

Technical Users' Manual

Installation and Operating Instructions



MODEL GL117 PATHOLOGY WORKSTATION W/REAR EXHAUST

CAUTION

• Inspect unit and all components for any loosening that may have occurred during shipping •

ATTENTION

Review entire manual before starting assembly



SEPTEMBER 2010 ISO Doc. #OMGL117 (REV A)



WARNING

Untrained operators can cause injury or be injured. Permit only trained personnel to operate the equipment.

Improper use of the equipment can cause injury. Use the equipment only for the purpose described in this manual.

Improper maintenance can cause injury. Maintain the equipment only as described in this manual.

Improper parts and service can cause injury. Use only prescribed approved parts and service.

Modifying the equipment can cause injury and damage. Use the equipment only as designed by Mortech.

BLOODBORNE DISEASE NOTICE

To reduce the risk of exposure to bloodborne diseases such as HIV-1 and hepatitis when using the equipment, follow the disinfecting and cleaning instructions in this manual.

OPERATING SKILLS AND TRAINING

SKILLS

- Operators using the equipment needs:
- $\hfill\square$ A working knowledge of necessary service procedures.
- $\hfill\square$ The ability to carry out necessary service procedures.
- A complete understanding of the procedures described in this manual.

TRAINING

- Be trained on the use of the equipment.
- Read the manual.
- Practice with the equipment before using it in regular service.
- Be tested on their understanding of the equipment operation.
- Record their training.

BEFORE USING THE UNIT

Personnel working with this unit needs to read this manual. Assemble of the unit following instructions, and perform any pre-service checks to confirm the units operates properly.

INSPECTING THE UNIT BEFORE USE

- Are all components present?
- Do the moving parts operate smoothly?
- Is unit draining properly?
- Are plumbing features operating properly?
- Are all nuts, bolts, and pins secured in place? If unit has an issue contact customer relations.

GENERAL GUIDELINE

Follow standard service procedures when working with the unit.



GL117 Pathology Workstation w/Rear Exhaust



PLUMBING CONNECTION INSTRUCTIONS

STEP 1: (Refer to Figure-G) Flush out all water lines prior to connection. Debris may be in the lines from construction process. Install shut off valves on each water line. Lines are clearly marked RED for hot and BLUE for cold. (Refer to Figure-G1) The station is provided with a single point connection for hot and cold water. A typical flex line can be used for connection.

Step 2: Connect drain line to sink basin or disposal unit, depending on the option provided. (Refer to Figure-H) See disposal manufacturers manual for more information.





Installation



ELECTRICAL CONNECTION INSTRUCTIONS

Step 1: (Refer to Figure-I) Connect electrical lines from station to building. Units are provided with watertight conduit lines for connection. All units are internally wired so connecting these lines will bring power to all electrical items on the station.



EXHAUST DUCT CONNECTION INSTRUCTIONS See Specific Project Drawings for Exhaust Duct Sizes and Locations

EXPOSED DUCT CONNECTION

1. HVAC contractor to provide duct work from building to top duct connections on station. Duct material is per project requirements.

2. Typical Exhaust requirement is 400 CFM at 0.25 w.g. See your project requirements for specifics.

GL117 Pathology Workstation w/Rear Exhaust



The Model GL 117

Model GL117 Pathology Workstation is an economical space saving unit that comes with all required features for any grossing procedure.

We also carry a complete listing of optional accessories to fulfill anyone's personal needs.

Standard Design Features

- All stainless steel construction of the entire work area and all exterior closure panels.
- Exhaust duct for connection to building ventilation system with adjustable bellows
- Hot and cold water mixing faucet with gooseneck spout and wrist blade handles
- Spray hose assembly with hand control
- Heavy-duty commercial waste disposal (1/2 hp) with vacuum breaker and solenoid
- Dissecting area rinse to provide a constant flow of water to work area
- Specimen shelf, welded heavy gauge stainless steel
- Removable stainless steel dissecting grid plates located over the drain trough
- Fluorescent, vapor-proof light with switch
- Polyethylene dissecting board (Photo Blue)
- GFCI waterproof electrical receptacles
- Dissecting area is sloped toward sink basin for rapid and positive drainage
- Heavy-gauge polished stainless steel leg assembly with welded cross rails to handle heavy-duty usage
- Wheel chair accessible
- * All measurements in inches/c

Optional Accessories

- Heavy-duty commercial disposal (3/4 hp, 1 hp, 2 hp)
- CO2 valves / oxygen valves / vacuum valves/compressed air valves
- Digital platform scale, 4 lbs./2 kg capacity, economy or premium grades available
- Computer monitor and keyboard stand premium or standard grades available
- CPU stand
- Flex arm halogen or incandescent lights
- Plexiglass splash shield
- Cassette holder
- Form holder
- Ventilated trash container
- Removable measuring rule
- Dictation machine w/footswitch or voice operations
- Dictation equipment stand
- Eyewash assembly
- Fluorescent magnifier light-3X
- Magnetic instrument holder
- Utility drawer
- GL125 base assembly w/cabinet
- Flammable storage cabinet
- End rinse assembly
- Rinse assembly valve
- Pull out writing platform
- Glove box holder

