Caring for Your New Home

Guide to Home Care

KOLTER

Your choice of Kolter Homes is the right one. Kolter Homes is dedicated to building quality homes that give you peace of mind; challenging the status quo and striving to deliver a "whole life" level of contentment.

Your house is both an asset and the place you call home. In the following pages, you'll find the information you need to preserve and protect it into the future. You'll learn how to care for and maintain your home and all of its components in addition to gaining a deeper understanding of how it functions.

Kolter Homes wants you to be as excited about your home in the future as you are now.

Welcome Home.

Introduction

This guide was written to help you maintain and better understand your Kolter home. It includes descriptions of the major components and systems you'll find in your home, and instructions for maintaining them. Proper maintenance is one of the keys to ensuring your home's continued functionality as the years go by.

CONTENTS

ONE

Bathrooms

Fixtures

All fixtures in the bathroom have protective surfaces designed to maintain their look and function. Such surfaces also cover bathtubs, sinks, showers, and toilets. The key to their continued beauty and proper operation is keeping them clean and preventing damage.

The following are routine maintenance tips for your bathroom fixtures:

Minimize and remove moisture by running exhaust fans or opening windows.

Paint cans, tools, and other non-bathroom items should never be set on bathroom surfaces and fixtures. Rather, place them on the floor or a tray.

Avoid paint seeping on or into plumbing fixtures by covering them when painting.

Remove your shoes before stepping into bathtubs or showers to reduce the chance of scratching the surfaces.

Wipe fixtures and the surfaces to which they're attached on a regular basis to prevent grime buildup.

Mirrors

Wipe mirrors with an ammonia-free cleaner to prevent de-silvering of mirror edges.

Showers

Dry the shower after use.

Use standard dishwashing detergent to clean the shower. If there are hard mineral deposits, clean with a commercial glass cleaner that includes ammonia. Alternately, pour 1 tablespoon of household ammonia into 1 quart of water and clean with that solution.

Control watermarks on glass with *Rain-X®.
**Rain-X is a registered trademark of SOPUS Products*

Don't use steel wool or scour pads when cleaning metal on shower enclosures. Doing so removes the protective finish and causes scratches.

Close the shower door to ensure water doesn't leak from the enclosure.

Bathtubs

Remove normal soil from the bathtubs with foaming bathroom cleaner. Some are designed specifically for tubs and tiles.

Do not use abrasive materials to clean bathtubs.

Avoid using bathtub spouts as leverage when entering and exiting the tub. The additional weight may cause permanent damage.

Fiberglass tubs and showers

Clean with a fiberglass cleaner, which is available at many stores. Glass cleaner is also effective.

Give your fiberglass tubs and showers long-term protection by waxing them upon move-in, and as part of major cleanings. Automobile wax works well.

Refrain from using powdered cleaners or abrasives as these may damage the tub or shower.

Toilets

See Toilets, page 10.

Caulking

See Interior Caulking, page 8.

Grout & Tile

Ceramic tile in bathroom areas combines beauty with function.

Care and maintenance

Ease of maintenance is one of the upsides of ceramic tile. To keep your ceramic tile looking new, follow these tips.

Floor and wall tile

Pick up debris and dust from the floor with a broom or vacuum. Doing so regularly will remove particles that can scratch and damage the floor.

Use a non-oil-based household cleaner to clean tile. Ensure the cleaner is compatible with cement grout.

Wet mop tile floors occasionally. Use a moist cloth to wipe wall tiles.

Use cleaning solution and a brush (non-metallic), cotton mop, cloth, or sponge to scrub floors. Rinse the floor with water to remove solution.

Clean tile with a cleaning agent that specifically controls mildew.

Affix protective pads to the bottom of furniture to avoid scratching the tile.

Shower tiles

Spray tiles and clean them with a multi-purpose cleaner that targets hard water deposits, mildew and soap scum.

HOME TIP: Adhere to manufacturer's recommendations for tile maintenance.

Grout

Grout is the cement-like substance between the tiles. Clean it with a brush and mild cleanser.

Apply grout sealer to increase stain-resistance. Try a small patch of sealer to ensure it doesn't discolor the grout.

Monitor grout for cracking. Upon discovery of a crack, re-caulk and re-grout. As part of the process, remove all grout to be replaced to the cement or sub-floor. This reduces the chance of the grout cracking again, or beginning to flake.

CAUTION: Avoid cleaners that contain acids or ammonia. The acid will damage the grout and glaze on the tile, while ammonia may cause discoloration of the grout.

Interior Caulking

Interior caulk, which is an elastic sealer, is used to prevent water intrusion. The most common areas for caulking are around backsplashes, showers, sinks, and tubs.

Caulk needs attention and regular maintenance to maintain its function. Without maintenance, moisture can work its way behind caulk and damage what the caulk is protecting.

Care and maintenance

The following are tips for maintaining the interior caulking of your home.

Inspection

Inspect the areas of the home where there is original caulk. Look for any spots where the caulk has separated or deteriorated. The following are priority areas to check:

Around plumbing fixtures, sinks, showers, toilets, and tubs.

Around door and window frames.

Around backsplashes, tile, and floors.

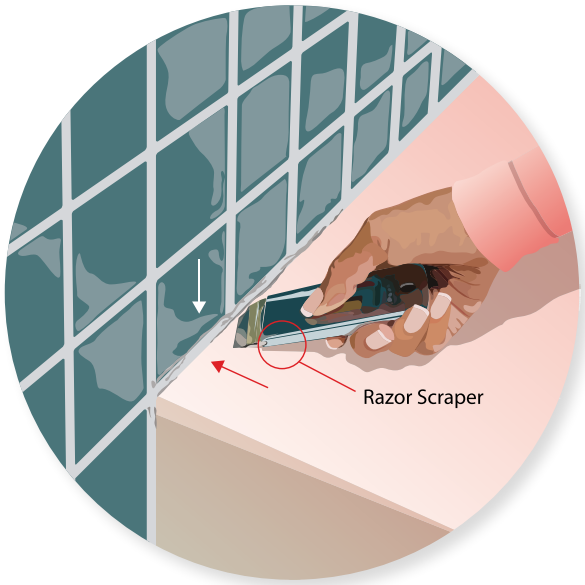
Around ceiling fixtures and doors to the attic.

Between the home's foundation and sill plate.

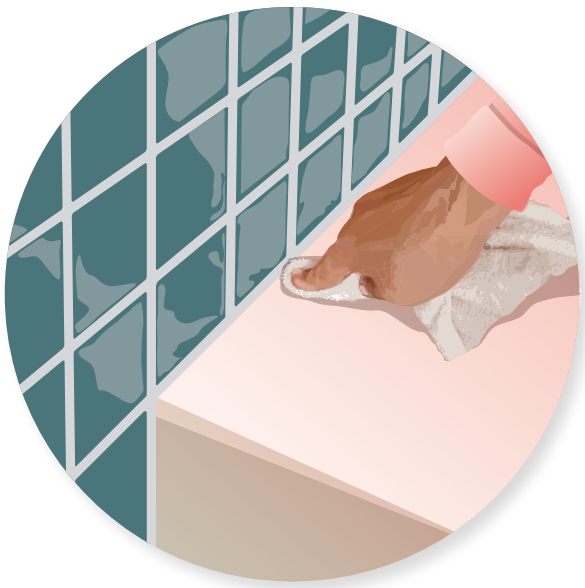
CAUTION: Avoid applying silicone caulking over acrylic caulking or acrylic over silicone, as the two types of caulks will not bond properly.

Reapplying interior caulk

1. Use a painter's tool, putty knife, or scraper to remove old caulk.



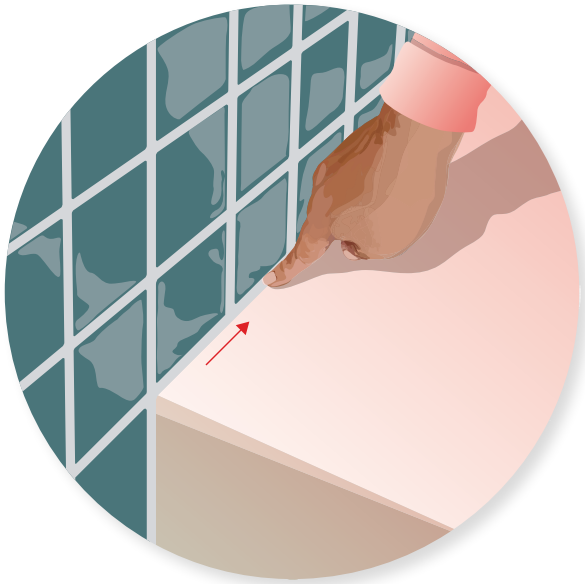
2. Clean the area that needs caulk and dry thoroughly as caulk won't bond to a surface that's dirty or damp.



3. Apply caulk. Hold the caulk tube at a 45-degree angle to the surface. Push the tube along the crack to fill it with caulk. Pushing the tube, rather than pulling it, fills the gap without trapping air bubbles.

4. Break the caulk bead by twisting the caulk tube and pulling it back.

5. Smooth the caulk by running a finger along the joint.



HOME TIP: Caulk often is applied with a caulking gun. Follow instructions on the gun when loading the tube.

HOME TIP: Apply caulk when the air temperature is between 50 degrees and 70 degrees.

Toilets

Toilets are one of the most frequently used fixtures in the home, and their parts and surfaces require care.

Made of clay with a smooth, glazed surface, toilets are durable but improper cleaning or use can damage or scratch them. The various components in the tank must also be monitored and, if necessary, replaced.

Care and maintenance

The following are tips for maintaining your home's toilets.

Cleaning the toilet bowl

Clean the toilet bowl with only a cleaner designed specifically for toilet bowls. Follow instructions on the cleaning solution and don't mix it with other cleaning products.

Avoid using bluing pellets, chlorine tablets, or suspended chlorine cleaning bars in the toilet tank. Doing so may cause the rubber in the toilet tank to deteriorate.

Protecting the finish

Use toilet cleaners only inside the toilet bowl.

Don't clean the outside of the toilet with a strong abrasive, as it may scratch the finish.

Don't clean inside the toilet tank. Doing so may damage the parts.

Avoid pouring hot water in the toilet bowl or tank.

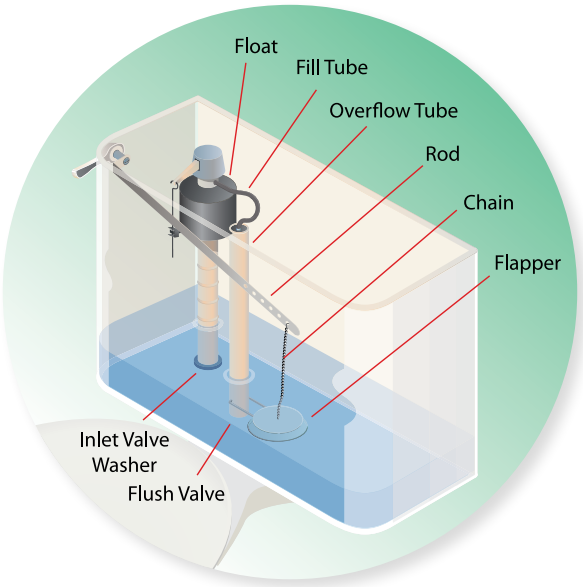
Preventing clogs

Clean the holes beneath the toilet rim regularly, as clogs that begin there can cause the toilet to malfunction.

Flush only what's meant to be flushed. That means no items like diapers, facial tissues, hair, garbage, or lint, which may cause clogs in the toilet or sewer lines.

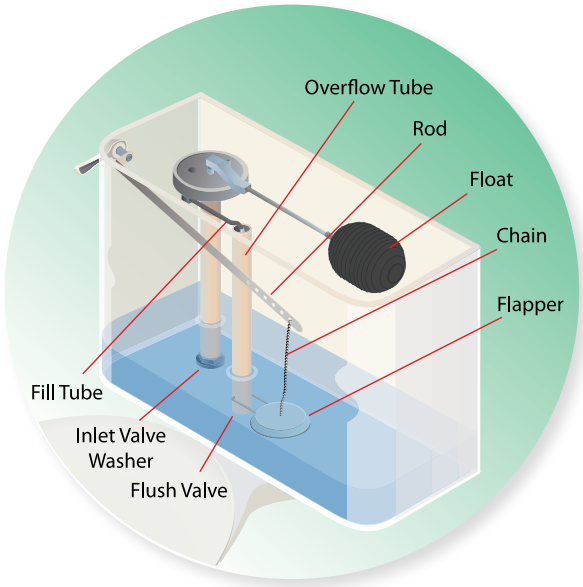
Adjusting the tank's water level

There's a screw on top of the water control that controls the water level. Locate the screw. Turn it clockwise to lower the water level, counterclockwise to raise the water level. A line on the back of the tank marks the proper water level.



Adjust the tank fill time

Locate the float rod assembly and then the flow rate adjustment screw on top of it. Reduce the flow rate of the water by turning the screw clockwise. Increase the flow rate by turning the screw counterclockwise. Not all toilets allow for adjusting the flow rate.



CAUTION: Toilet tank lifts are made of the same material as the toilet so they are heavy. Take care when removing them.

Repair

Problem: toilet won't flush

The float maintains the tank's water level. Adjust the float so there's an adequate amount of water to flush.

Install a new flapper. Rubber flappers break down over time. Purchase a new flapper and follow instructions on the package to install.

Problem: the water tank seems to leak

Check to see if condensation is forming on the tank. It's possible there's enough condensation to drip on the floor.

Problem: water leaks into the bowl

Check the overflow tube. Hold the float and bend the rod so it's closer to the bottom of the tank. Flush.

If water still leaks, the washer on the inlet valve may need replacement.

If the leak isn't from the overflow tube, the flush valve is the likely culprit. Align the rods that connect the flushing valve and the handle so the float drops straight down when flushed.

Check the flapper. A warped flapper could allow water to leak from the tank into the bowl. If that's occurring, replace the flapper.

Water tank condensation

There may be condensation on the outside of the tank. Depending on how heavy the condensation is, it may resemble a leak.

TWO

Electrical

Circuit Breakers

Circuit breakers exist to protect the electrical system from power failure.

Circuit breakers are safety measures that protect the electrical wiring in the home. If there is too large of a load on a specific circuit, the breaker trips. Breakers trip for a variety of reasons but common causes include defective cords, using too many appliances at once, or starting large motors.

HOME TIP: The electrical box that houses the breakers receives electrical power from a cable known as an electrical service entrance. Avoid tampering with it.

Care and maintenance

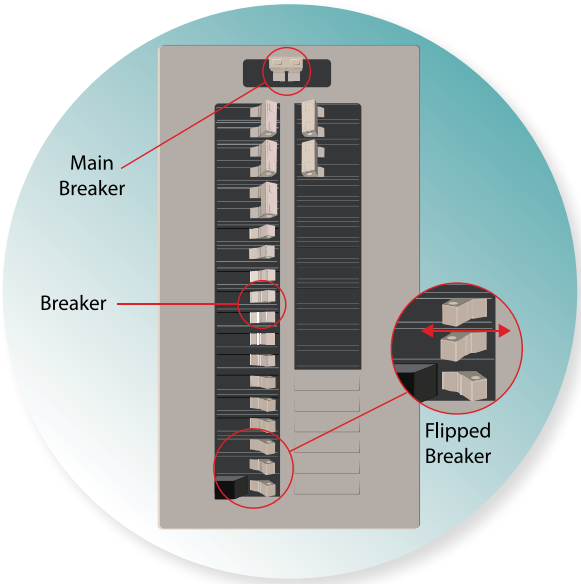
The following are tips for maintaining the electrical system in your home.

Circuit breakers

Before calling an electrician when an outlet or light fixture doesn't work, check the circuit breaker. An overloaded or short circuit could have caused the breaker to switch to the OFF position.

If the circuit breaker is OFF:

1. Correct the cause of the break, if known, before turning the breaker to the ON position. Common causes include too many appliances, lamps, etc., plugged into one outlet or frayed cords and/or connections.
2. Push the switch all the way OFF and then ON to reset the breaker.
3. Repeat if any red appears above the breaker switch.



HOME TIP: Dust on the circuit breakers may cause them to trip. Blow dust out of the breaker box with a can of compressed air.

Frequent tripping

Call an electrical contractor. It's possible additional wiring is necessary. In most instances, plugging small appliances into any electrical outlet will not overload the circuit. However, plugging multiple appliances into the same circuit or large appliances may overload the circuit and cause the breaker to trip.

One area of home loses power

Try to determine what caused the power failure and remedy before switching the breaker back ON. Call an electrician or the homebuilder if the cause of the power failure can't be determined.

Reset the circuit breaker by pushing the switch all the way OFF and then flipping it to the ON position.

CAUTION: Do not allow anyone except a licensed electrician to alter or repair the home's electrical system.

CAUTION: Permits may be required for some electrical changes. The permit process is designed to ensure the system meets local codes and is an important part of preventing damage and injury.

Light fixtures

The home's warranty doesn't include damages or short circuits caused by changes made to the light fixtures. Have an electrician attach, detach, or otherwise change light fixtures.

CAUTION: Install childproof outlet covers to protect children from injuries resulting from outlets and wiring.

Also, see Electrical Troubleshooting, following.

Also, see GFCIs and AFCIs, page 15.

Troubleshooting

Before calling an electrician with electrical problems, consult the following list. You may be able to save money and time.

Problem: outlet won't work

Check wall switch and make sure it isn't off. If the switch is on, check the circuit breaker. If the breaker is tripped, reset it.

Problem: ceiling light or lamp won't turn on

Turn the wall switch on. Check the light bulb to ensure it isn't burned out. If the bulb is fine, check if the circuit breaker is tripped.

Problem: disposal won't work

Find the disposal's reset button and push it. If the disposal and dishwasher receive their power from an electrical outlet, ensure they are plugged in properly. Check to see if the circuit breaker is tripped.

Problem: electric water heater won't work

Check to see if the circuit breaker is tripped. If it's not, turn off the water heater's power. Locate the reset button beneath the water heater's access cover and push it. Then turn it back on.

Problem: oven won't heat

Check the circuit breaker. Also, check the owner's manual to ensure proper use of the time controls.

Problem: bath or utility exhaust fan won't work

Listen for a humming noise. If there isn't one, the problem likely is electrical. Call an electrician. If the fan makes a humming noise, or otherwise responds when you flip the wall switch, the problem likely lies with the unit itself. Call the manufacturer.

Problem: an outlet sparks when an appliance is plugged in

Turn off the appliance, and then plug it in. If there still is a spark, turn it off again and try another outlet. If it still sparks, the appliance cord likely is the cause of the sparks.

Problem: outlet or switch is hot to the touch

Switch to OFF the circuit breaker that controls that outlet or switch. Call an electrician.

HOME TIP: Call an electrician if wall switches or outlets create sparks.

Also, see Circuit Breakers, page 13.

GFCIs & AFCIs

These are special types of circuit breakers that protect against electrocution, fire, and shock.

GFCIs

Ground fault circuit interrupters can be found at the electrical panel box or outlets and are located in areas that may get wet (bathrooms, kitchens, laundry rooms, and outside).

These breakers detect even tiny unwanted electrical flows and trip immediately, which cuts the circuit's power. That protects the person using the circuit from getting electrocuted or shocked.

Determine which outlets and breakers are GFCIs by looking at them. At the outlets, they have one button that reads TEST, another that reads RESET. At the electrical panel, the breaker will have a button marked TEST.

AFCIs

Depending on where you live, arc fault circuit interrupters may be required in addition to GFCIs. Arc fault circuit interrupters are installed on circuits that provide power to bedrooms; they're designed to protect the system from fire.

Arcing occurs for a variety of reasons including loose connections, pinched cords, or cables that contact vibrating machinery. AFCIs detect such arcing — whether in a circuit, extension cord, or appliance — and trip immediately to cut power to the circuit.

Care and maintenance

The following are tips for maintaining your GFCIs and AFCIs.

A tripped GFCI and AFCI

GFCIs trip for a variety of reasons including, for example, an appliance that's plugged into one trips. When this occurs, all related outlets will lose their power too. To reset a GFCI outlet, press the RESET button, which is located on the center of the outlet. To reset a tripped GFCI or AFCI circuit breaker at the electrical panel, flip them all the way to the OFF position then to the ON position.

HOME TIP: GFCIs will trip if there's too much amperage from a major appliance or multiple hair dryers, for example.

