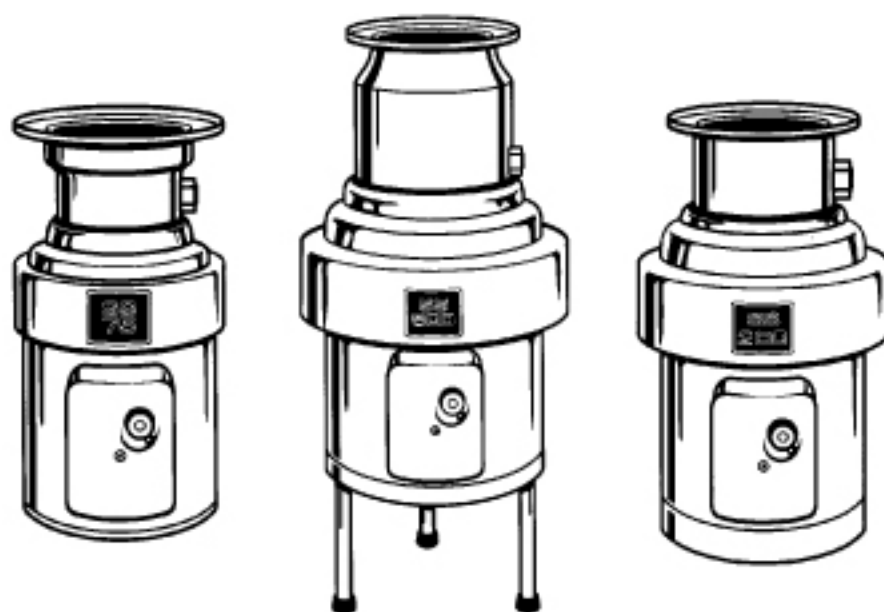


# INSINKERATOR®

## COMMERCIAL DISPOSER INSTALLATION, CARE & USE MANUAL



**⚠ 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 or unsafe practices which, if not avoided, may result in minor personal injury or property damage.

## COMMERCIAL DISPOSER LIMITED WARRANTY

In-Sink-Erator 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 the service is performed by an In-Sink-Erator 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, improperly sized unit (as specified by In-Sink-Erator).*

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

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# PRE-INSTALLATION

## INTRODUCTION

The In-Sink-Erator commercial food waste disposer is UL® approved when installed in conjunction with In-Sink-Erator mounting adapters and controls (see Figure 1 for a typical installation).

See Table 1 on page 3 for the approved disposer/mounting adapter combinations. See Table 3 on page 7 for the approved disposer/control combinations.

**Important** - these installation instructions are for the benefit of the installing contractor. In-Sink-Erator and/or the In-Sink-Erator Factory Authorized Service Centers do not make original installations. For technical information not covered in these instructions, contact the supplier, an In-Sink-Erator Field Sales Representative, or the In-Sink-Erator Factory in Racine, Wisconsin at 1 (800) 558-5712.

## TYPICAL INSTALLATION

A typical commercial disposer installation with a sink bowl incorporates the following connections (see Figures 1 & 9):

- Water shut-off valve
- Siphon breaker
- Solenoid valve
- Start/stop switch
- Sink or trough

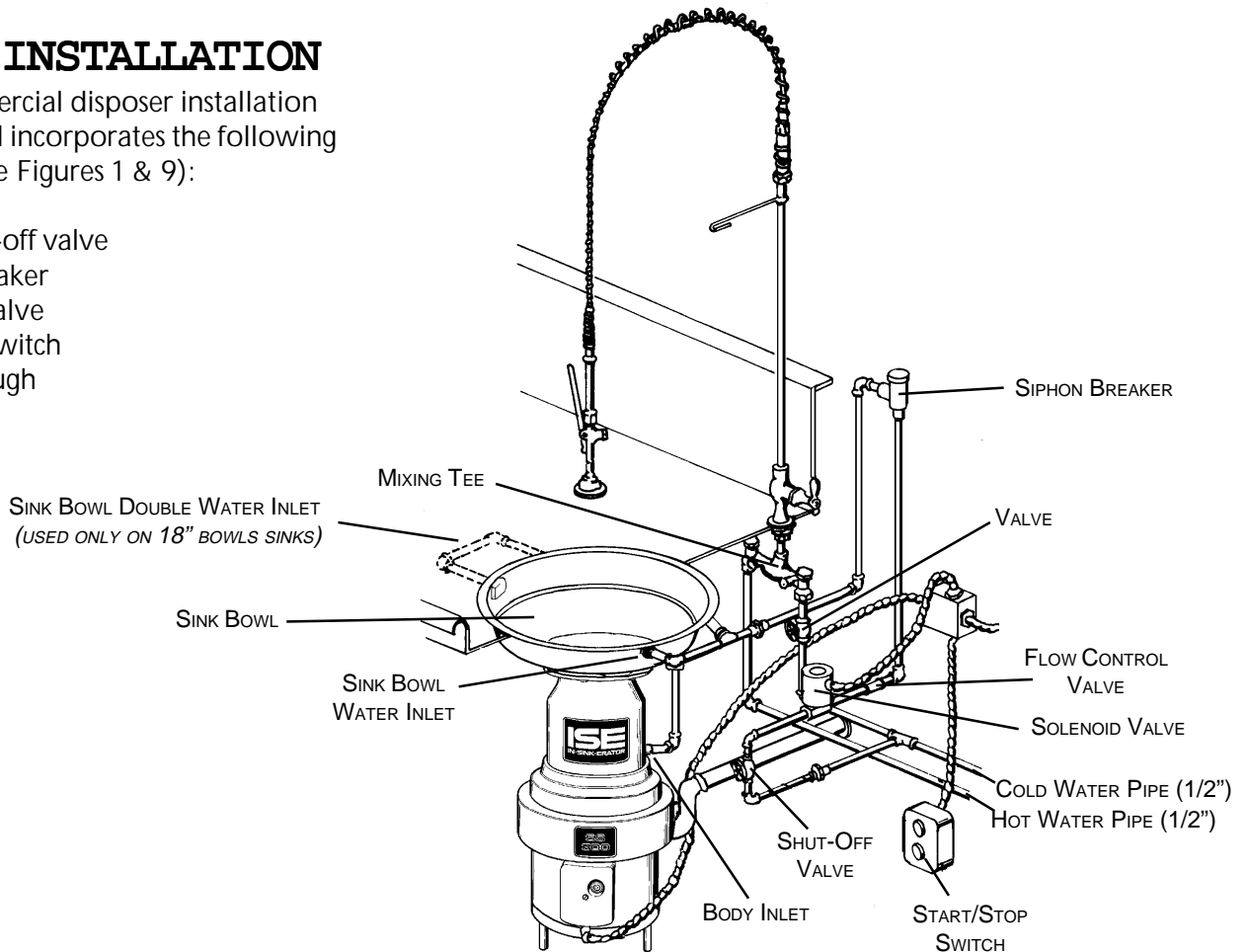


Figure 1: Typical Commercial Disposer Installation

## CLEAN THE SINK DRAIN LINE

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

## 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:

- Plumbers putty
- Hacksaw
- Drain auger

**REQUIRED MOUNTING AREA**

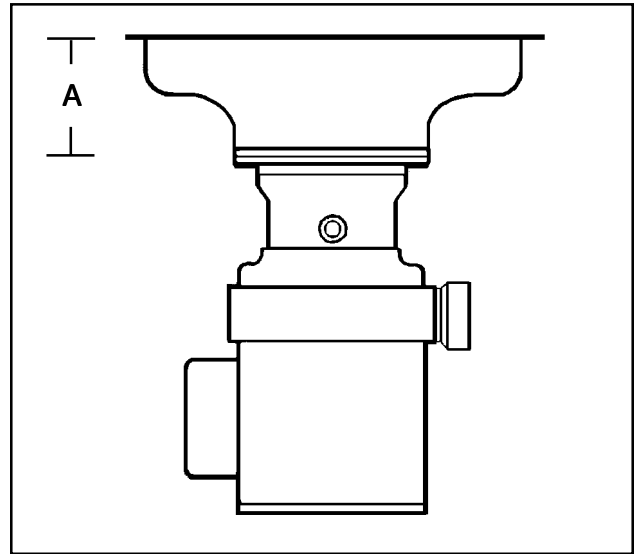
**⚠ WARNING**

**Personal Injury**

- For safe operation, install the disposer in compliance with the minimum distance illustrated in Figure 2.
- Moving shredder parts may cause serious injury if a hopper or cone is not properly installed.

