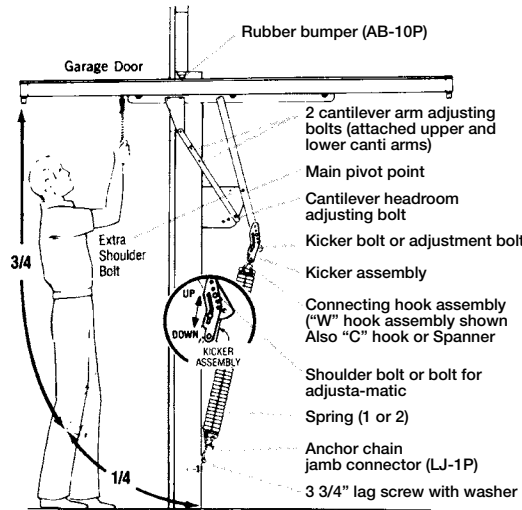


Replacing or Adjusting One-Piece Garage Door Hardware

1. Nomenclature for Jamb Type One-Piece Garage Door Hardware



With Holmes Adjusta-Matic Hardware, You Can Adjust Your Door Without Removing the Springs!

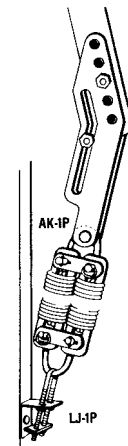
- Holmes makes it EASY to stretch the springs the proper one to two inches and adjust the hardware without ever removing the springs.

- You can replace the Kicker Assembly (AK-1P) and Lower Jamb Connector (LJ-1P) or replace the entire hardware assembly with our One-Piece Hardware Kit (E900)*.

-These parts are engineered and tested for convenience and reliability and fit any Holmes hardware set.

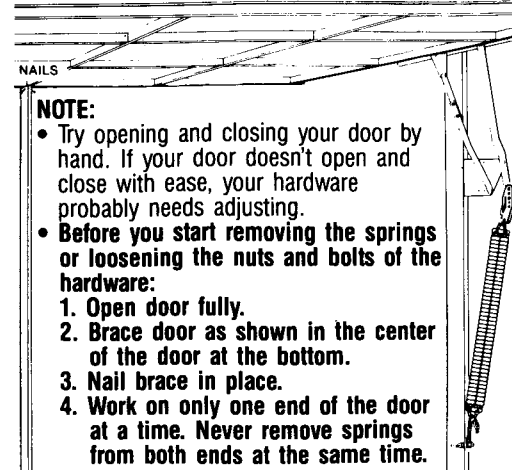
*Recommended if current hardware is worn or dated.

Adjusta-Matic works with "C" hooks for single spring or "W" hooks for double spring applications. Also works with single or double Safety Lock spring configurations.



2. Hardware Adjustment or Replacement Preparation

Do not use for any applications other than one-piece garage doors.



NOTE:

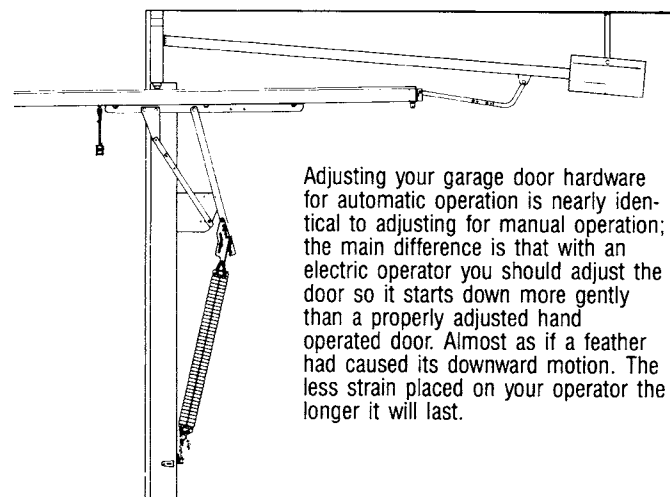
- Try opening and closing your door by hand. If your door doesn't open and close with ease, your hardware probably needs adjusting.
- Before you start removing the springs or loosening the nuts and bolts of the hardware:
 1. Open door fully.
 2. Brace door as shown in the center of the door at the bottom.
 3. Nail brace in place.
 4. Work on only one end of the door at a time. Never remove springs from both ends at the same time.