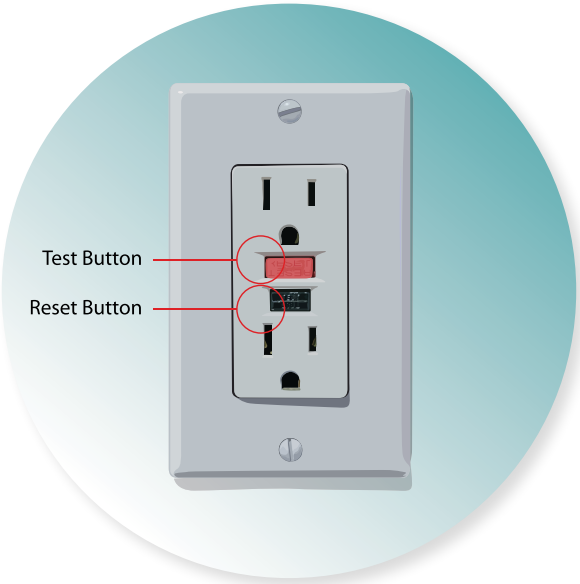
How to test GFCIs

GFCIs are designed to protect you, your family, and your home. Every GFCI in your home should be tested monthly using the following steps:

1. *Push the TEST button in the middle of the GFCI outlet. If the outlet is functioning properly, the GFCI should trip and cut power to the outlet.*

2. *Push the RESET button to restore the outlet's power.*

3. *If resetting doesn't work, use a can of compressed air to remove any dust. If it still will not reset, contact an electrician to have it replaced.*



THREE

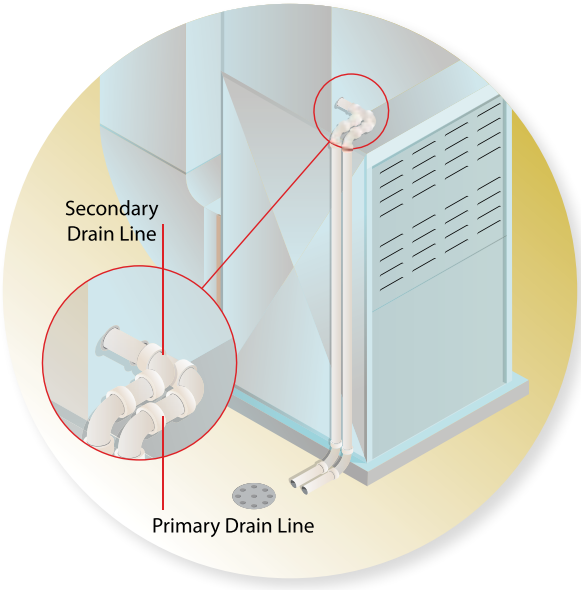
Heating & Cooling

Condensation Drain Line

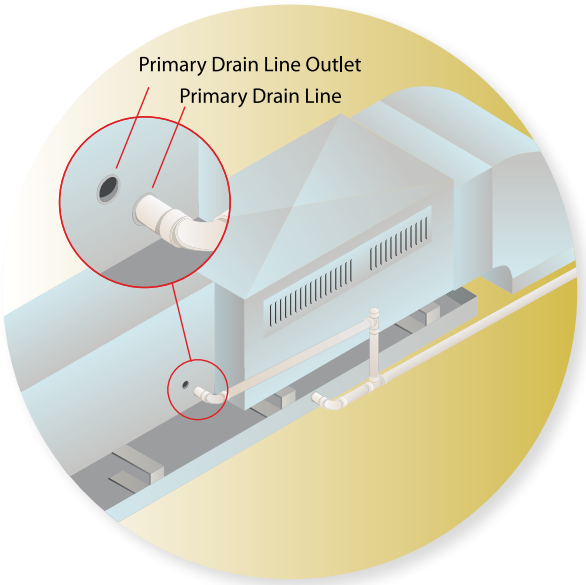
It's necessary to pay attention to the line that drains condensed moisture away from your home's heating/cooling unit. The drain line runs moisture from the unit to the exterior of home.

The line can become clogged with algae or debris which may cause water to back up into the heating/cooling unit's drain pan. This shallow pan can overflow easily and the resulting water could damage your home.

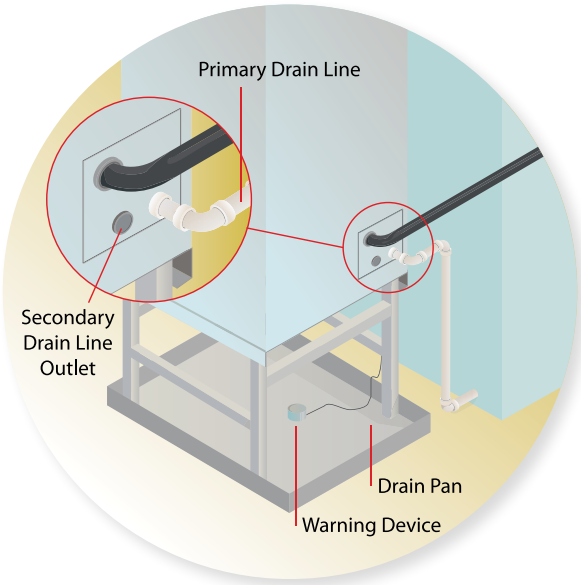
The heating/cooling unit has a drain line built into it. Some models have a secondary line to provide backup if the primary line clogs. The most common time blockage problems in the line occur is at the beginning of the cooling or heating season.



Some heating/cooling units are in the attic. In that case, the primary drain line typically runs through an exterior wall to the outside of the home. Attic units also have a secondary line that connects to the drain pan. This line also runs to the home's exterior.



Finally, some heating/cooling units are in utility closets. In that case, the primary drain line will run through an interior wall but end outside. Some units have a warning device that cuts power to the unit if the drain pan fills with water.



Care and maintenance

The following are tips for maintaining the condensation drain line.

Maintaining proper drainage

Check the drain line for proper function at the beginning of each summer. It's recommended to have a professional service the line.

Ensure the secondary drain line drains properly. The unit's instruction manual includes directions for doing so.

Maintain space around outdoor condenser units and lines by trimming back landscaping.

Check the outdoor condenser unit on a regular basis for debris. Before doing so, turn off the air conditioner. Then check for anything — grass and leaves, for example — that could impede air flowing from the unit. Remove any debris with a water hose (an adjustable spray nozzle makes it easier). Check under the unit and remove any debris that's accumulated in the base pan.

CAUTION: Use only enough water pressure as is necessary to clean the condenser unit. Too much pressure could damage the unit's coils.

HOME TIP: Secondary drain lines typically are over doors or windows. Water dripping in these locations may indicate a clog in the primary line.

SERVICE TIP: If debris has accumulated in the condenser unit, call for service to avoid damaging it.

Fireplaces

Not only do fireplaces add a touch of beauty, they also warm your home. But whether the fireplace is wood burning, gas, or electric, using them properly and safely is vital.

Care and maintenance

Follow all maintenance instructions from the fireplace manufacturer and those below.

Electric and gas fireplaces

Inspect fireplaces twice annually or whenever they've not been used for extended periods of time.

Do not burn wood in electric or gas fireplaces.

If you smell gas, call your gas company. Call a contractor if you see arcing. Until a professional has repaired it, don't use the fireplace.

Cooling & Heating System

An efficient heating and cooling system in your home is designed to keep you and your family comfortable.

One of two types of heating and cooling system is in your home:

1. *Air conditioner and furnace.*

2. *Heat pump for heating and cooling.*

The systems operate differently.

Air conditioner and furnace

Furnaces burn oil, natural gas, or propane to generate heat. They transfer the heat to the air and push it through the home.

Air conditioners cool the air via a coil that removes heat from the air. A fan unit outside the home disperses the heat.

Heat pump

Heat pumps serve both heating and cooling functions. They're most often found in moderate climates that get neither too hot nor too cold. Heat pumps don't operate well at low temperatures — they have to work too hard — so they're not suited for areas where below-freezing temperatures persist.

There are a variety of heat pump styles but air-source pumps are most common. They transfer air between the inside and outside of the home. Air-source pumps cool the interior air by removing heat and transferring it outdoors. They provide heat by transferring

heat from the outside air into the home. The role of heat pumps isn't to generate heat — it's to move heat.

A system of ducts and registers circulates the air into the home. Supply ducts bring air from the handling unit to the inside of the home while return ducts bring air from the home to the handling unit. Some, but not all, heat pumps include a supplemental heat source if extra heat is needed.

Proper maintenance is essential to the heat pump system's efficient function operation.

Also, see Registers, page 23.

Condensation drain line

See Condensation Drain Line (Page 18).

Filter

Do not operate any heating and cooling system without a filter which protects it from debris and dust.

Care and maintenance

The following recommendations ensure proper system operation.

Run the heating and cooling system at least once during the off-season.

Some outdoor air conditioners have an external cartridge fuse or other disconnect mechanism in a box near the service panel or unit itself. Contact an electrician if you have issues with the fuse.

SERVICE TIP: Read instruction manuals and follow the instructions for having your units checked and maintained.

SERVICE TIP: Hire a professional to conduct a furnace inspection on an annual basis, before the heating season.

CAUTION: Call your gas company immediately if you smell gas.

HOME TIP: Close blinds, drapes, and shutters on hot days to keep the interior of your home cool. Open window coverings on cool, sunny days to expedite interior heating.

The following are tips for keeping your heat pump system functioning properly:

Hire a professional technician to service the system annually. The technician will check multiple aspects of the system to ensure it operates as it should.

Clean or replace the filter monthly or as often as is necessary, depending on use. Refer to the manufacturer's instructions for cleaning or replacing.

Remove debris from the outdoor unit.

Monitor the supply and return registers and clean them when they appear dirty or dusty. Straighten any bent fins.

Also, see Registers, page 23.

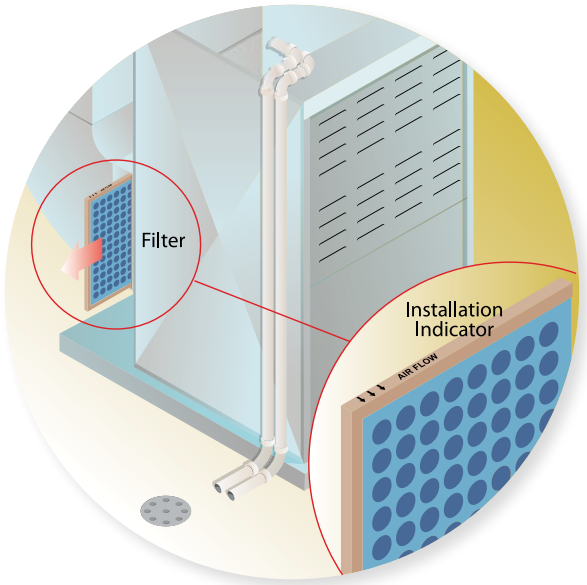
Condensation drain line

See Condensation Drain Line, page 18.

Filter

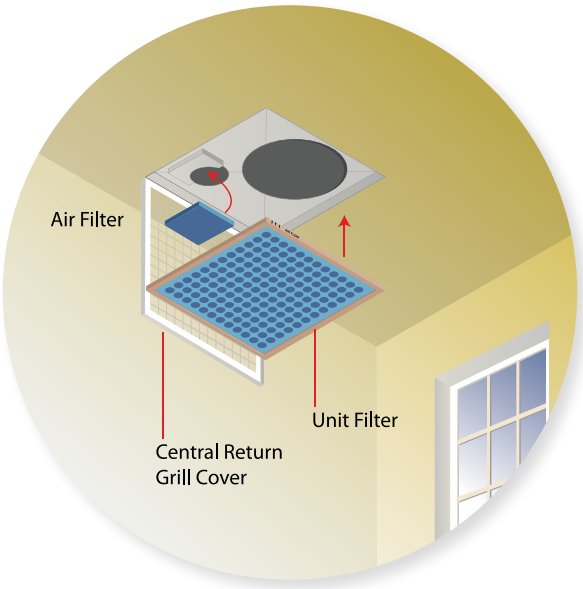
Change or clean the air filter monthly to ensure maximum efficiency. A clogged filter can cause a malfunction in the heating and cooling unit.

Check the system manufacturer's instruction manual for the filter location, and how to change or clean it. Turn off the unit before attempting to change or clean the filter. Use only the size and type of filter the manufacturer specifies.



Units located in the attic

Open the return grill to access the filter. The grill is just below the attic in the ceiling. Some units also have a fresh-air intake. If yours does, change the fresh-air filter, too. It's in the return grill.



Insulation

Your home is insulated properly for the climate in which it's located. If your home's heating or cooling is inadequate, it may not be due to inadequate insulation. More likely culprits are open doors and windows, clogged filters, register misuse, or inadequate window coverings.

Cooling coils

Check for a dirty filter if your air conditioner freezes up. If the filter is clean, turn off the air conditioner and wait for the ice to melt. Call a technician if the freezing continues.

Registers

Registers regulate your home's airflow and temperature.

At least one register connects to an air return system, which returns air to the heating and cooling unit. There, the air is cooled or heated and sent back to registers in the home.

Care and maintenance

The following are tips for maintaining the registers in your home.

Adjusting the registers

Adjusting registers allows for regulation of the temperature in individual rooms. Close or open registers and dampers to adjust how much cool or warm air flows into a room.

Do not close registers fully. However, if one room gets a lot of air, partially close the register there to force more air into rooms that get less air.

Closing registers

The system doesn't sense when registers are closed so it will continue operating at the same level. The air from the room in which the register or registers were closed will mix with the air from the rest of the house.

HOME TIP: Fully closing registers will neither increase comfort nor reduce energy costs, as heating and cooling systems are designed to heat and cool a specific square footage.

Getting the most from the registers

Ensure registers have sufficient clearance around them. Drapes and furniture in front of the registers can prevent them from pushing warm and cool air into the room. Like clogged filters, blocked registers can cause operating problems for the heating and cooling unit.

Do not block return intake registers. Stale air must leave the room in order for fresh air to come in.

Cleaning the registers

Registers get dirty since air laden with dust goes through them. Remove dust and dirt by using a vacuum.

SERVICE TIP: Consider hiring a professional duct cleaner. The result is cleaner, healthier air as well as a heating and cooling system that works more efficiently. A duct cleaner will clean the entire system, including the furnace filters, blower motor, ductwork, piping, and registers.

Thermostat

The thermostat controls your home's heating and cooling system and allows you to maintain your desired temperature. Keep in mind the thermostat keeps your home at an even temperature but individual rooms may be cooler or warmer.

Care and maintenance

The following are tips for maintaining the thermostat.

Maintaining a comfortable temperature

Set the thermostat at a comfortable temperature. Recommended temperatures are 78 degrees for cooling and 70 degrees for heating.

Avoid wasting energy and maximize energy efficiency by maintaining constant thermostat settings.

Run the furnace's recirculating fan to minimize temperature variations within the home. In general, the farther from the ground the floors are, the warmer that level of the home will be.

HOME TIP: Check your thermostat for controls that allow you to choose whether to use the cooling system or the heating system.

CAUTION: Avoid overheating your home, especially during the first year. Too much can cause more shrinkage than normal in the framing lumber, resulting in cosmetic damage.

Do you need service?

Your heating and cooling system should be capable of producing an indoor air temperature of 78 degrees for cooling and 70 degrees for heating, according to the American Society of Heating, Refrigerating, and Air-Conditioning Engineers.

When the outdoor air temperature is higher than 95 degrees, the inside of your home should be at least 15 degrees cooler.

FOUR

Home Interior

Attic

Maintaining ventilation through the attic helps prevent buildup of moisture.

In general, access the attic via an attic access ladder or steps that have been installed in a closet or garage.

Ventilation

Louvers and vents ventilate attics, extend the life span of the roofing material, reduce energy usage, and prevent moisture buildup. In normal conditions, louvers and vents also keep out snow and wind-driven rain. In certain instances, rain and snow may enter louvers and vents.

Storage

Attic storage is available in some homes. Before storing anything in the attic, though, ensure it has a plywood platform. If it doesn't, do not use the attic for any storage purpose.

CAUTION: Damage that results from improper attic use is the homeowner's responsibility.

Care and maintenance

The following are tips for maintaining the attic in your home.

Maintaining sufficient ventilation

Ensure louvered openings are not obstructed. Leaks frequently result from louvers obstructed by debris or ice.

Keep vents clear of debris.

Regularly check vents — especially after high winds — to ensure they are secure.

On an annual basis, check the attic for water stains on the underside of the roof sheathing.

Preventing long-term damage

Inspect insulation in the attic for moisture. Call immediately for service if you find moist insulation.

HOME TIP: If your attic has loose-fill insulation, ensure it doesn't shift after major weather events. If shifting occurred, even out the insulation using a plastic rake.

HOME TIP: Hire a specialist to inspect the attic for fungus, mold, mildew, and rotting. All result from high attic humidity. Check, too, for evidence of animals or pests.

Carpet

Regular cleaning and maintenance will ensure your carpet remains beautiful and functional for years.

Care and maintenance

The following are tips for maintaining the carpet in your home.

Cleaning the carpet

Vacuum a minimum of one time per week, especially if the carpet is a denser shear pattern.

Remove deep dirt and stains by having your carpet cleaned professionally at least once annually.

Avoid delamination by immediately drying any carpet that gets wet.

Use manufacturer's recommended cleaning products to remove spots or stains. Follow manufacturer's instructions.

SERVICE TIP: Call a remediation company if carpet becomes saturated with water.

Preventing staining

Attempt to remove stains immediately. Waiting may allow the stain to set.

Ask a carpet expert what spot or stain remover is best for your carpet style.

SERVICE TIP: If there's severe spotting or staining, call a professional. The upfront cost is higher but will result in longer carpet life.

Preserving the carpet

Avoid allowing direct sunlight to hit the carpet. Sunlight causes carpet to age faster.

Move heavy furniture occasionally to prevent excessive pile crushing.

Locate and cut loose carpet threads as they may cause the carpet to unravel.

HOME TIP: Consider having loose carpet restretched and delaminating carpet seams repaired.

Protecting furniture

Create a barrier between the wood bottoms of your furniture and wet or saturated carpet. Aluminum foil or plastic coasters make good barriers.

Visit the carpet manufacturer's website for more information.

Central Vacuum

Some homes include a central vacuum system. If your home has one, ensure it remains dust-free to optimize efficiency.

A central vacuum system makes it possible to vacuum by plugging a hose into a wall outlet. There's at least one central vacuum outlet on each floor. Vacuumed material flows through the tubing to the power unit, which generally is in the basement or garage.

Care and maintenance

The following are tips for maintaining the central vacuum system.

Canister and filter

Clean the canister and filter three times annually. When you empty the collection canister, also knock dust from the filter to clean it.

Ceramic Tile Floors

Not only does ceramic tile add beauty, it's also easy to clean and maintain.

Care and maintenance

The following are tips for maintaining your tile and keeping it looking new.

Maintenance

Remove dust and debris from the floor before cleaning them. A broom or vacuum works well.

Place protective mats at all entrances to the home.

Prevent tile scratching by placing protective pads on the bottom of furniture.

Caring for grout

Use a brush and mild cleanser to clean grout between the tiles.

Improve stain-resistance with a grout sealer. Keep in mind, grout sealer doesn't waterproof grout and may discolor it.

Caring for tile

Sweep or vacuum regularly to pick up abrasive particles that may damage the tile.

Wet mop tile occasionally. More frequently, wipe it with a moist cloth.

Use a non-oil-based cleaner compatible with cement grout to clean the tile.

Use cleaning solution and a brush (non-metallic), cotton mop, cloth, or sponge to scrub floors. Rinse the floor with water to remove solution.

HOME TIP: Follow manufacturer's recommendations for tile maintenance.

CAUTION: Vacuums with beater bars or power rotary brush heads will damage tile.

CAUTION: Avoid cleaners that have acid or ammonia. Ammonia may discolor the grout and acid will damage glazing and grout.

Exhaust Fans

Exhaust fans remove moisture from the home.

Activities that require warm or boiling water create moisture in your home. Excess moisture promotes growth of mold and may damage building materials.

Bathrooms and cooking ranges include exhaust fans designed to remove moisture and odors from the air. Turn on exhaust fans during and after a bath or shower and while you're cooking.

Care and maintenance

The following are tips for maintaining your exhaust fans:

Turn off the fan's power (unplug it) before conducting maintenance.

Check to ensure the fan is pulling air. To do so, hold a tissue near the fan grille. If the fan is pulling air, the tissue will be pulled tight against the grille.

Dust may accumulate on the fan and grille. Maintain pulling power by keeping them clean. Damp cloths work well.

Blow dust from the fan with a can of compressed air.

CAUTION: Unplug all electrical appliances before cleaning them.

Also, see Cooktops, Ovens, and Ranges, page 81.

Finishes

Proper care ensures the finishes in your bathroom and kitchen retain their beauty.

Brass, chrome, and nickel

Chrome is durable, hard and resistant to scratching. Nickel looks similar to chrome but has a warmer undertone. It is softer than chrome and more easily scratched. Brass also scratches easily. A clear protective coating often is applied to brass to make it more durable.

Enamel

Enamel surfaces are hard but can be chipped if misused — being struck by a heavy object, or cleaned with abrasives, for example. Enamel surfaces are comprised of tile, porcelain, or vitreous china.

Stainless steel

As their name implies, stainless steel finishes are designed to resist staining. Scrub them occasionally. A properly maintained stainless steel surface can last many years, and even if small scratches occur, they often will blend in.

Care and maintenance

The following are tips for maintaining the finishes in your bathrooms and kitchen.

Enamel

Dishwashing: Take care to avoid dropping dishes. They may chip or scrape the enamel surface. Continual scraping gradually scratches and dulls the enamel, which increases the likelihood of stains setting and becoming difficult to remove.

Cleaning: Avoid strong abrasive cleaners as they can dull or stain shiny fixtures in a short time period. Take care not to chip, scratch, or stain the enamel when cleaning.

HOME TIP: Many household cleaners are mildly abrasive but aren't harmful if used with enough water. Baking soda is nonabrasive and works well for cleaning enamel.

HOME TIP: Chips in porcelain finishes can be filled. Most hardware stores carry liquid porcelain, which is cheap and easy to use. Deep chips may require two coats. Follow the manufacturer's recommendations for use.

Stainless steel

Use a commercial stainless steel cleaner or warm water and a nonabrasive cleaner to clean stainless steel. Dry completely upon completion.

Fill a stainless steel sink with a 50/50 solution of water and bleach to clean it. Let stand for 15 minutes. Wash the sides and bottom of the sink as the solution drains. Rinse.

Remove the chloride residue found in most cleansers, detergents, and soaps from the sink by rinsing it after use.

Maintain the stainless steel finish of a sink by scrubbing it weekly.

Dry the surface after use so soap, salt, or water don't dry on it.

Avoid striking the sink as stainless steel can dent.

Avoid steel wool pads as they may remove the stainless steel finish.

Stainless steel sinks are neither chopping blocks nor cutting boards. Knives can scratch the surface and the steel can dull knives.

HOME TIPS: Do not leave wet cleaning pads, cloths, or sponges on the sink. Doing so may result in discoloration, pitting, or rusting.

Brass, chrome, and nickel

Avoid abrasive cleaners, which may scratch the surface and damage the finish.

Use a soft cloth and nonabrasive wax polish to clean chrome.

Use a nonabrasive cleaner to clean brass and nickel. Buff them with a soft cloth.