**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).

In-Sink-Erator recommends a minimum countertop thickness of 16 gage stainless steel.



**Figure 2:** Distance from Table Top to Mounting Flange

**MOUNTING ADAPTERS**

There are two adapter categories for mounting In-Sink-Erator disposers: **STANDARD & SPECIAL MOUNTINGS**.

Table 1 displays the approved disposer/mounting adapter combinations.

Adapter		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

X = Approved  
O = Not Approved

**Table 1:** Approved Commercial Disposer/Mounting Adapter Combinations

# DISPOSER MOUNTING

## STANDARD IN-SINK-ERATOR 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).
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.

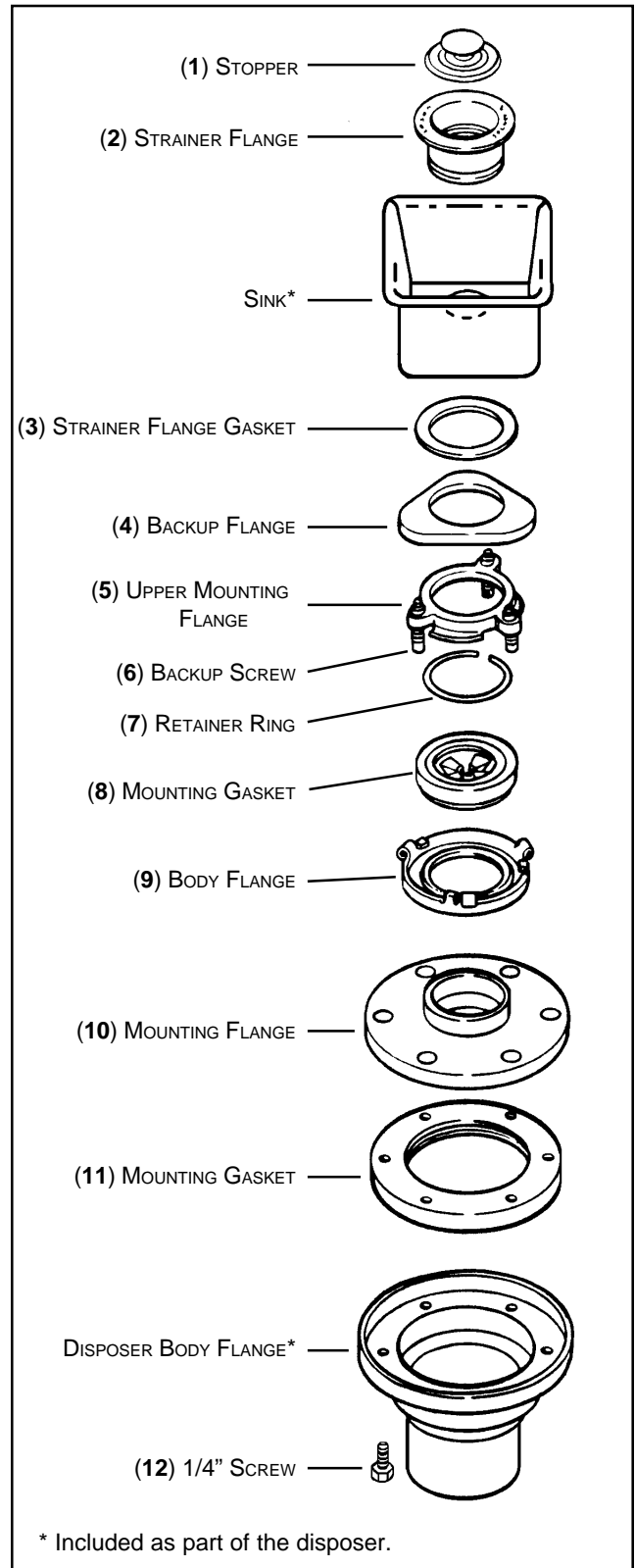


Figure 3: #5 Mounting Assembly

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

1. Place the mounting flange (1) over the existing collar adapter 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 3-10 H.P. disposers, adjust the legs to support the disposer.)

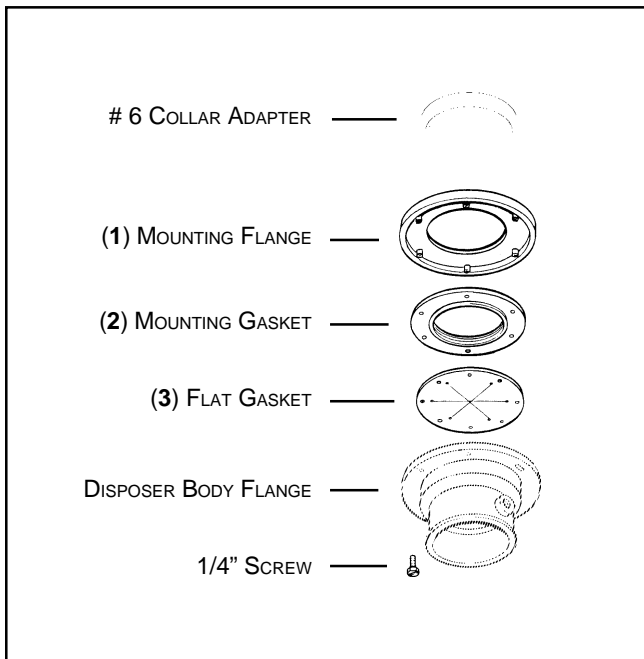


Figure 4: # 6 Mounting Assembly

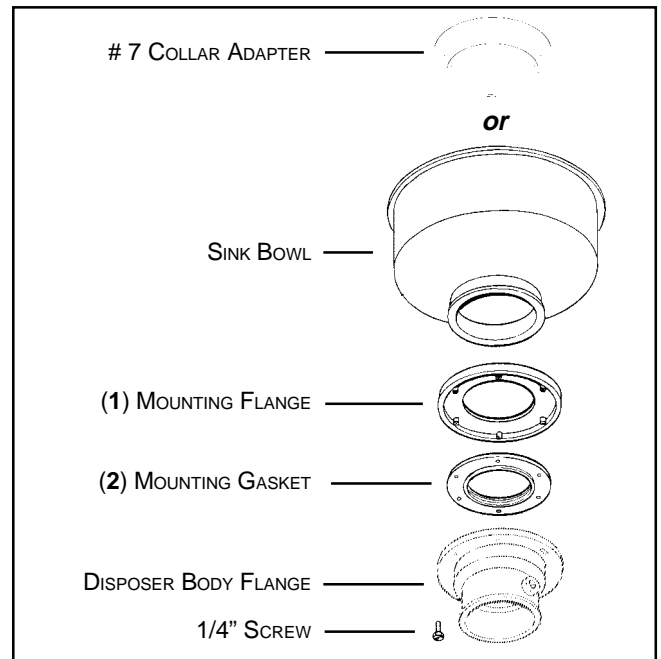


Figure 5: # 7 or Sink Bowl Mounting Assembly

## SPECIAL IN-SINK-ERATOR MOUNTINGS

When installing an In-Sink-Erator commercial disposer to a non-In-Sink-Erator style sink bowl, a special mounting adaptor kit is required. The special mountings are described in the *Mounting Adaptor Selection Guide* (for more information, call 1-800 558-5712 and select *option 4*). Figures 6-8 show examples of non-In-Sink-Erator style sinks. (Mounting instructions are included in each special mounting adaptor kit.)

