



## FOODSERVICE DISPOSER Installation Manual



### **⚠ DANGER**

The *Danger* signal indicates an immediately hazardous situation which, if not avoided, **will** result in death or serious injury.

### **⚠ WARNING**

The *Warning* signal alerts you to potential hazards or unsafe practices which, if not avoided, **could** result in severe personal injury or death.

### **⚠ CAUTION**

The *Caution* signal alerts you to hazards of unsafe practices which, if not avoided, **may** result in minor personal injury or property damage.

Please be certain that the person who installs or uses this appliance carefully reads and understands the Safety Instructions contained in this manual.

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## Warranty

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### FOODSERVICE DISPOSER LIMITED WARRANTY

The InSinkErator® Foodservice Disposers are warranted against defects in material and workmanship for one year from the date of installation. The warranty includes parts and labor, provided the service is performed by an InSinkErator Factory Authorized Service Center. This warranty does not apply if 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).*

InSinkErator Foodservice disposer accessories are included in this warranty only if they are included in the original disposer purchase package.

# Introduction

## INTRODUCTION

The InSinkErator Foodservice food waste disposer is UL® and CSA® Listed when installed in conjunction with InSinkErator mounting adaptors and controls (see Figure 1 for typical installation).

See Table 1 (page 4) for the approved disposer/mounting adaptor combinations. See Table 3 (page 9) for the approved disposer/control combinations.

**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 InSinkErator Foodservice Sales and Service at 1-800-845-8345.

## 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 Foodservice disposer installation incorporates the following connections (see Figures 1 and/or 9):

- Water shut off valve
- Syphon breaker
- Solenoid valve
- Start/stop switch (Control Center)
- 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