Use a soft cloth to wipe water spots. Do not allow water to dry.

HOME TIP: Follow manufacturer's recommendations for cleaning and maintaining all finishes in your home.

Doorknobs & Locks

Whether for privacy or security, doorknobs and locks are easy to maintain.

Care and maintenance

The following are tips for maintaining doorknobs and locks.

Keeping doorknobs working

Regular use may cause doorknob hardware to come loose.

Avoid pulling the doorknob up or down or side to side when opening and closing a door.

Call a locksmith if a doorknob or lock isn't functioning properly.

HOME TIP: Have duplicate keys made at the hardware store. Consider giving a trusted neighbor a key to your home in case of emergency.

HOME TIP: Store keys or release pins for interior doors in a convenient spot so you can unlock an interior door from the outside if necessary.

Minimizing tarnishing and wear

Follow the manufacturer's instructions for cleaning hardware. Do so regularly.

Check exterior hardware for tarnish. Though a sealant finishes most exterior hardware, it may become tarnished.

Check for exposed hardware screws. Tighten any you find.

All hardware should operate smoothly.

Use a graphite product to lubricate exterior locks. Do not lubricate with oils which may freeze in cold weather or foul the lock pins.

HOME TIP: Keys used during construction will not work after you have purchased the home.

Main Shutoffs

Your home is equipped with main shutoffs that cut the electrical or water supply to the entire home.

Main water shutoff

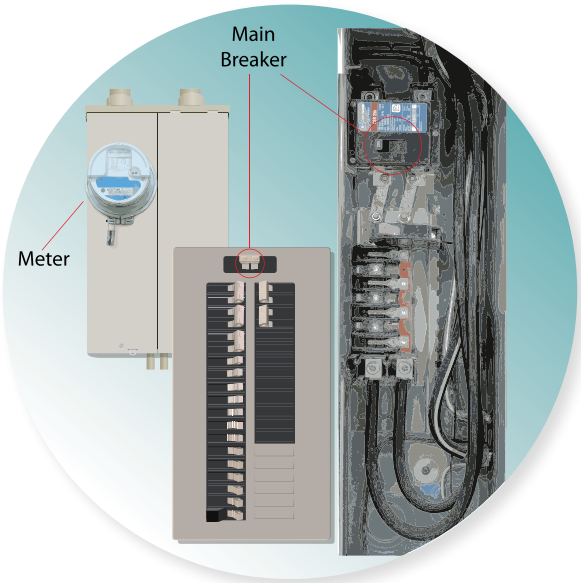
The main water shutoff generally is located on an outside wall.

Also, see Shutoff Valves (Page 94).

Main electrical shutoff

The electrical panel box includes multiple circuit breakers and one master circuit breaker, which is the main electrical shutoff. Tripping that breaker will cut off the home's electricity. Reset all circuit breakers by flipping them all the way OFF and then ON.

Also, see Circuit Breakers, page 13.



CAUTION: Read and follow main shutoff warnings.

Carbon Monoxide & Smoke Detectors

Carbon monoxide (CO) and smoke detectors that work properly protect you and your home.

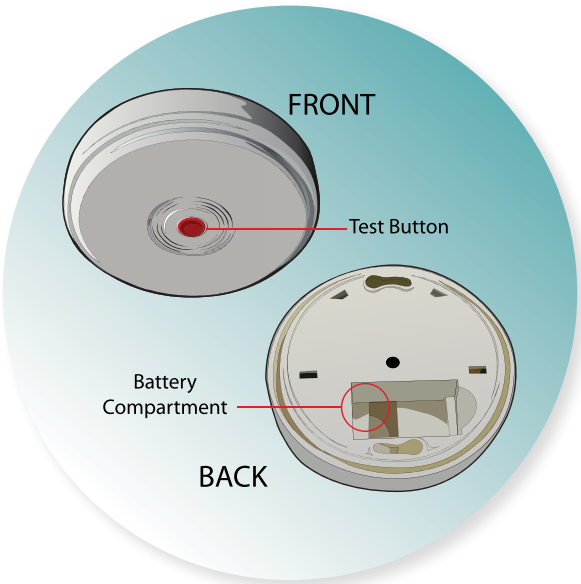
Properly functioning CO and smoke detectors alert you in emergencies involving smoke and CO. The detectors are hardwired but also include batteries for backup power.

Care and maintenance

The following are tips for maintaining CO and smoke detectors.

Testing the detectors

Push the TEST button on CO and smoke detectors every month. When you push the button, the alarm should sound. Replace the battery if you hear a chirp or get no response.



HOME TIP: Follow manufacturer's instructions for testing CO and smoke detectors.

Keeping detectors functioning properly

Properly functioning detectors are vital to your safety. Clean them of dust, which reduces their sensitivity to heat and smoke and may cause false alarms. To get rid of dust, remove the top of the detector and vacuum the inside. A can of compressed air also works for dust removal.

Backup battery

CO and smoke detectors contain 9-volt batteries that serve as backup should power to the home be cut. The detector will produce an unmistakable chirp when the battery is running low and it's time to replace it. To ensure there's no lapse in safety, keep extra 9-volt batteries on hand.

Change the battery by following these steps:

1. *Disconnect the hardwire harness.*
2. *Take out used battery.*
3. *Discharge latent energy from the detector by pressing the TEST button.*
4. *Install fresh battery.*
5. *Reconnect hardwire harness.*

HOME TIP: Change all CO and smoke detector batteries at the same time every year. Many people change them at Daylight Savings Time.

HOME TIP: Even if just one detector isn't functioning properly, all will chirp. Find the malfunctioning detector by locating the one that has a red indicator light flashing.

HOME TIP: If your home includes a fire sprinkler system, read the manufacturer's instructions.

Specialty Interior Doors

Specialty doors including bifold, bypass, and sliding pocket may conserve space.

These doors are more complicated than regular hinged doors. Do not push or pull too hard or force them up or down when opening or closing them. Be gentle.

Bifold doors

Two door segments that fold into one another but slide along the same track, make up bifold doors. Gently pull the door toward you to open them. Closets, laundry rooms, and pantries are the most common places to find bifold doors.

Bypass doors

Doors that have two door segments that bypass one another on the track are called bypass doors or sling doors. Push the moveable part of the door to the left or right to open or close bypass doors, which are common in closets and showers.

Sliding pocket doors

Sliding pocket doors are the ultimate space-saving doors since they slide into the wall. Opening pocket doors involves pushing them gently in the direction the door moves. Sliding pocket doors are common in areas where space is limited,and may be used as dividers between two rooms.

Care and maintenance

Bifold, bypass, and sliding pocket doors are installed as sets. So if you remove a door, replace it in the same position to ensure continued function.

The following are tips for maintaining these doors.

Maintaining bifold doors

Adjust the doors per the manufacturer's recommendations. Adjustment is necessary when the doors jump from their tracks or are difficult to operate. Adjustment mechanisms are on the doors' rear sides.

Set screws may loosen. Check top corner brackets.

Avoid getting paint on top, spring-loaded pins.

Maintaining bypass doors

Adjust the doors per the manufacturer's recommendations. Adjustment is necessary when the doors jump from their tracks or are difficult to operate. Adjustment mechanisms are on the doors' rear sides.

Avoid getting paint on door track or rollers.

Take care when opening the doors. If bumped hard against the returns, the doors may jump off the top track.

Maintaining sliding pocket doors

Adjust the doors per the manufacturer's recommendations. Adjustment is necessary when the doors jump from their tracks or are difficult to operate. Adjustment mechanisms are on the doors' rear sides.

Tighten or replace screws if the roller is loose. Replace broken rollers.

Avoid pounding nails into the pocket area of a sliding door as the nail may damage the door. To hang pictures or other items on walls that have a sliding pocket door, use adhesive hangers.

Vinyl Flooring

Vinyl floors contain wear-resistant materials that make the floors exceptionally durable. A clear layer of nonporous material keeps spills and stains from penetrating the vinyl, ensuring long-lasting beauty. The floors recover quickly from indentations and are flexible so as not to be damaged by normal foot traffic. In addition, vinyl floors are easy to clean and maintain.

Care and maintenance

The following are tips for maintaining these vinyl floors.

Maintenance

Refer to the manufacturer's instructions for maintaining vinyl floors including which products to use.

Clean spills immediately.

Avoid vacuums with beater bars as they may damage the vinyl.

Protect the floor from scratches by affixing caps to the bottom of appliances or furniture.

Do not use roller casters which may damage the vinyl.

Avoid dragging items such as furniture across vinyl. Doing so may scuff or tear it.

Cleaning vinyl flooring

Remove dust and debris using a vacuum or duster. Mop weekly with a mild cleaner such as liquid dish detergent.

Avoid abrasives, detergents, paste wax, and solvent-based polishes. Do not use "mop and shine" products on vinyl.

On a daily basis, remove dirt from vinyl floors. Use a broom, dust mop, or vacuum.

Clean spills immediately. For spills that have dried, use a damp cloth, mop, or sponge.

Extend the time between deep cleanings by cleaning the floor periodically with a damp mop.

When vinyl floors appear dull, clean them thoroughly. Loosen floor dirt with a cloth, mop, or scrubber. Then, use a detergent and dilute it as recommended by the manufacturer. Take up the cleaning solution, rinse, and let the floor dry.

If vinyl floors lose their shine, buff them lightly or apply a thin layer of vinyl dressing.

HOME TIP: Furniture legs without protectors will damage vinyl floors as will high-heeled shoes.

CAUTION: Avoid using abrasive cleaners or bleach on vinyl.

CAUTION: When moving items across vinyl flooring, take care to avoid scuffing or scratching.

Go to the manufacturer's website for more information about vinyl flooring.

Ceilings & Walls

The ceilings and walls in your home are made of high-quality materials.

Care and maintenance

The following are tips for maintaining your ceilings and walls.

Interior ceilings and walls

The drywall that makes up your ceilings and walls will last the life of your home, if properly maintained.

Use a mild soap to clean spots. Avoid scrubbing which could cause staining.

Inspect ceilings and walls for condensation or mold. Call for service if you locate any.

Avoid washing new paint for a few months to allow it time to dry fully and set.

Remove dust from acoustical ceilings by vacuuming them gently.

Extend the time before repainting by keeping heating and cooling system air filters clean, turning on exhaust fans when bathing or cooking, and removing dust before it has a chance to collect.

HOME TIP: If you live in an attached home, such as a condo or townhome, you may hear sound from neighboring units.

HOME TIP: Do not put too much weight on closet rods.

HOME TIP: Some attics and garages have ceiling outlets. Avoid using them to support ceiling fans or light fixtures that weigh more than 50 pounds.

HOME TIP: Avoid exposing latex paints to extreme cold or heat which can reduce their lifespan. Stored in moderate temperatures, latex paints won't deteriorate for two years. Do not paint when the ceiling or wall temperature is above 90 degrees or below 45 degrees.

CAUTION: If you want to hang anything from the ceiling, do so from a ceiling joist. Drywall ceilings are not designed to bear weight.

Surface repair

New homes shrink over time. As this occurs, you likely will notice minor cracks or spots where nail or screw heads have popped out. Make repairs only when you plan to paint the entire room.

Cracks

Use elastomeric caulk, which is designed to fill large gaps and can be painted, to fill cracks.

Indentations

Use a joint compound (the same used during the drywall mudding and taping process) to fill indentations. It likely will require two to three applications. Sand the area with a fine-grit sandpaper and repaint.

Nail pops

Nail pops happen when the attachment point between the drywall and wood framing fails. It is a common occurrence, and may happen with both nails and screws. Pops look like a small bump or dent on the wall. They might not look aesthetically pleasing but do not decrease the wall's strength.

Fixing nail pops

Follow these steps to fix nail pops:

1. Drive the nail back into the wall with a hammer. Drive a new nail into the wall so the head of the new nail overlaps the head of the old nail. If a screw has popped, use a screwdriver to insert it back into the wall.

HOME TIP: Nails or screws should be driven just far enough into the drywall that they don't protrude from the surface. Check for protruding fasteners by running a putty knife over them and listening for a click or feeling for an obstruction.

2. Spread spackle over the nails or screws with a putty knife, following manufacturer's recommendations. Spread evenly.

3. Wait for spackle to dry. Then use a fine-grit sandpaper to smooth the surface. Run your hand over the wall; when it's smooth, stop sanding.

4. Wipe away dust with a cloth.

5. Finish the surface with paint, wallpaper, or another wall decoration.

Wood Flooring

Beech, maple, and oak are the most common types of wood flooring material and the floor's durability depends on the type of wood. Wood responds to changes in the environment, contracting when it's extremely dry, expanding when it's extremely humid. Such changes are normal.

In addition to being a stylish and attractive addition to homes, wood floors look good for many years when they're cared for and maintained properly.

Care and maintenance

Follow manufacturer's instructions for care and maintenance of wood floors, including which products to use.

General maintenance

Keep your floor clean by dry mopping, sweeping, or vacuuming at least once a week.

Remove dirt and sand from the floor quickly — the particles can scratch the floor. To minimize the amount of dirt and sand on the floor, place rugs at room entrances (especially entrances from the exterior).

Carry — don't drag — heavy objects across the wood floor.

Place pads beneath furniture legs. Felt pads that stick on work well and have the added benefit of reducing the indentations made by narrow-legged furniture.

Protect the floor from direct sunlight which causes it to fade.

If you own pets, keep their nails trimmed.

Avoid wearing certain types of shoes that may scratch the floor — those with spike or stiletto heels or those with heel taps.

Cleaning the floor

Do not use vacuums with beater bars. Vacuum only with vacuums that have bare-floor attachments.

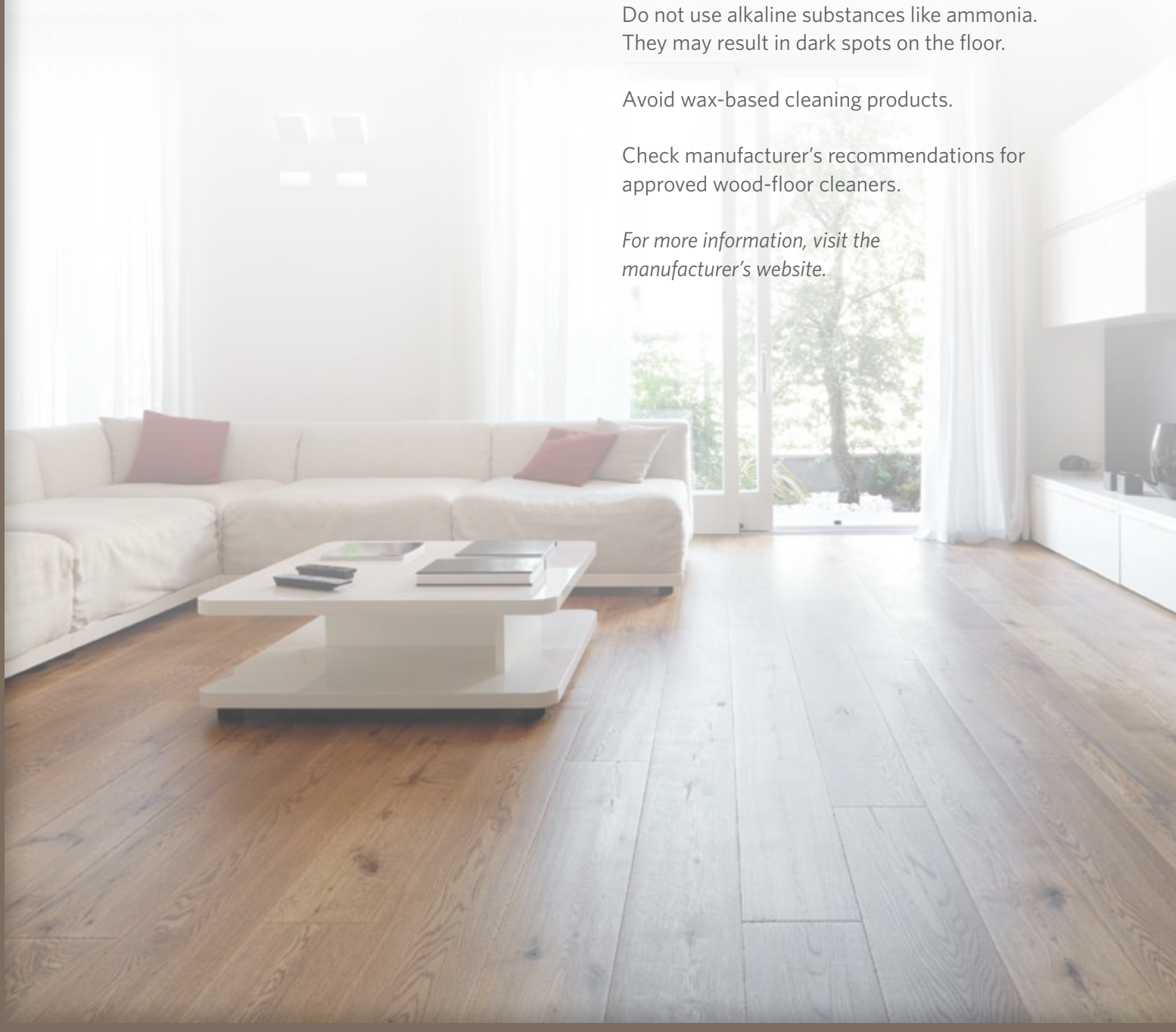
Limit how often you use water to clean wood floors and then use only a damp cloth. Avoid washing them or using a wet mop. The water may cause problems like swelling and warping.

Do not use alkaline substances like ammonia. They may result in dark spots on the floor.

Avoid wax-based cleaning products.

Check manufacturer's recommendations for approved wood-floor cleaners.

For more information, visit the manufacturer's website.



FIVE

Home Exterior

Brick

Exterior brick is very durable. Made from fired clay, brick is fire-resistant and low-maintenance. It also promotes energy conservation.

Care and maintenance

If there's any part of your home that takes care of itself, it's the brick exterior. The following tips will cover any minor maintenance needed:

Apply a commercial weed killer to plants or vines growing on brick walls. (Read manufacturer's instructions for safety.) Plants or vines hold moisture and may damage the exterior of your home.

Inspect caulking between the brick, windows, and doors annually. Remove old caulk and reapply new caulk as needed.

Check annually to ensure nothing is obstructing the weep holes. Obstructions may trap moisture between bricks and the drainage plane.

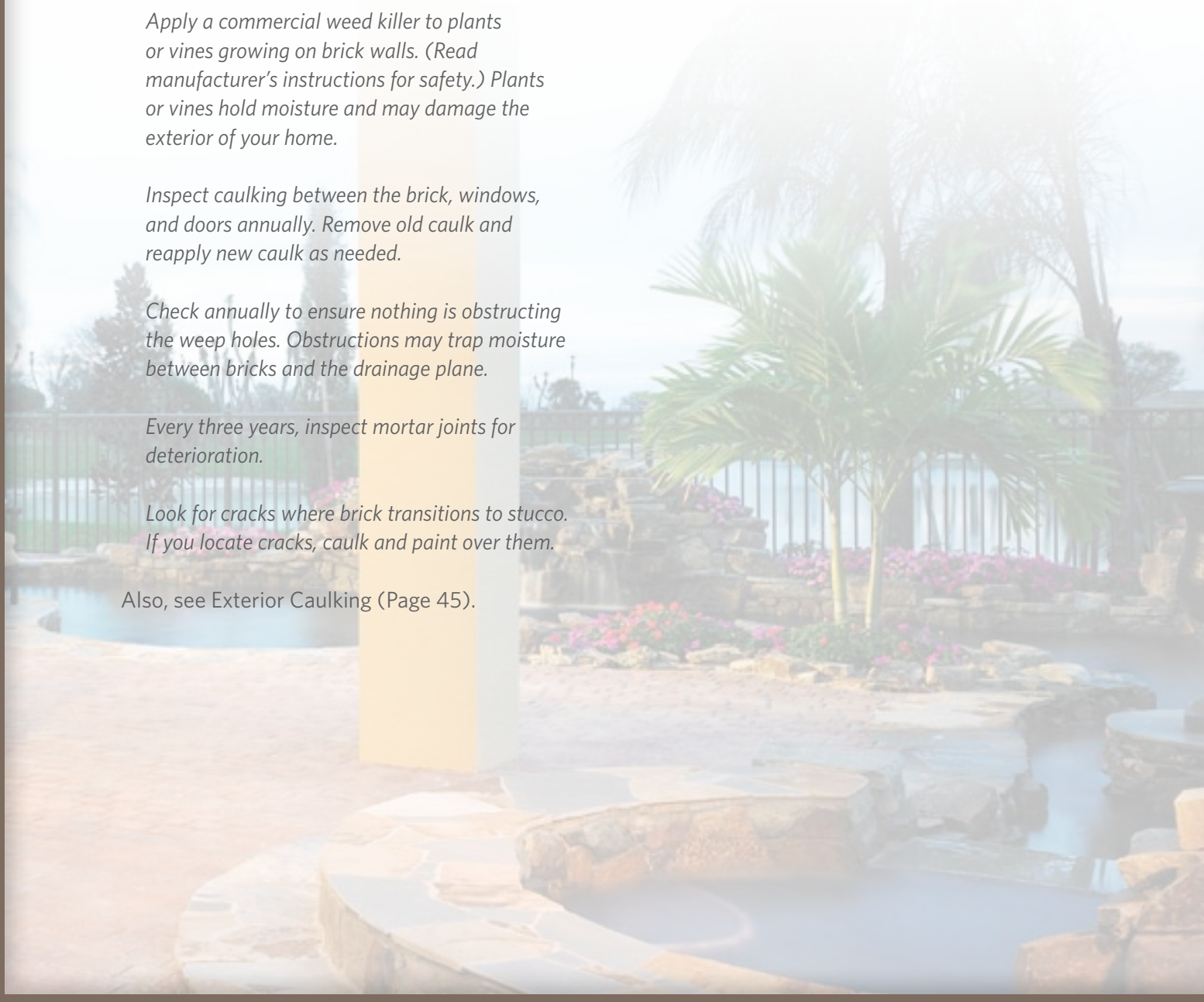
Every three years, inspect mortar joints for deterioration.

