

4 WHEEL DRIVE BALL JOINT SERVICE KIT

Model 04065

ASSEMBLY AND OPERATING INSTRUCTIONS



3491 Mission Oaks Blvd., Camarillo, CA 93011
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For technical questions, please call 1-800-444-3353.

PRODUCT SPECIFICATIONS

Item	Description
Product Compatibility	For use on most cars and light trucks.
Product Versatility	May be used to install/remove: Ball joints Brake anchor pins Universal joints.
Parts Included	Ball Joint Press – Jackscrew – Receiving Tubes- Install Adapter – Remove Adapter – Installing Cup – Receiving Cup – Install Cup Adapter – Carrying Case.
Weight	18.20 Pounds

SAVE THIS MANUAL

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

GENERAL SAFETY WARNINGS AND PRECAUTIONS

1. **KEEP WORK AREA CLEAN AND DRY.** Cluttered, damp, or wet work areas invite injuries.
2. **KEEP CHILDREN AWAY FROM WORK AREA.** Do not allow children to handle this product.
3. **STORE IDLE EQUIPMENT.** When not in use, tools and equipment should be stored in a dry location to inhibit rust. Always lock up tools and equipment, and keep out of reach of children.
4. **DO NOT USE THIS PRODUCT IF UNDER THE INFLUENCE OF ALCOHOL OR DRUGS.** Read warning labels on prescriptions to determine if your judgement or reflexes are impaired while taking drugs. If there is any doubt, do not attempt to use this product.
5. **USE EYE, HAND, PROTECTION.** Wear an ANSI approved, safety impact, full face shield and heavy-duty work gloves when using this product. Safety impact, full face shields and heavy-duty work gloves are available from Harbor Freight Tools.

6. **DRESS SAFELY.** Do not wear loose clothing or jewelry, as they can become caught in moving parts. Wear a protective hair covering to prevent long hair from becoming caught in moving parts. If wearing a long-sleeve shirt, roll sleeves up above elbows.
7. **DO NOT OVERREACH.** Keep proper footing and balance at all times to prevent tripping, falling, back injury, etcetera.
8. **INDUSTRIAL APPLICATIONS MUST FOLLOW OSHA REQUIREMENTS.**
9. **STAY ALERT.** Watch what you are doing at all times. Use common sense. Do not use this product when you are tired or distracted from the job at hand.
10. **CHECK FOR DAMAGED PARTS.** Before using this product, carefully check that it will operate properly and perform its intended function. Check for damaged parts and any other conditions that may affect the operation of this product. Replace or repair damaged or worn parts immediately.
11. **REPLACEMENT PARTS AND ACCESSORIES:** When servicing, use only identical replacement parts. Only use accessories intended for use with this product. Approved accessories are available from Harbor Freight Tools.
12. **MAINTAIN THIS PRODUCT WITH CARE.** Keep this product clean and dry for better and safer performance.
13. **MAINTENANCE:** For your safety, service and maintenance should be performed regularly by a qualified technician.
14. **USE THE RIGHT TOOL FOR THE JOB.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. There are certain applications for which this tool was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this tool, and do not use this tool for a purpose for which it was not intended.
15. **WARNING:** The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors, which cannot be built into this product, but must be supplied by the operator.

SPECIFIC PRODUCT WARNINGS AND PRECAUTIONS

1. **USE EXTREME CAUTION WHEN APPLYING A LOAD.** Slowly and carefully apply pressure to the vehicle part being pressed. If the workpiece seems unusually hard to press, immediately stop the operation. Carefully disconnect the

Ball Joint Kit from the workpiece, and adjust the Ball Joint Kit to eliminate or diminish an off-center load. Then, continue with the procedure.

2. **DO NOT USE THE BALL JOINT KIT TO COMPRESS SPRINGS OR ANY OTHER ITEM THAT COULD DISENGAGE AND CAUSE A POTENTIAL HAZARD.**
3. **DO NOT ALLOW ANY LUBRICANTS TO MAKE CONTACT BETWEEN ANY PART OF THE BALL JOINT KIT AND THE PART BEING PRESSED.** Lubricants of any type on the above mentioned parts will diminish the ability of the Ball Joint Kit to firmly and safely grip and hold the Ball Joint Kit in position.
4. **ALWAYS EXAMINE THE BALL JOINT KIT FOR STRUCTURAL CRACKS, BENDS, AND ANY OTHER CONDITION THAT MAY AFFECT THE SAFE OPERATION OF THE TOOL.** Do not use the Ball Joint Kit even if minor damage appears.
5. **MAKE SURE TO READ AND UNDERSTAND ALL INSTRUCTIONS AND SAFETY PRECAUTIONS AS OUTLINED IN THE MANUFACTURER'S MANUAL FOR THE VEHICLE YOU ARE SERVICING.** Always use the vehicle manufacturer's recommended ball joint press points.
6. **MAINTAIN A SAFE WORKING ENVIRONMENT.** Keep the work area well lit. Make sure there is adequate surrounding workspace. Always keep the work area free of obstructions, grease, oil, trash, and other debris.