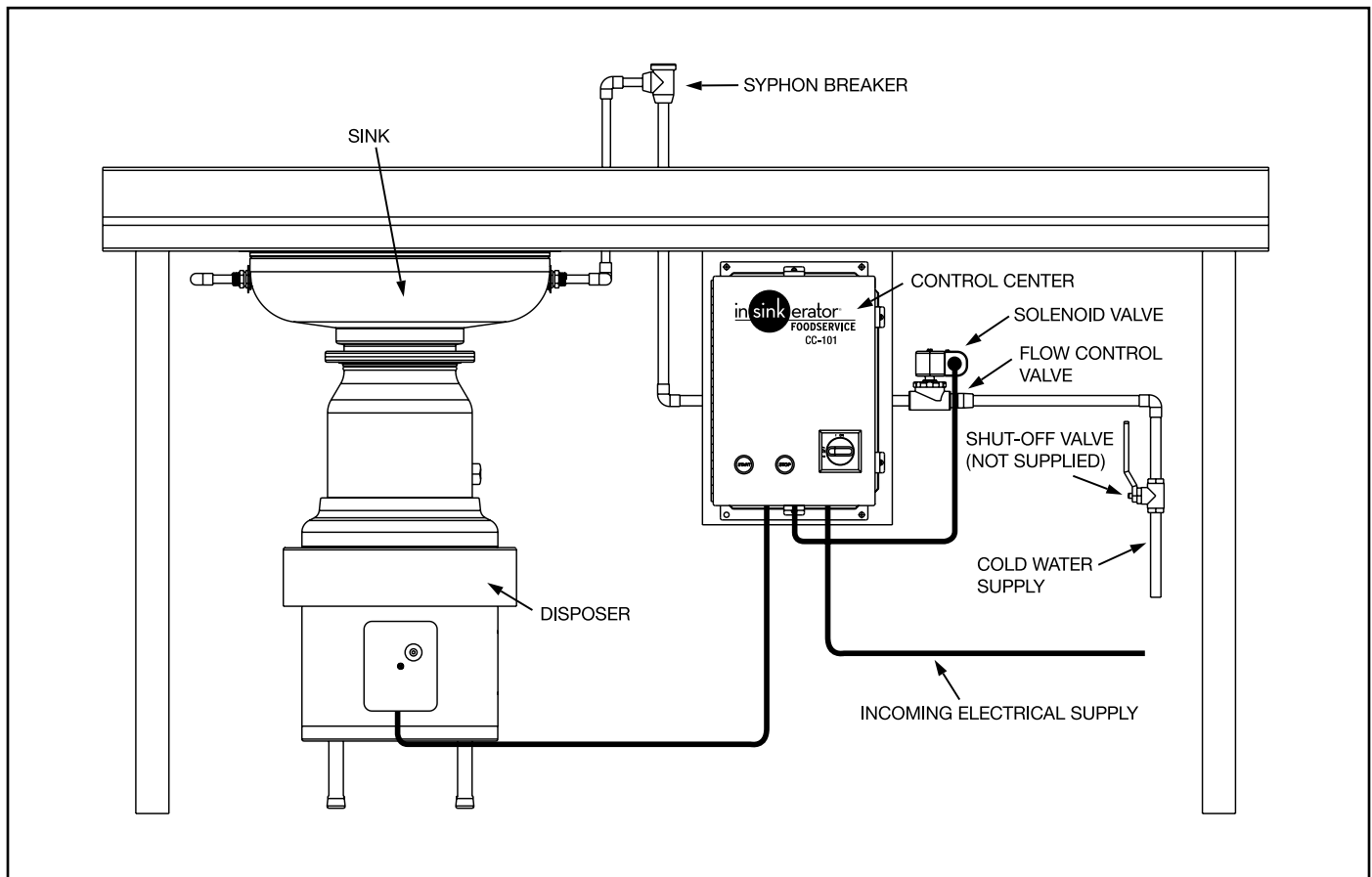


Figure 1. Typical Installation

# Installing the Disposer

## ⚠ WARNING

### PERSONAL INJURY

- For safe operation, install the disposer in compliance with the minimum distance illustrated in Figure 2.
- Disposer must be properly installed to prevent serious injury from moving shredder part.

## ⚠ CAUTION

### PROPERTY DAMAGE

To avoid excess vibration, InSinkErator recommends a minimum countertop thickness of 16 gage stainless steel.