Look for cracks where brick transitions to stucco. If you locate cracks, caulk and paint over them.

Also, see Exterior Caulking (Page 45).

Cleaning brick

Some general cleaning practices are applicable to many types of brick. However, how effective the cleaning practice is depends on many factors, including the brick's color, texture, and the substance staining the brick. Learn as much as you can about the brick on your home then consult with a brick manufacturer, who will be able to tell you what's best for cleaning your specific brick type. Choose a cleaner that suits your brick and follow the manufacturer's recommendations for use.



General brick-cleaning steps:

1. Consider the brick type and the substance that stains its surface when selecting the proper cleaning solution.

2. Cover or otherwise protect nearby objects including doors, plants, and windows. Some brick-cleaning solutions may damage them.

3. Use a garden hose to get a small area of brick wet. Note the rate at which the brick absorbs water. If the brick becomes dark quickly, clean just a small area of brick at a time. If the brick doesn't become dark quickly, you may clean up to 100 square feet of brick at a time.

HOME TIP: Don't skip testing the brick's rate of water absorption. It's vital information in determining how much brick you can clean at one time.

4. Spray the brick beginning from the top and working your way down. Saturate the area to be cleaned using a garden hose.

HOME TIP: Do not clean brick until it is saturated. Otherwise, the brick will absorb the cleaning solution which may leave stains after the brick is rinsed and dried.

5. Use the garden hose to saturate the brick below the area you are cleaning. Maintain the saturation until rinsing the cleaning solution from the brick above. Failure to do so could leave the non-cleaned brick stained or streaked.

6. Apply the cleaning solution to the area to be cleaned. Follow manufacturer's instructions if using a commercial brick cleaner.

7. Spray the brick thoroughly after cleaning. Start at the top of the brick and work your way down, using generous amounts of water to ensure all the cleaning solution is gone.

Cleaning mold off brick

On parts of brick the sun doesn't reach, mold can grow. Use a brick-cleaning detergent periodically to clean these areas and then dry them well. To determine what will work best for your particular brick, check the manufacturer's instructions.

CAUTION: A pressure washer may damage the brick surface if you use too much pressure.

Stain removal

A household dish detergent mixed with water and then applied with a stiff brush will remove most brick stains. For tough stains (oil, paint, or smoke, for example), special, stronger treatments may be necessary. Determine the manufacturer's recommended product in such cases and then follow the instructions.

CAUTION: Cover or otherwise protect areas of brick you're not cleaning.

Efflorescence removal

Efflorescence is a white, crystalline deposit that may occur on bricks. While the efflorescence itself doesn't damage bricks, it's a symptom of potential issues related to water. That's why it's important to periodically inspect bricks for efflorescence. If you discover it, remove it from the brick and try to determine the cause. Often, mitigation of a water-related problem will be required.

Use a dry brush to try to remove efflorescence. If it doesn't work or doesn't work fully, use the brush and water. If you must use water, do it when the brick is dry, as you don't want to compound the problem. If you're still unable to remove it, purchase a special solution made specifically for removing efflorescence from bricks. Follow the manufacturer's instructions and begin on a small, obscure area to ensure the solution doesn't stain the bricks.

Homeowners association

If your home is part of a homeowners association, check with it regarding exterior maintenance. You should be familiar with what you can and cannot do and what maintenance items the association is responsible.

Visit the manufacturer's website for more information about your exterior brick.

Exterior Caulking

Exterior caulk is found around door and window frames. The elastic sealer prevents air leaks and water entry.

Over time, caulk deteriorates and separates from the surface on which it's applied. For that reason, it's vital to inspect caulked areas and remove and reapply if the existing caulk is deteriorating or separating. Otherwise, moisture may get behind the siding or wood frames and cause rotting.

The frames of doors and windows may begin leaking water if the caulk is allowed to deteriorate too long.

Care and maintenance

The following tips will help maintain the exterior caulking on your home.

Checking caulk

Check for deteriorating or separating caulk once or twice each year. Pay particular attention to the following areas:

Between foundation and siding.

Door and window frames.

Objects such as outlets, pipes, and vents that protrude from an exterior wall.

Objects such as chimneys and vents that protrude from the roof.

Angles and corners between different siding materials.

HOME TIP: Use only elastomeric caulk for repairs.

HOME TIP: Don't apply acrylic caulk over silicone caulk or silicone caulk over acrylic caulk. The two will not bond properly.

Reapplying exterior caulk

1. Use a painter's tool, putty knife, or scraper to remove exterior caulk.

2. Ensure the area to be caulked is clean and dry. Caulk doesn't bond properly to a dirty or wet surface.

3. Apply caulk. Hold the caulk tube at a 45-degree angle to the surface. Push the tube along the crack to fill it with caulk. Pushing the tube, rather than pulling it, fills the gap without trapping air bubbles.

4. Break the caulk bead by twisting the caulk tube and pulling it back.

5. Smooth the caulk by running a finger along the joint.

HOME TIP: Caulk often is applied with a caulking gun. Follow instructions on the gun when loading the tube.

HOME TIP: Apply caulk when the air temperature is between 50 degrees and 70 degrees.

Homeowners association

If your home is part of a homeowners association, check with it regarding exterior maintenance. You should be familiar with what you can and cannot do and what maintenance items the association is responsible.

Exterior Doors

Your home's exterior doors need minor adjustments and maintenance to keep them operating smoothly.

Care and maintenance

The following are tips for maintaining your exterior doors.

General maintenance

A proper seal on your exterior doors stops most dust and water from entering your home. But even the best seal may not stop all dust or rain driven by a brisk wind. Exterior doors also have weatherstripping around them which helps seal them. Look for light under or around exterior doors. If you see the light, dust, or water can get in. Adjust the sweeps, thresholds (if they can be adjusted), and weatherstripping until you no longer can see light.

Entrance doors

Ensure the weatherstripping around all exterior doors is fastened tightly. Check every spring and fall.

Prevent the door from sticking by applying petroleum jelly to rubber or vinyl weatherstripping.

If hinges squeak or locks stick, spray an aerosol lubricant on them.

Minimize door hinge grinding by applying silicone to them.

If the paint on wood doors, jambs, and trim begins to peel, scrape, sand, and seal them.

Apply elastomeric caulk to any cracks. Inspect every three months where the jamb meets the threshold. Caulk as needed.

Inspect the door's seal base for excess wear or rips and tears.

Monitor threshold screws. If they stick up, tighten them. Failure to do so could damage the door seal.

Check around the door hinges for black iron residue. If you see it, remove it. Use a clean cloth or damp sponge to wipe it or place a magnet behind a cloth and run the magnet over it. The residue occurs due to the friction created in the hinges when the door opens and closes.

Sliding glass doors

Ensure tracks remain clear of debris.

Periodically apply a small amount of oil to the lock mechanism and the bottom of the door.

Lubricate the tracks with a silicone lubricant. This is especially important for aluminum sliding glass doors.

If the door drags on the sill or is hard to open, adjust the threshold as necessary.

HOME TIP: To adjust the door, follow the manufacturer's recommendations. Consult the manufacturer's instructions, too, if the door doesn't latch or slide smoothly.

Homeowners association

If your home is part of a homeowners association, check with it regarding exterior maintenance. You should be familiar with what you can and cannot do and what maintenance items the association is responsible.

Exterior Features

In order to prevent problems such as leaks, your home's exterior features require maintenance.

Care and maintenance

The following are tips for maintaining the exterior features of your home.

Light fixtures

Turn off porch lights at night when you don't need them. The light at night will attract bugs which will get inside when you open the door. If you have yard lights, use yellow lightbulbs which attract fewer insects.

Check weekly for burned out bulbs.

Use a mild soap detergent to clean light fixtures. Turn off power to the fixtures before cleaning them. It's a good idea to turn OFF the circuit breaker that controls them. After the fixtures are clean and dry, flip the breaker back ON.

Check for holes around light fixtures. If you find any, fill them with elastomeric caulk.

CAUTION: Determine if brass fixtures are made of brass or just finished in brass. A product designed to clean brass may damage a fixture that has a brass finish.

Visit the manufacturer's website for more information about exterior lighting.

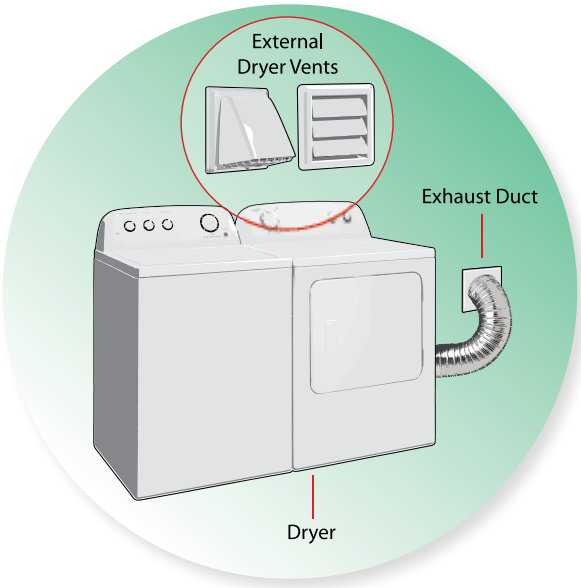
Also, see Exterior Caulking (Page 45).

Dryer vent

Ensure nothing blocks the dryer vent.

After every load of laundry, remove lint from the filter.

Once a year, clear accumulated lint from the exhaust duct that connects the back of the dryer to the dryer vent.



HOME TIP: Some dryer vents are on the roof. If that's where your dryer vent is, hire a professional to clean it.

Garage Door

Your home's automatic garage door is not only convenient, but likely is its biggest and heaviest mobile object. One of the key parts that allows your garage door to operate is a high-tension spring.

Check the garage door and automatic opener routinely. Safety is a key consideration of your automatic garage door, and it must work properly. Following are basic safety rules:

When operating the door, make sure you can see it fully, and that there are no obstructions.

Teach children to not play with the door or the electric controls.

When the door is in motion, don't stand under the doorway or walk through it.

Care and maintenance

The following maintenance and safety instructions will extend your garage door's life, minimize service calls, and hopefully, eliminate accidents.

Garage door maintenance

Regularly inspect the garage door and opener for improper alignment or wear.

Inspect cables, hinges, and rollers quarterly for signs of wear. If any hinge screws are loose, tighten them.

Use a light oil or spray lubricant to lubricate all moving parts every month. Not only will the lubrication reduce noise but also it will add to the parts' lifespan.

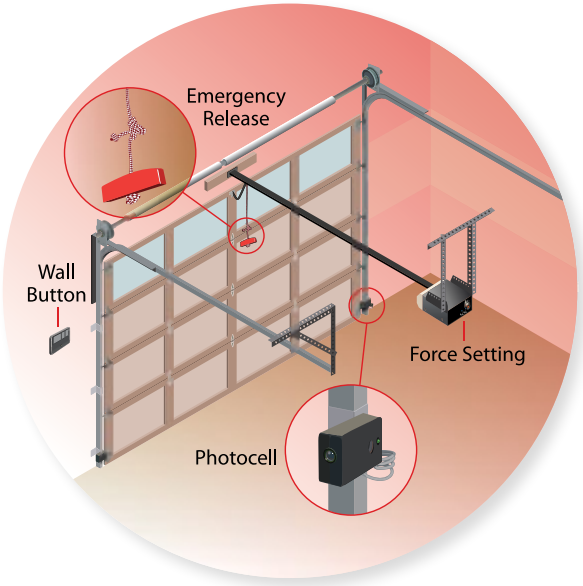
Avoid lubricating the chain or screw drive.

Some wooden garage doors stick. Check to see if yours does. As your home settles, it may alter the door's alignment. If the alignment is uneven, check the hinge screws to ensure they are tight. If they are, but the misalignment is still evident, plane or sand the edge of the door until it no longer sticks. Then paint or varnish any affected areas to protect them from moisture and swelling.

Look at the garage door to see if it needs to be refinished. In climates where heat and humidity are common, wood exterior doors often must be refinished regularly.

If your garage door is metal, you may be tempted to add insulating panels to it. Doing so isn't problematic but will change the door's weight. You'll need to have a contractor adjust the tension of the garage door's springs.

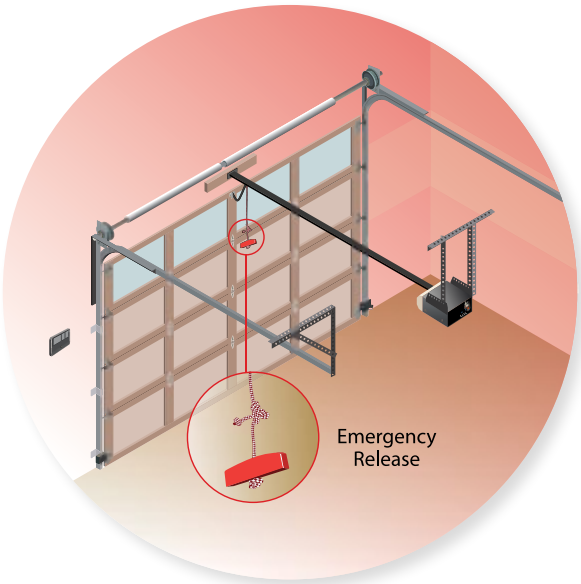
Lubricate the torsion spring regularly to prevent it from losing tension and failing. A sign you need to add lubrication is rust on the spring.



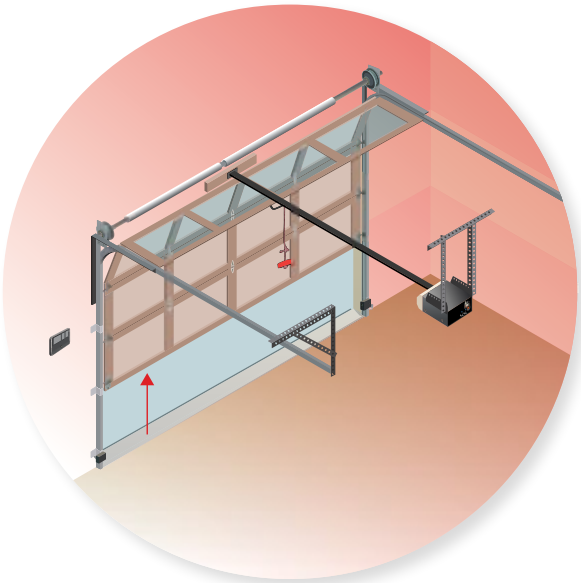
Conducting a balance test

A garage door that's out of balance puts strain on the opener and can reduce its useful lifespan. At least two times a year, test your garage door's balance. To do so:

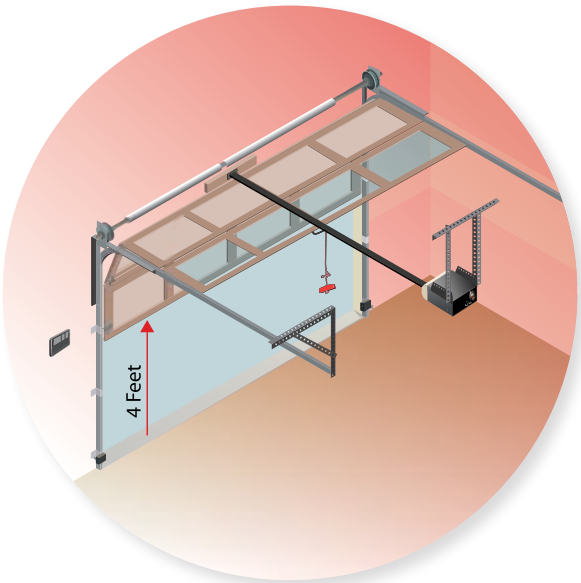
1. Close the garage door. Find the emergency release which is a red handle hanging from a rope. Disconnect the door from the opener by pulling gently on the handle. You now can open and close the garage door by hand.



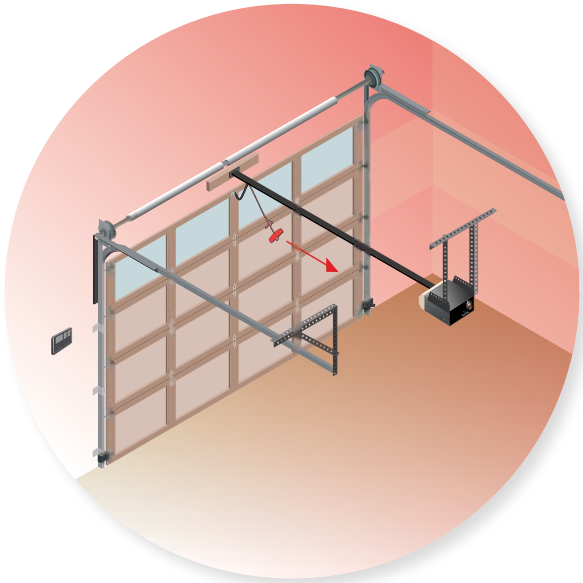
2. Stand in front of the garage door and lift it by hand. It should open smoothly and give you little resistance.



3. When the garage door is about four feet above the ground, stop lifting. While there may be slight movement, the garage door should stay in place. If it doesn't, it's probably out of balance. Have a qualified technician adjust the spring tension.



4. Close the garage door. Grab the emergency release handle and pull it toward the opener's power head. Doing so will reconnect the garage door and the opener.



Cleaning the door's exterior

Use soapy, warm water to clean the door. Rinse it thoroughly to avoid staining or streaking. Cleaning the door reduces the buildup of dust and particles that may cause rust.

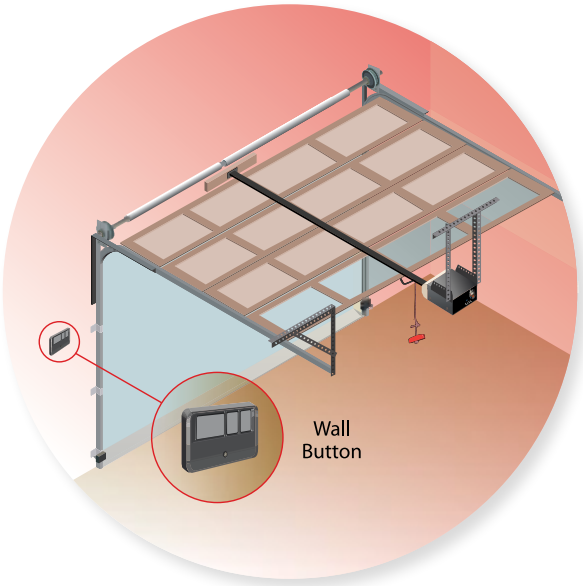
CAUTION: Harsh cleaners or stiff brushes shouldn't be used to clean the garage door.

Conducting a force-setting test

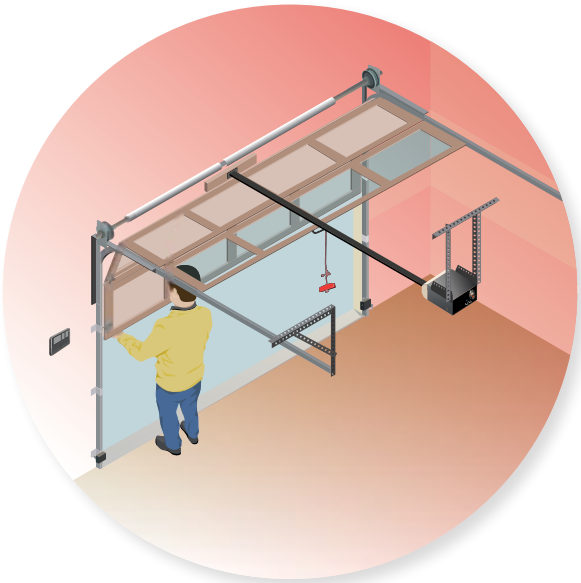
When your garage door's force setting is too high, the door may close too hard and not open when it should. When that occurs, there's potential for damage not only to the door but also to people or objects beneath it. It's a mistake to use a high force setting to compensate for a sticking or unbalanced door.

Test your garage door's force setting every month. Here's how:

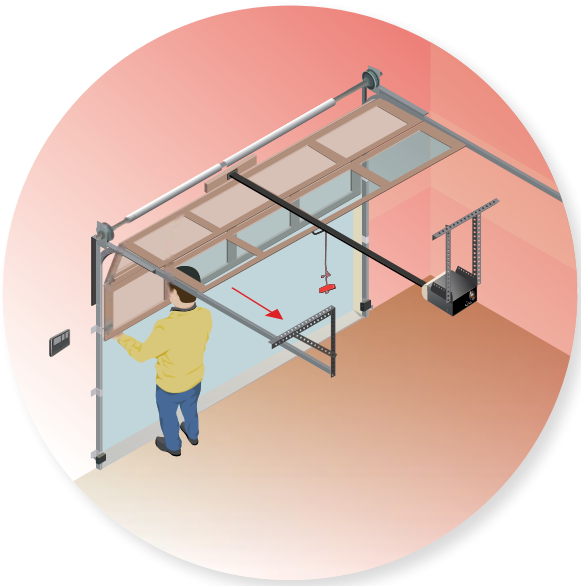
1. Stand near the garage door. Close it by pushing the button on the remote control or the wall.



