BENCHMARK™ MC

3/8" PNEUMATIC DRILL

5 Year Limited Warranty

READ ALL INSTRUCTIONS BEFORE FIRST USE.
KEEP THIS MANUAL FOR FUTURE REFERENCE.
KEEP AWAY FROM CHILDREN.

WEAR CSA APPROVED EYE PROTECTION

WEAR EAR PROTECTION

WEAR A FACE MASK

BENCHMARK

PRODUCT SPECIFICATIONS

3/8" PNEUMATIC DRILL	
Chuck	3/8" (10mm) keyless
Max speed	1,800 RPM (no load)
Average air consumption	4 CFM @ 90 PSI
Maximum air pressure	120 psi (8.3 bar)
Working pressure	90 psi (6.2 bar)
Air inlet size	1/4" NPT
Recommended hose	3/8"
Weight	2.4lb (1.1kg)

*Please note (where the ¼" NPT connecter is not already installed on the tool) your tool may be shipped with a black plastic cap installed in the air inlet. Pry the cap out prior to installing the ¼" NPT connector.

NEED ASSISTANCE?

Call us on our toll- free customer support line:
1-866-349-8665 (Monday through Friday 9am – 5pm Eastern Standard Time)

- Technical questions
- Replacement parts
- Parts missing from package

⚠ Note these instructions pertain to the tool only. Please refer to your compressors operators manual and follow the manufacturers instructions.

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SAFETY GUIDELINES

⚠ WARNING:
This manual contains information that relates to PROTECTING PERSONAL SAFETY and PREVENTING EQUIPMENT PROBLEMS. It is very important to read this manual carefully and understand it thoroughly before using the product. The symbols listed below are used to indicate this information.

⚠ **DANGER! Potential hazard that will result in serious injury or loss of life.**

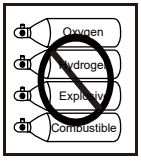
⚠ **WARNING! Potential hazard that could result in serious injury or loss of life.**

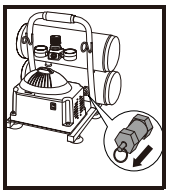
⚠ **CAUTION! Potential hazard that may result in moderate injury or damage to equipment.**

Note - The word " Note " is used to inform the reader of something he / she needs to know about the tool.

⚠ PERSONAL SAFETY

These precautions are intended for the personal safety of the user and others working with the user. Please take time to read and understand them.

SYMBOL	MEANING
	• **Do not use oxygen or any other combustible or bottled gas to power air-powered tools.** Failure to observe this warning can cause explosion and serious personal injury or death. Use only the compressed air to power the air-powered tools. Use a minimum of 25' (7.6 m) of hose to connect the tool to the compressor. Failure to comply will result in serious injury or loss of life. 
	• **Risk of electric shock:** Do not expose a compressor to rain. Store it indoors. Disconnect the compressor from power source before servicing. Compressor must be grounded. Do not use grounding adaptors.
	• **Risk of personal injury:** Do not direct compressed air from the air hose towards the user or other personnel.

SYMBOL	MEANING
	• **Risk of inhalation:** Never directly inhale the air produced by the compressor.
	• **Risk of bursting:** Do not adjust the pressure switch or safety valve for any reason. They have been pre-set at the factory for this compressor's maximum pressure Tampering with the pressure switch or the safety valve may cause personal injury or property damage.
	• **Risk of burns.** The pump and the manifold generate high temperatures. In order to avoid burns or other injuries, do not touch the pump, the manifold, or the transfer tube while the compressor is running. Allow the parts to cool down before handling or servicing. Keep children away from the compressor at all times.
	• **Risk of bursting:** Make sure the regulator is adjusted so that the compressor outlet pressure is set lower than the maximum operating pressure of the tool. Before starting the compressor, pull the ring on the safety valve to make sure the valve moves freely. Drain water from tank after each use. Do not weld or repair tank. Relieve all pressure in the hose before removing or attaching accessories. 

DANGER!

