



# **17PC. 1/2" IMPACT AND RATCHET WRENCH KIT**

## **USER MANUAL**

[Revision 2.0 October 2018]

**RETAIN THIS MANUAL FOR FUTURE REFERENCE  
PLEASE READ THIS MANUAL CAREFULLY BEFORE USE**

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## IMPORTANT SAFETY INFORMATION

1. This air ratchet is designed to speed-up productivity, not for high torque applications such as head bolts, lug nuts, etc. **DO NOT USE THIS RATCHET UNDER POWER TO BREAK FASTENERS LOOSE.** Loosen fasteners by hand without depressing the throttle.  
Once loose, depress throttle to speed fasteners in or out. Always perform final torque tightening by hand.
2. **Use only impact sockets designed for impact wrenches.**
3. This ratchet is rated to 5/16" USS bolt size. Rating will decrease for U-Bolts, Long Cap Screws, Spring Fasteners and rusted or corroded fasteners. All of these factors absorb power and reduce torque capability.
4. **Always use approved eye and ear protection when using air powered tools.** If work area has substantial dust/debris in the air, wear a suitable mask. Do not wear loose clothing or jewellery.
5. Always operate the tool at a safe distance from yourself and others in the work area. Keep footing and balance secure at all times.
6. Make sure that work piece is secure to allow safe operation of the tool with both hands. Do not hold the work piece in your hand, lap or against any part of your body.
7. **Make sure that the trigger is in the "OFF" position before connecting or disconnecting the tool from air source.** Disconnect tool from air source before changing accessories, performing services and when not in use.
8. Follow air source manufacturer's directions for connection of regulators, filters and other accessories to air source. Do not install quick couplers directly at tool air inlet. This causes inlet failure due to excess weight and vibration. Use a whip hose between tool and quick couplers.
9. **DO NOT OVERLOAD!** Do not force tool. Match tool capacity to work load requirement. Use tool within its rated capacity and only for its designated purpose. Overloading air tools will cause premature wear and/or permanent damage of internal and external drive parts and will void warranty.
10. Inspect hoses and fittings for wear and damage prior to using the tool. Do not carry or drag the tool by the air hose. Keep the air hose free from obstruction, twisting and binding.

## LUBRICATION AND MAINTENANCE

- **Oil tool before each use:** Four to five drops of a good grade Air Tool Oil placed in the air inlet is sufficient. Use proper air pressure and CFM rating listed for this tool.
- **Drain water from the hoses and compressor tank.** Water in the air supply line will cause gumming and loss of power. Clean the air filter on the supply line and flush the tool with a gum solvent or a 50/50 mix of air tool oil and kerosene. It may be necessary to disassemble the tool to properly clean and re-lubricate it.



**Yes**



**No**

## AIR SOURCE

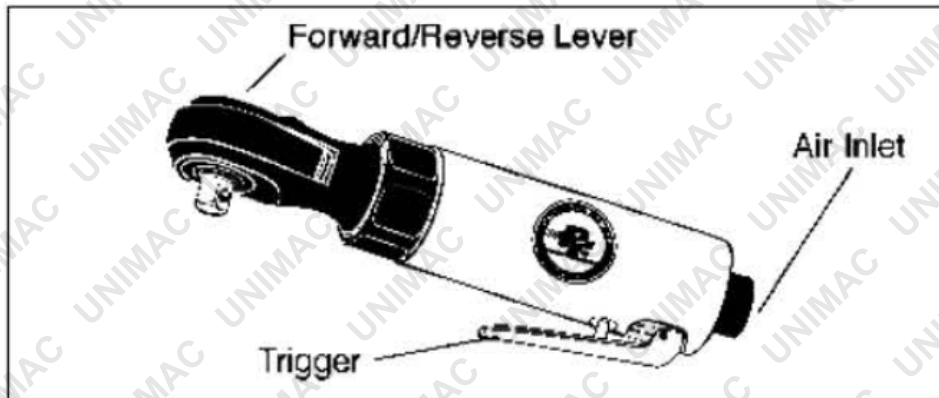
Clean air of correct air pressure is recommended for the power supply for this tool. A maximum of 90 PSI at the tool is recommended for most air tools of this class. Check the [Technical Specifications](#) section for recommended pressure. (Depending on length of air hose and other circumstances, air pressure at compressor may need to be increased to 100 PSI to ensure 90 PSI for the tool.)

