

DO NOT THROW AWAY!
Important Safety and Operational Information



Hammerall Disposer Company

*Disposer
Company*

Installation and Service Manual

CAUTION

To avoid serious injury, never put hands inside operating disposer.

Power to the disposer must be terminated at both the starter switch and the main electrical panel prior to removing undisposed material from the grinding chamber.

It is possible for material, especially non-food material, to leave the grinding chamber; to avoid possible serious injury, never introduce non-food material into the disposer, keep face and body away from sink hole opening when disposer is operating, and never put hands or other body parts below sink hole opening.

Disposer must never be operated without its splash guard (safety baffle), and its protective cabinet enclosure securely fastened in place.

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Hammerall Commercial Foodservice Disposer Installation and Service Manual

UNPACKING THE HAMMERALL DISPOSER

All Hammerall units are shipped in high strength corrugated cartons. Remove the unit from the carton, and check contents against the enclosed Packing List/Quality Control Sheet.

INSTALLATION INSTRUCTIONS

1. Carefully place unit on its side, and install a PVC threaded adapter into the two-inch NPT drain on the bottom of the grinder.
2. Install the four legs packed in the corrugated lid into the openings provided at the corners of the disposer's base. Note that each opening contains a locking collar allowing the disposer's height to be adjusted. Once adjusted for the installation, tighten all locking set screws.
3. Position the disposer with its opening directly beneath the sink drain. This will facilitate the installation of the rubber boot connector. (See Figure 1)
4. The drain piping should now be installed. A Tee with a cleanout plug should be installed under the unit rather than an elbow. This will simplify maintenance to the drain, should that ever be required. The drain should be installed to comply with all local regulations.
5. Water supply to the disposer should be through the 1/2-inch NPT threaded adapter at the neck of the unit, and may be supplemented by swirl jet(s) in a bowl sink. To ensure an optimum supply of water to the unit under all load conditions, it is highly recommended that water be supplied at both locations.

CAUTION: Water MUST be supplied to the disposer whenever waste is being processed. Introducing food refuse to the disposer without an adequate water supply will cause the refuse to be ground into a thick paste which will be forced into the drain line, possibly causing the line to clog. Water should be supplied to the unit through a shutoff valve, a vacuum breaker, and an electrically operated solenoid valve. Supply installation must comply with all local plumbing regulations. (See Figure 1).

6. The disposer's motor must be wired for proper voltage upon installation. Wiring instructions are contained on the motor. All electrical work should be performed by properly trained and licensed personnel ONLY. The unit MUST be wired through a starting switch with motor protection heaters sized according to the operating voltage of the motor. The solenoid valve should be wired to this switch to ensure that water is supplied to the unit during operation. All wiring must be run in watertight conduit. Electrical installation should comply with all local, state and federal regulations.

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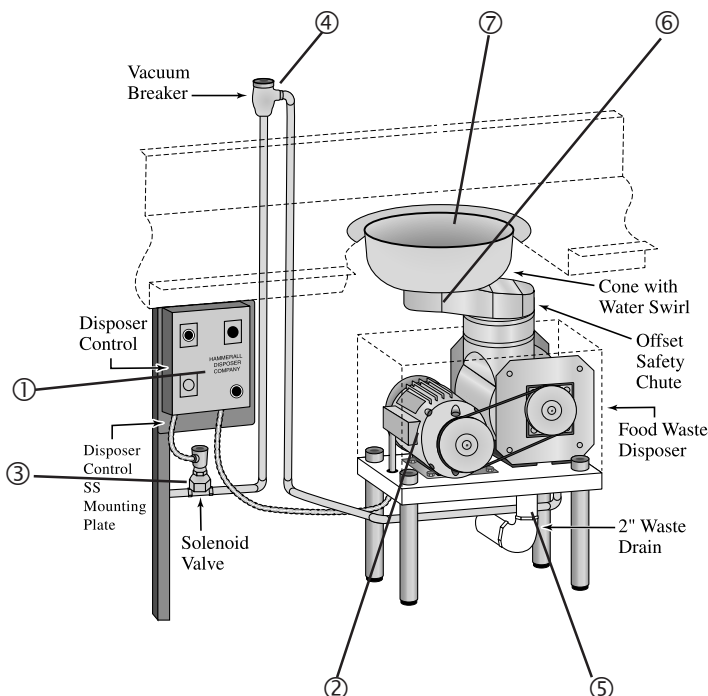
CAUTION: If this is a replacement unit, installer must ensure that the proper thermal overload protection is furnished at the starter. For current rating, see motor rating plate.

