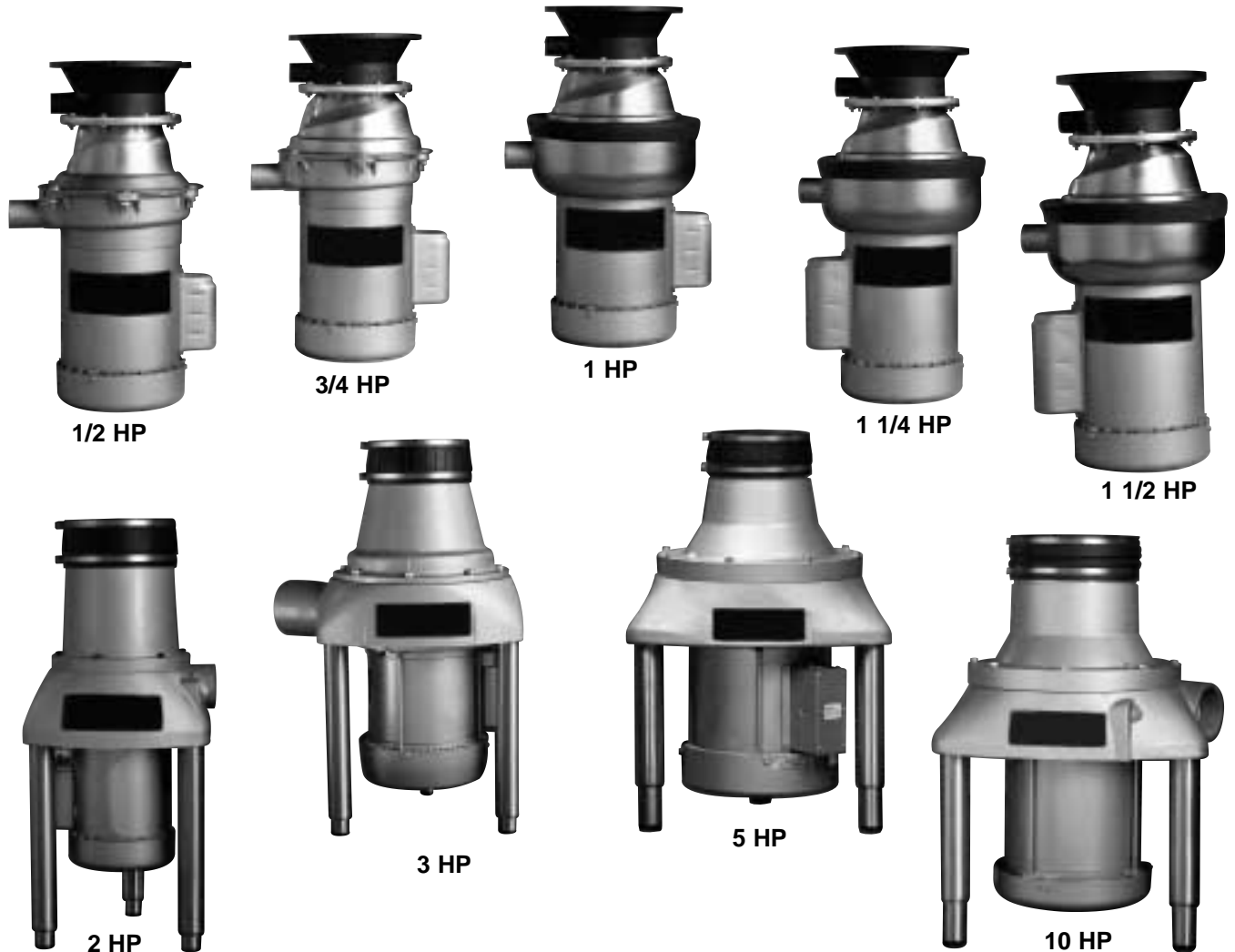


# COMMERCIAL FOOD WASTE DISPOSERS

## SERVICE MANUAL



# TABLE OF CONTENTS

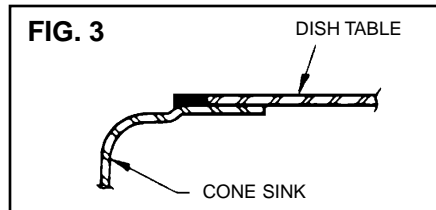
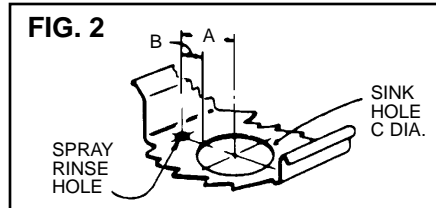
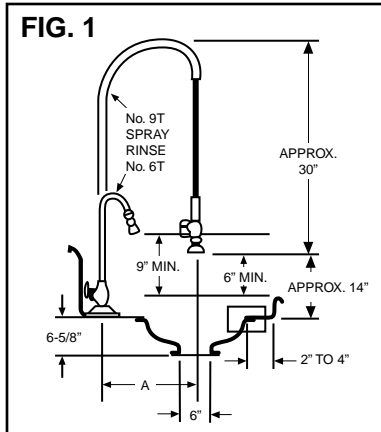
<b>1. INSTALLATION INSTRUCTIONS</b>	
1/2 HP, 3/4 HP, 1 HP, 1 1/4 HP, and 1 1/2 HP Models	1-4
2 HP, 3 HP, 5 HP, and 10 HP Models	5-8
<b>2. SINK MOUNTED MODELS DISASSEMBLY PROCEDURE</b>	9
<b>3. TRIPOD MOUNTED MODELS DISASSEMBLY PROCEDURE AND GENERAL DATA</b>	
Upper Housing Disassembly	10
Grind Ring Disassembly	10
Turntable Disassembly	11
Turntable and Grind Ring Information	12
Seal Disassembly and Replacement	13
Motor Removal from Tripod	14
Small and Mid-sized Models Bearing Removal	14
Disassembly Procedure for Stator and Rotor	15
Disassembly of the Upper Motor	15
Motor Data for Models	16
Stator and Cooling Fan Removal	17
Rotor and Bearing Removal	17
End Shield Removal	18
Stator and Overload Protector Information	18
Overload Protector Terminals	19
Electrical Description and Terminals	19
Testing and Capacitor on Models 1/2 HP through 2 HP	20
Impeller Replacement	20
Cutter Blade Replacement for Models 1/2 HP through 1 HP	21
Boot Seal Replacement for Models 1/2 HP through 1 HP	21
Disassembly of Tripod Legs	22
<b>4. WIRING DIAGRAM FOR ONE PHASE MOTORS</b>	23
<b>5. WIRING DIAGRAM FOR THREE PHASE WYE MOTORS</b>	24
<b>6. COMMERCIAL DISPOSER TROUBLESHOOTING CHART</b>	25

# INSTALLATION INSTRUCTIONS

**COMMERCIAL  
DISPOSER MODELS  
1/2 HP, 3/4 HP, 1 HP,  
1 1/4 HP, 1 1/2 HP**

**BEFORE INSTALLING, READ ENTIRE INSTRUCTIONS CAREFULLY.**

**RISK OF INJURY TO PERSONS FROM HAZARDOUS MOVING PARTS. SERIOUS INJURY POSSIBLE IF NOT PROPERLY INSTALLED WITH A HOPPER OR A CONE SPECIFIED IN THE INSTRUCTION MANUAL.**



MODEL 6T			
	2216 12" CONE	2215 15" CONE	2211 18" CONE
A	10 1/4"	11 3/4"	13 1/4"
B	3 1/2"	3 1/2"	3 1/2"
C	13 1/2"	16 1/2"	19 1/2"
MODEL 9T			
	2216 12" CONE	2215 15" CONE	2211 18" CONE
A	12 7/8"	12 7/8"	12 7/8"
B	6 1/8"	4 5/8"	3 1/8"
C	13 1/2"	16 1/2"	19 1/2"

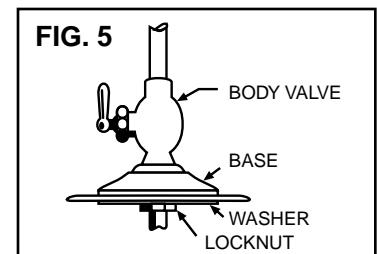
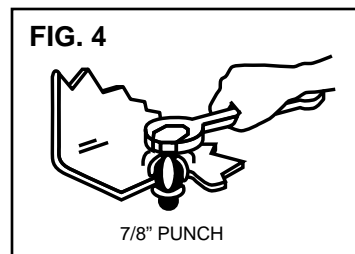
**IF YOU ARE REPLACING AN OLD DISPOSER GO TO *MOUNTING DISPOSER***

## INSTALLATION OF CONE SINK INTO DISH OR WORKTABLE

1. (See Figures 1 and 2.) Locate hole center as shown on Figure 2. Cut a "C" (Figure 2) diameter hole in dish or work table, a minimum of 2" from the inside front edge (operator's side). Hole can be cut with a "nibbler" after a knockout hole 1-1/2" diameter has been punched.
2. Lift cone to underside of table with cone flange overlapping all around (Figures 1 and 3).
3. Check alignment of cone spray fittings to be sure they are in the proper position. For 15" and 18" cones, position such that holes are located to right and left side of operator. (See Figure 7 for location.)
4. Tack weld, spot weld, bolt, or rivet flange of cone sink to underside of dish or work table. If bolted or riveted, smooth top surface and wash-solder around bolt or rivet heads and sand smooth.
5. Bead weld or solder and wash-solder all around where the table joins flange of cone sink for a clean, watertight, sanitary installation.
6. The cone sink has been designed with the step, as shown in Figure 3. In the welding or soldering operation required to assemble the cone sink to the dish or work table, every attempt should be made to keep the recessed, flat portion of the cone free of the welded or solder material. This will minimize the clean-up time required and provide a smooth, flat surface for any cover.

## SPRAY-RINSE INSTALLATION

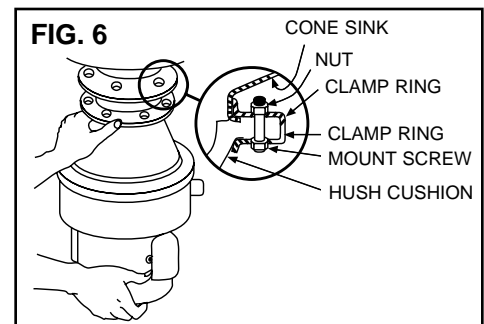
1. Locate center (Figures 1 and 2).
2. Drill 7/16" diameter hole through center.
3. Assemble 7/8" punch and tighten bolt head, as shown in Fig. 4, until the die pierces the stainless steel, leaving a clean opening of 7/8".
4. Place body valve and base in position, assemble washer and locknut as shown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



## MOUNTING DISPOSER

**For models to be installed in sink with 3-1/2" outlet, see separate sheet enclosed for mounting instructions.**

1. Clamp ring taped to top side of Hush Cushion® should be placed on underside of top flange of Hush Cushion®. Line up holes in clamp ring with holes in Hush Cushion® and insert six screws also contained in plastic bag. Insert through clamp ring and Hush Cushion® from the underside.
2. Line up holes in loose steel clamp ring on cone sink with screws in Hush Cushion® and raise disposer into position with screws matching holes in clamp ring in approximate position with plumbing drain outlet.
3. To manually raise the disposer into position, lift the unit by grasping the disposer with one hand from the bottom of the motor, and with the other hand around the Hush Cushion®, guide the unit into position, as shown in Figure 6.



## MOUNTING DISPOSER – Continued (Refer to Figure 6)

- Attach a nut by two or three threads to screw and then attach another nut to screw on the opposite side of disposer. Finger-tighten two screws to hold unit in place. Attach remaining four nuts to screws and finger-tighten evenly.
- Check alignment with plumbing. Adjustment in alignment to plumbing can be made by rotating the unit carefully before tightening the nuts. To assist in rotating unit, raise the unit from the bottom of the motor to relieve weight.
- With the unit in its proper position, proceed to tighten six nuts evenly.