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TROUBLESHOOTING

Mixing faucet leaking

- Contact plumber to diagnose problem
- Replace faucet gasket seals

Sink not draining

- Check for debris in sink area
- Contact plumber to diagnose and clear drain if problem persist

Rust developing

- Check for standing water in rust area
 - remove standing water
- Check for non stainless metals left on rust areaFollow rust removal instructions
- Disposal not functioning
- See troubleshooting in Manufacturer Literature provided

GL117 Pathology Workstation w/Rear Exhaust

PATHOLOGY STATION BASES



Model GL120 and GL125 Pathology Station Bases

Grossing Station Table Bases feature all heavy-gauge Type 304 stainless steel construction with No. 4 satin finish. Adjustable leveling feet are provided on all corners. Units are custom fabricated to each customer's specifications. By providing the height, length and depth we can fabricate a unit which meets your exact needs.



Accessories

GL117 Pathology Workstation w/Rear Exhaust

The screen is designed to prevent evidence from being accidentally washed down the

drain. It is fabricated entirely from perforated

stainless steel with a stainless steel pull

handle. It is designed for use in 3.5 inch

Digital Scale

The Ohaus Compact Scale is ideal when cost matters and dependable results are a must. This uniquely designed scale is useful in a wide variety of applications, more than any other scale in its class. Easy operation, long battery life, and great performance make this product a truly remarkable value.



Stainless steel scale pole with mounting bracket for use with standard hanging autopsy scales. Pole can swivel left to right and includes locking knob to keep in desired position. Can be positioned to left, right or center of station depending on your preference.

Removable Measuring Ruler

It simplify the jobs, but you'll reach for them often as you discover new uses! They're "hands free" when used on steel bodies or sheet metal, allowing you to make the most accurate measurements quickly.



Rectangular Carboys with Spigot

Space-saving rectangular shape. Excellent chemical resistance, a good choice for storing and dispensing stock solutions.

Raised Dissecting Platform

Model LW380

Size in Inches 24 x 17 x 14 Fabricated entirely of polished stainless steel. Heavy gauge material provides a very stable work surface. Tray creased toward center drain. Drain has hose attachment to route flow to desired location. Height and width suitable for over the body placement.

IMPORTANT SOME ACCESSORIES CAN ONLY **BE PROVIDED AT THE TIME OF ORIGINAL ORDER.**



Organ Rinse Basket

Evidence Screen

Model LW485

diameter drains.

Model LW487 The organ rinse sink basket is designed to hang on the interior of the sink basin and ideal for rinsing organs. It is fabricated of stainless steel with a perforated bottom.

Magnetic Instrument Holder

conveniently store and organize your most common used instruments within arms reach. Be sure to contact us for your instrument needs. We have a wide range at competitive prices.







Emergency Eyewash Hose Assembly

Hand control spray to provide a gentle of water to rinse eyes of foreign debris. Includes bracket for spray handle and coiled hose.

Dissecting Boards

Dissecting Boards are manufactured from high density polyethylene which provides an excellent cutting surface. All top edges are chamfered and all bottom corners have a non-skid rubber bumper attached. Color is opaque white.

Size in Inches	Order No.	
24 x 18 x 0.75 thick	LW385	
18 x 12 x 0.75 thick	LW386	
20 x 15 x 0.75 thick	LW387	
20 x 15 x 0.50 thick	LW389	
Photo Blue Board		
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1/2 H.P. DISPOSER MODELS

Heavy-duty disposer designed for continuous operation in restaurants, hotels, hospitals and cafeterias. Food waste including steak bones is quickly and efficiently removed with this labor-saving, self-cleaning, environmentally sound disposer.

SPECIFICATIONS

- Grind Chamber: Corrosion Resistant Stainless Steel
- Mounting: 3/4" (19.1 mm) rubber mounting above grinding chamber isolates sound and eliminates vibration. Mounting is enclosed in chrome plated covers for sanitation and appearance.
- Motor: 1/2 HP Induction Motor, 1725 RPM, totally enclosed to provide protection against outside moisture. Controlled power air flow cools motor for efficiency and longer life. Built-in thermal overload protection.
- Cutting Elements: Stationary and rotating shredding elements made from cast nickel chrome alloy for long life and corrosion resistance, designed for reverse action grinding.
- Main Bearings: Double-tapered Timken roller bearings provide a shock absorbing cushion.
 Motor Seals: Triple lip seal protects motor from water damage. Secondary spring-loaded
- oil seal provides double protection against water and loss of grease.
- Finish: All Stainless Steel and Chrome plated. Paint-free for lasting sanitation.
- Warranty: 1 year full warranty from date of installation.
- A Disposer Package Includes: 1 Mounting/Bowl Assembly, 1 Electrical Control, 1 Syphon Breaker, 1 Solenoid Valve, and 1 Flow Control Valve. The standard Flow Control Valve will be sent with the unit unless the optional valve is specified.

