |
| 97006 | Elevating, 110/120 VAC, 60 Hz with integral blower, particulate and formaldehyde vapor filters for in-service room recirculation. Waters and disposal are manually controlled. |
| 97007 | Elevating, 110/120 VAC, 60 Hz with integral blower, particulate and formaldehyde vapor filters and flexible exhaust duct connector for short distance exhaust. Waters and disposal are manually controlled. |
| 97008 | Elevating, 110/120 VAC, 60 Hz with flexible exhaust duct connector for connection to facility remote exhaust. Waters and disposal are manually controlled. |

- 97009** Non-elevating, 110/120 VAC, 60 Hz with integral blower, particulate and formaldehyde vapor filters for in-service room recirculation. Waters and disposal are manually controlled.
- 970010** Non-elevating, 110/120 VAC, 60 Hz with integral blower, particulate and formaldehyde vapor filters and flexible exhaust duct connector for short distance exhaust. Waters and disposal are manually controlled.
- 970011** Non-elevating, 110/120 VAC, 60 Hz with flexible exhaust duct connector for connection to facility remote exhaust. Waters and disposal are manually controlled.
- 970022** Elevating, 220/240 VAC, 50/60 Hz with integral blower, particulate and formaldehyde vapor filters for in-service room recirculation. Waters and disposal are controlled by proximity sensors.
- 9700122** Elevating, 220/240 VAC, 50/60 Hz with integral blower, particulate and formaldehyde vapor filters and flexible exhaust duct connector for short distance exhaust. Waters and disposal are controlled by proximity sensors.
- 9700222** Elevating, 220/240 VAC, 50/60 Hz with flexible exhaust duct connector for connection to facility remote exhaust. Waters and disposal are controlled by proximity sensors.
- 9700322** Non-elevating, 220/240 VAC, 50/60 Hz with integral blower, particulate and formaldehyde vapor filters for in-service room recirculation. Waters and disposal are controlled by proximity sensors.
- 9700422** Non-elevating, 220/240 VAC, 50/60 Hz with integral blower, particulate and formaldehyde vapor filters and flexible exhaust duct connector for short distance exhaust. Waters and disposal are controlled by proximity sensors.
- 9700522** Non-elevating, 220/240 VAC, 50/60 Hz with flexible exhaust duct connector for connection to facility remote exhaust. Waters and disposal are controlled by proximity sensors.
- 9700622** Elevating, 220/240 VAC, 50/60 Hz with integral blower, particulate and formaldehyde vapor filters for in-service room recirculation. Waters and disposal are manually controlled.
- 9700722** Elevating, 220/240 VAC, 50/60 Hz with integral blower, particulate and formaldehyde vapor filters and flexible exhaust duct connector for short distance exhaust. Waters and disposal are manually controlled.
- 9700822** Elevating, 220/240 VAC, 50/60 Hz with flexible exhaust duct connector for connection to facility remote exhaust. Waters and disposal are manually controlled.

- 9700922** Non-elevating, 220/240 VAC, 50/60 Hz with integral blower, particulate and formaldehyde vapor filters for in-service room recirculation. Waters and disposal are manually controlled.
- 97001022** Non-elevating, 220/240 VAC, 50/60 Hz with integral blower, particulate and formaldehyde vapor filters and flexible exhaust duct connector for short distance exhaust. Waters and disposal are manually controlled.
- 97001122** Non-elevating, 220/240 VAC, 50/60 Hz with flexible exhaust duct connector for connection to facility remote exhaust. Waters and disposal are manually controlled.

Customer Support

Thermo Electron Corporation actively supports the products it manufactures and distributes. Our technical support group is staffed by courteous and competent personnel trained in the proper use of our products. If you have any questions concerning the use of the Grosslab Senior™, call or write:

Thermo Electron Corporation
171 Industry Drive
Pittsburgh, PA 15275
In the USA: 1-800-253-7637
Outside the USA: 412-788-1133
Fax: 1-412-788-6884

Notification

© Copyright 1994 by Thermo Electron Corporation. All rights reserved.
No part of this manual may be reproduced without the prior written permission of Thermo Electron Corporation.

Thermo Electron Corporation reserves the right to change specifications of its products and the contents of this manual without obligation.

The 110/120 VAC Grosslab Senior™ was listed by Underwriters Laboratory in December 1992 under the UL Control number 8P16; Lab Equipment. The File is E181227. The Grosslab is designed to meet UL 61010-1 and CSA61010-1 standards.

The 220/240 VAC Grosslab Senior™ was granted the CE Mark. It is designed to meet IEC 61010-1, Directive LVD-73/23/EEC, and Directive EMC-89/336/EEC.

PERFORMANCE CHARACTERISTICS

Unless stated otherwise, these performance characteristics refer to typical unit operation.

Models 97002, 97005, 97008, 970011, 9700222, 9700522, 9700822, and 97001122 exhaust airflow requirements are as follows:

Recommended airflow is 500 cfm. At 500 cfm, pressure loss through the unit is approximately 0.41 in. w.g.

SAFETY CONSIDERATIONS

The Grosslab Senior™ is intended to be used primarily in pathology laboratories. The unit provides convenient storage and work area for dissection. These safety considerations apply when installing, operating, and maintaining the Grosslab Senior™. Taking these precautions will help to protect the user, the unit, and the laboratory. Therefore, when installing, operating, or servicing the Grosslab always observe the following safety precautions:

- Please make sure that you read and understand all instructions and safety precautions contained in this manual before installing or operating the Grosslab Senior™. If you have any questions, contact our Service Department from 8:00 a.m. to 5:30 p.m. EST.
- Allow adequate clearance around the unit to permit free movement of the elevator, and keep hands and feet away from potential pinch points while unit is in use.
- Before using the Grosslab Senior™, the user should be knowledgeable of all lab safety procedures (consult your lab supervisor for specific procedures to be followed). Use appropriate protective clothing and equipment (such as gloves and eye wear). The area should be properly ventilated before operating or cleaning the unit.
- The unit should be cleaned regularly following the cleaning instructions as outlined in the Service section of this manual. Cleaning of unit should be performed prior to servicing or storage. Strong acids, bases, or solvents should not be used for cleaning.
- The Grosslab Senior™ has been designed and constructed to minimize the possibility of electrical shock. If the unit is damaged, or if unusual performance is noted during power-up or operation, immediately turn off power. If necessary, remove power from unit at the main circuit breaker panel and call your Service Department from 8:00 a.m. to 5:30 p.m. EST.

Symbols Used in this Manual

This manual employs the following symbols to call attention to Warnings, Cautions, or Notices:

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.*

CAUTION



(YELLOW BACKGROUND)

*Caution is used to indicate the presence of a hazard which **WILL** or **CAN** cause personal injury, or property damage if the warning is ignored.*

NOTICE

(BLUE BACKGROUND)

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

Warning Labels

The following is a suggested list of the warning labels to be used on the Grosslab: Serial Number, Pinch Point, Rotating Machinery, Electrical Ratings, Warning, and Caution.

Manual Conventions

Where dimensions are given, length (L) refers to the left-to-right measurement as you face the Grosslab; width (W) refers to the front-to-back measurement; height (H) refers to the top-to-bottom measurement; and the depth (D) refers to the top-to-bottom measurement of the work surface and the sink.

WARNING



For all Grosslab Senior™ Model 970022, 9700122, 9700222, 9700322, 9700422, 9700522, 9700622, 9700722, 9700822, 9700922, 97001022 and 97001122 units, the facility's electrical power supply line should be furnished with a Residual Current Device (RCD) to interrupt electrical power when a ground fault occurs to protect Grosslab users against electrical shock.

- Read and observe all warning labels.
- Keep hands and instruments away from the disposal while it is in use.
- Always operate the exhaust system when working with hazardous chemicals.
- Always turn off the power to the unit before performing any maintenance or servicing procedures.
- All service and repair should only be performed by personnel trained and qualified in the proper and safe methods of electrical repair. Service done by persons other than qualified personnel will void all warranties.
- Use only Thermo Electron Corporation factory replacement parts. If replacement parts are needed for your unit, contact the Thermo Electron Corporation Service Department.

ABOUT THE GROSSLAB SENIOR™

The Grosslab Senior™ is the most advanced surgical pathology workstation on the market today and is 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 Grosslab Senior™ offers a host of comfort and convenience features: an adjustable-height worktable, a built-in sink, an optional hands-free dictation system, a well lighted work area, an efficient exhaust system, hand free or manual controls for water, disposal, and efficient exhaust options. Virtually everything is at your fingertips.

Grosslab Features

Component Command Switches

The controls for the main components of the Grosslab Senior™ (optional dictation system, exhaust, elevator, hot/cold/rinse water, and disposal) are all centrally located on the upper shelf on models 9700, 97001, 97002, 97003, 97004, 97005, 970022, 9700122, 9700222, 9700322, 9700422 and 9700522. Controls that operate the disposal, the hot/cold/rinse water, and the dictation system are activated by infrared proximity sensors, which are located on the underside of the shelf. The optional dictation system is also operational from a remote foot switch. On models 97006, 97007, 97008, 97009, 970010, 970011, 9700622, 9700722, 9700822, 9700922, 97001022 and 97001122, the controls are manual.

The unique features of the Grosslab Senior™ are presented in the following paragraphs along with a brief description of each feature. The location and operation of the various features that make up the Grosslab is covered in the Operation section.

Electrical Outlets, UL Rated for Damp Locations

The electrical outlet provided on the 110/120V Grosslab is a hospital grade, duplex Ground Fault Circuit Interrupter (GFCI) receptacle. This GFCI feature interrupts the electrical supply when a ground fault occurs to protect the user against electrical shock. The 220/240V units are equipped with two IEC 320 receptacles.

NOTICE

A total of 15 amps (approximately 1800 volt amps) may be drawn from the two 110/120V receptacles by plugging in accessory items. 220/240V units provide a total of 7 amps (approximately 1600 volt amps) to be distributed among two IEC 320 receptacles.

Disposal

The waste disposal is a heavy duty 1/2 hp, commercial grade disposal attached to the bottom of the stainless steel sink. When the disposal is activated, water is automatically turned on to facilitate grinding.

Energy-Efficient Lighting

Four 34-watt fluorescent bulbs housed in a high efficiency reflector assembly, direct light downward on the working surface to aid the user in the close examination of specimens.

Exhaust System

The Grosslab Senior™ is equipped with an integral ventilation system for exhausting fumes or odors that occur during operation.

The airflow system draws the fumes or odors that emanate on the table working surface through the louvered panels underneath the lower shelf and passes on through the alumina /permanganate filters located in the base of the unit. The filters are accessible through the easy-to-reach swing-out access panels on the front of the base assembly.

On the Grosslab Senior™ Models 97002, 97005, 97008, 970011, 9700222, 9700522, 9700822 and 97001122, the fumes and odors are eliminated through the facility exhaust system. Filters are not provided as standard accessory items.

Hand-Held Sprayer

The Hand-Held Sprayer is provided for rinsing instruments and cleaning the sink and table surfaces.

The sprayer has a palm grip and a thumb operated on/off control for easy operation. Water for the sprayer is controlled by either the hot or cold water faucets. An Antisiphon Vacuum Breaker incorporated in the water supply system prevents the potable water supply from being contaminated by pollutants in the event of a drop in the water pressure.

Retractable Side Panels

The retractable side panels, located on both sides of the unit, slide outward to allow greater containment of the air flow within the workstation. These panels are transparent-smoked acrylic so they do not restrict your peripheral vision. The panels retract easily to permit access to adjacent bench or storage areas.

Single Compartment Sink with Rinse Attachment

The Grosslab is equipped with a single-compartment stainless steel sink, that measures 14 in. L x 12 in. W x 6 in. D (36 cm x 31 cm x 15 cm), with a hot and cold water mixing faucet. Water is turned on or off using the hot or cold water proximity sensors, or manual controls depending on model selected.

Small Specimen Strainer

The Grosslab is equipped with a small specimen strainer located on the right end of the working surface. This feature allows you to rinse blood and mucus from small specimens which are often difficult to hold.

Spacious Shelves

The Grosslab is equipped with two shelves located just above the working surface and that extend the full length of the working surface.

The upper shelf is 10 in. (25.4 cm) deep and provides convenient mounting for the dictation equipment and storage area for supplies that need replenished often but are not in immediate use at the grossing table.

Also spanning the width of the Grosslab Senior™ is a lower shelf approximately 10.5 in. (26.7 cm) deep. This shelf provides a holding area for those items needed at your fingertips.

Ten-Jet Rinse Bar

The ten-jet rinse bar is located at the left end of the work surface. When activated, a continuous flow of water flushes the work surface and clears debris and fluids into the sink located at the opposite end of the table. An Antisiphon Vacuum Breaker incorporated in the water supply system prevents the potable water supply from being contaminated by pollutants in the event of a drop in the water pressure.

Centimeter Rulers

100 cm rulers are conveniently located on the front, sloped face of the lower shelf and on the front top lip of the tabletop.

Towel Dispenser

The Towel Dispenser is provided with double-face adhesive tape to allow it to be mounted in a convenient location for the user.

Magnetic Tool Bar

The Magnetic Tool Bar is provided with double-faced adhesive tape to allow it to be mounted in a convenient location for the user.

INSTALLATION

This section contains instructions to ensure the proper installation of the Grosslab Senior™. You can avoid future problems by careful unpacking and installation of your unit.

Guidelines

The following guidelines should be considered as you perform the unpacking and installation of the Grosslab:

Have all the necessary tools required for the unpacking and the installation of the Grosslab.

Check the packing list to make certain all parts are present.

- Use only Thermo Electron Corporation supplied parts, accessories, and solutions.
- Plan the location of the Grosslab to allow for easy access and convenient operation by the users.
- Ensure that the system is installed to comply with all state, city, and local electrical and plumbing codes and regulations and within the guidelines for good laboratory practice.

Receiving the Grosslab Senior™

Upon receipt of your Grosslab, check the cartons and components for signs of shipping damage. Damaged or missing items should be reported to the shipping agent immediately.

Store the unit in its original shipping containers until ready for installation. The storage area should be clean and dry and should not subject the unit to extremes in temperature.

Handle the Grosslab with care. Do not drop or subject the unit to mechanical shocks.

WARNING



For all Grosslab Senior™ Model 970022, 9700122, 9700222, 9700322, 9700422, 9700522, 9700622, 9700722, 9700822, 9700922, 97001022 and 97001122 units, the facility's electrical power supply line should be furnished with a Residual Current Device (RCD) to interrupt electrical power when a ground fault occurs to protect Grosslab users against electrical shock.

Installation Requirements

The requirements for the proper installation and hookup of the Grosslab are service lines for water supply, electrical, waste disposal, and facility exhaust system on certain models.

Selecting a Location

When selecting a suitable location for the Grosslab, the floor on which the Grosslab will be situated must be as level as possible. The site should accommodate the physical dimensions of the unit and provide ample clearance above and around the back and sides of the unit.

Since the upper section of the unit is designed to be elevated, it is important to position the unit so that the top of the unit does not interfere with or come in contact with anything suspended from the ceiling such as sprinkler heads, lighting, bulk heads, etc. that could be damaged or cause damage to the unit.

CAUTION



In addition, the exact location of all of the utilities is very critical to assure proper connections to the water and electrical service lines and the interface of the exhaust system duct.

In general, careful attention to site preparation will greatly facilitate the installation process.

Unpacking

Because of the weight of the base unit, a mechanical lift must be used to raise the unit to allow removal of the bottom crate. Extreme care must be exercised when raising the base unit, to prevent damaging the wiring or the hoses between the lift forks and the unit.

CAUTION



The base, top, and the accessory items of the Grosslab are packaged and shipped in separate shipping containers. To unpack the Grosslab, perform the following procedures:

1. Carefully remove top, sides, front, and back of shipping crate housing base and top of Grosslab. Inspect for any visible signs of damage.
2. To remove base unit from shipping crate bottom, from rear of unit, carefully insert forks of mechanical lift under bottom of unit being careful not to pinch any wiring or hoses. During lift operation, at least two people must be present to steady unit.
3. Carefully remove top portion of Grosslab from shipping crate base. Inspect for any visible signs of damage.
4. Open any remaining cartons and visually inspect for any damage. Retain all packing materials until unit is thoroughly inspected for damage. Report any missing items or damages as outlined in Receiving the Grosslab Senior™ section. The unit is now ready to be moved to its permanent location and begin installation.

Accessories supplied

The following items are shipped with the Grosslab Senior™:

Operator's Manual

Service Extension Option Card

Warranty Certificate

Accessory Items

Assembly Allen Wrench

Assembly Hardware

Filter Set

(2 particulate filters and 2 formaldehyde vapor filters with Models 9700, 97001, 97003, 97004, 97006, 97007, 97009, 97010, 97022, 970122, 9700322, 9700422, 9700622, 9700722, 9700922 and 9701022 only)

Flex Magnifier

Formaldehyde Neutralizer Pads

Formalin Container

Magnagrip Tool Bars

Multifold Towels

Requisition Rack

Specimen Strainer

Towel Dispenser

Towel Rack Bar

Vinyl Cutting Pad

Auxiliary Recorder Audio Adapter (optional)

Optional Items

Camera Bracket

Monitor Bracket

Dictation Machine

Installation Procedure

To install the Grosslab Senior™, perform the following procedures:

1. Move base and top of unit to desired operating location. Allow sufficient room (approximately three feet (1 m)) behind unit to allow hookup of electrical, plumbing, and exhaust ductwork.

To prevent damage to the water faucets, exercise extreme care when placing the upper assembly of the unit on the lower assembly.

NOTICE

2. Carefully lift top unit onto base. Align and insert four locking latches of top unit firmly into receiving slots in base unit as shown in Figure 1.
3. Using allen wrench provided, secure top unit to base by rotating each locking latch until it locks in place. On side panels and on inside of rear panel below lower shelf, insert black plastic plugs in each of the locking latch holes.
4. On top of unit, carefully install fluorescent fixture into mounting frame recessed opening. Plug cord from light fixture into receptacle adjacent to fixture located toward top rear of unit.

Make certain that green ground wire from light mounting frame to ground screw on top back rail of unit is in place and secure.

NOTICE

5. To install exhaust louvre panels under lower shelf, orient louvre so that beveled edge is on bottom and toward rear of unit. Carefully raise front edge of lower shelf and install left louvre. Repeat procedure for right louvre.

To prevent damage to the Grosslab exhaust system, the exhaust louvre panels must be orientated properly before installing to prevent rinse water from being drawn into intake of the exhaust system.

NOTICE

6. Viewing the base of the unit from rear, locate 4-1/2" x 4-1/2" electrical box near top right rear of base. See Figure 1 for location of base interface cable connector box. Mount remote recorder foot switch connector to right side of the 4-1/2" x 4-1/2" electrical box with two screws provided in connector.

(Note: Remote recorder foot switch connector is located in wiring harness on top rear of unit's upper assembly.)

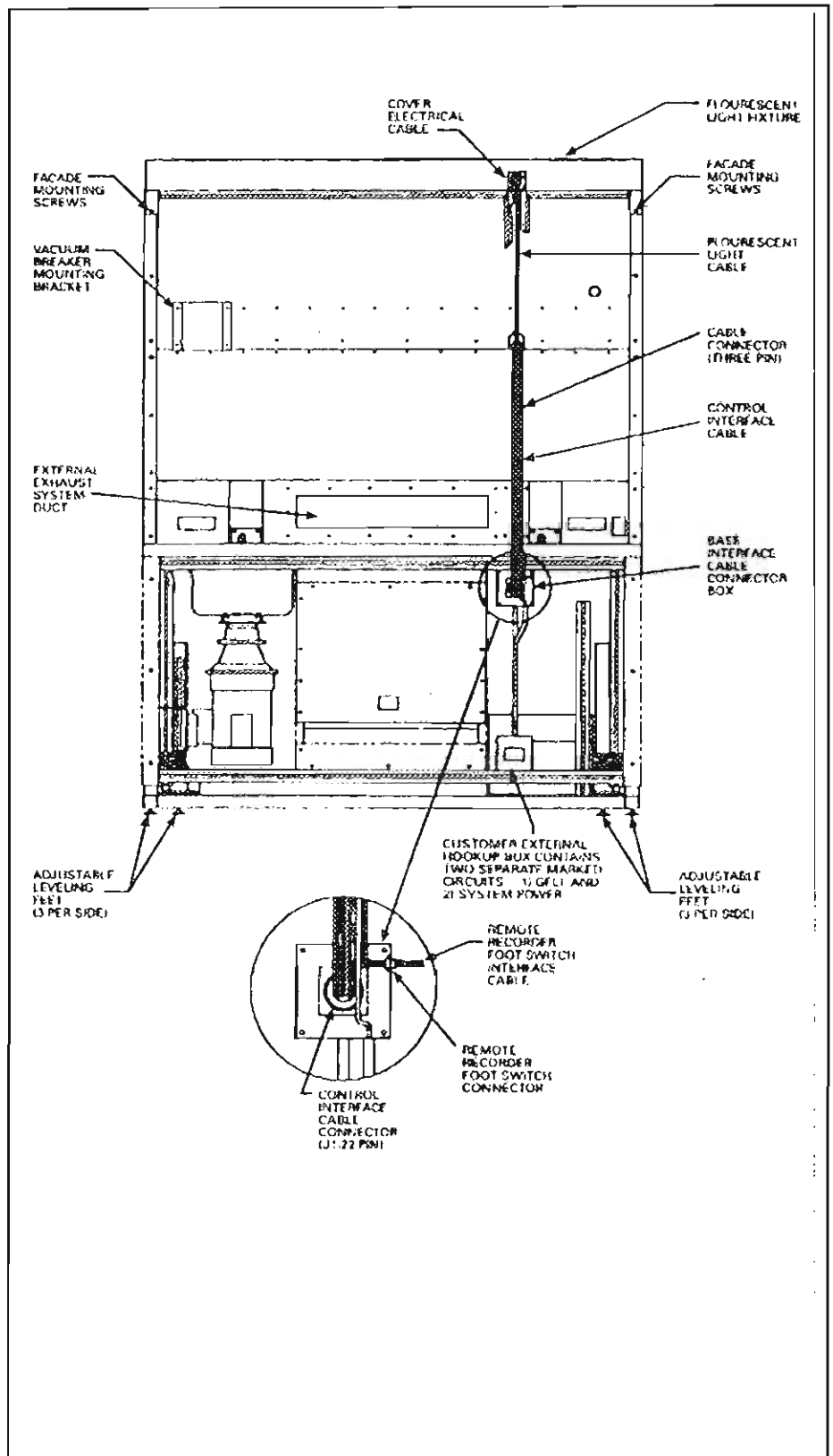


Figure 1. Grosslab Senior™ Installation Drawing

7. If remote recorder foot switch is going to be used, locate remote recorder foot switch. Slide plug end of cable from switch under unit and plug remote recorder foot switch connector into 4-1/2" x 4-1/2" electrical box on top right rear of unit base. See Figure 1 for location of 4-1/2" x 4-1/2" white electrical box.
8. Viewing the rear of the unit's base, locate the three pin female cable connector and connect it to the three pin male cable connector located in the wiring harness on the rear of the unit's upper assembly. See Figure 1 for location of connector. Do not over tighten.
9. Viewing the rear of the unit's base, locate the 4-1/2" x 4-1/2" electrical box near the top right rear of the base once again. Align key of female 22 pin connector located in the wiring harness on the rear of the unit's upper assembly with male 22 pin connector located in the 4-1/2" x 4-1/2" electrical box. See Figure 1 for location of base interface cable connector box. Do not over tighten.
10. Locate Antisiphon Vacuum Breaker connected to hoses in base of Grosslab. Locate vacuum breaker mounting bracket on left rear side of unit's upper assembly. See Figure 1 for location of bracket. Remove mounting bracket by removing four screws provided. Slide vacuum breaker top into U-shaped slot in top of mounting bracket and reattach mounting bracket to unit's upper assembly with the four, screws provided.
11. On rear of unit, mount electrical cable cover by hooking tabs of cover over top of upper back panel and secure with two screws to bottom of 4-1/2" x 4-1/2" white electrical box. See Figure 1 for mounting location.
12. On rear of Models 97002, 97005, 97008, 970011, 9700222, 9700522, 9700822 and 97001122 install external duct adapter with 14 allen screws provided.

The service loops for the electrical and the plumbing interface should be sufficient to allow free travel of the unit. All plumbing and electrical hookup should be done in compliance with all state, city, and local plumbing and electrical codes.

NOTICE

13. Position unit so that plumbing and electrical hookups can be completed.

Complete flexible supply water and drain hookups. Check for any leaky connections.

Remove cover from 4" x 4" electrical junction box at the right rear bottom of the unit's base. Complete electrical hookups and wiring interface.

14. On Models 97001, 97002, 97004, 97005, 97007, 97008, 970010, 970011, 9700122, 9700222, 9700422, 9700522, 9700722, 9700822, 97001022 and 97001122 connect external exhaust system duct to external duct adapter on rear of Grosslab.

NOTICE

See utility rough-in drawing, 59700, to determine proper vertical duct length in order to allow sufficient contraction of the bellows adapter when the Grosslab is extended to its highest position.

NOTICE

Prior to moving the Grosslab into its permanent location, complete the Owner's Record portion of the "Save These Instructions" page found in the front of this manual. This information will be very useful when ordering replacement parts or making inquiries concerning the equipment.

15. Carefully move Grosslab into its permanent location. With a carpenter's level, level unit using six adjustable feet on base of unit. Using a 3/8 in. (0.95 cm) wrench, adjust each foot until unit is level and stable. All six feet should be touching the floor.
16. On Models 9700, 97001, 97003, 97004, 97006, 97007, 970022, 9700122, 9700322, 9700422, 9700622 and 9700722 install filters inside base of unit behind front access door and above blower box. Refer to filter replacement under Routine Maintenance in the Service section.

NOTICE

With the Grosslab installed and ready for operation, the accessory items listed in the Accessories Supplied section should be installed. Positioning of these accessories is important for two reasons. First, they should provide convenient and easy accessibility by the user, and secondly, they should not interfere with the operation of any of the equipment proximity sensors.

Once you have used the Grosslab Senior™ for a time and have established consistent work habits, you can permanently mount the towel dispenser using the double-sided foam tape.

17. To install optional Dictation Machine, remove cables from underneath slanted recorder platform (left end of upper shelf). Plug low-voltage cord connector (round) into power jack on rear of the recorder. On left side of recorder, plug coiled cord connector into tape recorder. Place cassette recorder on platform.
18. With the Grosslab Senior™ completely installed and ready for operation, take a moment to complete and return the warranty card.

CONTROLS

Program Module

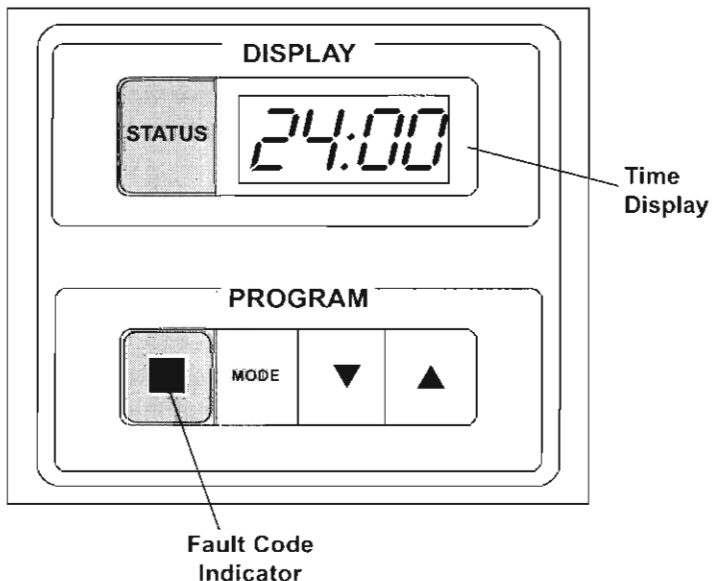
(Applies to models having proximity controls only.)

This section provides a brief description of the Program Module programming functions and a table listing the controls and indicators that are resident to the operation of the Grosslab. The table lists all of the controls and indicators along with a brief functional description of each.

A more detailed description of the function and operation of the various controls is covered in the operating section of this manual.

Display

The DISPLAY Status portion of the Program Module features a bright green alphanumeric display.



The PROGRAM Mode section of the Program Module features a red system error indicator.

Display

In the normal operating mode, the DISPLAY segment shows the time of day. The time is displayed in 2400 hour time.

Fault Code Indicator

The red Fault Code Indicator alerts the user that a failure exists in the control system.

Keypad

The PROGRAM Mode portion of the Program Module incorporates a three-key, tactile keypad with audible feedback (click). The function of each of the keys is discussed individually.



The **(MODE)** key provides access to the various programming modes: setting time, calibrating proximity sensors, setting filter timer, and observe filter used time.



During programming, the arrow  key serves to scroll the display (forward) through the menus.



During programming, the arrow  key serves to scroll the display (backward) through the menus.

Grosslab Controls and Indicators

The following table lists the Grosslab operating controls and indicators and their functions other than the programming controls on the Program Module,

Table of Controls and Indicators

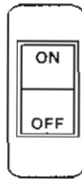
Control	Indicator	Function
POWER ON/OFF	Green	Applies power to unit
ELEVATOR HI/LO	----	Elevates table top
Disposal sensor	Red	----
	Green (activated)	Starts Disposal
	Red (deactivated)	Stops Disposal
Rinse sensor	Red	----
	Green (activated)	Starts table rinse
	Red (deactivated)	Stops table rinse
Cold Water sensor	Red	----
	Green (activated)	Turns on cold water
	Red (deactivated)	Turns off cold water
Hot Water sensor	Red	----
	Green (activated)	Turns on hot water
	Red (deactivated)	Turns off hot water
EXHAUST	Green	Turns on Exhaust System.
DICTATE (optional)	Green	Applies power to Tape Recorder
Tape Recorder remote switch (optional)	----	Remote Tape Recorder foot operation
RECORD (center)	----	Activates record mode
REVERSE (left)	----	Rewinds tape
LISTEN (right)	----	Activates playback mode

OPERATION

The controls for programming the Program Module and operating the main components of the Grosslab Senior™ are located on the upper shelf. The following section explains how to operate the various components, beginning with the Main Power switch and moving left to right along the upper shelf.

Turning on Power

POWER



The power for the various functions on the Grosslab Senior™ is controlled by the POWER ON/OFF switch located on the front of the upper shelf.

If the main power to the unit is interrupted or the unit power is inadvertently shut off during operation, those functions that were activated by the proximity switches are shut off automatically and must be reactivated.

To turn the power on: Place the POWER ON/OFF switch to the ON position. The green indicator inside the switch lights indicating that power is applied to the unit.

With power applied to the unit, there is about a 10 second program initialization delay followed by a beep and the clock display comes on.

Hot and cold faucet, hand spray and tea strainer faucet waters are all operated by way of hand valves on models having manual controls. Optional foot-pedal hot, and cold faucet waters (if provided) are electrically operated. The unit must be electrically turned on in order to operate these. Depressing the foot pedal once turns the water on. Depressing the foot pedal a second time turns the water off.

Proximity Controls

(The following applies to models having proximity controls only)

Setting the Clock

For proper function of the unit, you must set the system clock for the proper time. Correct time setting is retained, by an internal battery, during periods when power to the Grosslab is interrupted.

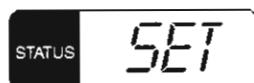
During setup, if no key is pressed for ten seconds, the system sounds a tone and returns to displaying the current time.

NOTICE

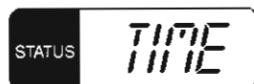
Setting the Time and Date

To set the system clock, follow this procedure:

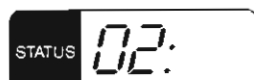
1. Press **MODE**. The display shows:



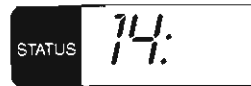
2. Press **MODE**. Then press  until the display shows:



3. Press **MODE** to display the set hour based on a 24-hour cycle. For example, if the system clock is set at 2 AM, the display shows:



If the system clock is currently at 2 P.M. the display shows:

**NOTICE**

The colon remains off while displaying hours or minutes.