- The rubber boot connector is made from a specially formulated gum rubber. This material is very resistant to abrasion from food refuse, but can be cut with metallic objects. To attach the rubber boot connector to the unit, carefully measure the distance between the bottom edge of the sink, and the top edge of the disposer and add three inches to the measurement for overlap. The boot may be cut to this length using heavy duty scissors, metal shears, or a razor knife and straight edge. Attach the boot to the unit by sliding it over the opening to the grinder body or over the splash guard if installed. The disposer is shipped from the factory with the boot and splash guard installed on the grinder body. Slide the other end over the sink flange. Attach each end with the stainless steel clamps supplied with the unit.

CAUTION: If the unit is offset or if there are other extenuating circumstances, be sure to add extra length to the measurement before cutting the rubber boot connector to compensate.

- With the water valve turned off, start the unit and ensure that the rotation of the pulley, belt and shaft is in the counterclockwise direction when viewing the motor pulley straight on. Qualified electrical personnel should correct the rotation
- Turn water supply valve on and test piping for leaks. The unit is now ready for use.

FIGURE 1



- STARTER
- MOTOR
- SOLENOID VALVE
- VACUUM BREAKER
- 2 INCH MAIN DRAIN TO SANITARY SEWER
- RUBBER BOOT CONNECTOR
- CONE

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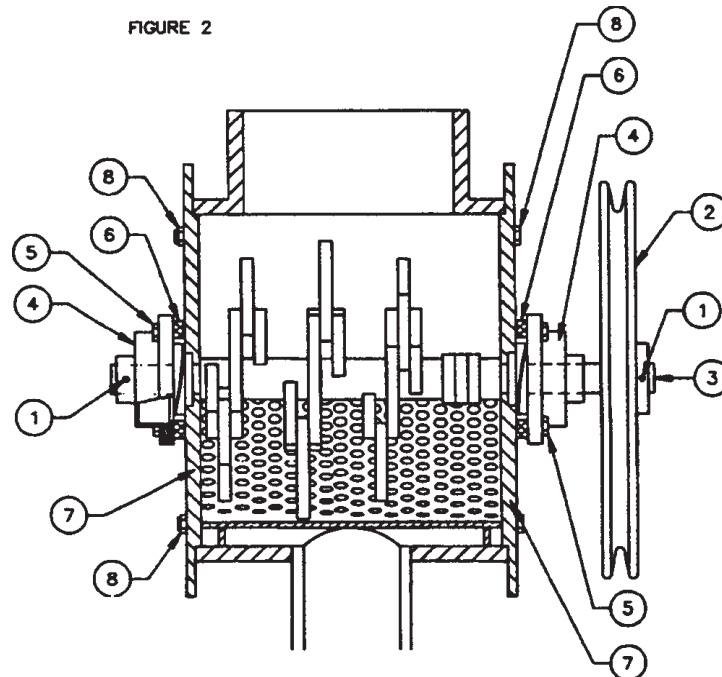
REPAIR DISASSEMBLY INSTRUCTIONS (Refer to Figure 2 unless otherwise indicated)

The following instructions apply to all models.

Hammerall Disposers are designed so that virtually all maintenance may be performed without removing the unit. The unit can be completely dismantled on-site and a major overhaul completed in approximately two hours by most qualified service personnel. Refer to the drawings for clarification of instructions.

