Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

23f

SUPERIOR AUTOMOTIVE TOOLS

MF11-1

11Pc. Disc Brake Pad and Caliper Service Tool Kit



Visit our website at: http://www.harborfreight.com Email our technical support at: productsupport@harborfreight.com

63264

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

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No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools.

Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein.

Tools required for assembly and service may not be included.

AWARNING

Read this material before using this product. Failure to do so can result in serious injury. SAVE THIS MANUAL.

WARNING SYMBOLS AND DEFINITIONS			
lack	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.		
▲ DANGER	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.		
▲ WARNING	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.		
ACAUTION	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.		
NOTICE CAUTION	Addresses practices not related to personal injury.		



IMPORTANT SAFETY INFORMATION



WARNING Read all safety warnings and instructions.

Failure to follow the warnings and instructions may result in serious injury.

Save all warnings and instructions for future reference.

Operation Safety

 Keep children and bystanders away while operating.
 Distractions can cause you to lose control.



Wear ANSI-approved safety goggles, NIOSH-approved dust mask/ respirator, and heavy-duty work gloves during use and service.



Brake pad dust and some chemicals used for brake service may contain asbestos and other hazardous substances.

Use safety measures, such as proper ventilation and breathing protection, to reduce the risk of serious and/or chronic illness.

- 4. Inspect and test vehicle's brake system thoroughly after service to ensure proper operation.
- Use according to instructions in vehicle service manual.
- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- Stay alert and use common sense when operating. Do not use when tired or under the influence of drugs, alcohol or medication.
- Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.

- People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.
- This product is not a toy. Keep it out of reach of children.
- 11. Use the correct product for the correct vehicle. The correct product will do the job better and safer at the rate for which it was designed. Do not modify this product or use it for a purpose for which it is not intended.
- 12. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the product's operation. If damaged, have the product repaired before use.
- Read and understand all instructions and safety precautions as outlined in the manufacturer's manual for the vehicle you are servicing.
- 14. The warnings, precautions, 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.

Maintenance Safety

- Have product serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the product is maintained.
- Maintain labels and nameplates on the product.
 These carry important safety information.
 If unreadable or missing, contact
 Harbor Freight Tools for a replacement.



SAVE THESE INSTRUCTIONS.

Operating Instructions



Read the <u>ENTIRE</u> WARNING section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

<u>Note:</u> Refer to Parts List and Diagram on page 7 and read vehicle service manual to determine which Disc to use.

Note: Apply anti-seize to the Thrust Bolt threads to ensure the tool operates smoothly.

Note: Consult your vehicle manufacturer's service manual for specific service procedures.

Single Piston Front Brake Caliper Application

<u>Note:</u> These instructions are for use on a single piston front brake caliper or rear brake caliper with a parking brake system that is not integrated into the caliper.

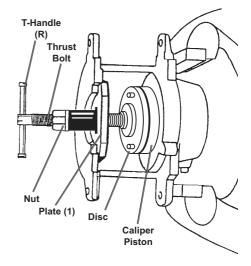
- 1. Raise and safely secure vehicle.
- 2. Release the parking brake.
- Remove the wheel and the brake caliper, then remove the worn brake pads and hardware.
- 4. Slide the T-Handle (R) to one end and place the Plate (1) over the end of the Thrust Bolt. Slide the T-Handle to the other end to allow the Plate to finish sliding over the Thrust Bolt. Slide the Plate up against the end of the Thrust Bolt Nut.
- Place the Disc (based on vehicle type) on the Thrust Bolt end with the two pegs pointed towards the Thrust Bolt (the magnet will hold it in place).
- Once assembled, install the tool into the caliper. Hold the T-Handle in place and adjust the Nut until the Disc touches and is aligned with the Caliper Piston. The Plate should rest inside the caliper face.
- Use a wrench to turn the Nut and force the Caliper Piston in until it is fully compressed.
- 8. Turn the T-Handle to rotate the Caliper Piston.
- Service the caliper according to the vehicle manufacturer's instructions.
- Reassemble caliper, brake pads, and wheels according to the vehicle manufacturer's instructions.

- 11. With the engine turned off; fully press the brake pedal repeatedly at least 5 or 6 times until the brake pedal engages firmly. Engage and disengage the parking brake repeatedly at least 5 or 6 times. Consult your vehicle's service manual for specific service procedures.
- 12. Test brakes before use.

WARNING! TO PREVENT SERIOUS INJURY:

Pressurize and test the brakes before use, refer to vehicle service manual for specific service procedures.

 Clean, then store the Service Kit indoors out of children's reach.