## PLUMBING INSTALLATION

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

**MAKE ALL PLUMBING AND ELECTRICAL CONNECTIONS ACCORDING TO LOCAL CODES.**

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

**FIG. 7 CONE ASSEMBLY (Typical Installation)**

**NOTE:**

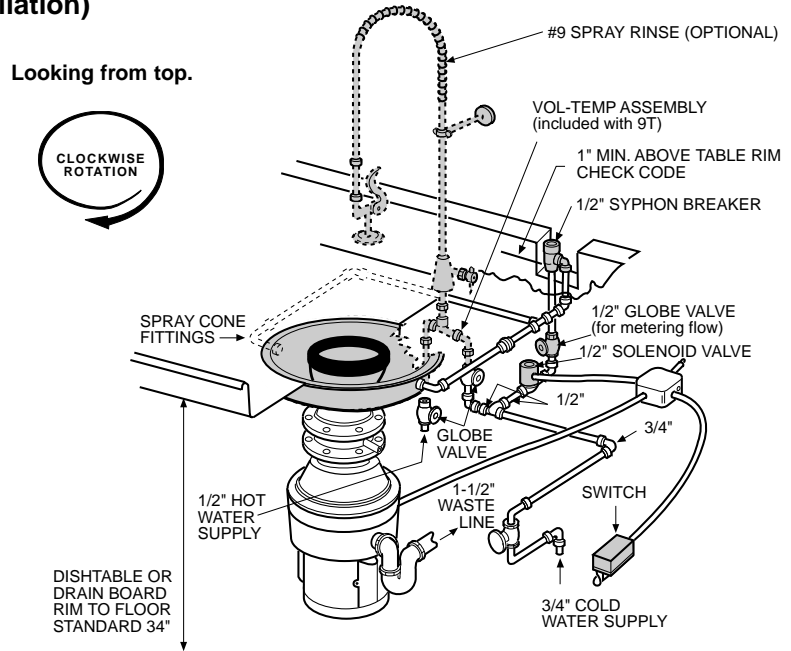
A globe valve, if used for metering flow, must be installed between solenoid valve and disposer. See metering valve Fig. 7. Any valve ahead of the solenoid valve must be opened and cause no restrictions.

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

**MINIMUM WATER FLOW RATE  
5 GALLONS PER MINUTE WHILE IN USE**

**NOTE:**

BASE UNIT INCLUDES DISPOSER, MOUNTINGS, AND DRAIN OUTLET. OTHER ITEMS SHOWN IN GRAY IN FIGURE 7 ARE AVAILABLE IN EQUIPMENT GROUPS ORDERED SEPARATELY.



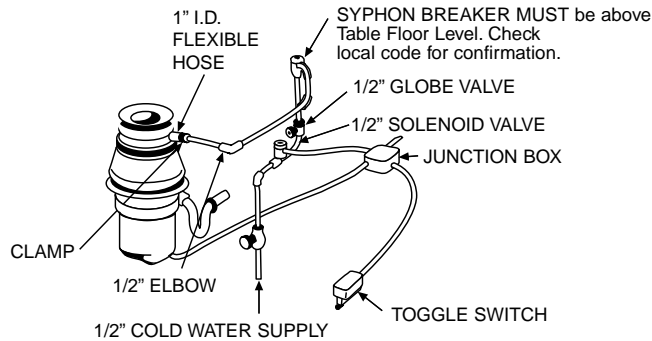
- For spray-rinse with vol-temp, run a 1/2" hot water line to point indicated in Figure 7. Connect to spray-rinse globe valve, hot water side. At no time should hot water be connected directly to disposer or cone sink.
- Run a 1/2" cold water connection to point indicated in Figure 7.
- Install solenoid valve in line, in upright (coil side up) position as shown in Figure 7, with arrow on side pointing in direction of water flow.
- Install syphon breaker as in Figure 7. CHECK LOCAL CODE.
- Make connection to water inlet fitting of cone sink. See Figure 7.
- Make 1/2" cold water connection to spray-rinse globe valve, cold water side. This must be separate cold water line. Do not tee off of line to cone unless a 3/4" line is furnished to assembly location. See Figure 7.
- Assemble swirl spray(s) as shown in Figure 9. The assembly method for the swirl spray(s) is the same for all models. Other combinations of convertible and fixed swirl spray(s) are optional. The outlet hole of the fixed swirl spray should be horizontal to promote vortex action in the cone.

**NOTE:** The convertible spray should be easily adjustable by the operator to function as a swirl spray or as a dish-washing flume. Avoid excessive tightening of nut or locknut.
- Connect 1/2" pipe to swirl spray as shown in Figure 7.
- The disposer is equipped with a drain outlet designed for a slip-joint connection to a conventional 1 1/2" trap (not furnished). Connect the trap with a branch waste line running directly into the sewage connection (Figure 7). **Do not connect into a grease trap.** A minimum slope of 1/4" per foot of run of waste line is recommended. Limit 1 1/2" drain line to a 15-foot run, free of turns. A minimum number of elbows, tees, etc., reduce the possibility of plumbing stoppages. If unusual sewer conditions exist (too many bends, main too long, low water pressure resulting in low flow rate\*, or if a high percentage of food waste is leafy and/or paper), the use of a time delay relay and water injector into sewer is suggested. Under such conditions, additionally, a larger size cold water line, larger solenoid valves and larger syphon breakers should be used to overcome potential stoppages. (Parts and data available from factory.)

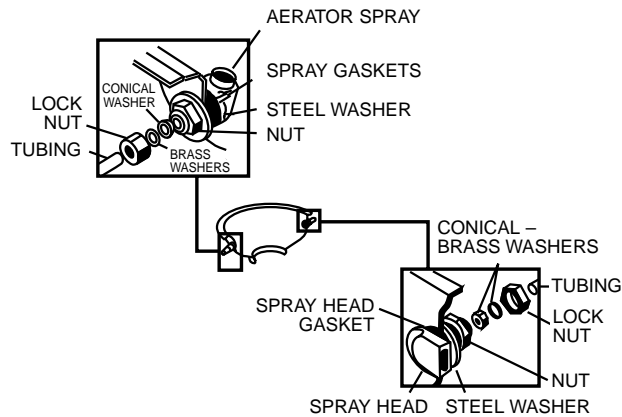
\*Minimum cold water flow rate used with Models 1/2 HP through 1 1/2 HP: 5 gallons per minute or enough to push waste through pipeline into the sewer.

**TIP:** Water volume adjustment: The top of the swirling water should occasionally crest to the body of the swirl water inlet.
- To use the optional supplementary water connection, see Figure 8.

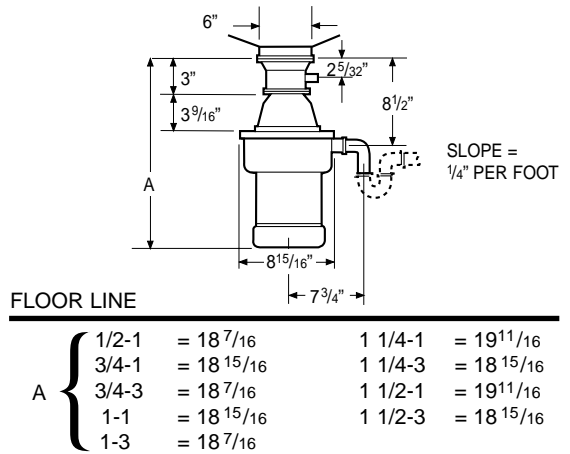
**FIG. 8 OPTIONAL SUPPLEMENTARY WATER CONNECTION**



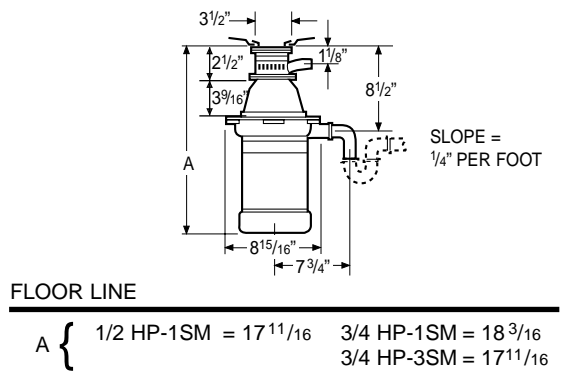
**FIG. 9 SWIRL SPRAY(S) ASSEMBLY**



**FIG. 10 INSTALLATION DIMENSIONS AND DRAINLINE CONNECTIONS**



**FIG. 11 SINK MOUNTED MODELS (SM)**



**ELECTRICAL CONNECTIONS**

All electrical connections must be made in accordance with local wiring codes Flexible BX cable should be used in making electrical connections to motor to avoid transmission of noise. Be careful not to pinch wires when replacing terminal box.

**IMPORTANT! THE DISPOSER MUST BE CAREFULLY AND PERMANENTLY GROUNDED. GROUND SCREW IS PROVIDED.**

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

IMPORTANT NOTE: Disposer motor phase, single or three phase, must be the same as power source and line phase. Disposer wiring connection voltage must be the same as the voltage of power source.

**ALL SINGLE PHASE MOTORS**

3-Pole, 20 Amp., heavy duty switch encased in waterproof receptacle. Two poles of switch control motor and third pole controls solenoid, isolating the two circuits to prevent solenoid kickback when switch is turned off. Refer to Figures 12 and 13 for recommended wiring installation.

**SINGLE PHASE 1/2 HP**

Factory Wired for 110-120-V A.C. unless otherwise specified. To connect for 220-240-V A.C. refer to information on inside face of terminal box cover.

**SINGLE PHASE 3/4 HP, 1HP, 1 1/4 HP, and 1 1/2 HP**

Factory Wired for 220-240 volts. To reconnect for 110-120 volts refer to information on inside face of terminal box cover.

NOTE: After installation, be sure turntable rotates clockwise.

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

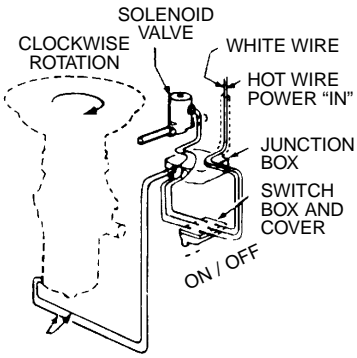
**ALL THREE PHASE MOTORS**

3-Pole, 20 Amp., heavy duty switch encased in waterproof receptacle. Tap off any two leads for the solenoid valve. Refer to Fig. 14 and 15 for typical wiring installation.

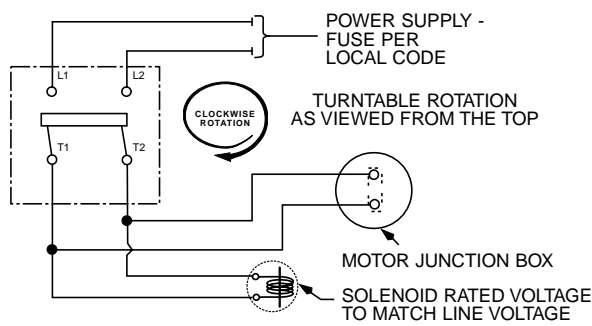
**THREE PHASE 3/4 HP, 1HP, 1 1/4 HP, and 1 1/2 HP**

All three phase motors are factory wired for 208-240-V A.C. AFTER INSTALLATION BE SURE TURNABLE ROTATES CLOCKWISE. If not, interchange any two of the three wires. To reconnect for 460 volts, refer to information shown on inside face of terminal box cover.

**FIG. 12 SINGLE PHASE**



**FIG. 13 WIRING FOR SINGLE PHASE UNITS WITH MANUAL SWITCH**

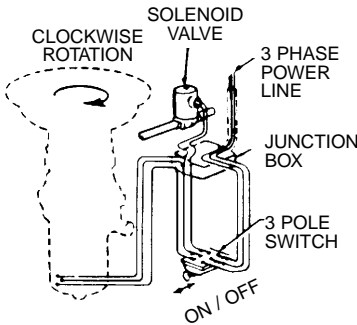


MANUAL SWITCH		
MODEL	VOLTS	PART NO.
1/2 HP- 1-1/2 HP	110-120	2420
	220-240	

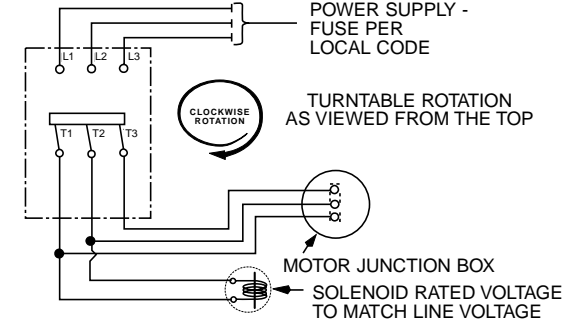
**NOTES:**

1. Motor wired at Factory for 220-240 volts except for 1/2 HP. For 110-120 volts, connect motor wires as shown inside of motor junction box cover.