Note: For safe adjustment, factory instructions must always be followed.

PROBLEM	REMEDY
IF YOUR DOOR	DO THIS Prop door as explained, then...
1 Is hard to pull down or goes up too fast in its upper 3/4 of travel.	1A Regular Kicker: Move entire Kicker Assembly "Up" one adjustment hole at a time. Move lower hook "Up" one link on the chain each time kicker is moved "Up" to maintain same spring tension. 1B Adjusta-matic Kicker: Remove extra shoulder bolt from master plate and insert in the first empty hole above the bolt already in kicker. Remove original shoulder bolt before operating door.
2 Comes down too easily or is hard to lift up in its upper 3/4 of travel.	2A Regular Kicker: Move entire Kicker Assembly "Down" one adjustment hole at a time. Move lower hook "Down" one link on the chain each time kicker is moved "Down" to maintain same spring tension. 2B Adjusta-matic Kicker: Remove extra shoulder bolt from master plate and insert in the first empty hole below the bolt already in kicker. Remove original shoulder bolt before operating door.
3 Is difficult to close or opens too fast in its lower 1/4 of travel. (Or if your door won't stay entirely closed.)	3 Move bolt "Down" the slot of Kicker Assembly.
4 Closes too rapidly or is hard to open in its lower 1/4 of travel.	4 Move bolt "Up" the slot of Kicker Assembly.

After you have solved your adjustment problem, check and tighten all bolts and nuts. DO THIS BEFORE REMOVING THE PROP. Stand clear of door when prop is being removed.

6. It's Easy to Adjust Your Hardware for Electric Operators



Adjusting your garage door hardware for automatic operation is nearly identical to adjusting for manual operation; the main difference is that with an electric operator you should adjust the door so it starts down more gently than a properly adjusted hand operated door. Almost as if a feather had caused its downward motion. The less strain placed on your operator the longer it will last.

Replacing Broken or Worn Out Springs

Important:

Before selecting your spring, you must know the weight of your door.

One-Piece Garage Door Spring Selection

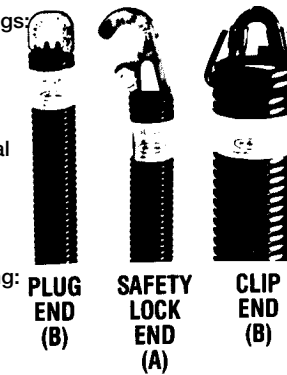
Springs for your garage door hardware are sold separately. Refer to the chart below to determine the appropriate springs for your garage door.

Door Weight	Quantity Needed	Spring Type
up to 75	2	P928
90 to 150	2	P728 or SL728
105 to 175	2	P528
125 to 250	2	P328
150 to 300	4	P728 or SL728
200 to 350	4	P528

3. Replacement Spring Selection

You have three choices when replacing springs:

1. Identify the spring number on your existing springs (e.g., P728, SL528, etc.).
2. Weigh the door and refer to the Spring Selection chart to the right.
3. If 1 or 2 are not feasible, hire a professional installer.



Holmes Springs are marked with the following: Holmes logo, Spring Number (e.g., P728), Patent Number, Maximum Stretch and Manufacture Date.

4. Spring Installation Instructions for Safety Lock, Plug End and Clip End Springs.

Important: With the door open and braced, remove springs from one side only (throw springs away). NEVER remove springs from both sides of the door at the same time.

Single Safety Lock Installation
Install spring hook into chain. Stretch spring up and hook over lower bushing on kicker as shown. If hooks are not in line twist spring in the direction it turns easiest. Attach Spanner Plate with bolt and nut on each end. (see drawing)

Note: Your door may utilize a Lower Jamb Connector (LJ-1P) versus a chain mount. Install hooks accordingly.