- Keep children away from the work area. Do not allow children to handle power tools.
- Do not use this tool in the presence of flammable liquids or gases. Sparks that are created during use may ignite gases.
- Keep air hose away from heat, oil, and sharp edges. Check air hose for wear before each use and ensure that all connections are proper.
- Always ensure that the workpiece is firmly secured leaving both hands free to control the tool.
- Always ensure that the tool has stopped before putting it down after use, for safety purposes and to prevent possible damage to the tool/user.
- Keep proper footing at all times in order to ensure correct balance.
- Always assume that the tool contains fasteners.
- Do not point the tool toward yourself or anyone else.

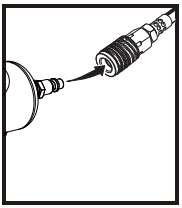
WARNING!

- Do not allow unskilled or untrained individuals to operate the air tool.
- Do not use the tool for any task other than that it is designed to perform.
- Locate the compressor in a well-ventilated area for cooling, and a minimum of 12” (31 cm) away from the nearest wall.
- Protect the air hose and the power cord from damage and puncture. Inspect them for weak or worn spots every week and replace them if necessary.
- Always wear hearing protection when using the air compressor. Failure to do so may result in hearing loss.
- Do not carry the compressor while it is running.
- Do not operate the compressor if it is not in a stable position.
- Do not operate the compressor on a rooftop or an elevated position that could allow the unit to fall or be tipped over.
- Always replace a damaged gauge before operating the unit again.
- Do not connect the tool to a compressed air source with a pressure output that is higher than 90psi.

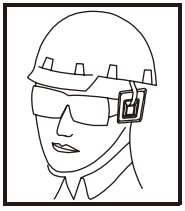
CAUTION!

- Always ensure that the tool has stopped before disconnecting the air supply.
- Do not wear watches, rings, bracelets, or loose clothing when using any air- powered tool.
- Do not overload the tool. Allow the tool to operate at its optimum speed for maximum efficiency.
- Do not use a tool that is leaking air, that has missing or damaged parts, or that requires repairs. Verify that all screws are securely tightened.
- For optimal safety and tool performance, inspect the tool before every usage, in order to ensure free movement of the trigger, safety mechanisms, and springs. Always keep your air tool clean and lubricated. Daily lubrication is essential to avoid internal corrosion and possible failures.
- Ensure the floor is not slippery and wear non-slip shoes. Floors should be kept clean and clear.
- Always follow all workshop safety rules, regulations, and conditions when using the tool and keep the work area clean.
- Carry the tool by the handle only, keeping fingers away from the trigger. Do not carry the tool by the hose, magazine, or any other parts.
- Do not use the tool near or below freezing point, as doing so may cause tool failure. Do not store the tool in a freezing environment to prevent ice formation on the tools operating valves, as doing so may cause tool failure.
- Handling and storage of oil: Use with adequate ventilation. Avoid contact of oil with eyes, skin, and clothing. Avoid breathing spray or mist. Store in a tightly closed container in a cool, dry, well-ventilated area free from Incompatible substances.
- Tripping hazard. The air hose may become a tripping hazard when it is placed in the work area. Use care when walking in the work area.

CAUTION!



- Disconnect tool from the air supply and turn off the compressor before performing any maintenance or changing accessories, when clearing a jammed fastener, when the tool is not in use, when it is being handed to another person, and when it is left unattended. Failure to comply may result in moderate injury or damage to equipment.



- Use safety goggles and ear protection: Wear safety glasses with side shields when operating the tool/compressor and verify that others in the work area are also wearing safety glasses. Safety glasses must conform to American National Standards Institute (ANSI Z87. 1) requirements and must provide protection from flying particles from the front and the sides.
  Air-powered tools are loud, and the sound can cause hearing damage. Always wear ear protection to prevent hearing damage and loss. Failure to comply may result in moderate injury.

Note: Recycle unwanted materials rather than disposing of them as waste. Sort the tools, hoses, and packaging in specific categories and take to the local recycling centre or dispose of in an environmentally safe way.

SYMBOLS

⚠**WARNING:** Some of the following symbols may appear on the tool. Study these symbols and learn their meaning. Proper interpretation of these symbols will allow for more efficient and safer operation of this tool.