Single Piston Rear Brake Caliper Application

<u>Note:</u> These instructions are for use on a single piston rear brake caliper with the internal threaded rod parking brake actuator.

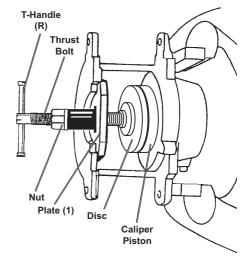
- 1. Raise and safely secure vehicle.
- 2. Release the parking brake.
- 3. Remove the wheel and the brake caliper, then remove the worn brake pads and hardware.
- 4. Slide the T-Handle (R) to one end and place the Plate (1) over the end of the Thrust Bolt. Slide the T-Handle to the other end to allow the Plate to finish sliding over the Thrust Bolt. Slide the Plate up against the end of the Thrust Bolt Nut.
- Place the Disc (based on vehicle type) on the Thrust Bolt end with the two pegs pointed towards the Thrust Bolt (the magnet will hold it in place).
- Once assembled, install the tool into the caliper. Hold the T-Handle in place and adjust the Nut until the Disc touches and is aligned with the Caliper Piston. The Plate should rest inside the caliper face.
- 7. Check that the Disc is mated with the Caliper Piston.
- 8. Use a wrench to turn the Nut and force the Caliper Piston in until it is fully compressed.
- 9. Turn the T-Handle to rotate the Caliper Piston.
- 10. Service the caliper according to the vehicle manufacturer's instructions.
- Reassemble caliper, brake pads, and wheels according to the vehicle manufacturer's instructions.

- 12. With the engine turned off; pressurize the brakes by fully pressing the brake pedal repeatedly at least 5 or 6 times until the brake pedal engages firmly. Engage and disengage the parking brake repeatedly at least 5 or 6 times. Consult your vehicle's service manual for specific service procedures.
- 13 Test brakes before use

WARNING! TO PREVENT SERIOUS INJURY:

Pressurize and test the brakes before use, refer to vehicle service manual for specific service procedures.

 Clean, then store the Service Kit indoors out of children's reach.



Maintenance



Procedures not specifically explained in this manual must be performed only by a qualified technician.

AWARNING

TO PREVENT SERIOUS INJURY FROM TOOL FAILURE: Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

- 1. **BEFORE EACH USE**, inspect the general condition of the Brake Caliper Service Kit. Check for:
 - loose hardware
 - · misalignment or binding of moving parts
 - · cracked or broken parts
 - any other condition that may affect its safe operation.
- AFTER USE, wipe external surfaces of the tool with clean cloth.
- 3. When storing, keep the Brake Caliper Service Kit in its Carrying Case (10).

Record Product's Serial Number He	e:
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Note: If product has no serial number, record month and year of purchase instead.

Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts. Specify UPC 193175474421 when ordering parts.

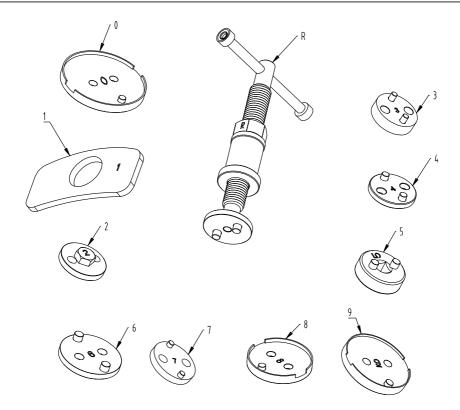
Parts List & Diagram

Parts List

Part	Description	Qty
R	T-Handle	1
0	2-1/2" Single Pin Disc for General Motors® '79 Seville, El Dorado	1
1	Plate	1
2	1-1/4" Hex Disc for Saab®, Honda®	1
3	1-3/16" Two Pin Disc for Renault® R21, Laguna	1
4	1-1/4" Two Pin Disc for Ford®, AU & NZ, Telstar, Laser (R), Saab 9000 (R), Fiat/Alfa Romeo® 1642 (R), Honda Prelude, CRS, 16i, GM Satum, Grand Prix, Lumina (R)	1

Part	Description	Qty
5	3/8" Adapter	1
6	1-21/32" Two Pin Disc for Nissan® Primera, VW-Golf IV®	1
7	1-1/4" Two Pin Disc for Opel®	1
8	1-7/8" Single Pin Disc for General Motors	1
9	2-1/8" Single Pin Disc for General Motors,Cadillac Seville & El Dorado	1
10	Carrying Case (not shown)	1

Diagram



PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR 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.

Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES. EXPRESS OR IMPLIED. INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