WARNING:
Do not close door until nuts & bolts are tightened!

Double Safety Lock Installation
Install two springs by their hooks into chain. Stretch springs up and hook over lower bushing on kicker as shown. If required, twist springs in the direction they turn the easiest, to line up hooks. Insert 1/4" x 5/8" bolt and nut for safety lock as shown.

DISCARD SPANNER PLATES FOR THIS INSTALLATION

Single Plug End or Clip End Installation
Install hook into chain. Install other hook over the lower bushing in kicker as shown. Attach spring to lower hook. Apply the plate and keeper according to sketch & instructions, then stretch to connect to upper hook. Apply plate and keeper.

Double Plug End or Clip End Installation
Install "W" hook into chain. Install other "W" hook over lower bushing in kicker, as shown. Attach two springs to lower "W" hook and add plate and keeper as shown. Stretch springs to connect to upper "W" hook. Add plate and keeper.

EXCEPTION: No. 1 & No. 3 Springs

WARNING: Do not close door until keeper rings are in place!

PAT. NO. 4,057,235
NOTE: If a spring produces excessive noise when door closes, (a) brace door open (see step 2) (b) unhook spring at kicker and (c) twist the end of the springs 180 degrees IN THE DIRECTION IT TURNS MOST EASILY.

Springs should not have more than 2" stretch at any time when door is in an open position.

5. Properly Adjusted Hardware Will Make Your Operator Last Longer!

The easier your door opens and closes (and you can test it by hand) - the longer your operator will last.

Your door should not race to its full open position or fall freely to its closed position.

Your door should start down with minimal resistance with an electric operator. Your door hardware can be adjusted to achieve this.

THE WARRANTY FOR YOUR OPERATOR IS A SLIP OF PAPER. PROPERLY WORKING SPRINGS AND HARDWARE, HOWEVER, IS ITS BEST PROTECTION.

- Worn hardware will decrease the life of your operator and may cause costly repairs.
- Worn springs, too, may cause your operator to overwork.

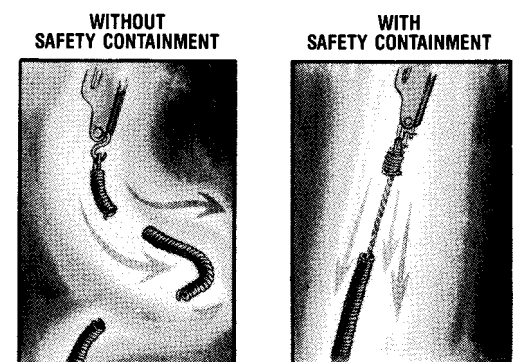
Make Sure Your Springs Meet Safety Regulations

It's The Law!

"Every (residential extension) garage door spring sold...or installed...shall be equipped with an approved device capable of restraining the spring or any part thereof in the event it breaks." Excepts from revised California Administrative Code, Title 24, Part 2.

- All Holmes springs sold today in California satisfy the current state safety code - yours may not.
- The complete line of Holmes garage door springs has containment and complies with the current code.
- Holmes safety containment will prevent springs or parts for hardware from flying loose and damaging your operator or your automobile.
- Holmes safety containment will prevent springs from whipping free and causing possible injury to you or your family.
- If you have old style (uncontained) springs, they should be replaced.
- If one spring breaks replace them all, the others can't be far behind.

We highly recommend that you replace your old (uncontained) springs with new Holmes springs.



Answers to Common Garage Door Hardware Questions

Q What do the numbers on the spring mean?

A The numbers on the spring label identify the spring with a Holmes part number. The letters P, SL or C before the numbers signify the type of spring end, either Plug, Safety Lock or Clip. The first number indicates the wire size and the next two numbers the length of spring. The letter "C" at the end of the number tells you the spring is equipped with safety connectors. For example, a P728C spring has plug ends, is made from #7 wire, is 28" long and has safety connectors. Remember when measuring a spring, measure from end of coil to end of coil, do not include the ends. Measure the springs only when they have been removed from the hardware set. The following identification marks are stamped on the top of the spring (except clipped end springs): part number (such as P728), patent number, maximum stretch, the date of manufacture (for example 06-2006) and the Holmes logo.