V	Volts	3n ~	Three-phase alternating current with neutral
A	Amperes		
Hz	Hertz	⎓	Direct current
W	Watts	n_o	No load speed
kW	Kilowatts	⎓~	Alternating or direct current
µF	Microfarads	⧈	Class II construction
L	Litres	⚠	Splash-proof construction
kg	Kilograms	💧💧	Watertight construction
H	Hours	⏚	Protective grounding at terminal, Class I tools
N/cm^2	Newtons per square centimetre	.../min	Revolutions or reciprocations per minute
Pa	Pascals	Ø	Diameter
Min	Minutes	0	Off position
S	Seconds	➡	Directional arrow
~ or AC	Alternating current	⚠	Warning symbol
3~	Three-phase alternating current		Wear your safety glasses

TOOL SPECIFIC WARNINGS

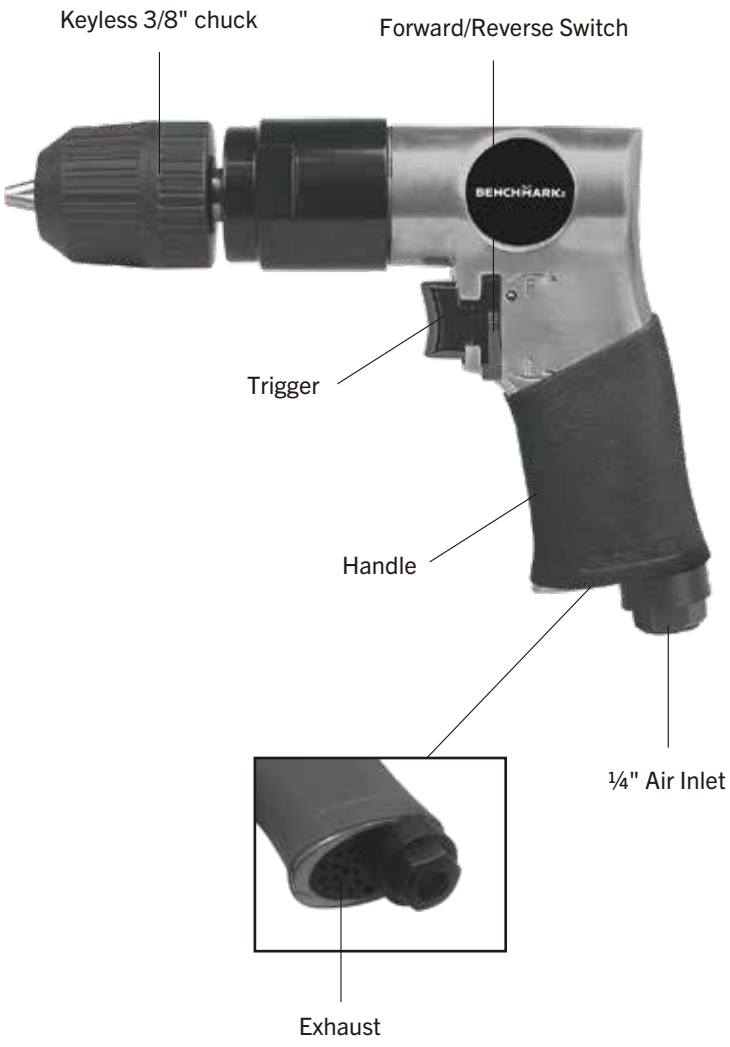
⚠ **DANGER** Potential hazard that will result in serious injury or death.

- Do not disconnect or reconnect the air hose with the tool pressed.

⚠ **WARNING** Potential hazard that could result in serious injury or death.

- Never trigger the tool when not applied to a work object.
- Loose attachments can cause serious injury
- Protect air lines from damage or puncture.
- Never point an air tool at oneself or any other person. Serious injury could occur.
- Check air hoses for weak or worn condition before each use. Make sure all connections are secure.
- Keep all nuts, bolts, and screws tight and ensure equipment is in safe working condition.
- Do not put hands near or under moving parts.
- Do not drill into areas which may contact electrical wiring or piping.
- Hold drill firmly with both hands when using hole saws or other bits that may bind when breaking through material.
- Always wear safety glasses and ear protection during operation.
- Do not depress trigger when connecting the air supply hose.
- Always use attachments designed for use with air powered tools.
- Do not use damaged or worn attachments.