## DISPOSER MOUNTING

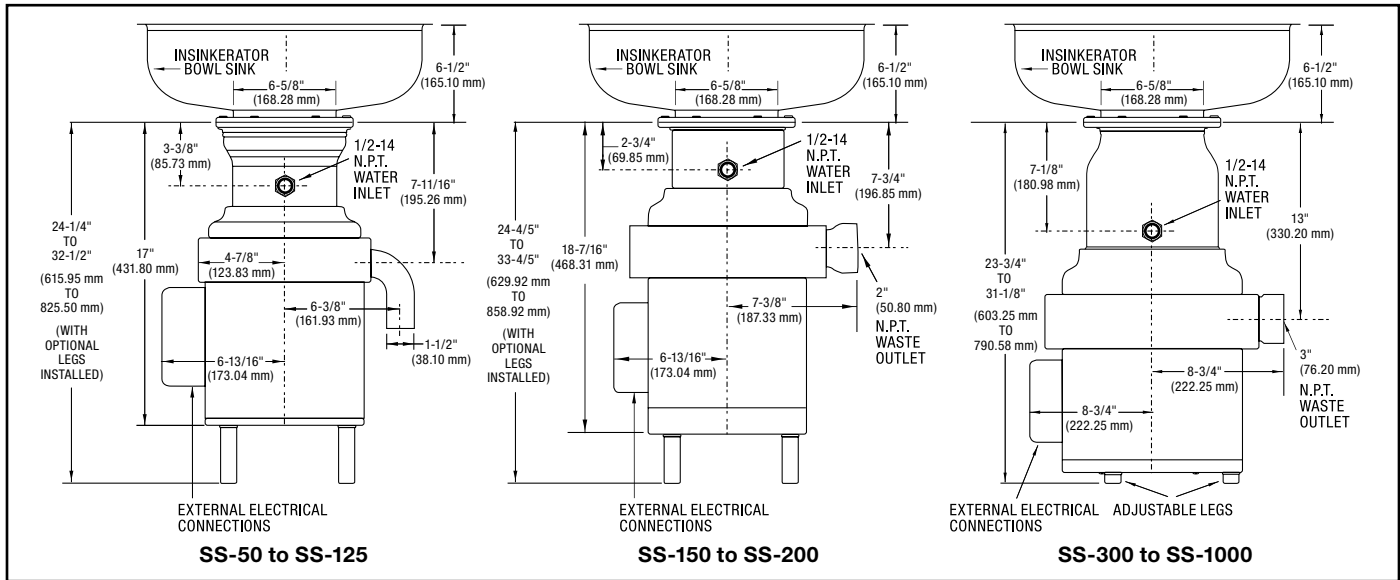


Figure 2. Distance from Table Top to Mounting Flange

## MOUNTING ADAPTORS

There are two adaptor categories for mounting InSinkErator disposers: Standard & Special Mountings. Table 1 displays the approved disposer/mounting adaptor combinations.

	Adaptor	SS-50	SS-75	SS-100	SS-125	SS-150	SS-200	SS-300	SS-500	SS-750	SS-1000
<b>STANDARD</b>	12" Sink	X	X	X	X	X	X	X	X	X	X
	15" Sink	X	X	X	X	X	X	X	X	X	X
	18" Sink	X	X	X	X	X	X	X	X	X	X
	No. 5	X	X	X	X	X	X	O	O	O	O
	No. 5 short	X	X	X	X	X	X	O	O	O	O
	No. 6	X	X	X	X	X	X	X	X	X	X
	No. 7	X	X	X	X	X	X	X	X	X	X
<b>SPECIAL</b>	Outward Flange	X	X	X	X	X	X	X	X	X	X
	Inward Flange	X	X	X	X	X	X	X	X	X	X
	Straight Flange	X	X	X	X	X	X	X	X	X	X
	Flange	X	X	X	X	X	X	X	X	X	X

Table 1. Foodservice Disposer/Mounting Adaptor Combinations

X= Approved  
O= Not Allowed  
(will void warranty)

## Standard InSinkErator Mountings

### #5 MOUNTING ASSEMBLY

Follow these instructions to install a #5 sink flange to a standard 3-1/2 to 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).
2. Form a 3/4" thick ring of top grade oil base putty around the sink opening (use a 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), back up 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 (9). 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 tap. 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.

