

1. BEFORE YOU BEGIN

HOW TO USE THESE INSTRUCTIONS

Please read these instructions carefully to familiarize yourself with the required tools, materials, and installation sequences. Follow the sections that pertain to your particular installation. This will aid you in avoiding the unnecessary expense associated with improper installation. In addition to proper installation, read all operating and safety instructions.

All information in these instructions is based on the latest product information available at the time of publication. Kohler Co. reserves the right to make changes in product characteristics, packaging, or availability at any time without notice.

These instructions contain important care, cleaning, and warranty information - please leave instructions for the consumer.

INSTALLER HAZARD NOTIFICATION



WARNING: Risk of injury or product damage. Handle vitreous china products very carefully. Vitreous china can break and chip if you over-tighten bolts and nuts or carelessly handle the product.

PRODUCT PROPERTIES

- One-piece vitreous china siphon action toilet.
- Water depth from rim is 6-3/4".
- 2-1/4" passageway.
- For roughing-in and overall dimensions, **see Fig. #1** for K-3397-C or **Fig. #2** for K-3402-C.

NOTES

- Toilet must be installed with a 1/2" shut-off valve such as the K-7653.
- Do not kink or bend rigid supply tubing. We recommend that you use a flexible supply line since leakage can occur due to misalignment of a rigid supply. Use the rubber washers that are supplied for the installation. The use of plumbers putty or "pipe dope" is not recommended and should not be used with our product at any time.
- Since all toilets do not have the same supply rough-in, you may have to change the location of the supply stop to install this toilet.
- A minimum running pressure of 25 p.s.i. and a maximum static pressure of 80 p.s.i. is required at the toilet shut-off valve.
- If substituting or replacing seat, seat must have post holes on 5-1/2" centers.
- Follow all local plumbing codes.
- Fixture dimensions are nominal and conform to tolerances by ASME Standards (A112.19.2M).

ORDERING INFORMATION

When specified:

Floor bolts (pr.) 21401
1/2" supply K-7653

NOTE: For service parts ordering information, see separate Service Parts document enclosed with product.

MATERIALS AND TOOLS REQUIRED

- 1/2" shut-off valve
- Closet flange
- Toilet T-bolts (2)
- Toilet gasket (wax seal)
- Plumbers putty
- 10" adjustable wrench
- 12" pipe wrench
- Tubing cutter
- Level
- Hacksaw
- Metal file (fine cut)
- Putty knife

NOTE: Site preparation may require additional tools.

