## MAINTENANCE TIPS

**SECTION ONE - ITEMS YOU MAY WANT TO CONSIDER CHECKING ON A CONTINUOUS BASIS:** *Be alert for the problems listed in this section.*

1. **Check for Leaking Toilets.** You may notice water on the floor at the base of the toilet. Leaks could be caused by any number of reasons, including a faulty spud washer (gasket between tank and toilet body), a cracked tank, faulty gasket where supply line enters bottom of tank, where the toilet flush handle penetrates tank, faulty supply line shutoff valve or loose flange bolts at the bottom of the toilet. If you are not experienced in making such repairs, it would be a good idea to contact a qualified plumber. The Property Manager can provide you with recommendations for qualified and licensed plumbers. If toilet leaks are not promptly stopped, they can cause further damage creating a requirement for expensive repairs in your and other units.

2. **Continuously Running Toilets.** This condition will probably be caused by a faulty flapper valve assembly or a flush mechanism problem. Contact the Property Manager's office for assistance.

3. **Clogged Toilet Rim Jets.** Rim jets are the small holes under the toilet bowl rim that discharge water down the sides of the bowl. The blocked jets can become partially clogged with a combination of bacterial material and mineral deposits such as lime scale. Such blockages restrict effective flushing. To check, use a hand mirror and flashlight. *Warning: It may not be a pretty sight.* Here are some cleaning tips:

   a. Smoking pipe cleaners may clean the jets. Be careful about using an ice pick or small screwdriver as you may damage the porcelain.

   b. Do not use a strong chemical cleaner poured in the tank. The chemicals would probably damage rubber gaskets and other parts.

   c. Make a solution of one cup of household bleach in one gallon of warm to hot water. Pour this solution into the overflow tube in the tank (you may need a funnel). Let the solution stand for one hour, then flush. If that doesn't work, then add one cup of white cider vinegar to the solution, pour it into the overflow tube and let stand for one hour before flushing.

   d. Periodically you must thoroughly scrub the rim jets area with a stiff toilet brush. There are some approved toilet bowl cleaning products that are effective. The squeeze-bottle cleaners with crooked necks are fairly effective if you apply some elbow grease.

4. **Examine Shower Tile Grout.** Cracked and/or peeling grout and loose tiles on the shower walls and floor allows water to penetrate into the backing and could cause vast problems. Cracked and peeling grout and loose tiles must be replaced. Do NOT grout over the old material. It must be removed and re-grouted. If you are not experienced in replacing grout and loose tiles, it is recommended you engage a reliable contractor to perform the work.

5. **Check Kitchen Sink Drains.** Ensure the sink drains are flowing steadily and are not "sluggish." If the drains are not flowing freely, then you have some type of blockage. Remember that the drain from your dishwasher is connected to the garbage disposal. Failure to keep the drains open with unrestricted flow can create a mess in your dishwasher. We have found that most of the kitchen sink drainage problems are caused by cooking oils / greases in the drains. To avoid this problem, ***DO NOT ALLOW ANY COOKING OILS OR GREASE, SUCH AS FROM FRYING BACON OR OTHER MEAT PRODUCTS, TO ENTER THE DRAINS.*** It is strongly recommended that you capture the oils/grease in a container and dispose of it in the receptacle located in the parking garage. Eliminating oils and greases from your drains can prevent owners from having expensive repairs and possibly causing damages to other units.

6. **Leaking Shower Heads.** A leaking shower head can generate an increase in water consumption by hundreds of gallons in a relatively short period of time. Use the procedure outlined below to fix this problem:

a. Unscrew the showerhead. You may need a wrench.

b . Remove the O-Ring rubber gasket inside the shower head. If the gasket leaves black goo on your fingers, it needs to be replaced.

c. After replacing the O-Ring, wrap Teflon tape around the threads of the inlet pipe. (Use about two wraps of tape pulled fairly tight.)

d. Screw the shower head onto the pipe.

e. Test repair by turning the valve on. If there are no leaks, you are finished.

f. If there are still leaks, unscrew the shower head, ensure the O-Ring is properly seated, replace the Teflon tape and screw the shower head back in place. If the leak is about stopped, use a wrench to tighten the shower head not more than one-half turn further. Do not over tighten as you risk stripping the threads.