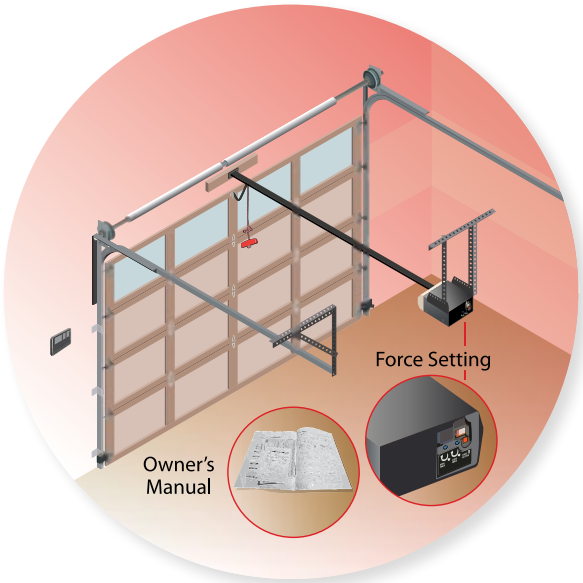
2. As the garage door closes apply light pressure to the bottom of the door, as if you're trying to lift it. Under even light pressure, the door should stop going down and start moving up. If it does not, the force may be too strong and need to be reduced.



3. Refer to the owner's manual for instructions on adjusting the force setting of your garage door.



4. After adjusting the force setting per the manufacturer's instructions, repeat steps 1 and 2.



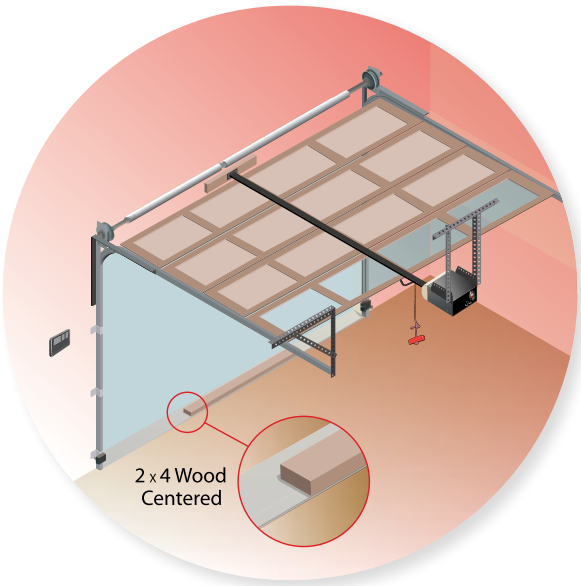
SERVICE TIP: If you're unable to adjust the setting or if the door won't go up when you apply light pressure, contact a professional.

Conducting a reversal test

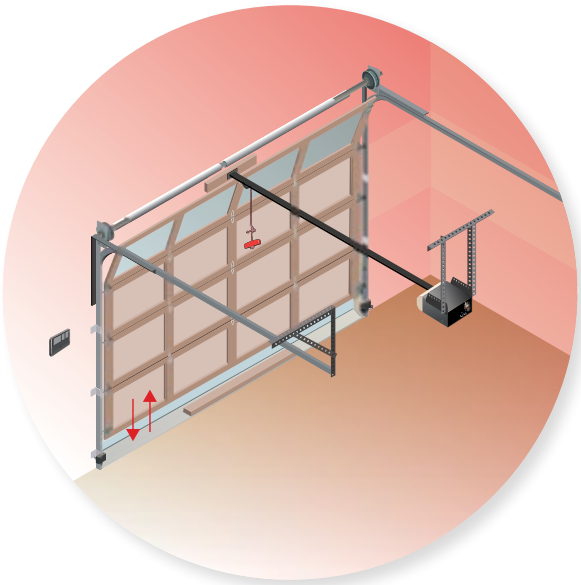
The reverse mechanism on the garage door causes it to go up — instead of continuing to go down — when it comes into contact with an obstruction. The reverse mechanism is an important safety feature and should be tested on a monthly basis.

The following steps outline how to test the reversal mechanism:

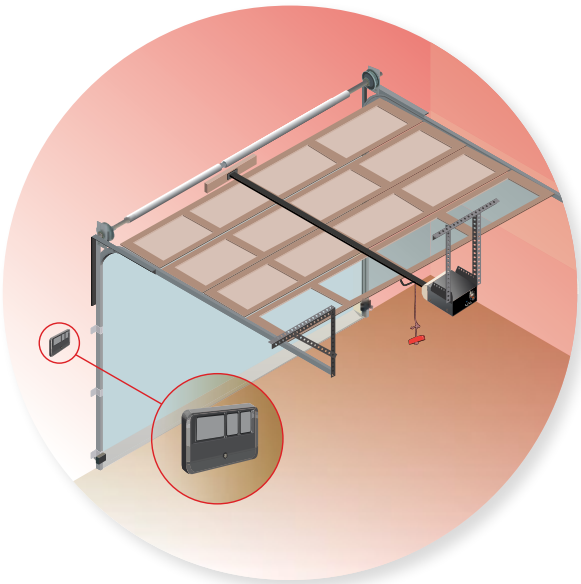
1. Open the garage door. Set a 2 x 4 piece of wood (or other piece of wood that's 1.5 inches high and won't be damaged due to contact with the door) flat on the ground at the center of the door opening.



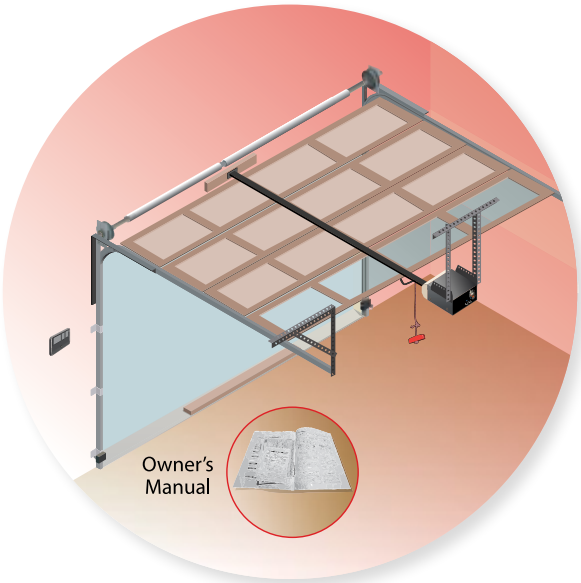
2. Close the garage door using the remote control or wall button.



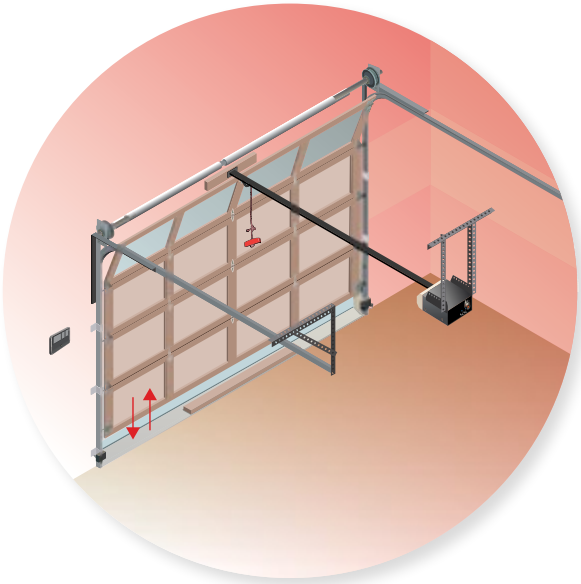
3. Watch the door as it contacts the wood. It should stop immediately and then move upward. If it doesn't, the garage door needs adjustment.



4. Check the garage door owner's manual for instructions on conducting the reversal test and for making necessary adjustments.



5. Repeat the first two steps after making the proper adjustments. The door should reverse immediately upon contacting the wood.



SERVICE TIP: If the door still fails to reverse have it serviced by a professional. Until it's repaired, close the door and disconnect it from the opener. Don't use it until it's repaired.

Checking the photocells

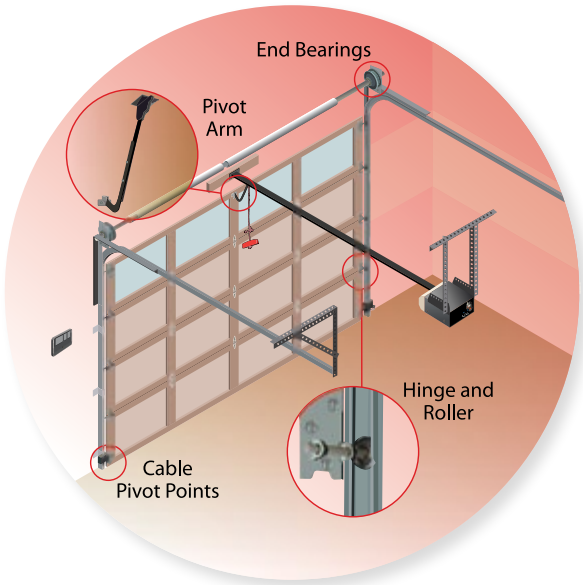
The photocells on your garage door are located on either side, about five inches above the floor. They project a light beam from one side to the other. Check them monthly.

On properly functioning photocells, there is one constant red light and one constant green light.

On improperly functioning photocells, there is one flashing red light. Common reasons include non-aligned beams, a loose wire, or a blocked beam.

If the beam is broken and you use the remove control or wall button to shut the door, it will reverse. The door will close if you hold the button until it's fully closed but that doesn't solve the issue.

Clear the lens of the photocell of anything that may be obstructing it such as cobwebs or leaves. Contact a professional if the problem persists.



HOME TIP: The owner's manual for your garage door likely includes more tips for troubleshooting problems.

CAUTION: Do not attempt to repair the garage door or the opener. Contact a professional.

CAUTION: Contact a professional to adjust the garage door's cables and springs. A professional will have the proper tools and knowledge to complete the job safely.

Checking remote control batteries

Check the batteries on your garage door's remote control once a year. When you do, check the battery terminals for signs of corrosion.

Homeowners association

If your home is part of a homeowners association, check with it regarding exterior maintenance. You should be familiar with what you can and cannot do and what maintenance items the association is responsible.

Downspouts & Gutters

The purpose of a downspout and gutter system is to collect water (which the gutters do) and direct it off the roof and away from the house (which downspouts do). Maintaining downspouts and gutters properly is an easy way to extend the life of your roof's drainage system.

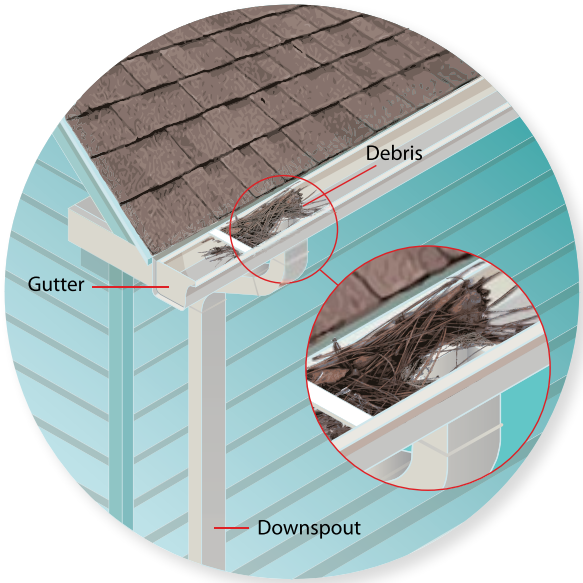
Downspouts should direct water away from the foundation and walls of your home. If they do not, you may experience water damage to your basement, foundation, and/or siding.

HOME TIP: Some homeowners decide to install downspouts and gutters on their own. If you live in a home with stucco siding, it's a good idea to have a professional install the downspouts and gutters to avoid damage to stucco eaves and problems with water intrusion.

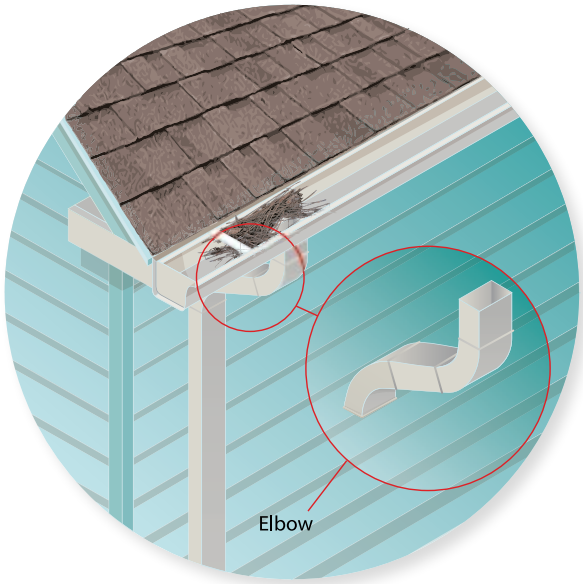
Downspouts and gutter maintenance

Check your home's downspouts and gutters once every spring and again in the fall. The following recommendations will help you maintain them.

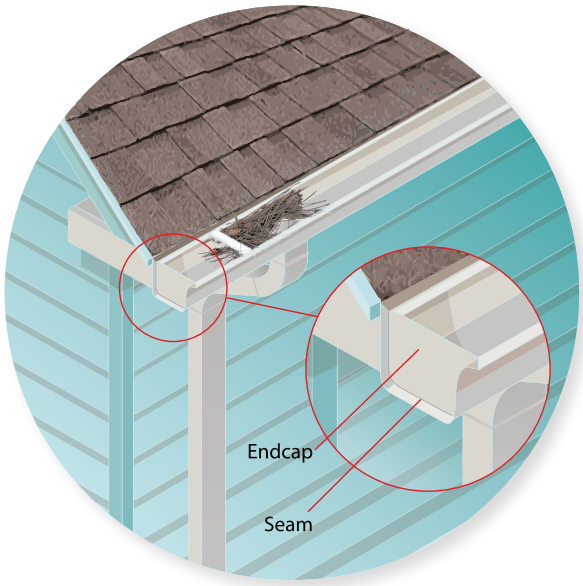
1. Remove any debris that builds up in your downspouts or gutters. Doing so will minimize leaks and extend their useful lives.



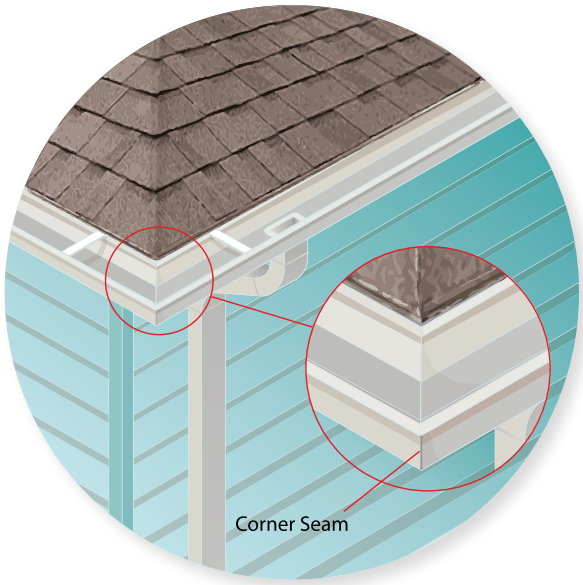
2. Locate the elbow where the downspout and gutter connect. Remove the elbow and then remove any obstructions before reconnecting it.



3. Check for leaks in the downspouts or gutters. Two of the most common places for leaks to occur are the caulk at the end caps or the elbow between the downspout and the gutter.



4. Check all corners of the gutters for cracked caulk.



Homeowners association

If your home is part of a homeowners association, check with it regarding exterior maintenance. You should be familiar with what you can and cannot do and what maintenance items the association is responsible.

Roof

The roof on your home protects it from the elements, including hail, rain, snow, sun, wind and extreme weather, which all take their toll on the materials that comprise the roof.

It's a good idea to inspect your roof twice a year for damage, and anytime you have reason to believe it could be damaged. An examination in the spring is especially important, since it allows you to find any damage that occurred during the winter.

Care and maintenance

You can extend your roof's useful life by conducting regular, but simple, maintenance.

Inspecting the roof

Use a ladder and, unless necessary, avoid stepping on the roof. If you must walk on the roof, take care to avoid damaging the flashing or the roof surface itself.

Check for the following on your roof and remove, repair, or replace as necessary:

Shingles or tiles that are damaged, loose, or missing.

Shingles that are blistered, buckled, or curled.

Supports for satellite dishes and TV antennas that are damaged.

Shingle granules in the gutters. The granules protect the shingles from the sun and add weight but they may come lose and congregate in the gutters.

Tree branches hanging over the roof. Branches may scratch the shingles or could fall on your roof and damage it. Leaves hold moisture so they can cause rotting if they're left sitting on the roof.

Roof vents that are clogged.

Flashing that's damaged. Replace immediately.

Crack and leaks in valley areas of the roof.

Debris.

Attic leaks on rainy days. Pinpoint the leak's source.

Seals at the corners and scuppers of a flat roof that are damaged. Reseal them with tar as necessary.

CAUTION: Take care when installing a radio or TV antenna. If the job causes leaks in your roof, which is a possibility if done carelessly, the damages likely won't be covered under warranty.

SERVICE TIP: Call a roofer if you discover a leak in your roof. Having the problem fixed early — before the material has dried — will result in a less costly job.

SERVICE TIP: Hire a roofer to inspect your roof every three years.

Homeowners association

If your home is part of a homeowners association, check with it regarding exterior maintenance. You should be familiar with what you can and cannot do and what maintenance items the association is responsible.

Screens

Your exterior windows and doors have high-quality screens which are woven mesh stretched across a frame. They fit inside the frame of your doors and windows and allow air from the outside to come in while keeping bugs out.

Care and maintenance

The following are tips for maintaining your home's screens.

General maintenance

Gently wash the screen frames and hose the screens once a year. This will keep the screens clean of dirt which could get onto your home's siding.

Clean dirt that builds up on the sills. To do so, remove the screens from time to time. If dirt builds up on the sills, it could trap water and lead to water damage.

HOME TIP: There's no need to remove screens in the winter.

HOME TIP: Hardware stores sell replacement screen fabric.

Replacing screen mesh

1. Use a screwdriver to pry out the splines that hold in place the old screen fabric. The screwdriver head should be slightly smaller than the splines.

2. Measure the outside of the frame and cut the new screen fabric the same size.

3. Push the edges of the screen fabric into the channel on top of the frame and on one side. To do so, use the convex edge of a spline tool.

4. Roll the other two edges of the screen fabric into the channels using the spline tool.

5. Push the splines into the channel using the concave edge of the spline tool. As you do, pull the screen fabric tight.

6. Trim excess fabric with a utility knife.

Also, see Windows (Page 68).

Homeowners association

If your home is part of a homeowners association, check with it regarding exterior maintenance. You should be familiar with what you can and cannot do, and what maintenance items the association is responsible.

Siding

Siding protects your home and isn't difficult to maintain. One of two types of siding are on your home: composite or vinyl, both of which look like wood and are attractive and durable.

Composite is made of a combination of cement or wood fibers while vinyl is composed of polyvinyl chloride.

Care and maintenance

The following are tips for maintaining your home's siding.

General maintenance

Don't allow sprinklers or other items that propel water to shoot at your siding.

Ensure your downspouts and gutters direct water away from the siding and home.

Measure to ensure there's six inches between where your siding stops and the ground begins. Siding that's too close to the ground may absorb water.

Leave at least two feet of space between plants and siding.

Don't put hot items, like charcoal or gas grills, next to vinyl siding as heat can damage it.

Clean siding with water and a brush that has a long handle and soft bristles. Avoid scrubbing with too much pressure.

Check the manufacturer's instructions for cleaning products to use to remove hard-to-remove algae, dirt, or mold.

Inspect wood siding on a regular basis for damage resulting from cracks, rot, termites, or water damage.

Once or twice a year, check around doors, windows, and other areas for deteriorated or separated caulk.

Checking caulk

Pay particular attention to these areas:

Where the corner boards and siding connect.

Door and window trim.

Where pipes and vents protrude through the siding.

On vinyl siding, at the J-channels around doors and windows.

If your inspection reveals deteriorated or separated caulk, remove it and reapply.

Also, see Exterior Caulking (Page 45).

Homeowners association

If your home is part of a homeowners association, check with it regarding exterior maintenance. You should be familiar with what you can and cannot do and what maintenance items the association is responsible.

Visit the manufacturer's website for more information about siding.

Storm Panels

Doors and windows are especially susceptible to damage during severe storms such as hurricanes. Storm panels, which are heavy and made of metal, are designed to protect these parts of your home.

Safety guidelines

When installing your storm panels, keep these safety items in mind:

Have someone help you handle, move, and install storm panels.

Storm panels have sharp edges. Protect yourself by wearing gloves, a long-sleeved shirt, long pants, and closed-toe shoes.

Stack and strap storm panels to the wall in the proper order. That means the tallest panels lean against the wall. Each strap should hold a group of panel lengths against the wall.

Only pull out panels from the front of the stack. Do not attempt to remove one panel from between two others.

Prevent panels from falling on you by standing away from the front of the stack when you're removing or stacking panels.

Move and install one panel at a time.

Installation

Install your panels efficiently, safely, and securely by following manufacturer's recommendations and these steps:

Before installing

Find the panel hardware and the storm panel floorplan drawing you received at walk-through/closing.

Find the storm panels and the sliding glass door floor track in the garage. Some storm panels will be in the garage attic, if you have a row house or townhouse.

Floor track installation

The floor track secures panels to the floor in front of your home's doors. Follow these steps for installation:

1. Find the floor tracks which are 2 x 2 steel angles with threaded studs.
2. Check the floorplan and then place tracks next to the corresponding door.
3. Begin at the first door. Remove screws from the floor.
4. Set the tracks on the concrete. Align them with the holes in the floor.
5. Place the screws back into the holes. Do not tighten yet.
6. Mount the storm panels following the instructions in "Installation of first-floor storm panels."
7. Repeat the process at the next door.

Installation of first-floor storm panels

Install hex bolts

1. Begin with the shortest panels, unbolting just the lowest strap. Use the floor plan drawing as a guide to spread out the panels, separating them by number.

2. Locate the hex bolts in the bag of hardware. Install the hex bolt heads into the bottom track of doors and windows.

3. Place the first hex bolt in the hole that's 1.5 inches from the end of the track. Place bolts in holes every 12 inches after that. The bolts in the track align with the holes in the panels.