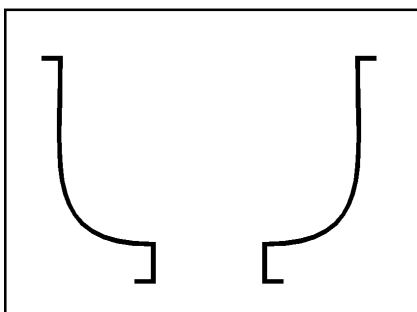


Figure 6: Outward Flange

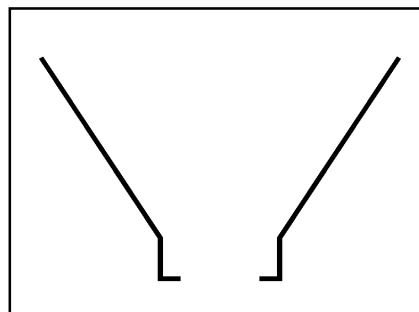


Figure 7: Inward Flange

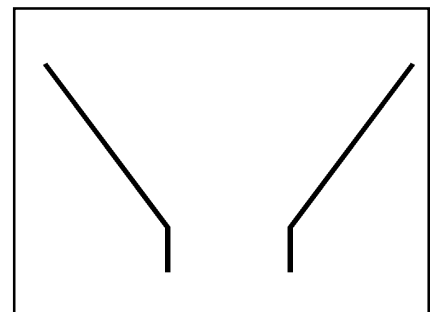


Figure 8: Straight Flange

# 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.

### CAUTION

#### Property Damage

These plumbing instructions were written for an experienced and competent installer. If the installer is not experienced in plumbing installation, ISE 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.

## ROUTING WATER FLOW

- In a **trough system**, route all water flow to the end of the trough to flush food waste.
- In an **sink bowl system** with an **SS-50 to SS-125** (3-5 GPM), route all water through the sink bowl (see Table 2).
- In a **sink bowl system** with an **SS-150 to SS-1000** (7-10 GPM), route water through the sink bowl *and* the disposer body inlet.

## 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).

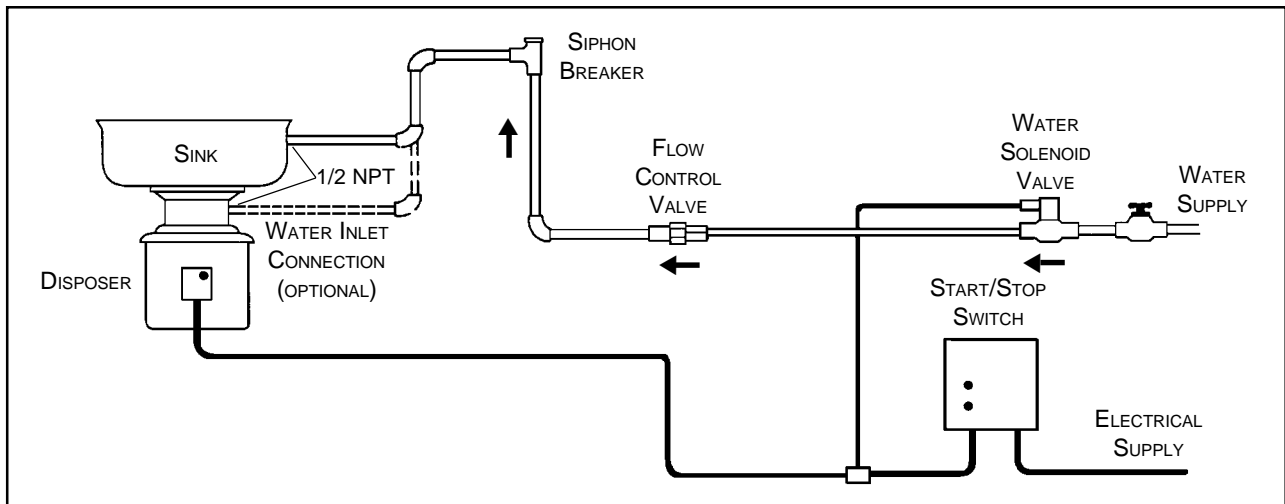
Install the flow control valve, water solenoid valve, and the siphon breaker according to the direction of the flow arrows marked on each valve body (see Figure 9).

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

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

GPM = Gallons Per Minute      NPT = National Pipe Thread  
LPM = Liters Per Minute

**Table 2:** Recommended Cold Water Flow & Drain Line Diameter



**Figure 9:** Water & Electrical Connections



**ELECTRICAL SAFETY**

 **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.

 **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 that the disposer motor voltage and phase match that of the electrical supply.

**DISPOSER CONTROLS**

Install the disposer controls within sight of the disposer (per local codes) so the disposer can be reached easily in an emergency situation. In-Sink-Erator approved disposer/control combinations are listed in Table 3.

Model	Phase	AS101	Manual Start Switch	Magnetic Starter Switch	Manual Reverse Switch	CC101	CC202
SS-50	1	X	X	X	X	X	X
SS-50	3	X	X	X	X	X	X
SS-75	1	X	X	X	X	X	X
SS-75	3	X	X	X	X	X	X
SS-100	1	X	X	X	X	X	X
SS-100	3	X	X	X	X	X	X
SS-125	1	X	X	X	X	X	X
SS-125	3	X	X	X	X	X	X
SS-150	1	X	X	X	X	X	X
SS-150	3	X	X	X	X	X	X
SS-200	1	X	X	X	X	X	X
SS-200	3	X	X	X	X	X	X
SS-300	3	X	O	X	X	X	X
SS-500	3	X	O	X	X	X	X
SS-750	3	X	O	O	O	X	X
SS-1000	3	X	O	O	O	X	X

X = Approved  
O = Not Approved

**Table 3:** Approved Disposer/Control Combinations

**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.) (See pages 10 - 17.)
6. Reinstall the terminal box cover on the trim shell.

 **WARNING**

**Electric Shock**

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

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

7. Test the disposer to ensure that 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.

# OPERATING INSTRUCTIONS

## OPERATING THE DISPOSER

1. Make sure there are no foreign objects in the disposer grind chamber.
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 has a center OFF and a left *or* right ON position. The disposer will run in the direction the switch is pushed. **DO NOT** restart the disposer until the 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 on page 6 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.
- Do not put any of the following items into the disposer: clam or oyster shells, drain cleaner, glass, china, plastic, plastic wrap, large bones, metal objects, explosive materials, or extremely hot water or grease/oil.
- Turn the power off before attempting to clear a jam, removing an object, or pressing the reset button.
- Do not insert your fingers into the disposer. Use a long-handled tongs or a 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 you leave the area.

### WARNING

#### 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 of the disposer.

#### Electric Shock

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

Troubleshooting for problems other than what is listed below should only be performed by a qualified service person. Troubleshooting performed by untrained personnel could result in electrical shock or damage to the disposer. (Disconnect the power before servicing the disposer.)