2. ROUGHING-IN DIMENSIONS

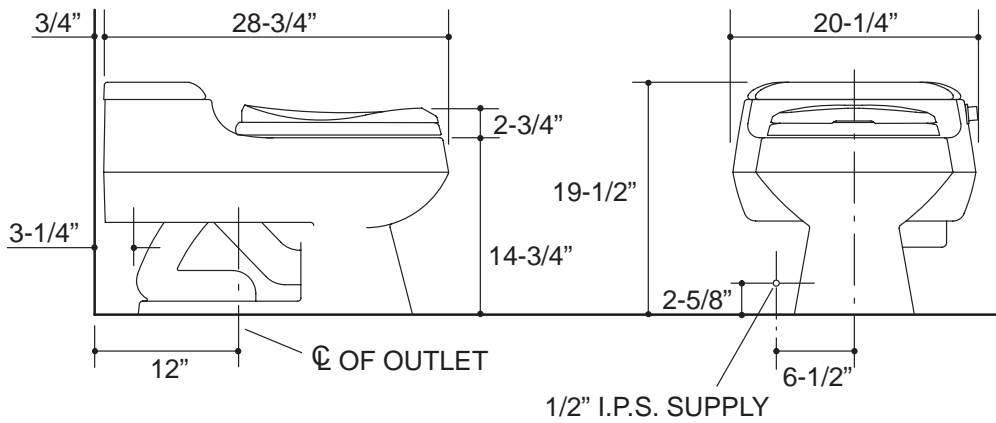


Fig. #1

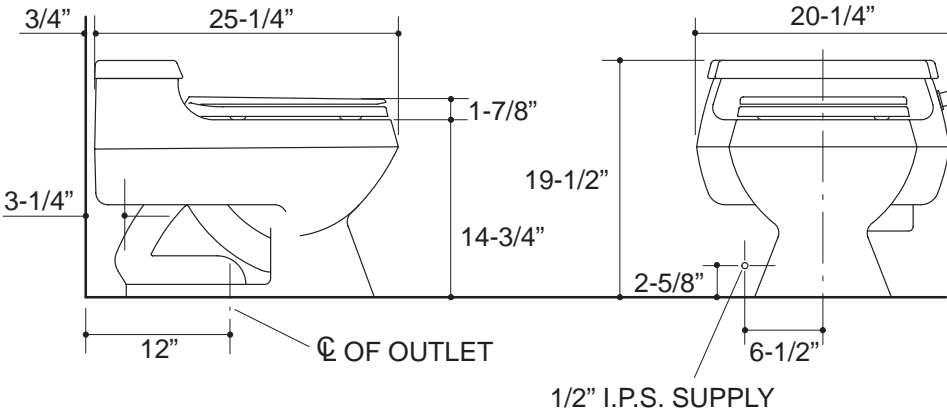


Fig. #2

3. SITE PREPARATION

REMOVE EXISTING TOILET

NOTE: Carefully inspect new fixture for any sign of damage before removing existing toilet.

Turn off water supply.

Flush the toilet and sponge out remaining water from tank and bowl.

Disconnect supply valve and remove old tank and bowl.

ROUGH-IN PLUMBING

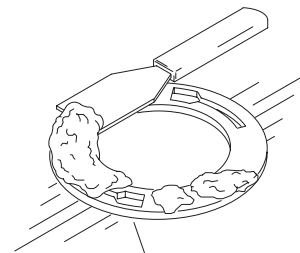
Turn off water supply.

Install or relocate supplies and outlets as necessary to conform to roughing-in dimensions.

TO INSTALL NEW SUPPLY SHUT OFF VALVE

Remove old gasket from the floor and closet flange with a putty knife. Remove old T-bolts and discard.

NOTE: If a new toilet is not installed immediately, temporarily stuff a rag into the closet flange.



Closet Flange

Fig. #3

For supply installation, refer to instructions packed with supply stop.

Locate supply shut-off valve so it is 2-5/8" above floorline and 6-1/2" to the left of the centerline of the closet flange.

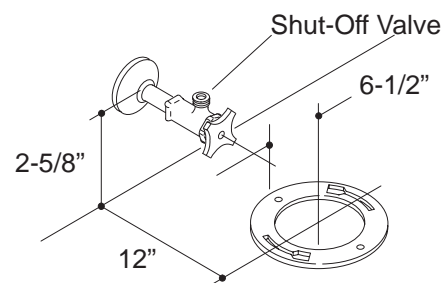


Fig. #4

Install new 5/16" diameter T-bolts.

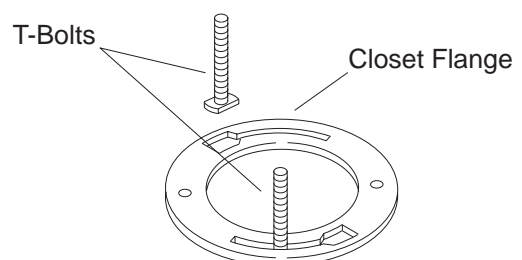


Fig. #5

4. INSTALLATION

INSTALL TOILET GASKET

Place new toilet onto padding with the side opposite the trip lever down.

Firmly place gasket on toilet outlet. If using a gasket with integral plastic sleeve, position gasket with sleeve facing away from toilet.

If desired, place a 1/4"-thick bead of toilet setting compound around base.

NOTE: If a rag or other plug was placed in closet flange, remove rag from closet flange before setting toilet.