4. Check the floorplan for indications of a half-panel. If one exists, then install a bolt at the six-inch spot on the right side of the track (from the outside looking inside).

Install panels from left to right (from the outside looking inside)

1. It doesn't matter which end of the panel is up or down since both sides are the same.

2. Place the panel into the top track. The keyholes should fit over the bolts and the panel should fit tight against the bottom track.

3. Use a wing nut to tighten the left side.

4. Insert the second panel over the first panel's right bolt.

5. Over both panels, install a wing nut.

6. Overlap panels and fasten them with a shared wing nut. Do this until the opening is totally covered. Fasten the last panel with a wing nut on the right side.

CAUTION: Storm panels are heavy, and can tip and cause damage or injury. Remove straps only as necessary to access the next layer of panels.

Installation of second-floor window storm panels

The difference between first-floor and second-floor panels is the latter must be installed from inside your home. Follow these installation steps:

1. Check the floorplan to match panel and window numbers. Place panels next to the windows they will cover.

2. Every window will have a panel with handles. Set these panels aside.

3. Begin at the first window. Open it and remove the screen.

4. Place a panel into the header on the left side. The panel goes over the bolts in the bottom track. On the far left bolts, screw a wing nut.

5. Place a panel into the header on the right side. The panel goes over the bolts in the bottom track. On the far right bolts, screw a wing nut.

6. Alternate between left and right panels until just the middle panel remains. This is the panel with a handle.

7. Screw the last two wing nuts onto the already-installed panels.

8. Find the four one-inch Phillips head bolts and four nuts in the bag of hardware.

9. Install the bolts in the side holes of the panel with the handle. The bolt threads should emerge from the panel on the handle side. Lock the bolts in place by threading the nuts onto them.

10. Grab the handles and bring the final panel to the window. Place the top of the panel into the top track. Pull the panel toward yourself. The bolts should fit into the holes on the already installed panels. Tighten wing nuts onto the bolts.

11. Repeat the process at other openings on the second floor.

HOME TIP: Some homes have a balcony. If yours does, find the floor tracks in the garage attic and install them. Remove the tracks from the balcony after use as they can be a safety hazard.

Optional: Installation of storm panels on glass block windows

Some storm panels that cover glass block windows attach with fasteners to the side of the home. If your home has glass block windows, follow these installation steps:

1. Take out the four screws from the wall around the window.

2. Find the four keyhole washers in the bag of hardware.

3. Slide a washer onto each bolt.

4. Hold the panel against the wall.

5. Fasten the panel to the wall.

Homeowners association

If your home is part of a homeowners association, check with it regarding exterior maintenance. You should be familiar with what you can and cannot do and what maintenance items the association is responsible.

Stucco

Stucco is a type of home exterior that protects your home. You likely will notice that hairline cracks develop in stucco.

Care and maintenance

The following are tips for maintaining your home's stucco siding:

Don't allow sprinklers or other items that propel water to shoot at your stucco siding.

Ensure your downspouts and gutters direct water away from the stucco and your home.

Measure to ensure there's six inches between where your stucco stops and the ground begins. Stucco that's too close to the ground may absorb water.

Leave at least two feet of space between plants and stucco.

When using lawn and landscaping equipment, take care to avoid propelling objects and hitting the stucco. Doing so may chip or otherwise damage it.

Inspect your stucco every year. If you locate cracks wider than 1/16-inch, repair them.

Cleaning stucco

1. Mix a solution of laundry soap and water.
2. Gently scrub the stucco using the solution and a deck brush.
3. Rinse with clean water.

HOME TIP: By washing your window screens when dirt begins to accumulate, you can avoid that dirt running onto the stucco and leaving streaks.

CAUTION: Avoid pressure washing stucco.

Removing mildew spots

1. Mix a 50/50 solution of bleach and water.
2. Spray it onto the mildewed area.
3. Rinse the area with water.
4. Repeat until the mildew is gone.

CAUTION: Avoid spraying herbicides or pesticides onto stucco as the chemicals can discolor the stucco and damage its surface.

Filling small cracks

You have the option of repairing and repainting small, hairline cracks in your stucco (those 1/16-inch wide or less). Do so when the temperature is between 40 degrees and 100 degrees. Remember that the cooler the temperature and the higher the humidity, the longer it will take to dry.

Follow these instructions for filling small cracks:

1. Use a wire brush to remove loose debris, dirt, or particles from the crack.

2. Use an elastomeric latex sealant to fill the crack. Ensure the sealant fills the entire crack and be aware the sealant will experience slight shrinkage.

3. Create on the sealant a texture that matches the surrounding area. Use a finishing tool to do it.

4. Per the manufacturer's instructions, allow the sealant to dry.

5. Paint the repaired area so it matches the existing color. Paint fades over time, especially if it's in the sun, so matching the color exactly may be difficult (even if it is the same color). Consider how much re-painting you have to do. If it's a lot, you may want to wait until you can re-paint the entire home.

Filling large cracks

Cracks in stucco that are larger than 1/8-inch wide can allow moisture into your home. Check for cracks once a year. Also, check inside for patchy walls or spots where the paint shade is different than the rest of the wall. Both could be indications of moisture entry.

Follow these instructions to fill large stucco cracks:

1. Clean the crack and the area around it.

2. Use a manufacturer-recommended sealant to fill the crack. Following manufacturer's instructions for sealing.

3. Repaint the repaired area.

HOME TIP: To help preserve your stucco, repaint it every five to seven years.

Homeowners association

If your home is part of a homeowners association, check with it regarding exterior maintenance. You should be familiar with what you can and cannot do and what maintenance items the association is responsible.

Windows

Your windows serve a variety of vital purposes for your home and must be maintained properly. That includes annual cleaning, inspection, and lubrication of the frames, windows, and window hardware.

Care and maintenance

The following are tips for maintaining your home's windows.

Window maintenance

Inspect all hardware (opening and closing, and locking mechanisms; hinges; jambs; and sliders). The hardware should operate smoothly. Also, ensure all screws are tight.

Make sure the weatherstripping is in good shape and effective.

Inspect the gasket that holds the glass.

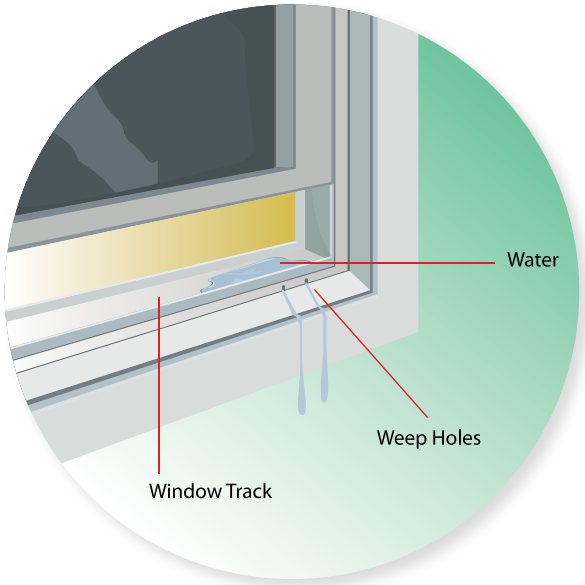
Maintaining window weep holes

Weep holes, which channel water to your home's exterior, can be clogged by items like bugs and dust.

The following are tips for maintaining your windows' weep holes:

Keep window tracks free of debris by dusting or vacuuming them monthly. After cleaning, spray silicone in the track. Then lubricate the rollers by rolling the window back and forth.

Avoid putting cotton balls in the window track. They will hamper water's ability to flow to your home's exterior.



Cleaning the glass

Follow these instructions if the outside of the glass is soiled lightly:

1. Mix a solution of one cup of vinegar and one gallon of water.
2. Use a lint-free cloth or sponge and apply the solution to the window.
3. Use a chamois, lint-free cloth or paper towel to dry the window.
4. Speed the drying process by using a rubber squeegee.

Follow these instructions if the outside of the glass is highly soiled:

1. Crumple a piece of newspaper and use it to wipe the glass.

2. Mix a solution of one tablespoon of household ammonia and one quart of warm water. Substitute the ammonia for three tablespoons of denatured alcohol, if you desire. Or use a commercial glass cleaner that contains ammonia.

3. Wash the windows with the solution.

HOME TIP: Reduce your home's humidity level to prevent condensation from forming on the inside of the windows.

CAUTION: Do not clean your windows with a metal scraper as it may scratch them.

Maintaining window frames

Aluminum

Window frames that have an aluminum mill finish do not need painting. If the finish is bronze or white, the frames will not oxidize. Frames that don't have a bronze or white finish can be allowed to go through the normal graying process or you can protect them from coloring.

Follow these instructions to maintain your home's window frames:

Use an aerosol silicone sealant to lubricate the frames.

Use a mild detergent solution to clean the frames.

Allowing the normal graying process to occur:

Over time, the finish will become a uniform gray in color. Additionally, the oxidation will aid in protecting your window frames.

To preserve the frame's new look:

Apply a coat of wax.

If the aluminum already has turned gray, use steel wool to polish it. Keep in mind, though, that preventing the graying process from occurring is easier than polishing the frames.

Vinyl and wood

Use only mild and nonabrasive cleaners — never abrasive or acidic cleaners — on vinyl or wood frames. Test cleaners in an out-of-the-way spot before cleaning the entire frame. After cleaning, dry the window frames.

Maintaining the seal around the frame

Call the manufacturer if the seal around the frame breaks.

For seal maintenance, see Exterior Caulking (Page 45).

Visit the manufacturer's website for more information about windows and frames.

Homeowners association

If your home is part of a homeowners association, check with it regarding exterior maintenance. You should be familiar with what you can and cannot do and what maintenance items the association is responsible.

SIX

Kitchen

Cabinets

The cabinets in your home, made of plastic laminate or wood — or a combination of both — are high quality and designed to add beauty and function.

Wood cabinets

The color and grains in the wood used to build the cabinets vary, so each piece has a somewhat unique look. Stain and varnish cover the cabinet doors which protects them from chemicals and other items that could damage them. The stain and varnish also enhance the wood grain's natural beauty.

Plastic laminate cabinets

Plastic laminate cabinets are available in a wide variety of colors and patterns. They have a durable surface that needs only minimal maintenance.

Care and maintenance

The following are tips for maintaining your home's cabinets.

General maintenance

Prevent water damage to cabinets by routinely inspecting the caulk around backsplashes and sinks. Remove and apply new caulk if the old caulk is deteriorating or separating.

Improve the operation of drawers and hinges by periodically applying a spray lubricant.

Wood cabinets

Polish and wax cabinets once or twice a year. A light coat of furniture polish works well.

Clean spills right away with a cloth and soapy water. Dry the cabinets.

Avoid too much moisture.

Clean cabinet hardware with a mild soap and warm water. Use a cloth to dry them.

Avoid using detergents, paste wax, polishes, soap pads or steel wool on your cabinets.

HOME TIP: Nicks and scratches will occur over time on wood cabinets. Hide them with a coat of furniture polish.

Plastic laminate cabinets

Use a damp cloth and mild cleanser to clean the cabinets. Cleansers such as Formula 409®* or Simple Green®* work well. Dry the cabinets after cleaning.

Once or twice a year, apply a light coat of self-cleaning wax.

Don't allow moisture or water to soak beneath the laminate.

Standing water may damage the inside of cabinets, drawers, and shelves. Prevent this by ensuring anything you put in the cabinets is dry.

**Formula 409® is a registered trademark of the Clorox Company.*

***Simple Green is a registered trademark of Sunshine Makers, Inc.*

Avoid hanging towels on the edges of the countertops or the tops of cabinet doors and drawers.

Take care when using heat- and steam-producing kitchen appliances. If you use them directly beneath or near the cabinets, you may damage the laminate.

CAUTION: Harsh abrasive may dull or scratch the cabinets.

HOME TIP: Cabinet doors should be flush with the frame when closed. There are two possibilities if they do not: the door is warped or the hinge is twisted. Check the owner's manual for instructions on adjusting the hinge. For instructions on repairing a warped door, see the warped door policy.

Visit the manufacturer's website for more information about cabinets.

Countertops

The countertops in your kitchen are designed to remain beautiful and functional for many years but they do require maintenance.

Kitchen countertops

All countertops will remain functional for years, so long as they're cared for properly.

Care and maintenance

The following are tips for maintaining your bathroom and kitchen countertops.

Laminated plastic

Easy maintenance is one of the hallmarks of laminated plastic countertops. The follow instructions will keep them beautiful and prolong their useful life.

General maintenance

Take care to preserve the bond between the hard plastic laminate and the wood.

Place hot dishes on hot pads. Any dish or food hotter than 250 degrees is too hot and may damage the laminate surface if placed on it directly.

Take care to avoid burning or scratching laminate or marble countertops.

Cleaning countertops

Use a damp cloth and mild soap to wipe glass rings, spills, or spots.

The inks used on grocery labels, especially for meat and produce, and newspapers may leave indelible marks on your countertops.

Preventing countertop damage

Products used to shave your face, paint your nails, or curl your hair, for example, can damage the laminate. Use them with care.

Inspect countertop and vanity caulk regularly to ensure it isn't deteriorating or separating which would result in leaks. Remove and replace any damaged caulk.

Countertops are not cutting boards. Cutting atop them can leave knife marks and scratches that can be unsightly as well as collection spots for dirt.

Do not place too much weight on countertops by sitting or standing on them. Doing so may cause them to pull away from the wall or warp them and cause the drawers to work improperly.

CAUTION: If you smoke, avoid burning the countertop. Removing burns is nearly impossible without a professional.

Also, see Interior Caulking (Page 8).

Granite, Limestone, Marble, and Travertine countertops

These countertops are made of natural rock and, as a result, vary widely in terms of their color and veining. These countertops can scratch and grainy materials such as abrasive cleaners or sand will cause wear on the surface. In addition, stains can set quickly — in as little as 60 seconds. Proper maintenance is key to the long-term beauty and function of stone countertops.

Use a nonabrasive bathroom cleaner to clean stone countertops, following the steps below:

Mix a solution of one tablespoon of mild ammonia and one quart of water and use it to remove hard water minerals.

Remove particles from the countertops by dusting or sweeping routinely.

Wipe spills immediately.

After each use, clean with a neutral cleaner or stone soap and warm water.

HOME TIP: Use the techniques recommended by the manufacturer — or call a professional — to remove burns, chips, scratches, and stains.

HOME TIP: Prevent staining in your stone countertops by sealing them.

CAUTION: Use coasters, mats, or pads beneath anything that's hot or cold as they may scratch the countertop surface.

CAUTION: Avoid using any acid-containing liquids, polish, steel wool or vinegar on countertops.

Solid surface countertops

Solid surface countertops, such as Corian®* do not require sealing, are heat- and stain-resistant, and inhibit the growth of bacteria and mold. Follow these guidelines to keeping them looking their best.

Use cleaner designed for daily use.

Use soapy, warm water or ammonia-based cleaners to remove stains.

Place hot pans or appliances that generate heat on trivets or hot pads before placing them on countertops.

Before dumping boiling water into the sink, pour cold water into it.

Do not place strong chemicals (like concentrated acids) or chlorinated solvents (like chloroform) on the countertop for extended periods. Avoid exposing them to acetones. If any of the above contacts the countertops, clean with soapy water.
If cosmetics stain the countertops, remove them with denatured alcohol. Once the stain is gone, wash with soapy water.

Avoid cleaning the countertop with abrasive pads. They may dull or scratch the finish.

HOME TIP: If your solid surface countertops have burns, scratches, or stains, call a contractor who may be able to polish them out.

*Corian® is a registered trademark of the DuPont Company.

Dishwasher

Dishwashers provide convenience and an effective washing solution. Maintaining and using them properly will extend their useful lives.

Care and maintenance

The following are tips for maintaining your dishwasher.

Cleaning dishes effectively

Before turning the dishwasher on, run the disposal. Failure to do so may result in flooding if the drain is clogged.

Put only dishwasher detergent in your dishwasher. Check manufacturer's recommendations for proper amount.

CAUTION: Some dishwashers are directly wired. If yours is not, plug it into a grounded outlet. Do not use extension cords.

Cleaning the dishwasher

Run a damp cloth over the control panel. Dry it completely.

Do not clean the dishwasher with harsh abrasives.

Clean the dishwasher's pump, spray arms, and strainer four times a year. Doing so will remove items that could cause clogging. Follow manufacturer's instructions for cleaning.

The dishwasher has a float that regulates the water level in the unit. Prevent it from sticking by cleaning it periodically. Follow manufacturer's instructions for cleaning.

CAUTION: Do not clean the inside of the dishwasher until at least 20 minutes have elapsed since the end of the last cycle. That allows time for the heating element to cool. If you contact the heating element when it's hot, you may be burned.

Stain removal

If you have iron in your water and it stains the dishwasher, use a commercial soluble rust remover that's safe for use in dishwashers. Otherwise, use dishwasher detergent and water.

Checking for leaks

Check for leaks in the dishwasher twice a year. The best time is after washing a load; check for leaks in front of and underneath the dishwasher.

HOME TIP: Put only automatic dishwasher detergents in the dishwasher. Leaks can result if you use the wrong detergent.

SERVICE TIP: Repair any clogs or leaks immediately to prevent water damage. Call a professional.

Visit the manufacturer's website for more information about dishwashers.

Disposal

The food disposal is designed to make cleaning and cooking easier.

Care and maintenance

The following are tips for maintaining your disposal.

Proper disposal use

Run cold water and turn on the disposal before putting food into it. Avoid putting food into the disposal before turning it on.

Keep running cold water while the disposal runs. The cold water helps solidify grease so it can be chopped and passed along with the rest of the food.

Don't put too much food into the disposal as doing so could cause it to jam.

Wait at least 15 seconds to turn off the disposal after it's finished grinding the food. Doing so ensures all food particles have been flushed.

Before draining sudsy water from the sink, ensure all small objects have been removed.

Continuous-feed disposals

Avoid knocking silverware and other items into the running disposal by keeping them away from the edge of the sink.

Disposal safety

If your disposal is a continuous-feed, use the cover when grinding hard objects such as bones and fruit pits. Failure to use the cover could result in small particles being propelled from the disposal. Do not lean over the disposal when it's running, especially if you are putting food items into it. Disposals are equipped with overload protectors designed to prevent motor damage should something be caught in them. If the disposal stalls, turn off both the disposal and the cold water. Remove whatever is causing the problem. Then press the disposal's reset button. If the button won't depress, wait several minutes and try again. If the disposal still won't start, check to see if the circuit breaker that controls it is tripped.

Items to avoid

Check the manufacturer's instructions for what can and cannot be put in the disposal.

Avoid putting large bones or fibrous objects such as cornhusks into the disposal.

Never put fat or grease in the disposal.

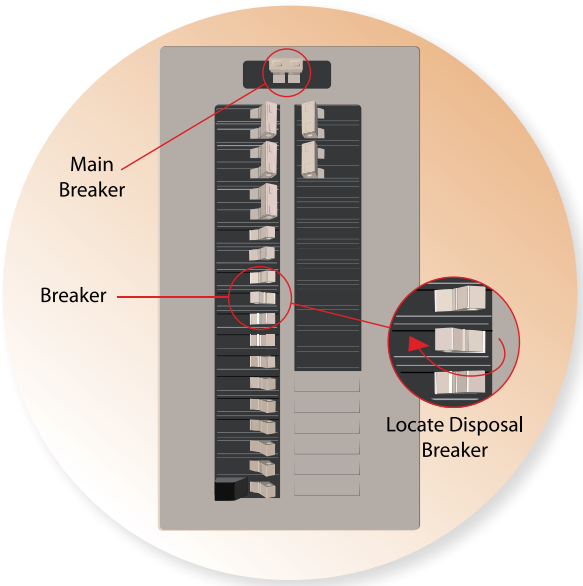
HOME TIP: Pour fat and grease into a can or jar. Put it into the refrigerator until it becomes solid and then throw it away.

Cleaning inside the disposal

It's normal for your disposal to emit unpleasant odors which are the result of grease and food collecting in the grinder or on the baffle. Many odors can be avoided simply by running enough cold water while you're grinding and for a short time after.

Follow these directions to clean inside the disposal:

1. Cut power to the disposal by unplugging it or flipping its circuit breaker.



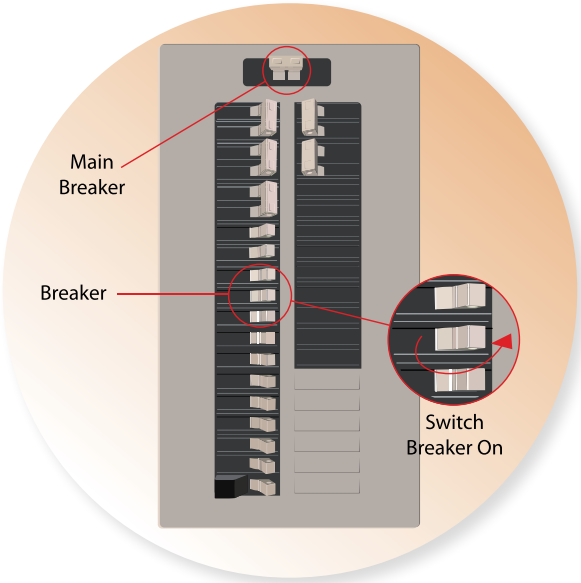
2. Clean the upper lip of the grind chamber and the bottom of the splash baffle with a scouring pad.

CAUTION: Keep your hands out of the disposal even when it's off. If you need to retrieve something do so with long-handled tongs.