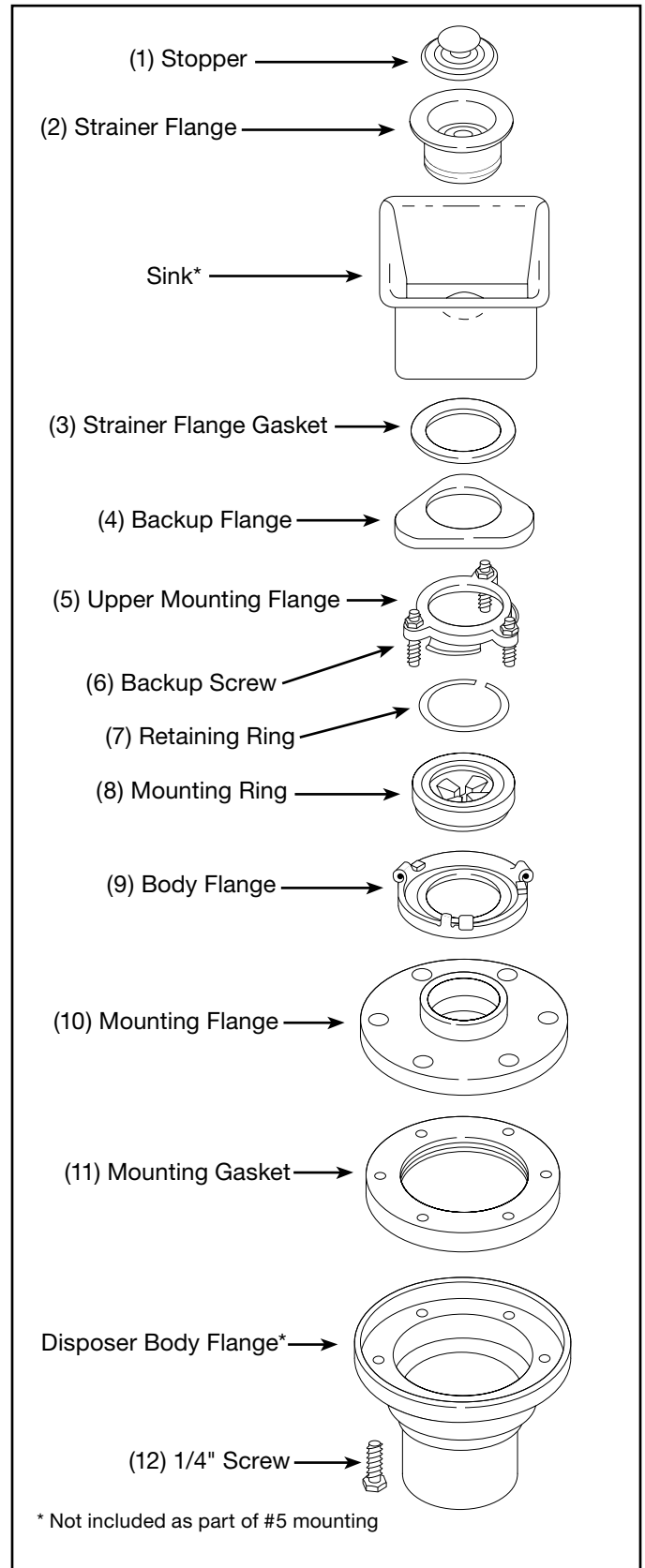


Figure 3. #5 Mounting Assembly

## Standard InSinkErator Mountings

### #6, #7, & SINK BOWL MOUNTING ASSEMBLIES

1. Place the mounting flange (1) over the existing collar adaptor connection lip or sink bowl flange (this may require some force).
2. Push the mounting flange up out of the way and fit the groove in the mounting gasket (2) onto the connection lip. Make sure the gasket is fully seated on the flange.
3. Push the mounting flange down over the mounting gasket, fitting the threaded mounting flange fasteners into the recesses in the top of the mounting gasket.
4. From the bottom, insert two screws through opposite sides of the flat gasket (3) and mounting flange, into the threaded fasteners in the existing flange. The flat gasket is used only in the #6 mounting assembly. The screws should protrude about 1/4 inch below the mounting gasket.
5. Position the disposer beneath the mounting gasket and raise it to engage the two protruding screws in the disposer body flange keyhole slots. Secure the remaining screws and position the disposer correctly for the plumbing connections. For SS150-SS1000 disposers, adjust the legs to support the disposer.