Fig. #6

ALIGN AND SET TOILET

Carefully align and lower toilet over the closet flange and T-bolts.

CAUTION: Risk of external leakage. Do not lift or rock toilet after placement. A new gasket must be reapplied if you break the watertight seal.

Apply full body weight to toilet rim to set seal.

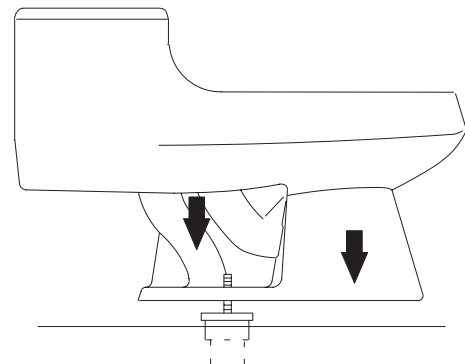


Fig. #7

SECURE TOILET

Assemble bolt cap bases, washers, and nuts on exposed T-bolts. Hand-tighten nuts, then tighten an additional 1/2-turn with wrench.

CAUTION: Risk of personal injury or product damage. Over-tightening may cause breakage or chipping.

If T-bolts extend more than 1/4" from top of nut, cut off excess with a hacksaw and file cut edges. Wipe away any residue.

Install bolt caps.

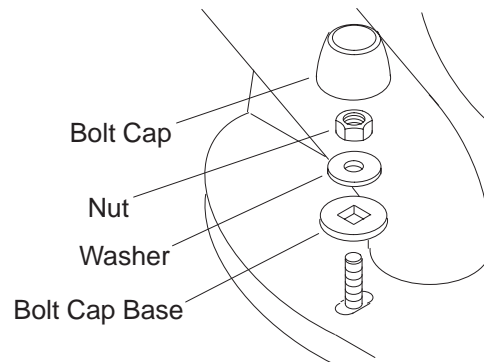


Fig. #8

CONNECT SUPPLIES

NOTE: Use only a flexible supply hose with rubber washers to provide a seal. Any other connection type may void the warranty.



CAUTION: Risk of external leakage. Do not over-tighten or you may deform connections and cause a leak.

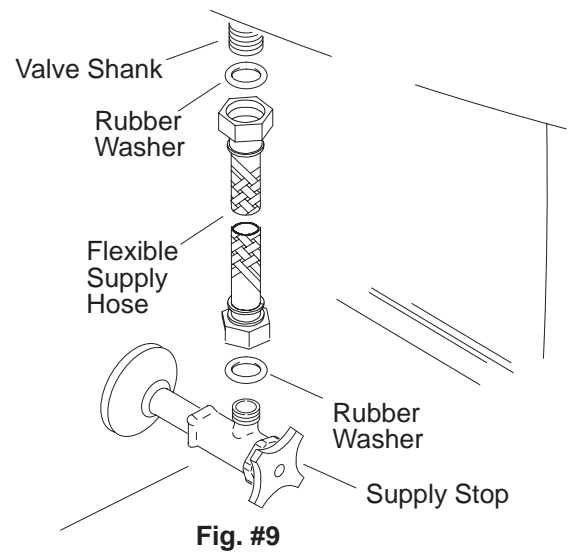


Fig. #9

INSTALL SEAT

Install seat to toilet. Hand-tighten nuts. Refer to installation instructions packed with toilet seat for further information.

REMOVE PACKING BAND

Remove the rubber band on the top of the float valve.

CHECK FOR LEAKS

Turn on shut-off valve and check for leaks. If connections are squarely assembled, a slight re-tightening of the nuts will stop any leaks. Check all connections for leaks for several days. The nuts under the bolt caps may also require re-tightening.

ADJUST VALVE SETTINGS

Tank Water Level Adjustment: Turn on the water supply to the toilet. Use the following procedure to adjust the water level in the tank to the line on the flush valve overflow tube.

Turn the adjustment screw counter-clockwise to raise the water level. To lower the water level, turn the screw clockwise.

Flush the toilet and repeat until the water level in the tank matches the line on the flush valve overflow tube.