Press  or  to change the display hour.

4. Press **MODE** to display the currently set minute value.

For example, if the time set is 30 minutes after the hour (such as 2:30 P.M.), the display shows:



5. Press **MODE** to display the set month.

For example, in July the display shows:



Press  or  to change the month.

NOTICE

The colon remains off while displaying the month, day, or year.

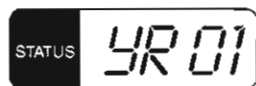
6. Press **MODE** to display the set day of the month. For example, on the 26th the display shows:



Press  or  to change the day.

7. Press **MODE** to show the set year.

For example, in 2001 the display shows:



Press  or  to change the year.

8. Press **MODE** to save the time and date settings.

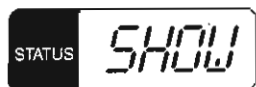
In the static mode of operation, the program reverts to its default state which monitors and displays the current time.

Viewing the Time or Date

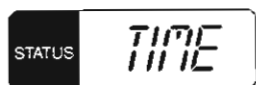
Use this function to check the time and date settings of the system clock. To change the time or date, refer to *Setting the Time, and Date*.

To display the time or date, follow this procedure:

1. Press **MODE**. Then press  until the display shows:



2. Press **MODE**. Then press  until the display shows:



3. Press **MODE** to show the time (based on a 24-hour cycle).

Press **MODE** to show the month and day.

Press **MODE** to show the year.

Press **MODE** again to return the display to its default mode.

Proximity Sensors Calibration

The calibration procedure of the Proximity Sensors is the same for the Disposal, Rinse, Cold Water, and Hot Water. Optional microphone sensor is factory calibrated.

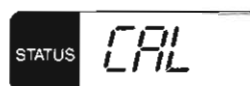
To calibrate the Proximity Sensor, follow this procedure:

NOTICE

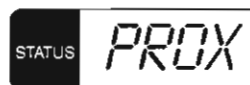
The background lighting is critical when calibrating the Proximity Sensors. Extreme variations in lighting may affect the operation of the various components on the Grosslab. The calibration of the sensors should be done to best reflect the normal operating environment of the laboratory.

The calibration procedure for the Disposal, Rinse, Cold and Hot Water is the same. Calibrating any one of the four functions simultaneously calibrates the other three sensors. The proximity range of the microphone sensor is a fixed factory preset and is not adjustable.

1. Press  until the display shows:



2. Press . The display shows:



3. Press . The display shows proximity sensor setting.

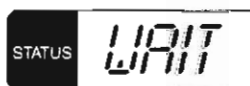


NOTICE

The proximity sensor range is preset at the factory for 50. This preset value represents a nominal operating range of 2 to 3 inches (5 cm to 8 cm) for a typical operating environment

To change the proximity range for all four functions at the same time, activate any one of the sensors to determine present proximity range.

4. Press   to increase or decrease range until activating the sensor falls within the 2 to 3 inch (5 cm to 8 cm) range.
5. Press . The display shows:



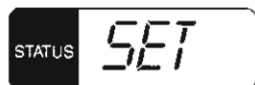
6. Program times out, display shows actual time.

Setting and Resetting Filter Timer

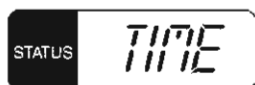
An accumulated filter time alert is incorporated into the system for user safety. When activated, the words TIME and FLTR are alternately displayed alerting the user to check the condition of the Grosslab internal filters or the facility's filter system. The filter time alert continues to be displayed until the filter timer is reset to zero.

To set the Filter Timer, follow this procedure:

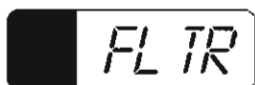
1. Press **MODE**. The display shows:



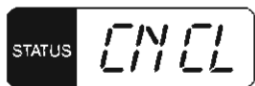
2. Press **MODE**. The display shows:



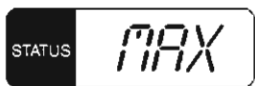
3. Press   until the display shows:



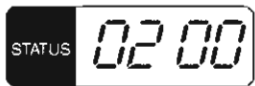
4. Press **MODE**. The display shows:



5. Press   until the display shows:



6. Press **MODE**. The display shows:



7. Press   to set filter time in hours.

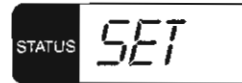
(Note: Maximum filter time setting is 200 hours.)

8. Press **MODE**. The display shows the current time.

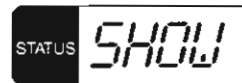
Display Filter Used Time

To display the Filter Used Time, follow this procedure:

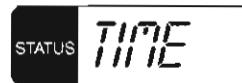
1. Press **MODE**. The display shows:



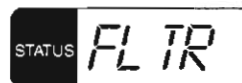
2. Press   until display shows:



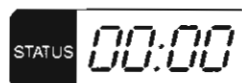
3. Press **MODE** until display shows:



4. Press   until display shows:



5. Press **MODE**. The display shows filter time used.



6. Press **MODE**. The display shows the current time.

Elevator

The height of the Grosslab working surface has a variable range of 12 inches and can be adjusted from 33.5 in. to 45.5 in. (85 cm to 116 cm).

The table elevator is controlled by the ELEVATOR HI/LO rocker switch located on the front panel of the upper shelf.

The Grosslab elevation system has a recommended table weight limit of 200 pounds (90.6 kg); exceeding this weight limit can damage the tables elevating system voiding, the warranty.

CAUTION

To raise the work surface, depress and hold upper portion of ELEVATOR switch (marked HI) until desired height is obtained.

To lower the work surface, depress lower portion of the ELEVATOR switch (marked LO) until desired level is obtained.

Proximity Switches

There are proximity switches on Grosslab models having proximity control that control the various functions of the unit. The four proximity switches that control the Disposal, Table Rinse, Cold and Hot water are mounted on the underside of the upper shelf directly below the function labeled.

If the optional dictation interface is provided, a fifth proximity switch is located on the end of the microphone and controls the Grosslab Dictation system.

The operation of the four proximity switches that control the Disposal, Table Rinse, Cold water and Hot water is the same. Operation of the dictation system proximity switch is slightly different from the other four. It only maintains the tape recorder ON condition while the user is in the proximity range.

To ensure proper operation of the sensor switches, reflective or extremely dark materials should not be used to activate the sensor.

NOTICE

The proximity switch sensors are sensitive to motion in either the inward or outward direction.

Movement within proximity range of the switches activates the switch and causes the red indicator to light for approximately three seconds and then the green indicator to light. Moving out of the sensors proximity range while the green light is on or flashing turns on the selected function.

To deactivate an activated function, movement within the proximity range causes the proximity switch to activate, lighting the red indicator. Moving away from the sensor while the red indicator is on shuts off the selected function.

If the green indicator light is allowed to come on during this time interval, moving out of the proximity range will cause the selected function to remain on or to be turned back on.

Should an object be inadvertently placed within the proximity range of any or all of the proximity switches and remains there for more than five seconds,

the red indicator(s) for the activated switch(s) will begin to flash alerting the user of the condition. The red indicator will continue to flash until the object is removed.

Disposal

The Disposal and the disposal water is activated simultaneously by a Disposal proximity sensor switch. This switch is located on the underside of the upper shelf just below the Disposal indicator light. When the disposal is operating, a continuous water flow is directed into the disposal unit.

To turn the Disposal on: Place hand (palm up), approximately two to three inches (5 cm to 7.6 cm), directly below Disposal proximity sensor, and hold it there. The red indicator will light temporarily (approximately 3 seconds) indicating the switch is activated and then changes to green. Removing hand turns on the Disposal and the water supply.

To turn the Disposal off: Place hand (palm up), approximately two to three inches (5 cm to 7.6 cm), directly below Disposal proximity sensor, and hold it there. The red indicator will light temporarily (approximately three seconds) indicating that the switch is activated. Removing hand turns off the Disposal and the water supply. If hand is held under switch until green indicator comes back on, the Disposal and the water will be turned on again.

CAUTION



Do not insert hands or objects into disposal unless main power switch is turned off.

Rinse Jets

The Rinse Jets located on the left end of the table are controlled by a rinse proximity sensor switch. This switch is located on the underside of the upper shelf just below the Rinse indicator light.

To turn the Rinse Jets on: Place hand (palm up), approximately two to three inches (5 cm to 7.6 cm), directly below Rinse proximity sensor and hold it there. The red indicator will light temporarily (approximately 3 seconds) indicating the switch is activated and then changes to green. Removing hand, activates the control valve turning on the Rinse jets water supply.

To turn the Rinse Jets off: Place hand (palm up), approximately two to three inches (5 cm to 7.6 cm), directly below Rinse proximity sensor, and hold it there. The red indicator will light temporarily (approximately three seconds) indicating that the switch is activated; removing hand turns off the Rinse jets water supply. If hand is held under switch until green indicator comes back on, the Rinse jets water will be turned on again.

Cold Water/Hot Water

The cold or the hot water is activated by the appropriate proximity sensor located on the underside of the upper shelf, just below the Hot Water and Cold Water indicator lights, respectively. Since the operation of the cold and the hot water sensors is the same, only the cold water is presented.

To blend the water, both the hot and cold sensors must be activated and water flow adjusted.

To turn Cold Water on: Place hand (palm up), approximately two to three inches (5 cm to 7.6 cm), directly below Cold Water proximity sensor, and hold it there. The red indicator will light temporarily (approximately 3 seconds) indicating the switch is activated and then changes to green. Removing hand turns on water supply control valve. Adjust cold water faucet for desired water flow.

To turn Cold Water off: Place hand (palm up), approximately two to three inches (5 cm to 7.6 cm), directly below Cold Water proximity sensor, and hold it there. The red indicator will light temporarily (approximately three seconds) indicating that the switch is activated; removing hand turns off water supply. If hand is held under the switch until green indicator comes back on, the water will be turned on again.

Since the water flow is controlled automatically by the cold and hot water proximity sensors, it is not necessary to shut off the water faucets after each water usage. However, if there will be extended non-usage periods, it is recommended that the faucets be shut off.

NOTICE

Manual Controls

(The following applies to models having manual controls only)

ELEVATOR



Press and hold HI to raise the height of the unit. Press and hold LO to lower the height of the unit.

DISPOSAL



Turn this switch on to start the disposal and disposal water.

RINSE



Turn this switch on to activate the table rinse.

EXHAUST



For units having integral exhaust blowers, turn this switch on to activate the blower.

Exhaust System (Models 8700, 87001, 87003, 87004, 87006, 87007, 87008, 870010, 870022, 8700122, 8700322, 8700422, 8700622, 8700722, 8700822 and 87001022)

The Grosslab Exhaust system is controlled by the EXHAUST system rocker switch located on the front of the upper shelf. When the exhaust system is activated, the EXHAUST switch green indicator is illuminated.

To turn on the Exhaust system: Depress the upper portion of the EXHAUST rocker switch. When the exhaust system is activated, the EXHAUST switch green indicator is illuminated.

To turn off the Exhaust system: Depress the lower portion of the EXHAUST rocker switch. When the exhaust system is deactivated, the EXHAUST switch green indicator is turned off.

Optional Dictation System Activation

The activation of the Grosslab Dictation system can be accomplished by any one of three methods. The first method is by the proximity sensor switch located on the end of the microphone, the second is by the remote foot pedal, or the third is by the LISTEN push-button on the recorder console. Other functions (e.g., fast-forwarding, volume adjustment, pause, stop, etc.) can only be performed via the console. For specific instructions on how to use the entire set of console controls, refer to the tape recorder operator's manual.

Optional Microphone Proximity Sensor

To operate the dictation system in the microphone proximity sensor mode, perform the following procedures:

1. Adjust the microphone gooseneck for a comfortable speaking distance of approximately 2 to 4 inches (5 cm to 10 cm) from the microphone.
2. To insert blank cassette in tape recorder, press EJECT push-button to open tape compartment. Insert cassette into tape compartment and close lid.
3. Apply power to Recorder Console by depressing upper portion of DICTATE toggle switch. Green indicator on switch should be illuminated.
4. With your mouth approximately 2 to 4 inches (5 cm to 10 cm) from the microphone, speak in a normal tone of voice. The green indicator on the microphone will light to show that recorder is turned on and recording is in progress.
5. To stop recording, simply move out of proximity range of the microphone sensor. Microphone remains on for approximately three seconds and then shuts off tape recorder.

Optional Remote Foot Switch

There are two methods of rewinding and listening to a recorded tape. One is by using the REVERSE and LISTEN controls on the remote foot switch and the other is by using the REWIND and LISTEN controls on the tape recorder. Fast forwarding of a tape can only be done by the F. FORWARD push-button on the tape recorder.

NOTICE

To operate the dictation system using the remote foot switch, perform the following procedures:

1. Adjust the microphone gooseneck for a comfortably speaking distance of approximately 2 to 4 inches (5 cm to 10 cm) from the microphone.
2. To insert blank cassette in tape recorder, press EJECT push-button to open tape compartment. Insert cassette into tape compartment and close lid.
3. Apply power to Recorder Console by depressing upper portion of DICTATE toggle switch. Green indicator on switch should be illuminated.

NOTICE

When using the remote record foot switch for recording, you can speak in a normal tone of voice and record a message without having to position your mouth 2 to 4 inches (5 cm to 10 cm) from the microphone.

4. On foot switch, press down and hold RECORD (center portion of pedal) between REVERSE and LISTEN bars. Speak in a normal tone of voice. When recording is finished, release RECORD pedal.
5. To rewind tape, press and hold REVERSE bar on left side of foot switch.
6. To listen to recorded tape, press and hold LISTEN bar on right side of foot switch.

NOTICE

There are two methods of rewinding and listening to a recorded tape. One is by using the REVERSE and LISTEN controls on the remote foot switch and the other is by using the REWIND and LISTEN controls on the tape recorder. Fast forwarding of a tape can only be done by the F. FORWARD push-button on the tape recorder.

Optional Tape Recorder Console

1. Adjust the microphone gooseneck for a comfortable speaking distance of approximately 2 to 4 inches (5 cm to 10 cm) from the microphone.
2. To insert blank cassette in tape recorder, press EJECT push-button to open tape compartment. Insert cassette into tape compartment and close lid.
3. Apply power to Recorder Console by depressing upper portion of DICTATE toggle switch. Green indicator on switch should be illuminated.
4. On foot switch, press down and hold RECORD (center portion of pedal) between REVERSE and LISTEN bars. Speak in a normal tone of voice. When recording is finished, release RECORD pedal.
5. To listen to a recorded message, first rewind tape by pressing REWIND push-button on console or REVERSE bar on remote foot switch. Then press LISTEN push-button on console or LISTEN bar on foot switch. Fast forwarding of a tape can only be done by the F. FORWARD push-button on the tape recorder.

To rewind the cassette, press the REVERSE (left) bar of the foot pedal, or use the REWIND button on the console.

To listen to the recording, press the LISTEN (right) bar of the foot pedal, or use the LISTEN push-button on the console.

To fast-forward the cassette, use the F. FORWARD push-button on the console.

Hand-Held Sprayer

The hand-held sprayer is located on the right side of the table adjacent to the hot/cold water faucets.

To operate the hand-held sprayer, activate either the hot or cold water faucet or both and adjust to desired water flow. On the hand-held sprayer, press the thumb control to start the spray; release to stop water flow.

Deactivating either hot or cold water shuts off water to the sprayer.

Specimen Strainer Rinse

The Specimen Strainer rinse water control valve is located on the right side of the table next to hot/cold water faucets.

To operate the specimen strainer rinse, open the water control valve and adjust for desired water flow into strainer. To shut off water, close valve.

SERVICE

This section describes how to maintain and repair minor problems that occur with the Grosslab Senior™. Customers who have in-house service technicians available may elect to perform many maintenance and service procedures themselves. For those who prefer to use supplier service or for procedures unsuitable for user-performed service, Thermo Electron Corporation supports the Grosslab Senior™ with courteous and well-trained service personnel.

Aside from frequent cleaning and decontamination of the unit and its components, the Only user maintenance is replacing the particulate and formaldehyde filters.

To guide the user in maintaining and diagnosing malfunctions that may occur in the Grosslab, routine maintenance and troubleshooting information is provided.

Replacement parts may be ordered from Thermo Electron Corporation by using the part numbers listed in the Replacement Parts section.

All service and repair should be performed only by trained and qualified service personnel. Service done by persons other than qualified repair persons will void all warranties.

CAUTION



For service assistance, contact Thermo Electron Corporation;
In the USA: 1-800-253-7637
Outside the USA: 412-788-1133

Call between the hours of 8:00 a.m and 5:30 p.m. EST. Please have available your unit's part number, serial number, and operating voltage, which are printed on the data plate mounted on the rear of the unit.

Service Contracts

While we at Thermo Electron Corporation Strive to produce instruments that provide years of trouble-free use, we do recognize that occasional problems may occur. With that in mind, we offer service contracts that are designed to protect you against long downtime periods and major expense. For more information, contact our Service Department from 8:00 a.m. to 5:30 p.m. EST.

Routine Maintenance

The routine maintenance to be performed on the Grosslab consists of cleaning the unit and its components and changing the particulate and formaldehyde filters.

Cleaning

The surfaces of the Grosslab work area are made of stainless steel.

What is Stainless Steel?

Stainless steel is a group of iron-based alloys containing a minimum of 10.5% chromium. There are over 50 grades of stainless steel. Thermo Electron Corporation routinely uses 304-grade stainless steel in the manufacture of its products. 304 stainless steel is easy to form and fabricate and has excellent corrosion resistance properties. Most stainless steel products manufactured by Thermo Electron Corporation are polished to a No. 4 finish.

Cleaning Stainless Steel

Stainless steel needs to be cleaned not only for aesthetic considerations, but also to preserve the corrosion resistance properties of the material. The chromium in the stainless steel combines with the oxygen in the air to form a chromium oxide film that protects the material from corrosion. Contamination of the surface inhibits this process and can trap corrosives. For general cleaning, warm water with or without a mild detergent is suitable. Once cleaned, the area should be rinsed with clean hot water. It is advisable to wipe the surface with dry towels to prevent minerals in the water from leaving deposits on the surface of the stainless steel. Commercially prepared stainless steel cleaners may also be used. Follow the manufacturer's directions accordingly. Incomplete removal of cleaners may lead to corrosion of the surface.

NEVER use steel wool, or similar products, to clean your stainless steel products. Use of these products may embed small particles into the surface of the stainless steel that can cause RUSTING.

Decontamination

Because the products manufactured by Thermo Electron Corporation frequently are exposed to biohazardous materials, the user may be required to decontaminate the work surfaces. While Thermo Electron Corporation does not recommend any specific decontamination procedures, customers using solutions of sodium hypochlorite (bleach) or other chlorine-containing disinfectants/cleaners must ensure that exposed surfaces are thoroughly

flushed with hot water after the facility's documented decontamination process is completed. Customers should not allow chlorine-containing solutions to dry on any stainless steel surface if possible. It is recommended that the surface be cleaned, as indicated above, after decontamination. Chlorine residue will corrode the surface of stainless steel and repeated exposure without adequate rinsing may lead to pitting of the surface, which may be confused with rusting. If possible, the use of chlorine-containing disinfectants/cleaners should be avoided on stainless steel.

Stainless Steel Care Kit (P/N: 1001027)

Thermo Electron Corporation provides this kit to care for the stainless steel products that are manufactured by the company. This kit contains a can of stainless steel polish, #24 caruba wax, buffing cloths, and cleaning/polishing pads. Instructions provided with the kit advise the customer how to maintain the appearance of their stainless steel surfaces.

Thorough and frequent cleaning of the Grosslab and its components will preserve its appearance and ensure user safety. Your institution's guidelines should be strictly adhered to when performing cleaning and decontamination procedures.

Thorough and frequent cleaning of the Grosslab and its components will preserve its appearance and ensure user safety. Your institution's guidelines should be strictly adhered to when performing cleaning and decontamination procedures.

Concentrated Chlorine such as that found in bleach will damage stainless steel surfaces. If possible avoid using disinfectants and cleaners containing chlorine. See the "Cleaning Stainless Steel" and "Decontamination" sections (above) for further details.

NOTICE

Alumina/Permanganate Filter Test

The useful life of an alumina/permanganate filter depends primarily on the volume of formaldehyde and other organics it is exposed to. As a rule of thumb, the average filter can withstand 20 to 80 hours of use in a typical pathology environment. To determine approximately how long a filter can be expected to last in your particular work environment, periodically test the filter at scheduled intervals during the initial use period. After making this determination, occasional testing should be performed to confirm that your original estimate is indeed still accurate.

To test alumina/permanganate filter, perform the following procedures:

1. To gain easy access to the filter compartment elevate the Grosslab to its highest position. At rear of knee space, open both access panels.
2. Remove one or two pellets of alumina/permanganate from bottom filter and slice in half.
3. Place pellet(s) on a paper towel and add a few drops of water.
4. If pellet(s) show no hint of purple color, filter is no longer functional (i.e.; permanganate is totally consumed).

When the purple color first disappears from the core of the pellet, the filter is approximately 80 percent depleted. At this point, the rate at which formaldehyde is removed from the airstream is considerably reduced due to the increased distance of diffusion. With this in mind, it may be more practical to replace the filter at the 80 percent depletion point rather than when it is completely expended.

CAUTION

Filter Replacement (Models 9700, 97001, 97003, 97004, 97006, 97007, 970022, 9700122, 9700322, 9700422, 9700622, 9700722)

To replace the filters, perform the following procedures:

1. To gain easy access to the filter compartment, elevate the Grosslab to its highest position. At rear of knee space, open both access panels.
2. Remove old filters from filter compartment.
3. Install one particulate filter in each side of filter compartment. Make certain that air direction arrows point downward.
4. Install a alumina permanganate filter on top of each particulate filter. Make certain that air direction arrows point downward.
5. Close access panels, and adjust table level to desired height.

Troubleshooting

The Grosslab Senior™ was designed to be essentially maintenance free. When problems do arise, they can often be resolved by following the procedures given in the Troubleshooting section of this manual. For help with problems not addressed there, feel free to call upon the expertise of our Service Department from 8:00 a.m. to 5:30 p.m. EST.

Troubleshooting from Fault Indication

When a malfunction or fault occurs in the unit, after the ten second initialization period, a fault indication is displayed as a red indicator on the PROGRAM display. When a fault indication is observed, turn off the unit and call the Service Department. In some cases, the unit shuts down when a malfunction or fault occurs.

Troubleshooting from Symptoms

The following table presents a list of possible problems along with the symptoms, possible causes, and the recommended action(s) to be taken.

For Disposal or Tape Recorder problems, it may be necessary to consult the manufacturer's instructions that were included in the Grosslab Senior™ package. If you find that you are still unable to resolve a problem after trying both of these measures, contact the Service Department at Thermo Electron Corporation.

Power

Symptom	Possible Cause	Recommended
No power to unit	Main circuit breaker tripped	Check circuit breaker at main breaker panel. Reset breaker. Check ON/OFF circuit breaker on unit reset breaker.

Elevator

Symptom	Possible Cause	Recommended Action
Table does not raise or lower all other functions normal	Defective ELEVATOR HI/LO switch	Call qualified service technician.
	Defective motor	Call qualified service technician
	Defective elevator drive mechanism	Call qualified service technician.
Restricted table travel	Restriction between upper and lower sections	Check and remove restriction between upper and lower sections or wall.

Disposal

Symptom	Possible Cause	Recommended Action
Disposal won't run, water turns on	Power cord unplugged	Make certain that disposal power cord is plugged into female power cord.
	Impeller blades jammed or thermal overload switch on disposal is tripped	Turn off power at main circuit breaker panel and unit power switch. Check for and remove any foreign materials from impellers. Check thermal overload switch on disposal unit. Press switch to reset. Restore power to unit.
Disposal runs, no water flow	Defective water solenoid	Check operation of water solenoid by activating disposal Sensor. Listen for solenoid to click when energized. If no click is heard, solenoid is defective. Call qualified service technician. If clicking action is heard, check main water supply valve.

Disposal (Continued)

Disposal runs. water flow restricted	Partially clogged solenoid water valve	Call qualified service technician.
---	---	---------------------------------------

Symptom	Possible Cause	Recommended Action
No disposal/ no water flow	Defective disposal sensor	Check operation of disposal sensor. Proximity range may need to be adjusted. Refer to Control section for sensor calibration.

Rinse Bar Water

Symptom	Possible Cause	Recommended Action
No Table Rinse bar water flow	Main water supply valve closed	Check main water supply valve.
	Rinse bar sensor defective	Check operation of rinse bar sensor. Proximity range may need to be adjusted. Refer to Control section for sensor calibration.
No Table Rinse bar water flow	Defective rinse bar water on/off solenoid	Check operation of water solenoid by activating rinse bar sensor. Listen for solenoid to click when energized If no click is heard, solenoid is defective. Call qualified service technician. If clicking action is heard, check main water supply valve.
Rinse water flow restricted	Partially clogged solenoid water valve	Call qualified service technician.

Cold Water

Symptom	Possible Cause	Recommended Action
No Cold water flow	Cold water faucet on sink closed	Check cold water faucet on sink.
	Main water supply valve closed	Check main water supply valve.
	Cold water sensor defective	Check operation of cold water sensor. Proximity range may need to be adjusted. Refer to Control section for sensor calibration.

Cold Water (Continued)

Symptom	Possible Cause	Recommended Action
	Defective cold water on/off solenoid	Check operation of water solenoid by activating cold water sensor. Listen for solenoid to click when energized. If no click is heard, solenoid is defective. Call qualified service technician. If clicking action is heard, check main water supply valve.
Cold water flow restricted	Partially clogged solenoid water valve	Call qualified service technician

Hot Water

Symptom	Possible Cause	Recommended Action
No hot water	Perform procedures listed for cold water problem.	

Exhaust System (Models 9700, 97001, 97003, 97004, 97006, 97007, 97009, 970010, 970022, 9700122, 9700322, 9700422, 9700622, 9700722, 9700922, 97001022)

Symptom	Possible Cause	Recommended Action
Excessive odors exist, blower operational	Alumina/Permanganate filters saturated	Refer to filter replacement instructions found in the Routine Maintenance section of this manual. Replace filters if necessary.
Blower not running	Defective EXHAUST switch	Call qualified service technician.
	Defective blower motor	Call qualified service technician.

Optional Dictation System

Symptom	Possible Cause	Recommended Action
Tape recorder does not record	No cassette in recorder	Check recorder for cassette.
Tape recorder does not operate using microphone	DICTATE power switch off	Make sure that DICTATE on/off switch is on. Green indicator should be illuminated.
	Power cord on rear of recorder	Check power cord on rear of recorder.

Optional Dictation System (Continued)

Symptom	Possible Cause	Recommended Action
Tape recorder does not record using remote foot switch	Defective microphone sensor	Check operation of microphone sensor.
	No cassette in recorder	Check recorder for cassette.
	DICTATE power switch off	Make sure that DICTATE on/off switch is on. Green indicator should be illuminated.
	Power cord on rear of recorder	Check power cord on rear of recorder.
	Remote foot switch interface cable on rear of base unit disconnected	Check interface cable connection to base connector box, See Figure 2 for location of connector box.
Tape recorder does not rewind	Defective RECORD switch	Call qualified service technician.
	Defective REVERSE switch	Call qualified service technician.
	Defective LISTEN switch	Call qualified service technician.
Excessive background, noise or weak recording quality		Consult qualified service technician.

Ground Fault Circuit Interrupter Receptacle (G.F.C.I.) for 110/120V Units or IEC 320 Receptacle for 220/240V Units

Symptom	Possible Cause	Recommended Action
Receptacle trips repeatedly	Defective receptacle	Replace receptacle. Call qualified service technician.

REPLACEMENT PARTS

The replacement parts for the Grosslab Senior™ are those parts that are considered as user serviceable parts and can be purchased separately. These parts consist of all of the accessory items as well as filters, fluorescent lamps, light diffuser etc.

To place an order for replacement parts, call our Customer Service Department from 8:00 a.m. to 5:30 p.m. EST.

Description	Part No.
Acrylic, Sliding Panels	10518
Cover, Electrical Cable	10543
Disposal	B1001205
Drain Hose, Spiral	1000314
Exhaust Louvre Panel	10547
9700 Filter Set	9990850
Flex Magnifier	104404
Fluorescent Lamps	109273
Formaldehyde Neutralizer Pads	56431
Formalin Container	104395
Grosslab Senior™ Operator's Manual	1001352
Light Diffuser Panel	109274
Magnagrip Bars	104393
Multifold Towels	104401
Recorder Foot Control	109424
Requisition Rack	105417
Specimen Strainer	104402
Towel Dispenser	1070214
Towel Rack Bar	104286
Valve, Solenoid GP-400 Series	1000654
Vinyl Cutting Pad	1000156
Universal Controller Board Module Assembly	10321
Proximity Board	10297

SPECIFICATIONS

The following specifications pertain to the Grosslab Senior™. Thermo Electron Corporation reserves the right to change these specifications at any time, without notice.

Dimensions

Height:

Elevated 93 in. (236.2 cm)

Lowered 81 in. (205.7 cm)

Note: Factory set to user specification on Models 97003, 97004, 97005, 97009, 970010, 970011, 9700322, 9700422, 9700522, 9700922, 97001022 and 97001122 only.

Depth:

Models 9700, 97003, 97006, 97009, 970022, 9700322, 9700622 and 970092.

32.5 in. (82.6 cm)

Models 97001, 97002, 97004, 97005, 97007, 97008, 9700122, 9700222, 9700422, 9700522, 9700722, 9700822

38 in. (96.5 cm)

Width:

60 in. (152.4 cm)

Upper Shelf:

Length: 56 in. (142.2 cm)

Depth: 10 in. (25.4 cm)

Lower Shelf:

Length: 56 in. (142.2 cm)

Depth: 10.5 in. (26.7 cm)

Work Surface:

Length: 53 in. (134.6 cm)

Width: 25 in. (63.5 cm)

Depth: Pitch from 1.75 in. (4.5 cm) to 2.5 in. (6.4 cm)

Sink:

Length: 14 in. (35.6 cm)

Width: 12 in. (30.5 cm)

Depth: 6 in. (15.2 cm)

Table Elevation Range

12 in. (30.5 cm)

Raised Level 45.5 in. (115.6 cm)

Lowered Level 33.5 in. (85.1 cm)

Weight Uncrated

Upper Assembly

253 lb (114.8 kg)

Lower Assembly

475 lb (215.5 kg)

<i>Line Voltage</i>	110/120 VAC/50/60 Hz/1 Phase and separate 120 VAC GFCI Circuit or 220/240 VAC/50/60 Hz/1 Phase including 240 VAC IEC 320 Receptacle Circuit
<i>Line Voltage Variations</i>	+/- 10%
<i>Disposal</i>	1/2 hp; 110/120 VAC @ 10.6 amps, full load or 1/2 hp; 220/240 VAC @ 5.3 amps, full load
<i>Power Consumption</i>	Models 9700, 97001, 97002, 97003, 97004, 97005, 97006, 97007, 97008, 97009, 970010 and 970011 Maximum power consumption: 20 amps (not including separate GFCI receptacles) or 2400 volt amps Models 970022, 9700122, 9700222, 9700322, 9700422, 9700522, 9700622, 9700722, 9700822, 9700922, 97001022 and 97001122 Maximum power consumption: 20 amps (including two IEC 320 receptacles) or 4600 volt amps
<i>Power Factor</i>	0.62 @ 1.8% THD
<i>Applicable Standards</i>	IEC 61010-1, UL 61010-1, and CSA 61010-1
<i>Operation Environment</i>	Temperature Range—5 to 60 degree C Humidity—0 to 98% RH (non-condensing)
<i>Storage Environment</i>	Temperature Range—5 to 40 degree C Humidity—0 to 90 RH (non-condensing)
<i>Optional Microphone</i>	Unidirectional, ceramic element Impedance-2.2 kOhms Frequency Range-20 Hz to 16 kHz
<i>Water Pressure</i>	Min 30 psi / Max 90 psi



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.