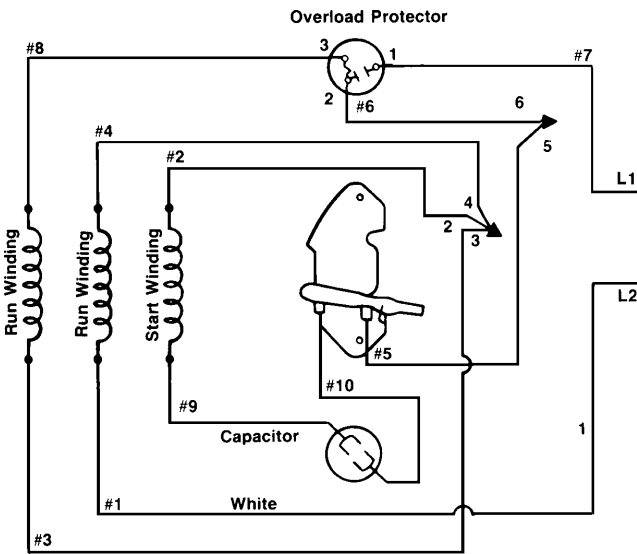
<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
The disposer will not start and water does not flow.	No incoming power.	Turn the circuit line power on.
The disposer will not start but water flows.	The disposer overload protector is tripped.  The disposer is jammed.	Turn control to the off position and press the red reset button on the disposer.  Turn the control to the off position and complete the following steps:  <ol style="list-style-type: none"> <li>1. Insert the dejamming bar (slot down) through the sink opening. Place the slot over one end of the raised bars found on the top of the rotating shredder.</li> <li>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.)</li> <li>3. Remove all foreign material that caused the stoppage.</li> <li>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.)</li> <li>5. If the disposer remains inoperative after following these steps, contact the nearest In-Sink-Erator Factory Authorized Service Center. (You may obtain the telephone number of the Service Center nearest you by calling 1-800 558-5700.)</li> </ol>
The disposer motor stops while grinding, but water continues to flow.	The disposer is jammed.  The disposer overload protector is tripped.	See <i>The disposer is jammed</i> , 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 reset button. Never strike the reset button with an object.)
The water flows continuously before the controls are turned on.		Reinstall the water solenoid valve with the arrow on the valve pointing in the direction of the water flow.
Overload protector trips frequently.	Disposer is overloaded with food waste.	Do not overload disposer with excessive amounts of food waste.

# WIRING DIAGRAMS

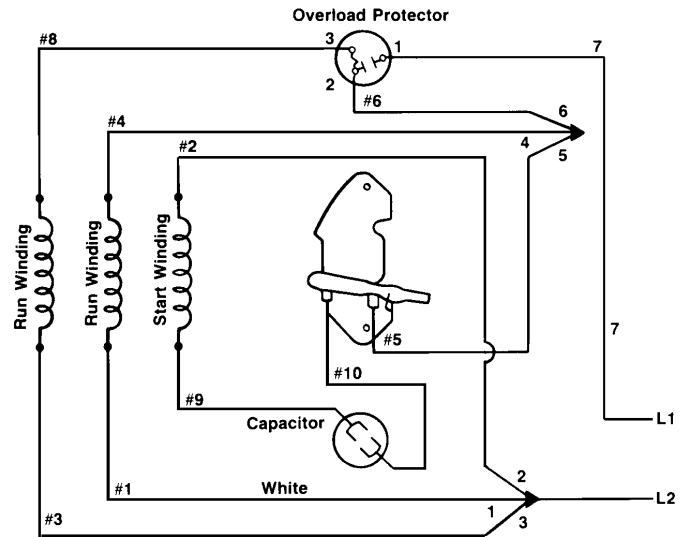
## ELECTRICAL CONNECTIONS

These electrical diagrams are recommended for the most commonly used accessory combinations. Wiring diagrams for other accessory combinations may be requested by calling In-Sink-Erator at 1-800 558-5700.

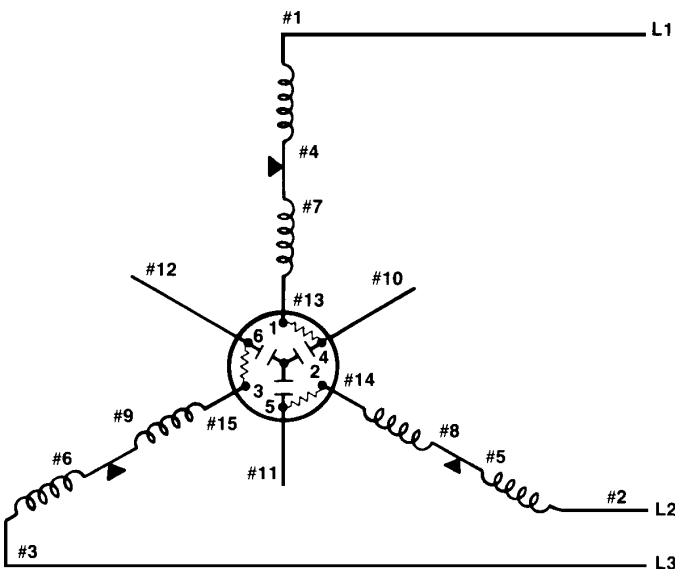
- NOTES:**
- All electrical connections must comply with local electrical codes.
  - Pressure switches may be connected across the line at 5 horsepower or less. (Larger horsepower motors require connection in the pilot circuit of a magnetic starter.)
  - The magnetic and manual starters supplied by In-Sink-Erator do not require heaters to complete the circuit (In-Sink-Erator disposers are equipped with overload protectors).
  - A time delay relay may only be used with a water solenoid valve.



