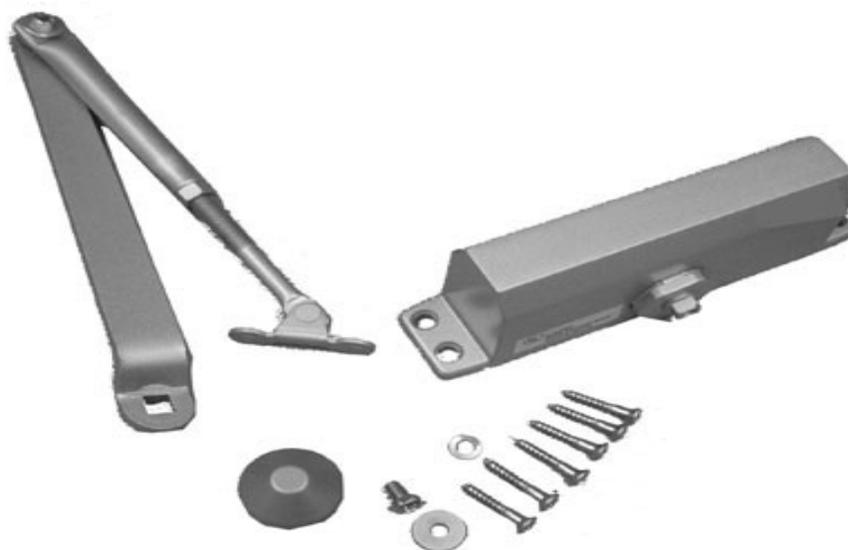


HYDRAULIC DOOR CLOSER

Model 90402

ASSEMBLY AND OPERATING INSTRUCTIONS



3491 Mission Oaks Blvd., Camarillo, CA 93011
Visit our Web site at <http://www.harborfreight.com>

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For technical questions and replacement parts, please call 1-800-444-3353

Specifications

Overall Dimensions	7-1/2" L x 2-3/4" H x 2-5/8" W
Arm Dimensions	9-3/4" L, Closed
Mounting Holes	6-7/8" Width Apart (Centers), 15/16" H (Centers)
Maximum Capacity	132 Lbs. (For small & medium doors)
Door Closer Weight	3.4 Lbs.

Save This Manual

You will need the manual for the safety warnings and precautions, assembly instructions, operating and maintenance procedures, parts list and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep the manual and invoice in a safe and dry place for future reference.

Safety Warnings and Precautions

WARNING: When using product, basic safety precautions should always be followed to reduce the risk of personal injury and damage to equipment.

Read all instructions before using this product!

1. **Keep work area clean.** Cluttered areas invite injuries.
2. **Observe work area conditions.** Don't expose to rain. Keep work area well lighted.
3. **Keep children away.** Children must never be allowed in the work area. Do not let them handle the Door Closer.
4. **Store idle equipment.** When not in use, products must be stored in a dry location to inhibit rust. Always lock up products and keep out of reach of children.
5. **Use the right product for the job.** Do not attempt to force a small product to do the work of a larger industrial product. There are certain applications for which this product was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this product and do not use this product for a purpose for which it was not intended.
6. **Dress properly.** Do not wear loose clothing or jewelry as they can be caught in moving parts. Protective, electrically non-conductive clothes and non-skid footwear are recommended when working. Wear restrictive hair covering to contain long hair.
7. **Use eye and ear protection.** Always wear ANSI approved impact safety goggles during assembly.
8. **Do not overreach.** Keep proper footing and balance at all times.

9. **Maintain products with care.** Keep products clean for better and safer performance.
10. **Stay alert.** Watch what you are doing, use common sense. Do not assemble the Door Closer when you are tired.
11. **Check for damaged parts.** Before using any product, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts; any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician.
12. **Replacement parts and accessories.** When servicing, use only identical replacement parts. Use of any other parts will void the warranty.
13. **Do not assemble the Door Closer if under the influence of alcohol or drugs.** Read warning labels if taking prescription medicine to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not assemble the product.
14. **Maintenance.** For your safety, service and maintenance should be performed regularly by a qualified technician.

