

## Garages

Garages are complicated and dangerous environments. Think about what you commonly see in the garage:

- ü automobiles and other vehicles (motorcycles, off road vehicles, and riding lawnmowers);
- ü the gas-fired furnace
- ü the gas-fired water heater,
- ü dangerous chemicals (pesticides, fertilizers, paint, etc.);
- ü dangerous equipment (hammers, saws, screwdrivers, etc.); and
- ü everything that we haven't used in weeks, months, or years

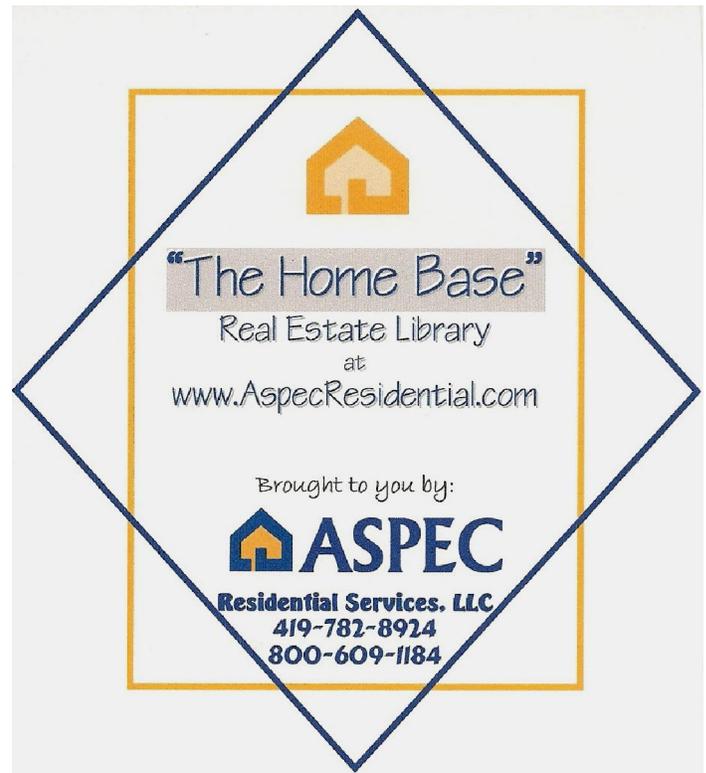
Because the garage is an inherently dangerous environment, it should never be used as a playground for children. Even for adults, the garage is a dangerous environment, so you should also be very cautious when in the garage. If you find your garage overridden with excessive storage, heed these wise words: "If you haven't used it in six months, it's time to have a garage sale." Get rid of it or get yourself an off-site storage facility.

### Garage vehicle doors (Also SEE BELOW)

Virtually anything that moves is dangerous, particularly for pets and small children. The force exerted by a closing vehicle door can approach 200 pounds per square inch, enough force to seriously injure or kill a child or pet within minutes. Children should never be allowed to play "beat the garage door," a too-common game where the children push the door opener/closer button and run to try to get outside before the vehicle door closes. And if children are playing hide and seek and "beat the garage door" at the same time, well, all you've done is make dangerous conditions worse. Such "games" send many children each year to the emergency room at the local hospital.

Safety considerations, therefore, make it desirable to have both a photoelectric eye reverse and a force reverse on all vehicle door openers. Photoelectric eyes, when working properly, will help prevent property damage to vehicles that may be partially under the vehicle door because the vehicle breaks the photoelectric beam, preventing the door from closing. They are also the first line of defense if a child or pet is lying on the ground unconscious or injured. In those instances, his little body will break the photoelectric beam, once again preventing the door from closing. Unfortunately, photoelectric eyes are often out of alignment because they are played with by children or they are accidentally kicked by someone when walking by. That's why both a photoelectric eye reverse and a force reverse are not only desired, but required in order to protect your family. If the photoelectric eyes are out of alignment, a force reverse, when working properly, will help prevent a child or pet from being crushed by a closing vehicle door. The force reverse should be set so that it reverses upon contact with anything impeding its downward travel.