Water in the air hose and compressor tank contributes to reduced performance and damage of the air tool. Drain the air tank and filters before each use and as necessary to keep the air supply dry.

Hose length over 25 feet causes loss in line pressure. Increase hose ID or increase compressor pressure to compensate for the pressure loss. Use an in-line pressure regulator with gauge if air inlet pressure is critical.

## PRIOR TO OPERATION

1. This air ratchet is designed to speed productivity, not for high torque applications such as head bolts, lug nuts, etc. **DO NOT USE THIS RATCHET UNDER POWER TO BREAK FASTENERS LOOSE.** Loosen fasteners by hand without depressing throttle. Once loose, depress throttle to speed fasteners in or out. Always perform final torque tightening by hand.
2. This ratchet is rated to 5/16" USS bolt size. Rating will decrease for U-Bolts, Long Cap Screws, Spring Fasteners and rusted or corroded fasteners. All of these factors absorb power and reduce torque capability.
3. Use the simplest socket to wrench hook-up. Any additional extensions, u-joints or adaptors will absorb power and reduce torque capability.
4. Forward/Reverse Lever. Select 'F' for Forward (Clockwise) or 'R' for Reverse (counter clockwise) operation. Do not attempt to change direction while tool is running.
5. If fastener bogs, slows or binds the tool, use a larger size ratchet tool with a higher torque rating. Overloading this tool will cause premature wear and/or permanent damage to internal and extremal drive parts and will void warranty.



## OPERATING INSTRUCTIONS

### DESCRIPTION

Air impact wrenches are designed for removing and installing nuts and bolts.

### AIR SUPPLY

1. Ensure that the air valve (or trigger) is in the OFF position before connecting to the air supply.
2. The impact wrench requires an air pressure of 90PSI and 4.0CFM air flow.
3. **WARNING!** Ensure that the air supply is clean and does not exceed 90 PSI while operating the impact wrench. Excessively high air pressure and unclean air will shorten the product's life and could cause damage or personal injury.
4. Drain the air compressor tank daily. Water in the air line will damage the impact wrench.
5. Clean the air inlet filter weekly.
6. Line pressure should be increased to compensate for unusually long air hoses (over 25 feet). The recommended hose diameter is 3/8" I.D.
7. Keep hose away from sources of heat, oil, chemicals and sharp edges/objects. Check the hose for wear and make certain that all connections are secure.



