

## THANK YOU FOR YOUR PURCHASE OF THE TANK SAVER KIT™.

This kit will greatly increase your water heater's life, save energy, and reduce waste (we toss out about 7 million heaters yearly in the U.S.). Water heater manufacturers often explain in their maintenance manuals that periodic replacement of the anode rod and draining sediment from the water heater are the two most important factors in extending tank life. The Tank Saver Kit™ was designed to address these two concerns.

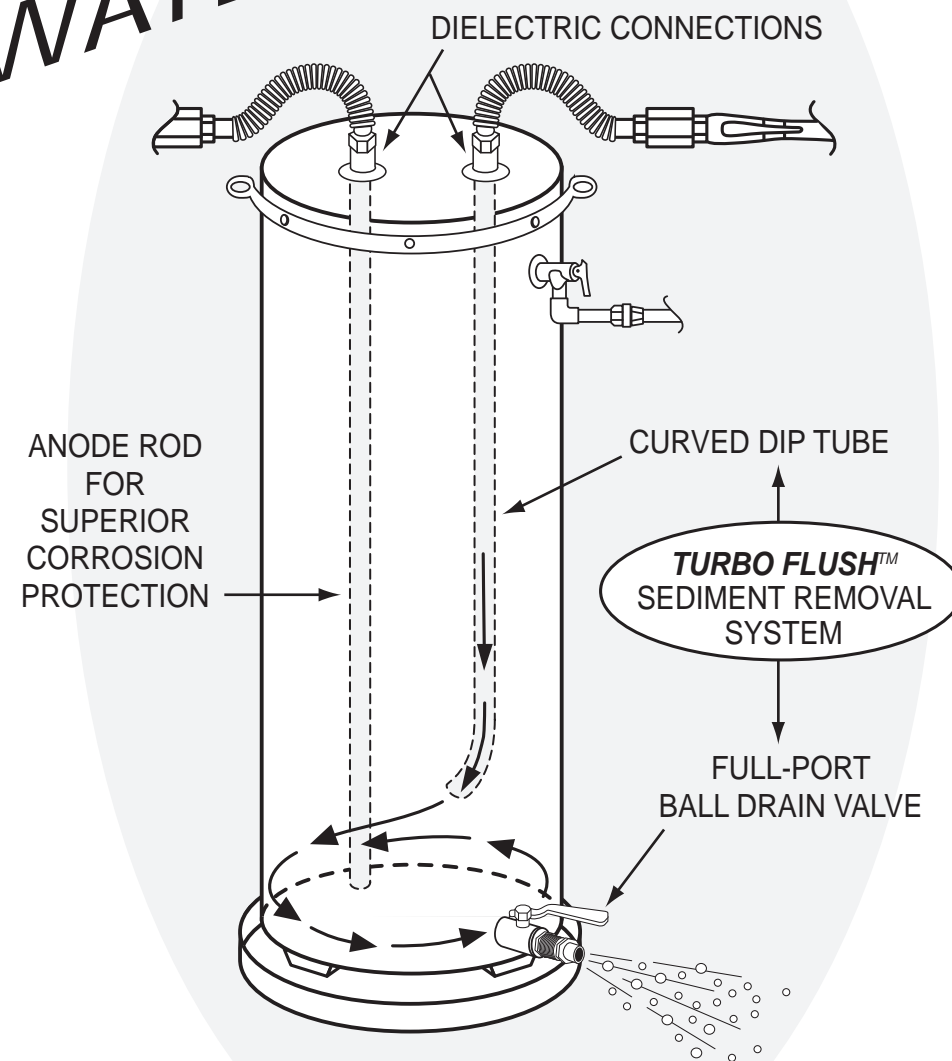
It can be installed by the plumber or the handy homeowner in either new or existing water heaters. Before you begin work, read the instructions all the way through to insure that you have all tools and parts needed. Should anything described be beyond your skills, get qualified help to make sure the job goes smoothly and safely.