**FIG. 14 THREE PHASE**



**FIG. 15 WIRING FOR THREE PHASE UNITS WITH MANUAL SWITCH**

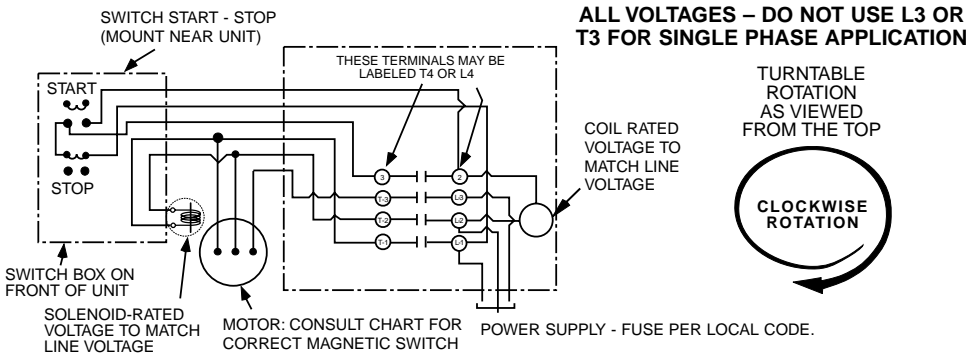


MANUAL SWITCH		
MODEL	VOLTS	PART NO.
1/2 HP- 1-1/2HP	208-240	2420
	460	

**NOTES:**

1. Motor wired at Factory for 208-240 volts. For 460 volts, connect motor wires as shown inside of motor junction box cover.
2. Interchange T1 and T3 to reverse rotation.

**FIG. 16 WIRING FOR THREE PHASE UNITS WITH MAGNETIC SWITCH**

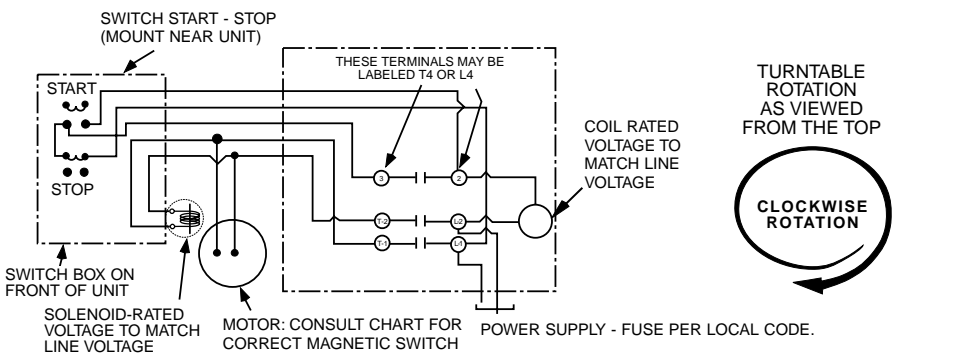


MAGNETIC SWITCH		
MODEL	VOLTS	PART NO.
3/4 HP - 1-1/2 HP	208-240	2416
	460	2417

**NOTES:**

1. Motor wired at Factory for 208-240 volts. For 460 volts, connect motor wires as shown inside of motor junction box cover.
2. Interchange T1 and T3 to reverse rotation.
3. No heaters used with magnetic switch.

**FIG. 17 WIRING FOR SINGLE PHASE UNITS WITH MAGNETIC SWITCH**



MAGNETIC SWITCH		
MODEL	VOLTS	PART NO.
1/2 HP - 1 1/2 HP	110-120	2414
	220-240	2415

**NOTES:**

1. Motor wired at Factory for 220-240 volts except for 1/2 HP. For 110-120 volts, connect motor wires as shown inside of motor junction box cover.
2. No heaters used with magnetic switch

**TESTING -**

**IMPORTANT! Do not test or run disposer dry as this will damage the seal and void the warranty.**

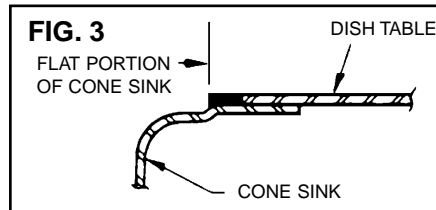
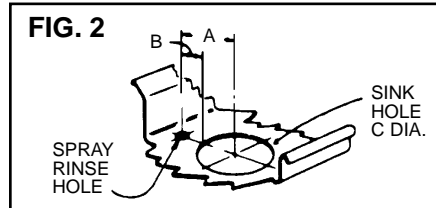
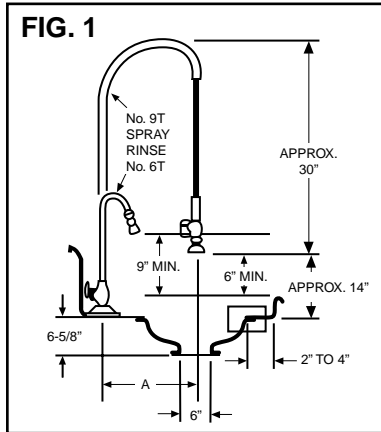
1. Test assembly for leaks: a. where cone sink joins table b. where disposer joins cone c. all piping connections d. "Swirl Spray" fittings
2. After plumbing and electrical connections are made, turn on disposer to be sure all parts are in working order and that the disposer turntable rotates clockwise when viewed from above. Open valve in vacuum breaker line, and using valves in plumbing assembly (Fig.7), adjust so that water swirls around just below the rim of the cone sink. Leave valves in these positions. These combinations provide a flow of approximately 8 gallons of water per minute.
3. Replace cover, retest for leaks and turn unit off.
4. Unit is now ready for operation.

# INSTALLATION INSTRUCTIONS

**COMMERCIAL DISPOSER MODELS  
2 HP, 3 HP, 5HP  
AND 10HP**

**BEFORE INSTALLING, READ ENTIRE INSTRUCTIONS CAREFULLY.**

**RISK OF INJURY TO PERSONS FROM HAZARDOUS MOVING PARTS. SERIOUS INJURY POSSIBLE IF NOT PROPERLY INSTALLED WITH A HOPPER OR A CONE SPECIFIED IN THE INSTRUCTION MANUAL.**



MODEL 6T			
	2216 12" CONE	2215 15" CONE	2211 18" CONE
A	10 1/4"	11 3/4"	13 1/4"
B	3 1/2"	3 1/2"	3 1/2"
C	13 1/2"	16 1/2"	19 1/2"
MODEL 9T			
	2216 12" CONE	2215 15" CONE	2211 18" CONE
A	12 7/8"	12 7/8"	12 7/8"
B	6 1/8"	4 5/8"	3 1/8"
C	13 1/2"	16 1/2"	19 1/2"

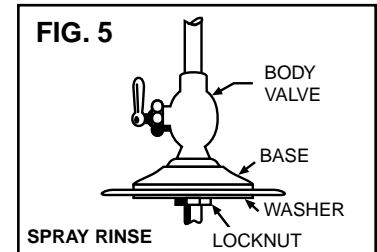
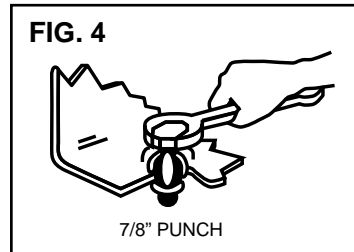
**IF YOU ARE REPLACING AN OLD DISPOSER GO TO *POSITIONING AND INSTALLATION OF COMMERCIAL DISPOSER***

## **INSTALLATION OF CONE SINK INTO DISH OR WORKTABLE**

1. (See Figures 1 and 2.) Locate hole center as shown on Figure 2. Cut a "C" (Figure 2) diameter hole in dish or work table, a minimum of 2" from the inside front edge (operator's side). Hole can be cut with a "nibbler" after a knockout hole 1 1/2" diameter has been punched.
2. Lift cone to underside of table with cone flange overlapping all around (Figures 1 and 3).
3. Check alignment of cone spray fittings to be sure they are in the proper position. For 15" and 18" cones, position such that holes are located to right and left side of operator. (See Figure 7 for location.)
4. Tack weld, spot weld, bolt, or rivet flange of cone sink to underside of dish or work table. If bolted or riveted, smooth top surface and wash-solder around bolt or rivet heads and sand smooth.
5. Bead weld or solder and wash-solder all around where the table joins flange of cone sink for a clean, watertight, sanitary installation.
6. The cone sink has been designed with the step, as shown in Figure 3. In the welding or soldering operation required to assemble the cone sink to the dish or work table, every attempt should be made to keep the recessed, flat portion of the cone free of the weld or solder material. This will minimize the clean-up time required and provide a smooth, flat surface for any cover.
7. Minimum installation criteria:
  - Minimum clearance between left and right side of waste disposer and side wall: 18 inches.
  - Minimum clearance to back wall: 10 inches.
  - No front panel/door between waste disposer installation cavity under a sink/dish table and room.

## **SPRAY-RINSE INSTALLATION**

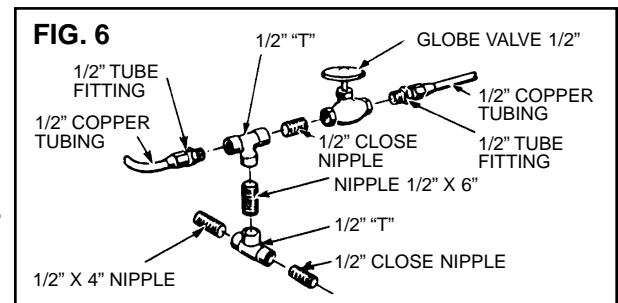
1. Locate center (Figures 1 and 2).
2. Drill 7/16" diameter hole through center.
3. Assemble 7/8" punch and tighten bolt head, as illustrated, until the die pierces the stainless steel, leaving a clean opening of 7/8".
4. Place body valve and base in position, assemble washer and locknut as shown in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



## **POSITIONING AND INSTALLATION OF COMMERCIAL DISPOSER**

1. Subassemble plumbing for swirl sprays as shown in detail in Figure 6, and as shown assembled on final unit in Figure 7.
2. Slide Hush Cushion® up over edge of flange on cone sink. The inner edge of this Hush Cushion® is chamfered to facilitate this operation.
3. Slide one clamp ring over Hush Cushion®, place between two upper beads and tighten, this firmly attaches the Hush Cushion® to the cone sinks.

**NOTE:** On the six inch opening only to make certain that the Hush Cushion® is not mounted upside down, look down into the cone sink from above the work table and check that the wording is readable on the center plug on the Hush Cushion®. This reads, "Remove before using".



**FIG. 7**

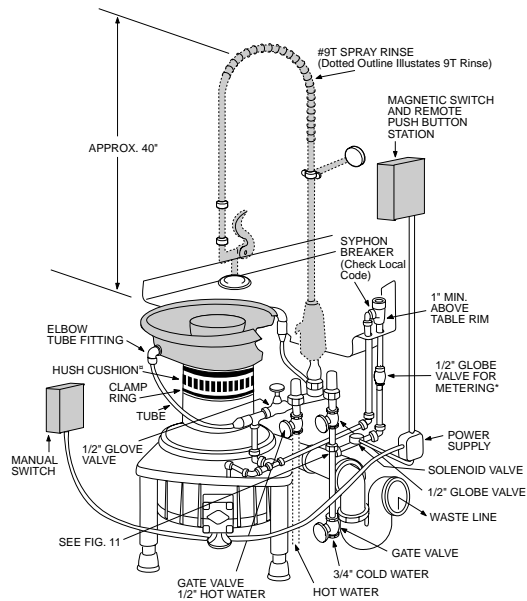
**NOTE:**

A globe valve used for metering flow to prevent solenoid hammering must be installed between solenoid valve and disposer. See Fig. 7. Any valve ahead of the solenoid valve must be opened and cause no restrictions.

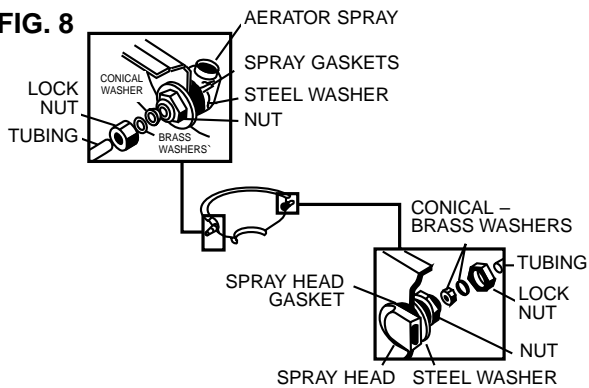
**IMPORTANT! Do not test or run disposer without minimum water flow (see Plumbing Installation) as this will damage the seal and void the warranty.**

**NOTE:**

Disposer assembly includes disposer, outlet, nipple, Hush Cushion®, clamps and supporting legs. Other items must be purchased separately. **Items shown in gray in Figure 7 are available in equipment groups ordered separately.**

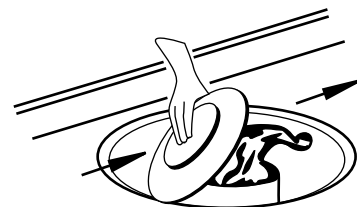


**FIG. 8**



**FIG. 9 CONVERTIBLE SPRAY**

The convertible spray should be located opposite the direction of travel of dishes in scrapping operation.