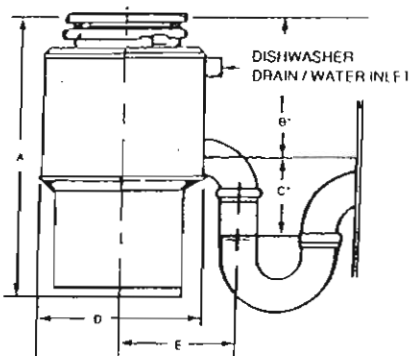
TOOLS AND MATERIALS YOU *WILL* NEED

- 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 $\frac{1}{4}$	6 $\frac{1}{16}$	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 $\frac{1}{8}$ " 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)



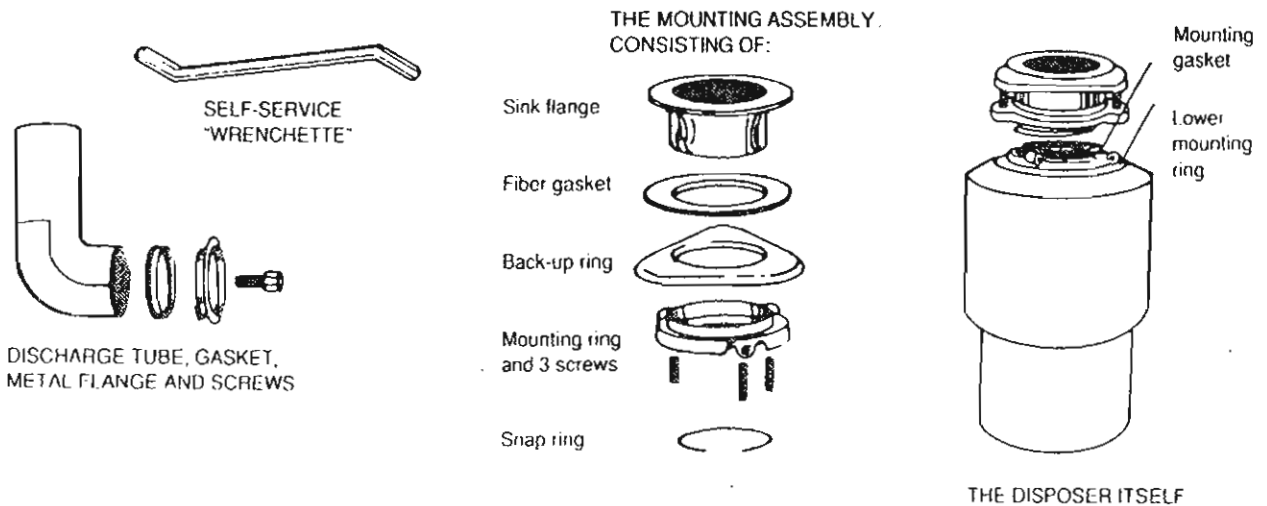
PART NO. 12602 E/07



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



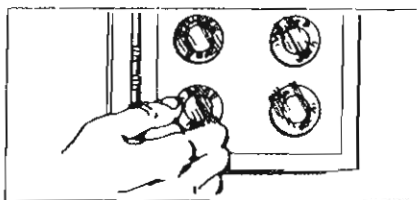
2

CLEANING YOUR SINK'S DRAIN LINE

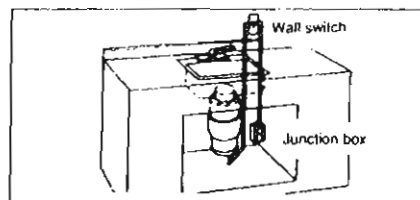
We recommend cleaning the line before connecting your new disposer. You can do the job yourself with a drain auger. Remove the drain trap and, using the auger, clean out the horizontal drain pipe that runs from the trap to the main waste pipe. Make certain that the auger removes the hardened material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



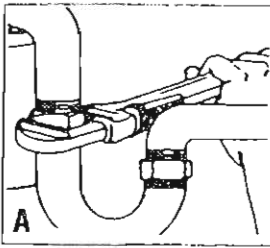
Install a junction box and switch. (Obtain 1/2 H.P., 15-20 amp rated on-off switch and electrical wiring locally.) Position the switch in any convenient location, and connect to junction box. *All wiring must comply with local electrical codes.* 14 gauge size wire is the smallest permissible for use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

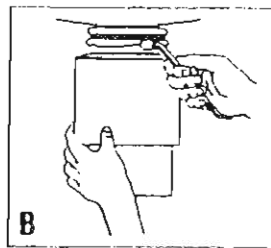
4

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



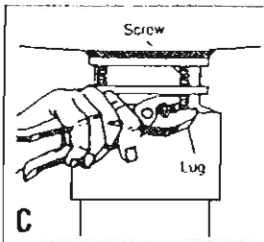
Use a pipe wrench to disconnect the drain line where it attaches to the disposer discharge tube.



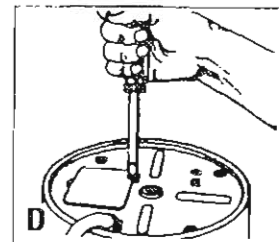
CAUTION: Be sure to hold the disposer with one hand while performing this step or it may fall when the mounting ring is disconnected from the sink mounting assembly. GO TO INSTRUCTION D.

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

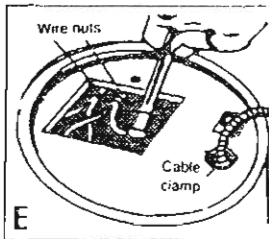
If your old disposer has the same mounting as your new one, insert the end of your "wrenchette" or screwdriver into the right side of one of the disposer mounting ring lugs at the top of the disposer. Then, turn the "wrenchette" or screwdriver to the left (counter-clockwise) until the lug lines up with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



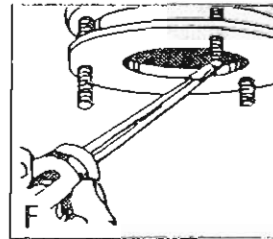
If your old disposer has a different mounting than your new one, use a pliers or adjustable wrench to remove the nuts on the mounting ring. Then remove old disposer. (Some disposers have to be removed by taking off a clamp or by twisting the disposer to remove it from its mounting. Easy to figure out.)



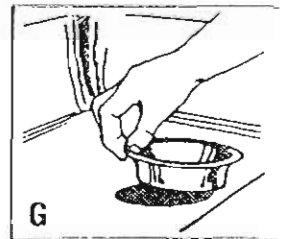
Once the disposer is off, turn it upside down and remove the electrical plate.



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.



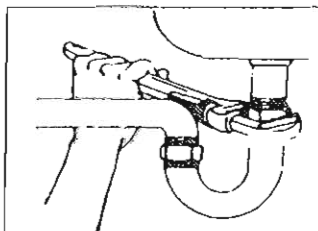
Loosen screws and remove old mounting ring and back-up ring. You may need a hammer to loosen assembly parts.



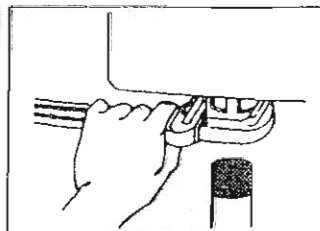
Finally, remove the old sink sleeve by pushing it up through the sink hole.

5

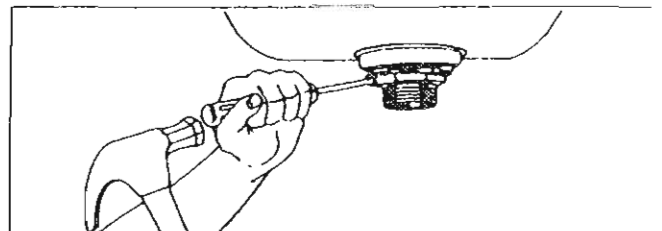
INSTALLING A FIRST-TIME DISPOSER



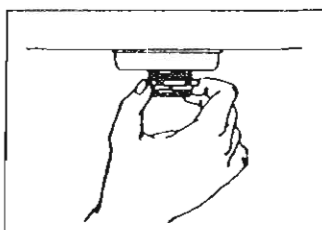
Use a wrench to loosen the nut at the top of the "P"-trap.



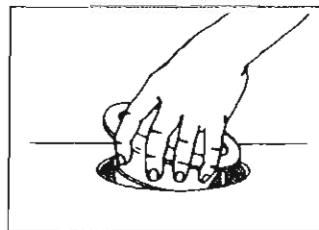
Next, remove the nut at the top of the sink strainer and remove the extension pipe.



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.

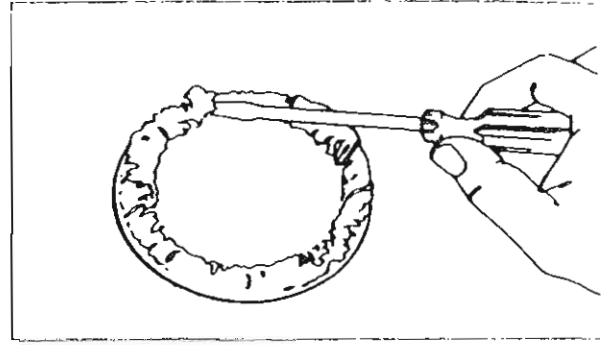


Now, push the strainer assembly up through the sink hole and remove it.

6

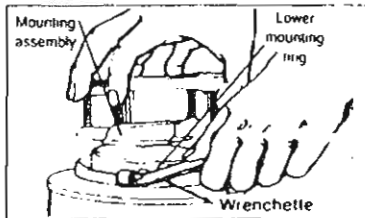
CLEAN THE OLD SEALANT FROM THE RIM OF THE SINK HOLE

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.

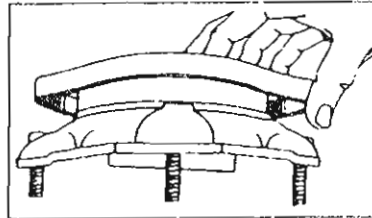


7

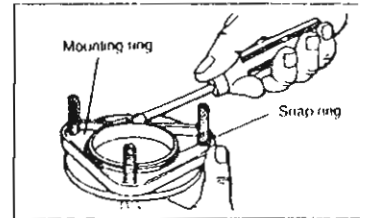
SEPARATE THE PARTS IN THE MOUNTING ASSEMBLY



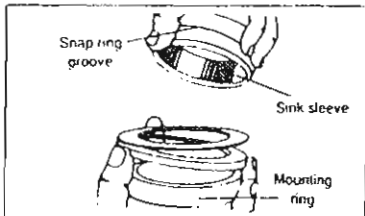
First, remove the mounting assembly from the lower mounting ring. Holding the mounting assembly with one hand, insert your wrenchette or screwdriver into one of the lugs of the lower mounting ring and turn it to the left (counterclockwise) with your other hand.



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.



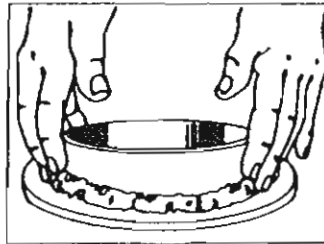
The assembly will now come apart. Set it aside and move to the next step.

8

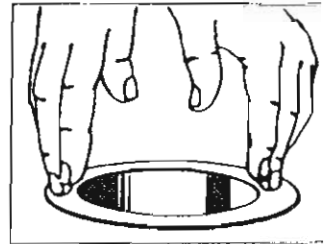
APPLY PUTTY TO THE SINK FLANGE



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



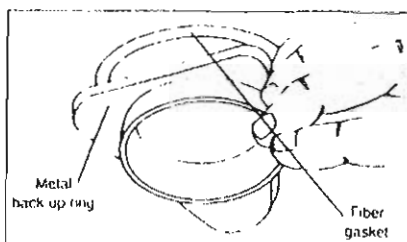
Apply this roll under the rim of the sink flange.



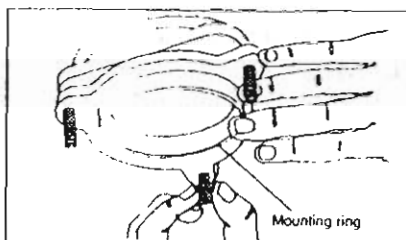
Then, place the sink flange into the sink drain hole and push down making sure it sits evenly in the putty.

9

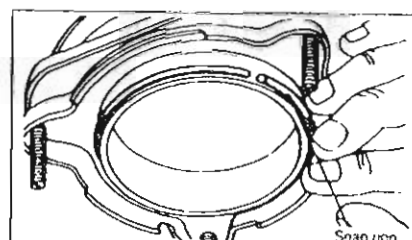
ATTACH THE UPPER MOUNTING ASSEMBLY



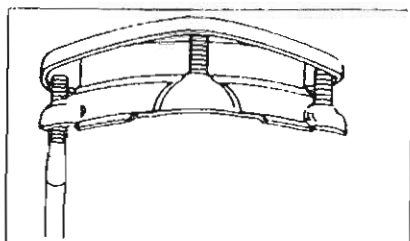
First, working from under the sink, slip the **fiber gasket** and next the **metal back-up ring** (flat side up) up and over the sink flange.



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.



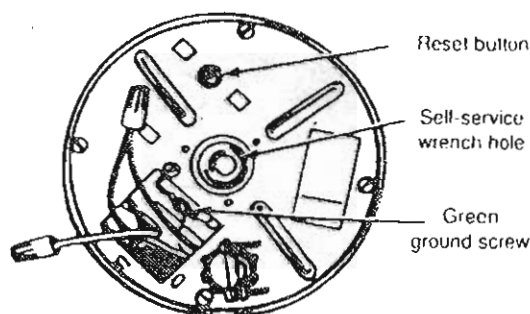
Tighten the three mounting screws with your screwdriver until the whole mounting assembly is seated evenly and tightly against the sink.

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.

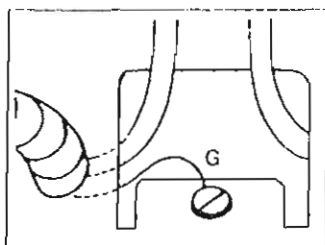
Connect the wires from the switch to the disposer wires. In making this connection, electrical wire nuts can be used or wires may be securely soldered together. *Be sure to connect white to white and black to black.* Wrap wire connections with electrical tape and put wires inside of disposer housing.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



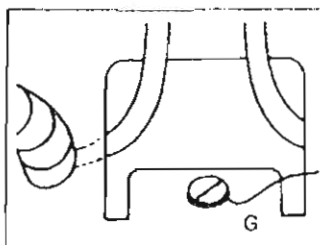
11

GROUNDING THE DISPOSER

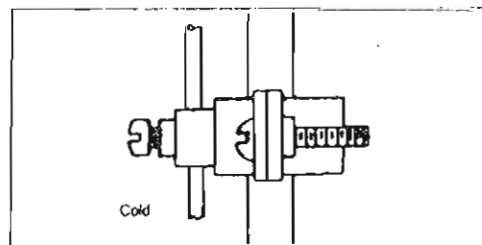
WARNING: IF NOT PROPERLY GROUNDED, a hazard of electrical shock may exist. DO NOT reconnect electrical current at main service panel until proper ground is installed. For your safety, **DO NOT** ground to a gas supply pipe.



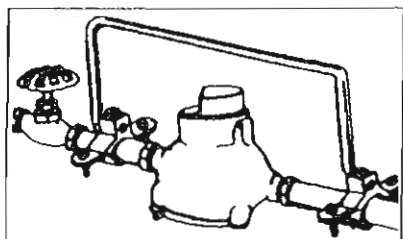
Simply attach the third green wire to the green ground screw on the unit.



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.



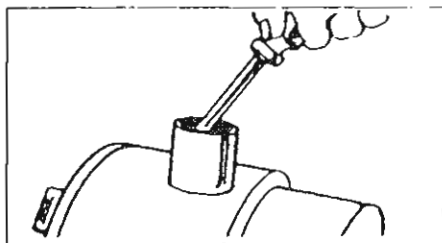
If you have a water meter in your home, check the meter to see if there is a wire that comes across it. If there is no wire, your cold water pipe is **NOT GROUNDED**. To properly ground it, add a #6 copper wire as shown for 200 amp service or less. Use (Underwriters Laboratories Inc., listed for the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

12 OPTIONAL STEP

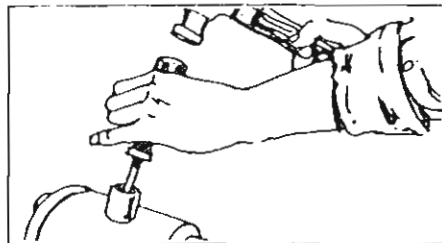
If you do **NOT** plan to use this step, go to step 13.

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

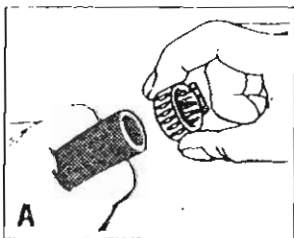


Lay the disposer on its side and insert the tip of your screwdriver into the water/drain inlet opening at an angle.

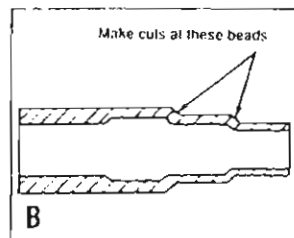


Tap the end of the screwdriver with a hammer until the molded plug pops out. **MAKE SURE YOU TAKE THE LOOSE PLUG OUT OF YOUR DISPOSER.**

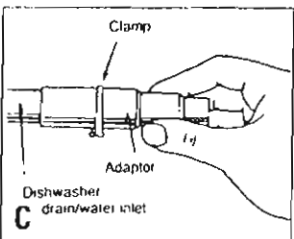
B. Connecting direct water line or dishwasher drain hose to the disposer. This is done after step 13.



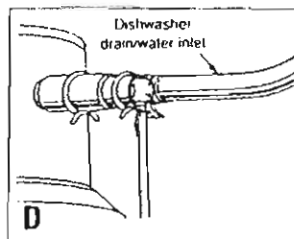
Remove the clamp or fittings from the end of your dishwasher drain hose. (Dishwasher application only.)



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.



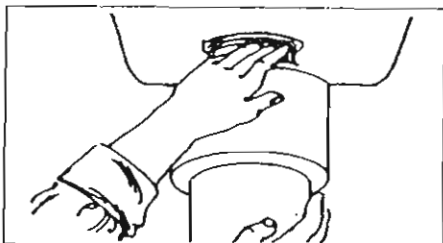
Slip the remaining clamp over the water line or dishwasher drain hose and back two or three inches. Now, slip the drain hose or water line into the adaptor. Then slide clamp into position and tighten.

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



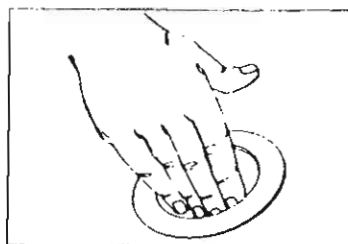
Lift the disposer and position it so that the disposer's three mounting lugs are lined up **under** the three sink mounting assembly screws.



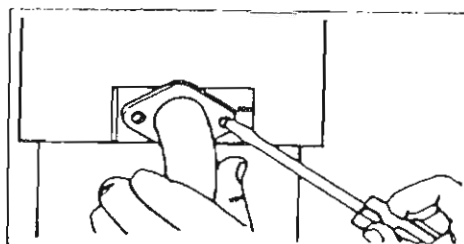
Then, while holding the disposer in place, turn the lower mounting ring with the lugs to the right until **all three** ears are engaged on the mounting assembly. You will lock this ring later, after the plumbing connections are made.

14

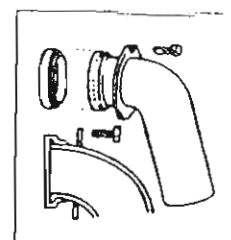
ATTACH THE DISPOSER DISCHARGE TUBE TO YOUR SINK'S DRAIN TRAP



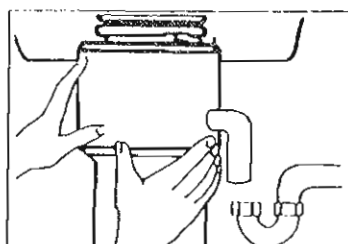
First, check inside the disposer grinding chamber to remove any objects or dirt that might have dropped in.



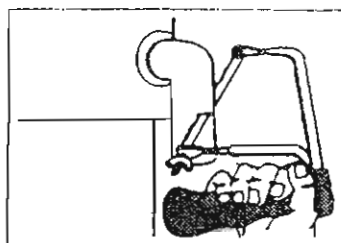
Rotate the disposer around and attach the discharge tube to the disposer. First, insert the rubber washer in the discharge opening. Then, put the metal flange over the discharge tube and screw the tube into place using the bolts provided.



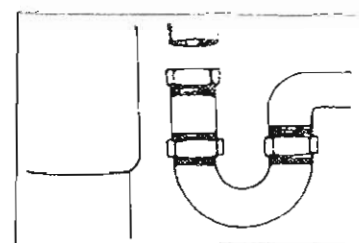
Install the discharge tube gasket onto the discharge tube. Gasket must be installed as shown to assure a leak-proof installation.



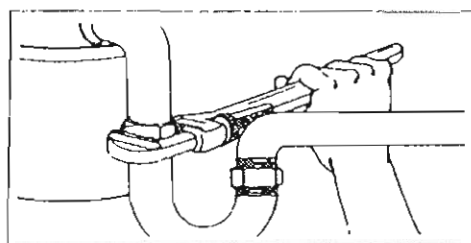
Turn the disposer so that the discharge tube aligns with your drain trap.



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



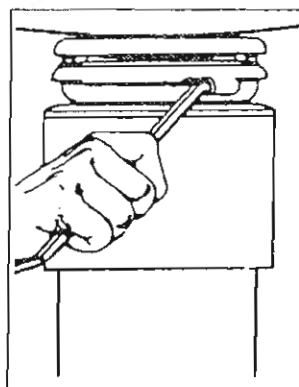
TUBE TOO SHORT? If the discharge tube doesn't reach your drain outlet, measure the difference and buy a drain trap extension tube.



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.

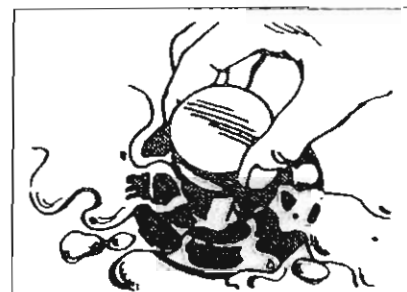
15

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 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. Make 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:

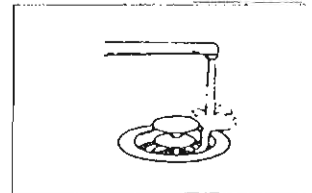
IN-SINK-ERATOR, SERVICE DEPARTMENT
4700 - 21st Street
Racine, Wisconsin 53406 U.S.A.

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

ROUBLE 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.

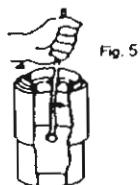
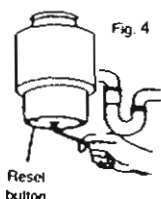
Be sure wall switch is turned off. Use a flashlight to determine the direction the unit was running at the time of the jam. A pry bar or tool should be inserted through the sink opening into the disposer. The end then must be placed alongside the grinding protrusion near the outside edge of the grinding 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).

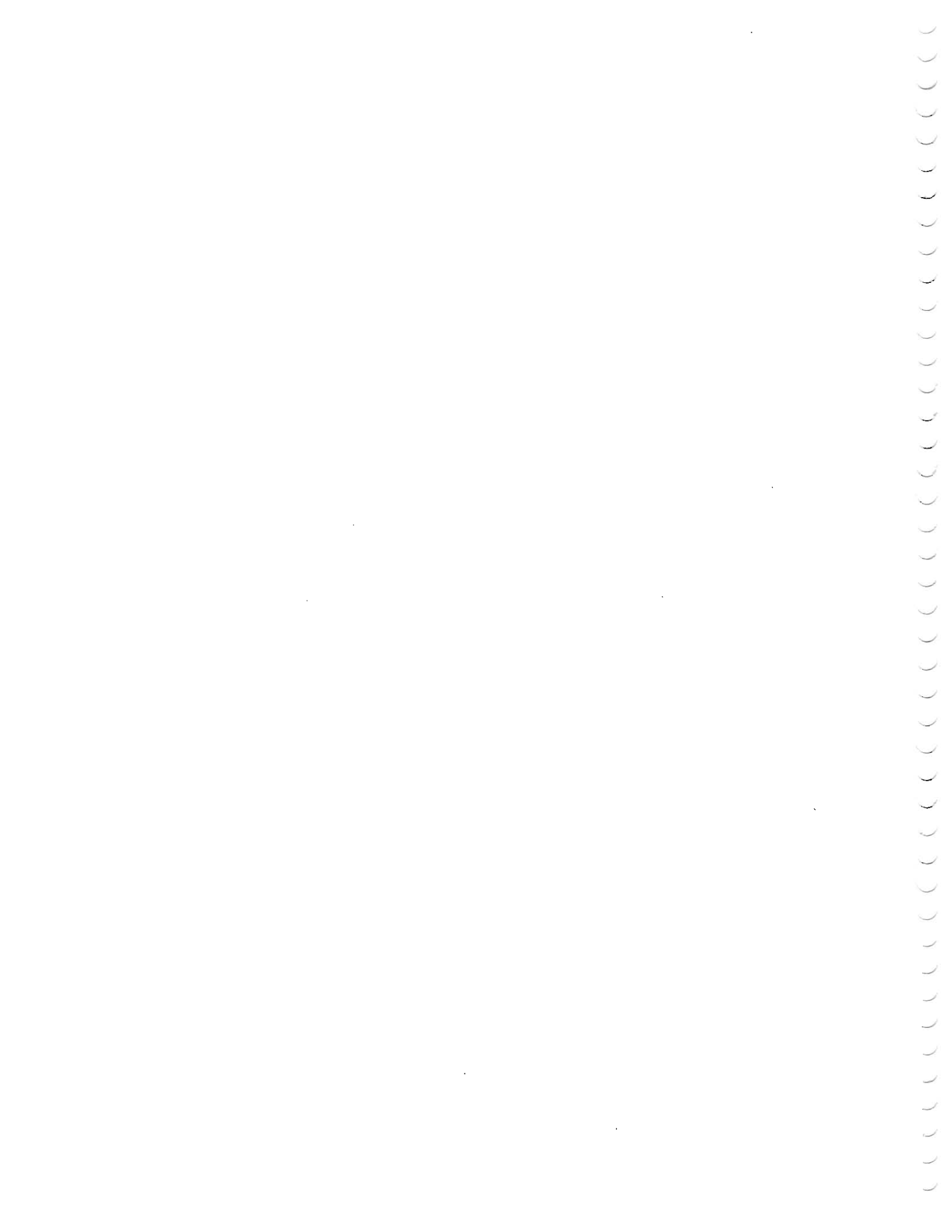
Do not drop or hammer on pry bar.

Use 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







MODÈLE LC-50 COMMERCIAL LÉGER

MANUEL D'INSTALLATION, D'ENTRETIEN ET D'UTILISATION

Le broyeur d'aliments, modèle LC-50, est conçu spécialement pour un usage commercial léger dans des applications telles que:

- Épiceries/dépanneurs
- Restaurants-minutes
- Cuisines de bureaux/églises
- «Chambre petit déjeuner»

Ce manuel décrit clairement la procédure d'installation, le mode d'utilisation, les instructions concernant l'entretien et les instructions sur la sécurité. En vous conformant aux indications de ce manuel, vous serez en mesure de bénéficier de tous les avantages que peut présenter, dans votre commerce, un broyeur d'aliments.

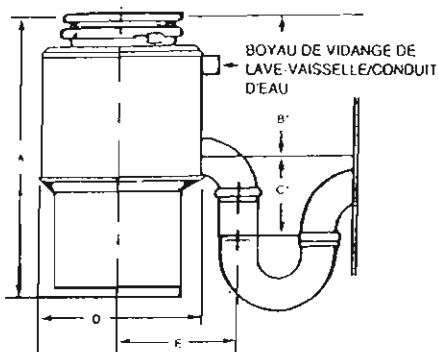
OUTILS ET MATÉRIAUX DONT VOUS AUREZ BESOIN

- Tournevis
- Clé à tuyau
- Marteau
- Mastic de plombier (1/4 lb.)
- Écrous de fil (2 - dimension 54)

OUTILS ET MATÉRIAUX DONT VOUS POURRIEZ AVOIR BESOIN

- Vrille d'évacuation de plombier ou tige
- Interrupteur électrique (1/2 CV, 15-20 A)
- Scie à métaux
- Clé avec vis sans fin
- Fil de cuivre (calibre 12 ou 14)
- Trousse de raccordement (pièce n° 8301)
- Soupape à solénoïde (pièce n° 11475)
- Coupe-siphon (pièce n° 11477)
- Soupape de commande de débit (pièce n° 11033D)

DIMENSIONS DE L'INSTALLATION



Dimension	A	B*	C*	D	E
Pouces	14 1/4	6 13/16	4	8	5 3/4
Cm	37,0	17,3	10,2	20,3	14,6

B* – Distance à partir du fond de l'évier jusqu'à la ligne centrale de la sortie du broyeur. Ajouter 1/2 po lorsque des éviers en acier inoxydable sont utilisés.

C* – Longueur du tube de décharge venant de la ligne centrale de la sortie du broyeur jusqu'à l'extrémité du tube d'évacuation.

IMPORTANT: Mettre bien d'aplomb le conduit de déchet pour éviter que de l'eau ne reste dans le carter du moteur de broyeur.

Pour tout renseignement de service, appelez sans frais 1-800-558-5700 (É.-U) ou 1-414-554-5432 (Canada)



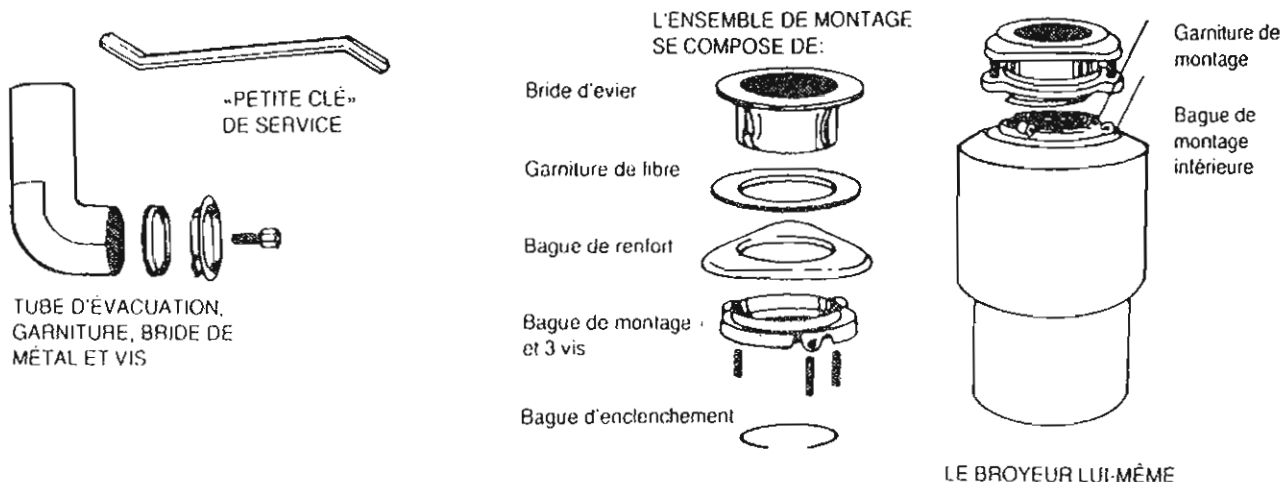
N° de pièce 13693 5/97



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

1

VÉRIFIER LES PIÈCES PAR RAPPORT AUX DESSINS CI-DESSOUS ET ASSUREZ-VOUS QUE TOUT Y EST



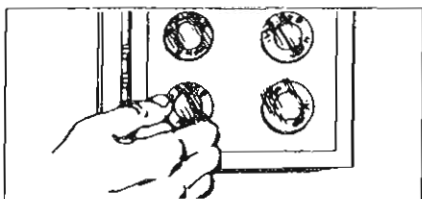
2

NETTOYER VOTRE CANALISATION D'ÉVACUATION DE L'ÉVIER

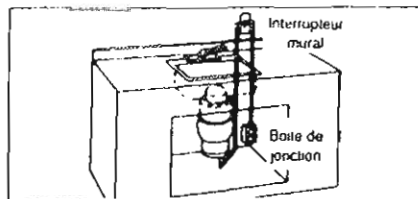
Nous recommandons de nettoyer la canalisation d'évacuation avant de raccorder votre broyeur. On peut faire le travail soi-même en utilisant une vrille d'évacuation. Enlever le siphon de la canalisation d'évacuation, et en utilisant la vrille, nettoyer le tuyau d'évacuation horizontal qui se rend du siphon au tuyau d'évacuation principal. S'assurer que la vrille supprime bien le matériau durse qui se forme à l'intersection du tuyau horizontal et du tuyau d'évacuation principal.