DIMENSIONS

IMPORTANT: Use dimension chart below for adaptor height in place of InSinkErator bowl sink height when mounting directly to a sink.

Adaptors	х	Y	z	Heig
No. 5		andard Sink Op 4" (88.9 mm – 10		2-3/4 (69.9 n

Height 2-3/4" (69.9 mm)

NOTE:

- Adaptors are available upon request for all competitor sink bowls or cones.
- Please have sink bowl/cone type with the necessary dimensions when ordering adaptors.



Mortech™ Manufacturing Inc. 411 North Aerojet Avenue, Azusa, CA 91702 (626) 334-1471 www.mortechmfg.com Disposal Switch (shown right) allows you to activate the Solenoid (shown below) injecting the flow of water to the disposal.







SPECIFICATIONS GRIND CHAMBER

Corrosion Resistant Stainless Steel

MOUNTING

3/4" rubber mounting above grinding chamber isolates sound and eliminates vibration. Mounting is enclosed in chrome plated covers for sanitation and appearance.

MOTOR

The Induction Motor is totally enclosed to provide protection against outside moisture. Controlled power air flow cools motor for efficiency and longer life. Built-in thermal overload protection.

CUTTING ELEMENTS

Stationary and rotating shredding elements made from cast nickel chrome alloy for long life and corrosion resistance, designed for reverse action grinding.

MAIN BEARINGS

Double-tapered Timken roller bearings provide a shock absorbing cushion.

MOTOR SEALS

Triple lip seal protects motor from water damage. Secondary spring-loaded oil seal provides double protection against water and loss of grease.

FINISH

All Stainless Steel and Chrome plated. Paint-free for





Heavy Duty Disposal

INSINKERATOR

DIVISION OF EMERSON ELECTRIC COMPANY 4700 21st STREET RACINE, WI 53406 TEL: 414 554-5432 1-800-558-5712 FAX: 414 554-8917 For additional information, see Commercial Product Information Binder.

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Heavy duty disposal

The Insinkerator commercial food waste disposer is UL Listed when installed in conjunction with Insinkerator mounting adapters and controls (see Figure 1 below for a typical installation).

Important– These installation instructions are for the benefit of the installing contractor. Insinkerator and/or Insinkerator Factory Authorized Service Centers do not make original installations. For technical information not covered in these instructions, contact the supplier, an Insinkerator Field Sales Representative, or the Insinkerator Factory in Racine, Wisconsin at 1 (800) 558-5712 CST 7:30 am - 4:30 pm.

CLEAN THE DRAIN LINE

With a drain line auger, clear away all hardened waste material in the horizontal drain pipe running from the drain trap to the main waste line.



TYPICAL INSTALLATION

A typical commercial disposer installation incorporates the following connections

(see Figures 1 above and 9 on next page):

- Water shut off valve
- Syphon breaker
- Solenoid valve
- Start/stop switch
- Sink or trough
- Flow control valve

REQUIRED TOOLS/MATERIALS

The following items are needed to install the disposer:

- Screwdriver
- Adjustable wrench
- Pipe wrench
- Wire nuts
- 7/16" nut driver
- The following items may be needed to install the disposer:
- Plumbing putty
- Hacksaw
- Drain auger

Insinkerator Heavy Duty Disposal

OPERATING INSTRUCTIONS Operating the Disposer

- 1. Make sure there are no foreign objects in the disposer grind chamber. Do not pre-load the disposer with food waste prior to starting.
- 2. Push the start button on the control switch. The disposer will run and water will flow into the disposer.
- 3. Feed food waste into the disposer in a steady, continuous flow.
- 4. When all food waste is flushed away, push the stop button on the control switch.

Grinding Tips

- Ensure that a steady stream of cold water runs into the disposer while it is operating (see Table 2 for the recommended cold water flow).
- Do not overload the disposer or turn it off with food waste inside the grind chamber. Run the disposer and water for three minutes after the final load to flush away all food waste.

WARNING

Personal Injury

- Food waste disposers are designed to grind and dispose of normal food waste. Inserting materials or items other than food waste into the disposer could cause personal injury and/or disposer damage.
- To reduce the risk of injury from materials that may be expelled from the disposer grind chamber, ensure that the disposer baffle is properly installed.
- To prevent the ejection of food waste and to keep foreign material out of the grind chamber, replace the splash baffle when it becomes worn.

Fire Hazard

To minimize the possibility of fire, do not store flammable items near the disposer. Do not use or store gasoline or other flammable liquids near the disposer.

Electric Shock

- Disconnect the electrical supply before servicing the disposer.
- Ensure the disposer and controls are properly grounded.

PLUMBING

Drain Line Connections

To allow easy access to overload reset button, the disposer plumbing should be connected with the electrical control box facing the operator.