KNOW YOUR 3/8" PNEUMATIC DRILL



ASSEMBLY AND OPERATION

Compatible Compressors

Guidelines for proper use and operation

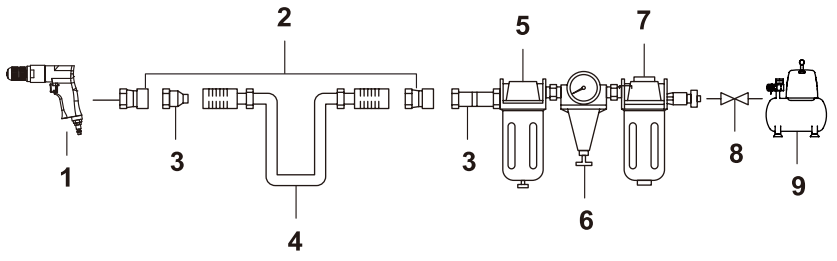
Be sure to use proper air compressor with air-powered tools. The compressor should be able to supply a minimal air delivery of 4 CFM @ 90 SPI to ensure the compressor can run continuously with the tool.

Air Compressor Size & Power	1 1/2 – 2 HP	2 1/2 HP	3 +HP
4 - 5 Gallons	Light duty and intermittent use	Light duty and intermittent use	Light duty and intermittent use
6 - 11 Gallons	Light duty and intermittent use	Medium duty and intermittent use	Medium duty and intermittent use
15+ Gallons	Medium duty and intermittent use	Heavy duty and continuous use	Heavy duty and continuous use

AIR SYSTEM

Always use clean, dry, regulated, compressed air at 4.8 to 6.2 bar (70 to 90 PSI)

Do not exceed the maximum or minimum pressures. Operating the tool at the wrong pressure (too low or too high) will cause excessive noise or rapid wear of tool.



No.	Description
1	3/8" Pneumatic Drill
2	Quick connector
3	Quick coupler
4	Air hose
5	Lubricator
6	Regulator (0 to 8.5 bar)

No.	Description
7	Filter
8	Cut-off valve
9	Air compressor

Fig. 1

The inside diameter of the hose should be increased to compensate for unusually long air hoses (over 25 feet). Minimum hose diameter should be 3/8" I.D. and fittings should have 1/4" NPT thread.

The use of air line lubricators and air line filters is recommended to prevent water in the line that can damage the tool. Drain the air after each use. Clean the air inlet filter screen on at least a weekly schedule to remove accumulated dirt or other matter that can restrict air flow.

The tool's air inlet used for connecting an air supply has standard 1/4" NPT American thread.

ADDITIONAL WARNINGS

- Inspect the air hose for cracks or other problems. Replace the hose if worn.
- Never point an air hose at another person.
- Disconnect the tool when not in use, or before performing service or changing accessories.
- Use proper hoses and fittings. Never use quick change couplings attached to the tool. Instead, add a hose and coupling between the tool and the air supply.

USING THE TOOL

The 3/8" pneumatic Drill is designed for drilling, honing, reaming, hole sawing and wire bushing. The drill is also used to tighten and loosen threaded fasteners. The keyless chuck provides fast and convenient change of drill bits. Do not use the tool for any other purpose than that specified. To do so may be dangerous.

⚠ **CAUTION: This air tool requires lubrication BEFORE initial use, also before and after each additional use.**

⚠ **WARNING: Use a clean lubricated air supply that will give a measured air pressure at the tool of 90 psi/6.2 bar when the tool is running with the trigger fully depressed. Too high an air pressure and unclean air will shorten the product life due to excessive wear and may be dangerous causing damage or personal injury.**

CHUCK

The 3/8" chuck (1) is a quick-change keyless chuck for easy bit changing. (Fig. 2)

Fig. 2

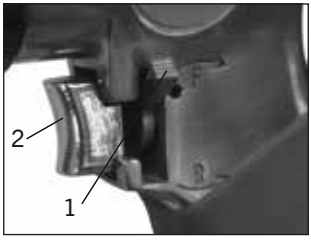


Fig. 3

TRIGGER

The trigger (1) allows the operator to control the start and stop of the air tool. (Fig. 3)

FORWARD/REVERSE SWITCH

The forward/reverse switch (2) is located on the left side of the trigger and the switch is marked F for forward and R for reverse. (Fig.3)

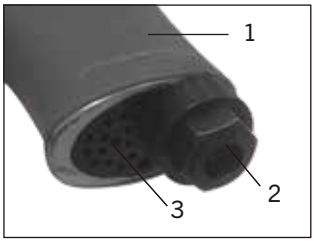


Fig. 4

HANDLE

This air tool has an ergonomic grip (1) with rubber over mold, designed for improved comfort, slippage reduction and better tool control design for improved comfort, slippage reduction, and better tool control.