Safety reverse should be inspected and tested monthly. The force reverse typically is a user operable control. A review of the vehicle door opener instructions may show how to adjust the sensitivity setting properly. If no instructions are available, contact the manufacturer for instructions. If you are not comfortable



making this important safety feature adjustment yourself, you should have the adjustment made by a qualified garage door professional.

## **Fire protection**

Because of the inherently dangerous nature of the garage, if there is a door from the garage into the living area of the house, that door should be a fire door assembly (door, frame, and associated hardware). The door should be a solid door, not hollow, or other approved fire-rated door. A fire-rated door assembly will help prevent or delay the spread of a fire from the garage into the house. I cannot verify a door assembly as fire rated unless a rating plate is attached to the door, even if the door sounds solid by knocking on it. Unfortunately, the rating plate quite often is removed or painted over. The only way to have a door given a rating when the rating plate is missing is to have the manufacturer provide a new one. However, the manufacturer's plate also happens to be where the manufacturer's contact information is located. If the plate is missing, it is unlikely that a manufacturer will make a trip to the property to affix a new one because they don't want to take the liability of not knowing anything about the door, and they can't justify the expense of a trip to the property. Instead, they'd rather you just buy a new door made out of better fire-rated materials.

Fire door assemblies should have self-closers installed to fully close the door without any pulling or pushing, and a fire wall and/or fire ceiling (for multi-story structures) should be present between the garage and the living area of the house. Such a fire wall and fire ceiling must include the attic area between the garage and the house. There should not be any damage or holes in the fire wall or fire ceiling, and there should not be any gaps around pipes, wires, light switches, or electrical outlets—through fire-related event known as “drafting,” fires can spread extremely rapidly through small holes and gaps. Unfortunately, I quite often find such holes and gaps because home owners don't understand the construction of their homes and how that construction is meant to keep them safe.

## **Recommendations**

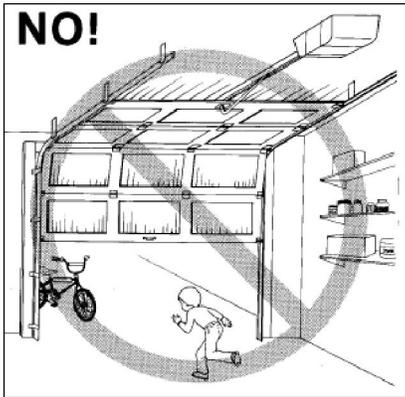
- Ü **Do not let children play in the garage.**
- Ü **Exercise caution when in the garage.**
- Ü **Store chemicals and tools in upper cabinets, out of the reach of inquisitive young children.**
- Ü **Inspect and test the vehicle door each and every month.**
- Ü **Inspect the fire walls**

## **Automatic garage door opener and garage door safety and maintenance guide**

This important information is provided by the U.S. Consumer Product Safety Commission, the National Safety Counsel, and the Industry Coalition for Automatic Garage Door Opener Safety.

### **Garage door system safety: An automatic decision**

A garage door is the largest moving object in the home. They are often operated by electric door openers. Proper installation, operation, and maintenance and testing are necessary to provide safe, trouble-free operation. An improperly adjusted garage door or automatic opener can exert deadly force when the door closes. This could lead to serious injury or death from being hit by a closing garage door or from being trapped under the door. Safety is Everyone's Business A few simple precautions can protect your family and friends from potential harm. Please take a few minutes to read the following safety and maintenance information. Refer to your garage door and opener's manual for details specific to the model you own. Then check the operation of your garage door and automatic opener.

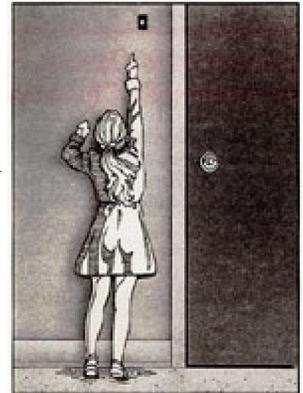


### Garage door openers are not toys

Careless operation and allowing children to play with or use garage door opener controls can lead to tragic results. Discuss garage door safety with your children. Explain the danger of being trapped under the door. When using the pushbutton or transmitter, keep the door in sight until it completely stops moving. Teach children never to play under or near an open garage door. Teach children to keep their hands and fingers clear of section joints, hinges, tracks, springs and other door parts. Contact with a moving door or its hardware could cause serious injury. These injuries can also happen with garage doors that don't have automatic openers.