1. Remove the drive belt. Loosen the 5/32 Allen head screw (1) securing the pulley (2) to the **rotor shaft** (3). Remove the pulley using a suitable gear puller.
2. Loosen the two Allen screws which secure the bearing (4) to the rotor shaft.
3. Remove the four 9/16 bolts (5) securing the bearing and spacer blocks (6) to the end plate (7). Using the gear puller, remove the bearing.

NOTE: Polish the shaft with fine sandpaper before removing the bearing to minimize possible damage to the bearing.



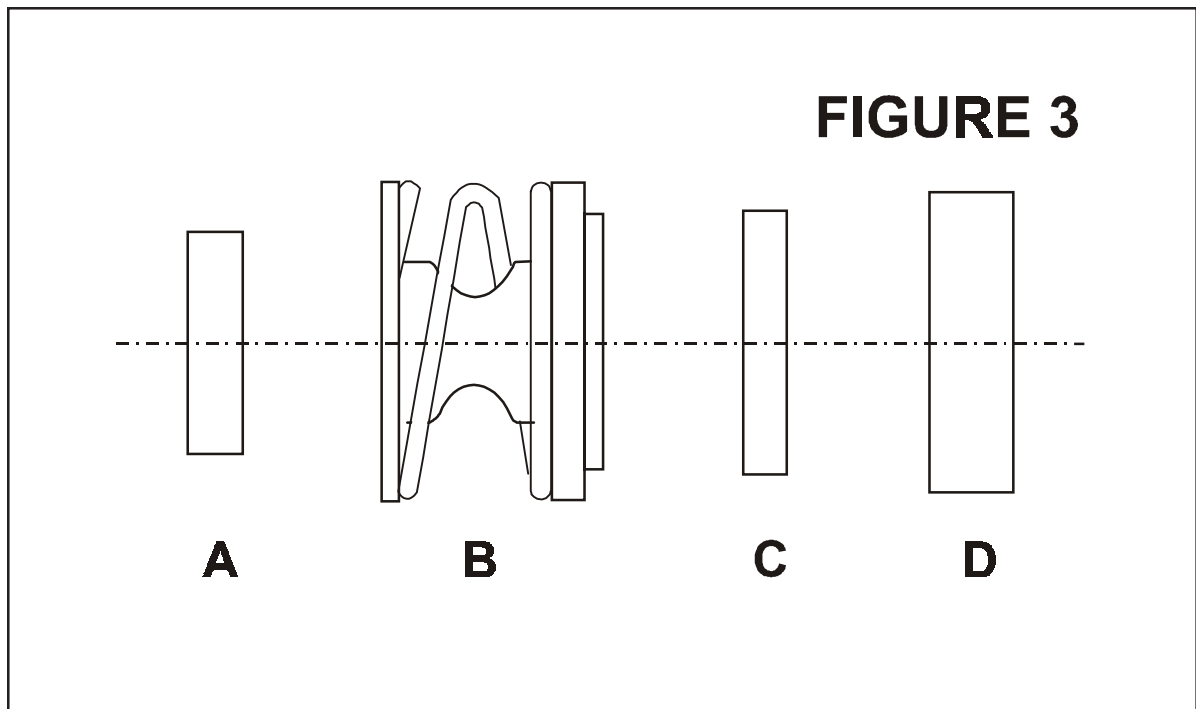
4. Refer to Figure 3 for this step only. Remove the seal assembly from the pulley end of the rotor shaft, as follows:
 - a. Remove the stationary rubber sealing ring (a) from the seal assembly. Remove the rotary section (b) of the seal.

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5. Remove the two 5/16-inch nuts from the neck bolts (8) which secure the end plates to the body of the grinder. Remove the remaining three 5/16-inch nuts and three 9-inch long bolts. The end plate (7) can now be removed. The opposite end plate may also be removed, complete with the shaft, seal and bearing. Bearing and seal assembly should be removed from this shaft by repeating the instructions in gs 2-4, above. Thoroughly clean the seal assembly relief on the outside of each end plate and the body channel on the inside of each end plate.
6. Refer to Figure 4 for this step only. Examine the Screen (1) for wear or damage. Replace if any break or excessive wear is found. To remove the screen, tap the screen on one end and slide it out the other end.
7. Carefully examine the rotor shaft (5) and replace it if excessive wear is noted on any of the blades (6), or if blades are broken or missing.