3

APPROVISIONNEMENT ÉLECTRIQUE



Retirer tout d'abord le fusible ou ouvrir le disjoncteur sur le circuit à partir duquel vous désirez utiliser le broyeur. Utiliser un circuit séparé de 15 ou 20 A, 120 volts pour le broyeur. Pour remplacer un appareil existant, passer à l'étape 4. Puis, utiliser un câble de 120 volts 15-20 A pour effectuer le raccordement à partir de la boîte de raccordement jusqu'à l'interrupteur.

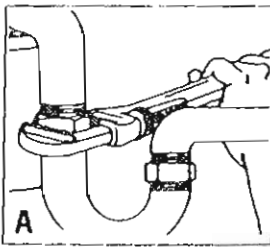


Installer une boîte de raccordement et un interrupteur. (Obtenir un interrupteur homologué pour 1/2 CV, 15-20 A et le câblage électrique localement). Placer l'interrupteur dans un endroit pratique et le raccorder à la boîte de raccordement. *Tous les fils doivent se conformer aux codes locaux d'électricité.* Un fil de calibre 14 est le plus petit qui soit permis pour utiliser avec un circuit de 15 A et un fil de calibre 12 est le plus petit qui soit permis pour utiliser sur un circuit de 20 A.

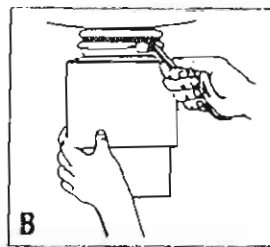
REMARQUE: Voir 10 et 11 pour les raccordements électriques finals.

REPLACEMENT D'UN BROYEUR ANCIEN

TOUT D'ABORD, FERMER LE COURANT ÉLECTRIQUE au panneau de service (boîte à fusibles ou boîte de disjoncteurs.) Si le montage est le même que le montage du nouveau broyeur, on peut utiliser le montant déjà en place. Suivre les instructions A, B, D et E, étape 4, puis passer à l'étape 6.



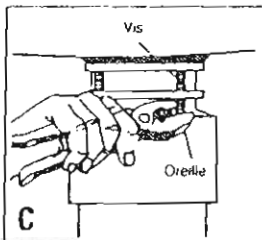
Utiliser une scie à tuyau pour débrancher la canalisation d'évacuation à l'endroit où elle est reliée au tube d'évacuation de broyeur.



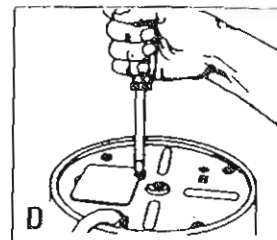
SI L'ANCIEN BROYEUR A UNE MONTURE DIFFÉRENTE DE CELLE DU NOUVEAU, PASSER À L'INSTRUCTION C.

Si l'ancien broyeur a la même monture que le nouveau, insérer l'extrémité de votre «petite clé» ou d'un tournevis dans le côté droit de l'une des pattes de l'anneau de montage du broyeur, à la partie supérieure du broyeur. Puis, tourner la «petite clé» ou le tournevis vers la gauche (sens antihoraire) jusqu'à ce que la patte s'aligne sur l'une des vis de montage de l'évier.

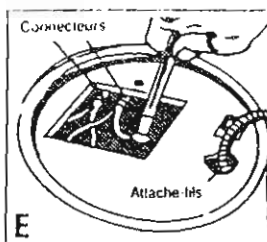
ATTENTION: Bien tenir le broyeur d'une main en réalisant cette étape, sinon il risquerait de tomber lorsque la bague de montage sera débranchée de l'ensemble de montage de l'évier. PASSER À L'INSTRUCTION D.



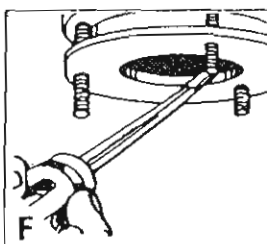
Si l'ancien broyeur a une monture différente de celle du nouveau broyeur, utiliser des pinces ou une clé anglaise pour enlever les écrous sur la bague de montage. Puis, retirer l'ancien broyeur. (Certains broyeurs ont été démontés en utilisant une pince ou en tordant le broyeur pour l'enlever de son montage. C'est facile à comprendre)



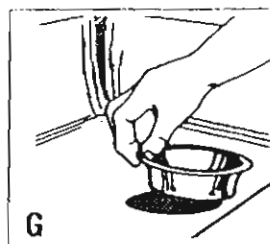
Une fois le broyeur enlevé, le tourner dans l'autre sens et retirer la plaque électrique.



Utiliser maintenant un tournevis pour enlever le fil de masse. Retirer les écrous de fil des fils d'alimentation. Séparer les fils d'alimentation du broyeur. Séparer les fils d'alimentation du broyeur des fils de câble. Desserrer la(les) vis de la pince de câble et retirer le câble du broyeur. Si votre ancien broyeur a une monture différente du nouveau, suivre les étapes F et G. Autrement, passer à l'étape 6.



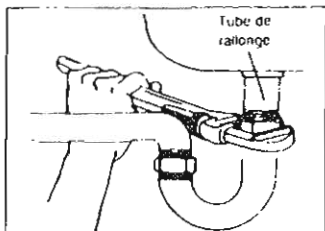
Desserrer les vis et retirer l'ancienne bague de montage et la bague de renfort. On peut avoir besoin d'un marteau pour desserrer les pièces de montage.



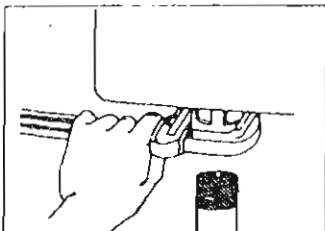
Finalement, retirer l'ancien manchon d'évier en le poussant vers le haut à travers le trou de l'évier.

5

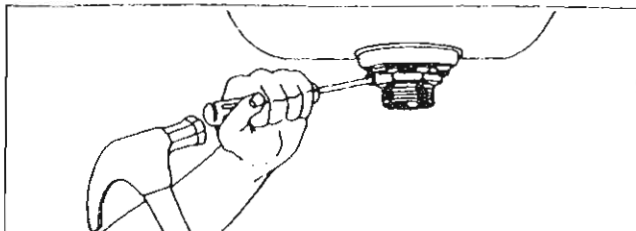
INSTALLATION D'UN BROYEUR POUR LA PREMIÈRE FOIS



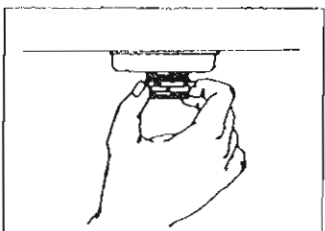
Utiliser une clé pour serrer l'écrou à la partie supérieure du siphon «P».



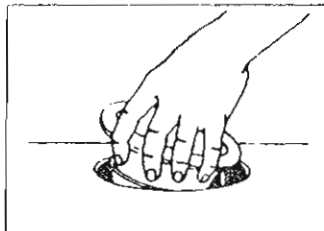
Puis, enlever l'écrou à la partie supérieure du filtre de l'évier et retirer le tuyau de rallonge.



Maintenant, enlever l'écrou de grand diamètre à la base du filtre en plaçant l'extrémité du tournevis sur le bord de l'écrou. (Il y a généralement des parties protubérantes pour retenir le tournevis.)



L'écrou devrait être desserré suffisamment de façon à ce qu'il puisse tourner à la main.

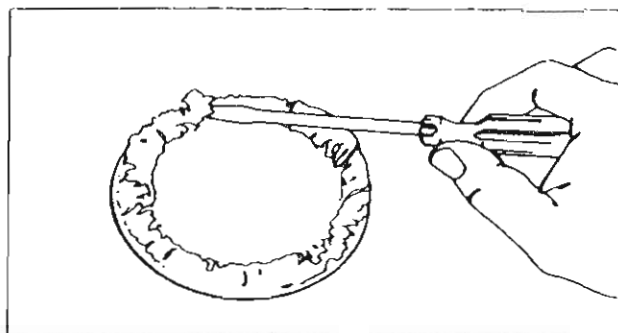


Pousser maintenant l'ensemble de filtre vers le haut à travers le trou de l'évier et le retirer.

6

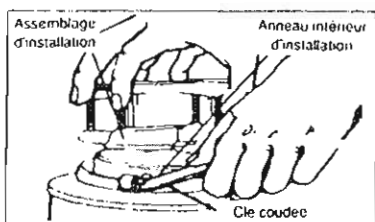
NETTOYER L'ANCIEN PRODUIT DE SCÈLEMENT QUI SE TROUVE SUR LE REBORD DU TROU DE L'ÉVIER

Utiliser un tournevis ou une spatule pour gratter toutes traces de l'ancien mastic ou produit de calfeutrage sur le rebord du trou de vidange de l'évier. S'assurer que le nettoyage a été fait aussi bien que possible pour que le joint soit absolument hermétique sur la bride d'évier du nouveau broyeur.

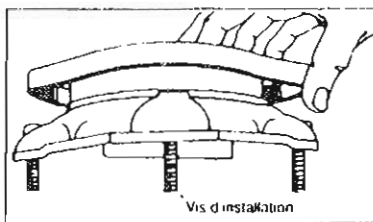


7

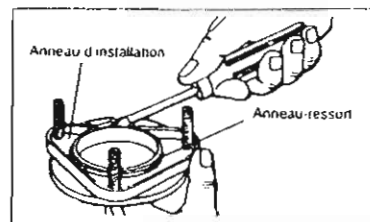
SÉPARER LES PIÈCES DE L'ENSEMBLE DE MONTAGE



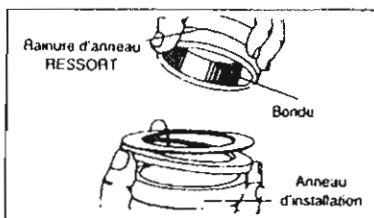
Tout d'abord, enlever l'ensemble de montage de la bague de montage inférieure. Tenir l'ensemble de montage d'une main, insérer la petite clé ou un tournevis dans l'une des pattes de la bague de montage inférieure et la tourner vers la gauche (sens antihoraire) avec l'autre main.



Puis, desserrer les vis sur l'ensemble de montage jusqu'à ce qu'elles soient tout juste au niveau avec la surface de la bague de montage.



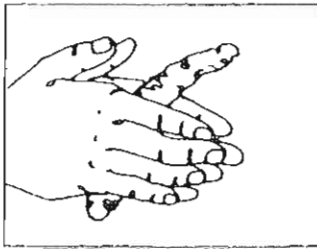
Maintenant, utiliser un tournevis pour forcer la bague d'enclenchement.



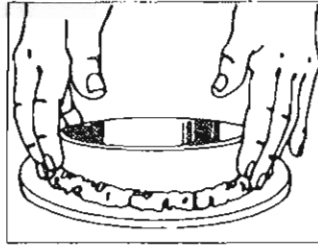
L'ensemble se démontera. Le mettre de côté et passer à l'étape suivante.

8

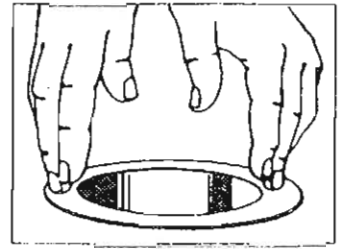
APPLIQUER DU MASTIC SUR LA BRIDE D'ÉVIER



Faire un serpent plat en mastic de plombier en roulant le mastic entre les mains.



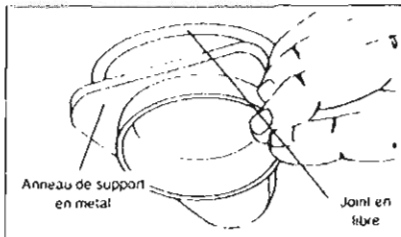
Appliquer ce rouleau sur le rebord de la bride d'évier.



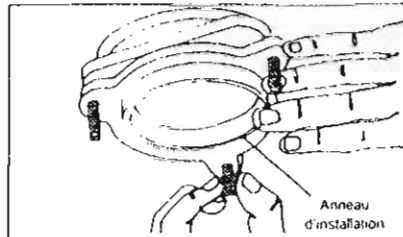
Puis, placer la bride d'évier dans le trou de vidange d'évier et pousser vers le bas en s'assurant qu'elle s'installe uniformément dans le mastic.

9

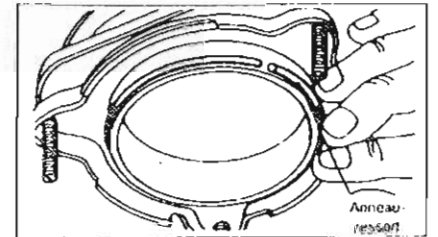
FIXER L'ENSEMBLE DE MONTAGE SUPÉRIEUR



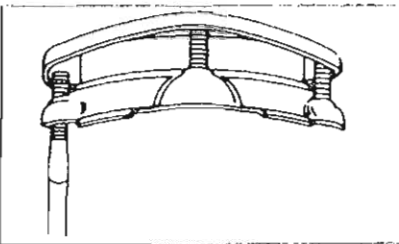
Tout d'abord, en travaillant à partir du dessous de l'évier, glisser la garniture de fibre et ensuite la bague de renfort en métal (côté plat vers le haut) vers le haut et au-dessus de la bride d'évier.



Tenir la garniture de fibre et la bague de renfort en métal en place à l'aide d'une main et placer la bague de montage à l'aide de trois vis sur le manchon de l'évier.



Pousser alors la garniture de fibre, la bague de renfort en métal et la bague de montage un peu plus haut sur le manchon d'évier. Faire coulisser la bague d'enclenchement sur le manchon d'évier jusqu'à ce qu'elle s'enclenche dans la rainure du manchon.



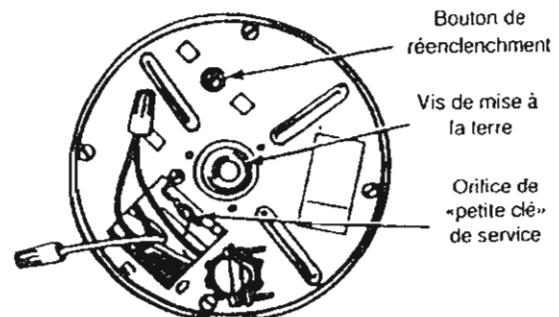
Serrer les trois vis de montage avec le tournevis jusqu'à ce que l'ensemble de montage au complet soit assis uniformément et qu'il soit bien serré contre l'évier.

10

RACCORDEMENT ÉLECTRIQUE

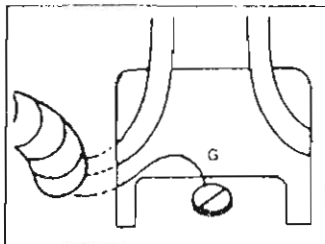
Retirer la plaque électrique de la partie inférieure du broyeur et tirer vers l'extérieur sur les deux fils électriques. La vis de masse est aussi sous la plaque.

Raccorder les fils de l'interrupteur aux fils du broyeur. En effectuant ce raccordement, les écrous de fil électrique doivent être utilisés ou les fils peuvent être soudés convenablement les uns aux autres. S'assurer que l'on a bien raccordé les fils blancs aux fils blancs et les fils noirs aux fils noirs. Isoler les raccordements de fils en utilisant un ruban électrique et mettre les fils à l'intérieur du carter du broyeur. Vérifier que la prise de terre est adéquate puis remettre en place le couvercle électrique.

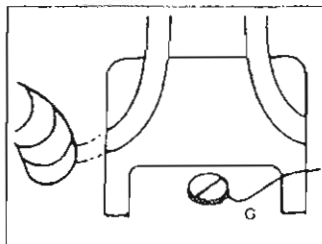


MISE À LA TERRE DU BROYEUR

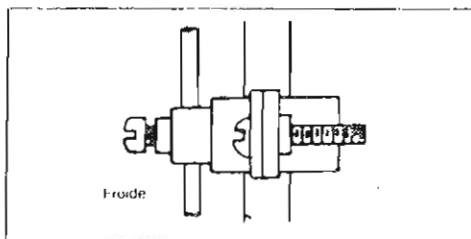
AVERTISSEMENT: SI L'APPAREIL N'EST PAS CONVENABLEMENT MIS À LA TERRE, il peut y avoir un danger de choc électrique. NE PAS raccorder le courant électrique au panneau de service principal tant que la bonne masse n'aura pas été installée. Pour votre sécurité, NE PAS brancher la masse à un tuyau d'approvisionnement de gaz.



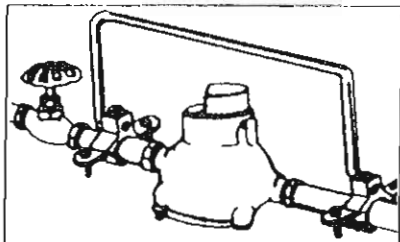
Fixer simplement le troisième fil vert à la vis de mise à la terre verte de l'appareil.



S'il n'y a pas de conducteur d'approvisionnement de mise à la terre, acheter une longueur de fil de cuivre chez votre quincaillier qui soit d'une dimension plus petite que le fil d'alimentation et fixer une extrémité de la vis de masse verte sur l'appareil.



Fixer l'autre extrémité de ce fil de masse au tuyau d'eau froide en MÉTAL
REMARQUE: S'assurer que ce tuyau d'eau froide est un tuyau en MÉTAL continu partant de l'évier et se rendant jusqu'à la terre. Utiliser une pince de mise à la terre (homologuée auprès de Underwriters Laboratories Inc., pour les É.-U.) pour fixer le fil au tuyau. En cas de doute, ou si il n'y a PAS de tuyau MÉTALLIQUE utilisé pour votre raccordement d'eau domestique ou si un tuyau de plastique est utilisé comme tuyau d'approvisionnement en eau, on aura besoin des services d'un électricien qualifié pour installer une prise de terre convenable.



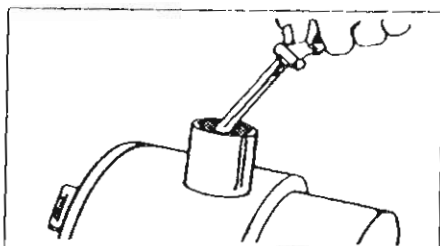
S'il y a un compteur d'eau dans le local, vérifier le compteur pour s'assurer qu'il y a bien un fil qui vient de ce compteur. S'il n'y a pas de fil, le tuyau d'eau froide n'est PAS MIS À LA TERRE. Pour le mettre convenablement à la terre, ajouter un fil de cuivre calibre 6 comme illustré pour un service de 200 A ou moins. Utiliser des étriers de mise à la terre (homologués par Underwriters Laboratories Inc. pour les É.-U.) pour fixer le fil au tuyau.

12 ÉTAPE FACULTATIVE

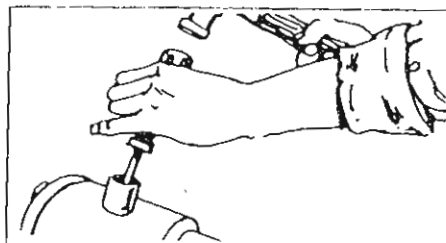
Si vous n'avez pas l'intention d'utiliser cette étape, passer à l'étape 13.

Le modèle LC-50 est conçu pour être utilisé avec de l'eau venant d'un robinet en hauteur. Comme option, l'entrée de vidange d'eau/lave-vaisselle peut être utilisée pour des raccordements d'eau directs ou comme raccordement pour votre vidange de lave-vaisselle.

A. Préparation de l'entrée de vidange d'eau/lave-vaisselle

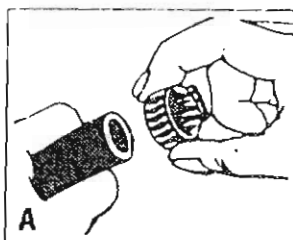


Poser la broyeur sur son côté et insérer l'extrémité du tournevis dans l'ouverture de l'entrée d'eau/vidange sous un angle.

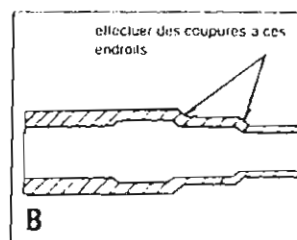


Taper l'extrémité du tournevis à l'aide d'un marteau jusqu'à ce que le bouchon moulé saute. **S'ASSURER QUE L'ON A BIEN FAIT SORTIR LE BOUCHON UNE FOIS DESSERRÉ, HORS DU BROYEUR.**

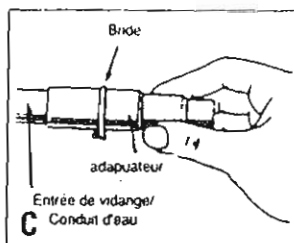
B. Raccorder le conduit d'eau direct ou le boyau de vidange du lave-vaisselle au broyeur. Ceci est réalisé après l'étape 13.



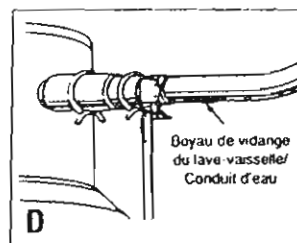
Retirer la bride ou les raccords de l'extrémité du boyau de vidange du lave-vaisselle. (Application de lave-vaisselle seulement).



Puis déterminer le diamètre extérieur du conduit d'évacuation du lave-vaisselle et découper l'adaptateur en caoutchouc à la bonne dimension. (La plupart des conduits d'eau commerciaux sont de 1/2 po, si bien qu'aucune découpe ne sera nécessaire).



Faire coulisser la grande extrémité de l'adaptateur sur le tube d'entrée du broyeur. Fixer l'adaptateur au broyeur avec une bride de la bonne dimension.



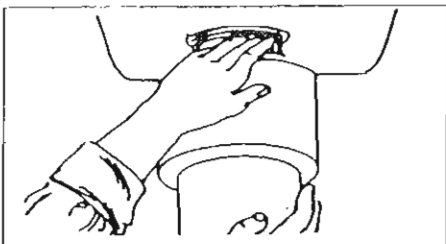
Glisser la bride restante sur le conduit d'eau ou le boyau de vidange du lave-vaisselle et la reculer de deux à trois pouces. Faire coulisser ensuite le boyau de vidange ou le conduit d'eau sur l'adaptateur. Puis, faire coulisser la bride en place et la serrer.

REMARQUE: Les deux types de raccordements sont recommandés pour être utilisés avec une trousse de raccordement In-Sink-Erator, numéro de pièce 8301 (illustrée ci-dessus).

IMPORTANT: Si l'on raccorde le boyau de vidange de lave-vaisselle au broyeur, l'eau d'évacuation doit passer à travers une couche d'air intermédiaire. Les raccordements d'eau directs nécessitent l'installation d'une soupape à solénoïde (n° de pièce 11475), et d'un coupe-siphon (n° de pièce 1477). Si la vitesse du conduit d'eau est supérieure à 3 g/min, on recommande d'utiliser une soupape de réglage de débit (n° de pièce 11033D). Les raccordements devraient se conformer aux codes locaux de plomberie. Vérifier les trois brides pour s'assurer qu'elles sont toutes bien serrées.

13

RACCORDEMENT DU BROYEUR À SON ENSEMBLE DE MONTAGE



Soulever le broyeur et le placer de façon à ce que les trois pattes de montage du broyeur soient alignées sous les trois vis de montage de l'évier.

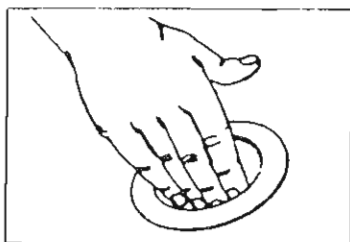


Puis, en maintenant le broyeur en place, tourner la bague de montage intérieure avec les pattes vers la droite jusqu'à ce que les trois oreilles soient enclenchées sur l'ensemble de montage.

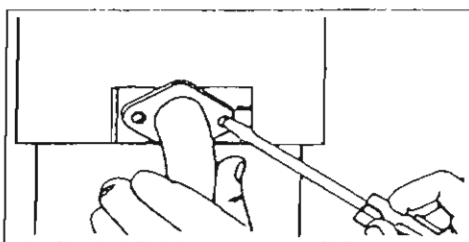
Vous verrouillerez cette bague par la suite, après que les raccordements de plomberie auront été réalisés.

14

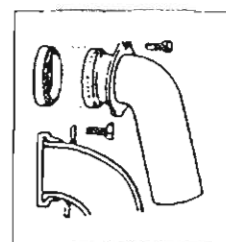
FIXER LE TUBE DE SORTIE DU BROYEUR AU SIPHON DE VIDANGE DE VOTRE ÉVIER



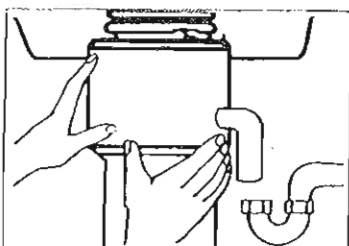
Tout d'abord, vérifier l'intérieur de la chambre de broyage du broyeur pour retirer tout objet ou toute saleté qui aurait pu se glisser à l'intérieur.



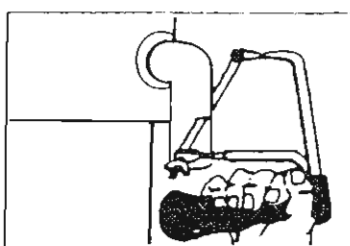
Tourner le broyeur dans l'autre sens et fixer le tube de sortie au broyeur. Insérer tout d'abord la rondelle de caoutchouc dans l'ouverture de sortie. Puis, placer la bride en métal sur le tube de sortie et visser le tube en place en utilisant les boulons fournis.



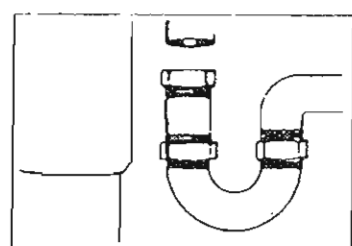
Installer la garniture du tube de sortie au tube de sortie. La garniture doit être installée comme illustré pour assurer une installation sans fuite.



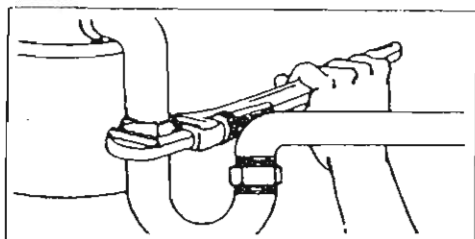
Tourner le broyeur de façon à ce que le tube d'évacuation s'aligne avec le siphon de vidange.



LE TUBE EST-IL TROP LONG?
Découper tout simplement la partie en trop en utilisant une scie à métaux et en s'assurant que la coupe soit nette et bien droite.



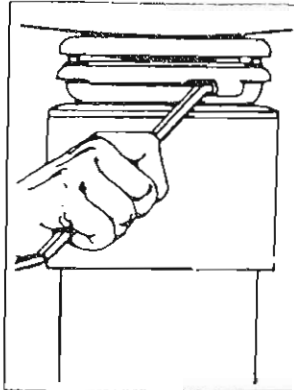
LE TUBE EST-IL TROP COURT?
Si le tube de sortie n'atteint pas l'orifice du siphon, mesurer la différence et acheter un tube d'extension pour siphon de vidange.



SI L'AJUSTEMENT EST BON - Il suffit de serrer l'écrou coulissant sur le siphon pour compléter le raccordement du tube d'évacuation. **EN CAS DE DOUBLE ÉVIER, NOUS RECOMMANDONS D'UTILISER DES SIPHONS SÉPARÉS POUR LE BROYEUR ET LE SECOND ÉVIER.**

REMARQUE: Bien se conformer à tous les codes de plomberie applicables.

BIEN FIXER EN PLACE LE BROYEUR ET VÉRIFIER S'IL N'Y A PAS DE FUITE



Placer l'extrémité de la «petite clé» ou d'un tournevis dans le côté gauche de l'une des pattes de montage du broyeur... à la partie supérieure du broyeur. Puis, tourner la «petite clé» ou le tournevis vers la droite jusqu'à ce que le broyeur se verrouille bien.

Faire couler de l'eau lentement dans l'appareil. Puis, placer le bouchon de l'évier à la position de fermeture hermétique et remplir l'évier d'eau.



Finalement, retirer le bouchon et laisser l'eau s'écouler. Vérifier s'il n'y a pas de fuite et corriger au besoin.

RENSEIGNEMENTS SUR LA GARANTIE POUR LE BROYEUR IN-SINK-ERATOR GARANTIE D'UN AN, MODÈLE LC-50

Cette garantie couvre toutes les pièces de rechange et la main-d'oeuvre de réparation pour corriger les défauts de matières premières ou de fabrication pendant une période d'une année complète à compter de la date d'installation. Si une réparation est nécessaire durant la période de garantie, on devra faire appel à un centre de service In-Sink-Erator autorisé par l'usine pour effectuer le remplacement ou la réparation du broyeur, sans frais pour le client.

Si le fabricant détermine que l'appareil doit être remplacé plutôt que réparé, la garantie sur cet appareil de rechange sera limitée à la durée non expirée de la garantie originale.

COMMENT OBTENIR LE SERVICE

Pour toute question concernant le broyeur ou pour l'entretien ou la réparation, appeler le système d'information de service automatique In-Sink-Erator au 1-800-558-5700 qui vous donnera le nom du centre de service In-Sink-Erator autorisé par l'usine le plus proche. Au Canada, appeler 1-414-554-5432.

Cette garantie vous donne des droits légaux bien précis et vous pouvez aussi avoir d'autres droits qui peuvent varier d'une province à l'autre.

AUCUNE AUTRE GARANTIE EXPLICITE, ÉCRITE OU VERBALE NE S'APPLIQUE

Si le broyeur ne fonctionne pas, suivre ces étapes dans l'ordre:

1. Vérifier les choses que l'on peut accomplir soi-même. S'assurer tout d'abord que le broyeur est bien branché dans la prise appropriée ou qu'il est convenablement raccordé électriquement. S'assurer que les fusibles ou les disjoncteurs sont en bon état. Lire à nouveau le manuel d'instructions pour s'assurer que l'on a bien utilisé la bonne procédure de fonctionnement. De nombreux appels de service inutiles se produisent ainsi et le réparateur doit faire ce que l'on aurait pu faire soi-même.

2. Vérifier l'adresse du centre de service local autorisé. Pour obtenir l'emplacement du centre de service autorisé par l'usine le plus proche, appeler sans frais 1-800-558-5700 ou 1-414-554-5432.

