

How to



measure extension springs

NEVER WORK ON OR AROUND AN EXTENSION SPRING THAT IS UNDER TENSION. REMOVE EXTENSION SPRING FROM THE DOOR TO MEASURE.

CAUTION: Repairing a garage door is a dangerous task. Garage door springs are under extreme tension and require appropriate safety precautions. Realize and understand the risks before undertaking any repair. Your health and safety is the #1 concern. No amount of financial savings is worth jeopardizing your health. Failure to understand/follow the recommendations below could result in property damage, personal injury or death. While all efforts are made to provide accurate information and guidance, it is impossible to predict all repair circumstances. Accordingly, the user agrees that use of this website; products and information contained herein are at your own risk. In no event shall youdoit Door Repair be liable for any property damage, personal injury/death, or any other loss or damage that may result from your use of the information and products provided on this site. All information contained within this site is provided "as-is" without warranty expressed or implied. User assumes all responsibility/risk for use of information and products purchased.

Do not attempt any garage door related repair unless:

- 1) You utilize the proper tools and safety equipment. Safety glasses and gloves must be worn at all times. Work boots are recommended. Loose fitting clothing and jewelry should NOT be worn during any repair.
- 2) You must possess a reasonable amount of mechanical aptitude and experience.
- 3) You are physically able to complete the task (climbing ladders, using wrenches and installing springs require a reasonable amount of physical strength, agility and ability).
- 4) You are able to completely read, precisely follow/understand the instructions.

If you have any doubts about your ability to perform the work safely, we recommend you contact a door professional to complete your repair.



Measurements needed:

- 1 - Length
- 2 - Inside Diameter
- 3 - Wire Diameter
- 4 - Type of end

OR

- 5 - Door Height + Width
- 6 - Door Weight + Type of End

Measure total coils only DO NOT include spring ends in length measurement.

Accurate measurement of your spring or springs is extremely important. Exact measurements are critical. If you are unable to accurately measure your extension spring, supply door width and height and weigh the door. Extension springs should always be replaced in pairs.



Length

Measure the entire length of the spring. This measurement is to include ALL COILS of the spring, but not spring ends or clips. If your spring is broken, measure both pieces of the spring in their entirety. If the spring is deformed to the point that an accurate length cannot be determined, count the total number of coils of the spring. Multiply wire diameter by total coils and this is the length.



TOOLS NEEDED:

- Ladder
- Tape Measure
- Caliper
- Micrometer
- DIY Gauge?
- Gloves
- Safety Glasses



1



2

Inside Diameter (ID)

Measured from the end of the spring, this is the measurement between the coil. This measurement can be taken with a tape measure or a caliper.

Inside Diameter (Tape Measure)



3

Inside Diameter (Caliper)



4

Wire diameter.

This is the measurement of the thickness of one coil of the spring. There are several ways to measure wire diameter.

Caliper, micrometer, tape measure and wire gauge.

Caliper or micrometer. Place the caliper on one coil of the spring. This measurement, expressed in a decimal, is the wire diameter.

Wire Diameter (Micrometer)



5

Wire Diameter

Count 10 coils, convert to decimal using our spring wire chart.



6

Wire Diameter

Count 20 coils, convert to decimal using our spring wire chart.



7

Wire Diameter (Caliper)



8

Wire Diameter (Spring Gauge)

A spring gauge is available for purchase and can be used to accurately measure wire size.



9



10

Type of Spring End



Double Closed



Single Open Loop



Clip



If accurate measurement of your extension spring is not possible, you will need to provide us with door weight, door height and width.

Measure Door Height & Width

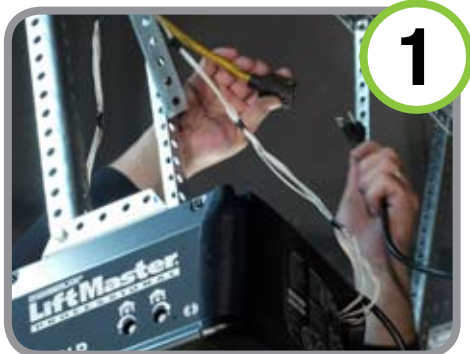


Weigh Door

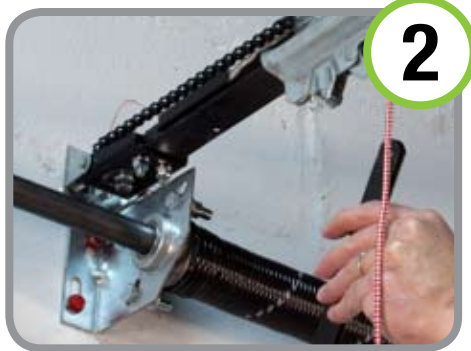


To weigh door:
You must remove both extension springs and lower garage door onto scale.

Read the following directions in their entirety before proceeding!