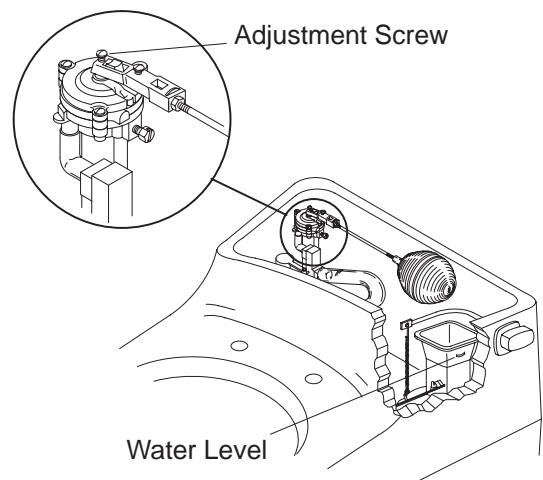


Fig. #10

Bowl Water Level Adjustment: Use the trip chain to lift the flush ball in the tank slightly, to allow water to trickle into the bowl until the water level in the bowl stops rising. This is the seal height and should be noted for subsequent adjustment.

Flush the toilet and observe the water level in the bowl after refill. If the water level is below seal height, turn the seal screw clockwise.

Re-flush the toilet and check the water level. Continue adjustment until water stops entering bowl just as seal height is reached.

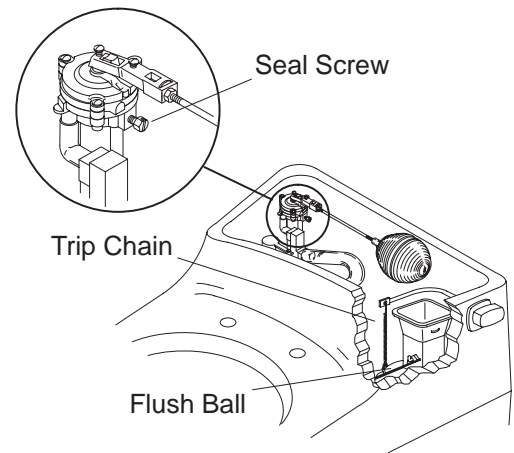


Fig. #11

High Water Pressure Timing: If the toilet is installed in an area with high water pressure (above 50 p.s.i. working pressure), the float valve should be timed.

To time the float valve, hold up the float rod and flush the toilet. After the toilet has completed the flush, time the refill from release of rod to valve shut-off.

For the K-3397-C: If the time is longer than 34 seconds, no adjustment is needed. If the time is under 34 seconds, turn the timing screw clockwise, then recheck the timing. Adjust screw until time is between 34 and 36 seconds.

For the K-3402-C: If the time is longer than 26 seconds, no adjustment is needed. If the time is under 26 seconds, turn the timing screw clockwise, then recheck the timing. Adjust screw until time is between 26 and 28 seconds.

After timing the valve, recheck the bowl water level to ensure that seal is maintained.

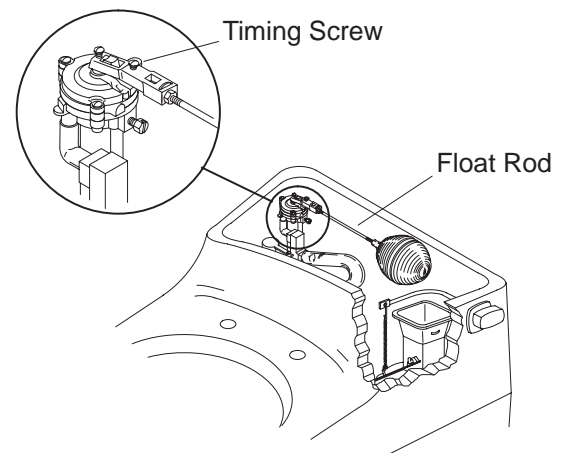


Fig. #12

5. TROUBLESHOOTING

MECHANICAL CONSIDERATIONS

One-piece toilets are mechanically different from the older, more common two-piece models. A two-piece toilet is gravity fed, meaning that most of the water used in a single flush comes from its tank, while a one-piece toilet uses water from both its tank and the supply line.