UNPACKING

When unpacking, check to make sure all the parts shown on the **Parts List** and **Assembly Diagram** (page 9) are included. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

PRODUCT DESCRIPTION

1. The Ball Joint Kit is designed for use on all cars and light trucks that have press-fit type ball joints, and typically will help the user remove and install ball joints without the need to remove the control arm from the vehicle.
2. **NOTE:** Some cars and light trucks may have the upper ball joint spot-welded to the control arm. The weld must be cut before attempting to remove the ball joint.

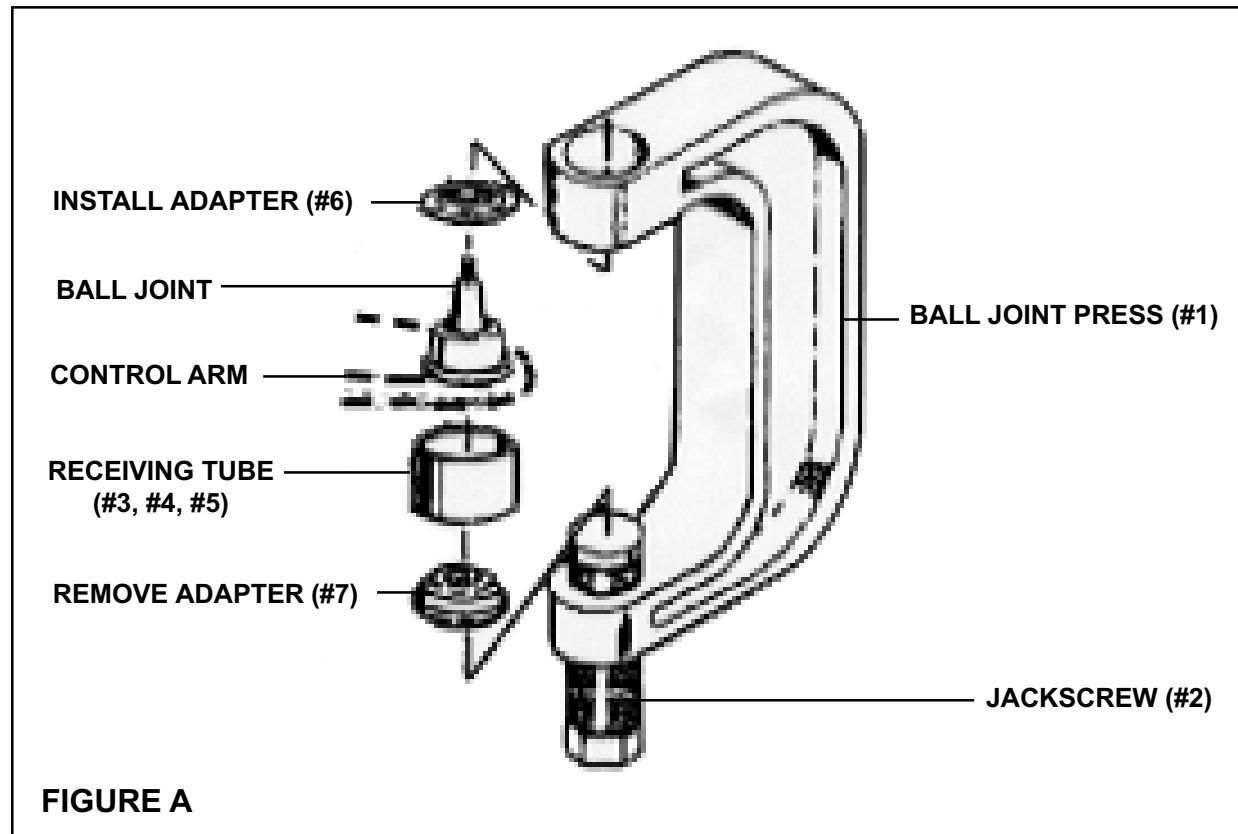
OPERATING INSTRUCTIONS

NOTE: For additional references to the parts listed below, refer to the **Assembly Diagram** (page 9).