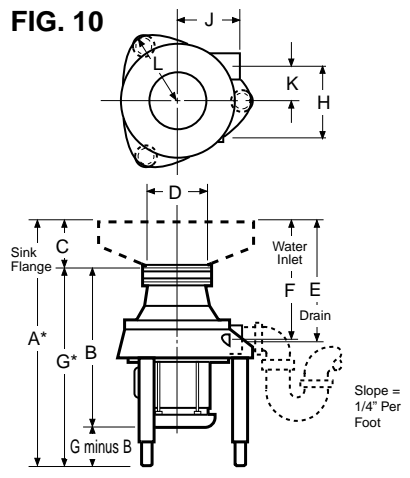


4. Slide second clamp ring loosely over Hush Cushion® and up to previously tightened clamp ring. Do not tighten.
5. Unscrew legs until there is a space of approximately 1/4" between the top of the upper housing and the Hush Cushion®. Raise disposer until the upper housing slides into the Hush Cushion®. Slide the loose clamp ring between the two lower beads on the Hush Cushion® and tighten.
6. Assemble swirl spray or swirl sprays as shown in Figure 8. The method of assembly of the swirl sprays is typical. Other combinations of convertible and fixed swirl sprays are available. The outlet hole of fixed spray head should be horizontal to promote swirling action in cone sink. (convertible spray see Figure 9.)
7. Connect copper tube or tubes to swirl sprays and bend in gradual curve to connect to fittings in valves. See Figure 7.
8. Thread special nipple into drain outlet, slide hush connector over pipe and assemble and tighten clamp ring in two grooves.

**NOTE: ALL PLUMBING AND ELECTRICAL CONNECTIONS SHOULD BE MADE ACCORDING TO LOCAL CODES.**

**INSTALLATION DIMENSIONS AND DRAINLINE CONNECTIONS**

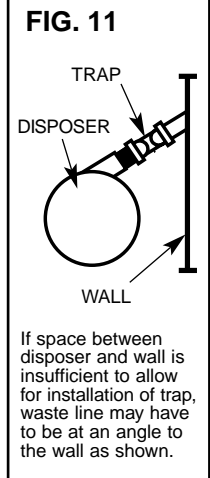
**FIG. 10**



**DIMENSIONS**

	2HP-1	2HP-3	3HP-3	5HP-3	5HP-38	10HP-3
<b>A*</b>	32 <sup>3</sup> / <sub>8</sub> - 35 <sup>1</sup> / <sub>8</sub>	32 <sup>3</sup> / <sub>8</sub> - 35 <sup>1</sup> / <sub>8</sub>	32 <sup>3</sup> / <sub>8</sub> - 35 <sup>1</sup> / <sub>8</sub>	32 <sup>7</sup> / <sub>8</sub> - 35 <sup>3</sup> / <sub>8</sub>	32 <sup>61</sup> / <sub>64</sub> - 35 <sup>29</sup> / <sub>64</sub>	32 <sup>61</sup> / <sub>64</sub> - 35 <sup>29</sup> / <sub>64</sub>
<b>B</b>	21 <sup>5</sup> / <sub>16</sub>	20 <sup>9</sup> / <sub>16</sub>	22 <sup>15</sup> / <sub>32</sub>	22 <sup>1</sup> / <sub>2</sub>	22 <sup>37</sup> / <sub>64</sub>	23 <sup>37</sup> / <sub>64</sub>
<b>C</b>	6 <sup>5</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>	6 <sup>5</sup> / <sub>8</sub>
<b>D</b>	6	6	6	6	8	8
<b>E</b>	16 <sup>1</sup> / <sub>4</sub>	16 <sup>1</sup> / <sub>4</sub>	17 <sup>15</sup> / <sub>16</sub>	17 <sup>19</sup> / <sub>64</sub>	17 <sup>3</sup> / <sub>8</sub>	17 <sup>3</sup> / <sub>8</sub>
<b>F</b>	16	16	16 <sup>1</sup> / <sub>8</sub>	16 <sup>5</sup> / <sub>8</sub>	16 <sup>23</sup> / <sub>32</sub>	16 <sup>23</sup> / <sub>32</sub>
<b>G*</b>	25 <sup>3</sup> / <sub>4</sub> - 28 <sup>1</sup> / <sub>2</sub>	25 <sup>3</sup> / <sub>4</sub> - 28 <sup>1</sup> / <sub>2</sub>	25 <sup>3</sup> / <sub>4</sub> - 28 <sup>1</sup> / <sub>2</sub>	26 <sup>1</sup> / <sub>4</sub> - 28 <sup>3</sup> / <sub>4</sub>	26 <sup>21</sup> / <sub>64</sub> - 28 <sup>53</sup> / <sub>64</sub>	26 <sup>21</sup> / <sub>64</sub> - 28 <sup>53</sup> / <sub>64</sub>
<b>H</b>	5 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	6 <sup>7</sup> / <sub>8</sub>	8 <sup>7</sup> / <sub>16</sub>	8 <sup>7</sup> / <sub>16</sub>	8 <sup>7</sup> / <sub>16</sub>
<b>J</b>	5 <sup>3</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>4</sub>	8 <sup>7</sup> / <sub>8</sub>	8	8	8
<b>K</b>	2 <sup>5</sup> / <sub>8</sub>	2 <sup>5</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>4</sub>
<b>L</b>	6 <sup>7</sup> / <sub>16</sub>	6 <sup>7</sup> / <sub>16</sub>	7 <sup>13</sup> / <sub>16</sub>	10 <sup>13</sup> / <sub>16</sub>	10 <sup>13</sup> / <sub>16</sub>	10 <sup>13</sup> / <sub>16</sub>

**FIG. 11**



\* Legs are adjustable beyond the minimum shown in the screw adjustment. 2" clearance must be maintained beneath unit for proper ventilation.



## PLUMBING INSTALLATION

**NOTE:** Refer to Figure 10 for installation dimensions and drainline connections.

1. Plumb unit using valves and fittings as shown typically in Figure 7.

**NOTE:** Syphon breaker, available as option item, is approved in most areas. Check local code to be sure it conforms in your area.

2. When overhead spray rinse is used, split the incoming 3/4" cold water into two 1/2" lines and connect one to the 1/2" "T" at the bottom of the unit and the other to the globe valve on the cold water side of the spray rinse. Connect one 1/2" hot water line to the globe valve on the hot water side of the spray rinse.
3. On models 3 HP, 5 HP, and 10 HP connect 3" drain to the hush connector. **Drain line must have a minimum of bends.** The unit is equipped with a drain outlet designed for a connection to a conventional 3" trap. For model 2 HP drain line and trap will be 2".

**IMPORTANT!** Before installing the disposer, the connecting waste line must be **cleaned out** all the way to the connecting sewer main. **DO NOT CONNECT INTO GREASY TRAP.**

The trap may be connected to a 3" branch waste line running directly into the stack. For model 2 HP, branch waste line can be 2". A minimum slope of 1/4" per foot of run of waste line is recommended. Limit the horizontal drain line to a 15 foot run free of turns; then, using a long 45° "Y", connect to a 3" or 4" horizontal line or stack. Recessed thread fittings must be used throughout and all pipe ends should be carefully reamed. A minimum number of elbows, tees, etc., reduce the possibility of plumbing stoppages. Water is injected to underside of table chamber through a control that allows approximately 4 gallons per minute flow. Do not restrict or alter this control as it is necessary to properly clean the inside of the unit.

**IMPORTANT:** If unusual sewer conditions exist (too many bends or too long to main), if the water pressure is low for application resulting in low water flow rate, or if high percentage of leafy and/or paper material is included in food waste, serious consideration should be given to the use of a time delay and water injector into the sewer to overcome stoppages. Under such conditions a larger size cold water line should be used along with larger solenoid valves and syphon breakers. (Parts and data available from factory.)

\*Minimum Water Flow RATE Used with Model: 2 HP and 3 HP – 10 gallons per minute. 5 HP and 10 HP – 14 gallons per minute.

## TESTING

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

1. Test assembly for leaks:
  - a. Where cone sink joins table
  - b. Where disposer joins cone sink
  - c. At all piping connections
  - d. Where swirl spray fittings connect
2. After plumbing and electrical connections are made, turn on disposer to be sure all parts are in working order and that the disposer turntable rotates clockwise when viewed from above. Open valve in vacuum breaker line and, using globe valves in plumbing assembly (Refer to Figure 6), adjust so that water swirls around just below the rim of the cone sink. Leave valves open in these positions.

**NOTE:** When the convertible swirl spray is used to remove food waste from dishes, adjust the flow to provide a convenient combination of anti-splash and high flow volume characteristics (top of flume approximately 3" above cone sink). These combinations provide a flow of approximately 8 gallons of water per minute.

3. Replace cover, retest for leaks and turn unit off.
4. Unit is now ready for operation.

## OPERATING INSTRUCTIONS

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

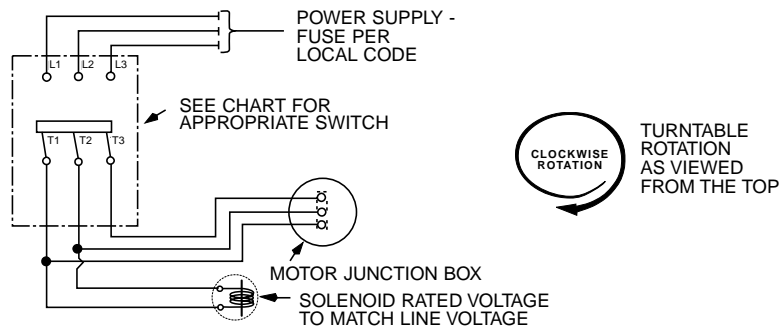
1. Push "start" button. Be sure unit is running and water is flowing before any waste is fed into the disposer. Do not pack food waste into unit. Do not dump garbage can loads directly into unit. Feed waste in gradually.
2. **DO NOT ALLOW GLASS, METAL OR CROCKERY TO ENTER. IF THIS OCCURS, STOP THE UNIT AND REMOVE SUCH MATERIAL.**
3. **IF THE MOTOR STOPS**, push stop button. Remove any waste material which caused stoppage. Check the turntable to see that it will turn freely. Wait three minutes, push red reset button firmly (LOCATED ON JUNCTION BOX OF MOTOR). Then push "start" button.
4. If the motor hums and the turntable does not rotate freely, there is usually a jamming obstruction, such as metal. **STOP UNIT.** With a suitable bar or stick, pry against one of the impellers and rotate the turntable in a counterclockwise direction. When the turntable is free, **REMOVE THE BAR AND THE OBSTRUCTION MATERIAL BEFORE RESTARTING UNIT. CAUTION – LOSS OF ONE PHASE IN THREE PHASE UNITS (if one fuse blows while running) WILL CAUSE MOTOR TO LABOR AND HEAT. PROLONGED OPERATION WILL DAMAGE THE MOTOR.**
5. If the motor remains silent after resetting the overload protector (as instructed in item 3 above) and the turntable rotates freely, check the electric fuses and complete electrical circuit.
6. **ALWAYS ALLOW THE DISPOSER AND THE WATER TO RUN FOR THREE MINUTES AFTER EACH OPERATION** to keep the unit clean and to flush all food waste out of the drain lines. **THIS IS IMPORTANT!**

**CAUTION:** ALWAYS TURN THE DISPOSER OFF AND LET IT COME TO A STANDSTILL BEFORE PUTTING YOUR HAND INTO THE HOPPER OR NEAR THE GRINDING CHAMBER. **DO NOT LOOK FOR CAUSE UNTIL STARTING CONTROL IS TURNED OFF.**

## ELECTRICAL INSTALLATION

1. Use waterproof conduit and make all electrical connections according to local codes.
2. Wire three phase units using manual switches as shown in wiring diagram, Figure 12.