You should also stop to inspect your heater at this time to be certain it is not already beyond repair. Check all heater fittings for signs of leakage. Check in a gas heater's combustion chamber for heavy rusting or water marking. If you find much damage, save this kit for installation in your replacement heater.

### TOOLS REQUIRED:

- Pipe Wrench (approximately 14")
- Large and Small Flat Head Screwdrivers
- Cheater Bar (18" metal pipe to slip over the pipe wrench for additional leverage)
- Channel Locks
- Needle Nose Pliers
- Hack Saw
- Either a Drill with 7/8" hole saw or a Round File

# THE IDEAL WATER HEATER



Manufactured and Distributed by:



A Division of Gull Industries  
2127 South First Street, San Jose CA, 95112

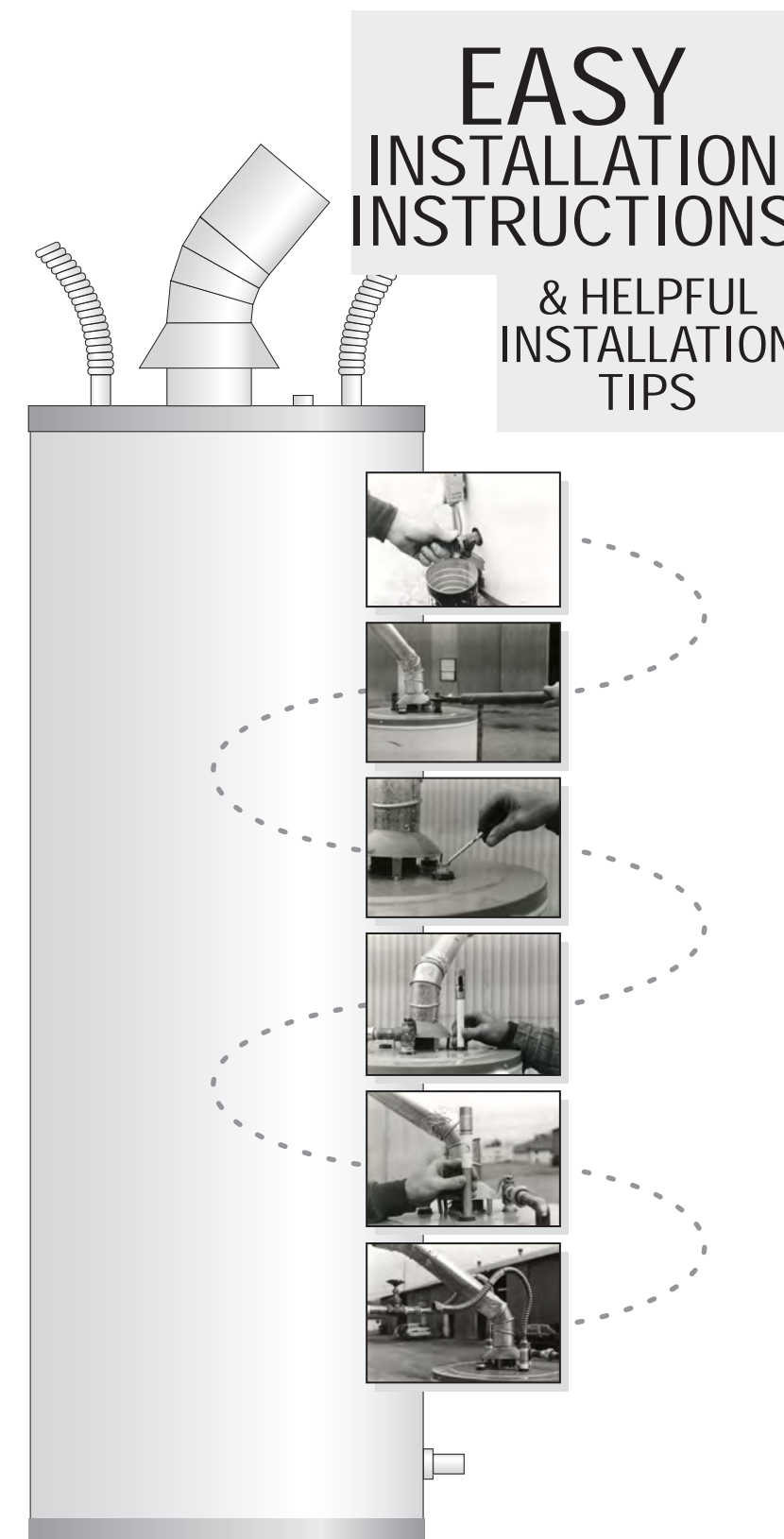
Your complete tool and parts supplier for water heater maintenance.  
Call 1-800-748-6286 for our free parts catalog or other information.