7. **Unusual Noises / Vibrations.** Be alert for unusual noises or vibrations coming from your installed equipment such as the HVAC equipment, the circulating pump (if installed), the bathroom overhead vents, garbage disposal and other equipment. Do not allow the noises to persist without investigation. Remember your appliances also.

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## SECTION TWO - ITEMS YOU MAY WANT TO CONSIDER MAINTAINING ON A PERIODIC BASIS:

### PART A - MONTHLY

1. **Check Filters in Air Handling Unit.** Inspect the filters. If they have an accumulation of dust, replace. If you have the type you can wash, clean them thoroughly in the shower. Allow to dry and reinstall.

**2. Check Fire Extinguisher *(if you have a portable home fire extinguisher)*:**

a. Check that the fire extinguisher is charged. The pointer on the pressure indicator ***MUST*** be in green section. If the pointer is in the red or white sections, the extinguisher is ***NOT*** ready for use.

b. Ensure the extinguisher is securely mounted.

c. Ensure the lock pin is firmly in place.

d. Clean the extinguisher as needed.

e Check the discharge nozzle. Make sure it is clean and free of obstructions.

**3. Test Smoke Detectors.** Test smoke detectors by pressing TEST button. If it fails to alarm, check to see if the 9-volt battery needs replaced. If it still doesn't alarm, the detector must be replaced.

**4. Test all Ground Fault Circuit Interrupter (GFCI) Receptacles and Circuit Breakers:**

a. You may have an exterior GFCI receptacle located on a balcony. If so, press TEST button. Insure RESET button pops out. Press RESET button to restore power to the receptacle.

b. You will have GFCI circuit breakers located in your electrical distribution panel. These breakers are appropriately marked. Press TEST button. The circuit breaker should trip. Reset breaker to restore power.

c. Reset any clocks, timers or other devices that would be affected.

**6. Check Hot Water Circulating Pump *(in 3-Bedroom Units)*:** The pump is installed above the hot water tank.

a. Check to ensure the pump is operating. ***DO NOT TOUCH THE PUMP OR PUT YOUR HAND ON IT TO SEE IF YOU CAN FEEL THE PUMP ROTATION – IT IS HOT!*** You should be able to hear a faint hum if it is not operating.

b. Check for leaks at inlet and outlet connections.

c. If the pump is not operating properly or leaking, unplug the unit from the electrical receptacle and contact the Property Manager who can recommend a replacement source and an individual qualified to install the replacement pump.

## PART B - QUARTERLY

**1. Maintain Exterior Sliding Glass and Screen Doors:**

a. Clean lower and upper tracks. (A 1- or 1-1/2 inch paint brush is a good tool to dislodge dirt and debris from the tracks which can then be easily vacuumed.)

b. Apply a lubricant (silicon or other appropriate spray lubricant) to the tracks.

c. Check latches. Apply lubricant to moving parts and latch contact areas.

2. **Clean HVAC Outlets and Inlet Air Vents.** Using your vacuum cleaner extension wand with a brush attachment, clean all outlets and air intake vents. Don't forget your closets and laundry room.

## PART C - SEMIANNUALLY

1. **Check HVAC Air Handling Unit Condensate Drain:** Your condensate drain may clog with algae, mold and/or fungi.

a. Turn off the air conditioning system.

b. CAREFULLY unscrew the drain plug. It is a cast metal plug screwed into a PVC fitting. ***DO NOT USE EXCESSIVE FORCE TO REMOVE THIS PLUG AS YOU COULD CAUSE DAMAGE TO THE DRAIN COMPONENTS. INSTEAD, IF YOU SUSPECT THE CONDENSATE DRAIN IS CLOGGED, CONTACT AN HVAC FIRM.***

c. Ensure the condensate drain is not clogged. If it is, you may need to engage an HVAC firm to unclog it. They will be equipped with the special tools and devices to efficiently remove the stoppage. The Property Manager can recommend firms to you.

d. To discourage the growth of algae, mold and fungus in the future, pour one quart of household bleach in the condensate line. You will need a funnel. Let it stand for 30 minutes, than flush out the line with one quart of water. Repeat the flushing three times.

e. CAREFULLY screw the metal plug into the PVC fitting. Do NOT over tighten. Finger tight is sufficient.

f. Turn the air conditioning system back on.