1. **CAUTION:** ALWAYS refer to the vehicle manufacturer's *service and repair manual* for instructions on preparing the ball joint for removal from a specific make/model vehicle. The following instructions are intended as general guidelines only and not intended for any one specific make/model vehicle.

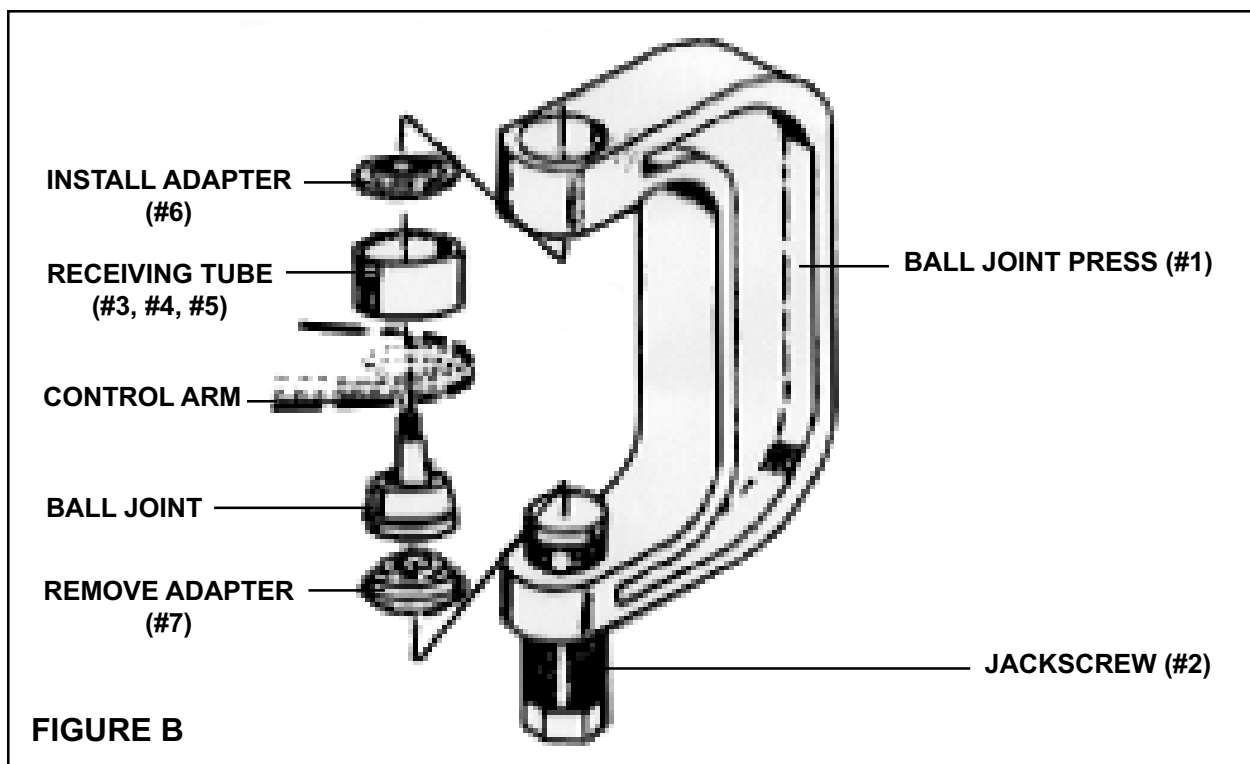
To Remove A Ball Joint:

1. Assemble the Ball Joint Press (part #1) over the vehicle's control arm. Select the correct size Receiving Tube (parts #3, #4, #5), and position it under the vehicle's ball joint. Place the Remove Adapter (part #7) between the Receiving Tube and the Jackscrew (part #2). Then, place the Install Adapter (part #6) between the top of the ball joint and the Ball Joint Press. (See Figure A.)
2. Tighten the Jackscrew (part #2) until the Receiving Tube (parts #3, #4, #5) contacts the vehicle's control arm. (See Figure A.)
3. Check the alignment of all the Ball Joint Kit parts, and continue tightening the Jackscrew (part #2) until the vehicle's ball joint is removed. (See Figure A.)