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# Tank Saver Kit™

## EASY INSTALLATION INSTRUCTIONS

& HELPFUL  
INSTALLATION  
TIPS



# TANK SAVER INSTALLATION INSTRUCTIONS

- 1** Electric Heaters: turn off electricity to heater.

Gas heaters: turn gas down to pilot position.

- 2** Close valve on heater's cold water supply Line. Turn on hot water at sink or tub to release the pressure from water heater. If this water does not quickly dwindle and stop, the cold supply is leaking past the valve. In this case, turn off the main water supply to the building and, again, release pressure by opening a hot tap. When water stops, close tap.

- 3** REMOVE THE DRAIN

Have a bucket, bowl or can ready to fit under the drain valve when removing it to catch any water that may spill. The drain valve can be removed with the water heater full of water as long as all faucets are closed and water heater is connected to piping. Water cannot drain from the tank unless air can get in. (Be sure to tell others in the house not to use any faucets while you are working on the tank).



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*If you have a plastic cone-shaped valve:*

Unscrew the valve counter-clockwise 5-6 turns. Next, pull on valve while turning clockwise to disengage the inner threads. Once the outer threads of the nipple are exposed, wrap with Teflon tape. The tape must be wrapped on these threads (clockwise) in the same direction a fitting would screw on. Now remove the plastic drain valve and screw new brass ball valve onto the taped nipple. Teflon tape the hose adaptor and screw it into the brass valve. Use channel locks to tighten hose adaptor, which will automatically tighten valve on nipple.

If you have a plastic or brass drain screwed directly into the tank:

Teflon tape both ends of a 3" plastic-lined nipple and screw into brass ball valve by hand. Teflon and install hose adaptor in valve, also. Make sure handle on valve swings toward hose adaptor. Use channel locks to remove existing drain valve. Make sure jaws lock around supports supplied on the existing valve to prevent cracking the valve.

If the plastic valve cracks stuffs rag into the opening with a screwdriver to reduce leakage; then use a screwdriver and hammer to break out the remaining plastic pieces. Screw in the new nipple/valve/hose adaptor assembly. Use channel locks to tighten hose adaptor, which will tighten other components in turn.

- 4** UNDO PIPE CONNECTIONS TO WATER HEATER

If needed, disconnect vent pipe above heater to provide working room.

Copper Pipe

Cut the copper pipe of the cold line between the shut-off valve and the tank, leaving approximately 2-3" of pipe extending from the valve. Remove the cut section from the tank. Be sure to leave enough room between the tank and the remaining pipe so that the flex-connector can be installed without kinking. Leave when cutting and removing the hot line pipe from the tank.



a similar clearance

Attach a 3/4" compression adaptor (no soldering required) onto each copper pipe end. (Not included in kit)

Galvanized Pipe

Unscrew union or cut pipe with hack saw at the thread. Unscrew galvanized pipe from the cold shut-off valve. Unscrew hot line pipe at a similar distance, perhaps at the bend where it turns to enter the wall. Use cheater bar on pipe wrench if needed. Be cautious when dealing with old steel plumbing). Install a brass nipple into the cold shut-off valve and a plastic-lined steel nipple into the hot side for connection to flex-connectors.