**FIG. 12 WIRING FOR THREE PHASE UNITS WITH MANUAL SWITCH**

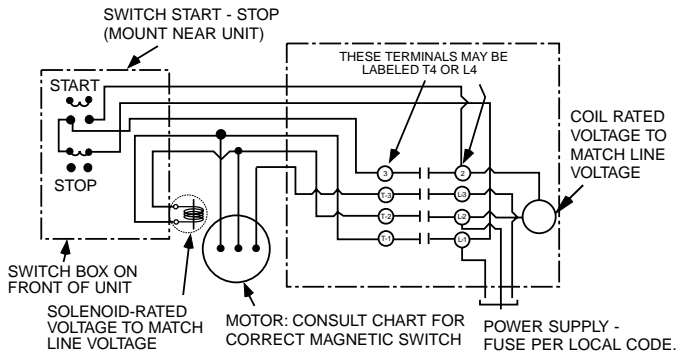


MANUAL SWITCH		
MODEL	VOLTS	PART NO.
2 HP	208-240	2420
	460	2420
3 HP	208-240	2421
	460	2421
5 HP	208-240	2421
	460	2421

**NOTES:**

1. Motor wired at Factory for 208-240 volts. For 460 volts, connect motor wires as shown inside of motor junction box cover.
2. Interchange T1 and T3 to reverse rotation.
3. Magnetic and manual starters, supplied do not require heaters to complete the circuit. Disposers have built-in overload protection.

**FIG. 13 WIRING FOR THREE PHASE UNITS WITH MAGNETIC SWITCH**

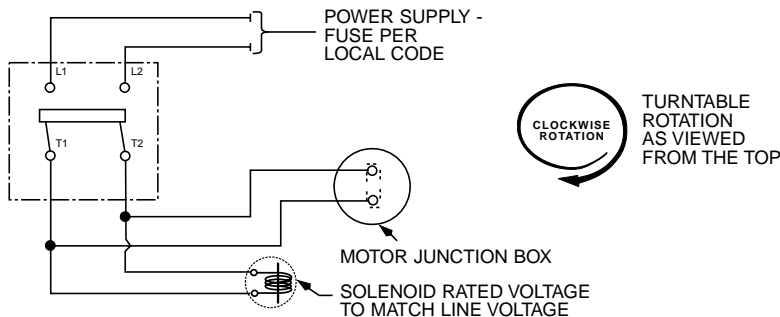


MAGNETIC SWITCH		
MODEL	VOLTS	PART NO.
2 HP	208-240	2416
	460	2417
3 HP	208-240	2416
	460	2417
5 HP	208-240	2416
	460	2417
10 HP	208-240	2416
	460	2417

**NOTES:**

1. Motor wired at Factory for 208-240 volts. For 460 volts, connect motor wires as shown inside of motor junction box cover.
2. Interchange T1 and T3 to reverse rotation.
3. Magnetic and manual starters, supplied do not require heaters to complete the circuit. Disposers have built-in overload protection.

**FIG. 14 WIRING FOR SINGLE PHASE UNITS WITH MANUAL SWITCH**



MANUAL SWITCH		
MODEL	VOLTS	PART NO.
2 HP	110-120	2420
	220-240	

**NOTES:**

1. Motor wired at Factory for 220-240 volts. For 110-120 volts, connect motor wires as shown inside of motor junction box cover.
2. Magnetic and manual starters, supplied do not require heaters to complete the circuit. Disposers have built-in overload protection.

# SINK MOUNTED MODELS DISASSEMBLY PROCEDURE

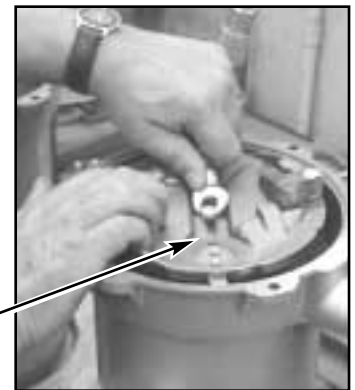
**COMMERCIAL  
DISPOSER MODELS**  
**1/2 HP, 3/4 HP, 1 HP,**  
**1 1/4 HP, 1 1/2 HP**

1. Remove unit from sink or cone.
2. Remove 6 screws which hold upper housing to motor housing (Fig.1) There are nuts and lock washers under the motor housing.
3. Lift off upper housing to expose grind ring and turntable. The grind ring can be lifted out. Remove the grind ring.



**FIG. 1**

4. Remove the turntable screw. This has a Left Hand Thread. Jam the turntable with a screw driver to prevent its turning while removing screw. (See Fig. 2)



HOLD TURNTABLE

**FIG. 2**

5. The turntable screws onto the rotor by a left hand thread. If only the seal or turntable require replacement, the rotor can be held by a large screwdriver in the slot in the top of the shaft. With the rotor held from turning, tap the impellers with a mallet to start the turntable. REMEMBER THAT THIS IS A LEFT HANDED THREAD. (See Fig. 3)
6. The seal is now exposed and can be replaced. Follow instructions which come with the replacement seal or see Page 13 of this manual.
7. If the bearing or stator require replacement, proceed to remove the stator as described on page 17.



**FIG. 3**

# TRIPOD MOUNTED MODELS DISASSEMBLY PROCEDURE

**COMMERCIAL  
DISPOSER MODELS  
2 HP, 3 HP,  
5 HP, 10 HP**

## UPPER HOUSING DISASSEMBLY PROCEDURE



Remove the eight Allen Head screws which hold the upper housing to the motor housing. Use a 5/16" Allen Head wrench as shown. It may be necessary to tap the upper housing around the outer edge to loosen it from the motor housing surface. Use a wooden mallet.



For a complete separation, insert a screwdriver between both housings and pry up.



**NOTE:** Gasket on top of grind ring **MUST** be replaced once the upper housing is removed.

Lift off upper housing to expose the grind ring and turntable. The grind ring can easily be lifted out unless the silastic sealant is binding it. In this case, scrape off the sealant from the grind ring outer edge, and tap the ring very lightly with a mallet to loosen it.

After the grind ring has been removed, the motor housing gasket can be peeled off and discarded to be replaced by a new gasket.



# TURNTABLE DISASSEMBLY PROCEDURE

**COMMERCIAL  
DISPOSER MODELS  
2 HP, 3 HP,  
5 HP, 10 HP**

To remove the turntable, first remove the center bolt. The **2 HP model** has a left handed bolt. Turn the bolt clockwise to loosen it. For **3 HP, 5 HP, and 10 HP models**, turn the bolt counter-clockwise to remove it. To prevent the turntable from rotating with the wrench turns, insert a large screwdriver under the outer edge of the turntable as shown in the top right diagram. This will allow you to tap the wrench with a mallet to loosen the screw if necessary. Fig. A shows the correct screw and washer configuration.

Next, insert another large screwdriver on the opposite side of the turntable outer edge as shown. Push downward using both screwdrivers as levers to hoist the table up and off of the shaft.

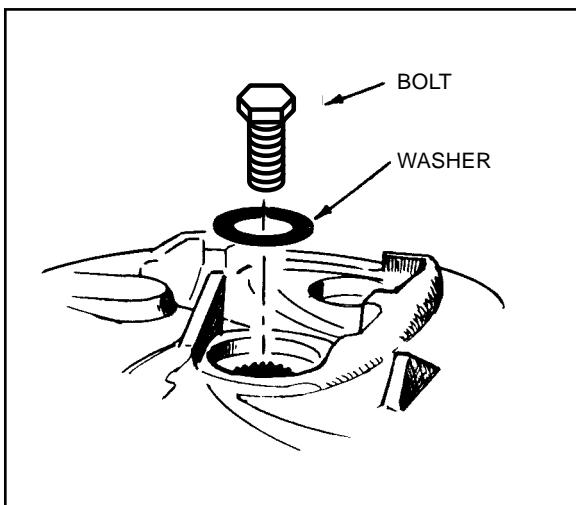
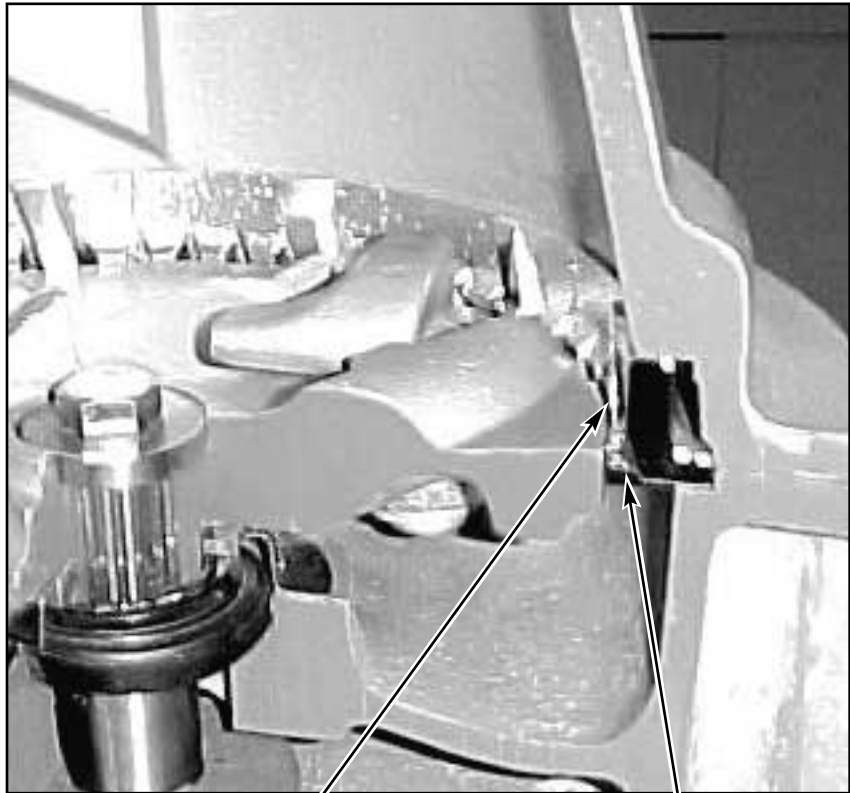


FIG. A

# TURNTABLE AND GRIND RING INFORMATION

All of our commercial disposers have stainless steel turntables which have been dynamically balanced for smooth operation. These turntables rotate at a speed of 1,725 R.P.M., which means that they revolve this many times each minute. Centrifugal force hurls food waste outward to be crushed by the teeth of the grind ring. In addition, the turntables have impellers which swivel and can retract if they are jammed so that they return to the grinding position during revolution. Both impellers are fortified with diamond-hard carbide inserts which provide longer life usage on the heavy duty units. Also, a stainless steel under cutter blade is located beneath the grind ring which snips fibrous or stringy waste into smaller particles making them less likely to clog the drain lines.



GRIND RING TEETH

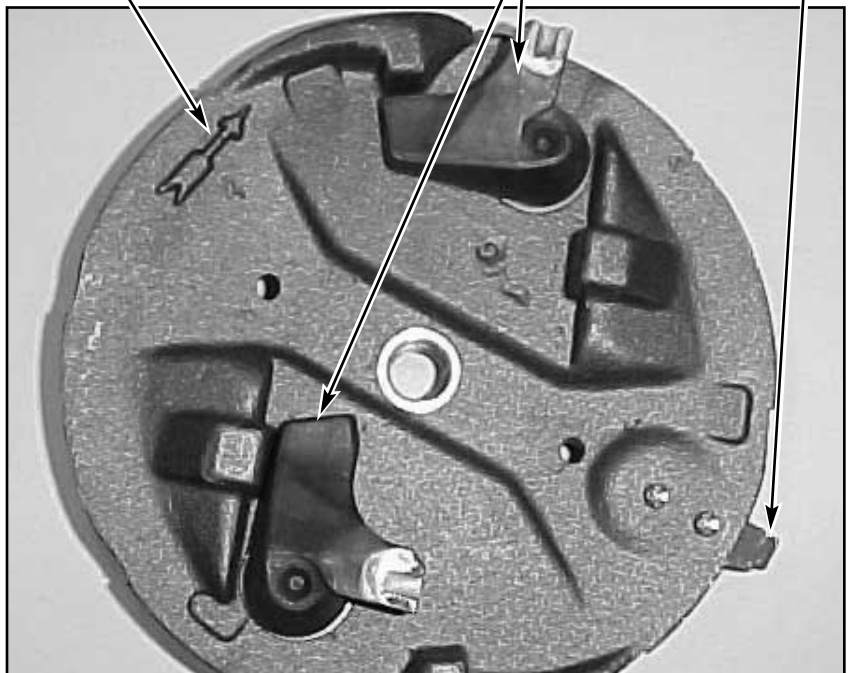
STAINLESS STEEL UNDER CUTTER BLADE

## **TURNTABLE ROTATION WARNING**

All of our disposers are designed so that the turntables revolve in a clockwise direction. Reversed line leads will cause a backwards turn in a counterclockwise direction which will damage the unit. The arrow which is molded into the turntable indicates the proper turn direction. To change the turn, refer to the correct wiring diagram and reverse the line leads. See bottom of Page 3.