3. Place the stopper in the sink. Fill halfway with warm water.

4. Mix the water with ¼-cup of baking soda.

5. Reconnect the disposal's power by plugging it back in or flipping the circuit breaker.



6. Turn on the disposal and remove the stopper. Doing so simultaneously will wash away loose food particles.

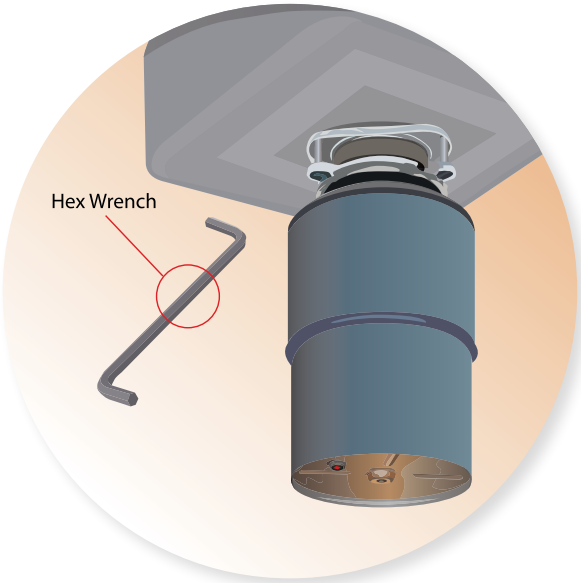
Clearing a disposal jam

A jam in the disposal causes the motor to stop while the disposal is running. Check the manufacturer's instructions for preventing jams from occurring and for clearing jams if they occur.

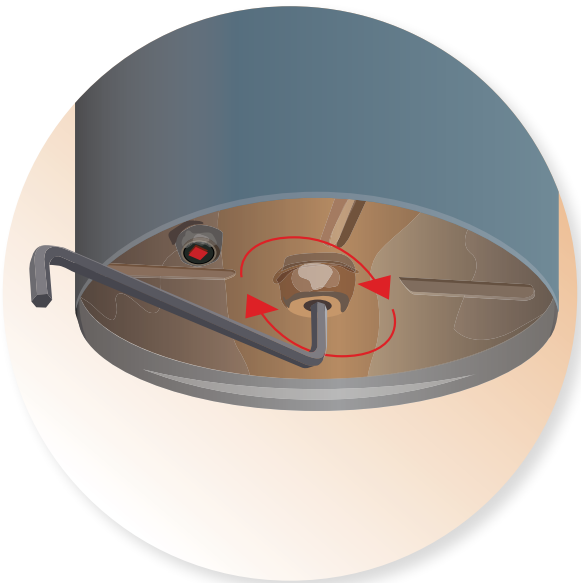
The following general steps will help you clear a disposal jam:

1. Cut power to the disposal via the wall switch, outlet, or circuit breaker. Wait for all water to drain from the sink, if there is any. If it won't drain, use a cup or other item to remove the water.

2. Find a hex wrench that fits the disposal. It's likely the manufacturer provided one with the disposal. If not, home stores carry these wrenches.



3. Find the hexagonal-shaped hole on the disposal's bottom. Put the wrench into the hole and move it back and forth until you can turn it fully in both directions.

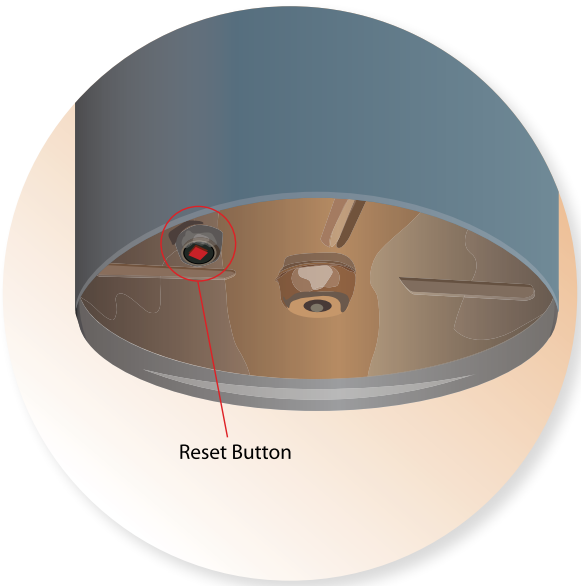


4. Shine a flashlight down the drain and into the grind chamber. Use long-handled tongs to remove any items in the disposal.

CAUTION: Do not put your hands inside the disposal.

5. Wait at least three minutes for the disposal's motor to cool down.

6. Find the red reset button on the bottom of the disposal and push it. If the button won't depress, wait several minutes and try again. If the disposal still won't start, check to see if the circuit breaker that controls it is tripped.



HOME TIP: Some disposals aren't directly wired and instead must be plugged into an outlet. If the disposal won't turn on, make sure it's plugged into the correct outlet.

7. Turn on the cold water and run it into the disposal. Turn on the disposal. It should operate properly.

SERVICE TIP: Call a plumber if you're unable to clear a disposal jam.

Also, see Circuit Breakers (Page 13) and Electrical Troubleshooting (Page 14).

Visit the manufacturer's website for more information about disposals.

Cooktops, Ovens & Ranges

Your kitchen has a range and oven or a cooktop and separate oven.

Care and maintenance

The following are tips for maintaining cooktops, ovens and ranges.

Cleaning cooktops, ovens, and ranges

Use a nonabrasive cleaner to clean the broiler pan, control panel, and stovetop.

Use detergent and a damp cloth to clean knobs.

If you have a self-clean or continuous clean oven, follow the manufacturer's instructions for cleaning the interior.

If you have an oven that isn't self-cleaning, use a mild detergent or soap to clean the interior. Do this only when the oven is cold.

CAUTION: Avoid spraying cleaners directly onto the cooktop or surface of the oven or range. Instead, spray the cleaner onto a soft rag and use that to clean the surface.

CAUTION: Chrome items, such as the broiler pan and oven racks, will become discolored during self-cleaning. Remove them before cleaning.

Cleaning the range hood

Clean the hood's filter regularly to avoid grease buildup. To do so, take it off and wash it with mild detergent and water. Rinse and dry.

Use a soft rag and mild detergent solution to clean the hood's light bulb. Avoid burns by making sure the bulb is cool. Rinse and dry.

Use a degreaser, nonabrasive cleaner, or soap and warm water to clean the hood.

Clean the hood's underside regularly. Failure to do so will result in hard deposits that are difficult to remove.

HOME TIP: Some range hoods have charcoal filters which can't be cleaned. If yours does, replace the filter annually.

CAUTION: Cut power to the range and oven before cleaning.

CAUTION: Avoid using abrasive cleaners to clean the hood.

Visit the manufacturer's website for more information about cooktops, ovens, and ranges.

SEVEN

Landscaping

Concrete Pavers

Some driveways and walkways feature concrete pavers that are exceptionally functional because the surface expands and contracts based on changes in humidity and air temperature. As a result, they are used in place of asphalt or concrete in some areas.

Among the many positives about concrete pavers is they don't crack and can be replaced if they're damaged. In addition, various sizes and colors can be used to create unique patterns.

Care and maintenance

Concrete pavers are easy to maintain. Follow these tips for caring for your concrete pavers.

Joint sand replenishment

Fill the joint sand between the pavers each year. Dirt may accumulate in the joints, wind may blow the sand away, or rain or high-pressure hoses may wash the sand away.

Removing weeds

It's common for the wind to blow seeds around which may result in weeds germinating between your pavers. Use an herbicide to kill the weeds or pull them by hand.

CAUTION: Take care when applying herbicide so it doesn't get on adjacent landscaping or sod.

Cleaning the pavers

Clean pavers with a brass- or plastic-bristled brush or soft-hair broom. Do not use a brush with a steel bristle.

Stains left on pavers will penetrate. Treat stains immediately.

Cars sometimes leave oil stains which are difficult to remove. Clean them with cleaners designed to remove oil stains.

Find and use cleaners designed for concrete pavers.

Clean pavers with light mist from a hose. Do not use a pressure washer on concrete pavers.

Acidic materials can cause deterioration or staining of concrete pavers. Do not use them.

HOME TIP: Don't be alarmed if the color of your pavers changes with time.

CAUTION: Do not leave fertilizer on concrete pavers. It may stain them.

Homeowners association

If your home is part of a homeowners association, check with it regarding exterior maintenance. You should be familiar with what you can and cannot do and what maintenance items the association is responsible.

Driveways, Patios & Walkways

Driveways are constructed from asphalt or concrete which also is used for walks and some patios. All require easy but routine maintenance.

Care and maintenance

Follow these tips for caring for driveways, patios, and walkways.

Concrete patios and walkways

Heat, humidity, and cold temperatures cause concrete to expand and contract which results in cracking of the concrete. While there are control joints in patios and walkways to minimize cracking, it's impossible to eliminate it completely.

The surface of your patio is a mixture of Portland cement, silica sand, and specially formulated resins. The surface may also have an acrylic topcoat stain. Follow these instructions to maintain your patio:

Cleaning the patio

Use a garden hose every week to rid the patio of dirt, salt, and other particles. It's a good idea to verify with the local water authority that it's permissible to clean patio surfaces.

Wash the entire patio with a household detergent as often as necessary — as often as once a month. Rinse.

Maintaining the patio

Avoid setting steel furniture on the patio as it can damage the protective coating. Opt instead of fiberglass for rubber-coated or plastic furniture.

Use a 100 percent acrylic topcoat stain immediately to touch up any damaged spots. Rinse with water any acidic materials that fall onto the patio.

A high-quality sealer will protect the finish and surface of the patio. While not necessary, it's worth considering.

CAUTION: Take extreme care if you use a power washer on concrete coatings and finishes.

CAUTION: Avoid spilling acids or acidic materials.

CAUTION: Place sand on asphalt and concrete, if necessary, so they're not slippery. Avoid salt, as it deteriorates asphalt and concrete. Set floors mats at exterior doors to avoid tracking sand into your home.

Filling small cracks in concrete

Frost or changes in the grade around your home can cause ¼- to ½-inch wide cracks in concrete. Such cracks lessen your home's curb appeal but can become much more problematic if not sealed. To prevent minor annoyances from becoming large problems, check your concrete early every spring. Fill in any cracks with a concrete crack sealer.

Follow these steps to fill small cracks in concrete:

1. If the edges of a crack are smooth, use a wire brush or chisel to roughen them.

2. Use a brush or vacuum to clean out any debris from the crack.

3. Measure the crack to determine its depth. If it is less then ½-inch deep, move to the next step. If it is more than ½-inch deep, fill it to ¼-inch from the surface with backer rod or sand.

4. Locate a concrete crack sealer (available at home care stores). Follow the manufacturer's instructions for applying the sealer.

HOME TIP: Pay attention to the weather when applying crack sealer. The air temperature should be between 45 and 100 degrees and there shouldn't be rain in the forecast for at least 24 hours.

Homeowners association

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Landscaping Grade

The way the land around your home is graded is intended to drain water away from the structure. Avoid altering the grade as it may affect drainage.

Professional engineers determined the necessary grade of your land to provide drainage and, in some cases, water retention. That's why there are high spots called berms and low spots called swales. While heavy rainfalls may cause water to pool, it will recede with time.

Anytime you are doing landscaping, maintaining the proper slope — and not changing how water drains — must be a key consideration.

Termites

Some termites live in the soil beneath your home. Your professionally engineered grade in addition to ensuring proper drainage, also helps prevent termite infestations. If there isn't direct contact between the soil and wood framing of your home, termites will build tubes and tunnels which they use as travel corridors. Check for these tubes and tunnels as they signal an infestation.

Care and maintenance

The following tips will help you prevent damage to your home resulting from moisture or termites.

Maintaining yard drainage

Avoid altering the drainage pattern including in areas designed to retain water.

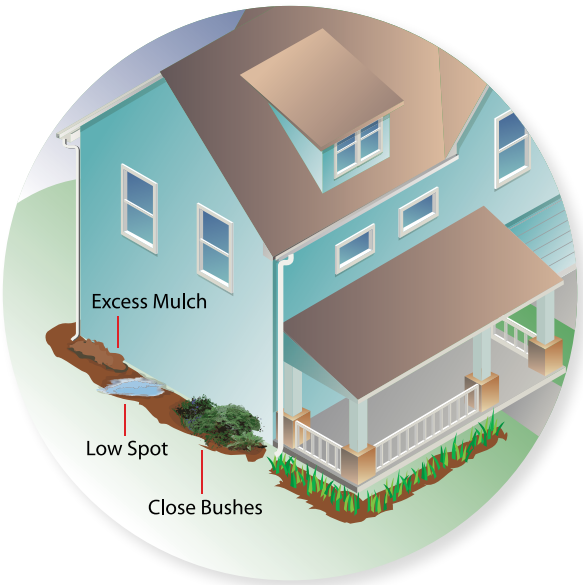
Ensure a space of at least six inches between the soil and siding or stucco. Failure to do so could allow moisture to deteriorate the brick, siding, or stucco.

Pay attention to the original grade of your yard. As the soil settles, the grade will change which requires you to re-establish the original grade.

If you bought your home new, wait at least a year before undertaking major landscape projects. The majority of soil settlement happens in that period.

Have a professional landscaper install or modify landscaping.

Avoid planting grass or plants too close to the home. If they're too close, the water you use to hydrate them could leak into your home.



CAUTION: Serious water problems could result from changing the drainage pattern on your property.

CAUTION: Before digging in the yard, call the local utility company to have buried wires marked.

HOME TIP: Inspect for termites every spring by searching for the remains of winged insects. Also, search where the footing and soil meet for signs of the tubes or tunnels termites use to get at the wood. Push a knife blade against the wood to ensure it isn't rotted. Call an exterminator if you believe you have a termite problem.

Also, see Downspouts & Gutters (Page 57), and Irrigation & Sprinklers (Page 88).

Homeowners association

If your home is part of a homeowners association, check with it regarding exterior maintenance. You should be familiar with what you can and cannot do and what maintenance items the association is responsible.

Irrigation & Sprinklers

The irrigation and sprinkler system is designed to make it easy to keep your lawn and garden beautiful throughout the year. There are four main parts to the system.

Sprinkler heads: Fixed within your landscape, the heads shoot water in a fan-shaped pattern or in rotating streams.

Water-supply lines: These lines are beneath the ground and carry water from its source to the sprinkler heads.

Valves: These allow you to shut off the system.

Backflow preventer: This prevents water from the irrigation system from backing up and getting into your drinking water.

Care and maintenance

Follow these tips for maintaining your home's irrigation system:

Every fall, winterize the system by turning off the water and draining any water in the pipes.

Turn on the master valve and timer in the spring to restart the system.

Monitor valves to ensure they don't stick.

Inspect connection points for leaks.

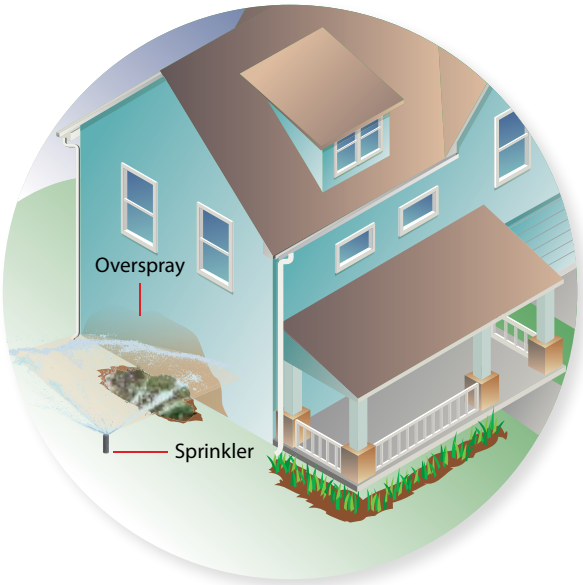
Inspect on a regular basis for missing or damages sprinkler heads.

Flush the system two times a year.

HOME TIP: Some water authorities set limits on how often you're required to water. Make sure you know the rules.

Preventing water damage

Watch how the sprinkler heads spray water. Ensure they don't direct it at your home.



Homeowners association

If your home is part of a homeowners association, check with it regarding exterior maintenance. You should be familiar with what you can and cannot do and what maintenance items the association is responsible.

EIGHT

Plumbing

Drains

Water leaves your home via drains. Maintaining them properly is key to preventing clogging, overflowing, water damage, and other issues.

Care and maintenance

Follow these tips for maintaining your home's drains.

Drain traps

Most of your home's plumbing fixtures (the sink, shower, and toilet, for example) have a drain trap which is a piece of pipe beneath the fixture that's shaped like the letter J. The purpose is to hold water that creates a barrier so sewer gases don't enter your home.

HOME TIP: Given their shape, drain traps are the most frequent area where clogs occur.

Checking appliances for leaks

If any appliances that use water appear to be leaking, check the drain for clogs. A clogged drain can cause water to overflow and you may be able to remove the clog yourself and save money by not having to call for a repair.

CAUTION: If you use a commercial drain cleaner to remove a clog, make sure to avoid caustic soda. It will mix with the grease in the drain and create an insoluble compound.

Keeping drains clear

The following procedure, if done on a regular basis, will help keep your drains running properly:

1. Turn on the faucet and allow hot water to run through the drain.
2. Pour three tablespoons of washing soda (not baking soda) into the drain.
3. Add just enough hot water to wash the soda down the drain.
4. Wait 15 minutes for the soda to set and then run hot water.

CAUTION: Do not put grease into a drain or toilet.

Septic System

Septic systems include a tank and use the soil in your yard to treat the wastewater from your home. Have a professional pump your septic system every three to five years.

Clearing drains

Stick a piece of cloth into any overflow outlet. This allows the plunger to develop the necessary pressure and suction around the drain. Follow these steps to clear the drain:

With a plunger

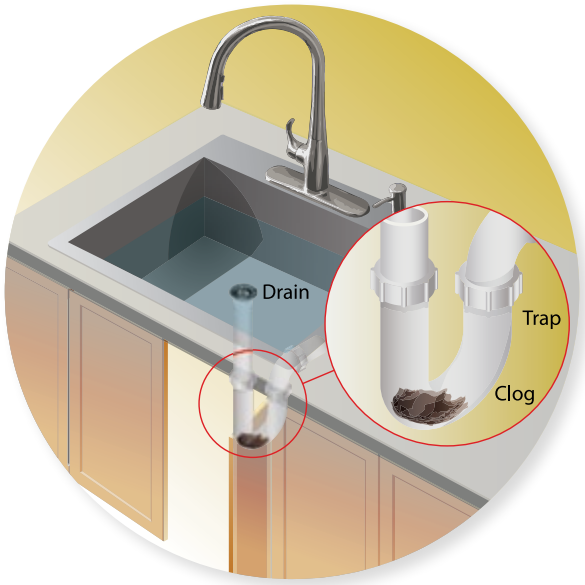
1. Add enough water so the plunger cup is covered completely.

2. Push down the plunger so the cup covers the drain opening completely. Build pressure in the pipe by moving the plunger up and down 10 to 20 times in a row. Maintain the seal between the plunger and drain as you pump up and down.

3. Remove the plunger. The water should drain. If not, repeat steps 1 and 2.

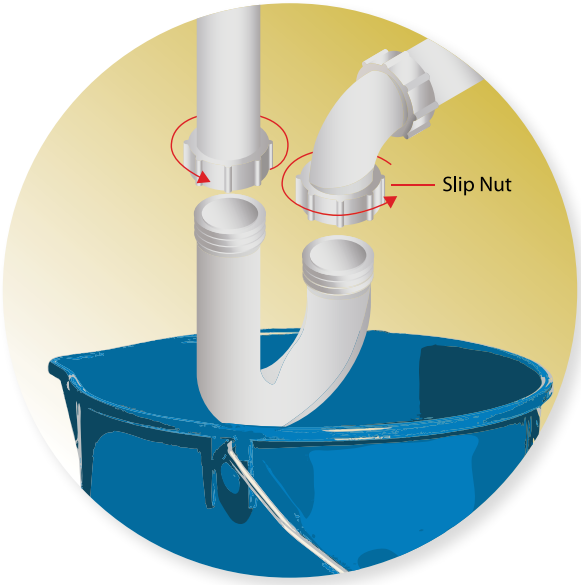
Opening the trap

If a plunger doesn't work, try opening the drain trap.



1. Set an empty bucket or pan beneath the trap.

2. Unscrew the slip nuts that connect the trap to the rest of the drain.



3. Take off the trap. Dislodge what's causing the block with a piece of wire or plumber's snake.

HOME TIP: Plumber's snakes are available for rent or purchase at home goods stores. Whether inserting or removing the snake, turn the handle in the same direction so anything attached to the end of the snake doesn't come off.

SERVICE TIP: Call a plumber if you're unable to unclog a blocked drain.

Faucets

With proper care, your faucets will retain their look and function for years.

Plumbing fixtures with moving parts, like faucets, more than likely will require more maintenance and repair than fixtures without moving parts. And the more you use them, the more frequently they'll need repair.

Faucet aerators

The purpose of faucet aerators is to add air to water when it emerges from the faucet. They increase water conservation and reduce splashing. But sediment can build up on the screens inside the faucet and reduce water pressure. In all likelihood, keeping the aerator clean will be your most common faucet-maintenance task.

Care and maintenance

Follow these tips for maintaining the faucets in your home.

General maintenance

Faucets are available in a wide variety of finishes and all need to be cleaned. Follow the manufacturer's instructions for cleaning them, including what cleaners to use.

Do not use abrasive, industrial, or tile cleaners for faucets.

Use only pads or sponges that are safe for cleaning polished metallic surfaces. Otherwise, you will scratch the finish.

Dry faucets after every use to prevent mineral buildup and spotting.