2. **Check Hot Water Tank for Leaks.** See diagram on next page. Check hot water tank and all piping for evidence of leaks. The Property Manager can recommend a qualified plumber for repairs.

3. **Check Faucets/Taps, Hose Bibbs and Shutoff Valves for Leaks and Corrosion:**

Faucets/Taps and Hose Bibbs Locations:

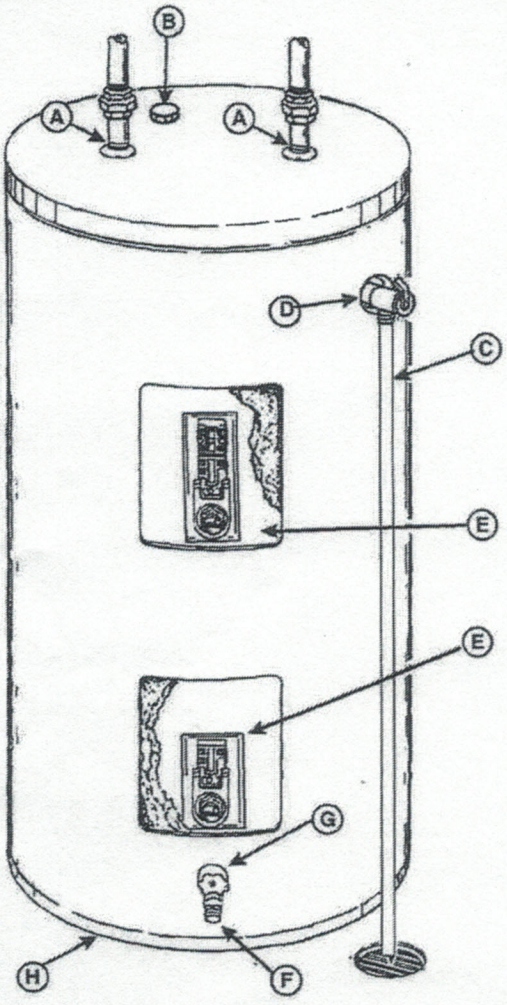
a. Bathroom lavatories
b. Showers and tubs
c. Kitchen sink(s)
d. Laundry room hose bibbs (to supply water to washing machine)

Shutoff Valve Locations:

a. Bathroom lavatories (in lower cabinets
b. Kitchen sink (in lower cabinet)
c. Toilets (beneath tank)
d. Hot water tank valves.

Procedure. Visually check for leaks and corrosion. Replace washers and packing nuts as required.

# LEAKAGE CHECKPOINTS




Read this manual first. Then before checking the water heater make sure the electrical power supply has been turned "OFF" before checking the tank for leakage.

*A. Condensation and dripping may be seen on pipes if the water temperature is low in humid weather or pipe connections may be leaking.

*B. The anode rod fitting may be leaking.

C. Small amounts of water from temperature-pressure relief valve may be due to thermal expansion or high water pressure in your area. If the valve is not piped to an open drain the released water could be mistaken for a leaking heater.

*D. The temperature-pressure relief valve may be leaking at the tank fitting.

E. Water on the side of the tank may be condensation due to the panel or insulation not being in place.

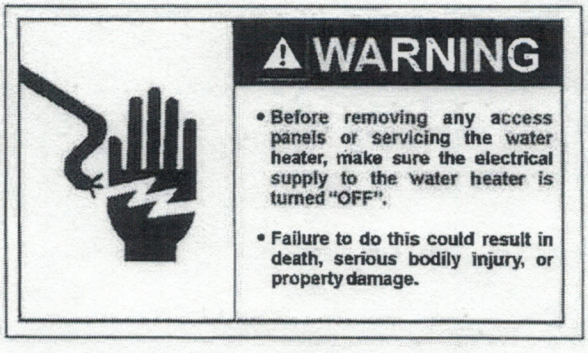
F. Water from a drain valve may be due to the valve being slightly opened.