Q Which spring should I use for my garage door?

A If your door is working properly, just replace your broken spring with the same type of spring. There is a measuring decal on the side of the Holmes spring racks to help you determine the correct spring. If there is no number on the plug or clip end of the spring, then determining the correct spring to purchase is obtained by calculating the spring's outside diameter and the spring's wire size. The wire size can be determined simply by measuring ten spring coils and then dividing this measurement by ten. Remember the best way to locate the proper spring is find a comparable one on the spring rack.

Q My springs break too often. Are there springs available that last longer?

A If the springs are breaking too frequently you can buy springs made of heavier wire. For example, if you are currently using four P728 springs, you could upgrade your purchase to four P528 springs.

Q Why do I have to buy connectors when I replace a spring?

A For your safety the California Administration Code requires that every spring be manufactured with a containment wire and sold with safety connectors.

Q Is there a tool available to stretch springs?

A The lower Jamb Connector (LJ-1P) lets you stretch the springs with a wrench. The Jamb Connector along with the Adjusta-Matic Kicker (AK-1P), allows you to adjust the leverage and tension of the hardware set without having to remove the springs.

Q What is the best way to lock the garage door?

A Holmes manufactures a complete line of slide bolts that will help protect valuables in your garage or mini-warehouse. You can add to your security with a Holmes Heavy Duty Security Slide Bolt (SSL-1P) that prevents the shackle of a padlock from being cut, while at the same time allows a second padlock to be added.

Q How can I seal out dust, drafts, rain and snow from the gaps at the sides and bottom of a one-piece garage door?

A Holmes Weatherstripping (WS-4P) provides 2 1/2" of protection for both the sides and bottom of the door, (two packages are required for sides and bottom).

Q How can I straighten my sagging door?

A Use Holmes Truss Rod Kit (TRK-14-6P)

Q When should you replace your garage door or its hardware?

A Once the door deteriorates to the point that it is unsafe or detracts from the appearance of your home, it's a good time to invest in a new door. Don't overlook the condition of the door jamb - if it's rotting it should be replaced. There are common signs of hardware deterioration that you can detect.

- Every time the door is opened or closed, listen for sounds of wearing metal or door rubbing the frame. Also look at the cantilever arms (see step 1) to make sure they aren't bent.
- Are the main bearings or any of the other pivot points worn? They should be oiled monthly (see Lubricate illustration on back cover).
- Do you have contained springs and safety connectors? Remember if one spring breaks, replace them all. It probably won't be long until the others wear and break.

Q How can I adjust the door to hang perpendicular?

A

1. Loosen cantilever arm adjusting bolts (see step 1).
2. Place a wood shim (3/8" thick) under the door about 12" from each side jamb.
3. Slide the door into place with the bottom of the door resting on the shims and the top of the door against the header. Position door so it is perfectly vertical and centered, horizontal in the opening. The gap between door and jamb should be equal (about 3/8" on each side).
4. TIGHTEN NUTS ON THE BOLTS.

Q What should be done if I cannot pre-stretch the springs enough while installing them?

A The safety containment wire inside the spring may be tangled that prevents the spring from stretching. To untangle, twist the spring 1/2 of a turn when the spring is off the hardware...or you might consider purchasing a set of Holmes adjustable jamb connectors (LJ-1P) that allows you to pre-stretch the springs easily with a wrench.

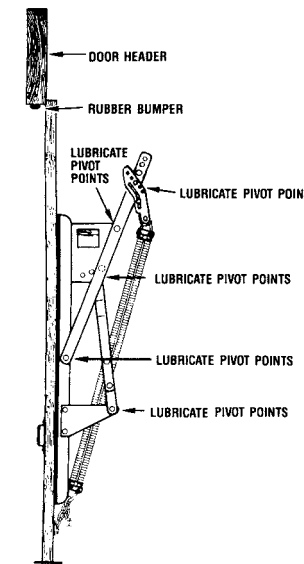
Q If the garage door is difficult to open by hand, should I install a new electric garage door operator?