Cleaning faucet aerators

Aerators require cleaning every three months and more frequently if you have hard water. Follow these steps to clean the aerators:

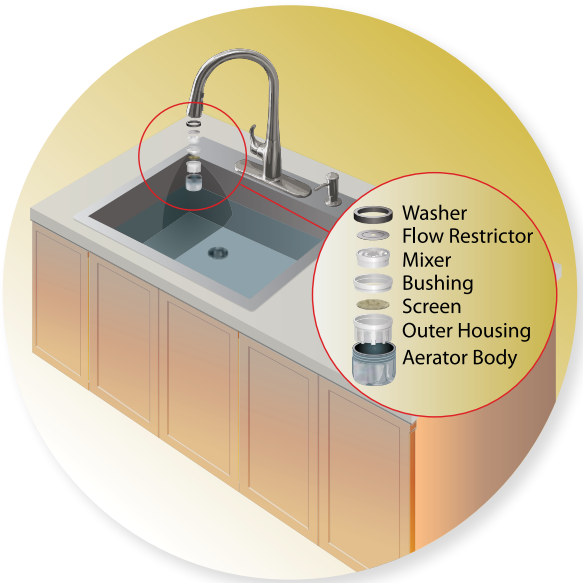
1. Grab the aerator and turn it counterclockwise to unscrew it from the faucet.

2. Remove debris.

3. Remove the washer and screen. Rinse them.

4. Put the parts back in their original order.

5. Press the aerator against the faucet and turn it clockwise to reattach it.



HOME TIP: A special tool is required on some faucet models to remove the aerator.

Repairing a leaking faucet

Repairing a leaking faucet involves replacing the cartridge or washer. Follow these steps:

1. Purchase a cartridge or washer as recommended by the manufacturer.

2. Turn off the water via the shutoff valve.

3. Relieve water pressure by opening the faucet handle.

4. Follow the manufacturer's instruction to replace the cartridge or washer.

Also, see Shutoff Valves (Page 94).

Visit the manufacturer's website for more information about faucets.

Pipes

Your pipes should function without maintenance from you. Contact a plumber if the pipes need attention.

Care and maintenance

Follow these tips for maintaining your home's pipes.

General maintenance

Run the water and check beneath your sinks to make sure the connections are tight.

Broken or leaking pipe

Turn off the main water shutoff valve. Then call for a plumber.

Noisy pipes

It is common for pipes to make noise from time to time. And though they are behind the walls, you may be able to hear water running through the pipes. You may hear a clicking sound that occurs as they expand and contract.

SERVICE TIP: If you hear loud banging noises from your pipes, call a plumber.

Loose plumbing joints

Plumbing joints should last for the life of your home. If they become loose, call a plumber.

Also, see Shutoff Valves, following.

Shutoff Valves

Shutoff valves allow you to stop the flow of water to certain areas of your home. They can be used, for example, while conducting repairs or if a pipe or appliance is leaking. Using them properly can reduce the likelihood of flooding or water damage.

Check near your water meter for the main shutoff valve which cuts off the water supply for the entire home. In addition to the main shutoff valve, your home's appliances and fixtures likely have their own shutoff valves. They can be difficult to access, though, so sometimes it's easiest to simply shut off the main water valve.

Care and maintenance

Locate and label each of the shutoff valves in your home. In the event of an emergency, this will reduce the likelihood of serious problems occurring. These appliances and fixtures likely have their own shutoff valves:

Bathtubs

Laundry rooms

Dishwashers

Fire sprinklers

Icemakers

Lawn irrigation system

Showers

Refrigerators

Sinks

Toilets

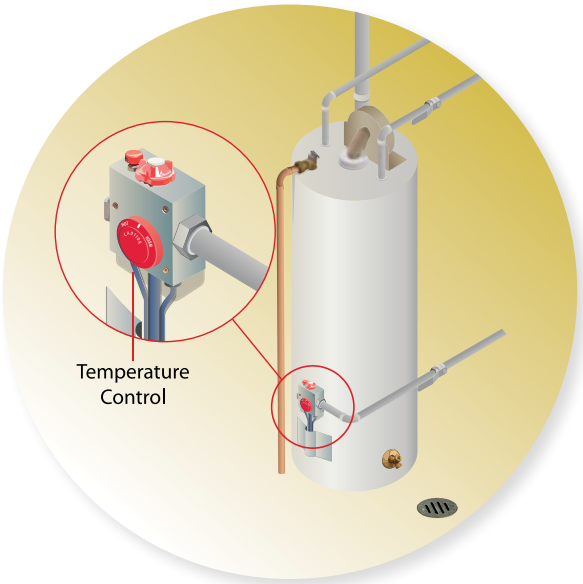
Water heaters

HOME TIP: Turn off the main water shutoff valve if you plan to be gone from your home for an extended period of time.

Water Heater

With routine maintenance, your water heater should provide hot water for many years.

The water heater works via a tube that carries cold water to the bottom of the tank. The water is heated there and then rises to the top of the tank, where other pipes carry it to different parts of your home. Water heaters control the temperature of the water and some have a knob that allows manual control of the temperature. If yours has one, set the water temperature between 120 and 130 degrees.



Care and maintenance

Follow these tips for maintaining your home's water heater.

General maintenance

You probably won't realize your water heater is about to fail — or appreciate all of your uses for hot water — until the unit fails. It often happens suddenly. That's because rust and limestone sediment attack your water heater from the inside. As a result, even a failing water heater may look perfectly fine on the outside.

Though steel water heater tanks often have a glass lining designed to prevent rust, small openings may develop in the lining due to temperature fluctuations that cause it to expand and contract. Water eventually gets into the lining and then contacts the tank and causes it to rust.

Heated water also causes the formation of limestone in the water heater tank. The limestone settles in the bottom of the tank. In both electric and gas water heaters, the limestone eventually diminishes its ability to heat water.

Regular maintenance is necessary to keep your water heater functioning properly and to extend its useful life.

HOME TIP: Switch off the breaker that provides electricity to the water heater if you are gone from home for an extended period of time. This will reduce electricity use and help preserve the heating element.

Testing the pressure relief valve

Limestone can clog the pressure relief valve. Test the valve once a year to ensure its proper function. Follow these steps:

1. Ensure the water tank is full.

2. Ensure the valve connects to a pipe directed down and away from the tank. Failure to do so could cause spraying of scalding water if excessive pressure causes the valve to release water.

3. Set a bucket beneath the drainpipe.

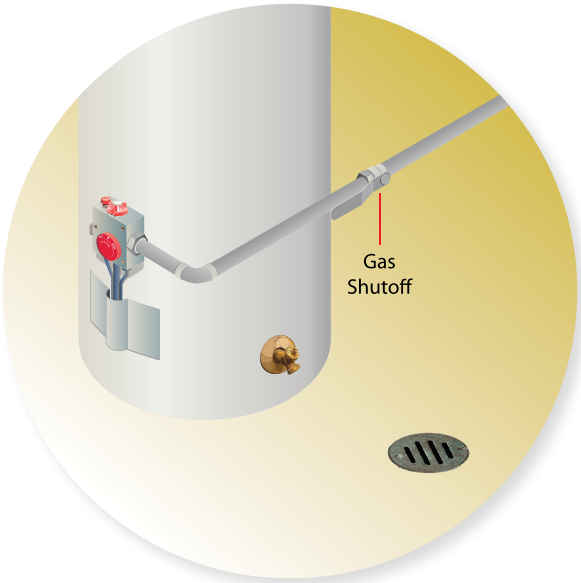
4. Lift the handle slightly to open the valve. Be careful, as the valve will release hot water.

Also, see Electrical Troubleshooting (Page 14).

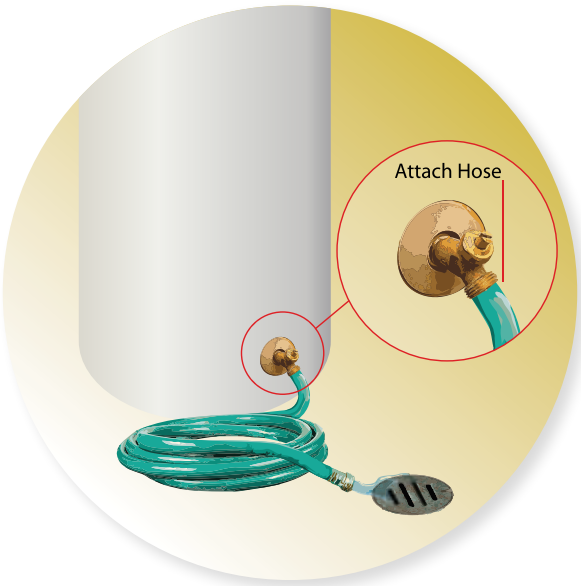
Draining the water heater

Drain the water heater annually to remove built-up sediment. Removing all sediment, especially if you haven't drained the water heater regularly, may require multiple attempts. Before draining the water heater make sure it's full of water.

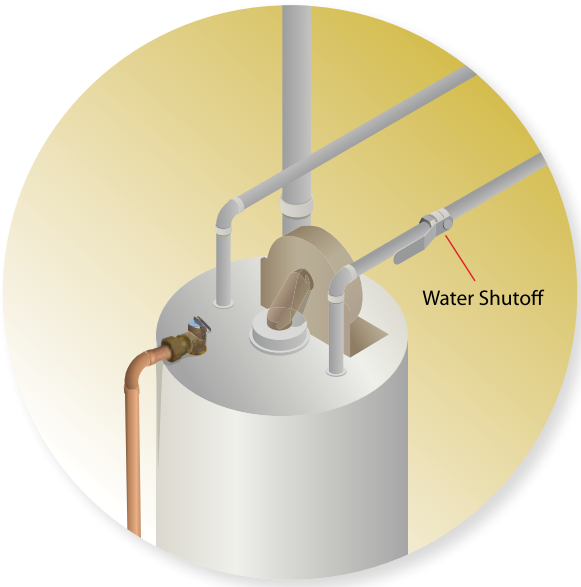
1. Shut off the water heater's electricity or gas.



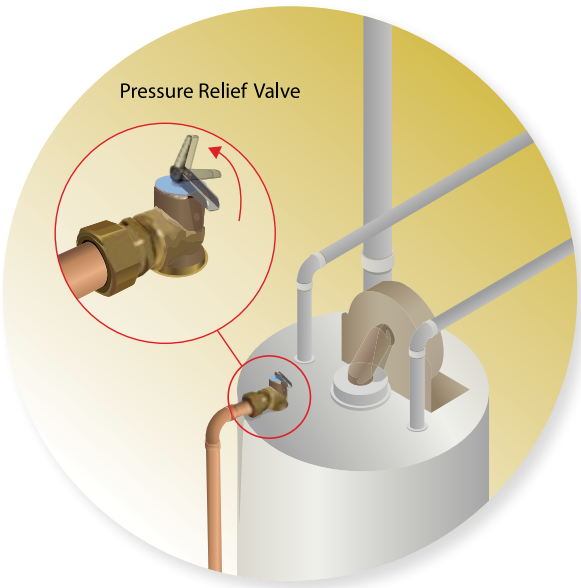
2. Find the valve at the bottom of the tank and attach a hose to it.



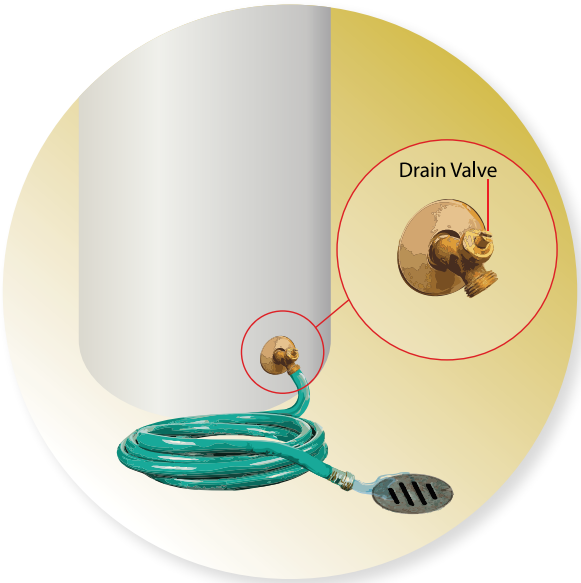
3. Locate the water heater's shutoff valve. Turn it off.



4. Break the vacuum by opening the tank's pressure relief valve (generally located on top of the tank).



5. Open the tank's drain valve. Drain until the water is clear or you have drained four gallons.



Once the water heater is drained, remove the hose and close the drain valve. Turn on the water. Once the tank has refilled, turn on the electricity or gas.

HOME TIP: In addition to providing soft water, water softeners help keep water heater tanks clean.

Swimming Pool

Your swimming pool will provide years of fun to your family and friends but regular maintenance is required.

Care and maintenance

The pump will run 24 hours a day to begin with. The service technician will decide if and when it can be run less. But the pump should run a minimum of eight hours per day.

During the winter, heating the pool requires running the pump 12 to 24 hours a day. The pump must be running for the heater to work.

When the filter reaches half the normal pressure, it's time to clean it. Ask the service technician what normal pressure is.

Clean the pump lint tray once per month.

Vacuum the pool at least once a week.

For the first six weeks, brush the pool at least once a day. Thereafter, brush it twice a week. Brush the steps and swim-out first then the walls down to the floor and then the floor to the drain in the deep end. Use a net to remove surface debris and a brush to clean the tile. Clean the skimmer basket.

Test the water every day for the first month and then twice a week after that. Your service company or local pool supply store should test it. Keep in mind the company may not know or maintain proper readings. Have an independent pool supplier test the water from time to time.

Hang onto the pool test records. They're necessary for your pool's warranty.

Filter system

It's recommended you run your pool filter eight hours per day. On rainy days, run it for at least 10 hours. Allowing the filter to do most of the work trapping organic and inorganic matter means you can add less chlorine and keeps the pool's water balanced.

You'll need to run your filter longer under extreme conditions. Keep in mind it's cheaper to run the filter system than it is to correct problems with chemicals.

Maintenance of water balance

Following are recommended levels for maintaining your pool's water balance:

Weekly tests

	Min.	Ideal	Max
Free chlorine (PPM)	1.5	3.0	3.0
pH values	7.2	7.4 – 7.6	7.8
Total alkalinity (PPM)	80	100	120

Monthly tests

	Min.	Ideal	Max
Calcium hardness (PPM)	200	200 – 300	450
Cyanuric acid (PPM) (Stabilizer)	50	50 – 80	100

*Salt system pools reduce the need to add chlorine but you must maintain other recommended levels.

The following chemicals keep your pool water balanced:

Liquid chlorine
Muriatic acid (lowers pH and alkalinity)
Sodium bicarbonate (raises pH and alkalinity)
Stabilizers
Calcium

When using chlorine tablets that contain stabilizer, keep in mind they hamper chlorine's effectiveness, requiring higher ppm levels. This results in chlorine over-feeding which can result in discoloration of the pool's surface. The products you put in your pool also affect the water's balance and can stain the pool.

Problems that may arise

May cause discoloration and staining:

pH above 7.8; alkalinity above 140 ppm
calcium levels above 450 ppm

Low pH

May etch the pool's finish, damage equipment, and cause discoloration and staining.

Low alkalinity

Allows the pH to swing up and down which may cause aggressive or scaling water. It may result in heater damage or discoloration and staining.

Low calcium hardness

Creates aggressive water. It can etch the pool's finish and strip metal out of heaters or other metallic components.

Nitrates

One of the most common signs of nitrate problems is algae in the pool. If you see it, call for service.

If you see hard water buildup on the tiles or calcification, adjust the pool's chemical levels.

POOL TIP: Three-inch tablets triple in solubility when the water temperature increases from 77 to 90 degrees. Use one three-inch tablet per 10,000 gallons per week. Make minor adjustments with liquid chlorine or calcium hypochlorite. Pre-dilute water-balance chemicals in a five-gallon bucket before adding them to the pool. Always add chemicals to water, not water to chemicals.

POOL TIP: Do not broadcast stabilizer directly into the pool. Instead, place it in a sock and place the sock in the skimmer basket.

POOL TIP: Super chlorinate your pool twice monthly during the summer, once a month during the winter, and after the pool receives heavy use. Super chlorination should result in a minimum of 8 ppm chlorine.

CAUTION: After super chlorination, wait 24 hours before swimming in the pool. Do the chlorination at night and then vacuum and brush in the morning to remove residue.

Handrails, ladders, etc.

The handrails and ladders in your pool are made of stainless steel. Still, proper maintenance is necessary to ensure the handrails and ladders do not experience problems such as corrosion and rust.

The following tips will ensure the stainless steel looks good for years:

Clean frequently with soap and water or a cleaner that's safe for glass.

Use a brass, chrome, or silver cleaner to remove rust spots as soon as possible.

Apply wax to add beauty and protection.

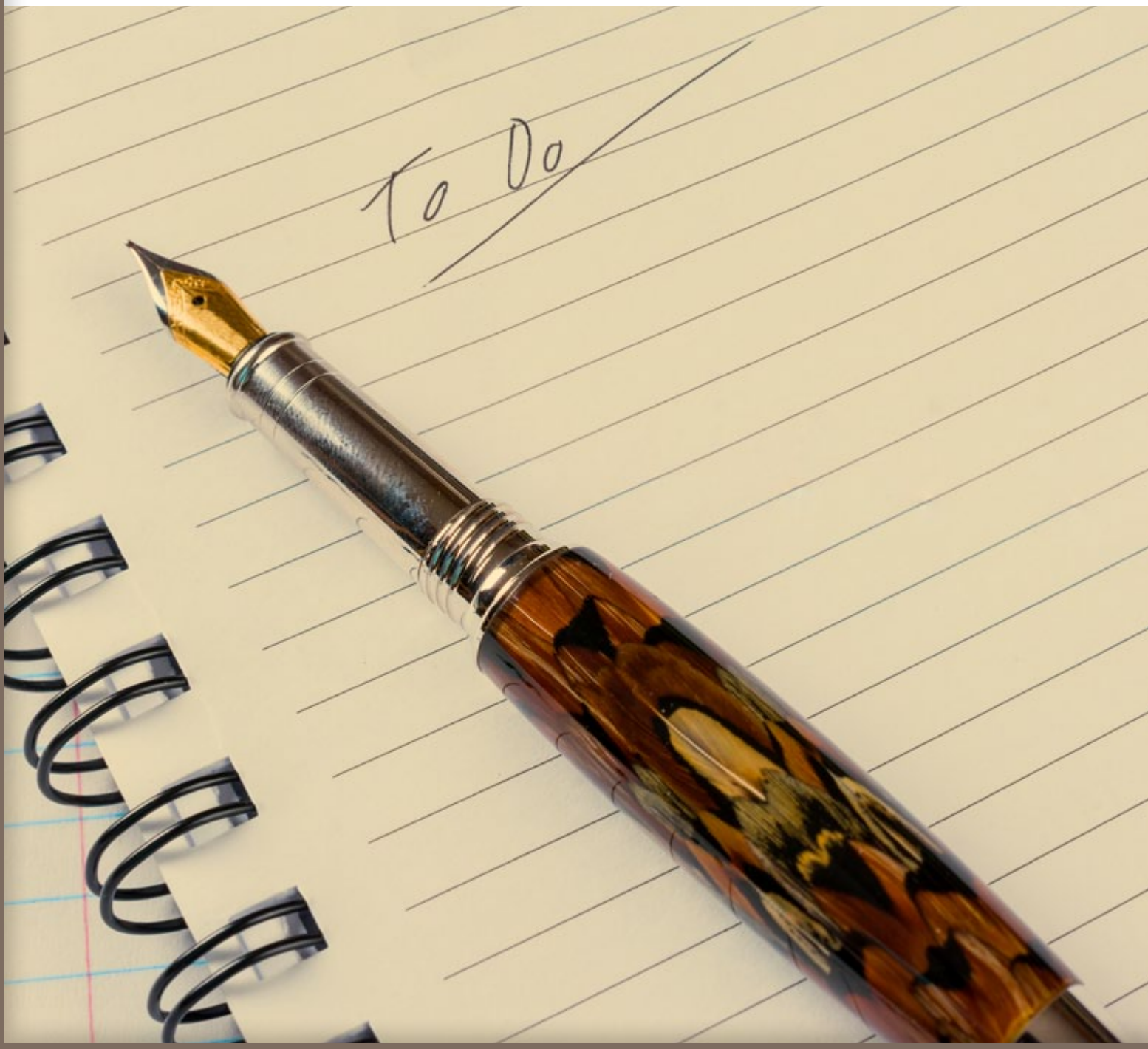
Avoid cleaning with abrasives such as steel wool or sandpaper.

Do not use bleaches or mineral acids to clean.

Do not leave stainless steel in contact with other metal as it may cause corrosion or rust.

NINE

Homeowner To-Do List



Monthly Tasks

- ✓ Clean A/C filter.
- ✓ Check smoke detectors and CO detectors.
- ✓ Run all plumbing (including showers, tubs, sinks, and toilets).
- ✓ Check and maintain grout/caulk joints in all wet areas and around all exterior doors and windows.
- ✓ Sharpen garbage disposal by running ice cubes through the unit.
- ✓ Lubricate moving parts of garage door.
- ✓ Test garage door force setting and conduct reversal test. Check photocells.
- ✓ Check windowtracks.
- ✓ Test pool levels.

Quarterly Tasks

- ✓ Check dryer vent exhaust for blockage and to ensure proper connections.
- ✓ Remove leaves and debris from gutters — check corners for any caulking gaps.
- ✓ Check washing machine hoses and connections for cracks and leakage.

Spring Tasks

- ✓ Wash and inspect exterior stucco, fascia, and lanais.
- ✓ Check for stucco cracks in walls — maintain as necessary.
- ✓ Lubricate and inspect all sliding exterior doors.
- ✓ Verify condensation line flows freely while air conditioning is on.
- ✓ Rinse out leaves, clippings, and debris from air conditioner compressor.
- ✓ Change pool filter (if no pool no service).
- ✓ Check weatherstripping around doors.
- ✓ Check for small cracks in concrete.

Fall/Winter Tasks

- ✓ Change batteries in smoke detectors.
- ✓ Lubricate tracks, rollers, and deadbolts on exterior doors.
- ✓ Lubricate tracks and inspect all sliding exterior doors, including garage door and spring.
- ✓ Remove leaves and debris from gutters.
- ✓ Have air conditioning professionally serviced and change battery in thermostat.
- ✓ Inspect, adjust & maintain door sweeps and weather stripping.

Notes:

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