When connecting the drain line, place the "P-trap" as close to the disposer outlet flange as possible. Do not connect the drain line to a grease trap, interceptor, or drum trap. All horizontal runs should be as short as possible, with a minimum fall of 1/4-inch per foot.

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Property Damage

These plumbing instructions were written for an experienced competent installer. If the installer is not experienced in plumbing installation, Insinkerator recommends that competent professional assistance is sought. Damage to the disposer or accessories as a result of improper installation is not covered under warranty. All installations must comply with local plumbing codes.

Water Supply Connections

When connecting the disposer to the incoming water supply, use as few elbows and tees as possible. Connect to the cold water line only. All water line fittings are 1/2" NPT except the sink bowl nozzles (1/2" compression). Install the flow control valve, water solenoid valve, and the syphon breaker according to the direction of the flow arrows marked on each valve body (see Figure 9).

NOTE: A syphon breaker must be installed above the sink flood plane per local plumbing codes.

Table 2: Recommended Cold Water Flow and





	Disposer	Water Flow	Drain Line
		GPM (Liters)	Diameter
	SS-50	3 (11)	1 1/2"
\	SS-75	3 (11)	1 1/2"
	SS-100	5 (19)	1 1/2"
	SS-150	7 (26)	2"NPT
	SS-200	7 (26)	2" NPT

Routing Water Flow

- In a trough system, route all water flow to the end of the trough to flush food waste.
- In a sink bowl system with an SS50 to SS-100 (3-5 GPM), route all water through the sink bowl (see Table 2).
- In a sink bowl system with an SS-200 (7 10 GPM), route water through the sink bowl and the disposer body inlet.

ELECTRICAL

WARNING - Electrical Shock

- Turn off the electrical supply to the disposer before servicing. Test the circuit with a volt meter or circuit tester to ensure the power is off.
- All control centers and disposers must be grounded.
- A properly fused disposer control (with a marked "off" position) that disconnects all ungrounded supply conductors must be installed at the electrical supply source.

Personal Injury/Property Damage

If the electrical installer is not experienced in electrical installation, we recommend seeking competent professional assistance. Disposer or accessory damage due to improper installation is not covered under warranty. All installations must comply with local electrical codes.

Property Damage

- Disposers shipped from the factory are not wired for a specific voltage. Refer to the motor connection wiring diagram in the terminal box for voltage instructions.
- Ensure the disposer motor voltage and phase match that of the electrical supply. Electrical Shock. Be careful not to pinch or damage the electrical wires when installing the terminal box.

Electrical Connections

To connect the disposer to the electricity:

- 1. Remove the screw in the center of the disposer terminal box.
- 2. Pull the terminal box out of the stainless-steel trim shell.
- 3. Connect an electrical conduit connector to the hole in the bottom of the exposed wiring compartment.
- 4. Connect the ground wire to the ground screw.
- 5. Connect the incoming wires to the motor leads. Make sure the wiring connections are the same as those on the motor control wiring diagram for your specific control.
- 6. Reinstall the terminal box cover on the trim shell.

WARNING - Electrical Shock

Be careful not to pinch or damage the electrical wires when installing the terminal box

NOTE: Complete electrical information is located inside the disposer terminal box.

7. Test the disposer to ensure the cutting elements revolve and the water flows automatically. Make sure the disposer is securely mounted and does not leak from any of the connections.



Insinkerator Heavy Duty Disposal

INSTALLING THE DISPOSER WARNING

Personal Injury

- For safe operation, install the disposer in compliance with the minimum distance.
- Moving shredder parts may cause serious injury if a hopper or cone is not properly installed. Figure 2: Distance from Table Top to Mounting Flange

Required Mounting Area

A = The minimum required distance from the table top or trough to the mounting flange is 6 inches for standard body disposers (as specified by UL) (see Figure 2).

Insinkerator recommends a minimum countertop thickness of 16 gage stainless steel.

STANDARD INSINKERATOR MOUNTINGS # 5 MOUNTING ASSEMBLY

Follow these instructions to install a #5 sink flange to a standard 3 1/2 - 4 inch sink opening.

1. Unscrew the three backup screws (6) until they are flush with the upper mounting flange (5) surface. Pry the retainer ring (7) free from the strainer flange (2) with a screwdriver and separate all mounting assembly parts (2 - 7).

Adapter	SS-50	SS-75	SS-100	SS -150	SS-200
No. 5	Х	Х	х	х	Х
No. 5 short	Х	Х	Х	Х	Х
X= Approved 0= Not Allow				ercial Dispo oter Combin	

2. Form a 3/4" thick ring of top grade oil base putty around the sink opening (use non-hardening putty). Insert the strainer flange (2) into the sink opening and press firmly in place. Clean away any excess putty.

3. From underneath the sink, place the strainer flange gasket (3), backup flange (4) - flat side up, and upper mounting flange (5) over the strainer flange and hold them up to the sink. Snap the retainer ring (7) into the groove on the strainer flange to hold the mounting parts in place.

