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> G.A.S Hardware Garage Door Torsion Spring 225x2x25 Instruction Manual

## G.A.S Hardware 225-2-25

# G.A.S Hardware Garage Door Torsion Spring

MODEL: 225x2x25 - INSTRUCTION MANUAL

## 1. Introduction and Safety Information

This manual provides essential instructions for the safe handling, installation, and maintenance of your G.A.S Hardware 225x2x25 garage door torsion spring. Please read all instructions carefully before proceeding with any steps. Garage door springs are under extreme tension and can cause serious injury or death if not handled properly. **Professional installation is highly recommended.** If you are not experienced with garage door spring replacement, consult a qualified technician.

### Safety Precautions:

- Always wear appropriate personal protective equipment, including safety glasses and heavy-duty gloves.
- Ensure the garage door is fully open and secured before beginning any work.
- Never attempt to remove or adjust a torsion spring without proper winding bars.
- Keep children and pets away from the work area.
- Do not stand directly in front of the spring when winding or unwinding.

## 2. Package Contents

Verify that all components are present in your package:

- 1 x G.A.S Hardware Garage Door Torsion Spring (225x2x25, Black Cone for Right Side)
- 1 x 1" Steel Bearing
- 2 x Winding Bars
- 1 x Pair of Non-Slip Gloves
- 1 x Installation Manual (this document)



Image 2.1: Contents of the G.A.S Hardware Torsion Spring Kit.

### 3. Important Pre-Installation Considerations

Before replacing your garage door torsion spring, it is crucial to ensure you have the correct replacement spring. Incorrect spring selection can lead to improper door balance, damage to the opener, or safety hazards.

#### 3.1. Identifying Spring Side (Right vs. Left)

Torsion springs are designated as either 'Right Wind' or 'Left Wind' based on their coil direction and cone color. This product is a 'Right Side' spring, indicated by a Black Cone. When facing the garage door from the inside of the garage:

- **Right Side Spring (Black Cone):** Coiled counter-clockwise. Installed on the right side of the center bearing plate.
- **Left Side Spring (Red Cone):** Coiled clockwise. Installed on the left side of the center bearing plate.



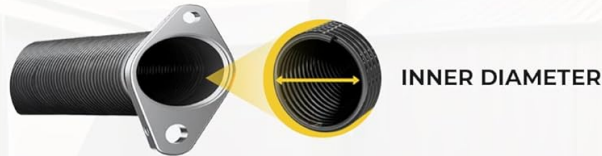
# HOW TO MEASURE THE RIGHT SPRINGS

USE ON DOORS THAT ARE 7 OR 8 FEET HIGH



## 1. MEASURE TORSION SPRING INSIDE DIAMETER

Check the stationary (bottom) cones on each end of the spring

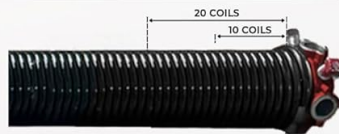


## 2. MEASURE TORSION SPRING LENGTH



## 3. MEASURE WIRE SIZE

Measure 20 coils and divide that measurement by 20 according to the given wire size



10-COIL MEASUREMENT	20-COIL MEASUREMENT	WIRE GAUGE	COLOR CODE
1-15/16"	3-7/8"	0.192	ORANGE
2-1/16"	4-1/8"	0.207	YELLOW
2-3/16"	4-3/8"	0.219	WHITE
2-1/4"	4-1/2"	0.225	RED
2-5/16"	4-5/8"	0.234	BROWN
2-7/16"	4-7/8"	0.243	GREEN
2-1/2"	5"	0.250	GOLD
2-5/8"	5-1/4"	0.262	BLUE
2-3/4"	5-1/2"	0.273	ORANGE
2-12/16"	5-5/8"	0.283	LIGHT BLUE
2-15/16"	5-7/8"	0.295	WHITE

Image 3.2: Guide on how to measure torsion springs.

Ensure these measurements match your existing spring for proper function and safety.

## 4. Setup and Installation

**WARNING:** Garage door spring replacement is a dangerous task. If you are not confident in your ability to safely perform this procedure, please contact a professional garage door technician. Improper installation can result in severe injury or property damage.

This section provides a general overview. Always refer to detailed safety videos and guides before attempting installation.

- 1. Prepare the Work Area:** Close the garage door completely. Unplug the garage door opener. Secure the door in the closed position with C-clamps or vice grips on the vertical tracks just above the rollers.
- 2. Release Old Spring Tension:** Carefully insert a winding bar into the bottom winding cone hole of the old spring. Hold it firmly. Loosen the set screws on the winding cone. Slowly and carefully unwind the spring, one quarter turn at a time, using both winding bars. Alternate bars, keeping one firmly in place while repositioning the other.
- 3. Remove Old Spring:** Once all tension is released, remove the winding cone from the shaft. Loosen the set screws on the stationary cone (center bearing plate) and slide the old spring off the torsion shaft. Remove the old center bearing and end bearing if replacing.