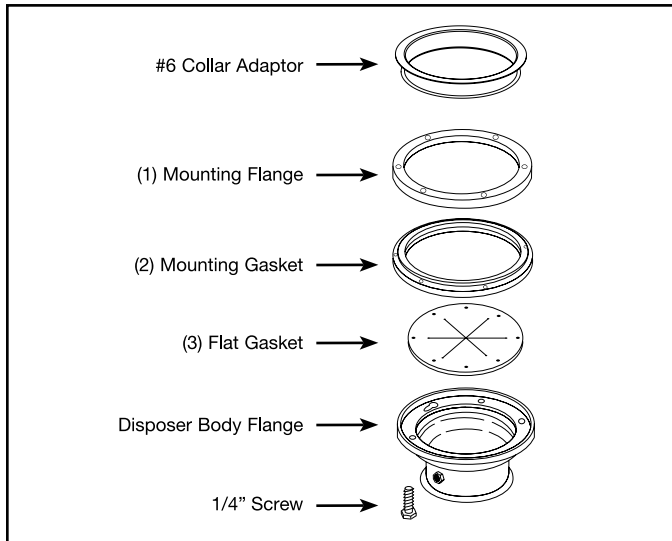


Figure 4. #6 Mounting Assembly

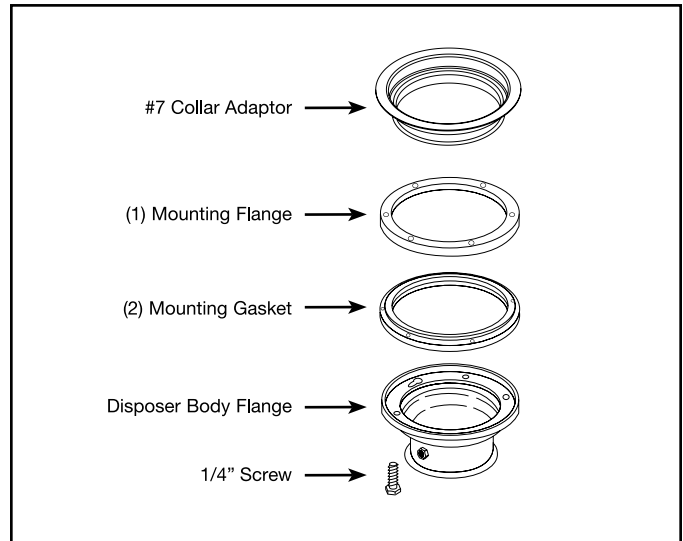


Figure 5. #7 or Sink Bowl Mounting Assembly

## Special InSinkErator Mountings

When installing an InSinkErator Foodservice disposer to a non-InSinkErator sink bowl, a special mounting adaptor kit is required. The special mountings are described in the Mounting Adaptor Selection Guide (for more information, call 1-800-845-8345, or go to [www.insinkerator.com](http://www.insinkerator.com)). Figures 6-8 show examples of non-InSinkErator sinks. (Mounting instructions are included in each special mounting adaptor kit.)

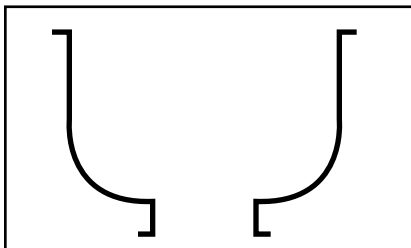


Figure 6. Outward Flange

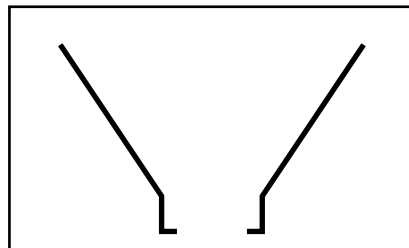


Figure 7. Inward Flange

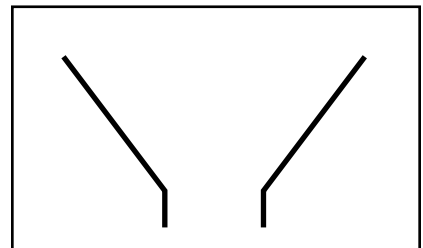


Figure 8. Straight Flange

## Plumbing Connections

### ⚠ CAUTION

#### 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.

### 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.

### 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.

### 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 route all water through the sink bowl.
- Table 2 provides Recommended Cold Water Flow and Drain Line Diameter.

Disposer	Standard Flow Control GPM (LPM)	Optional Flow Control GPM (LPM)	Drain Line Diameter
SS-50	3 (11)	NA	1-1/2"
SS-75	3 (11)	NA	1-1/2"
SS-100	5 (19)	3 (11)	1-1/2"
SS-125	5 (19)	3 (11)	2" NPT
SS-150	7 (26)	5 (19)	2" NPT
SS-200	7 (26)	5 (19)	2" NPT
SS-300	8 (30)	7 (26)	3" NPT
SS-500	8 (30)	7 (26)	3" NPT
SS-750	10 (38)	NA	3" NPT
SS-1000	10 (38)	NA	3" NPT