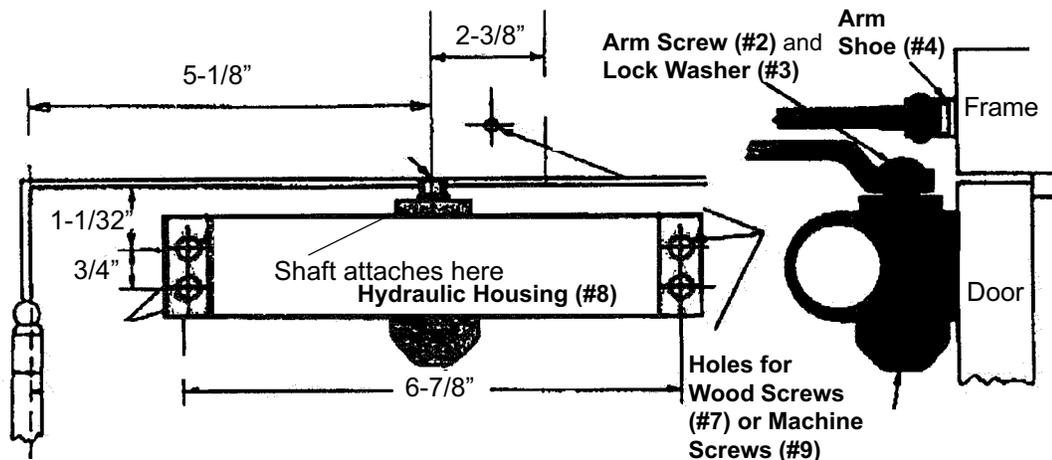
Warning: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Unpacking

When unpacking, check to make sure the parts listed on page 5 are included. If any parts are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual as soon as possible.

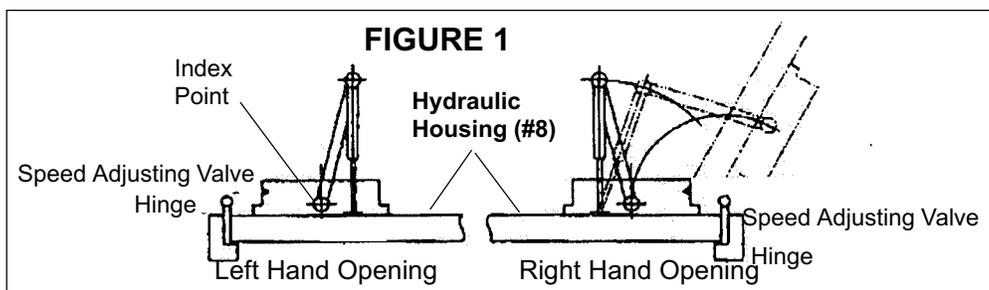
Operation and Assembly

This Closer is designed to be mounted on the door, on the pull side. Use the template below for regular arm installations for doors opening to 180°.



Refer to the Assembly Drawing on page 5. **Note:** Diagram above is showing right hand opening; left hand opening would layout in opposite direction.

1. After selecting the degree of opening, mark four holes on the door for the **Hydraulic Housing (#8)** and two holes on the frame for the **Arm Shoe (#4)**. Use the template above.
2. Drill pilot holes in the frame and door for the **Wood Screws (#7)**, or drill and tap holes for the **Machine Screws (#9)**.



3. Making sure the Speed Regulating Screw is toward the hinge edge of the door, mount the **Hydraulic Housing (#8)** on the door. See **FIGURE 2**.
4. Using the **Arm Screw (#2)** and the **Lock Washer (#3)**, attach and tighten the arm of the **Shaft (#5)** to the top of the **Hydraulic Housing (#8)**. Make sure you secure it at the proper index point dependent upon whether it is a right or left hand opening door. See **FIGURE 1**.
5. Using two **Wood Screws (#7)**, attach the **Arm Shoe (#4)** to the Door Frame. See Template above.
6. Loosen the **Arm Screw (#2)** and the **Lock Washer (#3)** to adjust the length of the arm so that when the door is closed the main arm will remain at a right angle (90°). Tighten the **Arm Screw (#2)** and the **Lock Washer (#3)**.
7. Secure the **Cover Cap (#1)** on the bottom of the **Hydraulic Housing (#8)** by gently threading it on.