4. **Install New Spring:** Slide the new G.A.S Hardware torsion spring onto the torsion shaft. Ensure the black cone (winding cone) is facing the correct direction (towards the end plate for a right-side spring). Install the new 1" steel bearing. Secure the stationary cone to the center bearing plate.
5. **Wind the New Spring:** This is the most critical and dangerous step. Consult your garage door manufacturer's specifications for the correct number of turns for your door height. Insert a winding bar into the bottom hole of the winding cone. Wind the spring upwards (counter-clockwise for a right-side spring), one quarter turn at a time. After each quarter turn, insert the second winding bar into the next available hole to hold the tension, then remove the first bar and repeat. Ensure the set screws on the winding cone are tightened securely after winding.
6. **Test and Adjust:** Carefully remove the clamps and plug in the opener. Test the door's balance. If the door is too heavy (falls quickly) or too light (flies up), adjust the spring tension by adding or removing quarter turns as needed.

## 5. Operation

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The torsion spring system is designed to counterbalance the weight of your garage door, making it easy to open and close manually or with an automatic opener. When the door closes, the springs wind up, storing energy. When the door opens, the springs unwind, releasing energy to assist in lifting the door. Your G.A.S Hardware torsion spring features a precision E-coating for smooth and quiet operation, contributing to an effortless lifting and lowering experience.



Image 5.1: Benefits of a properly functioning torsion spring system.

## 6. Maintenance

Your G.A.S Hardware torsion spring is designed for minimal maintenance due to its advanced features:

- **Precision E-Coating:** The electrophoretic coating provides excellent corrosion and abrasion resistance, eliminating the need for lubrication. This keeps your hands clean during installation and inspection.
- **Regular Visual Inspection:** Periodically inspect the spring for any visible signs of wear, rust, or damage. Check for loose winding cone set screws. If any issues are observed, contact a professional.
- **Door Balance Check:** Annually, disconnect your garage door opener and manually lift the door halfway. It should stay in place without assistance. If it falls or rises, the spring tension may need adjustment by a qualified technician.

UNVEILING THE TECHNOLOGY

# ELECTROPHORETIC COATING



## Electroplated Strength

Advanced coating makes the spring virtually rust-proof for lasting performance.



## Tough Shield

The coating acts as a tough shield, repelling scratches and wear to ensure smooth, long-lasting spring



## Lubrication-Free

This coating eliminates lubrication needs, keeping your hands clean while ensuring smooth spring performance.



Image 6.1: Advantages of Electrophoretic Coating.

OIL TEMPERED BLACKENED COATING	PRECISION E-COATING
	
<b>THEIRS</b>	<b>OURS</b>
<p><b>10,000</b> CYCLE MINIMUM RANGE</p> <p>SALT SPRAY TESTS UP TO <b>70 HOURS</b></p> <p>SURFACE COATED WITH OIL</p> <p>REQUIRES LUBRICATION</p> <p><b>NO PROTECTION</b></p> <p><b>MADE IN CHINA</b></p>	<p><b>30,000</b> CYCLE MINIMUM RANGE</p> <p>SALT SPRAY TESTS UP TO <b>400 HOURS</b></p> <p>HANDS STAY CLEAN</p> <p>NO LUBRICATION REQUIRED</p> <p><b>5 YEARS PROTECTION</b></p> <p><b>MADE IN AMERICA</b></p>

Image 6.2: Comparison of coating technologies.

## 7. Troubleshooting Common Issues

If your garage door is not operating correctly after spring replacement, consider the following:

- **Door is Heavy or Falls Quickly:** The spring may be under-wound. This requires adding more turns to the spring. **Do not attempt if inexperienced.**
- **Door Flies Up or Does Not Stay Down:** The spring may be over-wound. This requires removing turns from the spring. **Do not attempt if inexperienced.**
- **Unusual Noises:** Check for any obstructions in the tracks or around the spring. Ensure all fasteners are tight. The E-coating on your G.A.S Hardware spring is designed to minimize noise.
- **Door Jerks or Sticks:** Inspect rollers, tracks, and cables for damage or misalignment. Ensure the torsion shaft is properly aligned and the bearings are functioning smoothly.

For any persistent issues or if you suspect a broken component, contact a professional garage door service technician.

## 8. Product Specifications

<b>Manufacturer</b>	G.A.S Hardware
<b>Part Number</b>	225-2-25
<b>Item Model Number</b>	225-2-25
<b>Size</b>	225x2x25
<b>Color</b>	Black Cone (Right Side)
<b>Material</b>	Carbon Steel
<b>Finish</b>	Electrophoresis Black Coating
<b>Product Dimensions</b>	25 x 2 x 2 inches
<b>Item Weight</b>	12.67 pounds
<b>Minimum Cycles</b>	30,000 Cycles
<b>Salt Spray Test</b>	Up to 400 Hours
<b>Included Components</b>	Torsion Spring, Installation Manual, Gloves, Winding Bars, Steel Bearing

## 9. Warranty Information

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G.A.S Hardware provides a **5-Year Warranty** on this garage door torsion spring, guaranteeing a minimum of 30,000 cycles under normal operating conditions. This warranty covers defects in materials and workmanship. For warranty claims or further details, please contact G.A.S Hardware customer support.

## 10. Customer Support

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For technical assistance, questions regarding installation, or warranty inquiries, please contact G.A.S Hardware customer support. Refer to the product packaging or the G.A.S Hardware store page on Amazon for current contact information.

**Online Resources:** For additional visual guidance, search for 'garage door torsion spring replacement' videos from reputable sources. Always prioritize safety and follow all instructions carefully.