Table 2. Recommended Cold Water Flow and Drain Line Diameter

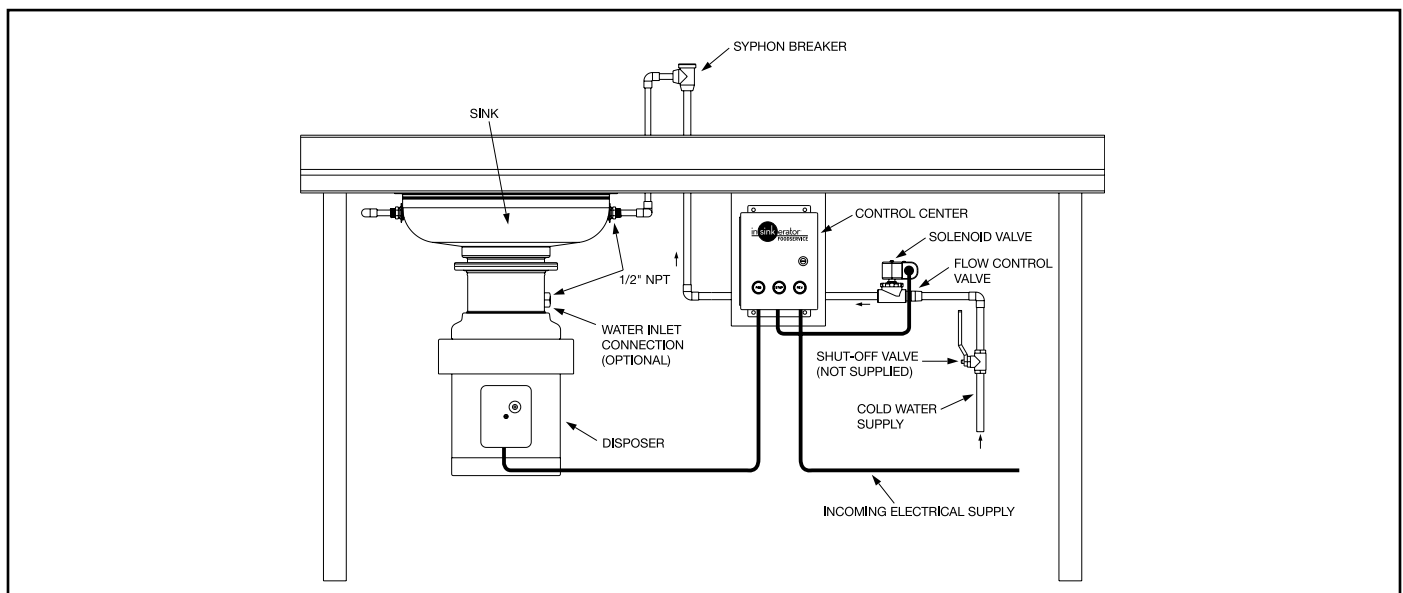


Figure 9. Installation Diagram

## Standard Motor Connection Wiring Diagrams

**NOTE:** The diagrams below show standard motor connection wiring for a manual switch operation. For alternate controls, please refer to the control panel installation manual.