## LUBRICATION

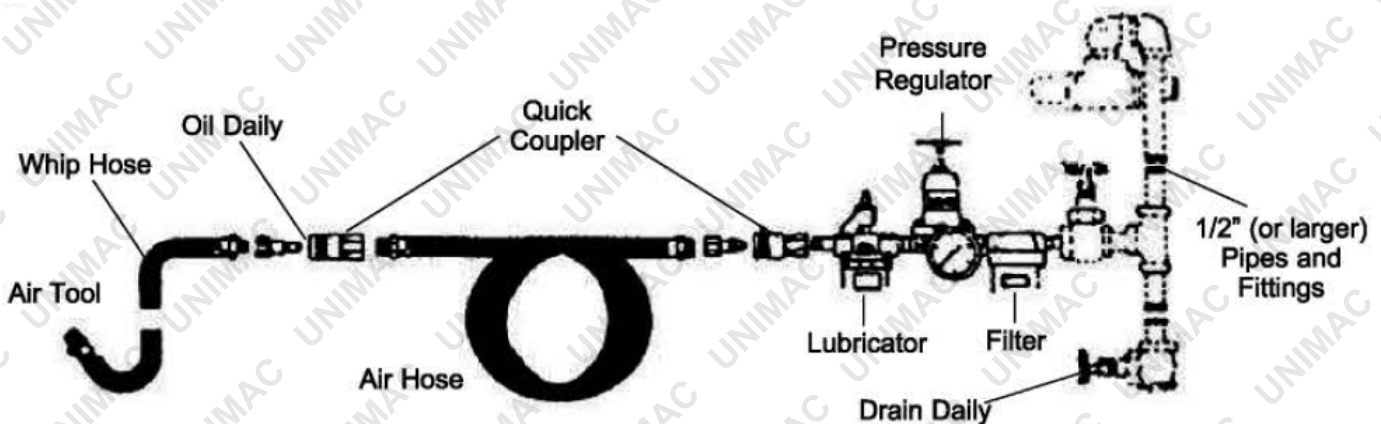
An automatic in-line filter-regulator-lubricator (refer to the image at the top of the next page), is recommended as it increases tool life and keeps the tool in sustained operation. The in-line lubricator should be regularly checked and filled with air tool oil. Proper adjustment of the in-line lubricator is performed by placing a sheet of paper next to the exhaust ports and holding the throttle open by approximately 30 seconds. The lubricator is properly set when a light stain of oil collects on the paper. Excessive amounts of oil should be avoided.

In the event that it becomes necessary to store the impact wrench for an extended period of time (overnight, weekend, etc.), it should receive a generous amount of lubrication. The impact wrench should be operated for approximately 30 seconds to ensure that the oil has been evenly distributed throughout the impact wrench. The impact wrench should be stored in a clean, dry environment where children can't reach it.

- It's very important that the impact wrench be properly lubricated by keeping the air line lubricator filled and correctly adjusted. Without proper lubrication, the impact wrench will not work properly.
- Use the proper lubricant in the air line lubricator. The type of lubricator should be of low air flow or changing air flow and should be kept filled to the correct level. Use only recommended lubricants, especially made for pneumatic applications. Substitutes may harm the rubber compounds in the impact wrench's O-rings and other rubber parts.

### IMPORTANT!

If a filter-regulator-lubricator is not installed on the air system, the Impact wrench should be lubricated with 2 to 6 drops of oil applied directly through the male fitting of the impact wrench housing. This should be done at least once a day or after every 2 hours of work, depending on the work environment.



**WARNING!** Disconnect the impact wrench from the air supply before lubricating.

## IMPACT MECHANISM LUBRICATION

Lubricate the impact wrench from the air supply before lubricating.

1. Disconnect the impact wrench from the air supply.
2. Remove the Allen head screw from the oil port hole on the right side of the tool above the trigger.
3. Squeeze approximately 1 oz. of air tool in the oil port hole. Replace the screw.
4. Reconnect the air supply to the impact wrench and run for 20-30 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.

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6. If the oil is dirty, repeat the procedure 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.

**LOADING AND OPERATING****WARNING!**

- Be sure you read, understand and apply safety instructions before use.
- Disconnect the air tool from the air supply before changing sockets or serious injury could occur.

**SPEED ADJUSTMENT**

The impact wrench should never be used to set the torque. Use a torque wrench to set the torque. To remove lugs or bolts, set the regulator to the maximum setting. When installing, always use a torque wrench to attain proper torque of the lugs or bolts.

**WARNING!**

When re-assembling, be careful not to over-tighten. 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 the torque.

**AIR TOOL SET-UP**

To remove lugs or nuts, push the forward/reverse button (at the top of handle) to the rear position. To install nuts, push the forward/reverse button to the front position. Reverse the procedure if the threads are left-handed. Do not over-tighten the nuts.

1. Only use impact sockets that are specifically designed for use with an impact wrench. Place the socket over the subject nut.
2. Connect the wrench to the air hose.
3. Depress the trigger to operate the wrench.
4. To change direction, push the button at the top of the handle. The direction is «R» for reverse and «F» for forward.
5. Regulate the flow of air by adjusting the flow valve at the base of the handle.
6. Ensure that the air supply is clean and does not exceed 90PSI while operating the wrench. Excessive air pressure and unclean air will shorten the product life and could cause damage or personal injury.
7. Keep children away from the impact wrench and workplaces when operating.