4. Tighten the three backup screws evenly until the backup flange draws snugly against the underside of the sink and the strainer flange is held securely in place.

5. Place the body flange (9 - lugs upward) over the lip of the mounting flange (10) and fit the mounting gasket

(8) onto the lip.

6. Place the mounting gasket

(11) on the disposer body flange. Secure the mounting flange (10) to the disposer body flange with six screws (12) provided.

7. Raise the disposer to the upper mounting flange (5) so the body flange (9) is positioned with the lugs to the right of the screws.

8. While supporting the disposer, turn the body flange (9) to the right until all three lugs are engaged in the mounting flange (5). Swivel the disposer to align the discharge outlet with the drain trap. The disposer can be turned 360 degrees.

9. Align the disposer to the plumbing connection and insert the service wrench into the left side of a lug and continue to turn the body flange to the right (approximately one quarter turn) until it locks onto the notches on the upper mounting flange.

NOTE: Special mounting instructions are included in the #5 Short Mounting Kit.

Wiring Diagrams



Electrical Connections

The electrical diagram is recommended for the most commonly used accessory combinations.

NOTES:

- All electrical connections must comply with local electrical codes.
- Pressure switches may be connected across the line at 5 horsepower or less.
- A time delay may only be used with a water solenoid valve.

DANGER

Property Damage

• Ensure that the control center voltage and phase match the disposer motor and electrical supply. Check name plates on disposers and control centers for voltage and phase specification.

Insinkerator Heavy Duty Disposal

• The disposer motor wiring connection is shown in the disposer terminal box.

DANGER

Electrical Shock

- Turn off all electrical supply to the disposer before attempting any work on it. Use a voltmeter or circuit tester to ensure power is off.
- Installation must conform to all local electrical codes.
- All control centers and disposers must be carefully and permanently grounded.
- A properly fused disconnect must be installed at the electrical supply source for the control center. Property Damage
- Ensure that the control center voltage and phase match the disposer motor and electrical supply. Check nameplates on disposers and control centers for voltage and phase specification.
- The disposer motor wiring connection is shown in the disposer terminal box.

NOTE: Do not use this diagram to connect an

optional reversing control. Refer to the diagram shipped with the disposer or control.



Do not wire the solenoid valve in series with the dispenser motor. Follow the wiring diagram shipped with the disposer.

When a grounded power input line is used as one of the supply lines it must be connected to the wire group containing lead #1

Commercial Disposer Limited Warranty

The Insinkerator Commercial disposers are warranted against defects in material and workmanship for one year from the date of installation. The warranty includes parts and labor, provided an Insinkerator Factory Authorized Service Center performs the service. This warranty does not apply if the

failure is due to: faulty or improper electrical installation, faulty or improper plumbing installation, product abuse or misuse, accidental damage, grinding elements jammed by foreign objects, clogged drain lines, or an improperly sized unit (as specified by Insinkerator). Commercial disposer accessories are included in this warranty only if they are included in the original disposer purchase package.

SINK MOUNTS

NO. 5 SINK FLANGE MOUNTING ASSEMBLY

- 3 1/2" 4" Sink Opening
- No Welding Required



SHORT NO. 5 SINK FLANGE MOUNTING ASSEMBLY

- 3-1/2" 4" Sink Opening
- No Welding Required
- 2-1/2 " shorter for limited space under sink



Heavy duty disposal



Insinkerator Heavy Duty Disposal

TROUBLESHOOTING

PROBLEM

The disposer will not start and water does not flow.

The disposer will not start but water flows.

complete the following steps:

POSSIBLE CAUSE

No incoming power.

The disposer overload protector is tripped. The disposer is jammed.

SOLUTION

Turn on electrical supply.

Turn control to the off position and press the red reset button on the disposer. Turn the control to the off position and

1. Insert dejamming bar (not supplied) slot down through the sink opening. Place the slot over one end of the raised bars found on the top of the rotating shredder.

2. Using an adjustable wrench or a pipe wrench for leverage, twist the dejamming bar back and forth to free the jam. The rotating shredder should revolve freely when the jam is released.

3. Remove all foreign material that caused the stoppage.

4. Allow the disposer to cool for 3-5 minutes after it stops running. Press the red reset button to reset the overload protector. Never strike the reset button with an object.

5. If the disposer remains inoperative after following these steps, contact the nearest Insinkerator Factory Authorized Service Center. You may obtain the telephone number of the Service Center nearest you by calling 1-800-558-5700.

See The disposer is jammed, above.

Turn the control to the off position and press the red reset button on the disposer. If the disposer was running, allow the unit to cool for 3-5 minutes before pressing the red reset button. Never strike the reset button with an object.

Reinstall the water solenoid valve with the arrow on the valve pointing in the direction of the water flow.