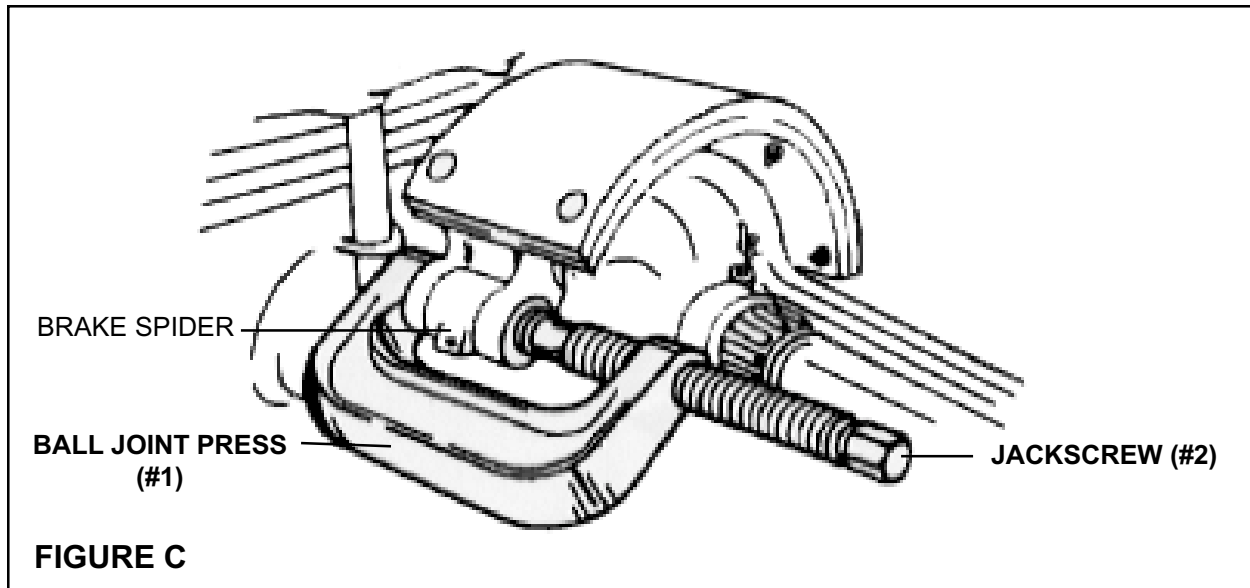
To Install A Ball Joint:

1. Clean the vehicle's control arm, and coat the **inside** diameter of the control arm with a light lubricant. **(See Figure B.)**
2. Insert the replacement ball joint as straight as possible into the vehicle's control arm. **(See Figure B.)**
3. Assemble the Ball Joint Press (part #1) over the vehicle's control arm. Select the correct size Receiving Tube (parts #3, #4, #5), and position it on top of the vehicle's control arm. Place the Install Adapter (part #6) between the Receiving Tube and the Ball Joint Press (part #1). Then, place the Remove Adapter (part #7) between the ball joint and the Jackscrew (part #2). **(See Figure B.)**
4. Check the alignment of all the Ball Joint Kit parts. Then, tighten the Jackscrew (part #2) until the vehicle's ball joint is firmly sealed. **(See Figure B.)**



To Remove And Install A Brake Anchor Pins:

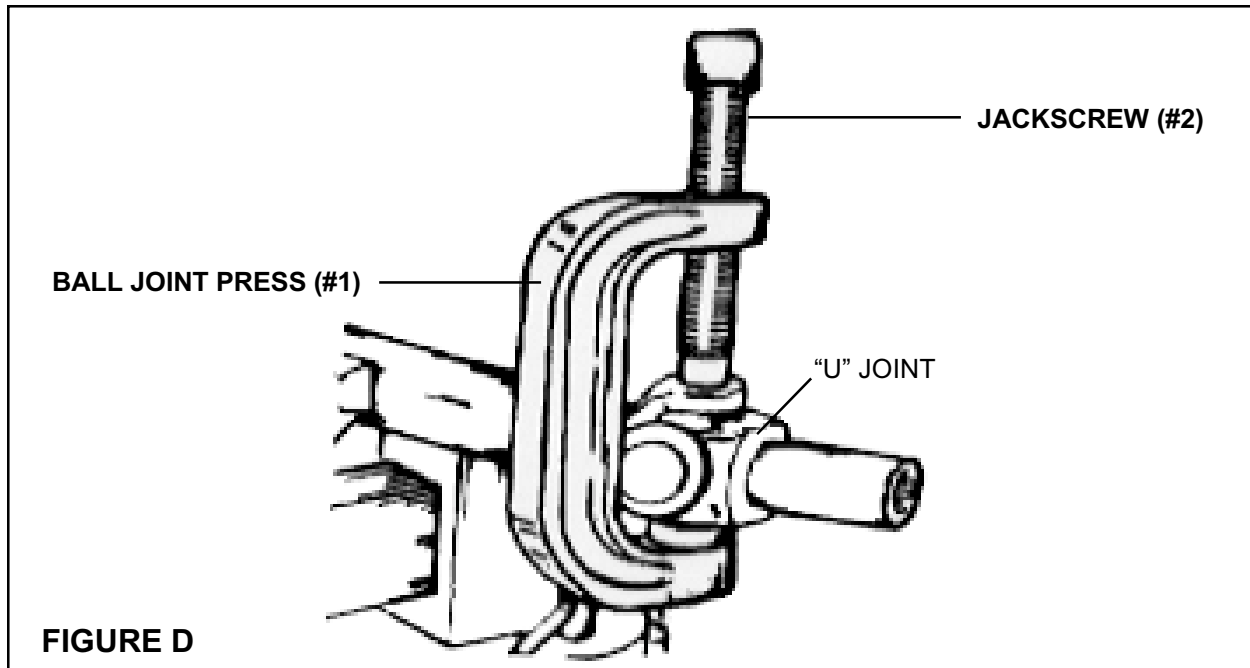
1. To *remove* the brake anchor pins, remove all lock ring retainers from the Brake Anchor Pins. **(See Figure C, next page.)**
2. Position the Ball Joint Press (part #1) over the brake spider. **(See Figure C.)**