CAUTION: To ensure safe and efficient operation of the disposer, rotor shaft **MUST** be replaced if blade length is less than 2 1/4-inches, or if the mounting hole is worn to 1/2-inch or larger.

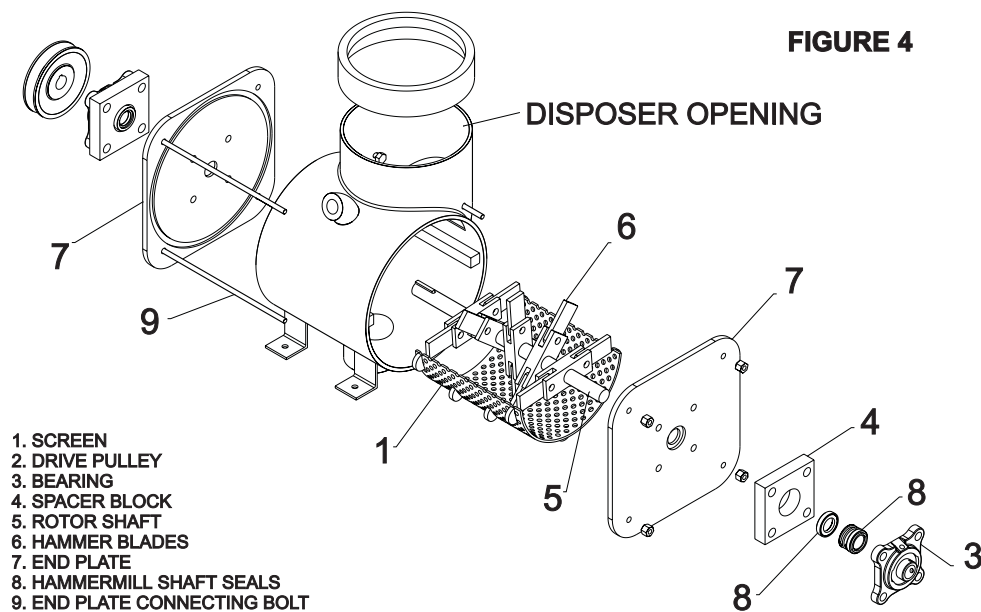
8. Examine seals and bearings for wear. With proper maintenance, bearings should last for years. Seal condition will depend on use and care in disassembly. If unit has been in service for two years or longer, seal replacement is recommended to preclude additional labor should seal fail after reassembly. Disassembly is now complete.



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REASSEMBLY (Refer to Figure 4 unless otherwise indicated)

1. Begin assembly by installing the screen (1) into the body.
2. Continue assembly with Endplate (7), and shaft (5). Locate seal assembly (Figure 3 -a,b,c, and d). Remove Ceramic Ring (c), from Rubber End Seal (d), and install Rubber End Seal in relief in center of Endplate (7). Install Ceramic Ring (c) in Rubber End Seal (d). Slide shaft (5) through Rubber End Seal (d). Insert the shaft end without the keyway through the seal. Remove rubber sealing ring (a) from the rotary seal assembly (b) and slide assembly onto the shaft. Position the sealing ring (a) on the shaft and press into the rotary seal assembly. Ensure that the sealing ring is uniform and smooth when positioned in the seal assembly.



3. Position the bearing (3) over the shaft and secure to the endplate with spacer block (4) and four 9/16 bolts (FIGURE 2) (5). When tightened, the bearing and spacers will properly compress the seal assembly and ensure a proper seal.
4. Apply a generous bead of a good grade of RTV silicone sealant to the thoroughly cleaned out body channel relief on the inside of each endplate. Position the endplate/shaft assembly against the body on the side opposite the motor pulley.
5. Place the remaining endplate, less bearing and seal, over the keyed end of the shaft and insert the long bolts (9). Secure the end plates with three nuts. Insert the two neck bolts and secure with nuts. Torque the four corners to 8 foot-pounds to ensure a leak free fit.
6. Install the seal on the keyed end of the shaft as instructed in step 2. Attach the remaining bearing and spacers and tighten.