Do not overload disposer with excessive amounts of food waste. Troubleshooting for problems other than what is listed below should be performed by a qualified service person. Troubleshooting performed by untrained personnel could result in electrical shock or damage to the disposer. Disconnect power before servicing.

The disposer motor stops while grinding, but water continues to flow.

The water flows continuously before the controls are turned on.

Overload protector trips frequently.

Disposer is overloaded with food waste.

The disposer is jammed.

The disposer overload

protector is tripped.



T&S B-0225-LN WALL MOUNT FAUCET

HOT/COLD MIXING FAUCET

T&S DECK MOUNT FAUCET w/GOOSENECK NOZZLE Model #B-0225-LN

T&S SWIVEL MODEL # 059X 6" Swing Nozzle ASM

T&S Model #B-0413



Model #B-0225-LN



T & S BRASS AND BRONZE WORKS, INC.

MODEL # 059X 6" Swing Nozzle ASM (Figure-C)



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T&S SWIVEL GOOSENECK SPOUT ASSEMBLY



T & S BRASS AND BRONZE WORKS, INC. MODEL # 059X 6" Swing Nozzle ASM

T & S BRASS AND BRONZE WORKS, INC.

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Figure-D

MODEL # B-0103-01 Rosespray (Figure-B)

SPRAY FACE



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Health Hazard, Anti-Siphon, Spill-Resistant Backflow Preventer

Series 008PCQT is designed for indoor point-of-use applications to prevent backsiphonage of contaminated water back into the potable water supply. Separation of the water supply from the air inlet is accomplished by means of a diaphragm seal. This feature protects against any spillage during start-up or operation.

Features

- Standardly supplied with internal polymer coating
- Standardly supplied with Tee handles

• Available less Tee handle with stem wrench flats. For use where space is limited

- Available in left-handed or right-handed outlet
- Patented design
- Spill-resistant design for indoor use
- Affordable design
- Modular cartridge for ease of service
- Vent uses an O-ring for reliable operation
- Bronze body for durability
- Compact space saving design
- Satin chrome finish available
- Available with strainer

Installation

The 008PCQT is designed to be installed at the point of use. When factory installed deck/machine mounted on machines or equipment, the critical level of the 008PCQT shall be not less than 1" (25mm) above the flood rim. If field applied for general plumbing applications, the critical level of the 008PCQT shall be a minimum of 6" (150mm) above the flood rim.

Specifications

A spill-resistant vacuum breaker (SVB) shall be installed, in accordance with the manufacturer's instructions, as noted on the plans. The valve shall consist of a one-piece modular



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Component Data



check and float assembly made of engineered thermoplastic and housed in a bronze body. Springs shall be stainless steel. The valve shall be constructed with a molded diaphragm separating the air inlet from the potable water supply to prevent spillage. The valve shall be a Watts Series 008PCQT.



Technical Specifications

LIQUID-TUFF[™] UL Liquidtight Flexible Non-Metallic Conduit (Type LFNC-B)

Scope

This specification covers AFC Cable Systems, Inc. UL LIQUID-TUFFTM Integral Liquidtight Flexible Non-Metallic Conduit, Type LFNC-B designed for use in wet, dry or oily locations as a flame resistant, non-metallic raceway for power, control and communications cables in compliance with Article 356 of the National Electrical Code. The product is UL Listed for 80°C (176°F) in a dry location, 60°C (140°F) in a wet location and 70°C (158°F) in an oily location. It is also UL Listed through 2-inch trade sizes for direct burial, outdoor use and sunlight resistance. In addition the product is CSA certified for use at 75°C (167°F) in dry and oily locations and for minus 18°C (0°F) low temperature applications. This Liquidtight Flexible Non-Metallic Conduit is manufactured and tested in accordance with Underwriters Laboratories Inc. Standard UL 1660 and CSA International Standard CSA C22.2 Number 227.2. The product carries the UL Listing Mark and the CSA Certification Mark.

Construction

Liquidtight Flexible Non-Metallic Conduit, Type LFNC-B is a raceway of circular cross section with a smooth polyvinyl chloride (PVC) inner surface and an integral reinforcing member within the conduit wall. The wall thicknesses and dimensions of the integral conduit shall comply with Table 6.4 of UL 1660 and Table 1B of CSA C22.2 No. 227.2 which are summarized in Table 1.

Grounding

A separate Grounding conductor is required by both the National Electrical Code and the Canadian Electrical Code for all trade sizes.

Markings

The outer surface of the conduit shall be clearly marked with a legible print legend in accordance with UL 1660 and CSA C22.2 No. 227.2.



Performance Tests

The completed UL LIQUID-TUFFTM Liquidtight Flexible Non-Metallic Conduit, Type LFNC-B shall meet all of the performance requirements contained in UL 1660 and CSA C22.2 No. 227.2 and outlined in

Appendix A.

• Package lengths in excess of 100' contain splices; these splices must be cut out before use.

