

One or Two Springs?

By Roy Bardowell, CDDC

Homeowners have no idea what's best for their garage door, but garage door installers are perfectly aware that the use of 2 springs on a double door have inherent advantages that can make the automatic door system last longer and be safer. Most homeowners believe the motor operator lifts their garage door, but really it is the springs that do 75% of the lifting. The motor operator only replaces the need for a person to be involved and can deliver remote operation of their garage door.

I first noticed the use of one counterbalancing spring in 2008. After the 2007 housing crises, home builders put extreme pressure on garage door installers and other contractors to cut costs. One way to cut cost on two car garage doors is by using only one spring instead of the normal two springs. In this case safety took a back seat behind profit.



On single one-car garage doors, only one spring is necessary to balance the door. Even on two-car garage doors, one spring can be engineered to lift the door, however it shouldn't be done for these reasons. When there are two springs both share the load and neither spring is over-worked. Spring

wire doesn't last forever and eventually the wire will reach its end and you will have a fracture in the spring. With one spring taking all the load, you can expect it will fracture sooner than later. Murphy's law ensures this will happen at the most inopportune moment.

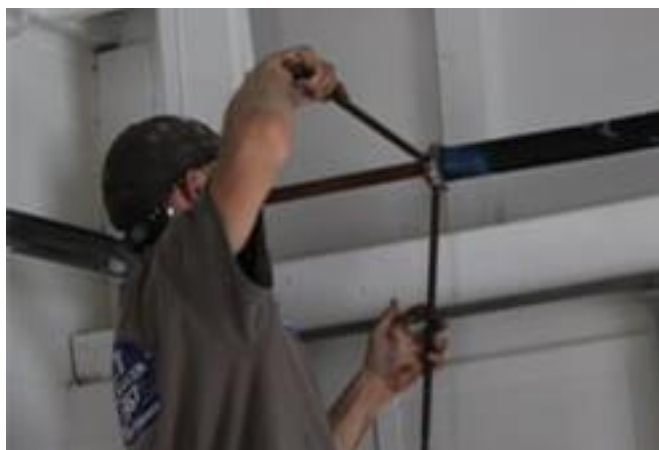


When this happens, the spring becomes totally useless and will provide no lift in opening the door. With two springs in the counterbalancing system, if one fractures you still have the 50% strength left in the second that can help lift the door.

A strong person can usually provide the lift along with the one spring to open the garage door. Furthermore, a motor operator with a $\frac{3}{4}$ HP motor may provide the extra power to open the garage door with only one good spring. Although $\frac{3}{4}$ HP sounds like a lot of power, it is insufficient to lift the two-car door alone. Even if it could there are components in the operator drive which would soon tire and fail prematurely, costing you more to repair than a spring replacement you will also run the risk of damaging the top section of your door when the $\frac{3}{4}$ HP operator tries to open a door which

is no longer counterbalanced. You see, the best way to avoid damage and expensive repairs down the road on your two-car garage door is with a proper two spring counter-balanced system.

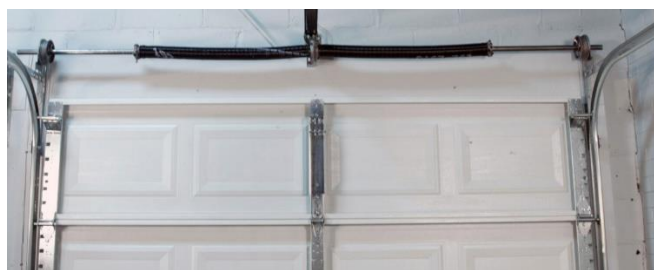
So, what can be done if you have only one spring on your two-car garage door? First you can call garage door companies and ask the cost to convert your one-spring system to a two-spring system. Shop around for quotes. Spring service charges are wide, meaning prices can go from cheap to expensive. The service company may need to pay you a visit to weigh and measure your door, so the correct springs can be determined. This is not the time to DIY.



Torsion springs when fully charged contain extremely high tension which can injure a person nearby if the energy is discharged expectantly. Most likely the one existing spring will be useless and will be discarded. You will get two new springs with their own life cycle typically with a 10,000-cycle life. You may choose to pay a little more and upgrade to a longer life spring such as 25,000-cycle springs. The average garage door opens and

closes 1500 times per year. You can do the math and you can see for yourself that two new high cycle springs can give you peace of mind for many years.

With two 25,000-cycle springs, you could be good for 16 years. Even so, you can never expect this length of life if you have only one spring on your 2-car door. To see 16 years of trouble-free operation you need to start with a two-spring system.



Check your double door today and look over the door at the torsion spring assembly. There should be a center bracket with a spring on each side of the center bracket. By recognizing the error, you can call a service company to correct the system and give yourself peace-of-mind, so your door won't trap you inside your garage one late Friday evening.

Roy Bardowell, CDDC, served as Operations Manager at Guardian Access & Door Hardware until 2014. He has been in the door and operator industry since 1973 and is known as one of the industry's most experienced operator technicians and trainers. Roy received the IDEA Commitment to Excellence award in 2008 and IDA's Jerry R. Reynolds Volunteer Service Award in 2017. Contact him at roythedoorman@gmail.com