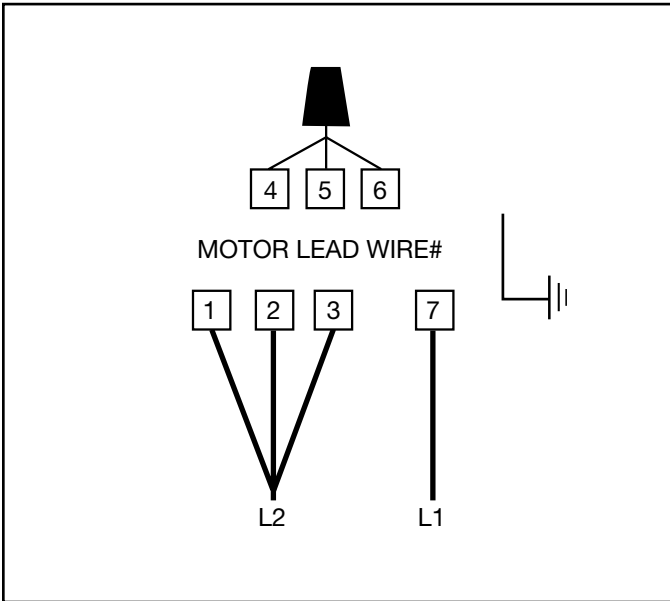


Figure 10. Incoming 115V Single Phase Line Power

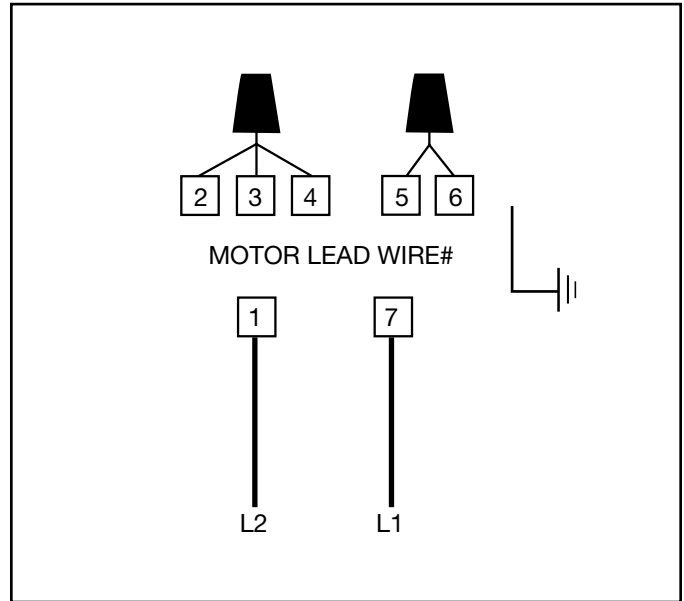


Figure 11. Incoming 208-230V Single Phase Line Power

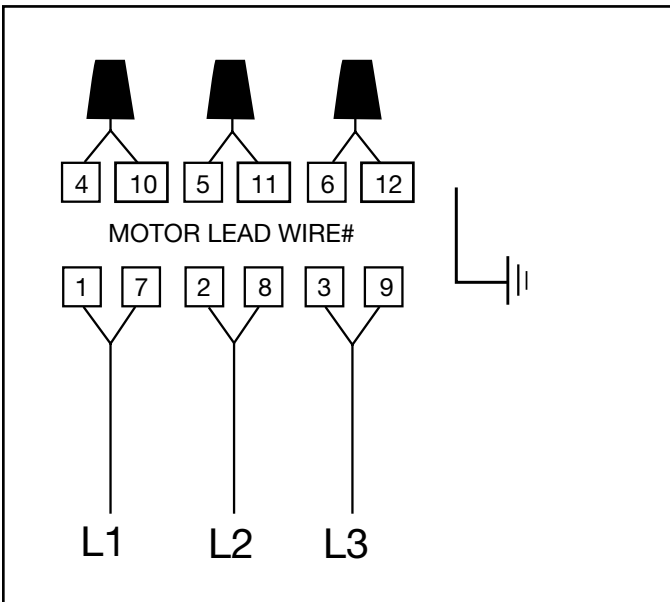


Figure 12. Incoming 208-230V Three Phase Line Power

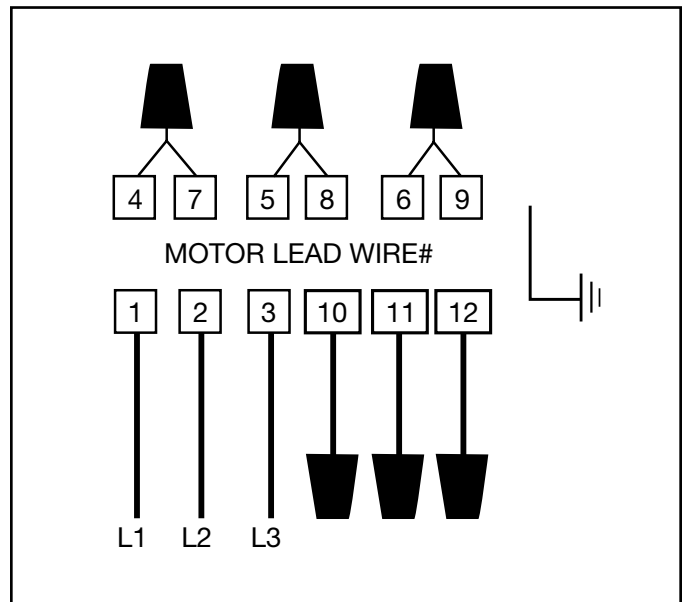


Figure 13. Incoming 460V Three Phase Line Power



## Electrical Connections

### **⚠ DANGER**

#### **ELECTRICAL SHOCK**

- Turn off the electrical supply to the disposer before servicing. Test the circuit with a voltmeter or circuit tester to ensure the power is off.
- Installation must conform to all local electrical codes.
- 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.

### **⚠ DANGER**

#### **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.

### **⚠ CAUTION**

#### **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.
- The disposer motor wiring connection is shown in the disposer 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 electrical connection diagrams (see page 8).