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7. Make certain that the swing hammers of the rotor shaft are centered inside the unit before tightening the bearing set screws. Viewing the shaft from the top of the disposer throat enables you to easily center it. If the shaft is displaced to one side, gently tap the opposite side with a rubber mallet to even the shaft.
8. Once shaft is set, tighten the two set screws in each bearing. **You MUST use a high quality threadlock product to secure set screws. Failure to do so may result in severe damage to the rotor shaft, bearings and end plates, and may void your warranty.**
9. Install the drive pulley (2) and key onto the shaft. Align the drive pulley with the motor pulley. Use a straight edge to ensure alignment. Misalignment of the pulleys will cause premature belt failure and possible damage to the shaft assembly.
10. Install drive belt.

CAUTION: Installer should replace any belt exhibiting wear or in questionable condition. If belt tension requires adjustment, the motor should be loosened at the base and moved away from the grinder housing.

11. Assembly is now complete and testing can begin.
12. Before proceeding, check condition of the splash guard and replace if deteriorated. To replace, remove stainless steel clamp holding rubber boot connector to splash guard. Discard old splash guard. Slide rubber boot connector over new splash guard, and secure with SS clamp.
13. With water off, turn unit on and check for smooth, quiet operation.
14. Start water flow into the unit and check for leaks.
15. Check grinding action of the unit by introducing food refuse.
16. Reassembly is complete. The unit can now be returned to service.

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MAINTENANCE SCHEDULE

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Disposer must never be operated without its splash guard (safety baffle), and its protective cabinet enclosure securely fastened in place.

Daily Maintenance

1. **Strictly** follow ALL cautionary instructions ABOVE and terminate power to the machine at **both** the starter and the main electrical panel
2. Carefully remove all non-food material from grinding chamber. **Hammerall recommends this be done only by qualified service personnel.**

Quarterly Maintenance (every three months)

1. Lightly grease bearings — use good grade of waterproof grease. Do not flush grease from bearings!
2. Check condition of cutting blades — replace rotor shaft when blades are less than 2¼ inches in length or if severe wear is noted on one or more individual blades.
3. Check condition of drive belt — Replace if cracked or deteriorated.
4. Ensure that all set screws are coated with a high quality thread lock product.
5. For best results feed fibrous waste into grinding chamber with a mix of other wastes.

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TROUBLESHOOTING GUIDE

Unit does not consume refuse	Shaft does not rotate	Ensure enough water to flush refuse and connect water supply to inlet provided at base of disposer neck.
	Motor does not run	
	Insufficient or improperly connected water supply to grinder	
Rotor shaft does not rotate	Drive belt missing or broken	Replace as necessary
	Debris lodged against shaft at startup	After terminating electrical power to both the starter switch and the main electrical panel, remove large pieces of debris and restart. Always allow grinder sufficient time to digest refuse before stopping.
	Bearing frozen	Replace if necessary. Grease bearing periodically to prevent recurrence. (Maintenance Schedule)
Motor not running	No power to switch	Check / reset / replace circuit breaker
	No Power to motor	Overload heaters tripped — reset
		Replace defective switch
Motor defective	Repair or replace	
Unit consumes refuse slowly	Insufficient water to grinder	Increase water flow
	Cutting blades worn	Replace rotor shaft to restore efficiency (Maintenance Schedule)
Unit drains slowly	Unit damaged or severely worn, allowing food to pass through	Replace screen. This condition is normally caused by metal object introduced into the machine. Prevent the introduction of flatware or other metal into the grinder. When introduced, terminate power to the machine at both the starter switch and the main electrical panel, and remove object