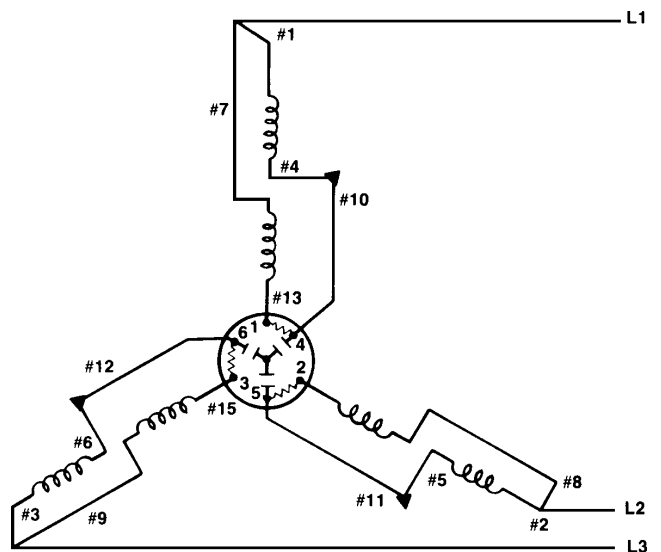
208/230 Volts  
50/60 HZ  
Single Phase



120 Volts  
50/60 HZ  
Single Phase



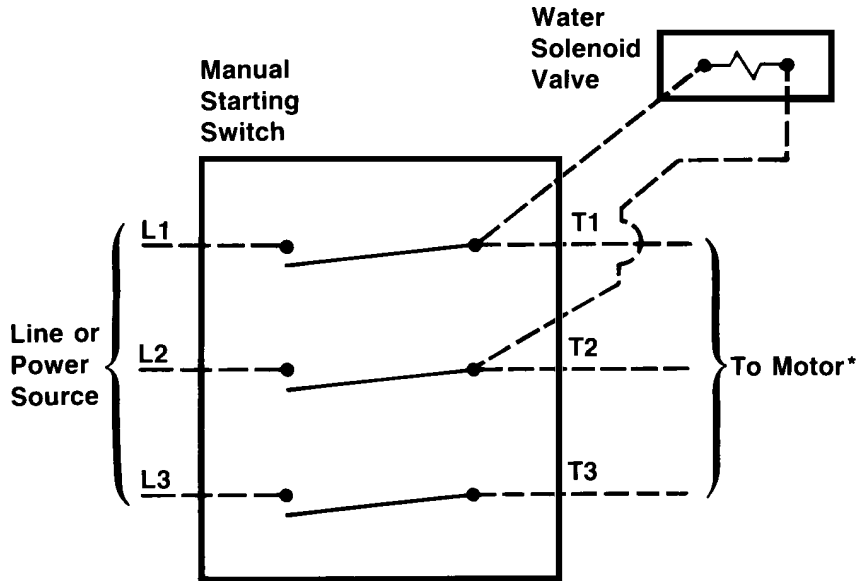
380/460 Volts  
50/60 HZ  
Three Phase



208/230 Volts  
50/60 HZ  
Three Phase

MANUAL STARTING SWITCHES

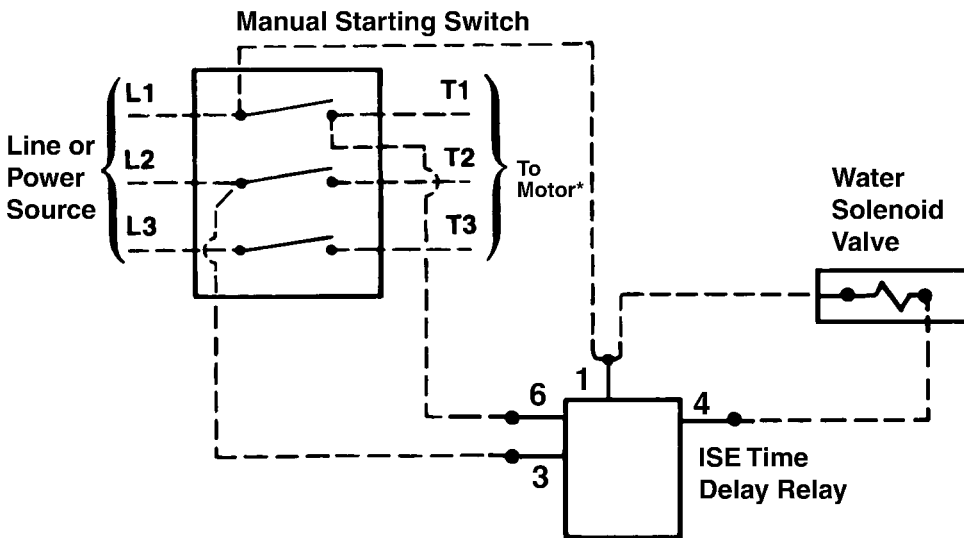
MANUAL STARTING (ON/OFF) SWITCH



All Voltages

Do Not Use  
L3 and T3  
For Single Phase  
Applications.

MANUAL STARTING (ON/OFF) SWITCH - WITH TIME DELAY RELAY



All Voltages  
Except 460 Volts

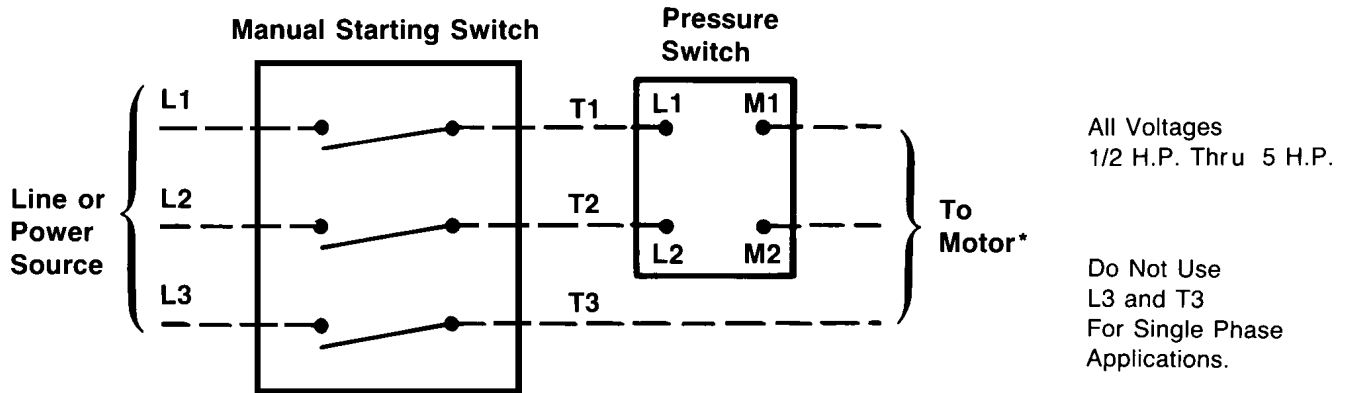
Do Not Use  
L3 and T3  
For Single Phase  
Applications.

See standard motor connection wiring diagram in motor terminal box.