Reference Standards

UL 1660	Standard for Liquidtight Flexible
	Non-Metallic Conduit
CSA C22.2 No. 227.2	Standard for Flexible Liquidtight
	Non-Metallic Conduit
UL File References	UL E123464; CSA 69271
NEC®Articles:	356, 390.15, 501.10(B)(2),
	502.10(A)(2),
	503.10(A)(2), 511.7(A)(1), 620.21,
	645.5(D)(2), 680.21, 680.23, 680.25,
	680.27, 680.42, 695.6(E) and 695.14(E)

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Component Data



Feature & Specifications

The 3100 series is a thine profile electronic under-cabinet fixture designed for under-cabinet applications where space is limited.

- Finished in baked white enamel
- White ribbed acrylic diffuser
- 1-3/4" Ultra-slim styling creates unobtrusive hidden light source for a variety of task lighting applications
- UL listed for damp locations

General Characteristics

Lamp type	T8 linear fluorescent
Ballast type	Electronic
Standard Voltage	120 (277 or universal
	120-277 optional)
Options	Convenience outlet, rocker switch.
	6' SIT grounded cord & plug
Mounting	Under cabinet
Additional info	UL listed





FLUORESCENT LIGHTING

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Features and Benefits:

Lockout Action

- Automatically tests every time the RESET button is pushed.
- The trip latching mechanism in SmartLockPROGFCIs is a one-piece "T" design for efficient operation
- There are 4 sets of contacts for load terminals and face. SmartLockPROGFCIs use a patented bifurcated bridge contact for efficient operation
- The SmartLockPROGFCI with lockout action is designed and patented by Leviton

General

- Trip threshold meets or exceeds UL requirements for tripping time
- Improved immunity to high-frequency noise reduces nuisance tripping
- Impact-resistant thermoplastic cover and body

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Component Data

- Advanced electronics design provides superior resistance to electrical surges and over-voltages
- Expanded wiring options with nine back-wire holes (two for each line and load connection plus one for ground with an internal clamp)
- Silver alloy contacts
- Versions available with matching TEST and RESET buttons and traditional black and red models
- Compatible with all Decora®devices and wallplates; available in select Decora colors
- Hospital Grade and Blank Face Switch-Rated models available
- Packed with coordinating wallplate
- Backed by Leviton's Limited Two-Year Warranty Agency Standards & Compliance:
- Meet or exceed all new UL requirements for July 28, 2006
- UL Standard 943 Class A (GFCI) and 498 (Receptacles)
- UL Listed (File # E-48380)
- CSA Certified (File #LR-57811
- NOM Certified (File #057)

Material Characteristics

Environmental: Flammability UL-94 V2 Rating Operating Temperature: -35°C to 65°C





Clockwise 2/3 of the way around screw

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SWITCH

20A, 120/277V, Grounding, Premium Single Pole Toggle Switch, UL, Federal Specification, CSA, Tested To 25000 On/ Off Cycles, Screw Pressure Plate Back & Side Wire Termination Accepts #14 Through #10 Awg Stranded & Solid Copper Wire, High Impact Resistant Thermoplastic Constructions, Commercial/Specification Grade, Window Box.

Product Features:

Ground: Amperage: Voltage: HP Rating: Max Amp: Termination: Actuator Material: Body Material: Strap Material: Standards and Certifications: Grounding 20 Amp 120/277 Volt 1HP-120V 2HP-240V-277V 16 Amp Side Thermoplastic Thermoplastic Steel UL/CSA





Component Data



RECEPTACLE COVER

Type: Vertical Color: Gray

- Heavy Duty Die Cast Metal Construction
- Patented Quick-Fit[™] Key Hole Mount for Easy Installation
- Patented Universal-Fit[™] Adapter Technology
- Lockable Tab
- Premium Powdercoat Finish
- Spring Hinge Closure
- UL Listed & 2008 NEC Compliant





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T & S BRASS AND BRONZE WORKS, INC.

MODEL # B-1025 End rinse assembly control valve (Figure-A)

Control valve sets the flow.



MODEL # B-1025

(Figure-A)

Mortech[™] Manufacturing Inc.

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T & S BRASS AND BRONZE WORKS, INC.

MODEL #B-1025 control valve (Figure-A)







T&S HAND SPRAY ASSEMBLY

T & S BRASS AND BRONZE WORKS, INC.

MODEL # 013E 72" hose

T & S BRASS AND BRONZE WORKS, INC.

MODEL # 002858-40 Spray valve assembly



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MAINTENANCE INSTRUCTIONS MAINTENANCE SCHEDULE

The unit requires regular maintenance and follow the manufactures directions.

DISINFECTING AND CLEANING

Clean all surfaces of the stainless steel with a hard surface disinfectant/cleaner such as Sheila Shine® or SaniZene®. Follow instructions on container.

DISINFECTING AND CLEANING COMPONENTS AND ACCESSORIES

Hand wash with disinfecting soap and warm water. Rinse well with clear water and dry with a towel. (Clean on a regular basis to prolong work life).