A one-piece toilet requires a larger supply valve because more than half of the water used in a flush in a one-piece toilet comes from the water supply through the float valve. Almost two gallons of water must run through the float valve in about 30 seconds, so a 1/2" supply valve must be installed on a one-piece toilet. A 3/8" supply may not provide enough water to complete a full flush.

Another key difference between the two types of toilets is the required amount of water pressure. One-piece toilets are designed to function with water pressure between 25 and 90 p.s.i. working pressure. Since many two-piece toilets use the standing water in the tank, no minimum pressure is required to work them.

Check Water Level In Tank: If the water level is set too high (above the Water Level line mark on the flush valve), water may be running into the overflow tube.

NOTE: Do not bend the brass float arm. Water level adjustment should be done only with the tank water level screw.

Use the following procedure to adjust the water level in the tank to the line on the flush valve overflow tube.

Turn the adjustment screw clockwise to lower the water level.

Flush the toilet and repeat until the water level in the tank matches the line on the flush valve overflow tube.

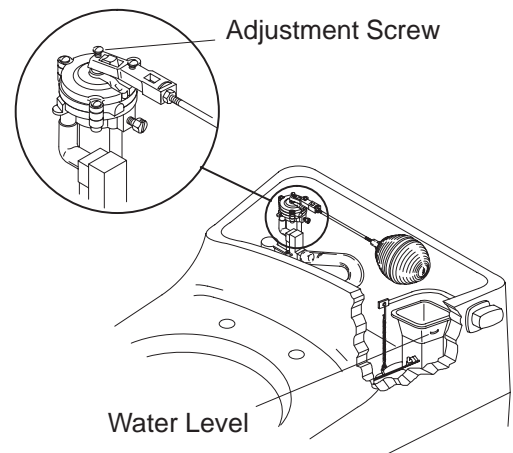


Fig. #13

Check to make sure that the rimfeed hose is entirely out of the water where it connects to the china.

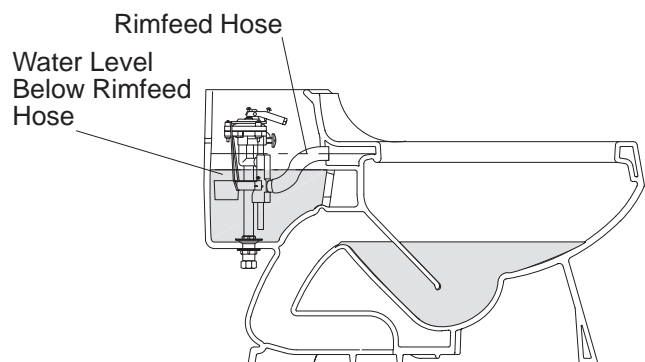


Fig. #14

Water seen running down the bowl from under the rim comes only from the rimfeed hose. Adjust water level.

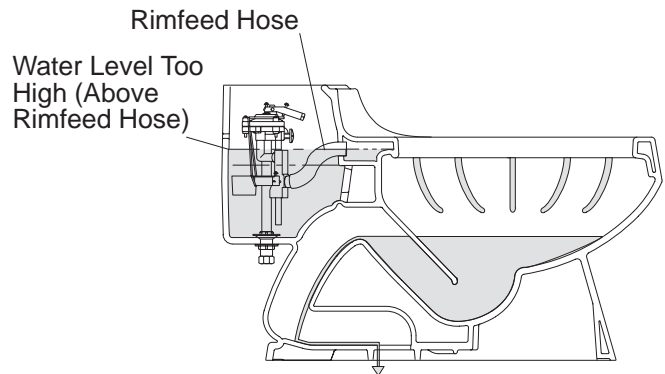


Fig. #15

Check The Flush Valve: If the water level is not the source of the problem, mark the water level on the inside of the tank and turn off the water supply to the toilet for five to six hours.