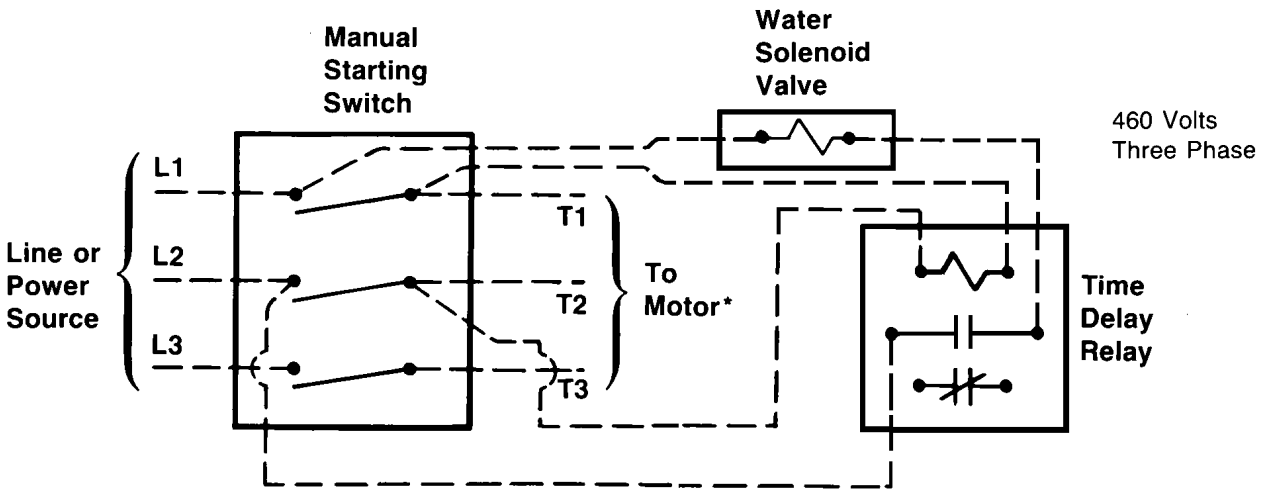
# WIRING DIAGRAMS

## MANUAL STARTING SWITCHES

### MANUAL STARTING (ON/OFF) SWITCH - WITH PRESSURE SWITCH



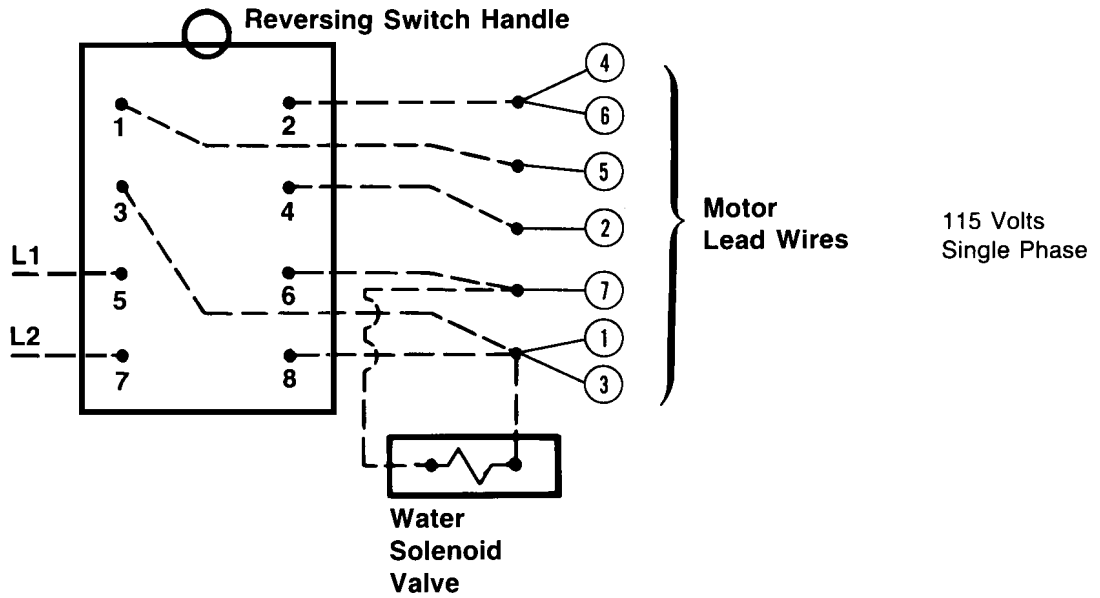
### MANUAL STARTING (ON/OFF) SWITCH - WITH TIME DELAY RELAY



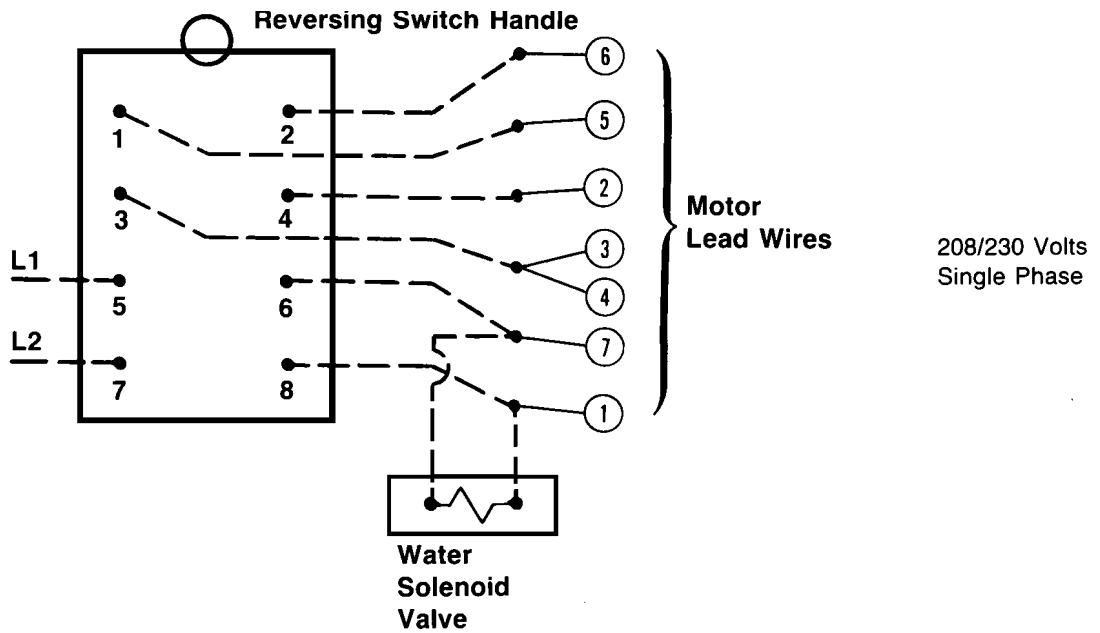
See standard motor connection wiring diagram in motor terminal box.

SINGLE PHASE MANUAL REVERSING SWITCHES

MANUAL SINGLE PHASE REVERSING SWITCH



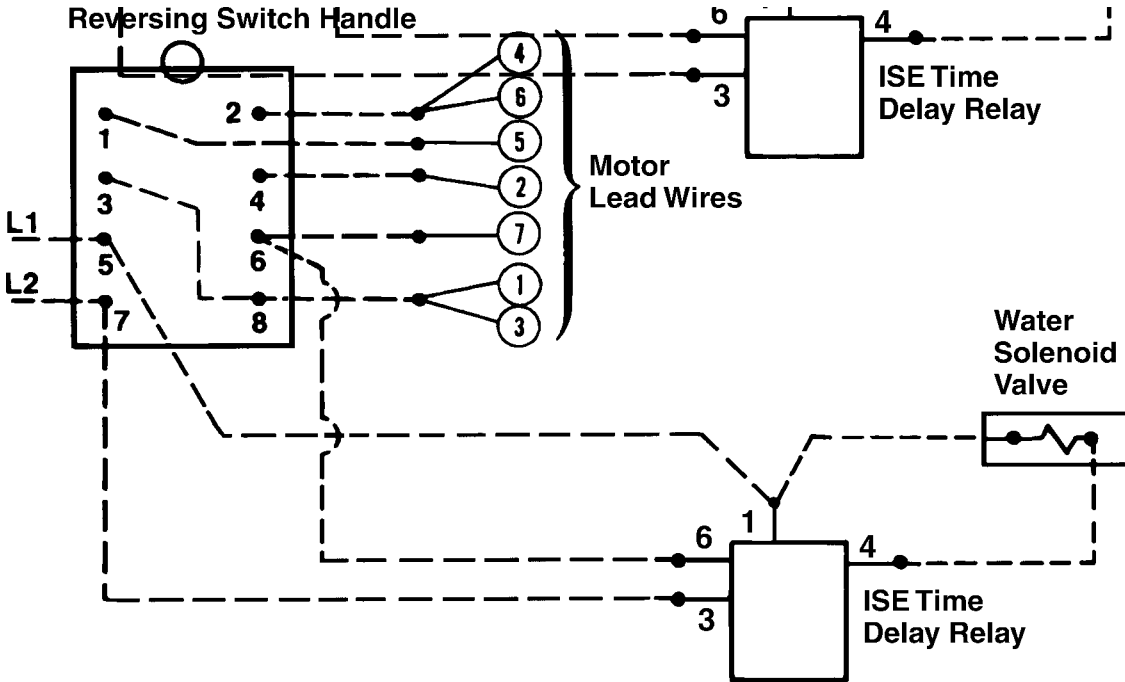
MANUAL SINGLE PHASE REVERSING SWITCH



# WIRING DIAGRAMS

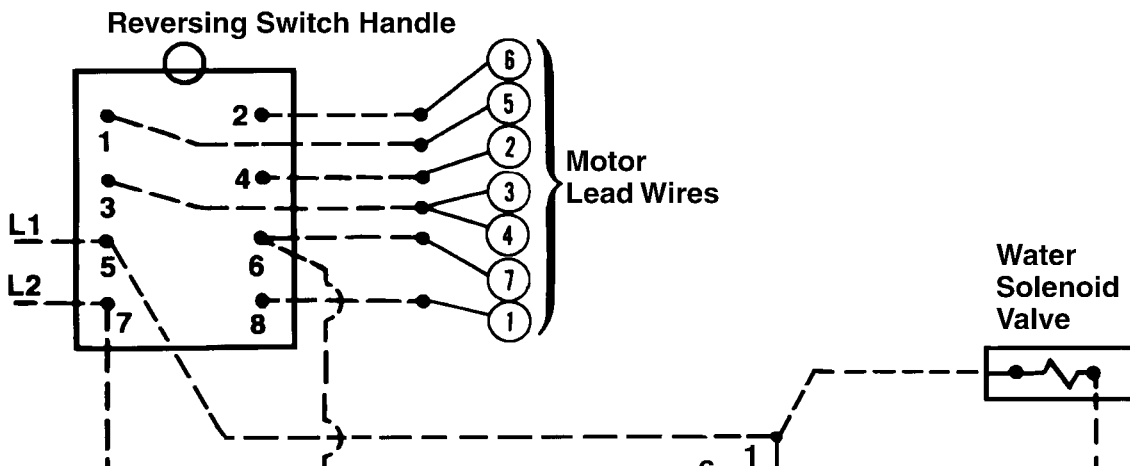
## SINGLE PHASE MANUAL REVERSING SWITCHES