### **⚠ DANGER**

#### **ELECTRICAL SHOCK**

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

6. Reinstall the terminal box cover on the trim shell.
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.

#### **NOTES:**

- *Pressure switches may be connected across the line at 5 horsepower or less. Large horsepower motors require connection in the pilot circuit of a magnetic starter.*
- *The magnetic and manual starters supplied by InSinkErator do not require heaters to complete the circuit. InSinkErator disposers are equipped with overload protectors.*
- *A time delay may only be used with a water solenoid valve.*

# 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.

**NOTE:** The Manual Reversing Switch uses three-button operation (FWD/STOP/REV) to manually change disposer grind direction. The disposer will rotate in the direction of the button pushed. **DO NOT** restart disposer until the rotating shredder has come to a stop.

## 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.

## ⚠ CAUTION

### PROPERTY DAMAGE

Do not pre-load food waste into disposer before turning on. Pre-loading disposer with food waste can cause excessive strain and may loosen disposer mounting components, resulting in disposer separating from sink or trough.

## ⚠ DANGER

### 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.

## ⚠ DANGER

### ELECTRICAL SHOCK

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

## ⚠ 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 materials out of the grind chamber, replace the splash baffle when it becomes worn.
- Do not put any of the following items into the disposer: clam or oyster shells, drain cleaner, glass, china, plastic wrap, large bones, metal objects, explosive materials, extremely hot water, grease, oil, or syrup.
- Turn the power off before attempting to clear a jam, remove an object, or press the reset button.
- Do not insert your fingers into the disposer. Use long-handled tongs or pliers to remove objects from the disposer.
- Loosen any jams with the dejamming bar.
- Be certain that all persons who will operate the disposer read the safety and operating instructions prior to operating the disposer.
- To prevent accidents, ensure that the disposer is turned off before your leave the area.

## Troubleshooting

### ⚠ DANGER

#### **ELECTRICAL SHOCK**

Disconnect power before servicing.

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.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Disposer will not start and water does not flow.	<ul style="list-style-type: none"> <li>• No incoming water.</li> <li>• Electrical disconnect switch has been reactivated and 30-second delay has not yet expired.</li> </ul>	<ul style="list-style-type: none"> <li>• Turn on electrical supply.</li> <li>• Wait 30 seconds and try starting again.</li> </ul>
Disposer will not start but water flows.	<ul style="list-style-type: none"> <li>• Disposer overload protector is tripped.</li> <li>• Disposer is jammed.</li> </ul>	<ul style="list-style-type: none"> <li>• Turn control to off position and press red reset button on disposer.</li> <li>• Turn control to off position and complete following steps:               <ol style="list-style-type: none"> <li>1. Insert dejamming wrench (not supplied) slot down through sink opening. Place slot over raised bars found on top of rotating shredder.</li> <li>2. Twist dejamming wrench back and forth to free jam. Rotating shredder should revolve freely when jam is released.</li> <li>3. Remove all foreign materials.</li> <li>4. Allow disposer to cool for 3-5 minutes after it stops running. Press red reset button to reset overload protector. Never strike reset button with objects.</li> <li>5. If disposer remains inoperative after following these steps, contact nearest InSinkErator Factory Authorized Service Center (call 1-800-845-8345 to find Service Center nearest you).</li> </ol> </li> </ul>
Disposer motor stops while grinding, but water continues to flow.	<ul style="list-style-type: none"> <li>• Disposer is jammed.</li> <li>• Disposer overload protector is tripped.</li> </ul>	<ul style="list-style-type: none"> <li>• See "Disposer is jammed," above.</li> <li>• Turn control to off position and press red reset button on disposer. If disposer was running, allow unit to cool 3-5 minutes before pressing red reset button. Never strike reset button with objects.</li> </ul>
Water flows continuously before controls are turned on.		<ul style="list-style-type: none"> <li>• Reinstall water solenoid valve with arrow on valve pointing in direction of the water flow.</li> </ul>
Overload protector trips frequently.	<ul style="list-style-type: none"> <li>• Disposer is overloaded with food waste.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not overload disposer with excessive amounts of food waste.</li> </ul>