After five or six hours, check the water level in the tank. Did the water level drop? If water is leaking out of the tank, the water level should drop to the point of the leak.

A completely empty tank indicates the flush valve gasket may not be sealed properly. When replacing the gasket, apply a bead of silicone to the bottom of the gasket to seal the area between the rubber and the vitreous china.

If the tank is halfway to almost empty, the flush ball may need to be replaced. However, before replacing the flush ball, look for a twisted chain, which may be causing the flapper ball to hang up.

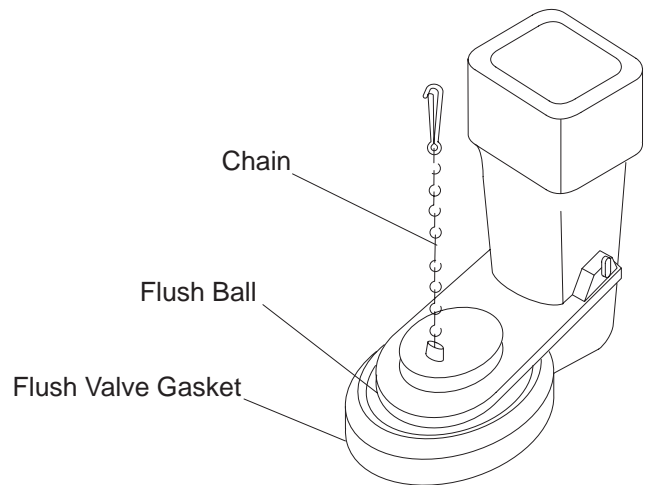


Fig. #16

Check The Float Valve: If the water level does not drop at all after the water supply has been turned off five to six hours, the problem is probably related to the float valve, which was continually letting water **into** the tank.

First, check to see if the float ball is rubbing against the back of the tank. This would cause the float valve to hang up.

NOTE: Do not bend the brass float arm. Water level adjustment should be done only with the tank water level screw.

If the ball is rubbing against the back of the tank, you only need to slightly rotate the valve to resolve the problem.

If the float ball is not rubbing on the back of the tank, replace the float valve plunger kit and also check the water pressure. If the water pressure is above the 80 p.s.i. range, try installing a pressure regulating valve or water hammer arrestor.