ARROW INDICATING TURNING DIRECTION OF TURNTABLE

SWIVEL IMPELLERS AND DIAMOND HARD INSERTS



# SEAL DISASSEMBLY AND REPLACEMENT PROCEDURE

## SEAL DESCRIPTION

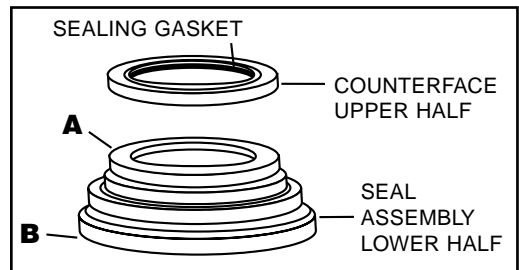
The seal consists of two assemblies. The upper half is the counter face assembly, which rotates with the turntable. It consists of a lapped ring (to mate with the lower half) and a rubber sealing gasket (to seal between the table hub and counter face).

The lower half is a seal assembly, which remains stationary. It consists of a carbon ring **A** to mate with the counter face and is spring loaded to maintain sealing contact with the counter face. This spring has a rubber boot **B** to prevent leakage around and beneath the spring.

**NOTE:** Care must be taken not to damage the mating surfaces of the counter face and seal assemblies. Any damage to these surfaces will cause operational noise and water leakage.

Before removing the seal from the motor housing hub area, you must first scrape the existing Permatex sealant from the outer diameter of the seal rim. After this is done, you may use a large screwdriver to pry the seal up and out.

**CAUTION:** Do not remove the seal unless there is evidence of an actual seal failure.



CHECK "1" AREA



ALSO CHECK "2" AREA



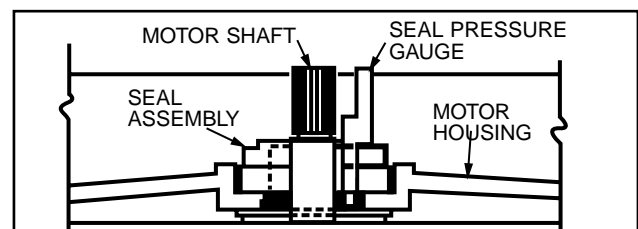
Seal and Motor Housing locations plus Permatex Sealing area. "1" and "2" Critical Sealing areas shown.

After the seal is removed, be sure to clean the complete motor seal seat surface area. Next, apply Permatex to the outer rim of the new seal assembly. Then, press the seal assembly into place, applying even pressure to the outer rim of the seal. Fig. B shows how you can make use of a devised cup-like tool that will allow you to tap down the outer rim only of the seal assembly.



FIG. B

The cross section drawing shows proper insertion of the seal pressure gauge tool which is included in the Seal Kit.



SEAL ASSEMBLY CROSS SECTION VIEW

### Seal Kit Part Numbers

2 HP	#01-22-688
3 HP	#01-22-689
5 and 10 HP	#01-22-756

# MOTOR REMOVAL FROM THE TRIPOD

Before attempting to remove the motor from the tripod, make sure that these top mating parts have been disassembled: Upper Housing, Grind Ring with gasket, Turntable, Seal assembly, with shim washers and snap ring. See previous pages.

If the unit can be turned over upside-down, all that is necessary is to remove the four Allen Head screws with a 1/4" Allen Head wrench as shown at right. If the tripod is left standing as shown, a support under the motor will be needed to keep it from dropping after the screws are removed. In the pictures below, a heavy wooden board was used as a prop under the motor to support it.



# SMALL AND MID-SIZED MODELS BEARING REMOVAL

The 1/2 HP through the 2 HP models have an upper bearing that is secured in the motor housing with a Truarc snap ring retainer. This bearing can be easily removed by turning the housing over and removing the snap ring retainer, then pushing or pulling the bearing up out of the housing. After the bearing has been replaced the snap ring

retainer can be replaced. The bearing is pre-lubricated with a special grease by the bearing manufacturer.

**NOTE:** If the unit is running with noise or displays leaking problems, be sure to inspect this bearing. These conditions can hamper the normal functioning of this bearing and cause internal damage.

REMOVING OR REPLACING  
PROCEDURE USING TOOL



2 HP MODEL

TUARC RING RETAINER



1/2 HP THROUGH 1 1/2 HP MODELS



# DISASSEMBLY PROCEDURE STATOR AND ROTOR

All of the present commercial disposer motors have built-in manual reset overload protectors located in a conduit box on the outside of the motor. This motor assembly is not integral, and any of the parts can be replaced. See the motor chart on page 16.

## DISASSEMBLY OF THE UPPER MOTOR



The upper end shield and the bottom end shield are connected by four motor-thru bolts which must first be removed with a 7/16" socket wrench.



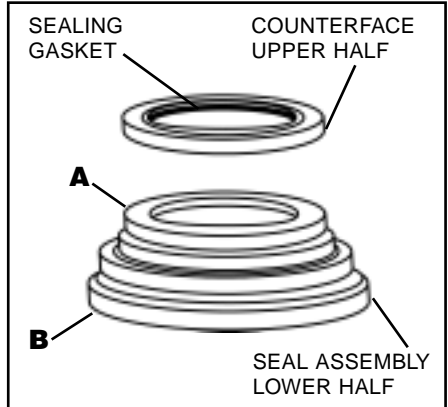
It is also necessary to remove the three screws which hold the bearing retainer onto the rotor shaft under the top end shield.



Remove the snap ring by using a screwdriver and prying outward until the ring snaps out of the shaft slot.



The upper end shield can now be removed. (Continued on the next page.)



### SHIM INFORMATION

Each of the shims below have been designed to control the compression between seal surfaces "A" and "B" and the turntable. If this is not controlled correctly, the seal will become damaged.

### SHIM AS REQUIRED

- .015 Shim = Part number 0064023
- .010 Shim = Part number 0064024
- .005 Shim = Part number 0064025

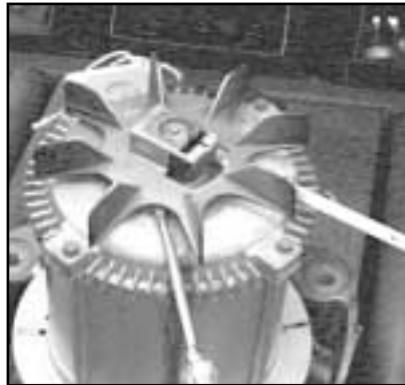
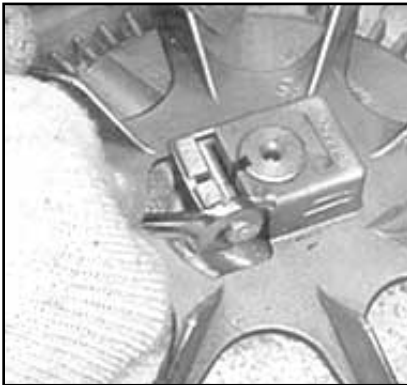
## MOTOR DATA FOR MODELS

DISPOSER HP	VOLTS	AMPS	PHASE	HERTZ	RPM
1/2	110-120/220-240	9.2/4.6	1	60	1725
1/2	100-120/200-240	7.4/3.8	1	50	1425
3/4	110-120/220-240	10.6/5.3	1	60	1725
3/4	100-120/200-240	9.8/5.5	1	50	1425
3/4	208, 220-240/440-480	2.8/1.4	3	60	1725
3/4	200-240/380-460	3.8/1.9	3	50	1425
1	110-120/220-240	12.0/6.0	1	60	1725
1	100-120/200-240	10.7/6.0	1	50	1425
1	208, 220-240/440-480	3.2/1.6	3	60	1725
1	200-240/380-460	4.6/2.3	3	50	1425
1 1/4	110-120/220-240	12.8/6.4	1	60	1725
1 1/4	100-120/200-240	14.0/7.8	1	50	1425
1 1/4	208, 220-240/440-480	3.9-4.0/2.0	3	60	1725
1 1/4	200-240/380-460	4.0/2.0	3	50	1425
1 1/2	110-120/220-240	14.4/7.2	1	60	1725
1 1/2	100-120/200-240	15.6/7.8	1	50	1425
1 1/2	208, 220-240/440-480	4.3-4.4/2.2	3	60	1725
1 1/2	200-240/380-460	4.4/2.2	3	50	1425
2	110-120/220-240	17.0/8.5	1	60	1725
2	100-120/200-240	16.0/8.0	1	50	1425
2	208, 220-240/440-480	5.6/2.8	3	60	1725
2	200-240/380-460	6.6/3.3	3	50	1425
3	208-220/240	7.0/3.5	3	60	1740
3	380-460	5.4	3	50	1425
5	208-220/440	16.0/8.0	3	60	1740
5	200-240/380-460	17.2/8.6	3	50	1425
10	208-220/440	19.4/9.7	3	60	1740
10	200-240/380-460	20.6/10.3	3	50	1425

## STATOR AND COOLING FAN REMOVAL



To remove the stator and fan, it is necessary to turn the motor up-side down to expose the fan guard. The guard is fastened with four screws on the outer edge which can be easily removed.



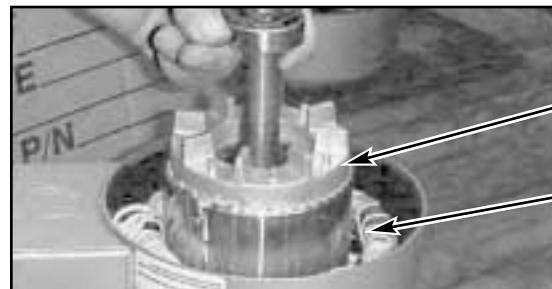
All of these units are built with a cooling fan which rotates with the motor on the shaft. Loosen nut and bolt. Now the fan can be removed by using a pair of screwdrivers as levers to slide the fan off of the shaft.

## ROTOR AND BEARING REMOVAL

After the upper and lower shields have been removed, the rotor can easily be pulled out of the stator coil area.

**CAUTION:** During this procedure, avoid any contact of the rotor with the stator coil windings as damage may occur.

The entire rotor assembly or either the top or bottom bearings can now be replaced.



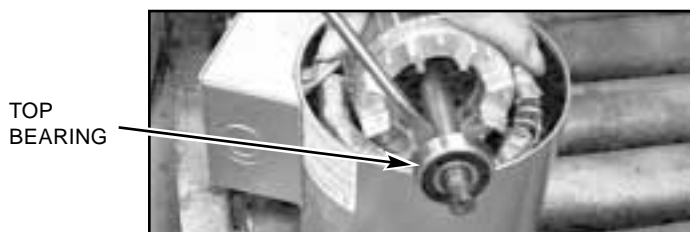
ROTOR  
RETAINER

STATOR  
COIL  
WINDINGS



BOTTOM  
BEARING

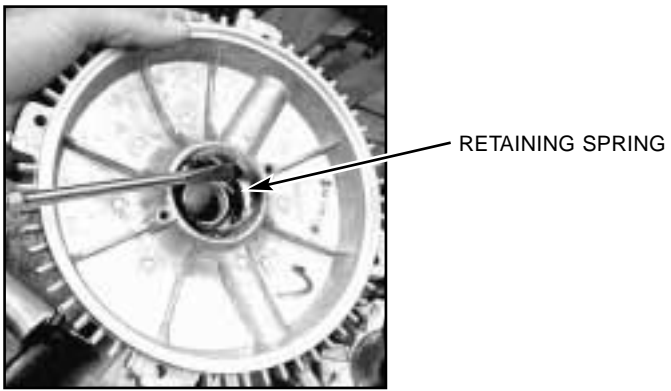
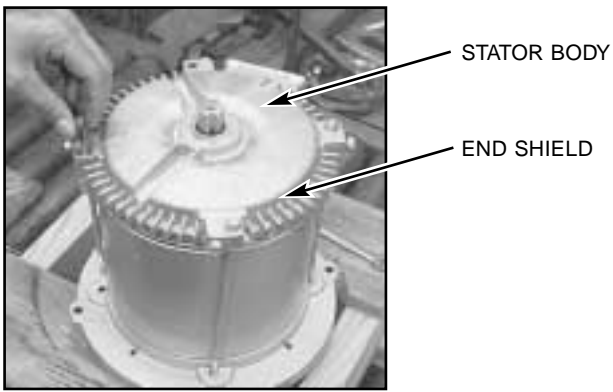
TOP  
BEARING