3. Nous écrire si l'on a pas obtenu une solution satisfaisante aux étapes 1 et 2. Notre adresse est:

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

IMPORTANT: Le modèle LC-50 est conçu spécifiquement pour des usages commerciaux légers. Les exemples de ces applications comprennent: épiceries/dépanneurs, charcuteries, restaurants-minute, cuisines de bureaux/églises et «chambres petit déjeuner». L'utilisation de ce broyeur dans des applications autres que celles nommées ci-dessus peut annuler la garantie. Si l'on est pas certain d'une application possible, appeler l'usine au 1-800-558-5712, poste 3536 ou 3537.

MODE DE FONCTIONNEMENT

MODÈLE LC-50

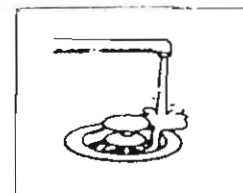
1. Enlever le bouchon du manchon d'évier avec broyeur et ouvrir à fond le robinet d'eau froide. (L'eau devrait continuer à couler durant toute l'opération de broyage). Si le robinet d'eau n'est pas ouvert à fond avant de mettre en marche le broyeur, il peut se produire un blocage de la vidange.

2. Faire passer l'interrupteur à la position de marche pour démarrer le broyeur. Faire entrer les déchets d'aliments dans le broyeur pendant qu'il fonctionne.

3. Pour éviter le blocage du tuyau, laisser l'eau s'écouler suffisamment longtemps après l'arrêt du broyeur pour s'assurer que tous les déchets ont bien été évacués. Le mélange de déchets broyés et d'eau s'écoule à une vitesse de 2 secondes par pied dans un conduit de vidange horizontal.

MARQUE: Une fois que les déchets alimentaires sont entrés dans le broyeur, placer le bouchon dans le manchon de l'évier à la position vidange/broyage (voir illustrations) pour réduire l'éjection possible de déchets pendant le broyage.

NE PAS INSÉRER LA MAIN DANS LE BROYEUR.



Bouchon dans la position vidange/broyage.

À FAIRE ET À NE PAS FAIRE

À FAIRE . . .

- utiliser de l'eau froide à grand débit pendant le broyage
- broyer les matériaux durs comme les os, les noyaux de fruits, etc.
- broyer les pelures d'agrumes et de melons
- broyer la mouture de café
- jeter la graisse avec un grand débit d'eau froide
- rincer le broyeur pour le nettoyer

À NE PAS FAIRE . . .

- utiliser de l'eau très chaude en broyant les déchets d'aliments
- fermer le broyeur ou l'eau avant que le broyage ne soit terminé
- broyer les matériaux extrêmement fibreux comme les épis de maïs, les artichauts, etc. pour éviter de bloquer la vidange
- broyer les plastiques, les emballages de plastique, le verre, le carton, le métal, les coquilles de palourdes et d'huîtres ou de grands os entiers

SÉCURITÉ

INSTRUCTIONS IMPORTANTES POUR LA SÉCURITÉ

AVERTISSEMENT: Lors de l'utilisation d'appareils électriques, certaines précautions de base doivent toujours être observées y compris les suivantes:

1. Bien lire le mode d'emploi.
2. Pour réduire le risque de blessure, une surveillance étroite est nécessaire lorsque l'appareil est utilisé à proximité des enfants.
3. Ne pas mettre les doigts ou les mains dans le broyeur.
4. Mettre l'interrupteur sur la position d'arrêt avant d'essayer de dégager un objet coincé ou d'enlever un objet qui se trouve dans le broyeur.
5. Pour essayer de détacher quelque chose de coincé dans le broyeur d'aliments, utiliser la petite clé spéciale de service, tel que décrit ci-dessous.
6. Pour essayer d'enlever des objets dans le broyeur d'aliments, utiliser des pincettes ou des pinces à longs manches.

Suite à la page suivante.

Instructions de sécurité (suite).

7. Pour réduire le risque de blessure par les matériaux qui pourraient être évacués du broyeur d'aliments, placer le bouchon à la position vidange/broyage durant le broyage. Ne pas mettre les objets suivants dans un broyeur.
 - a. Coquilles de palourdes ou d'huîtres
 - b. Produit de nettoyage de vidange
 - c. Verre, porcelaine, plastique ou emballage de plastique
 - d. Grands os entiers
 - e. Objets de métal
 8. Lorsque le broyeur n'est pas utilisé, laisser le bouchon en place pour éviter qu'un objet ne tombe dans le broyeur.
 9. Avant d'appuyer sur le bouton rouge de réencenchement (voir fig. 4), s'assurer que l'interrupteur mural se trouve bien à la position d'arrêt.
- 0 INSTRUCTIONS DE MISE À LA TERRE POUR LES APPAREILS RACCORDÉS D'UNE FAÇON PERMANENTE:** Cet appareil doit être raccordé à une terre de métal permanente, conformément au code national d'électricité et conformément aux codes locaux.

DANGER - Un mauvais raccordement du conducteur de mise à la terre et de l'équipement peut entraîner un risque de choc électrique. Consulter un électricien qualifié ou un réparateur si vous avez des doutes quant à savoir si l'appareil est convenablement mis à la terre.

CONSERVER CES INSTRUCTIONS

DIAGNOSTIC

Des bruits très forts durant le fonctionnement du broyeur sont généralement causés par l'entrée accidentelle d'une cuillère, d'une capsule de bouteille ou d'un objet similaire. Pour corriger la situation, mettre l'interrupteur du broyeur à la position d'arrêt et arrêter l'eau. Une fois le disque de broyage arrêté, chercher la source du problème.

Le moteur s'arrête pendant que le broyeur fonctionne. Ceci est peut-être causé par une surcharge de l'appareil. Vérifier tout d'abord la cause de la surcharge - souvent un corps étranger peut se trouver dans le broyeur. Pour éviter tout risque de blessure, fermer l'interrupteur du broyeur et l'eau. Retirer l'objet comme expliqué précédemment. Si le moteur ne fonctionne toujours pas, vérifier la boîte à fusibles et remplacer tout fusible sauté ou regarder si un disjoncteur n'est pas sauté.

REMARQUE: Si l'eau ne s'évacue pas aussi facilement qu'elle le devrait et que les déchets d'aliments ont tendance à prendre plus longtemps pour être broyés, ne pas réduire le débit d'eau pour résoudre ce problème. Il est probablement causé par une obturation partielle du conduit de vidange. Pour éviter le coût d'une réparation, utiliser un produit de nettoyage et de dégraissage conçu pour broyeur jusqu'à ce que la vidange se mette à fonctionner convenablement. Si vous ne voyez aucune amélioration après plusieurs applications, une grille de vidange devrait être utilisée pour enlever le blocage.

Comme toute machine de précision, votre broyeur a été conçu pour réaliser un travail bien particulier. Si des exigences inhabituelles lui sont imposées, il est possible que des interruptions de service se produisent. Ces interruptions de service mentionnées ci-dessous ne sont généralement pas sérieuses et dans la plupart des cas, il est possible d'y remédier en faisant appel à un réparateur.

POUR LIBÉRER LE BLOCAGE DÙ À DES CORPS ÉTRANGERS

Pour éviter le coût d'une réparation afin de libérer une obstruction. L'entrée accidentelle de corps étrangers risque de bloquer le broyeur. Pour libérer le blocage, bien suivre ces étapes afin d'éviter des blessures personnelles:

Arrêter le broyeur et fermer l'eau froide.

Insérer une extrémité de la clé spéciale fournie avec votre broyeur, dans le trou central de la partie intérieure du broyeur comme illustré.

Faire fonctionner la clé d'un côté à l'autre jusqu'à ce qu'elle se déplace librement sur au moins une révolution complète. Enlever la clé avant de remettre en marche le broyeur.

Attendre 3 à 5 minutes pour permettre au moteur électrique de se refroidir puis appuyer sur le bouton de réenclenchement rouge, (Fig. 4). **Avant d'appuyer sur le bouton de réenclenchement rouge, s'assurer que l'interrupteur mural se trouve bien à la position d'arrêt.**

Suivre cette procédure pour éviter le coût d'une réparation dans le but de libérer une obstruction.

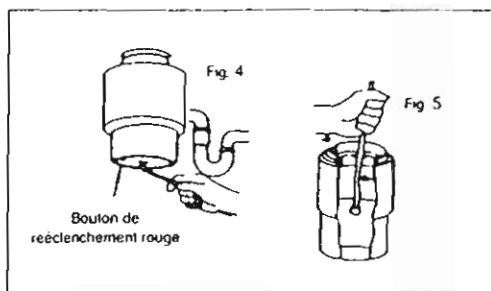
Remettre l'interrupteur sur la position d'arrêt. Utiliser une lampe de poche pour déterminer le sens dans lequel l'appareil fonctionnait au moment du blocage. Une barre ou un outil doit être inséré dans le broyeur par l'ouverture de l'évier. L'extrémité doit alors être placée le long de la partie protubérante du broyeur à proximité du bord extérieur du disque de broyage. Bien mettre l'outil à levier sur le bon côté de la partie protubérante de façon à ce qu'une pression puisse être appliquée sur le disque de broyage afin qu'il se déplace dans le bon sens pour dégager le broyeur. (Voir figure 5).

Nous ne devons pas faire tomber et ne pas trapper avec un marteau sur la barre.

Que faire si vous avez perdu votre petite clé spéciale?

Si vous perdez votre petite clé spéciale, il suffit d'écrire et de demander qu'une clé de rechange vous soit envoyée sans frais.

ÉCRIRE À: **WRENCHETTE**
c/o IN-SINK-ERATOR
SERVICE DEPT.
4700 21st Street
Racine, Wisconsin 53406





BEFORE INSTALLING, READ COMPLETE INSTRUCTIONS CAREFULLY

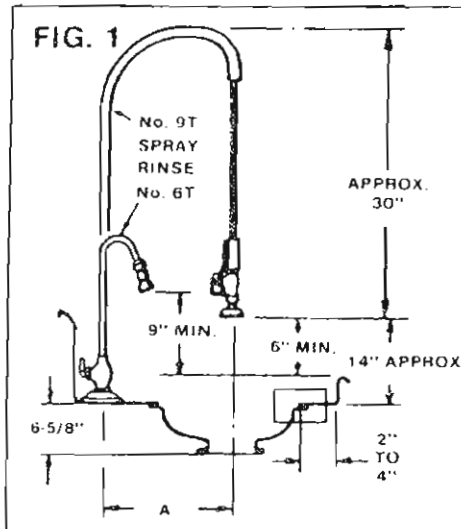


FIG. 2

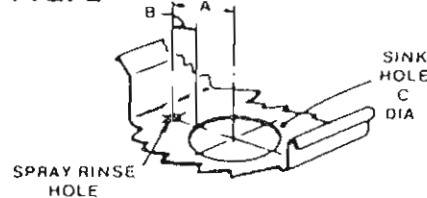
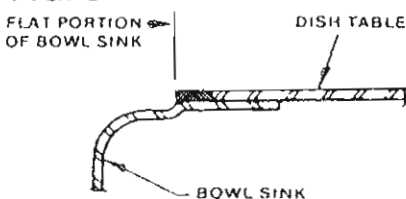


FIG. 3



MODEL 6T

	12" BOWL	15" BOWL	18" BOWL
A	10 1/4"	11 3/4"	13 1/4"
B	3 1/2"	3 1/2"	3 1/2"
C	13 1/2"	16 1/2"	19 1/2"

MODEL 9T & POLARIS

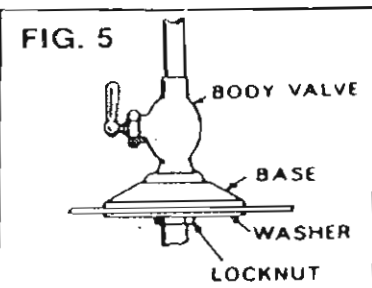
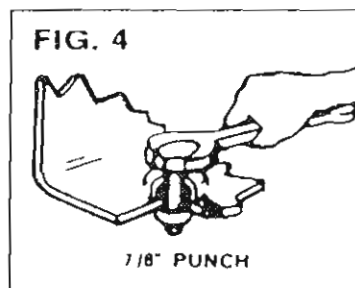
	12" BOWL	15" BOWL	18" BOWL
A	12 7/8"	12 7/8"	12 7/8"
B	6 1/8"	4 5/8"	3 1/8"
C	13 1/2"	16 1/2"	19 1/2"

INSTALLATION OF BOWL SINK INTO DISH OR WORK TABLE

- (See Figures 1 and 2) Locate hole center as shown on Figure 2. Cut a "C" (Fig. 2) diameter hole in dish or work table, a minimum of 2" from the inside front edge (operator's side). Hole can be cut with a "nibbler" after a knockout hole 1 1/2" diameter has been punched.
- Lift bowl to underside of table with bowl flange overlapping all around (Figures 1 and 3).
- Check alignment of bowl spray fittings to be sure they are in the proper position. For 15" and 18" bowls, position such that holes are located to right and left side of operator. (See Figure 12 for location.)
- Tack weld, spot weld, bolt, or rivet flange of bowl sink to underside of dish or work table. If bolted or riveted, smooth top surface and wash-solder around bolt or rivet heads and sand smooth.
- Bead weld or solder and wash-solder all around where the table joins flange or bowl sink for a clean, watertight, sanitary installation.
- The bowl sink has been designed with the step, as shown in Figure 3. In the welding or soldering operation required to assemble the bowl sink to the dish or work table, every attempt should be made to keep the recessed, flat portion of the bowl free of the welded or solder material. This will minimize the clean-up time required and provide a smooth, flat surface for any cover.

SPRAY-RINSE INSTALLATION

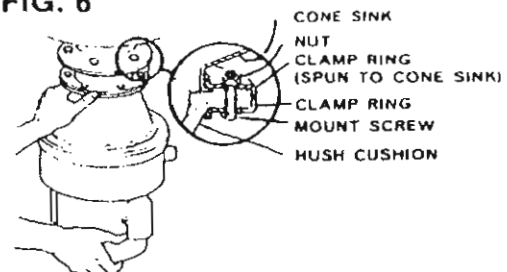
- Locate center (Figures 1 and 2).
- Drill 7/16" diameter hole through center.
- Assemble 7/8" punch and tighten bolt head, as shown in Figure 4, until the die pierces the stainless steel, leaving a clean opening of 7/8".
- Place Body Valve and Base in position, assemble washer and locknut as shown in Figure 5.
- Attach vol-temp assembly to the projecting nipple.

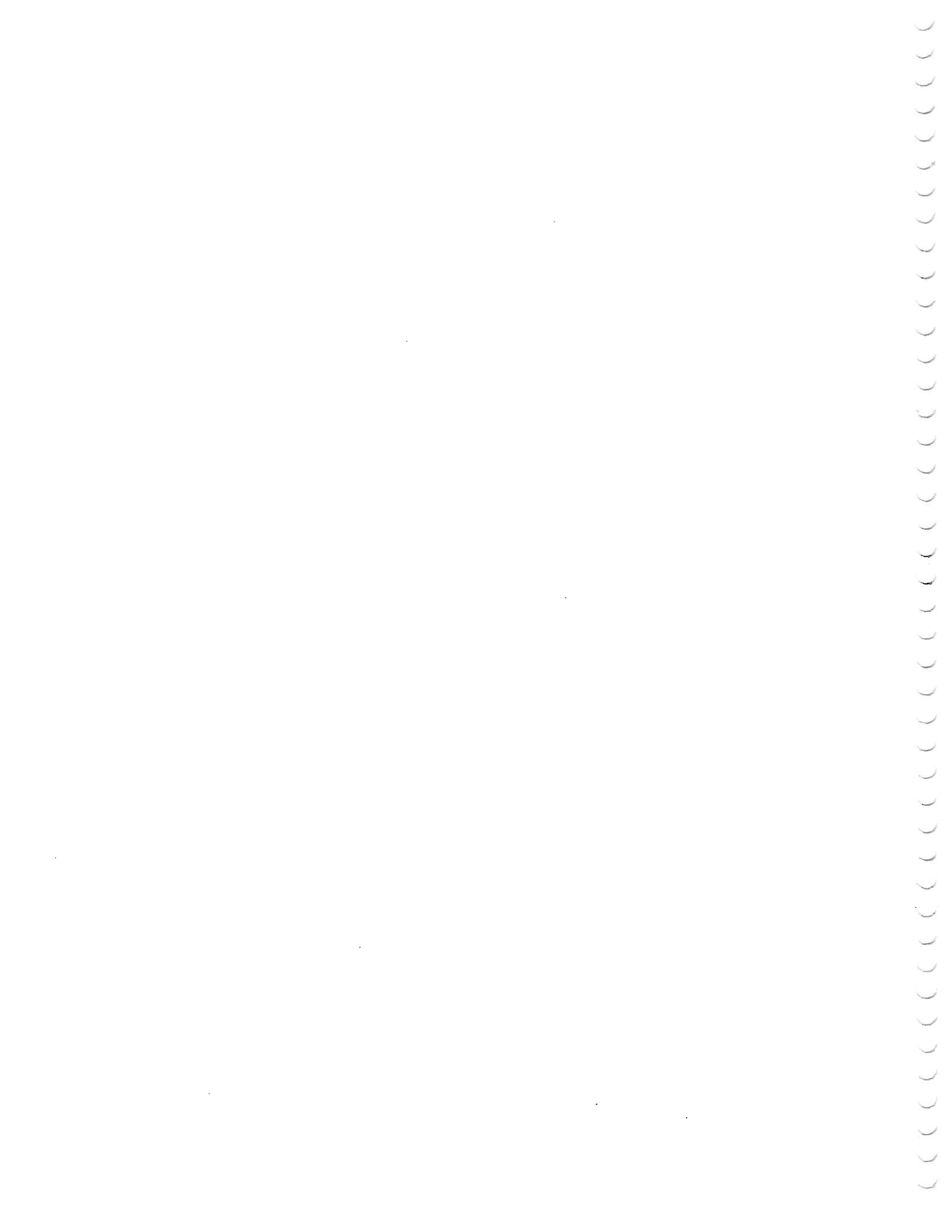


MOUNTING DISPOSER

- Clamp Ring taped to top side of hush cushion should be placed on underside of top flange of hush cushion. Line up holes in clamp ring with holes in hush cushion and insert six screws also contained in plastic bag. Insert through clamp ring and hush cushion from the underside.
- Line up holes in loose steel clamp ring spun on bowl sink with screws in hush cushion and raise disposer into position with screws matching holes in clamp ring in approximate position with plumbing drain outlet.
- To manually raise the disposer into position, lift the unit by grasping the disposer with one hand from the bottom of the motor, and, with the other hand around the hush cushion, guide the unit into position.

FIG. 6





MOUNTING DISPOSER - Continued (Refer to Fig. 6)

4. Attach a nut by two or three threads to screw and then attach another nut to screw on the opposite side of disposer. Finger-tighten two screws to hold unit in place. Attach remaining four nuts to screws and finger-tighten evenly.
5. Check alignment with plumbing. Adjustment in alignment to plumbing can be made by rotating the unit carefully before tightening the nuts. To assist in rotating unit, raise the unit from the bottom of the motor to relieve weight.
6. With the unit in its proper position, proceed to tighten six nuts evenly.
7. For models to be installed in sink with 3/4" outlet, see separate sheet enclosed for mounting instructions.

PLUMBING INSTALLATION

IMPORTANT! Before installing the Waste King disposer, the connecting waste line must be cleaned out to the connecting sewer main.

MAKE ALL PLUMBING AND ELECTRICAL CONNECTIONS ACCORDING TO LOCAL CODES.

Recess thread fittings must be used throughout and all pipe ends should be carefully reamed.

FIG. 7

APL ASSEMBLY TYPICAL INSTALLATION

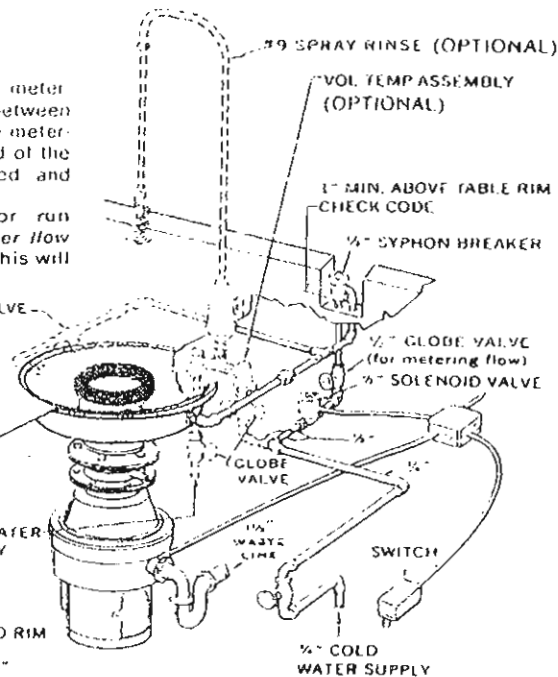
NOTE: A globe valve, if used for metering flow, must be installed between solenoid valve and Disposer. See metering valve Fig. 7. Any valve ahead of the solenoid valve must be opened and cause no restrictions.

IMPORTANT! Do not test or run disposer without minimum water flow (see Plumbing Installation) as this will damage the seal and void the warranty.

MINIMUM WATER FLOW RATE
5 GALLONS PER MINUTE

CLOCKWISE
ROTATION

DISHTABLE OR DRAIN BOARD RIM
TO FLOOR STANDARD 34"



NOTE: DISPOSER ASSEMBLY INCLUDES DISPOSER, MOUNTINGS, AND DRAIN OUTLET. OTHER ITEMS SHOWN IN GRAY IN FIGS. 7 AND 10 ARE AVAILABLE IN EQUIPMENT GROUPS ORDERED SEPARATELY.

STANDARD SINK TYPICAL INSTALLATION

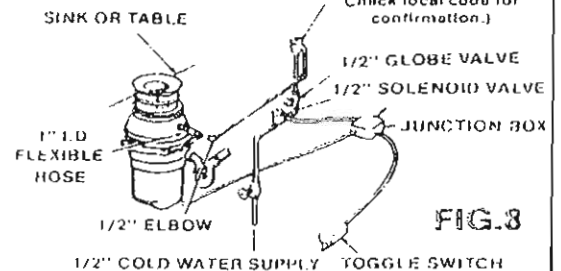
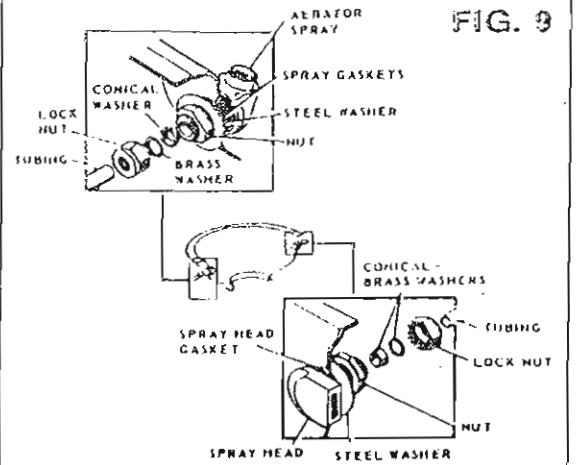


FIG. 8

FIG. 9



For Spray-Rinse with Vol-Temp, run a 1/2" hot water line to point indicated in Fig. 7. Connect to Spray-Rinse Globe valve, hot water side.

Run a 1/2" cold water connection to point indicated in Figure 7.

Install solenoid valve in line in **upright** position as shown in Figure 7 with arrow on side pointing in direction of water flow.

Install siphon breaker as in Fig. 7. **CHECK LOCAL CODE.**

Make connection to water inlet fitting of bowl sink. See Fig. 7.

Make 1/2" cold water connection to Spray-Rinse Globe valve, cold water side. This must be separate cold water line. Do not tee off of line to bowl sink unless a 1/4" line is furnished to assembly location. See Figure 7.

Assemble Swirl Spray or Swirl Sprays as shown in Figure 8. The method of assembly of the Swirl Sprays is typical. Other combinations of convertible and fixed Swirl Sprays are optionally available. The outlet hole of the fixed Swirl Spray should be horizontal to promote vortex action in the bowl sink. NOTE: The Convertible Spray should be easily adjustable by the operator to function as a Swirl Spray or as a dish-washing flume. Avoid excessive tightening of Nut or Lock Nut.

Connect 1/2" pipe to Swirl Spray as shown in Figure 7.

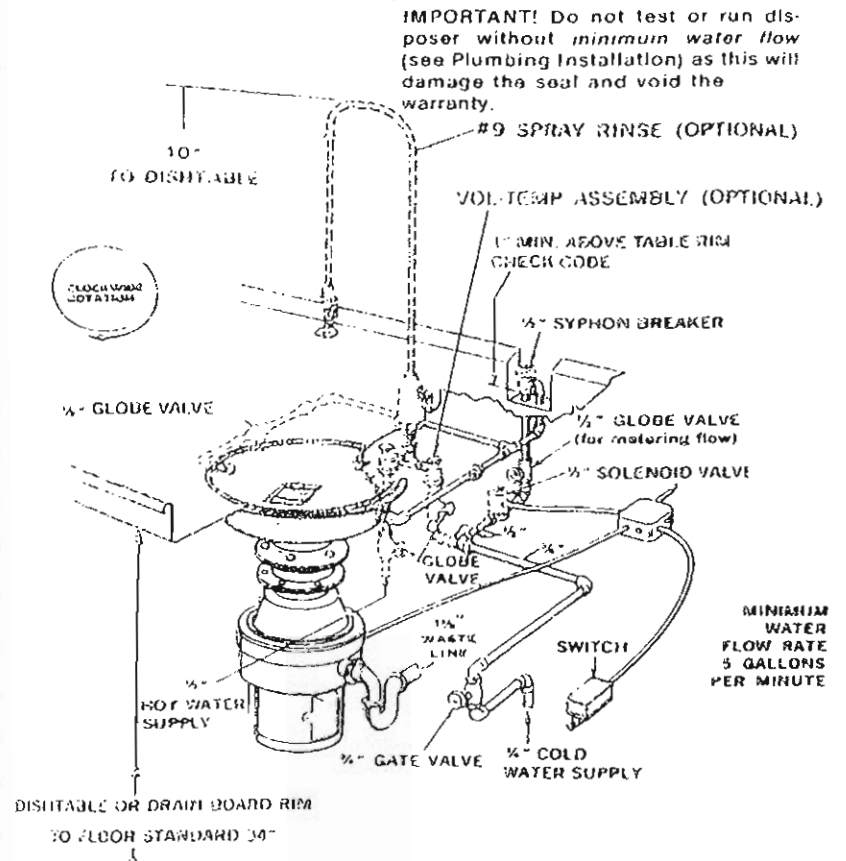
The disposer is equipped with a drain outlet designed for a slip-joint connection to a conventional 1 1/2" trap (not furnished). Connect the trap with a branch waste line running directly into the waste sack (Fig. 7). **Do not connect into a grease trap.** A minimum slope of 1/4" per foot of run of waste line is recommended. Limit 1/2" drain line to a 15-foot run free of turns. A minimum number of elbows, tees, etc., reduce the possibility of plumbing stoppages. If unusual sewer conditions exist (too many bends, or too long a main), a time delay relay and water injector into sewer should be considered to overcome stoppages. (Parts and data available from factory.)

To use the supplementary water connection, see Figure 9.



FIG. 10

**DTL ASSEMBLY
TYPICAL INSTALLATION**



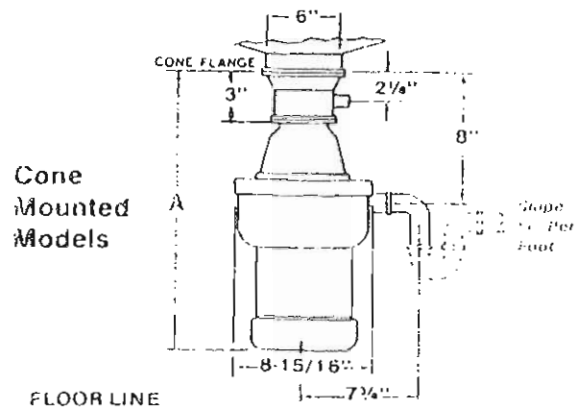
NOTE: DISPOSER ASSEMBLY INCLUDES DISPOSER MOUNTINGS, AND DRAIN OUTLET. OTHER ITEMS SHOWN IN GRAY IN FIGS. 7 AND 10 ARE AVAILABLE IN EQUIPMENT GROUPS ORDERED SEPARATELY.

NOTE: A globe valve, if used for metering flow, must be installed between solenoid valve and disposer. See metering valve Fig. 7. Any valve ahead of the solenoid valve must be opened and cause no restrictions.

IMPORTANT! Do not test or run disposer without *minimum* water flow (see Plumbing Installation) as this will damage the seal and void the warranty.

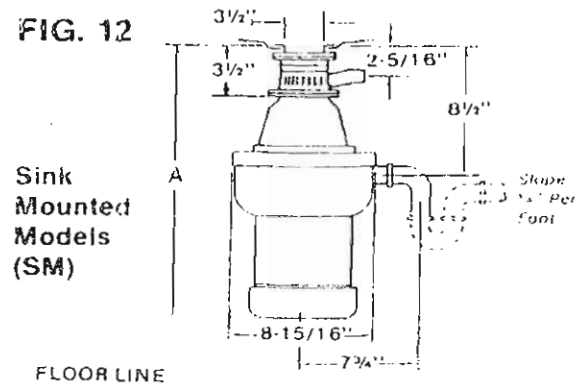
IMPORTANT! Do not test or run disposer without *minimum* water flow (see Plumbing Installation) as this will damage the seal and void the warranty.

FIG. 11 INSTALLATION DIMENSIONS AND DRAINLINE CONNECTIONS



FLOOR LINE				
A =	500-1	= 18	1000-3	= 17
	500-3	= 16 1/4	1250-1	= 19-7/32
	750-1	= 18	1250-3	= 18 1/2
	750-3	= 17	1500-1	= 19-1/32
	1000-1	= 18	1500-3	= 18 1/2

FIG. 12



FLOOR LINE				
A =	500-ISM	= 18 1/2	750-ISM	= 18 1/2
	500-ISM	= 17 1/4	750-ISM	= 17 9/16

ELECTRICAL CONNECTIONS

All electrical connections must be made in accordance with local wiring codes. Flexible BX cable should be used in making electrical connections to motor to avoid transmission of noise.

IMPORTANT! THE WASTE COMMERCIAL DISPOSER MUST BE CAREFULLY AND PERMANENTLY GROUNDED. GROUND CREW IS PROVIDED.

Overload Protection: Reset button overload provided on all standard motors.

SINGLE PHASE MOTORS

3 Pole, 20 Amp., heavy duty switch encased in waterproof receptacle. Two poles of switch control motor and third pole controls solenoid, isolating the two circuits to prevent solenoid kickback when switch is turned off. Refer to Fig. 13 for recommended wiring installation.

Single Phase 1/2 H.P. and 1/2 H.P.

Factory wired for 115 V.A.C. unless otherwise specified. To connect for 230 V.A.C. refer to Fig. 13 or to information shown on side face of terminal box cover.

Single Phase 1/2 H.P., 3/4 H.P., 1 1/4 H.P. and 1 1/2 H.P.

Factory wired for 230 volts. To reconnect for 115 volts refer to Fig. 13 or to information on inside face of terminal box cover.

NOTE: After installation, be sure turntable rotates clockwise.

CAUTION: When making field changes for voltage, be certain to change all other related electrical circuits such as solenoid valves, relays, etc.

THREE PHASE MOTORS

3 Pole, 20 Amp., heavy duty switch encased in waterproof receptacle. Tap off any two leads for the solenoid valve. Refer to Fig. 14 for typical wiring installation.

