

See Warranty on page 4 for important information about commercial use of this product.

Operating Instructions

Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to comply with instructions could result in personal injury and/or property damage! Retain instructions for future reference.



Impact Wrenches

Description

Impact wrenches are air tools designed for removing and installing nuts and bolts. Impact wrenches have different impact mechanism types such as rocking dog, pin clutch and twin hammer (double jumbo).

The rocking dog and pin clutch types are used as general purpose tools by DIY'ers and hobbyists. Twin hammer wrenches are for use by the professional in tire shops, assembly line applications and for removing high torque bolts.

Unpacking

When unpacking this product, carefully inspect for any damage that may have occurred during transit. Make sure any loose fittings, bolts, etc., are tightened before putting this product into service.

General Safety

CALIFORNIA PROPOSITION 65

⚠ DANGER

You can create dust when you cut, sand, drill or grind materials such as wood, paint, metal, concrete, cement, or other masonry. This dust often contains chemicals known to cause cancer, birth defects, or other reproductive harm. Wear protective gear.



This product is a part of a high pressure system and the following safety precautions must be followed at all times along with any other existing safety rules.

1. Read all manuals included with this product carefully. Be thoroughly familiar



with the controls and the proper use of the equipment.

2. Only persons well acquainted with these rules of safe operation should be allowed to use the air tool.

⚠ DANGER

Do not exceed maximum operating pressure of the air tool (90 PSI). The air tool could explode and result in death or serious personal injury.



3. Do not exceed any pressure rating of any component in the system.
4. Disconnect the air tool from air supply before changing tools or attachments, servicing and during non-operation.

⚠ WARNING

Safety glasses and ear protection must be worn during operation.



5. Do not wear loose fitting clothing, scarves, or neck ties. Loose clothing may become caught in moving parts and result in serious personal injury.
6. Do not wear jewelry when operating any tool. Jewelry may become caught in moving parts and result in serious personal injury.
7. Do not depress trigger when connecting the air supply hose.
8. Always use attachments designed for use with air powered tools. Do not use damaged or worn attachments.

⚠ WARNING

Do not use hand-tool sockets. Use impact quality sockets only. Hand tool sockets are "glass-hard" and will shatter and can cause serious personal injury if used with air tools.

9. Never trigger the tool when not applied to a work object. Attachments must be securely attached. Loose attachments can cause serious injury.
10. Protect air lines from damage or puncture.
11. Never point an air tool at oneself or any other person. Serious injury could occur.
12. Check air hoses for weak or worn condition before each use. Make sure all connections are secure.

⚠ WARNING

Release all pressure from the system before attempting to install, service, relocate or perform any maintenance.



13. Keep all nuts, bolts and screws tight and ensure equipment is in safe working condition.
14. Do not put hands near or under moving parts.

⚠ WARNING

Do not misuse this product. Excessive exposure to vibration, work in awkward positions, and repetitive work motions can cause injury to hands and arms. Stop using any tool if discomfort, numbness, tingling, or pain occur, and consult a physician.

Operation

LUBRICATION

Proper lubrication is the owner's responsibility. Failure to lubricate the air tool properly will dramatically shorten the life of the tool and will void the warranty.

⚠ CAUTION

This impact wrench requires lubrication BEFORE the initial use and BEFORE and AFTER each additional use.

REMINDER: Keep your dated proof of purchase for warranty purposes! Attach it to this manual or file it for safekeeping.

Impact Wrenches

Operation (Cont.)

Impact wrenches require lubrication throughout the life of the tool and must be lubricated in **two separate areas**: the air motor and the impact mechanism. Follow the outlined procedures and refer to parts manual for tool features. Campbell Hausfeld air tool oil (ST127000AV) is recommended because this oil cleans, lubricates and inhibits rust all in one step.

AIR MOTOR LUBRICATION

The motor must be lubricated daily. An air motor cannot be oiled too often.

AWARNING *Disconnect the impact wrench from the air supply before lubricating.*

1. Disconnect the impact wrench from the air supply.
2. Turn the impact wrench upside down.
3. While pulling the trigger, squeeze approximately a 1/4 oz. of Campbell Hausfeld airtool oil in the air inlet. Then, push the forward and reverse button in both directions.

AWARNING *After an air tool has been lubricated, oil will discharge through the exhaust port during the first few seconds of operation. Thus, THE EXHAUST PORT MUST BE COVERED WITH A TOWEL before applying air pressure. FAILURE TO COVER THE EXHAUST PORT CAN RESULT IN SERIOUS INJURY.*

4. Connect the impact wrench to the air supply and cover the exhaust port with a towel (Refer to replacement parts manual for tool features). Run the impact wrench in both the forward and reverse directions for 20 to 30 seconds. Oil will discharge from the exhaust port when air pressure is applied.