### MANUAL SINGLE PHASE REVERSING SWITCH - WITH TIME DELAY RELAY



115 Volts  
Single Phase

### MANUAL SINGLE PHASE REVERSING SWITCH - WITH TIME DELAY RELAY

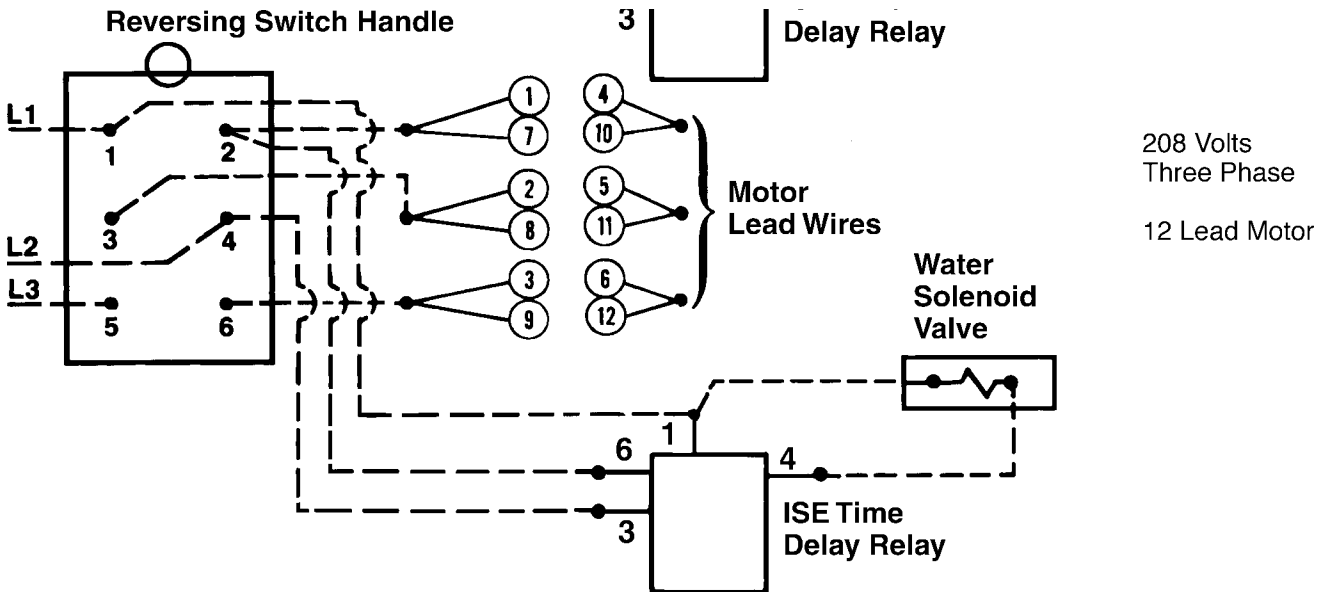


208/230 Volts  
Single Phase

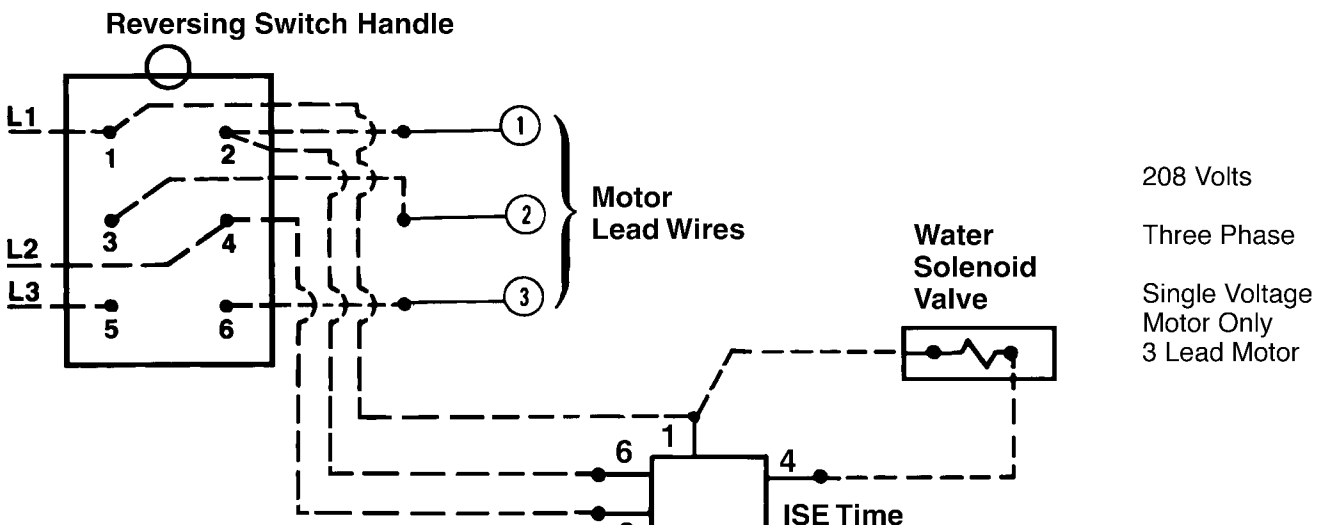


THREE PHASE MANUAL REVERSING SWITCHES

MANUAL THREE PHASE REVERSING SWITCH - WITH TIME DELAY RELAY



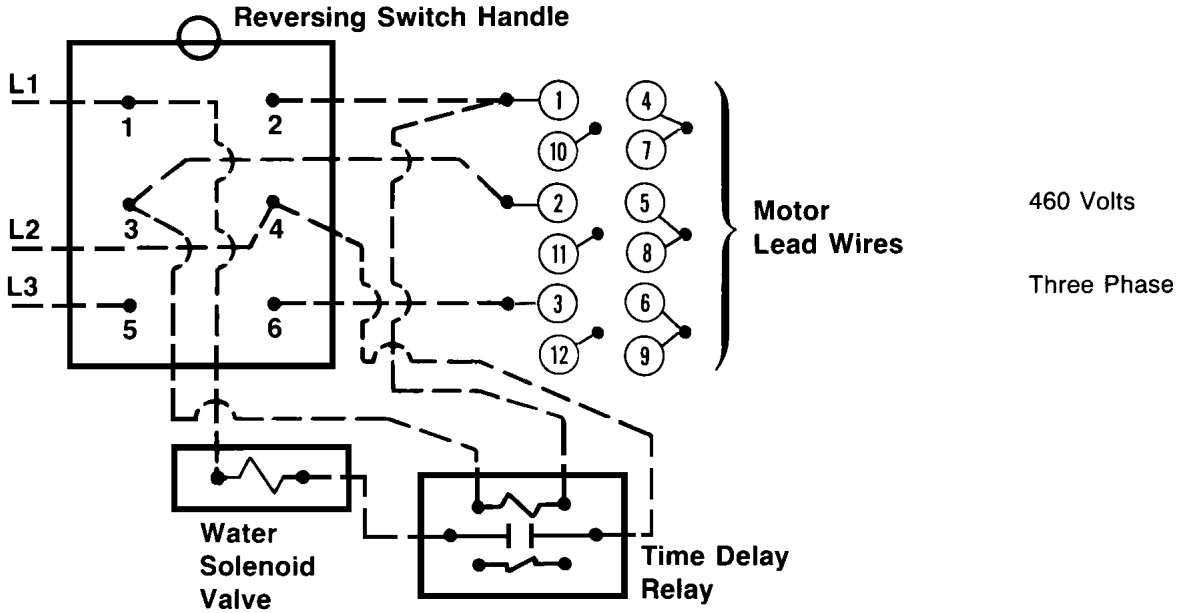
MANUAL THREE PHASE REVERSING SWITCH - WITH TIME DELAY RELAY



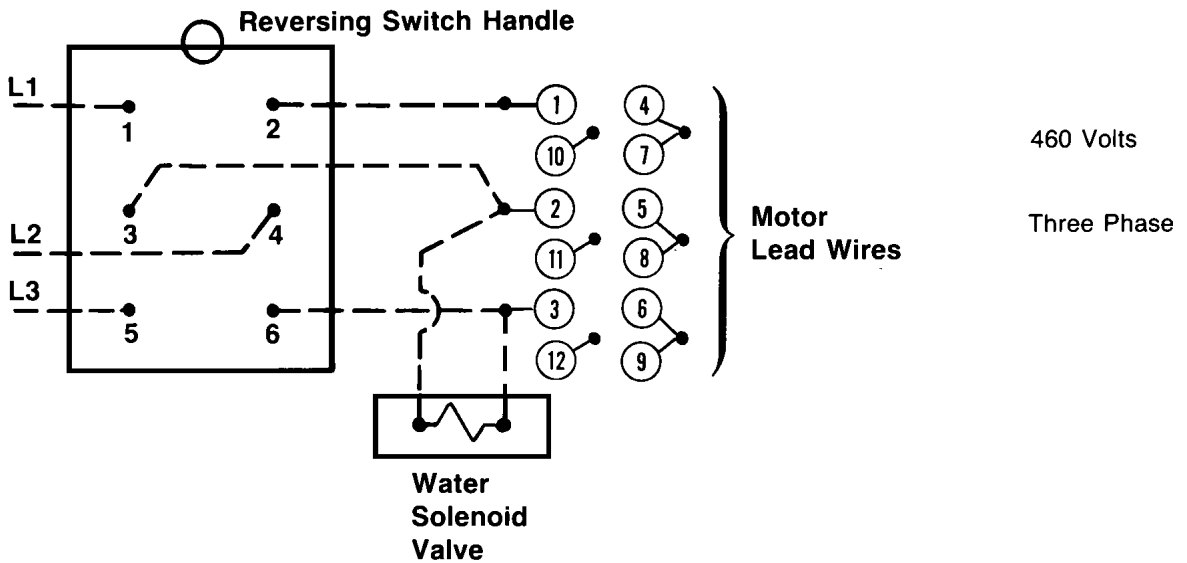