TOP  
BEARING

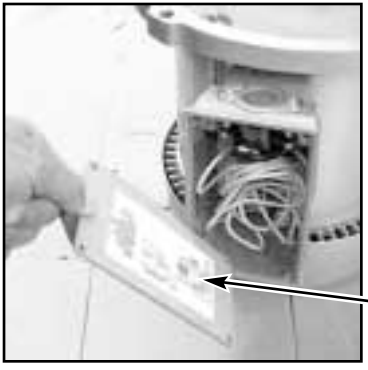
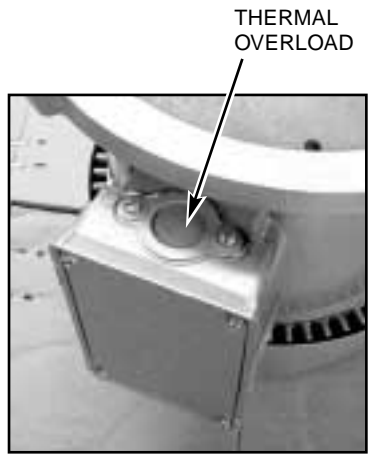
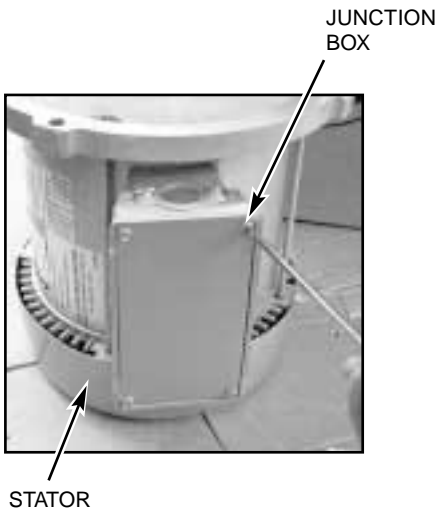
## END SHIELD REMOVAL

After the rotor and fan are removed from the unit, the end shield can be disassembled from the stator. Use a mallet and tap gently to work the end shield away from the stator. Inside of the end shield is a retaining spring which is easily removed.



## STATOR AND OVERLOAD PROTECTOR ELECTRICAL DESCRIPTIONS

The overload protector which is mounted on the Junction Box can easily be replaced. An outer label mounted on the outside of the stator will give detailed electric data of the disposer. To remove the cover of the box, undo four screws. On the reverse side of the cover is a line wiring label. This diagram should match the phase sequence of your disposer.



SECOND LABEL SHOWS LINE WIRING AND MATCHES PHASE SEQUENCE OF DISPOSER

REVERSE SIDE OF COVER

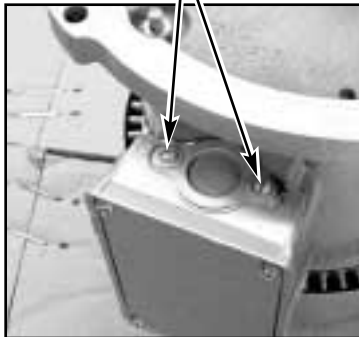
## OVERLOAD PROTECTOR

To remove the overload protector, undo the two holding screws. Numbers appearing near the six terminals show wire hookups per diagram on Page 22. See enlarged drawing below.



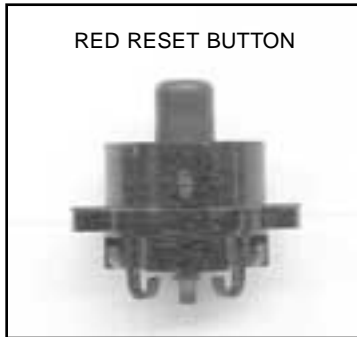
STATOR COIL

MOUNTING  
SCREWS



OVERLOAD PROTECTOR  
LOCATION

RED RESET BUTTON



OVERLOAD PROTECTOR

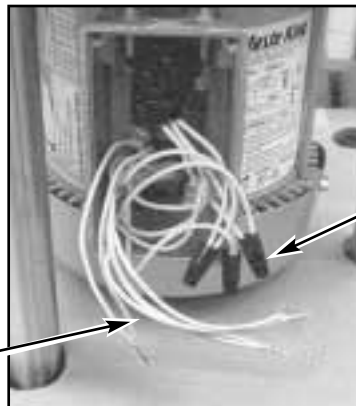


TERMINAL IDENTIFICATION  
NUMBERS

## ELECTRICAL DESCRIPTION

Each motor has been tested for phase sequence and line volts. For example, this motor is wired for 208-220 Volts - three phase and can be connected to operate on 220 or 440 Volts. There are three pairs of winding, and these are parallel across one of the phases. When connected for 460 Volts, each pair is connected in series.

LEADS  
TO LINE  
208/220  
VOLTS



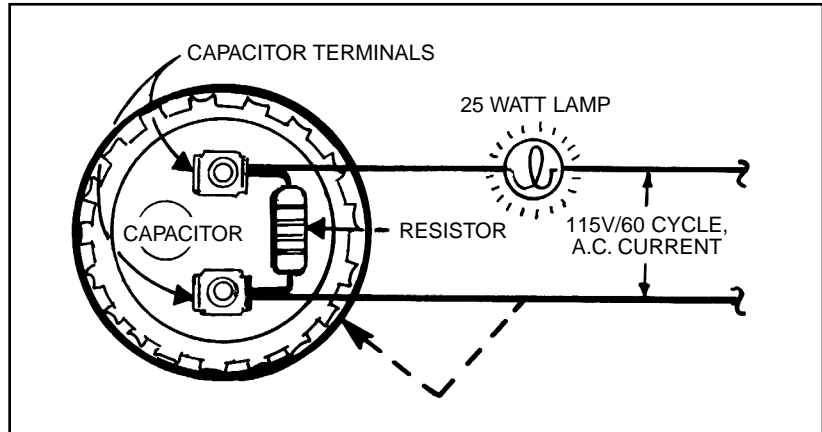
LEAD NUMBERS 16 AND 6  
LEAD NUMBERS 15 AND 5  
LEAD NUMBERS 14 AND 4

EXAMPLE OF WINDING LEADS  
(See external diagram, pages 23 and 24)

## TESTING THE MOTOR CAPACITOR FOR MODELS 1/2 THROUGH 2

To test the motor capacitor, it is necessary to disconnect and remove the capacitor from the motor. With a test light, check the current through the capacitor as shown at right. If there is no current, replace the capacitor. Next, check for a short circuit from each terminal post to the aluminum capacitor casing. If there is a short, replace the capacitor. The actual capacity of the capacitor can only be checked with a capacitor bridge.

**NOTE:** The above continuity and short circuit tests must be made with a 115 Volt, 60 cycle alternating current.

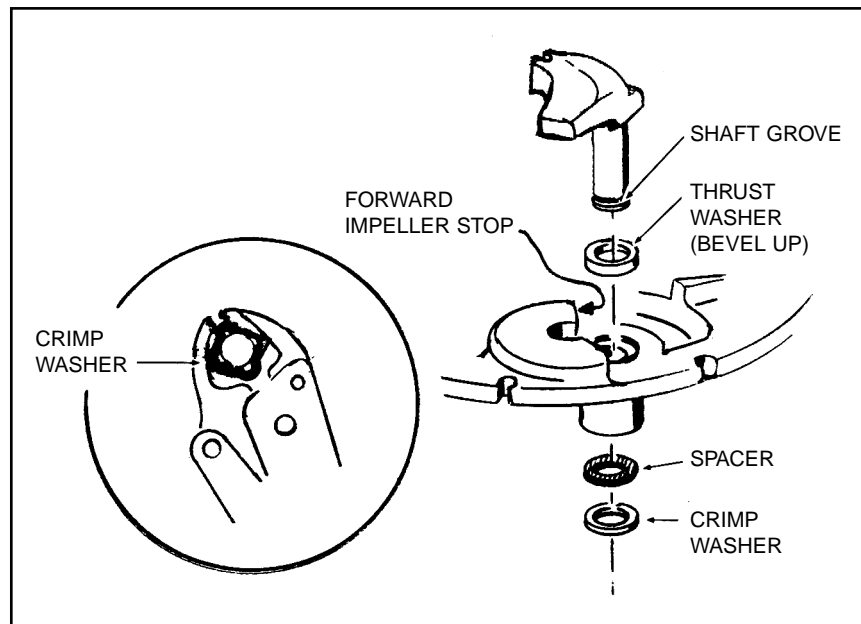


**DIAGRAM FOR MAKING OPEN CIRCUIT TEST, GROUND TEST, AND SHORT CIRCUIT TEST**

## REPLACEMENT OF IMPELLERS ON TURNTABLES

The installation of new impellers is recommended only when the turntable is equipped with heavy, forward impeller stops as shown. In cases of excessive wear, the replacement of all impellers is recommended to assure proper turntable balance.

Care must be taken to see that the crimp washer is fully seated into the groove on the impeller shaft. The inset illustration to the right shows vice-grips which have been modified for this purpose.

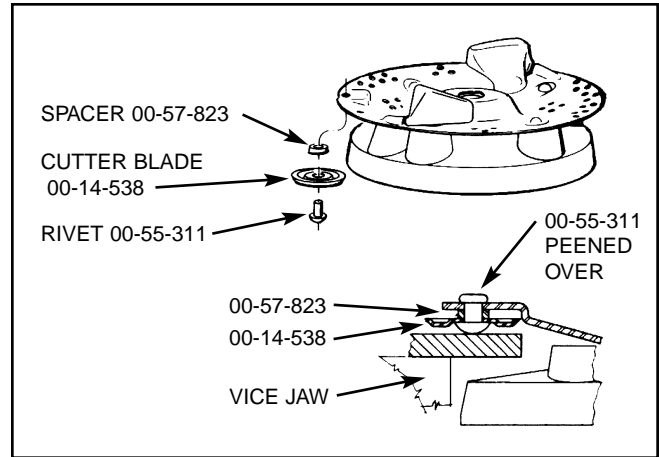


## CUTTER BLADE REPLACEMENT FOR SMALL 1/2 HP THROUGH 1 HP

The cutter blade has been designed as a snipping device to reduce fibrous or stringy food waste into small particles, thereby lessening the chance of a clog in the drain line. Following are the replacement instructions.

TO INSTALL CUTTER BLADE KIT NO. 00-80-067:

1. Remove the table assembly from the unit. (See Page 11).
2. Remove the old rivet and cutter blade.
3. Assemble spacer, cutter blade, and rivet to the table assembly in the order illustrated at right.
4. Back rivet on hard surface, making sure that all parts are snug and in position and then peen rivet over. Many light blows with a small hammer are more effective than fewer blows with a larger hammer.
5. Reinstall table assembly into the unit.



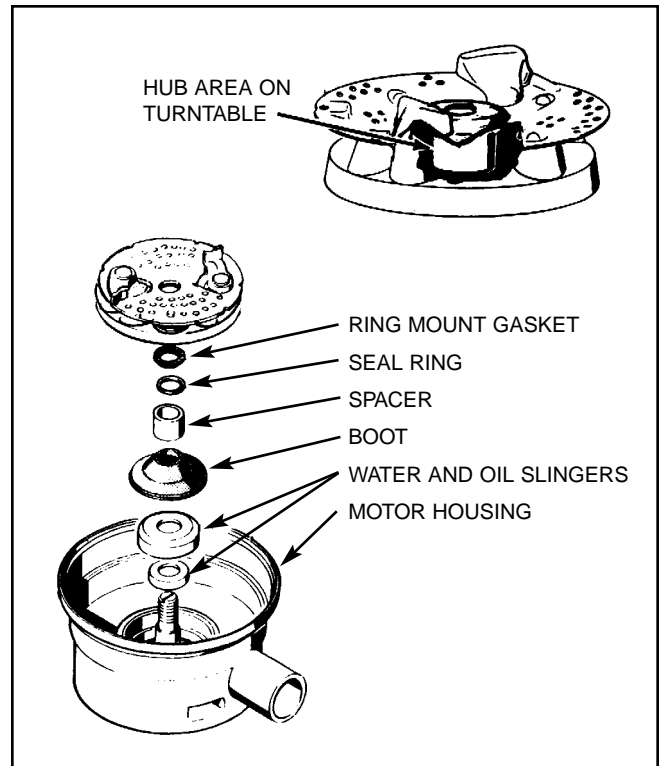
## BOOT SEAL REPLACEMENT FOR SMALL 1/2 HP THROUGH 1 HP MODELS

Removal of the turntable exposes the water seal. This seal consists of two assemblies. The upper assembly is carried by the turntable hub and is a coined and lapped seal ring held in a sealing gasket. The lower part is a carbon wear ring carried in a rubber boot. Beneath this seal assembly are water and oil slingers which function as water or oil shedders in the event of a leak.

