

How to Install a Toilet

Replacing a toilet is a fairly simple project. You can also use these tips to replace the wax ring or fix a broken toilet flange, if you have a leak around the floor or ceiling under a toilet, or, if you notice leaking from the toilet tank, use the tips for replacing the tank to bowl gasket.

1. TURN OFF THE WATER

- Turn off the water supply at the valve located on the wall near the base of the toilet.

2. EMPTY THE WATER

- Flush the toilet to empty the tank. Sop out any remaining water in the tank and bowl with a sponge or wet vac.

3. DISCONNECT THE WATER SUPPLY

- Before removing the toilet tank, use a large, adjustable open-ended wrench to loosen the nut between the toilet tank and its water supply. You might need to hold the fill valve inside the tank to keep it from turning.

4. REMOVE THE TANK

- In a two-part toilet, the tank is usually held to the bowl by two bolts. Using a flat head screwdriver, hold the screw still inside the tank while loosening the nut underneath the tank with a wrench. With the bolts off, you can lift the tank off the bowl.

5. REMOVE THE BOWL

- The toilet bowl is fastened to the floor with bolts and nuts hidden under trim caps. To remove the bowl, pry off the trim caps. Remove the nuts with a wrench or pliers. Wiggle the bowl to break the wax seal between the floor and toilet. Have a tarp nearby so you can set the toilet down right after removing it. Stuff a rag in the floor opening to keep sewer gas out of the house and stop parts or tools from falling into the soil pipe while you work.

6. CHECK THE FLANGE

- Clean up old putty and wax from the floor and toilet flange. Inspect the flange for damage or to see that it's even with the floor. A broken flange, or one that's too low below the finished bathroom floor can lead to leaks around the base of the toilet. If the flange won't need repairs, skip to step 10.

7. FIX A BROKEN FLANGE

- To fix a broken or cracked flange, install a reinforcement ring. It screws in place over or under the old one like a brace.

8. FIX A FLANGE WITH LOOSE SCREWS

- If the screws in the old flange holes are loose, use a flange with tabs that let you install the screws into new surface. Check to be sure that the tabs won't bump the ridges on the bottom of your toilet. If they do, use a flange reinforcement ring without tabs.

9. FIX A FLANGE THAT'S TOO LOW

- When a new floor is installed on top of an old one, the toilet flange may be too low to seal with an ordinary wax ring. If it's more than ¼ inch below the finished floor, it's too low. Sometimes, plumbers will use extra thick wax rings, or two, stacked wax rings. But this can be a tricky fix for a DIYer. You can install an extender ring to be more precise about raising the height of the flange to be even with the floor.

10. MARK THE BOLT POSITION

- Stick a long strip of painter's tape to the floor to mark the position of the bolts so you can see them from above. You only get one chance to set the wax seal correctly, and it's hard to line up the toilet and bolts when holding the bowl.

11. CLEAR THE SOIL DRAIN

- Be sure to remove the rag stuffed into the soil drain.

12. PREP THE WAX RING

- This toilet bowl gasket seals the gap between the toilet and the floor flange. There are synthetic types, but wax tends to be most common. If you're using a wax ring, let it sit at room temperature before installing it so the wax is pliable.

13. SET THE WAX RING

- Stick the ring onto the bottom of the toilet or over the floor flange. Lower the toilet bowl onto the bolts using the painter's tape as a guide. Push down on the toilet to set the wax ring and force the toilet all the way to the floor. Don't lift or tilt the bowl while making adjustments or you'll have to start over with a new wax ring.

14. RESEAT THE TOILET BOWL

- Drop a washer and nut over the hold-down bolts. Then, hand-tighten the closet nuts. If you use a wrench, you could over-tighten the bolts and crack the bowl. Use shims to even out any minor wobbles. Then caulk around the base of the toilet.

15. REPLACE THE TANK GASKET

- A rubber gasket between the tank and bowl seals the flush valve opening and keeps the tank from leaking. Place it on the bottom of the tank with the beveled or tapered side down.

16. INSTALL THE TANK

- Lower the tank onto the gasket. The two tank-mounting bolts will drop in from the inside of the tank and come out on the underside of the bowl. Install the nuts and tighten them onto one bolt a little, then the other, and go back and forth until they're hand tight. Otherwise, the tank may end up off kilter or the bowl may crack if you tighten one bolt at a time.

17. INSTALL TANK PARTS

- Inside the tank, the lever, fill valve, flush valve and flapper control the flushing and refilling action of the toilet. Traditional, or water saving valves, are simple to install. However, the instructions may differ depending on the brand you choose. Watch our other videos on tank repairs for specific instructions.

18. CONNECT THE WATER SUPPLY

- Connect the water supply line to the bottom of the fill valve and turn on the water. If you notice any leaks, tighten the bolts at that connection.

HELPFUL TIPS:

- When choosing a wax ring, the basic no-frills wax ring is a tried-and-true item. But, if you like some extra reassurance you may want to opt for one of these features:
- A reinforced core helps prevent wax from settling over time, leading to gaps in the seal.
- An attached flange makes it easy to align the wax ring.
- Extra thick wax rings help fill the gap if the floor flange is below the finished floor.
- Synthetic gaskets are "wax less." They can be repositioned if you set the toilet wrong.
- Make sure you buy a toilet with a "rough-in" measurement that matches what you've got. Measure the distance from the wall to the bolts holding your toilet to the floor. It's usually 10, 12 or 14 inches.

- When removing an old toilet, leftover water catches in the trap and can spill out when you move it. Avoid the mess with a specialty product that turns the water to gel.
- If the johnny bolts won't budge, spray them with penetrating oil. If that doesn't work, you can cut them off with a hacksaw or multi-tool. You can also use a hacksaw to trim them just above the bolts if they're too long to fit under the trim caps.

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NOTE: Always follow manufacturer's recommended safety precautions and instructions for the products you use.