Single Phase, 1/2 H.P., 3/4 H.P., 1 1/4 H.P., and 1 1/2 H.P.

Three phase motors are factory wired for 208/220 V.A.C. **AFTER INSTALLATION BE SURE TURNABLE ROTATES CLOCKWISE.** If not — interchange any two of the three wires. To reconnect for 440 volts, refer to Fig. 14 or to information shown on inside face of terminal box cover.

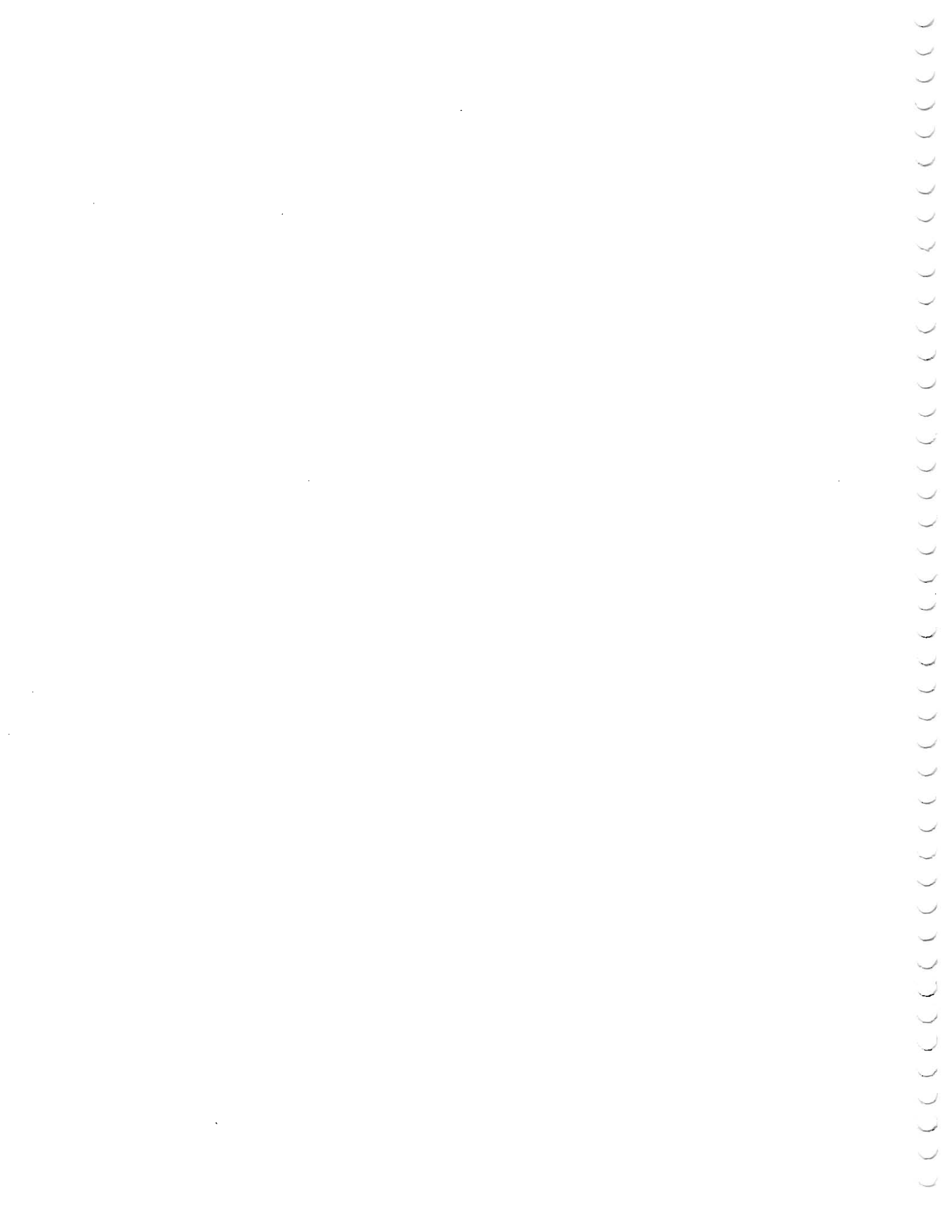
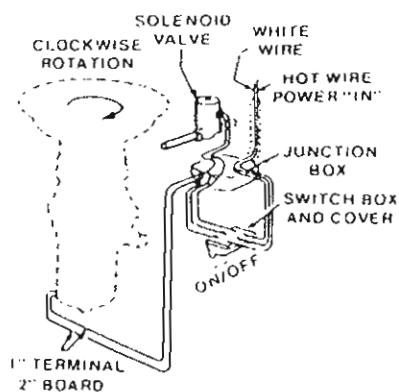
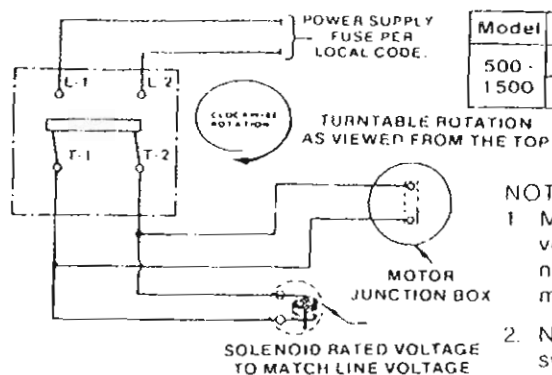


FIG. 13



WIRING FOR SINGLE PHASE WITH MANUAL SWITCH

FIG. 14

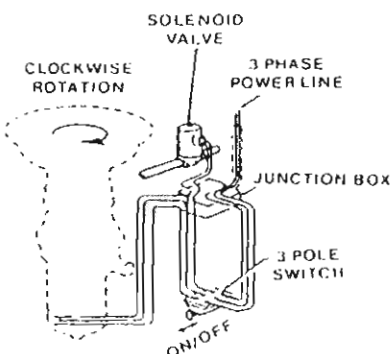


Model	Volts	WK Part No.	Manual Sw. Mfg.
500 - 1500	115	06401	Cutler-Hamer 8337K-2
	230		

NOTES:

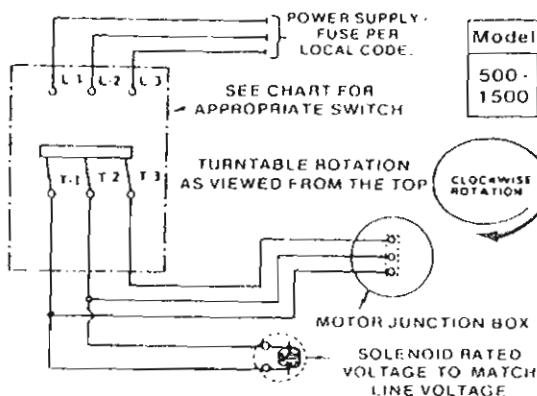
1. Motor wired at Factory for 230 volts. For 115 volts, connect motor wires as shown inside of motor junction box cover.
2. No heaters used with magnetic switch.

FIG. 15



WIRING FOR THREE PHASE UNITS WITH MANUAL SWITCH

FIG. 16



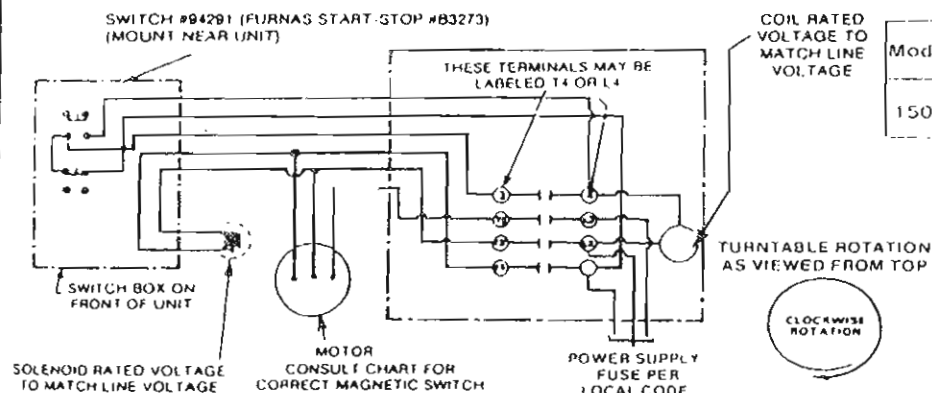
Model	Volts	WK Part No.	Manual Sw. Mfg.
500 - 1500	208/220	06401	Cutler-Hamer 8337K-2
	440		

NOTES:

1. Motor wired at Factory for 208/220 volts. For 440 volts, connect motor wires as shown inside of motor junction box cover.
2. Interchange T1 and T3 to reverse rotation.
3. No heaters used with magnetic switch.

FIG. 17

WIRING FOR THREE PHASE UNITS WITH MAGNETIC SWITCH



Model	Volts	Magnetic Switch	
		WK Part No.	Furnas Part No.
1500	208/220	094282	41EA40BG
	440	094292	41EA40BG

NOTES:

1. Motor wired at Factory for 208/220 volts. For 440 volts, connect motor wires as shown inside of motor junction box cover.
2. Interchange T1 and T3 to reverse rotation.
3. No heaters used with magnetic switch.

TESTING — IMPORTANT! DO NOT TEST OR RUN DISPOSER DRY AS THIS WILL DAMAGE THE SEAL AND VOID THE WARRANTY.

1. Test assembly for leaks.

- a. where bowl sink joins table
- b. where disposer joins bowl sink
- c. all piping connections
- d. "Swirl Spray" fittings

2. After plumbing and electrical connections are made, turn on disposer to be sure all parts are in working order and that the disposer turntable rotates clockwise when viewed from above. Open valve in vacuum breaker line, and using valves in Plumbing Assembly (Fig. 7), adjust so that water swirls around just below the rim of the bowl sink. Leave valves in these positions.

NOTE: When the Convertible Swirl Spray is used to remove food waste from dishes, adjust the flow to provide a convenient combination of anti-splash and high flow volume characteristics (top of flume approximately 3" above bowl sink).

These combinations provide a flow of approximately 8 gallons of water per minute.

3. Replace cover, retest for leaks and turn unit off.

4. Unit is now ready for operation

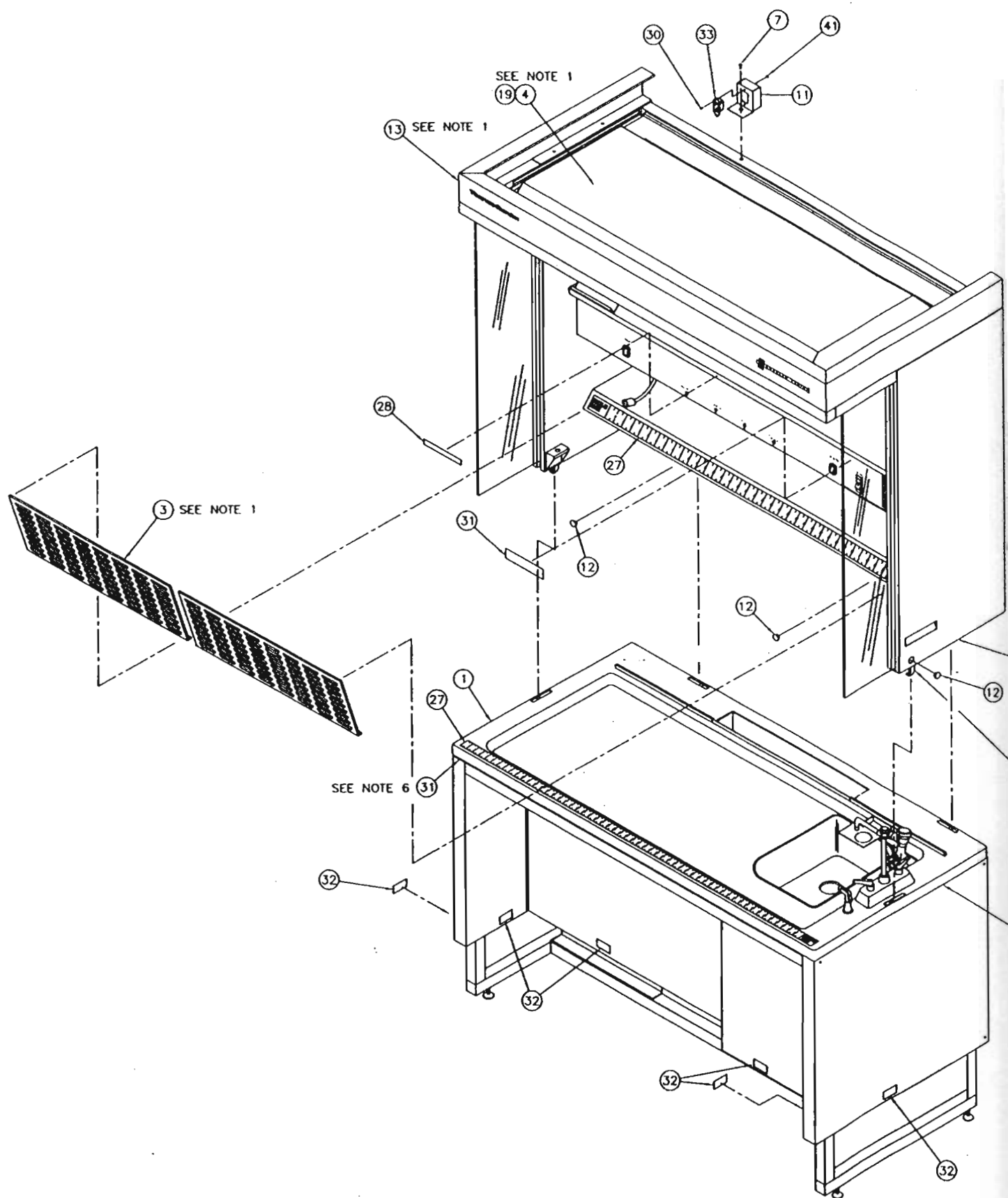
Waste King

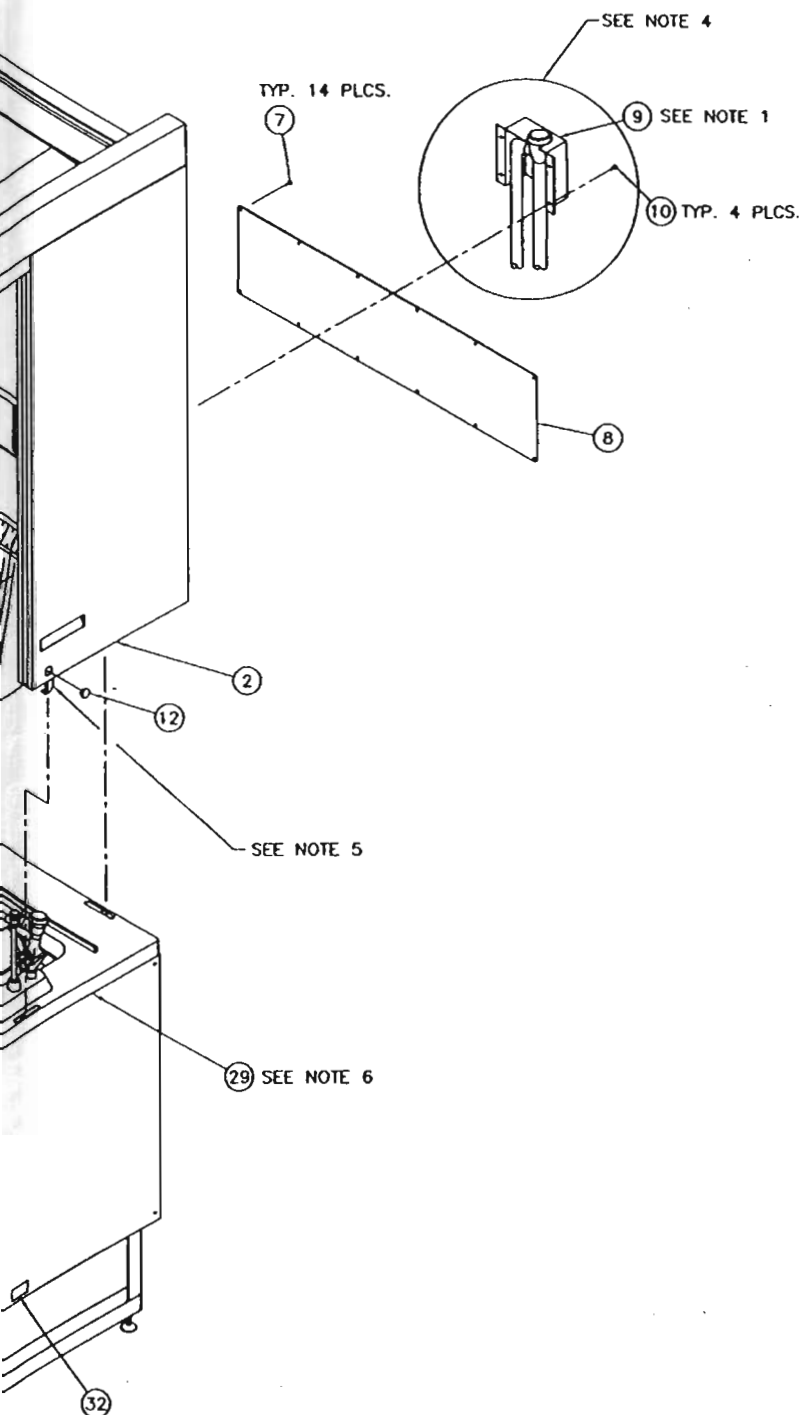
6100 BANDINI BLVD. • LOS ANGELES, CA 90040 • TELEPHONE: (213) 588-0097

Lt. Part No. #22772

010 cma



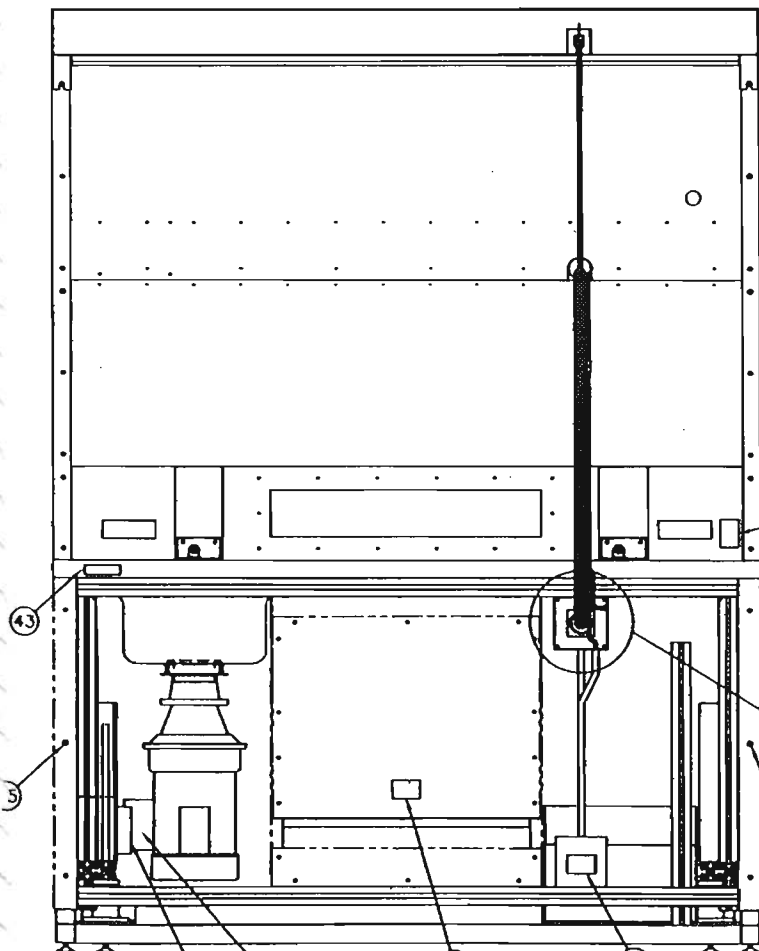




NOTES:

1. ITEMS 3, 4, 9, 13 & 34 TO BE REMOVED PRIOR TO SHIPPING.
2. ITEM 2 TO BE DETACHED FROM ITEM 1 PRIOR TO SHIPPING.
3. ITEMS 14 THROUGH 26 TO BE SHIPPED IN ACCESSORY PACK.
4. MOUNT VACUUM BREAKER(FOUND ON ITEM 1) TO ITEM 9, AND ATTACH TO ITEM 2 AT OPEN HOLES PROVIDED IN BACK PANEL OF ITEM 2.
5. ATTACH ITEM 2 TO ITEM 1 AND SECURE INTO PLACE USING ITEM 5, TYP. 4 PLCS.
6. APPLY ITEM 29 ALONG THESE EDGES SHOWN, FOR ENTIRE LENGTH & WIDTH OF UNIT.
7. APPLY POWER TO UNIT ONLY AFTER BOTH SECTIONS HAVE BEEN ASSEMBLED.

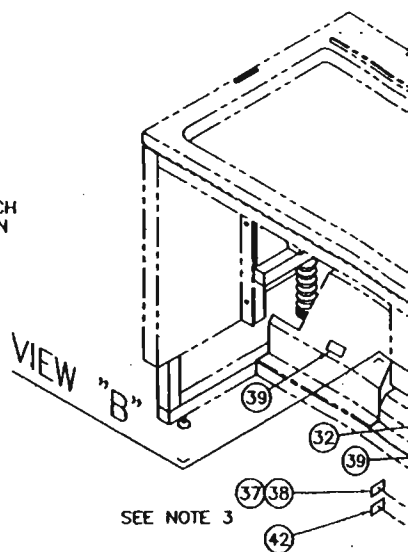
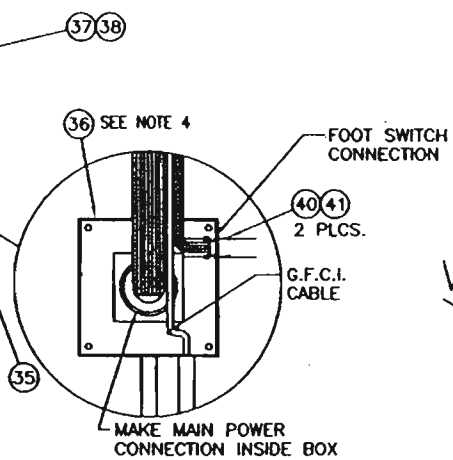
This manual is the property of Thermo Electron Corporation. It is loaned to you for your use only. It is not to be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without the prior written permission of Thermo Electron Corporation. The user assumes all responsibility for the use of this manual. The user agrees to indemnify and hold Thermo Electron Corporation harmless from all claims, damages, and expenses, including attorney's fees, arising from the use of this manual.		Thermo ELECTRON CORPORATION 111 Industry Drive Pittsburgh, Pa. 15275-1054 Phone: 1-800-547-7499 Fax: 1-412-766-1139		Clinical Diagnostics Anatomical Pathology www.thermo.com	
TOLERANCES UNLESS OTHERWISE SPECIFIED					
LINEAR DIMENSIONS UP TO 3" ±0.005" 3" TO 6" ±0.007" 6" TO 12" ±0.010" 12" TO 18" ±0.015"					
ANGULAR DIMENSIONS ±1°					
MATERIALS AND FINISHES UNLESS OTHERWISE SPECIFIED					
FINISHES UNLESS OTHERWISE SPECIFIED					
DRAWING NUMBER: 9700					
DATE: 3-83-88					
CHECKED BY: J.E.J.					
APPROVED BY: J.E.J.					
SHEET 2 OF 3					



SEE NOTE 4
 36 ATTACH TO ELEC.
 BOX COVER

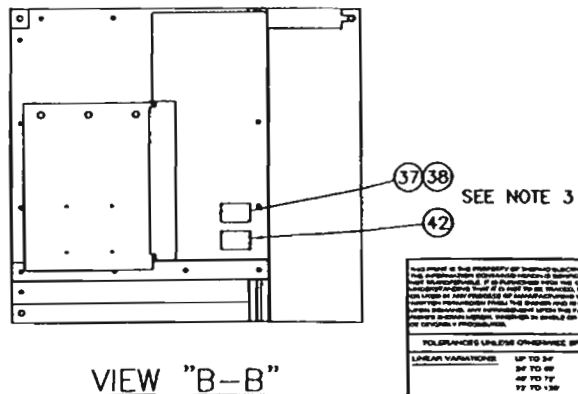
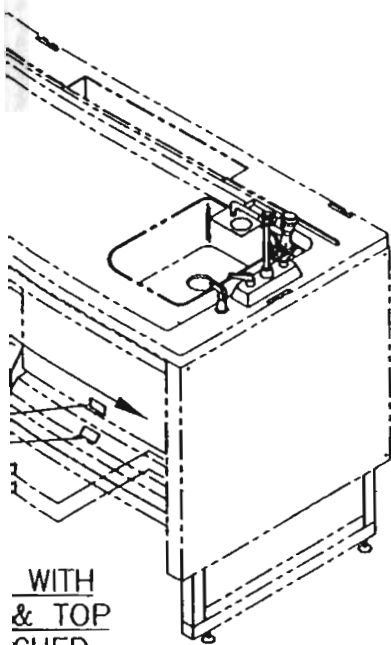
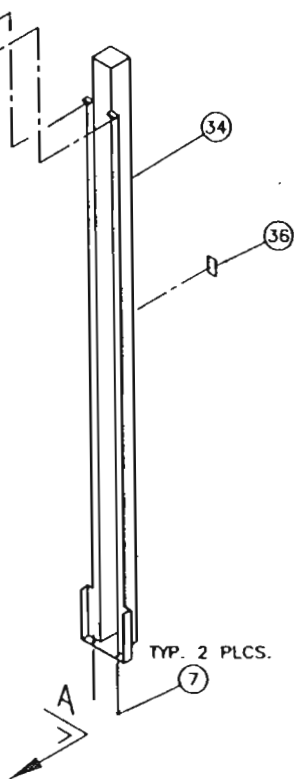
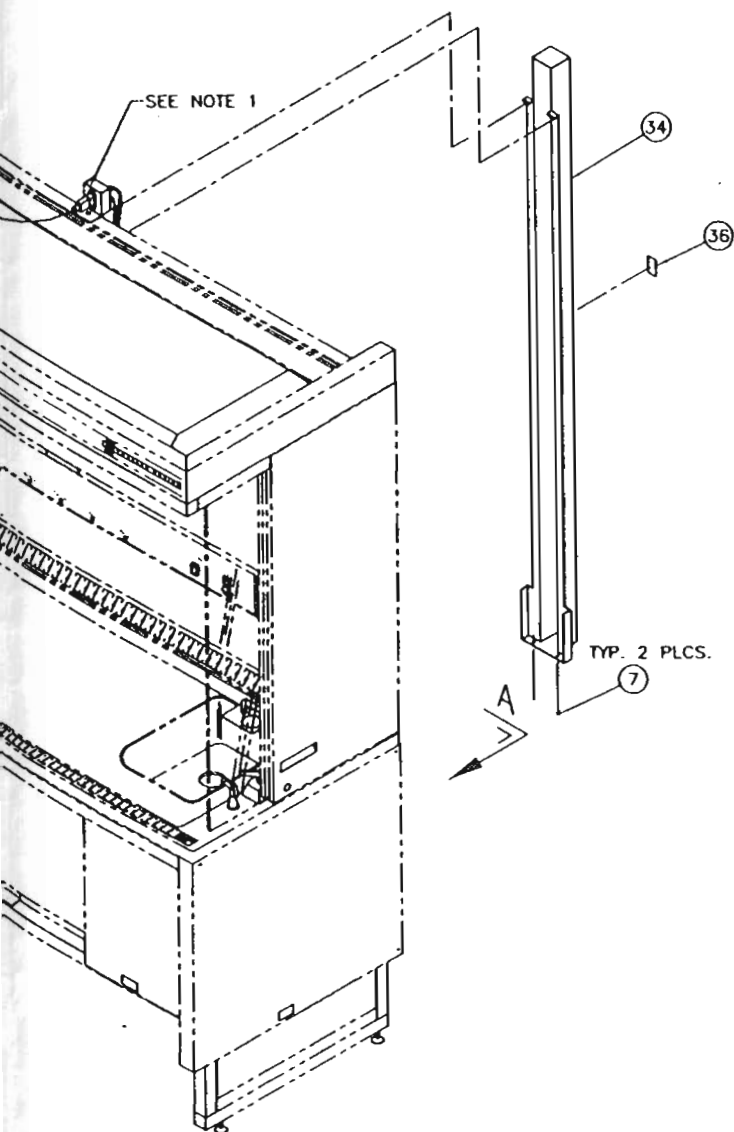
SEE NOTE 4

VIEW "A-A"



SEE NOTE 3

SHOWN V
 DOORS &
 DETATCH



NOTES:

1. ATTACH PLUG FROM ITEM 4, TO ITEM 33.
3. MOUNT ITEMS 37, 38, & 42 ONTO SCREW JACK COVER(P/N 10598), AS SHOWN.
4. PLACE LABELS ON ELECTRICAL BOX COVER, AS SHOWN, TYP. 3 PLCS.

THESE DIMENSIONS ARE FOR INFORMATION ONLY. THEY ARE NOT TO BE USED FOR CONSTRUCTION. THEY ARE NOT TO BE USED FOR CONSTRUCTION. THEY ARE NOT TO BE USED FOR CONSTRUCTION.