Unplug garage door opener



Disconnect garage door opener from garage door

Open door completely.



Unhook door cable from it's attachment point at door track near jamb/header



Thread cable through clevis pulley



Place clamps, or locking pliers on the track, under BOTH bottom rollers.

Removal of Existing Extension Spring



Remove safety cable



Remove spring from it's rear attachment point.

Remove cables and spring from the other side of the garage door

Remove clamps and lower door onto scale

YOU WILL HAVE THE ENTIRE WEIGHT OF THE DOOR AND IT'S HARDWARE IN YOUR HANDS.

BE PREPARED FOR WEIGHT TO INCREASE AS DOOR IS LOWERED.



BE CAREFUL TO AVOID PINCH POINTS BETWEEN GARAGE DOOR SECTIONS.

USE TWO PEOPLE TO LOWER DOOR ONTO SCALE

USE COME ALONGS TO LOWER TWO CAR DOORS ONTO SCALES

2 CAR WOODEN GARAGE DOORS CAN WEIGH OVER 500 POUNDS!!!

Use one scale for a single car garage door, and two scales for a two car garage door.

If you use two scales, add the weight of both scales for total door weight.

Place scales 18" - 24" in from door jamb on each side of garage door opening.

Take care to ensure that the entire weight of the garage door is on the scale (s).

Check to be sure that garage door is not bound or hung up in any way.

Accurate weight is critical

Order springs as follows:

Door weight = 100 lbs.

**You will need 2 - 100 lb. springs
1 on each side.**

Door weight = 150 lbs.

**You will need 2 - 150 lb. springs
1 on each side**

If your door has more than one spring on each side, divide door weight by number of springs (on one side) and order accordingly.

Example:

Door weight = 200 lbs.

there are four extension springs total,
2 springs on each side.

200 divided by 2 = 100

You will need 2 - 100 pound extension springs each side of the door.

LENGTH _____

INSIDE DIA. _____

WIRE DIA. _____

Type of Ends _____

OR

Door Height _____

Door Width _____

Door Weight _____

SPRING I.D. CHART

	BARCOL	CRAWFORD	McKEE	OVERHEAD	RAYNOR	ROWE	WAGNER	MOST OTHERS	Fittings Available
1-19/32"	●								No
1-3/4"		●	●			●		●	Yes ✓
1-13/16"	●				●				No
2"		●	●					●	Yes ✓
2-1/4"					●	●			Yes ✓
2-7/16"				●					No
2-1/2"								●	No
2-5/8"	●	●						●	Yes ✓
2-3/4"					●	●			No
2-25/32"	●								No
3"				●					No
3-3/8"				●					Yes ✓
3-1/2"					●				Yes ✓
3-3/4"								●	Yes ✓
3-25/32"	●								No
4"								●	No
4-3/8"				●					No
4-1/2"	●	●							No
4-7/8"						●			No
5-1/4"								●	Yes ✓
5-1/2"				●					Yes ✓
5-3/4"	●								Yes ✓
5-7/8"				●					Yes ✓
6"		●	●					●	Yes ✓
7-5/8"				●					Yes ✓

Wire Size	10 Coil Count	20 Coil Count	30 Coil Count	40 Coil Count
0.125	1-1/4	2-1/2	3-3/4	5
0.135	1-3/8	2-3/4	4	5-1/2
0.142	1-7/16	2-7/8	4-1/4	5-3/4
0.1483	1-1/2	3	4-1/2	6
0.1562	1-9/16	3-1/8	4-3/4	6-1/4
0.162	1-5/8	3-1/4	4-3/4	6-1/2
0.170	1-11/16	3-3/8	5	6-3/4
0.177	1-3/4	3-1/2	5-1/4	7
0.1875	1-7/8	3-3/4	5-5/8	7-1/2
0.192	1-15/16	3-7/8	5-3/4	7-3/4
0.207	2-1/16	4-1/8	6-1/4	8-1/4
0.2187	2-3/16	4-3/8	6-1/2	8-3/4
0.2253	2-1/4	4-1/2	6-3/4	9
0.2343	2-5/16	4-5/8	7	9-1/4
0.2437	2-7/16	4-7/8	7-1/4	9-3/4
0.25	2-1/2	5	7-1/2	10
0.2625	2-5/8	5-1/4	8	10-1/2
0.273	2-3/4	5-1/2	8-1/4	11
0.283	2-13/16	5-5/8	8-1/2	11-1/4
0.289	2-7/8	5-3/4	8-3/4	11-1/2
0.295	2-15/16	5-7/8	8-3/4	11-3/4
0.3065	3-1/16	6-1/8	9-1/4	12-1/4
0.3125	3-1/8	6-1/4	9-15/16	12-1/2
0.3195	3-3/16	6-3/8	9-1/2	12-3/4
0.331	3-5/16	6-5/8	10	13-1/4