Seal Kit Part Numbers: 1/2 HP and 1 1/2 HP Models  
#00-94014  
3/4HP, 1 HP, and  
1 1/4 HP Models  
#00-94-073

### INSTALLATION INSTRUCTIONS

1. Clean the cavity around the turntable hub. Slip the seal ring and ring mount gasket onto the turntable hub with the polished side of the seal ring FACING OUT.
2. Remove the water slinger and inspect the bearing.
3. Clean the seal mounting seat and replace the water slinger.
4. Apply adhesive to the seal mounting and install the seal.
5. Reinstall the turntable.



# DISASSEMBLY PROCEDURE FOR TRIPOD LEGS

On the free standing, mid-sized and large models, 2HP through 10HP, all three legs can be removed for modification if needed. In order to remove the legs, the tripod must be turned upside down as shown. Each leg should have been torque tightened into the motor housing, so it will be necessary to use vice grips, in conjunction with a mallet, to loosen each leg. The legs on the mid-sized models have handy plastic foot caps which can be easily removed or replaced by simple tapping.

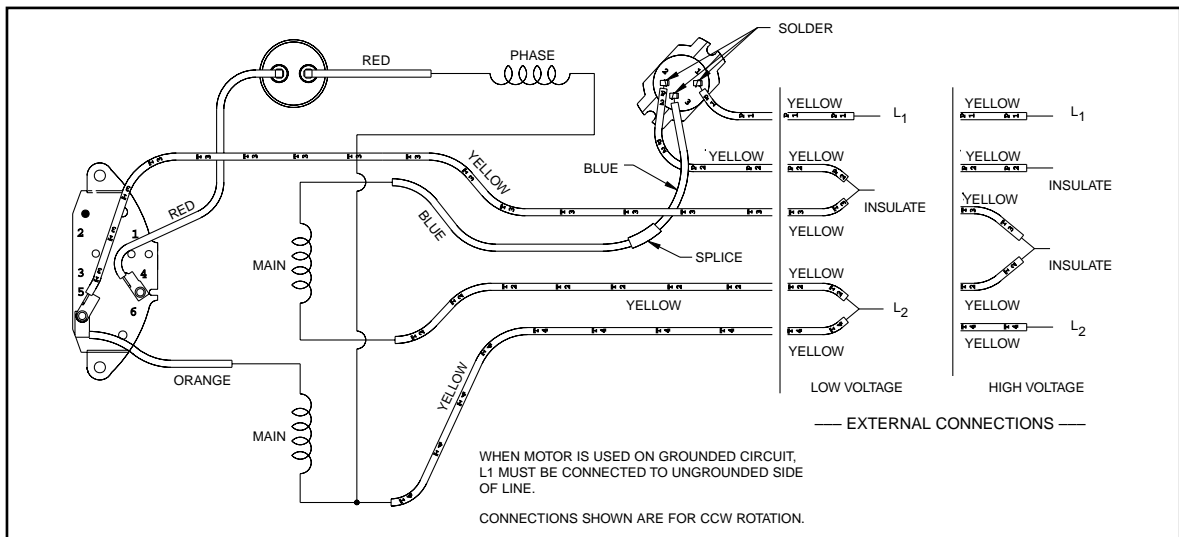


THREADS  
ON LEGS

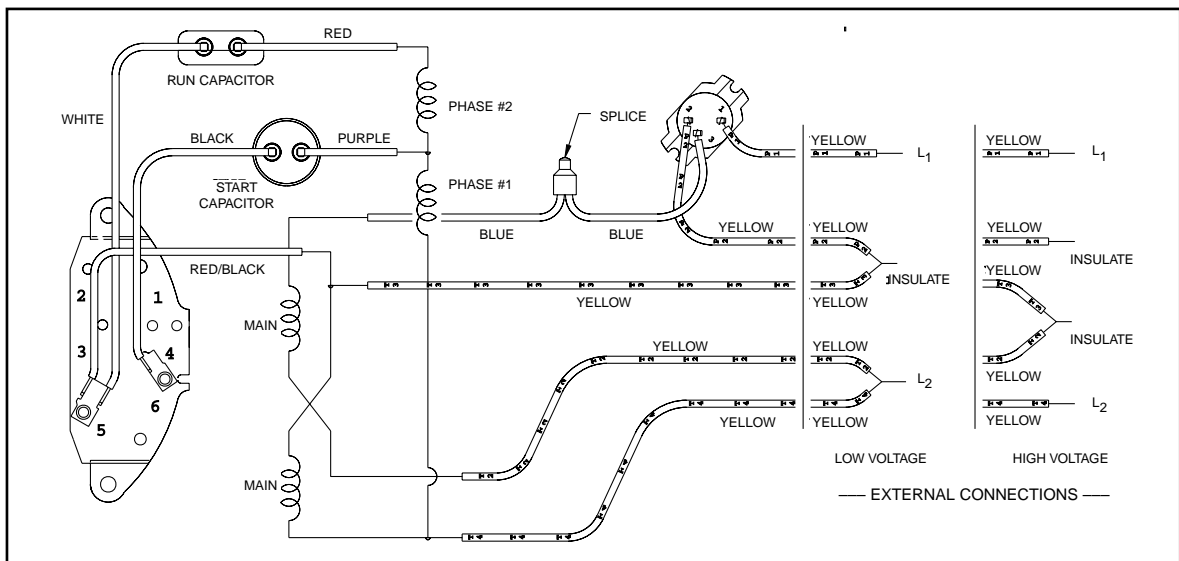


# WIRING DIAGRAM FOR ONE PHASE MOTORS ONLY

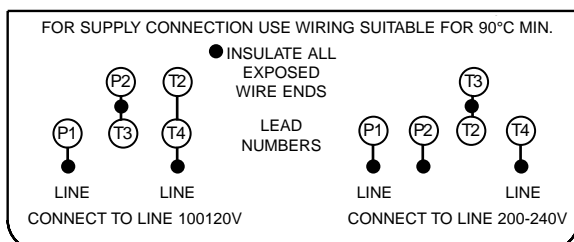
## 1/2HP - 1HP SINGLE PHASE 50/60Hz



## 1-1/2HP - 2HP SINGLE PHASE 60Hz

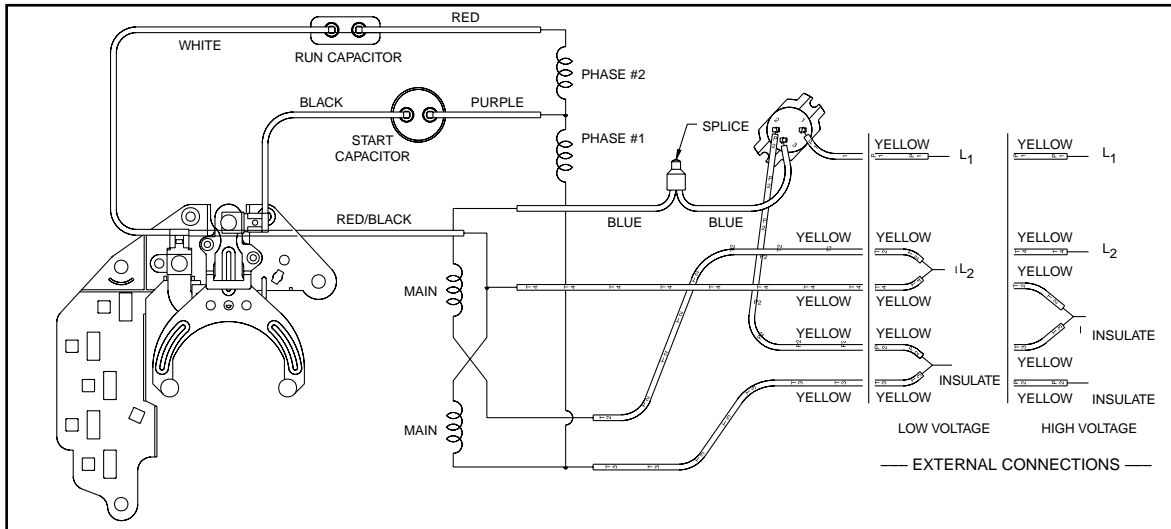


## EXTERNAL WIRING DIAGRAM - SINGLE PHASE

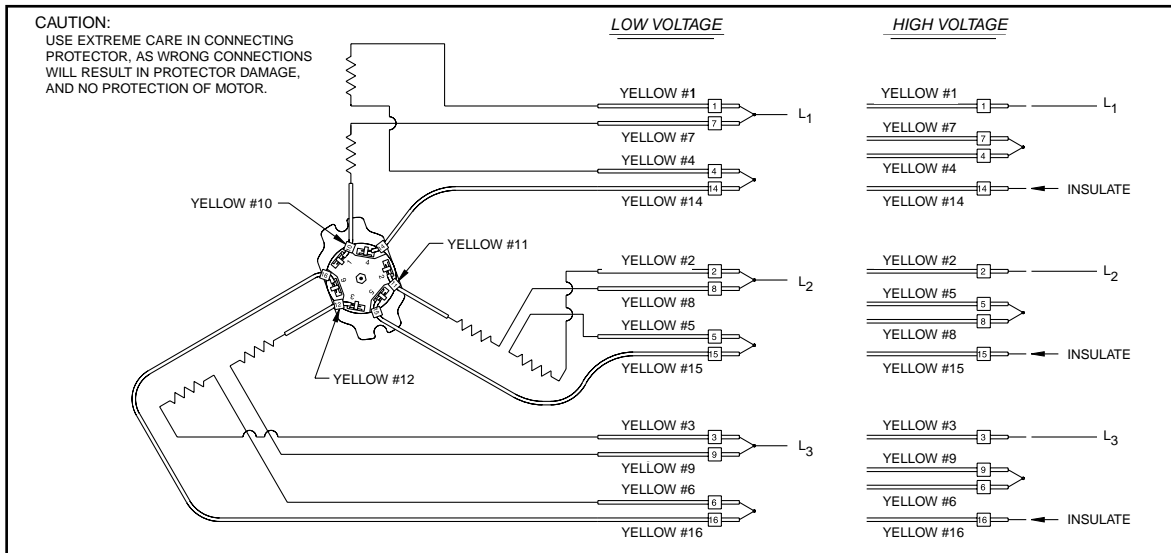


# DUAL VOLTAGE WYE CONNECTED MOTORS - THREE PHASE

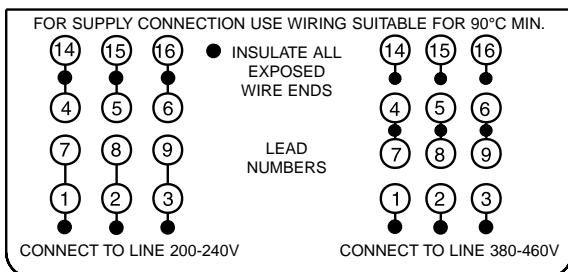
## 1-1/2HP - 2HP - SINGLE PHASE, DUAL VOLTAGE, 50/60Hz



## 3/4HP - 2HP - THREE PHASE, DUAL VOLTAGE, 50/60Hz 3HP - 10HP - THREE PHASE, DUAL VOLTAGE, 50/60Hz



## EXTERNAL WIRING DIAGRAM - THREE PHASE



# DIAGNOSIS GUIDE

## DISPOSER TROUBLESHOOTING CHART

POSSIBLE CAUSE	PROBLEM						
	Disposer fails to start and motor is silent	Disposer fails for start and motor hums	Disposer running noisy	Disposer grinds slowly	Entire unit vibrates	Unit leaks	Unit operates slowly, labors, may smoke
Jammed turntable, free it manually.		●					
Open winding in field. Rewind Field. See wiring connections on Page 23 or 24.		●					
Blown fuse on one leg of 3 phase motor. Check circuit. Change wiring and replace fuse. See Page 24.		●					
Cutout due to overloading. Reset overload protector.	●						
Defective control switch. Replace control switch.	●						
Blown circuit fuse or tripped circuit breaker. Replace fuse or reset circuit breaker.	●						
Foreign ungrindable material in grinding chamber. Remove obstruction.			●				
Worn bearing in motor, see Page 14. Replace seal and bearing if necessary.			●				
Worn grind ring and/or turntable caused by backwards rotation of turntable. Replace worn parts and check rotation arrow on turntable, Page 12. Reverse if needed.				●			
Impeller is stuck, free it manually.					●		
Broken seal. Replace seal and inspect bearing. See Page 13.						●	
Internal gasket leak. Replace internal gasket.						●	
Blown fuse on one leg of 3 phase motor. Check circuit, see Page 24. Change circuit if needed and replace fuse.							●