IMPACT MECHANISM LUBRICATION

Lubricate the impact mechanism monthly. See the enclosed yellow flyer.

AWARNING *Disconnect the impact wrench from the air supply before lubricating.*

1. Disconnect the impact wrench from the air supply.

2. Remove the slotted screw or allen head screw from the oil port hole (Refer to replacement parts list for tool features).
3. Squeeze approximately 1 oz. of Campbell Hausfeld air tool oil in the oil port hole. Replace the screw.
4. Reconnect the air supply to the impact wrench and run for 20 to 30 seconds. Lubricate the entire impact mechanism by rotating the tool upside down and sideways while running the tool.
5. Remove the screw and hold the oil port hole over a suitable container to allow excess oil to drain. Sometimes triggering the tool when dumping the oils helps to force out the excess oil.
6. If the oil is dirty, repeat the procedure above until the oil comes out clear. Install the screw and tighten. The residual oil remaining in the impact mechanism chamber is all that is needed for proper lubrication.

SPEED ADJUSTMENT

The impact wrench should never be used to set torque. Use a torque wrench to set the torque. All models are equipped with regulators for speed adjustment (Refer to parts manual for tool features).

To remove lugs or bolts, set the regulator to the maximum setting. When installing, always use a torque wrench to attain the proper torque of the lugs or bolts.

AWARNING *When re-assembling be careful not to overtighten. Bolts may fail or cause a hazardous condition. Be sure to set the regulator to the minimum setting then use a torque wrench to set torque.*

AIR TOOL SET-UP

PLEASE REFER TO AIR TOOL AND SPRAY GUN SET-UP (IN170102AV) FOR AIR SYSTEM HOOK-UP INSTRUCTIONS.

NOTE: It is not recommended to install a quick coupler between the tool and the whip hose.

Using fittings or air hoses which are too

small can create a pressure drop and reduce the power of the tool. For 3/8, 1/2 and 3/4" impact wrenches use 3/8" (I.D.) fittings with 1/4" NPT threads. Most compressors are shipped with a short, 1/4" I.D. hose. For proper performance and more convenience, use a 3/8" I.D. hose. Hoses longer than 50 feet should have a 1/2" I.D. For 1" impact wrenches use 1/2" (I.D.) fittings with 1/2" NPT threads and a 1/2" I.D. hose. Hoses longer than 50 feet should have a 1" I.D.

AWARNING *Never carry a tool by the hose or pull the hose to move the tool or a compressor. Keep hoses away from heat, oil and sharp edges. Replace any hose that is damaged, weak or worn.*

Storage

The impact wrench must be lubricated before storing. Follow the air motor lubrication instructions with an exception to step 4. Only run the impact wrench for 2 to 3 seconds instead of 20 to 30 seconds because more oil needs to remain in the impact wrench when storing.

Technical Service

For information regarding the operation or repair of this product, please call 1-800-543-6400. If you are calling from Ohio or outside the continental United States, please call 1-513-367-1182.

General Troubleshooting Guide

Symptom	Possible Cause(s)	Corrective Action
Tool runs slowly or will not operate	<ol style="list-style-type: none"> Grit or gum in tool No oil in tool Low air pressure Air hose leaks Pressure drops Worn rotor blade in motor Worn ball bearing in motor 	<ol style="list-style-type: none"> Flush the tool with Campbell Hausfeld air tool oil, gum solvent, or an equal mixture of SAE 10 motor oil and kerosene. If Campbell Hausfeld oil is not used, lubricate the tool after cleaning Lubricate the tool according to the lubrication instructions in this manual <ol style="list-style-type: none"> Adjust the regulator on the tool to the maximum setting Adjust the compressor regulator to tool maximum while the tool is running free For PL2502 or PL3502, the regulator should be turned so the indicator points to a number on the tool Tighten and seal hose fittings if leaks are found <ol style="list-style-type: none"> Be sure the hose is the proper size. Long hoses or tools using large volumes of air may require a hose with an I.D. of 1/2" or larger depending on the total length of the hose Do not use a multiple number of hoses connected together with quick connect fittings. This causes additional pressure drops and reduces the tool power. Directly connect the hoses together Replace rotor blade Remove and inspect bearing for rust, dirt and grit or worn race. Replace or clean and regrease bearing with bearing grease
Moisture blowing out of tool	<ol style="list-style-type: none"> Water in tank Water in the air lines/hoses 	<ol style="list-style-type: none"> Drain tank. (See air compressor manual). Oil tool and run until no water is evident. Oil tool again and run 1-2 seconds <ol style="list-style-type: none"> Install a water separator/filter. NOTE: Separators only work properly when the air passing through the separator is cool. Locate the separator/filter as far as possible from the compressor Install an air dryer If the original separator will not separate all the water from the air, install a Campbell Hausfeld belt air filter (MP2121)