WARNING

Improper maintenance can cause injury. Maintain only as prescribed in this manual.

Overall, it is very simple to maintain. If you use for its intended purpose, it will provide many years of reliable service.

CARE OF STAINLESS STEEL

Stainless steel products have a directional #4 brushed finish. This finish is produced using a very fine abrasive cloth. Dragging heavy equipment across the stainless steel surfaces will cause noticeable scratching. Pitting/corrosion can occur when carbon steel products are allowed to remain in contact with the stainless steel in the presence of moisture. (Examples- Steel Wool pads left in the bottom of the sink). Stainless steel can be damaged by exposure to acids.

TYPES OF SURFACE CONTAMINANTS

Dirt - Consist of accumulated dust and a variety of contaminates. Warm water with or without a gentle detergent is sufficient. Next in order are mild non-abrasive powders such as typical household cleaners. These can be used with warm water, bristle brushes, sponges, or cleaning cloths. (Do not use carbon steel brushes or steel wool they may leave particles embedded on the surface which can lead to RUSTING.) For more aggressive cleaning, a small amount of vinegar can be added to the scouring powder. When water contains mineral solids, which leave water spots, it is advisable to wipe the surface completely with dry towels.

Fingerprints and Stains - Fingerprints and mild stains resulting from normal use are the most common surface contaminates. This affect the appearance and seldom have an effect on corrosion resistance. They can be removed with a glass cleaner or by gentle rubbing with a paste of soda ash (sodium carbonate) and water applied with a soft rag. Followed by a thorough warm water rinse and towel dry.

Shop Oil and Grease - These soils may be corrosive and may not allow the surface to maintain passivity, and so removal is a necessity. Soap or detergent and water may be used or a combination of detergent and water plus a solvent.

TYPES OF CLEANERS AND METHODS General Precautions

Avoid using abrasive cleaners unless absolutely necessary. A "soft abrasive," such as pumice, should be used. Many cleaners contain corrosive ingredients, rinse with clean water.

Clean Water and Wipe - A soft cloth and clean warm water should always be the first choice for mild stains, loose dirt and soils. A final rinse with clean water and a dry wipe will eliminate the possibility of water stains.

Solvent Cleaning - Organic solvents can be used to remove fresh fingerprints, oils and greases that have not had time to oxidize or decompose. The preferred solvent is one that does not contain chlorine, such as acetone, methyl alcohol, and mineral spirits.

EFFECTIVE CLEANING METHODS

Commercial Cleaners - Many commercial cleaners compounded from phosphates, synthetic detergents, and alkalis are available for the cleaning of severely soiled or stained stainless surfaces. When used with a variety of cleaning methods, these cleaners can safely provide effective cleaning.

SCRATCH REPAIR

Surface scratches can be repaired using the following technique. Depending on the severity of the scratch, it may be possible to completely remove it. Sand the scratch using 120 grit emery cloth or paper and firm pressure. Always sand in the direction of the grain. Avoid the natural tendency to sand in an arc, instead sand in a perfectly straight line. Sand until the scratch is gone.

Polish using 3M Scotch Brite pads - Very Fine Grade. Use the same motions as with sanding. Polish until the original finish is restored. Wash and wipe the surface completely with dry towels.

RUST REMOVAL

Rust can be repaired using the following technique. Sand the scratch using 120 grit emery cloth or paper and firm pressure. Always sand in the direction of the grain. Avoid the natural tendency to sand in an arc, instead sand in a perfectly straight line. Sand until the rust is gone.

Polish using 3M Scotch Brite pads - Very Fine Grade. Use the same motions as with sanding. Polish until the original finish is restored. Wash and wipe the surface completely with dry towels.



MAINTENANCE RECORD		
Date		By

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	TRAINING RECORD		
Date		Ву	

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Warranty

WARRANTY

Mortech Manufacturing warrants all fabrications to be free of defects due to its own workmanship and materials.

Repair and/or replacement of materials furnished that may develop such defects, will be warranted for a period of one year from the date of shipment.

Items not manufactured by Mortech Manufacturing will receive the manufacturer's warranty.

PARTS AND SERVICE

Customer relations and product support are important aspects of Mortech Manufacturing. For assistance with this or any of our fine products please contact us below: Mortech Manufacturing Company 411 North Aerojet Avenue Azusa, CA 91702 TEL (626) 334-1471 FAX (626) 334-1704 www.mortechmfg.com info@mortechmfg.com

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CAUTION

• Inspect unit and all components for any loosening that may have occurred during shipping •

DISCLAIMER

This manual contains general instructions for the use, operation, and care of this product. The instructions are not all inclusive. Safe and proper use of this product is solely at the discretion of the user. Safety information is included as a service to the user. All other safety measures taken by the user should be within and under consideration of applicable regulations. It is recommended that training on the proper use of this product be provided before using this product in and actual situation.

Retain this manual for future reference. Include it with the product in the event of transfer to new users. Additional free copies are available upon request from Customer Relations.

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