A Not until you adjust the garage door hardware (hinges) and springs. The garage door operator only replaces your hand... the easier it is for the operator to open and close the door, the longer the operator will last.

Q What should I do if after reading the instruction sheet I'm still having problems installing or adjusting the hardware set?

A First relax and then think and reason the problem out. If you still have questions, no matter how unimportant they may seem, call a qualified garage door professional.

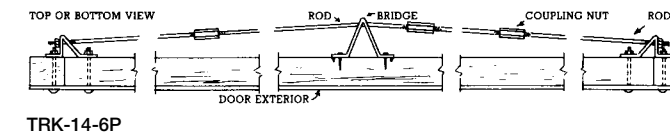
For Best Performance, Lubricate Your Garage Door Hardware Monthly



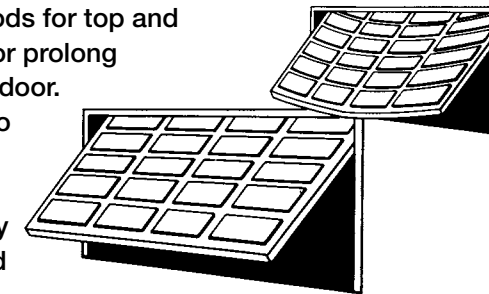
Lubricate Monthly

Take the Sag Out of Your Wood One-Piece Garage Door with a

Holmes TRUSS ROD KIT



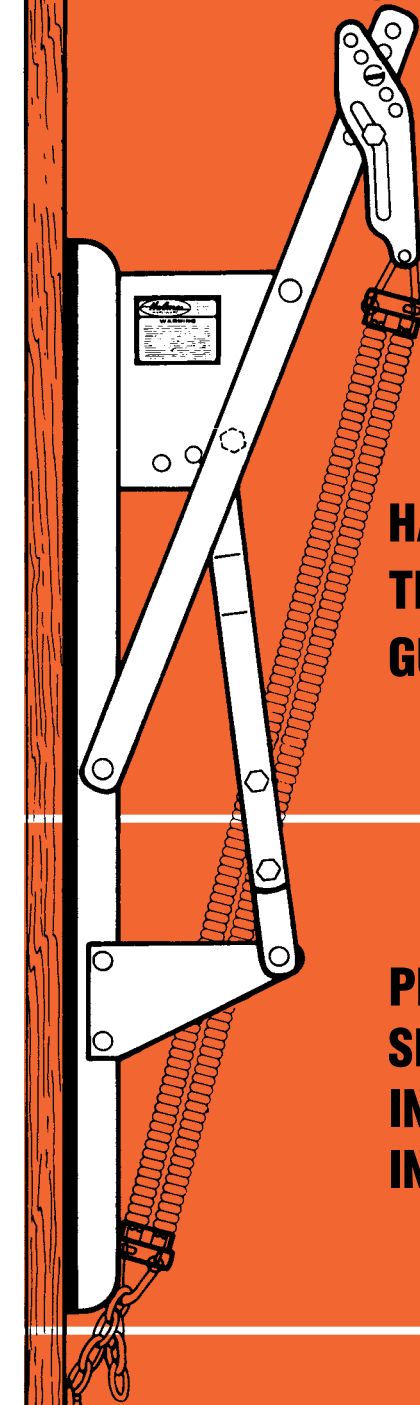
- Heavy steel rods for top and bottom of door prolong life of garage door.
- Fits door up to 20' wide.
- Easy to install - all necessary parts included



Holmes Operated by Clopay Building Products
Santa Fe Springs, CA
1-800-475-1937



One-Piece Garage Door



HARDWARE TROUBLE-SHOOTING GUIDE

PLUS SPRING INSTALLATION INSTRUCTIONS

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