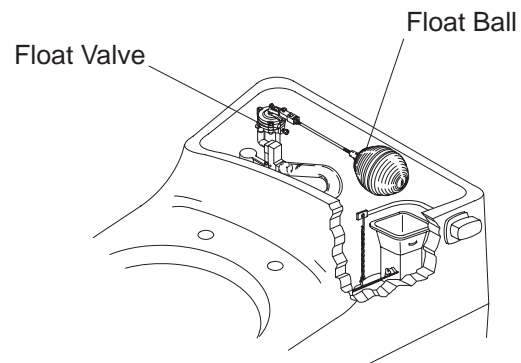


Fig. #17

6. TROUBLESHOOTING

| SYMPTOM | POSSIBLE CAUSE | CORRECTIVE ACTION |
|---|--|---|
| <p>1. Poor flush or poor rim wash.</p> | <p>A. Low tank water level. B. Undersize supply. C. Supply stop not fully open. D. Low bowl water level. E. Water pressure below 25 p.s.i. F. Clogged trapway or rim holes. G. Clogged soil pipe or vents.</p> | <p>A. Adjust tank water level in tank. B. Install 1/2" supply. C. Fully open supply stop. D. Adjust bowl water level. E. Increase running water pressure. F. Unclog trapway or clean rim holes. G. Unclog soil pipe or vent pipe.</p> |
| <p>2. Excessive noise.</p> | <p>A. High pressure/high flow rate. B. Seal screw not correctly adjusted. C. Undersize supply. D. Debris in float valve.</p> | <p>A. Partially close supply stop. B. Check water seal, readjust. C. Install 1/2" supply. D. Remove float valve cap and clean valve.</p> |
| <p>3. Valve does not shut off and water is flowing into the overflow.</p> <p>NOTE: After tank is filled to water level line, turn off supply stop; see if water level drops.</p> | <p>A. Defective flush valve flapper. B. Defective plunger. C. Water level too high in tank. D. Leaky float ball. E. Leaky float valve seat.</p> | <p>A. Replace flapper. B. Replace plunger. C. Lower water level to below rimfeed hose. D. Replace float ball. E. Replace seat washer.</p> |
| <p>4. Bowl seal does not recover.</p> <p>NOTE: May be caused by temporarily reduced water pressure.</p> | <p>A. Seal screw needs adjusting. B. Clogged soil pipe or vents.</p> | <p>A. Adjust seal screw. B. Unclog soil pipe or vent pipe.</p> |
| <p>5. Toilet flushes by itself.</p> | <p>A. Line pressure surges activate float valve. B. High water pressure.</p> | <p>A. Install pressure surge suppressor. B. Install pressure regulator.</p> |

7. IMPORTANT CONSUMER INFORMATION

CONSUMER RESPONSIBILITIES

If you live in a hard water area, make certain that the holes in the toilet rim are kept clean to ensure proper bowl flushing. Toilet bowl cleaners should be used at least once a week. Use a long-handled brush to clean the rim holes, and to clean as far into the trap as possible to prevent mineral deposits from forming.

Most toilet bowl cleaners are not harmful to the vitreous china surface of the toilet bowl. Please follow the bowl cleaner manufacturer's instructions carefully.

Do not use abrasive cleansers or solvents.



WARNING: Do not use in-tank cleaners. Products containing chlorine (calcium hypochlorite) can seriously damage fittings in the tank. This damage can cause leakage and property damage.

Kohler Company shall not be responsible or liable for any tank fitting damage caused by the use of cleaners containing chlorine (calcium hypochlorite).

REQUESTING SERVICE

Please take a moment to familiarize yourself with the Kohler Warranty, its benefits, and limitations. Kohler Co. and its distributors support you with one of the largest Service Networks of its type. Here's what you need to do if you require service:

FIRST: Contact the dealer or contractor who sold and installed the product. They should be able to solve any problems you may have.

SECOND: If your dealer or contractor cannot solve the problem, they will contact or supply you with the name of the local Kohler Distributor and the:

 KOHLER TECHNICAL SPECIALIST

THIRD: If you are unable to obtain warranty service through either your contractor or Kohler Co. distributor, please write us directly at Kohler Co., Attn: Customer Service Department, 444 Highland Drive, Kohler, WI 53044 U.S.A.

FOURTH: Include all pertinent information regarding your claim, including a complete description of the product, model numbers, colors, finishes, and the date the product was installed. Include a description of the problem, and a photocopy of your invoice for the products involved. Also give us the name of the contractor and distributor.

LIMITED ONE-YEAR WARRANTY

Kohler plumbing fixtures and fittings are warranted free of manufacturing defects.

Kohler Co. will, at its election repair, replace, or make appropriate adjustment where Kohler Co. inspection discloses any such defects occurring in normal usage within one year after installation. Kohler Co. is not responsible for installation costs.

To obtain warranty service, contact Kohler Co. either through your Dealer or Plumbing Contractor or by writing Kohler Co., Attn: Customer Service Department, 444 Highland Drive, Kohler, WI 53044 U.S.A., or by calling **1-800-4-KOHLER** from within the U.S.A.

Implied warranties, including that of merchantability and fitness for a particular purpose, are expressly limited in duration to the duration of this warranty. To the extent permitted by law, Kohler Co. disclaims all implied warranties including merchantability and fitness for a particular purpose. Kohler Co. disclaims any liability for special, incidental, or consequential damages.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so this limitation and exclusion may not apply to you. This warranty gives you specific legal rights. You may also have rights which vary from state to state.

This is our exclusive written warranty.

KOHLER CO., KOHLER, WISCONSIN 53044