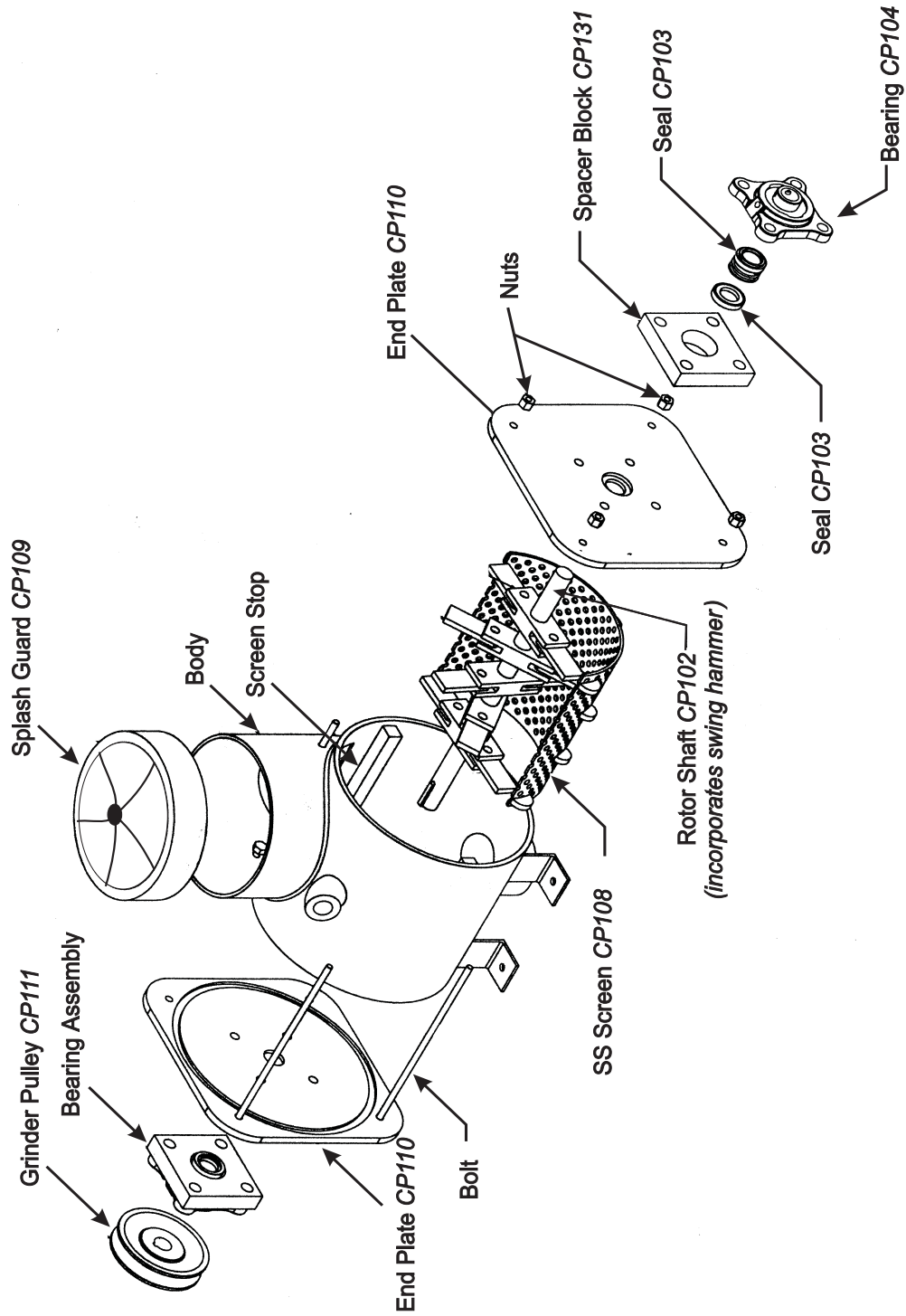
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Parts Available Through Authorized Service Centers. Call 1-800-818-5797