### Teach your children about garage door and opener safety

**Do not** stand or walk under a moving door! Do not let children or adults play “beat the door.” It is dangerous and can result in serious injury or death. Adults should set a good example. Know how to use the emergency release, in case someone is pinned by the door. **Do not** let children play with or use the transmitters or remote controls. Always place and store them out of the reach of children. The pushbutton wall control should be out of the reach of children (at least 5 feet from the floor) and away from all moving parts. Mount and use the button where you can clearly see the moving garage door.



### Routine maintenance can prevent tragedies

Take a few minutes to inspect and test your complete garage door system. Make monthly inspection and testing a part of your regular routine. Safety is everyone's business. Make garage door and garage door opener safety automatic in your home. Consult owner's manual for additional recommended maintenance for your models of door and opener.

### Testing and maintaining the garage door

Perform routine maintenance steps once a month. Review your owner's manual for the garage door. If you don't have a manual, look for the model number on the back of the door, or check the lock handle, hinges, or other hardware for the manufacturer's name and request a manual from the manufacturer.

#### Visual inspection

Look at the garage door springs, cables, rollers, pulleys, and other door hardware for signs of wear. If you suspect problems, have a qualified person make repairs. Garage door springs, cables, brackets, and other hardware attached to the springs, are under very high tension and can cause serious injury. Only a qualified professional carefully following the manufacturer's instructions should adjust them. The torsion springs (the springs above the door) should only be adjusted by a professional. Do not attempt to repair or adjust the torsion springs yourself. A restraining cable or other device should be installed on the extension spring (the spring along the side of the door) to help contain the spring if it breaks. Never remove, adjust, or loosen the screws on the bottom brackets of the door. These brackets are connected to the spring by the lift cable and are under high tension.

#### Warning

Springs are under high tension. Only qualified persons should adjust them.

## **Lubrication**

Regularly lubricate the moving parts of the door. However, do not lubricate plastic parts such as plastic rollers and plastic idler bearings. Consult the door owner's manual for the manufacturer's recommendation.

## **Door balance**

Periodically test the balance of your door.

- Start with the door closed. If you have a garage door opener, use the release mechanism so you can operate the door by hand when doing this test.
- You should be able to lift the door smoothly and with little resistance. It should stay open around three or four feet above the floor. If it does not, it is out of adjustment. Have it adjusted by a qualified service person.

## **Testing and maintaining the garage door opener**

There are routine safety and maintenance steps that you should follow once a month. Review your owner's manual for the door opener. If you do not have an owners manual, look for the opener model number on the back of the power unit and request a manual from the manufacturer.

### **Reversal test**

Make sure your opener has a reversing feature and test it every month. If a reversing feature is not present, it should be replaced. Garage door openers manufactured after January 1, 1993, are required by federal law to have advanced safety features which comply with the latest UL 325 standards. Contact your manufacturer or installer for additional information.

- First, test the balance of the door (see "Testing and maintaining the garage door"). If the door is properly balanced, then proceed.
- With the door fully open, place a 1½" thick piece of wood (a 2"x4" laid flat) on the floor in the center of the door.
- Push the transmitter or wall button to close the door. The door must reverse when it strikes the wood. (Note that the bottom part of "one piece doors" must be rigid so that the door will not close without reversing.)
- If the door does not reverse, have it repaired or replaced. Have a qualified individual adjust, repair, or replace the opener or door.

### **Force setting test**

Test the force setting of your garage door opener by holding the bottom of the door as it closes. If the door does not reverse readily, the force may be excessive and need adjusting. See your owners manual for details on how to make the adjustment. Test the reversing feature after any adjustment.

### **Additional safety devices**

Many garage door openers can be equipped with additional safety devices. Consider adding a photo eye or edge sensor as an extra measure of safety to prevent against entrapment. Keep in mind that adding more safety devices will not make an old opener meet current UL standards. Make sure the additional safety devices, such as photoelectric eyes or edge sensors, are properly installed and adjusted (see owner's manual).