Garage spring installation guide

In this article we will learn about broken spring replacement and garage door torsion spring installation.

Please be sure that while installation of torsion springs you have to take lots of safety measurements as it is dangerous while doing the same. If they are improperly installed or mishandled it becomes dangerous. Make sure you follow all safety steps and you have to understand that changing of torsion spring may leads to lots of injury with you. Lots of people have even died trying to change garage door springs. If you are not professional please leave the work to professional person.

Tool required are below:

Adjustable wrench, Wrenches, Socket wrench, Hammer, Clamps, Gloves, locking pliers, Rags, Safety glasses, Wood anchor pad, Winding bars etc.

Step 1: Ready for the task

It is very important that the torsion spring will be installed firmly and very securely attached with the frame of the garage.

It mainly consists of two springs one is red and another is black in color. It mainly specified the size of the spring, the left spring will be in red color and right side spring is black in color when you see the same from inside the garage.
first of all you need to unscrew the red bolts from the broken spring with a box wrench of size 3/8 to release the tension on not broke spring.

Step 2: Reduce the tension

Be prepared to apply a strong force if you reduce the tension using only the retractor bars, and be sure to stand to the side. Now loosen the bolts on the center bearing plate. Go to each side of the drum and use a 3/8 box wrench to unscrew the two bolts on each drum. Disconnect the cable from the slots in the drum and set the drum aside.

Then carefully move the tube (shaft) aside until it comes out of the end plate. Lubricate both sides of the end plate so it will slide out easily. Remove the drum and the old spring and do the same on the other side.

Step 3: Attaching the new spring

Start by sliding the torsion springs onto the spring tube (shaft). Make sure the red coiled cone is to the left of the center bearing plate and the torsion spring with the black coiled cone is on the right end.

Next, place the drums in place with the red drum on the left and the black drum on the right. Make sure the set screws on the drums are facing the springs.

Then center the spring on the center bearing plate and tighten the screws.

Step 4: thread the cable attached

Once this is done, thread the cable attached to each lower bracket between the wall and the reel track up to the cable drum. Place the cable in the notch on the cable drum. Rotate the cable drum and push it firmly against the end bearing plate so that the cable follows the grooves in the drum to remove the slack in the cable.

Step 5: Tighten the screw

Then tighten the set screws on the cable drum with a 3/8-inch box wrench. The set screws should be turned 3/4 to 1 full turn after they contact the pipe (shaft). Use a vise to lock the torsion spring tube (shaft) in place to maintain tension on the cable. Repeat this process on the opposite side. Draw a straight line across the length of each spring. If there is no line, draw one with a piece of chalk or a marker. This line will be used to indicate the number of turns of the springs as we increase the tension on them. We will now insert the two winding rods into the winding cone. Be sure to use solid metal winding rods designed for this task, and no other substitutes. Stand to the side of the rod so that you are not in the way of the rod should it come loose or fly out. Insert the rod into the hole as far as it will go and wrap the springs upward a quarter turn at a time. Remember that the end of the torsion spring coil points in the direction in which the spring is wound.

Step6: Start Winding

As soon as you start winding, the line you drew earlier will begin to wrap around the spring, creating a stripe effect, with each stripe representing one full turn of the spring. Simply count the stripes to determine the number of turns. For a 7 foot tall garage door, wrap the springs 7 and a 1/4 full turns, and for an 8 foot tall door, wrap the spring 8 and a ¼ times. Once you have reached the suggested number of coils, secure each spring to the coiling cone with the set screws. The set screws should be turned 3/4 to 1 full turn after contact with the tube (shaft). For doors with two torsion springs, each torsion spring should have the same number of turns.

Now you can unlock the door or remove the locking vise handle. Slowly raise the door about halfway and prop it open. Since this is the first time opening the new door, proceed slowly and carefully. With the door half open, make sure that the rollers do not protrude more than half an inch from the top rail. To further adjust the torsion spring tension, make sure the door is in the down position and lock it to the torsion tube (shaft) with a vise grip. Never adjust the center bearing plate or red coated fasteners after the springs have been wound up.

Step7: Apply strong force

If you need to relax a spring, be prepared to apply a strong force if you reduce the tension using only the winding rods and stand to the side. When you are finished, release the Vice-Grip from the tube. Slowly and carefully lift the door halfway up. The door should remain balanced. If you lift the door all the way and check the tension on the cable on both sides, the tension should be the same on both sides.

Step7: The final test

In some cases, the door may fall by itself from the half. In this case, you need to retighten the torsion springs by 1/4 turn.

If the springs are too strong, the door will not stay down or in the middle if you tighten the springs with the correct number of turns. Also, the garage door will be difficult to close. To fix the problem, you should never remove more than half a turn of spring tension.

If the springs are too weak, the door will feel heavy after you wind the spring the correct number of turns. Also, it will stay open halfway. However, it will stay open if you raise it all the way.

Congratulations! This completes the replacement of the torsion spring.