Flexible Copper Flex Connections

If your tank is already installed with flex-connectors, make sure they are attached to the correct type of nipple (plastic lined or brass). Also, when disconnecting flex-connectors, check gaskets for pliability. Replace gaskets if they have become hard. (To remove, pry out gasket with small flat screwdriver or unscrew the nut from connector's end. Since these washers can be difficult, you may have to replace the flex-connector.)

- 5** REMOVE DIP TUBE ON COLD WATER INLET

For ease of removal scrape out any rust accumulated above the dip tube using a small, flat screwdriver. Use needle nose pliers to remove dip tube by pulling it up and out. (If the dip tube falls into the tank it can be left there. It will not cause any harm.) The dip tube is easier to grasp if you bend one side of the tube in with a small screwdriver and then slip 1/2 of the pliers in beside the screwdriver. Grip the dip tube then and rotate the pliers while pulling up. Even the most stubborn dip tube can be removed this way.



- 6** Bore out hot and cold inlets. Some metal or glass lining protrusion may be evident just below the tank inlet threads which may interfere with the installation of the dip tube or anode rod. Check for this by sliding your finger in beyond the threads. Or simply insert dip tube and anode to see if there are any restrictions. If restrictions are evident, use a 7/8" metal-cutting hole saw and drill out. Or, you can use a round file, but be

very careful not to damage the pipe threads. If available a 29/32 drill bit will produce the best clearance.

- 7** Teflon the threads on the anode and dip tube. Four wraps of Teflon is sufficient. As a directional indicator mark dip tube nipple with felt pen at 180° from dip tube opening. Tighten dip tube nipple to tank till mark is facing you, curve is facing rear of tank.

- 8** Next, install the combination anode rod in the hot outlet port.

- 9** Attach flex-connectors to hot and cold line pipes and to hot and cold port nipples for ease of access. Use Teflon tape on all threaded fittings. After six months, tighten the connections once again. These may start leaking if not re-tightened.



- 10** Turn water back on and check all connections for evidence of leakage. Bleed air from lines by turning on taps in house.

- 11** Hook garden hose to drain valve and open valve to flush tank. Flush under full pressure until water coming out of the hose is clear. It will take from two to ten minutes. Periodically check rinse water by filling a bucket. When little or no sediment settles to the bottom the tank is as clean as flushing can make it. Good water pressure (50-60 PSI) and unobstructed piping will make flushing much more effective.



*Note: To greatly enhance the removal of sediment from the bottom of the water heater use our exclusive **TURBO FLUSH™** method. First mark the nipple on the dip tube with a felt pen so the mark is facing you. While flushing under pressure loosen the brass half nut on cold water flex connector attached to dip tube nipple one full turn. Then rotate dip tube nipple counter clockwise 180° so scale is flushed in opposite direction. When water from hose is running clean turn dip tube nipple back to original position using the pen mark as an indicator and retighten flex connector half nut to dip tube nipple. Flush in that position till clean.*

- 12** Turn electricity back on or turn gas knob up from pilot.

- 13** Place sticker on tank to mark the date the tank was flushed, when the new anode was installed, and when the next service is required.

- 14** If you are in an earthquake area, install an adequate restraint strap.

- 15** Test the relief valve now and every year. If it does not allow good water flow out, or if it leaks after testing replace it. This safety feature must not be ignored. It is what protects your water heater from exploding if equipment malfunctions.

FLUSHING IS RECOMMENDED EVERY SIX MONTHS. CHECK THE ANODE EVERY 1-2 YEARS WITH ARTIFICIALLY SOFTENED WATER AND EVERY 3-5 YEARS IN UNSOFTENED WATER. Electric Heaters: turn off electricity to heater.