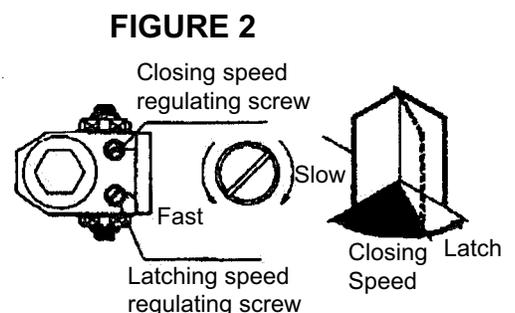
Adjustments

Door closing speed adjustment was factory set for the average weight door. If more closing power is needed, change the arm position from the center hole to the hole closest to the main arm.

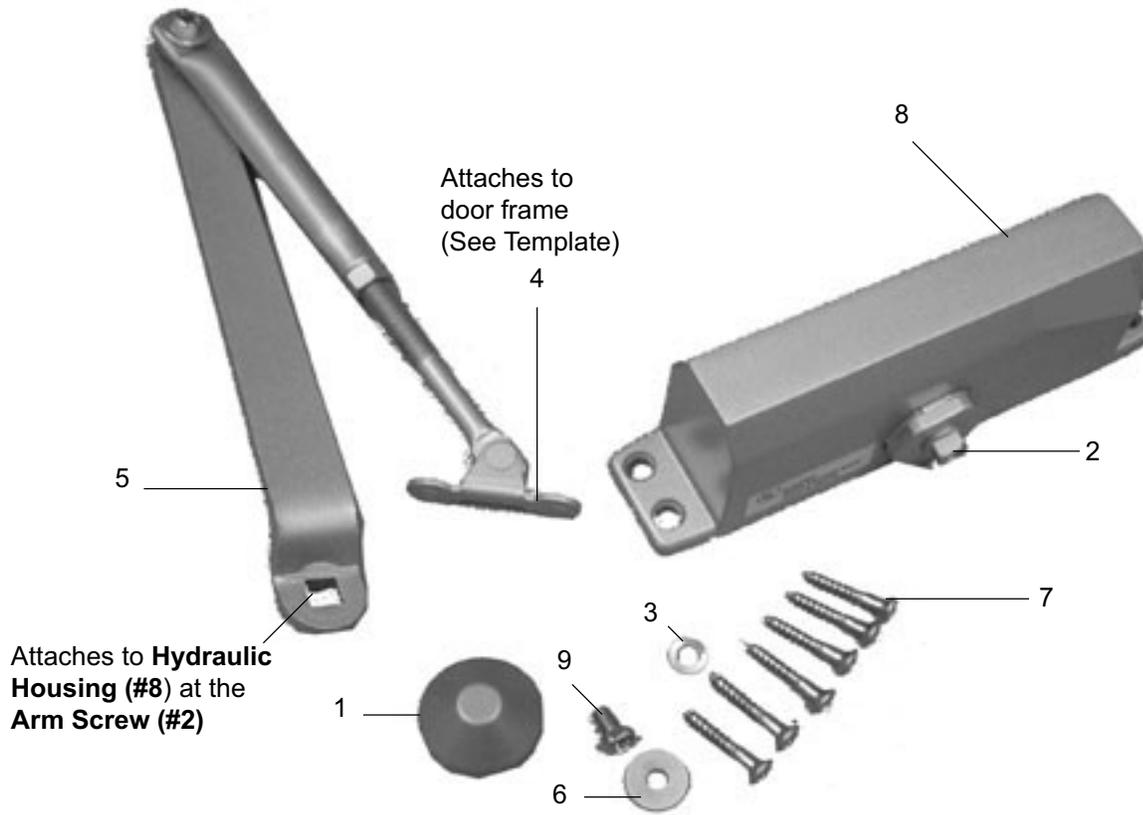
Adjust speed by using the regulating screws as illustrated in **FIGURE 2**.

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Assembly Drawing



Parts List

Part No.	Description
1	Cover Cap
2	Arm Screw
3	Lock Washer
4	Arm Shoe
5	Shaft
6	Washer
7	Wood Screw (6)
8	Hydraulic Housing
9	Machine Screw (4)

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER NOR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

NOTE: Some parts are listed and shown for illustration purposes only and are not available individually as replacement parts.