3. Tighten the Jackscrew (part #2) until the anchor pins can be removed. **(See Figure C.)**
4. To *install* the brake anchor pins, insert the brake anchor pins. Reinstall the lock ring retainers on the brake anchor pins. Then, unscrew and remove the Ball Joint Press (part #1). **(See Figure C.)**

To Disassemble/Assemble A “U” Joint:

1. To *disassemble* a “U” joint, remove any external and/or internal lock rings. **(See Figure D, next page.)**
2. Position the Ball Joint Press (part #1) around the drive shaft yoke, and tighten the Jackscrew (part #2) until the first bearing is removed. **(See Figure D.)**
3. Reposition the Ball Joint Press (part #1), and remove the second bearing. **(See Figure D.)**
4. To *assemble* a “U” joint, clean all dirt and oil from the yoke area. **(See Figure D.)**
5. Align the replacement bearing and Ball Joint Press (part #1) as straight as possible over the yoke. Press the replacement bearing into the yoke, and reassemble the external/internal lock ring. **(See Figure D.)**
6. Reposition the Ball Joint Press (part #1) and second replacement bearing as straight as possible over the yoke, and press the bearing into the yoke. Reassemble the external/internal lock ring. **(See Figure D.)**



INSPECTION, MAINTENANCE, AND CLEANING

1. **CAUTION:** To avoid possible injury, do not perform inspection, maintenance, or cleaning procedures with the Ball Joint Kit under a load.
2. **BEFORE EACH USE,** inspect the general condition of the Ball Joint Kit. Check for misalignment or binding of moving parts, cracked or broken parts, and any other condition that may affect its safe operation. If abnormal noise or vibration occurs, have the problem corrected before further use.
Do not use damaged equipment.
3. **PERIODICALLY,** use a premium quality, light weight, machine oil to lubricate the threads of the Jackscrew (part #2).
4. **WHEN NECESSARY,** wipe with a damp cloth, using a mild detergent or mild solvent.
5. **WHEN STORING,** keep the Ball Joint Kit in its Carrying Case.

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, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

PARTS LIST

Part #	Description	Qty.
1	Ball Joint Press	1
2	Jackscrew	1
3	Receiving Tube (2-1/4" L x 2.723" I.D. x 3" O.D.)	1
4	Receiving Tube (1-3/4" L x 2-1/4" I.D. x 2-1/2" O.D.)	1
5	Receiving Tube (1-3/4" L x 1-3/4" I.D. x 2" O.D.)	1
6	Install Adapter (1.122" L x 0.941" I.D. x 3" O.D.)	1
7	Remove Adapter (1.148" L x 1/2" I.D. x 3" O.D.)	1
8	Installing Cup (3.676" L x 1-3/4" I.D. x 2" O.D.)	1
9	Receiving Cup (2-1/2" L x 2" I.D. x 2-1/4" O.D.)	1
10	Install Cup Adapter (0.845" L x 1.879" I.D. x 2-1/4" O.D.)	1
11	Carrying Case (not shown)	1

ASSEMBLY DIAGRAM