DO NOT use any additional force upon the impact wrench in order to remove a nut.

DO NOT allow the impact wrench to free run for an extended period of time, as this will shorten its life.

**NOTE:** It is not recommended to install a quick coupler between the air tool and the leader (whip) hose.

**WARNING!**

Use of a whip hose prevents accidental triggering of the tool when pressurised air is connected to the system.

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In addition, this tool's vibration wears out the couplers quickly and prematurely.

Using fittings or air hoses that are too small can create a pressure drop and reduce the power of the tool. A 3/8" (I.D.) fitting with 1/4" PT threads is recommended. Most compressors are shipped with a short, 1/4" I.D. hose. For a more proper performance and convenience, use a 3/8" I.D. hose. Hoses longer than 50 feet should have a 1/2" I.D.

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

## MAINTENANCE



### WARNING!

**Disconnect the impact wrench from the air supply before changing sockets, servicing or performing maintenance. Replace or repair damaged parts. Use genuine parts only. Non-authorised parts may be dangerous!**

1. Lubricate the impact wrench daily with a few drops of air tool oil dripped into the air inlet.
2. Clean the impact wrench after each use. DO NOT use worn out or damaged accessories.
3. Loss of power or erratic actions may be due to the following:
  - a. Excessive drain on the air line, moisture or restriction in the air line, incorrect size or type of hose connectors. To resolve, check the air supply.
  - b. Grit or gum deposits in the impact wrench can also reduce performance. If your model has an air strainer (located in the area of the air inlet), remove the strainer and clean it.
4. When not in use, disconnect the impact wrench from the air supply. Clean the impact wrench and store it in a safe, dry location where children can't reach it.

## STORAGE

The air tool must be lubricated before storing. An air motor can't be oiled too often.

**WARNING! Disconnect the air tool from the air supply first before lubricating it.**

## TROUBLESHOOTING

### INSUFFICIENT POWER

PROBABLE CAUSE	SOLUTION
Dirty or clogged air passages	Clean and lubricate tool, drain air tank and supply line.
Insufficient air supply	Increase line pressure. Make sure compressor matches tool's air pressure and consumption needs
Air leakage	Use Teflon tape at all fittings and joints. Check tool for worn or damaged O-rings & seals
Worn/damaged parts	Replace as necessary.
Tool matching	Be sure you are using a tool suited for the torque requirements of the job at hand.



# **TECHNICAL SPECIFICATIONS**

<b>MODEL</b>	LX-005
<b>SQUARE DRIVE IMPACT WRENCH</b>	1/2"
<b>SQUARE DRIVE RATCHET WRENCH</b>	1/2" & 3/8"
<b>MAX. TORQUE IMPACT WRENCH</b>	230 ft. lbs.(310N.m)
<b>MAX. TORQUE RATCHET WRENCH</b>	60 ft. lbs.(81N.m)
<b>RECOMMENDED OPERATING PRESSURE</b>	90 PSI
<b>UNLOADED SPEED IMPACT WRENCH</b>	7000 rpm
<b>UNLOADED SPEED RATCHET WRENCH</b>	160 rpm
<b>REVERSIBLE</b>	Yes
<b>AIR CONNECTION</b>	Standard 1/4" NPT
<b>AVG. AIR CONSUMPTION IMPACT WRENCH</b>	350 L/min
<b>AVG. AIR CONSUMPTION RATCHET WRENCH</b>	155 L/min
<b>IMPACT SOCKET SIZE</b>	9, 10, 11, 13, 14, 17, 19, 22, 24, 27 mm
<b>MATERIAL</b>	Aluminium
<b>IMPACT WRENCH CLUTCH</b>	Rocking dog
<b>RATCHET WRENCH CLUTCH</b>	3 gears, planetary



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