*G. The drain valve may be leaking at the tank fitting.

*H. Water in the water heater bottom or on the floor may be from condensation, loose connections, or the relief valve. DO NOT replace the water heater until a full inspection of all possible water sources is made and necessary corrective steps taken.

Leakage from other appliances, water lines, or ground seepage should also be checked.

* To check where threaded portion enters tank, insert cotton swab between jacket opening and fitting. If cotton is wet, follow "Draining" instructions in the "Periodic Maintenance" section and then remove fitting. Put pipe dope or teflon tape on the threads and replace. Then follow "Filling the Water Heater" instructions in the "Installing the New Water Heater" section.

## PART D - ANNUALLY

1. **Clean Screens / Filters in Shower Heads and Faucets;**
   a. Faucets: Carefully remove faucet end filter / screen and remove grit and sediment. Lubricate threads with a tiny amount of Vaseline and reinstall the device.
   b. Shower Heads: Disassemble and clean grit and sediment buildup. Lubricate threads and reinstall device.

2. **Entrance Door Maintenance:**
   a. Check sweep strips and insulation strips around doors.
   b . Lubricate hinges and key slot.
   c. Lubricate door handle and dead bolt plungers (as applicable).
   d. Ensure hinges and lock mechanism screws are tight.

3. **Change Batteries in Smoke Detectors:**
   a. Open detector body. Use caution to avoid damaging the unit.
   b. Replace 9-Volt battery.
   c. Test for proper operation and return the unit to the bracket.

4. **Check Circuit Breakers:**
   a. Ensure all breakers are in the SET position.
   b. Touch each breaker individually to determine if it feels hot which may be an indication that the device needs replacing.

5. **Clean Overhead Vents / Exhaust Fans in Bathrooms.** Remove bolts holding vent covers in place. Wash dust and lint from cover. Using a vacuum clear with an extension wand and brush attachment, clean lint from exhaust fan housing, fan blades and outlet vent.

## PART E - EVERY TEN YEARS

**Replace Ion Type Smoke Detectors.** The ionization substance will dissipate in ten years and require replacement of the detectors. Since the detectors are wired in the same circuit, they must be replaced with the same type / model or false alarms may occur.

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**IMPORTANT NOTICE: When performing these maintenance tasks or at any time you detect a leak in a water line or around a valve or fitting, shut off the main water inlet valve IMMEDIATELY! Contact a plumber for necessary repairs.**

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## APPLIANCES

Don't forget that your appliances require periodic maintenance also. Your owner's manual or Use & Care Manual will provide the specifics. Some reminders are listed below:

**Washing Machine:**
- Check level and stability. Adjust leveling legs if required.
- Check condition of water supply hoses. Clean inlet filters / screens (if installed).

**Dryer:**
- Check level and stability. Adjust leveling legs if required.
- Use vacuum cleaner to clean filter screen housing.
- Clean filter screen often.

**Refrigerator:**
- Clean vents and coils on back. To accomplish this action, roll refrigerator far enough from the wall to gain access with a vacuum cleaner extension wand and brush attachment.
- Some refrigerators require replacement of a water filter periodically. Consult your Use & Care Manual for your specific model.

**Over-the Range Microwave Oven.** If you have a self-venting appliance, you may have to change the charcoal filters periodically.

## DEPARTING YOUR UNIT FOR EXTENDED PERIODS OF TIME

1. If you shut off your water, we recommend you do not drain your toilet tanks. Keeping water in the tanks prevents rubber gaskets from drying out and becoming brittle.
   a. Unplug hot water circulating pump, if installed
   b . Turn off the electrical power for the hot water tank by using the switch installed near the tank.
2. Reset your HVAC temperature settings in order to conserve electrical consumption during your absence.
3. If you do not shutoff your water, do consider shuting off the water valves located behind your washer. This action will eliminate the possibility of severe water damage in the event of the rupture of a supply hose.

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