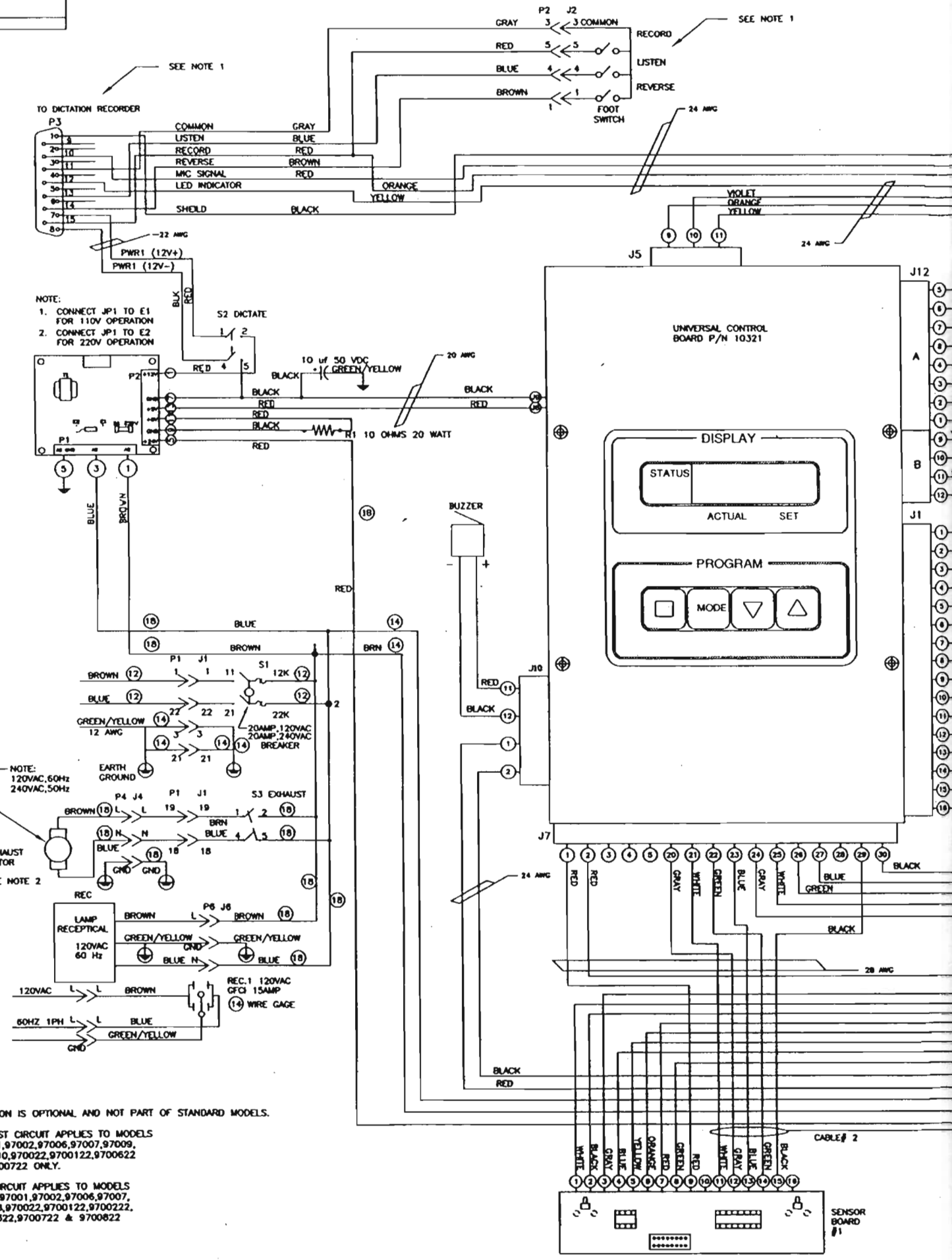
TOLERANCES UNLESS OTHERWISE SPECIFIED

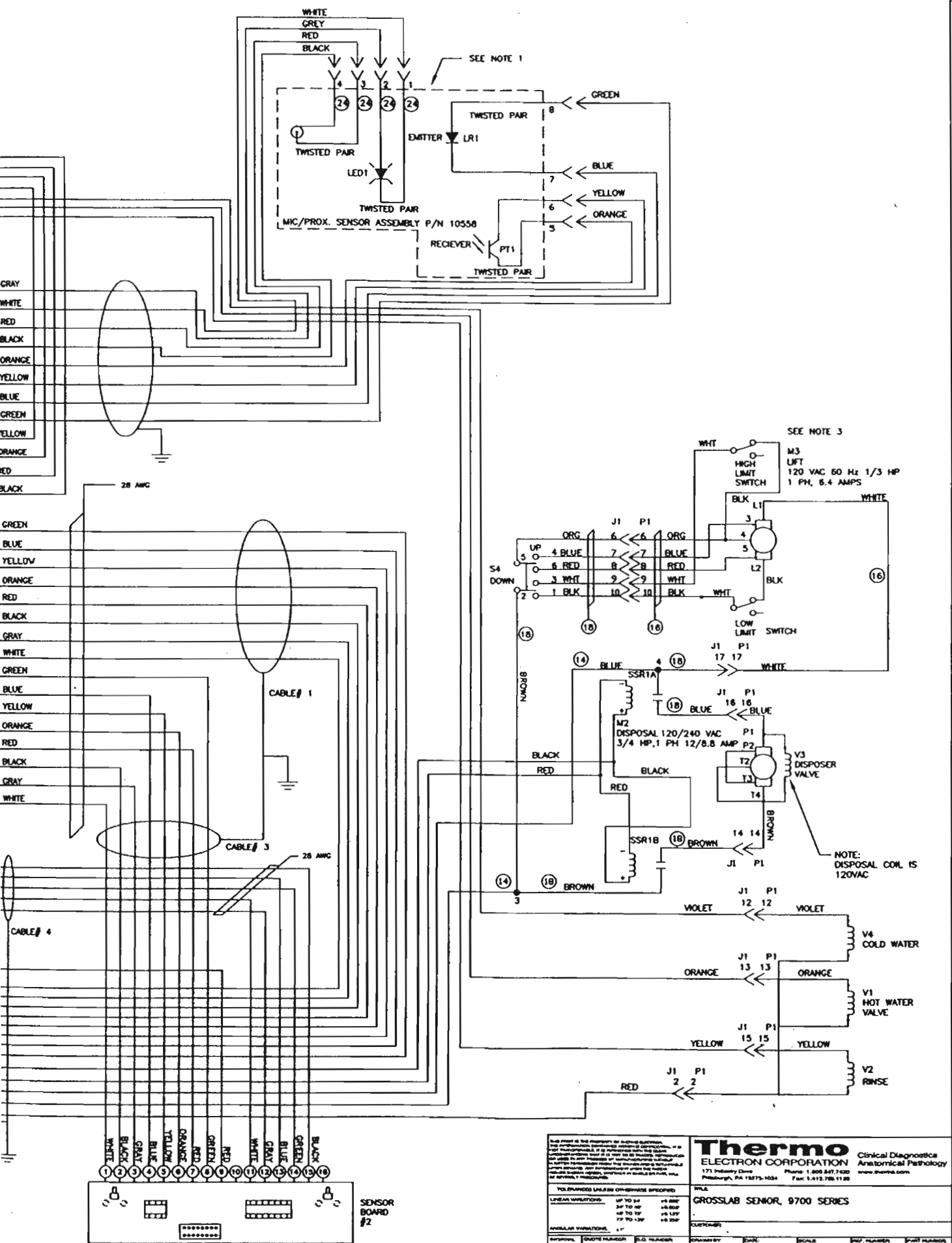
LINEAR DIMENSIONS	UP TO 3/4"	±0.005
	3/4" TO 1"	±0.008
	1" TO 1 1/2"	±0.010
	1 1/2" TO 2"	±0.015
	2" TO 3"	±0.020
	3" TO 4"	±0.025
	4" TO 5"	±0.030
	5" TO 6"	±0.035
	6" TO 7"	±0.040
	7" TO 8"	±0.045
	8" TO 9"	±0.050
	9" TO 10"	±0.055
	10" TO 11"	±0.060
	11" TO 12"	±0.065
	12" TO 13"	±0.070
	13" TO 14"	±0.075
	14" TO 15"	±0.080
	15" TO 16"	±0.085
	16" TO 17"	±0.090
	17" TO 18"	±0.095
	18" TO 19"	±0.100
	19" TO 20"	±0.105
	20" TO 21"	±0.110
	21" TO 22"	±0.115
	22" TO 23"	±0.120
	23" TO 24"	±0.125
	24" TO 25"	±0.130
	25" TO 26"	±0.135
	26" TO 27"	±0.140
	27" TO 28"	±0.145
	28" TO 29"	±0.150
	29" TO 30"	±0.155
	30" TO 31"	±0.160
	31" TO 32"	±0.165
	32" TO 33"	±0.170
	33" TO 34"	±0.175
	34" TO 35"	±0.180
	35" TO 36"	±0.185
	36" TO 37"	±0.190
	37" TO 38"	±0.195
	38" TO 39"	±0.200
	39" TO 40"	±0.205
	40" TO 41"	±0.210
	41" TO 42"	±0.215
	42" TO 43"	±0.220
	43" TO 44"	±0.225
	44" TO 45"	±0.230
	45" TO 46"	±0.235
	46" TO 47"	±0.240
	47" TO 48"	±0.245
	48" TO 49"	±0.250
	49" TO 50"	±0.255
	50" TO 51"	±0.260
	51" TO 52"	±0.265
	52" TO 53"	±0.270
	53" TO 54"	±0.275
	54" TO 55"	±0.280
	55" TO 56"	±0.285
	56" TO 57"	±0.290
	57" TO 58"	±0.295
	58" TO 59"	±0.300
	59" TO 60"	±0.305
	60" TO 61"	±0.310
	61" TO 62"	±0.315
	62" TO 63"	±0.320
	63" TO 64"	±0.325
	64" TO 65"	±0.330
	65" TO 66"	±0.335
	66" TO 67"	±0.340
	67" TO 68"	±0.345
	68" TO 69"	±0.350
	69" TO 70"	±0.355
	70" TO 71"	±0.360
	71" TO 72"	±0.365
	72" TO 73"	±0.370
	73" TO 74"	±0.375
	74" TO 75"	±0.380
	75" TO 76"	±0.385
	76" TO 77"	±0.390
	77" TO 78"	±0.395
	78" TO 79"	±0.400
	79" TO 80"	±0.405
	80" TO 81"	±0.410
	81" TO 82"	±0.415
	82" TO 83"	±0.420
	83" TO 84"	±0.425
	84" TO 85"	±0.430
	85" TO 86"	±0.435
	86" TO 87"	±0.440
	87" TO 88"	±0.445
	88" TO 89"	±0.450
	89" TO 90"	±0.455
	90" TO 91"	±0.460
	91" TO 92"	±0.465
	92" TO 93"	±0.470
	93" TO 94"	±0.475
	94" TO 95"	±0.480
	95" TO 96"	±0.485
	96" TO 97"	±0.490
	97" TO 98"	±0.495
	98" TO 99"	±0.500
	99" TO 100"	±0.505

Thermo Clinical Diagnostics
ELECTRON CORPORATION Anatomical Pathology
171 Industry Drive Phone: 1-800-547-7439
Pittsburgh, PA 15275-1004 Fax: 1-412-788-1138 www.thermo.com

GROSSLAB SENIOR, 9700 SERIES

DESIGNED BY	DATE	SCALE	REV. NUMBER	REV. DATE
8-8040	11-10-83	1/8"=1"		
CHECKED BY	DATE	DESIGNED BY		
3-23-88	3-23-88	9700		
APPROVED BY	DATE	1-8-88		
	3-23-88	1-8-88		





Thermo
ELECTRON CORPORATION
171 Industry Drive
Pittsburgh, PA 15275-1034

Phone: 1-800-877-7100
Fax: 1-412-786-1120

www.thermo.com

Clinical Diagnostic
Anatomical Pathology

TOLERANCES UNLESS OTHERWISE SPECIFIED

LINEAR DIMENSIONS	UP TO 1/4"	+0.005"
	1/4" TO 1"	+0.010"
	1" TO 2"	+0.015"
	2" TO 4"	+0.020"

ANGULAR DIMENSIONS: ±1°

FINISHES: UNLESS OTHERWISE SPECIFIED

AS PART OF OUR POLICY OF CONTINUOUS
IMPROVEMENT, THERMO ELECTRON RESERVES
THE RIGHT TO ALTER SPECIFICATIONS WITHOUT
PREVIOUS NOTICE.

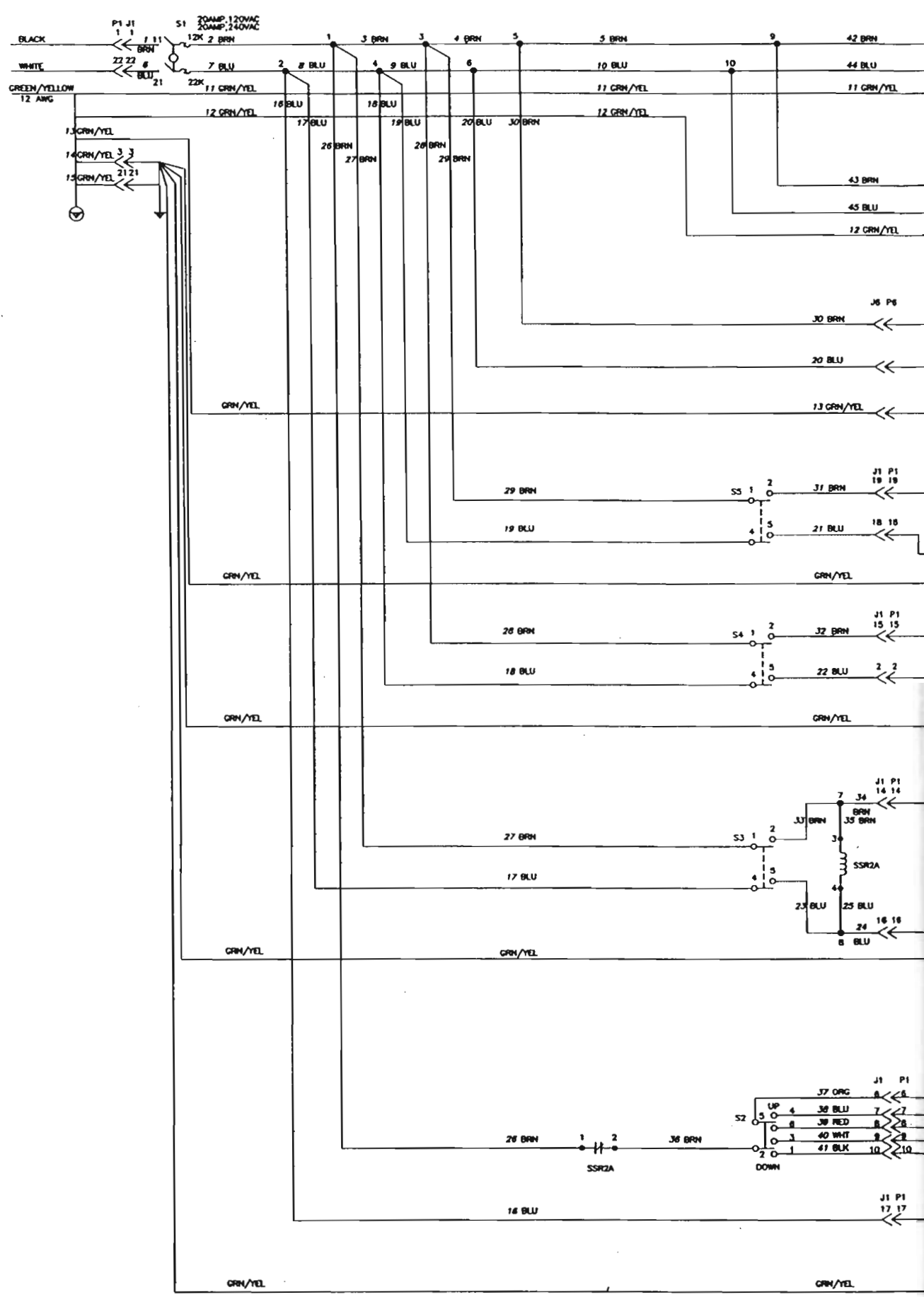
GROSSLAB SENIOR, 9700 SERIES

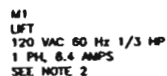
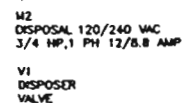
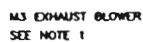
CUSTOMER: _____

DESIGNED BY E.B.W.	DATE 11-10-83	SCALE NONE	IMP. NUMBER 9700	PART NUMBER 9700
CHECKED BY T.M.B.	DATE 3-23-88			
APPROVED BY A.J.Z.	DATE 3-23-88			

REVISION
C

REVISIONS
SABOTYACH
08-03-01
SHEET 5;
CR/O 01029

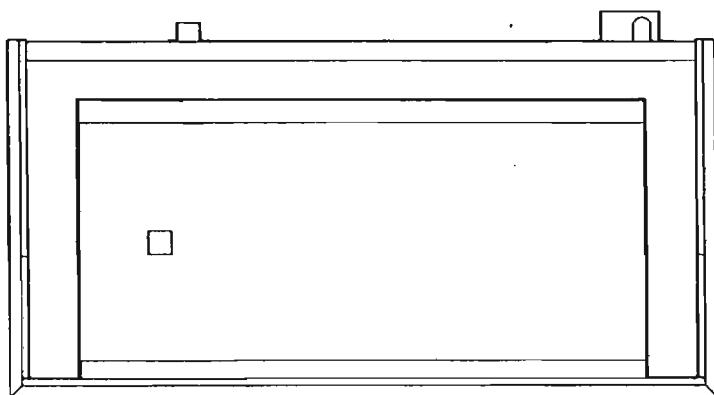




- [illegible]

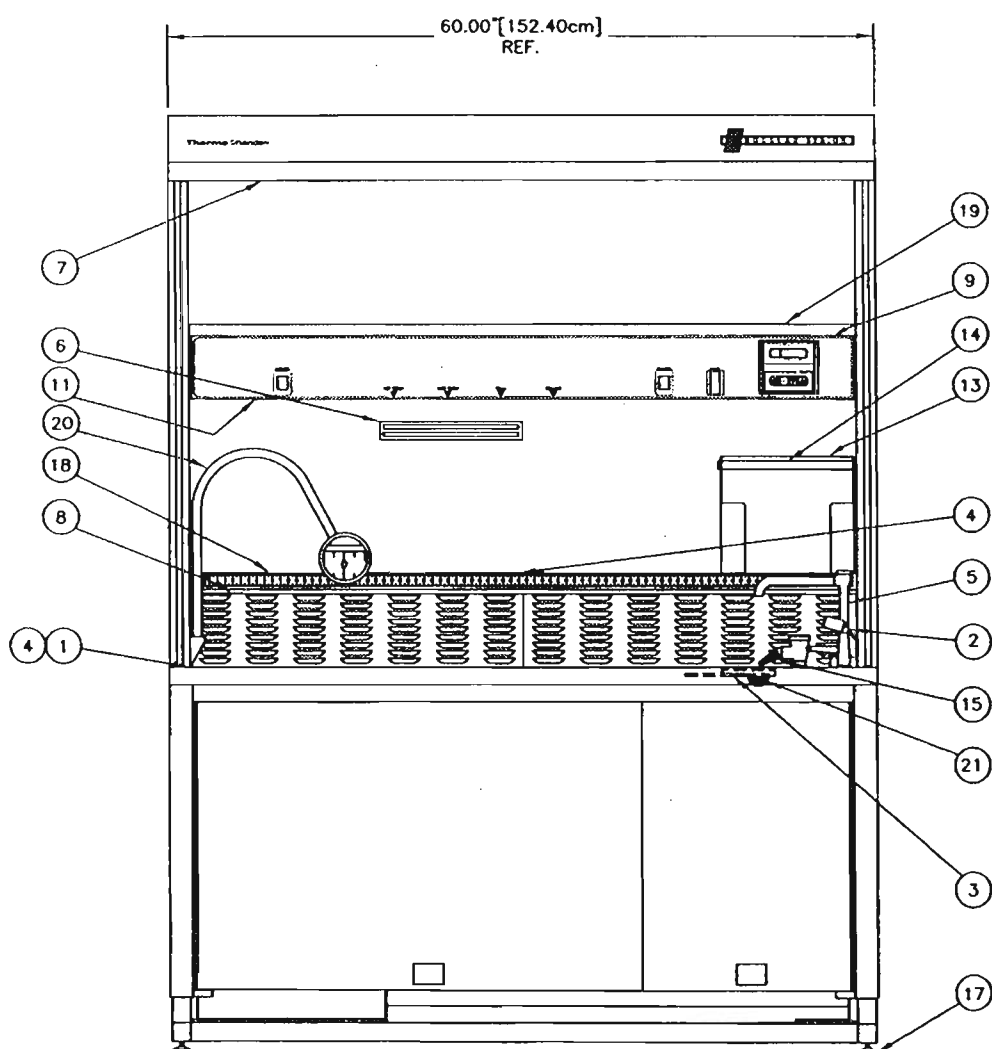
9700

REVISIONS
 1. REV. 1. CORRECTION
 DEC. 4-8-88
 P. 1.1.1
 AUG. 17-88
 H.A. HED SALES ENGINEER
 J.P. HED SALES
 DEC. 4-17-82
 J. HED
 SHOWN UPSIDE
 DOWN TO SHEET 2
 IN DESCRIPTION
 NOTE: 12 & 14
 10



NOTES:

1. RECEPTACLE (ITEM 11) IS LOCATED
2. MAGNETIC INSTRUMENT BAR (ITEM 6) ARE PROVIDED WITH DOUBLE-SIDED
3. ITEM 16 FLEXIBLE WXHAUST DUCT (EXTERNAL AND REMOTE EXHAUST M
4. AS PART OF OUR POLICY OF CONTI
WE RESERVE THE RIGHT TO ALTER
PRIOR NOTICE.



47.50 [120.65cm]

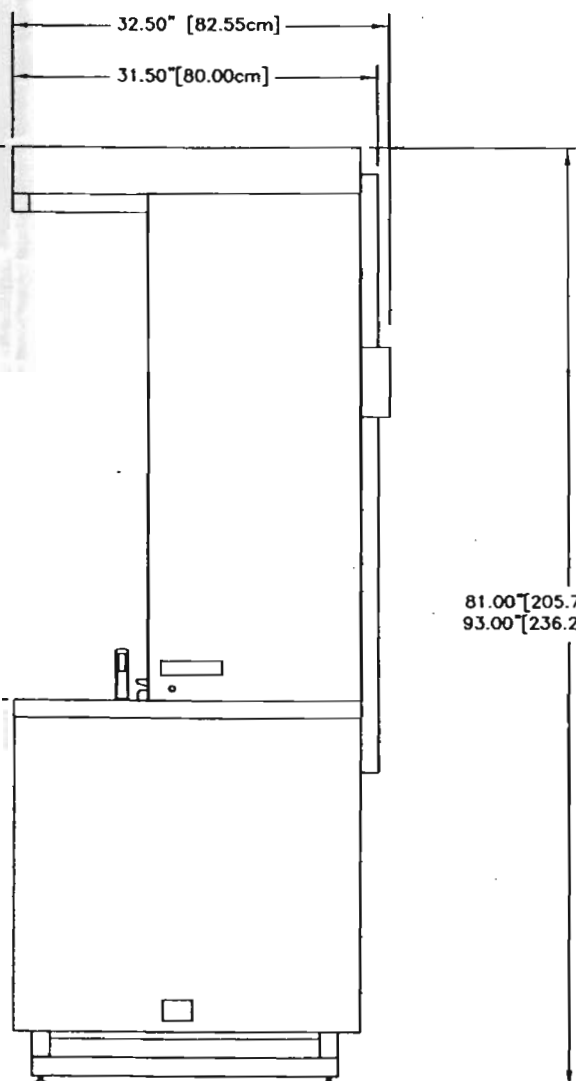
33.50 [85.09cm] MIN.
45.50 [115.57cm] MAX.

ED UNDER CONTROL PANEL, NOT SHOWN FOR CLARITY.

6) AND TOWEL DISPENSER (ITEM 13)
ED TAPE, TO BE LOCATED BY CUSTOMER.

ITEM 16) IS PROVIDED FOR ELEVATING
MODELS ONLY.

NTINUING DEVELOPMENT,
R SPECIFICATIONS WITHOUT



81.00 [205.74cm] MIN.
93.00 [236.22cm] MAX.

ITEM	QTY	DESCRIPTION	NOTES	PART NO.
1	1	TABLE RINSE ASSEMBLY (NOT SHOWN FOR CLARITY)		
2	1	HAND SPRAY (INCLUDED WITH ITEM 5)		
3	1	SINK, 14.00 [35.56cm] x 12.00 [30.48cm] x 6.00 [15.24cm] DEEP (NOT SHOWN FOR CLARITY)		
4	2	CENTIMETER RULER		1000460
5	1	FAUCET, w/SWING SPOUT AND BUILT-IN VACUUM BREAKER		1001133
6	1	MAGNETIC INSTRUMENT BAR	NOTE 2	104393
7	1	FLUORESCENT LIGHT FIXTURE (NOT SHOWN FOR CLARITY)		
8	2	LOUVERED VENT PANEL		10547
9	1	CONTROL DRAWER ASSEMBLY		
10	1	DISPOSAL, 3/4 hp. (SEE SHEETS 2 & 3)		B5714
	1	DISPOSAL, 1/2 hp. (SEE SHEETS 2 & 3)		ADD P/N
11	1	GFCI DUPLEX RECEPTACLE, 115V ONLY -OR-		
	2	IEC 320 RECEPTACLE, 220V ONLY		
12				
13	1	TOWEL DISPENSER	NOTE 2	1070214 100030
14	1	TOWEL RACK BAR		104268
15	1	TEA STRAINER FAUCET		130013
16	1	FLEXIBLE EXHAUST DUCT (SEE SHEET 2)	NOTE 3	1000012
17	4	ADJUSTABLE LEVELING FEET		105976
18	1	LOWER SHELF		
19	1	UPPER SHELF		
20	1	FLEXIBLE ARM MAGNIFIER		104404
21	1	TEA STRAINER		104402

THIS DRAWING IS THE PROPERTY OF THERMO ELECTRON CORPORATION. IT IS LOANED TO YOU FOR YOUR INFORMATION ONLY. IT IS NOT TO BE REPRODUCED OR USED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF THERMO ELECTRON CORPORATION. ANY REPRODUCTION OR USE IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF THERMO ELECTRON CORPORATION IS PROHIBITED.		Thermo ELECTRON CORPORATION 171 Industry Drive Pittsburgh, PA 15275-1004 Phone: 1.800.547.7420 Fax: 1.412.760.1138 www.thermo.com		Clinical Diagnostics Anatomical Pathology
TOLERANCES UNLESS OTHERWISE SPECIFIED: LINEAR VARIATIONS: UP TO .25" ±.002 .25" TO .50" ±.005 .50" TO 1.00" ±.010 1.00" TO 1.50" ±.015 ANGULAR VARIATIONS: ±1°		TITLE: GROSSLAB SENIOR, 9700 SERIES ROUGH-IN		
CUSTOMER:	CHECKED BY: ALG DATE: 6-9-00 SCALE: 1-1/2" = 1'-0" REV. NUMBER:	PART NUMBER: S9700 SHEET 1 OF 2	PART NUMBER: 9700 SERIES:	
INTERNAL USE ONLY:	QUOTE NUMBER:	AS PART OF OUR POLICY OF CONTINUING DEVELOPMENT, THERMO ELECTRON RESERVES THE RIGHT TO ALTER SPECIFICATIONS WITHOUT PRIOR NOTICE.	APPROVED BY: ALG DATE: 6-17-00	PART NUMBER: B

9700

REVISED
BY: J. L. LAMBERT
DATE: 6-8-88
FOR ALL
MODELS 9700-92

NEW SALES BRANCHES
✓ NO
✓ YES

LABORATION
DATE: 6-23-89
BY: J. L. LAMBERT

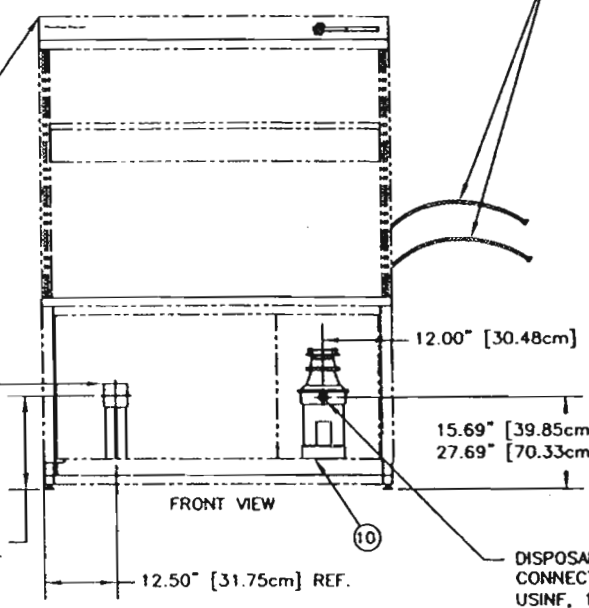
VIEW TO SHOW EACH
FROM TYPE, NOTES TO
ELECTRICAL WIRING FOR
NEW SALES BRANCHES
✓ NO
✓ YES

GROSSLAB SENIOR OUTLINE

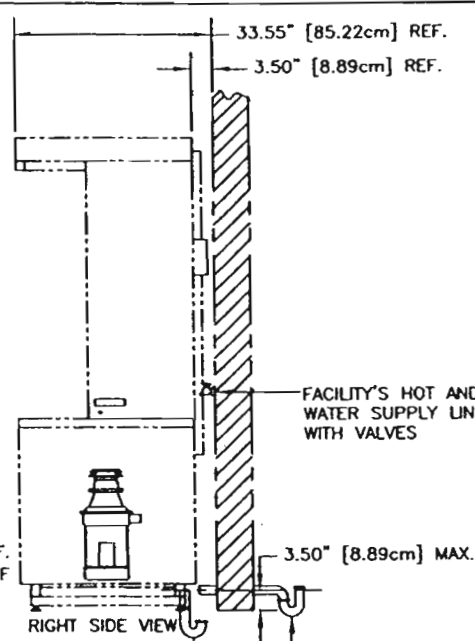
ELECTRICAL JUNCTION
BOX 4" x 4"
[10.16cm x 10.16cm]

16.00" [40.64cm] MIN. REF.
28.00" [71.12cm] MAX. REF.

54" [137.16cm] LONG FLEXIBLE HOT AND COLD
WATER HOSES 1 WITH 3/4" THREADED FEMALE
HOSE FITTINGS FOR CONNECTION TO FACILITY
HOT AND COLD WATER SUPPLY LINES



FRONT VIEW



RIGHT SIDE VIEW

UTILITY CONNECTIONS
ELEVATING UNITS WITH BLOWER AND
FILTERS
(RECIRCULATING)
MODELS 9700, 97006, 970022, 9700622

GROSSLAB

ELECT

[10.1

26.75"

16.00" [40.64cm] MIN. REF.
28.00" [71.12cm] MAX. REF.

NOTES (APPL

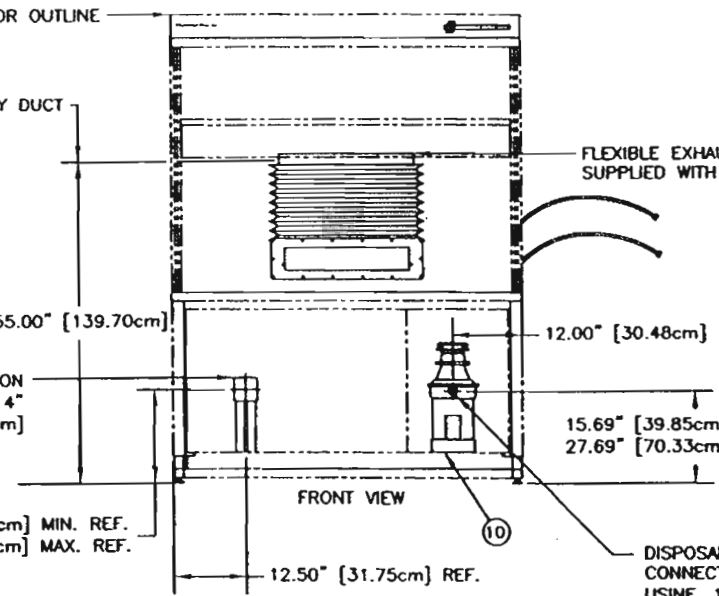
1. INSTALL
AND ELECTRI
MODELS OF
MODEL IS BA
PLUMBING AN
CONDUIT. 1
THREADED FI
COLD WATER
HAVING MATC
HOSE IS PRO
FOR HARD P

GROSSLAB SENIOR OUTLINE

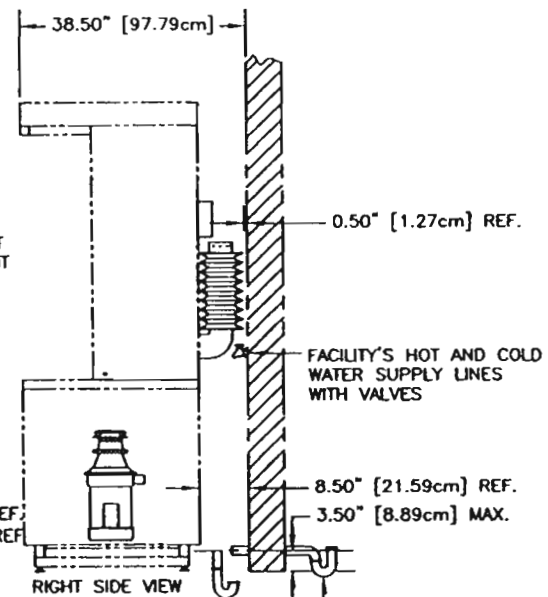
OF FACILITY DUCT

ELECTRICAL JUNCTION
BOX 4" x 4"
[10.16cm x 10.16cm]

16.00" [40.64cm] MIN. REF.
28.00" [71.12cm] MAX. REF.