# WIRING DIAGRAMS

## THREE PHASE MANUAL REVERSING SWITCHES

### MANUAL THREE PHASE REVERSING SWITCH - WITH TIME DELAY RELAY

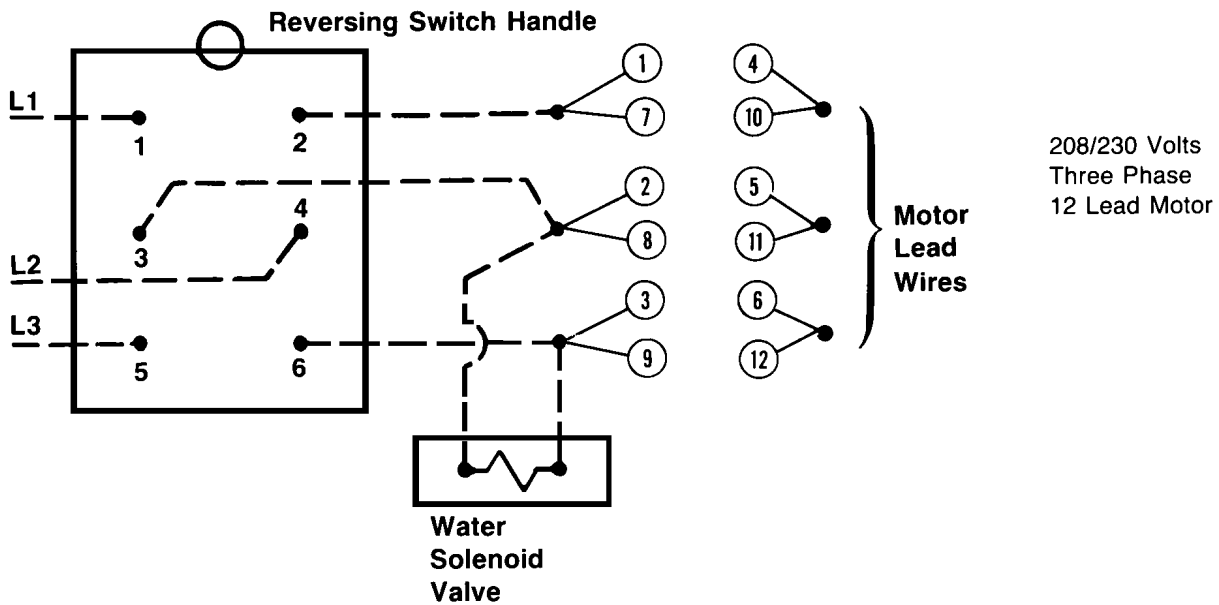


### MANUAL THREE PHASE REVERSING SWITCH

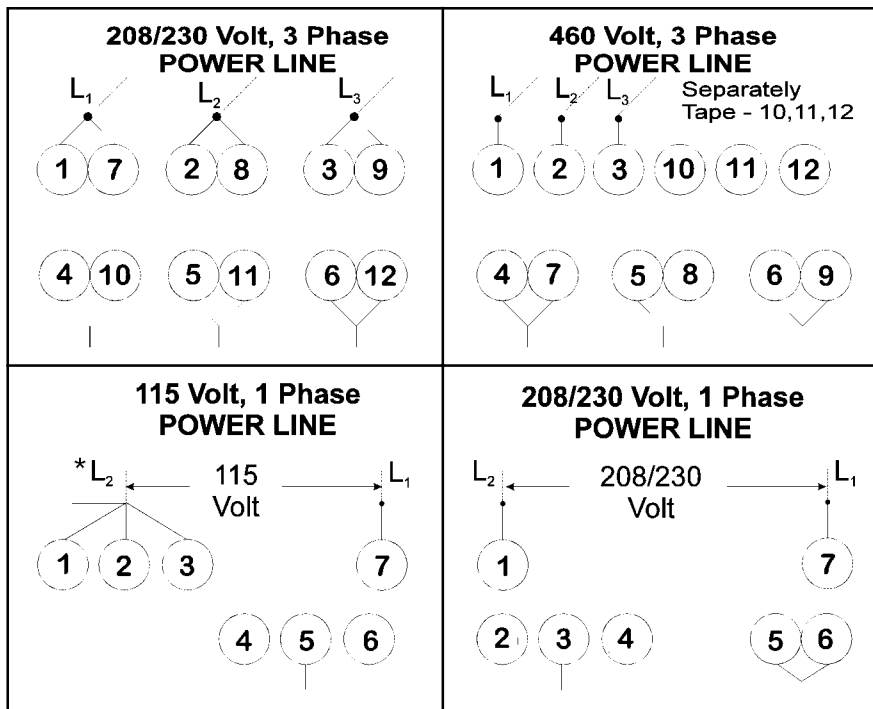


### THREE PHASE MANUAL REVERSING SWITCHES

#### MANUAL THREE PHASE REVERSING SWITCH



### STANDARD MOTOR CONNECTION WIRING DIAGRAMS



**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 disposer 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.