Impact Mechanism Troubleshooting Guide

Symptom	Possible Cause(s)	Corrective Action
Impacts slowly or will not impact	<ol style="list-style-type: none"> Lack of lubrication Tool regulator set in wrong position In-line regulator or compressor regulator set too low 	<ol style="list-style-type: none"> Lubricate the air motor and the impact mechanism. (See Lubrication section of this manual) <ol style="list-style-type: none"> Adjust the regulator on the tool to the maximum setting For twin hammer impact, the regulator should be turned so the indicator points to a number on the tool Adjust regulators in the air system
Impacts rapidly but will not remove bolts	<ol style="list-style-type: none"> Worn impact mechanism 	<ol style="list-style-type: none"> <ol style="list-style-type: none"> Replace worn impact mechanism components Return impact wrench to Authorized Campbell Hausfeld Service Center for repair
Does not impact	<ol style="list-style-type: none"> Broken impact mechanism 	<ol style="list-style-type: none"> <ol style="list-style-type: none"> Replace broken impact mechanism components Return impact wrench to an authorized Campbell Hausfeld service center for repair

Impact Wrenches

Limited Warranty

1. DURATION: From the date of purchase by the original purchaser as follows: Standard Duty Products - One Year, Serious Duty Products - Two Years, Extreme Duty Products - Three Years.
2. WHO GIVES THIS WARRANTY (WARRANTOR): Campbell Hausfeld / Scott Fetzer Company, 100 Production Drive, Harrison, Ohio, 45030, Telephone: (800) 543-6400
3. WHO RECEIVES THIS WARRANTY (PURCHASER): The original purchaser (other than for purposes of resale) of the Campbell Hausfeld product.
4. WHAT PRODUCTS ARE COVERED BY THIS WARRANTY: Any Campbell Hausfeld nailer, stapler, air tool, spray gun, inflator or air accessory supplied or manufactured by Warrantor.
5. WHAT IS COVERED UNDER THIS WARRANTY: Substantial defects in material and workmanship which occur within the duration of the warranty period.
6. WHAT IS NOT COVERED UNDER THIS WARRANTY:
 - A. Implied warranties, including those of merchantability and FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED FROM THE DATE OF ORIGINAL PURCHASE AS STATED IN THE DURATION. If this product is used for commercial, industrial or rental purposes, the warranty will apply for ninety (90) days from the date of purchase. Some States do not allow limitation on how long an implied warranty lasts, so the above limitations may not apply to you.
 - B. ANY INCIDENTAL, INDIRECT, OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM ANY DEFECT, FAILURE, OR MALFUNCTION OF THE CAMPBELL HAUSFELD PRODUCT. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.
 - C. Any failure that results from an accident, purchaser's abuse, neglect or failure to operate products in accordance with instructions provided in the owner's manual(s) supplied with product. Accident, purchaser's abuse, neglect or failure to operate products in accordance with instructions shall also include the removal or alteration of any safety devices. If such safety devices are removed or altered, this warranty is void.
 - D. Normal adjustments which are explained in the owner's manual(s) provided with the product.
 - E. Items or service that are normally required to maintain the product, i.e. o-rings, springs, bumpers, debris shields, driver blades, fuses, batteries, gaskets, packings or seals, fluid nozzles, needles, sandblast nozzles, lubricants, material hoses, filter elements, motor vanes, abrasives, blades, cut-off wheels, chisels, chisel retainers, cutters, collets, chucks, rivet jaws, screw driver bits, sanding pads, back-up pads, impact mechanism, or any other expendable part not specifically listed. These items will only be covered for ninety (90) days from date of original purchase. Underlined items are warranted for defects in material and workmanship only.
7. RESPONSIBILITIES OF WARRANTOR UNDER THIS WARRANTY: Repair or replace, at Warrantor's option, products or components which are defective, have malfunctioned and/or failed to conform within duration of the warranty period.
8. RESPONSIBILITIES OF PURCHASER UNDER THIS WARRANTY:
 - A. Provide dated proof of purchase and maintenance records.
 - B. Deliver or ship the Campbell Hausfeld product or component to the nearest Campbell Hausfeld Authorized Service Center. Freight costs, if any, must be borne by the purchaser.
 - C. Use reasonable care in the operation and maintenance of the products as described in the owner's manual(s).
9. WHEN WARRANTOR WILL PERFORM REPAIR OR REPLACEMENT UNDER THIS WARRANTY: Repair or replacement will be scheduled and serviced according to the normal work flow at the servicing location, and depending on the availability of replacement parts.

This Limited Warranty applies in the United States, Canada and Mexico only and gives you specific legal rights. You may also have other rights which vary from state to state or country to country.