FRONT VIEW

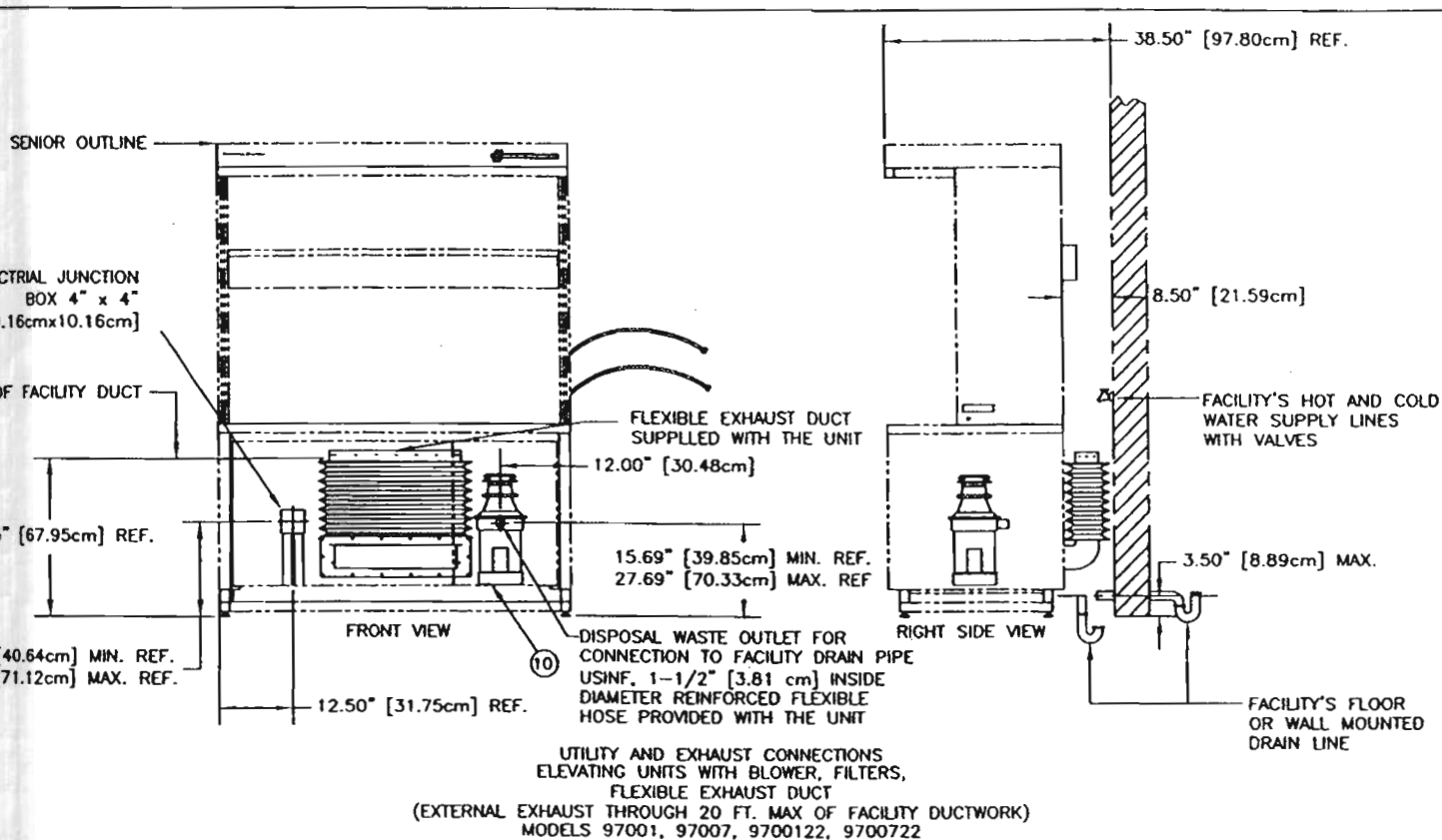


RIGHT SIDE VIEW

UTILITY AND EXHAUST CONNECTIONS
ELEVATING UNITS WITHOUT BLOWER AND WITH FLEXIBLE EXHAUST DUCT
(REMOTE EXHAUST THROUGH FACILITY DUCT WORK AND BLOWER)
MODELS 97002, 97008, 9700222, 9700822

THE CENTER
[30.48cm] F
DRAWING).
SUCH AS TO
THE VIEWS O
FOR THE DIS
THE FLOOR.
PROPER DRA
RECOMMEND
THE HORIZO
MIND THAT
SPOTS. HO
SHOULD BE
MEMBERS O

110 / 120
THE MAIN C
REQUIRES A
(GROUND FA
RECEPTAC
STANDARD 1
CIRCUITS AR
JUNCTION B
IS RECOMM
[10.16cm].
WIRING BET
THROUGH F
ENOUGH SU
SEPARATE 3
EACH CIRCU



(APPLICABLE TO ELEVATING UNITS):

INSTALLATION OF THE GROSSLAB SENIOR CAN BE SIMPLIFIED IF THE PLUMBING UTILITIES ARE PROPERLY ROUGHED IN. SINCE ALL STANDARD THE GROSSLAB SENIOR ARE THE SAME SIZE, THE "OUTLINE" FOR EACH BASICALLY THE SAME. BECAUSE OF THE HEIGHT ADJUSTMENT FEATURE, AND ELECTRICAL CONNECTIONS ARE MADE WITH FLEXIBLE HOSES AND 1/2" [1.27cm] DIAMETER INDUSTRIAL HOSES WITH 3/4" [1.91cm] FEMALE HOSE FITTINGS ARE SUPPLIED WITH THE UNIT FOR HOT AND COLD WATER CONNECTION. THESE SHOULD BE CONNECTED TO SHUTOFF VALVES ATTACHING MALE THREADS. 1-1/2" [3.81cm] INSIDE DIAMETER REINFORCED HOSE PROVIDED FOR DRAIN CONNECTION. REFER TO LOCAL PLUMBING CODES FOR PLUMBING REQUIREMENTS.

THE CENTER OF THE DISPOSAL WASTE OUTLET IS APPROXIMATELY 12.00in FROM THE RIGHT EDGED OF THE UNIT (REFER TO THE VIEWS ON THIS DRAWING). THE RECOMMENDED TRAP LOCATIONS ARE IN THE WALL OR THE FLOOR TO PROVIDE THE PROPER HEIGHT OF THE CONNECTION PIPE (REFER TO THIS DRAWING). THE CENTER OF THE FACILITY WASTE DRAIN PIPE DISPOSAL SHOULD BE NO MORE THAN 4.00" [10.16cm] VERTICALLY OFF THE DRAIN. THIS DRAIN MUST BE AS LOW AS POSSIBLE IN ORDER TO INSURE DRAINAGE THROUGH THE FLEXIBLE HOSE. HIGHER ELEVATIONS ARE NOT RECOMMENDED. LATERAL POSITIONING OF THE FACILITY DRAIN CAN BE VARIED FROM THE CENTER OF THE WASTE OUTLET OF THE DISPOSAL, KEEPING IN THE FLEXIBLE DRAIN HOSE MUST BE FREE OF KINKS, COILS OR HIGH OR LOW HORIZONTAL DISTANCE TO THE FACILITY DRAIN PIPE FROM THE WALL MUST BE KEPT TO A MINIMUM SO AS TO AVOID INTERFERENCE WITH BRACE ON THE UNIT.

220 / 240 VAC, 60 HZ, SINGLE PHASE UNITS REQUIRE TWO ELECTRICAL SUPPLIES. CIRCUIT WHICH SUPPLIES THE LIGHT, DISPOSAL AND OTHER CONTROLS REQUIRE A 20 AMP SUPPLY, PREFERABLY PROTECTED BY A 20 AMP GFCI (GROUNDED FAULT CIRCUIT INTERRUPTING) SINGLE POLE BREAKER. THE DUPLEX GFCI RECEPTACLE ON THE UNIT REQUIRES A 15 AMP SUPPLY PROTECTED BY A 15 AMP SINGLE POLE BREAKER. THE WIRING TERMINATIONS FOR THESE RECEPTACLES ARE LOCATED IN A 4" [10.16cm] x 4" [10.16cm] WEATHERPROOF JUNCTION BOX LOCATE ON THE UNIT (REFER TO THE VIEWS ON THIS DRAWING). IT IS RECOMMENDED THAT THE FACILITY PROVIDE A WALL-MOUNTED 4" [10.16cm] x 4" [10.16cm] WEATHERPROOF BOX FOR HARD WIRING TO THE BOX ON THE UNIT. BETWEEN THE FACILITY BOX AND THE BOX ON THE UNIT IS TO BE FACILITY-SUPPLIED FLEXIBLE, NONMETALLIC LIQUID-TIGHT CONDUIT WITH ENOUGH SLACK TO ALLOW FOR INSTALLATION OF THE UNIT AND TO ALLOW FOR HEIGHT ADJUSTMENT. FOR MAXIMUM FLEXIBILITY, IT IS RECOMMENDED THAT TWO 3/8" [0.95cm] DIAMETER, 60" [152.40cm] LONG CONDUITS (ONE FOR LIGHT, ONE FOR DISPOSAL) BE USED.

220 / 240 VAC, 50/60 HZ, SINGLE PHASE UNITS REQUIRE ONE ELECTRICAL SUPPLY AND DRAW 20 AMPS INCLUDING, UP TO 7 AMPS BY TWO IEC 320 RECEPTACLES. THE MAIN CIRCUIT WHICH SUPPLIES THE LIGHT, DISPOSAL AND RECEPTACLE REQUIRES A 20 AMP SUPPLY, PREFERABLY PROTECTED BY A 20 AMP RED (RESIDUAL CURRENT DETECTING) DOUBLE POLE BREAKER. THE WIRING TERMINATIONS FOR THIS CIRCUIT ARE LOCATED IN A 4in [10.16cm] x 4in [10.16cm] WEATHERPROOF JUNCTION BOX LOCATE ON THE UNIT (REFER TO THE VIEWS ON THIS DRAWING). IT IS RECOMMENDED THAT THE FACILITY PROVIDE A WALL MOUNTED 4" [10.16cm] x 4" [10.16cm], FACILITY SUPPLIED WEATHERPROOF JUNCTION BOX FOR HARD WIRING TO THE BOX ON THE UNIT. WIRING BETWEEN THE FACILITY BOX AND THE BOX ON THE UNIT IS TO BE THROUGH FLEXIBLE, NONMETALLIC LIQUID-TIGHT CONDUIT WITH ENOUGH SLACK TO ALLOW FOR INSTALLATION OF THE UNIT AND TO ALLOW FOR HEIGHT ADJUSTMENT. IT IS RECOMMENDED THAT ONE (1) 0.38in [0.953cm] DIAMETER, 60in [152.4cm] LONG CONDUIT BE USED.

2. INSTALLATION OF GROSSLAB SENIOR MODELS THAT ELEVATE AND HAVE FLEXIBLE EXHAUST DUCTS CAN BE SIMPLIFIED IF THE FACILITY SUPPLIED DUCTWORK IS PROPERLY ROUGHED IN. PLEASE NOTE THAT THE FLEXIBLE EXHAUST DUCTS REQUIRES 8.50" [21.59cm] OF SPACE BEHIND THE UNIT, MAKING THE TOTAL DEPTH FROM THE WALL TO THE FRONT OF THE UNIT 38.50" [97.79cm]. THE FLEXIBLE EXHAUST TRANSITION IS NOT FACTORY INSTALLED BUT IS SUPPLIED WITH THE UNIT. IT MUST BE FIELD INSTALLED.

3. UNITS WHICH HAVE INTERNAL BLOWERS AND EXTERNAL EXHAUSTS (MODELS 97001, 97007, 9700122, 9700722) ARE DESIGNED TO BE EXHAUSTED SHORT DISTANCES BUT SHOULD NOT BE CONNECTED IN SERIES WITH AN EXISTING FACILITY EXHAUST BLOWER WITHOUT CONSULTING THERMOSHANDON'S ENGINEERING DEPARTMENT.

4. FOR FACILITY REMOTE BLOWER SELECTION, WITH UNITS WHICH CONNECT TO FACILITY SUPPLIED DUCTWORK AND BLOWER SYSTEMS (MODELS 97002, 97008, 970022, 9700122) RECOMMENDED EXHAUST AIR VOLUME IS APPROXIMATELY 500 CFM, [0.236 CU.M/S] PRESSURE LOSSES THROUGH THE UNIT ARE APPROXIMATELY 0.41" W.G. [1.02MB] AT 500 CFM THE FACILITY MUST ADD PRESSURE LOSSES THROUGH THE FACILITY DUCT SYSTEM WHICH MAY BE DOWNSTREAM OF THE UNIT.

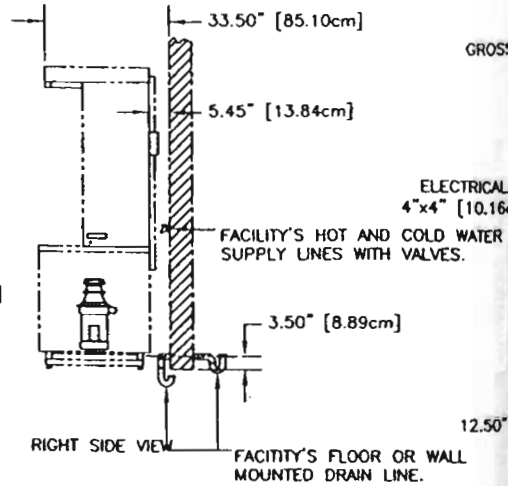
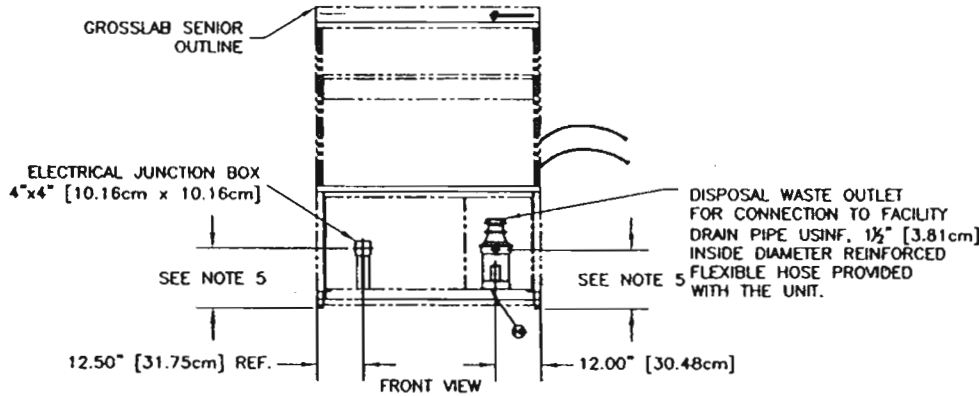
AN AIRFLOW VOLUME CONTROL DAMPER IS RECOMMENDED IN THE FACILITY EXHAUST DUCT SYSTEM.

5. VALUES ARE PROVIDED IN THE BACK OF EACH UNITS LOWER RIGHT SIDE FOR CONTROL OF THE TEA STRAINER FAUCET AND TABLE RINSE WATER PRESSURE. ALTHOUGH THESE ARE ADJUSTED IN THE FACTORY, USERS MAY WANT TO READJUST THEM AS DESIRED.

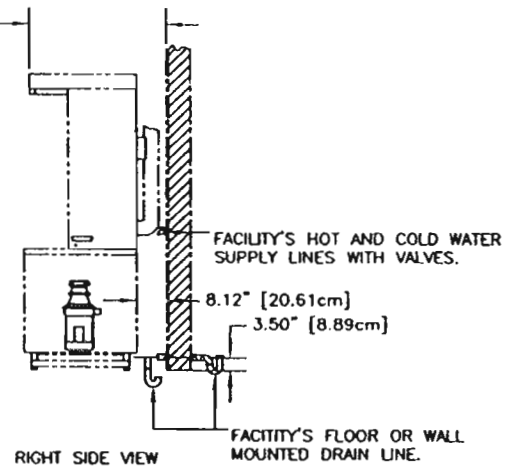
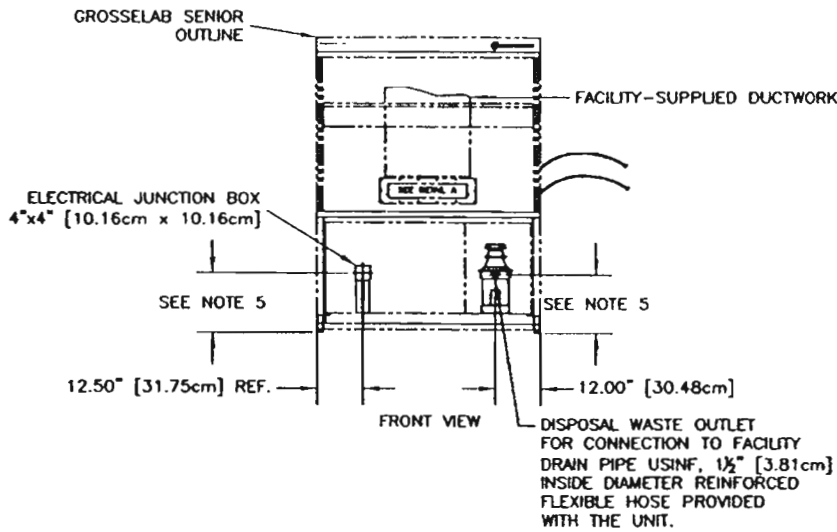
Thermo ELECTRON CORPORATION 171 Industry Drive Pittsburgh, PA 15275-1004 Phone: 1-800-267-7109 Fax: 1-412-756-1188		Clinical Diagnostics Anatomical Pathology www.thermo.com	
GROSSLAB SENIOR, 9700 SERIES			
ROUGH-IN			
DESCRIPTION			
UP TO 34" 15.250" 34 TO 40" 15.875" 40 TO 46" 16.500" 46 TO 52" 17.125" 52 TO 58" 17.750"			
PERSONAL USE ONLY			
DESIGNED BY: ELI GREEN DATE: 6-17-98 APPROVED BY: ELI GREEN DATE: 6-17-98			
SCALE 1/4" = 1'-0"			
S9700 Sheet 2 of 2			
B			

S9700

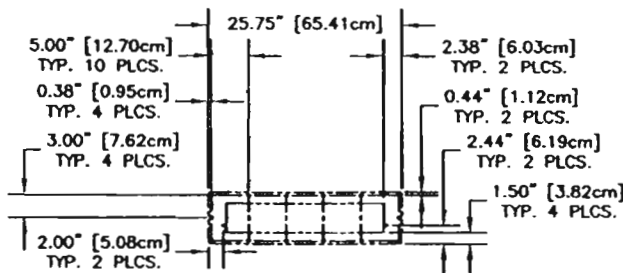
REVISIONS	
A	BY J. COOPER DATE 1-1-90 BY J. COOPER DATE 1-1-90
B	BY J. COOPER DATE 1-1-90 BY J. COOPER DATE 1-1-90



UTILITY CONNECTIONS
FIXED-HEIGHT UNITS WITH BLOWER AND FILTERS (RECIRCULATING)
MODELS 97003,97009,9700322,9700922



UTILITY AND EXHAUST CONNECTIONS
FIXED-HEIGHT UNITS WITHOUT BLOWER AND FILTERS
(REMOTE EXHAUST THROUGH FACILITY DUCTWORK AND BLOWER)
MODELS 97005,970011,9700522,97001122



DETAIL A
SCALE 2X
EXHAUST CONNECTION FLANGE
DIMENSIONS ON
FACILITY ~ SUPPLIED DUCTWORK

NOTES (AP)

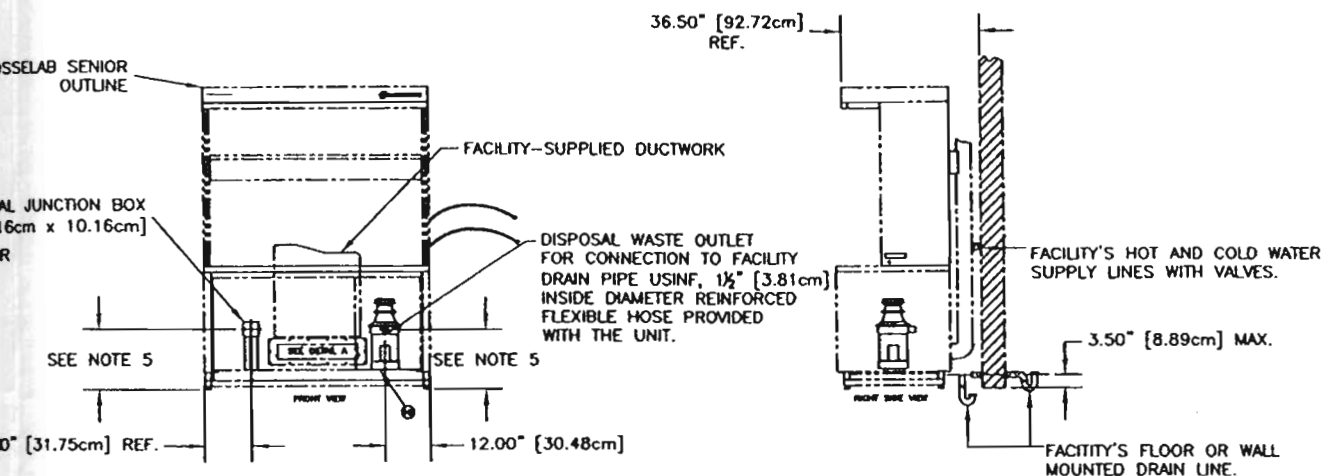
1. INSTALL
AND ELECT
MODELS OF
MODEL IS

PLUMBING
CONDUIT.
FEMALE TH
WATER CON
MATCHING
PROVIDED
PLUMBING
BE PROVIDE

THE CENTE
NO MORE
CENTER OF
FROM THE
RECOMMEN
PROVIDE TH
THIS DRAW
PROPER DE
POSSIBLE I
CAN BE VA
DISPOSAL
KINKS, COI
FROM THE
WITH BRAC

120 VAC, 6
MAIN CIRCU
REQUIRES
(GROUND F
RECEPTAC
STANDARD
CIRCUITS A
JUNCTION I
IS RECOMM
4in [10.16
WIRING BET
THROUGH
ALLOW FOR
RECOMMEN
[152.4cm]

230 VAC, 6
THE MAIN
REQUIRES
(RESIDUAL
TERMINATIO
[10.16cm]
VIEWS ON
MOUNTED,
TO THE BO
THE UNIT
ENOUGH S
THAT ONE
USED.



UTILITY AND EXHAUST CONNECTIONS
FIXED-HEIGHT UNITS WITH BLOWER AND FILTERS (EXTERNAL EXHAUST
THROUGH 20 FT. MAX. OF FACILITY DUCTWORK)
MODELS 97004,970010,9700422,97001022

APPLY TO MODELS HAVING FIXED-HEIGHT):

INSTALLATION OF THE GROSSLAB SENIOR CAN BE SIMPLIFIED IF THE PLUMBING
ELECTRICAL UTILITIES ARE PROPERLY ROUGHED IN. SINCE ALL STANDARD
OF THE GROSSLAB SENIOR ARE THE SAME SIZE, THE "OUTLINE" FOR EACH
IS BASICALLY THE SAME.

G AND ELECTRICAL CONNECTIONS ARE MADE WITH FLEXIBLE HOSES AND
0.50in [1.27cm] DIAMETER INDUSTRIAL HOSES WITH 0.75in [1.91cm]
THREAD HOSE FITTINGS ARE SUPPLIED WITH THE UNIT FOR HOT AND COLD
CONNECTION. THESE SHOULD BE CONNECTED TO SHUTOFF VALVES HAVING
3 MALE THREADS. 1.5in [3.81cm] INSIDE DIAMETER REINFORCED HOSE IS
FOR DRAIN CONNECTION. REFER TO LOCAL PLUMBING CODES FOR HARD
G REQUIREMENTS. FLEXIBLE CONDUIT FOR ELECTRICAL CONNECTIONS IS TO
BE PROVIDED BY THE FACILITY OR CONTRACTOR.

HEIGHT OF THE FACILITY WASTE DRAIN PIPE FOR THE DISPOSAL SHOULD BE
LESS THAN 3.50in [8.89cm] VERTICALLY OFF THE FLOOR. THE HORIZONTAL
OF THE DISPOSAL WASTE OUTLET IS APPROXIMATELY 12.00in [30.48cm]
TO THE RIGHT EDGED OF THE UNIT (REFER TO THE VIEWS ON THIS DRAWING).
ENDED TRAP LOCATIONS ARE IN THE WALL OR THE FLOOR SUCH AS TO
THE PROPER HEIGHT OF THE CONNECTION PIPE (REFER TO THE VIEWS ON
DRAWING). THIS DRAIN MUST BE AS LOW AS POSSIBLE IN ORDER TO INSURE
DRAINAGE THROUGH THE FLEXIBLE HOSE. HIGHER ELEVATIONS ARE
BUT NOT RECOMMENDED. LATERAL POSITIONING OF THE FACILITY DRAIN
VARIED FROM THE HORIZONTAL CENTER OF THE WASTE OUTLET OF THE
UNIT, KEEPING IN MIND THAT THE FLEXIBLE DRAIN HOSE MUST BE FREE OF
KINKS OR HIGH SPOTS. HORIZONTAL DISTANCE TO THE FACILITY DRAIN PIPE
ON THE WALL SHOULD BE KEPT TO A MINIMUM SO AS TO AVOID INTERFERENCE
WITH MEMBERS ON THE UNIT.

50/60 HZ, SINGLE PHASE UNITS REQUIRE TWO ELECTRICAL SUPPLIES. THE
CIRCUIT WHICH SUPPLIES THE LIGHT, DISPOSAL AND OTHER CONTROLS
IS A 20 AMP SUPPLY, PREFERABLY PROTECTED BY A 20 AMP GFCI
(FAULT CIRCUIT INTERRUPTING) SINGLE POLE BREAKER. THE GFCI
CIRCUIT ON THE UNIT REQUIRES A 15 AMP SUPPLY PROTECTED BY A
15 AMP SINGLE POLE BREAKER. THE WIRING TERMINATIONS FOR THESE
CIRCUITS ARE LOCATED IN A 4in [10.16cm] x 4in [10.16cm] WEATHERPROOF
JUNCTION BOX LOCATE ON THE UNIT (REFER TO THE VIEWS ON THIS DRAWING). IT
IS RECOMMENDED THAT THE FACILITY PROVIDE A WALL MOUNTED, 4in [10.16cm] x
4in [10.16cm], WEATHERPROOF BOX FOR HARDWIRING TO THE BOX ON THE UNIT.
WIRING BETWEEN THE FACILITY BOX AND THE BOX ON THE UNIT IS TO BE
THROUGH FLEXIBLE, NONMETALLIC LIQUID-TIGHT CONDUIT WITH ENOUGH SLACK TO
ALLOW FOR INSTALLATION OF THE UNIT. FOR MAXIMUM FLEXIBILITY IT IS
RECOMMENDED THAT TWO (2) SEPARATE 0.38in [0.953cm] DIAMETER, 60in
LONG CONDUITS (ONE FOR EACH CIRCUIT) BE USED.

50/60 HZ, SINGLE PHASE UNITS REQUIRE ONE ELECTRICAL SUPPLY.
CIRCUIT WHICH SUPPLIES THE LIGHT, DISPOSAL AND DUPLEX RECEPTACLE
IS A 20 AMP SUPPLY, PREFERABLY PROTECTED BY A 20 AMP RCD
(CURRENT DETECTING) DOUBLE POLE BREAKER. THE WIRING
TERMINATIONS FOR THIS CIRCUIT ARE LOCATED IN A 4in [10.16cm] x 4in
WEATHERPROOF JUNCTION BOX LOCATE ON THE UNIT (REFER TO THE
VIEWS ON THIS DRAWING). IT IS RECOMMENDED THAT THE FACILITY PROVIDE A WALL
MOUNTED, 4in [10.16cm] x 4in [10.16cm], WEATHERPROOF BOX FOR HARDWIRING
TO THE BOX ON THE UNIT. WIRING BETWEEN THE FACILITY BOX AND THE BOX ON
THE UNIT IS TO BE THROUGH FLEXIBLE, NONMETALLIC LIQUID-TIGHT CONDUIT WITH
ENOUGH SLACK TO ALLOW FOR INSTALLATION OF THE UNIT. IT IS RECOMMENDED
THAT TWO (2) SEPARATE 0.38in [0.953cm] DIAMETER, 60in [152.4cm] LONG CONDUIT BE

2. TOTAL DEPTH OF GROSSLAB SENIORS THAT ARE FIXED-HEIGHT FROM THE
FRONT OF THE UNIT TO THE WALL:

MODELS WITH INTERNAL BLOWER AND FILTERS AND NO DUCT:
97003,97009,9700322,9700922 = 33.00in [83.82cm]

MODELS WITH INTERNAL BLOWER AND DUCTED EXHAUST:
97004,970010,9700422,97001022 = 36.50in [92.71cm]

MODELS WITH NO INTERNAL BLOWER AND REMOTE EXHAUST THROUGH FACILITY
EXHAUST SYSTEM:
97005,970011,9700522,97001122 = 36.50in [92.79cm]

3. INSTALLATION OF GROSSLAB SENIOR MODELS THAT ARE FIXED-HEIGHT TO BE
CONNECTED TO FACILITY SUPPLIED DUCTWORK CAN BE SIMPLIFIED IF THE FACILITY
SUPPLIED DUCTWORK IS PROPERLY ROUGHED IN. PLEASE NOTE THAT THE
DUCTWORK WILL OCCUPY APPROXIMATELY 3.50in [8.89cm] OF SPACE BEHIND THE
UNIT, MAKING THE TOTAL DEPTH FROM THE WALL TO THE FRONT OF THE UNIT
36.50in [92.71cm].

UNITS WHICH HAVE INTERNAL BLOWERS AND EXTERNAL EXHAUSTS (MODELS
97004,970010,9700422,97001022) ARE DESIGNED TO BE EXHAUSTED SHORT
DISTANCES BUT SHOULD NOT BE CONNECTED IN SERIES WITH AN EXISTING FACILITY
EXHAUST BLOWER WITHOUT CONSULTING THERMOSHANDON'S ENGINEERING
DEPARTMENT.

UNITS WHICH CONNECT TO FACILITY SUPPLIED EXHAUST SYSTEMS (MODELS
97005,970011,9700522,97001122) REQUIRE APPROXIMATELY 500 CFM EXHAUST
AIRFLOW VOLUME FOR PROPER OPERATION.

4. FOR REMOTE BLOWER SELECTION, RECOMMENDED EXHAUST AIR VOLUME IS
APPROXIMATELY 500 CFM, PRESSURE LOSSES THROUGH THE UNIT ARE
APPROXIMATELY 0.41 INCHES W.G. THE FACILITY MUST ADD PRESSURE LOSSES
THROUGH THE FACILITY DUCT SYSTEM WHICH MAY BE DOWNSTREAM OF THE UNIT.

AN AIRFLOW VOLUME CONTROL DAMPER IS RECOMMENDED IN THE FACILITY EXHAUST
DUCT SYSTEM.

5. WORK SURFACE HEIGHT FOR FIXED-HEIGHT MODELS MUST BE SPECIFIED ON
THE CUSTOMER PURCHASE ORDER. DIMENSIONS SHOWN WILL VARY DEPENDING ON
THE WORK SURFACE HEIGHT CHOSEN.

THIS DRAWING IS THE PROPERTY OF THERMO SHANDON. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. 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 OF THERMO SHANDON, INC.		Thermo ELECTRON CORPORATION 171 Industry Drive Pittsburgh, PA 15275-1094 Phone: 1-800-547-7429 Fax: 1-412-758-1138 www.thermo.com		Clinical Diagnostics Anatomical Pathology	
PROJECT: GROSSLAB SENIOR, 9700 SERIES ROUGH-IN					
DATE: 6-9-99 SCALE: 1/2" = 1'-0" SHEET: 3 OF 3					
APPROVED BY: [Signature] DATE: 6-17-99 APPROVED BY: [Signature] DATE: 6-17-99					