Part #	Description	HI-150	HI-200	C-300	C-500	C-1000R	Wt.
CP-101	Rebuild Kit	✓	✓	✓	✓		14
CP-105	Belt	✓	✓	✓	✓		1
CP-106	Rubber Boot	✓	✓	✓	✓	✓	3
CP-107	SS Clamp	✓	✓	✓	✓	✓	1
CP-108	SS Screen	✓	✓	✓	✓	✓	5
CP-109	Splash Guard	✓	✓	✓	✓	✓	3
CP-110	End Plate	✓	✓	✓	✓	✓	9
CP-111	Grinder Pulley	✓	✓	✓	✓		3
CP-112	Motor Pulley	✓	✓	✓	✓		3
CP-114	Bolt Set	✓	✓	✓	✓		2
CP-115	SS Mounting Ring	✓	✓	✓	✓	✓	3
CP-116	Sink Adaptor	✓	✓	✓	✓	✓	4
CP-117	Solenoid (except 460v)	✓	✓	✓	✓	✓	2
CP-118	Solenoid (460 to 110 v)	✓	✓	✓	✓	✓	2
CP-119	Vacuum Breaker	✓	✓	✓	✓	✓	1
CP-120	Prison Package	✓	✓	✓	✓	✓	1
CP-121	SS Offset Chute	✓	✓	✓	✓	✓	10
CP-122	Custom Adaptor Boot	✓	✓	✓	✓	✓	3
CP-123	15" SS Cone	✓	✓	✓	✓	✓	10
CP-124	18" SS Cone	✓	✓	✓	✓	✓	16
CP-125	Mounting Bracket Small	✓	✓	✓	✓	✓	10
CP-126	Mounting Bracket Large	✓	✓	✓	✓	✓	12
CP-127	Motor 1.5hp 3 ph	✓					38
CP-128	Motor 1.5 hp 3ph			✓			40
CP-129	Motor 2 hp 3ph		✓				42
CP-130	Motor 2 hp 3ph				✓		42
CP-131	Motor 3 hp 3ph					✓	52
CP-132	Motor 1.5 hp 1ph	✓		✓			40
CP-133	Motor 2 hp 1ph		✓		✓		48
CP-134	Motor 3 hp 1ph					✓	92
CR-101	Rebuild Kit					✓	16
CR-105	Belt					✓	1
CR-110	End Plate					✓	10
CR-111	Grinder Pulley					✓	3
CR-112	Motor Pulley					✓	3
CR-114	Bolt Set					✓	2

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HAMMERALL COMMERCIAL DISPOSER WARRANTY

Hammerall's Assurance Of Quality Warrants Its Commercial Disposers As Follows:

What Equipment Is Covered By This Warranty?

All Hammerall Commercial Disposers and Accessories produced and furnished by Hammerall.

What Is The Hammerall Disposer And Accessories Warranted Against?

Against defects in workmanship or material only. **Parts wear is not considered a defect.**

How Long Are The Disposer And Accessories Warranted?

The disposer and accessories are warranted for one year from date of installation.

Are Service Labor Charges Included In This Warranty?

Yes, during the first year following installation, in the extended areas of established commercial service, Hammerall will provide service labor necessary to repair or replace defective parts, providing such labor is performed by a Hammerall Factory Authorized Service Center.

How To Obtain Service?

For the location of your nearest factory authorized service center call (770) 448-2540.

What Conditions Are Not Covered By This Warranty?

This warranty does not apply if failure of commercial disposers to operate is due to parts wear, faulty or improper electrical installations, faulty or improper plumbing installations, tripped starter overloads, abuse, accidental damage, grinding elements jammed by foreign objects, clogged drain lines, unit improperly sized for application according to factory recommendations, or disposer being in storage longer than 18 months from date of manufacture.

This Warranty is Valid in the 50 States and Canada Only, and as Written, is in its Entirety and no Other Warranty Applies.

ALWAYS SPECIFY GENUINE HAMMERALL PARTS