AIR INLET

The tool's air inlet (2) located at the bottom of the handle is used for connecting an air supply with a standard 1/4" NPT American thread. (Fig. 4)

EXHAUST

The exhaust (3) is located at the base of the handle and allows the exhaust to be directed away from the operator and working area. (Fig. 4)

Use recommended hose size. It is recommended that the tool is connected to the air supply as shown in fig. 1 on page 9. Do not connect the tool to the air line system without incorporating an easy to reach and operate air shut off valve. The air supply should be lubricated. It is strongly recommended that an air filter, regulator, lubricator (FRL) is used as shown in fig. 1 on page 9 as this will supply clean, lubricated air at the correct pressure to the tool. Details of such equipment can be obtained from your supplier. If such equipment is not used, then the tool should be lubricated by shutting off the air supply to the tool and then depressurizing the line by pressing the trigger on the tool. Disconnect the air line and pour into the air inlet 1 teaspoon (5cc.) of a suitable pneumatic motor lubricating oil, preferably incorporating a rust inhibitor. Reconnect tool to air supply and run tool slowly for a few seconds to allow air to circulate the oil.
Lubricate tool daily if used frequently, or when it starts to slow or lose power.

⚠ WARNING:

1. Read all instructions before using this tool. All operators must be fully trained in its use and aware of these safety rules.
2. Do not exceed the maximum working air pressure of 120 psi/8.3 bar.
3. Use personal safety equipment.
4. Use only compressed air at the recommended conditions.
5. If the tool appears to malfunction, remove from use immediately and arrange for service and repair.
6. If the tool is used with a balancer or other support device, ensure that it is fixed securely.
7. Always keep hands away from the working attachment fitted to the tool.
8. The tool is not electrically insulated. Never use the tool if there is any chance of it coming into contact with live electricity.
9. When using the tool, always adopt a firm footing and/or position and grip the tool firmly to counteract any forces or reaction forces that may be generated while using the tool.
10. Use only identical spare parts or parts which perform equivalently. Do not make temporary or permanent repairs with unauthorized parts.
11. Do not lock, tape, wire, etc., the on/off trigger in the run position. The trigger must always be free to return to the “off” position when it is released.
12. Always shut off the air supply to the tool and depress the trigger to release air from the feed hose before fitting, adjusting, or removing the working attachment.
13. Check hoses and fittings regularly for wear. Replace if necessary. Do not carry the tool by its hose. Ensure the hand is removed from the on/off trigger when carrying the tool with the air supply connected.
14. Take care against entanglement of moving tool parts with clothing, ties, hair, cleaning rags, etc. This will cause the body to be drawn towards the tool and can be very dangerous.
15. Safe working practices and observe all relevant legal requirements when installing, using, or maintaining the tool.
16. Only install the tool when an easily accessible and easily operable on/off switch is incorporated in the air supply.
17. Take care that the tool exhaust air does not cause problems or blow onto another person.
18. Never lay a tool down unless the working attachment has stopped moving.
19. Do not start the tool until the bit is securely clamped in the chuck jaws.
20. Do not start the tool until the bit is in contact with the surface being drilled.
21. Use drill bits appropriate for the material being drilled.
22. Do not force the drill. If drilling becomes difficult, professional re-sharpening or replacement of the bit may be necessary.
23. Worn/blunt bits should not be used as this condition contributes to increased vibration and possible tool breakage. A bit that breaks can cause injury.

PRE-START CHECKLIST

- Drain water from air compressor tank and condensation from air lines. (Please refer to air compressor's operation manual.)
- Lubricate the tool. (Please refer to the "Maintenance" section in the manual.)

⚠ **WARNING: Risk of unsafe operation. Firmly grasp air hose with hand when installing or disconnecting to prevent hose whip.**

⚠ **WARNING: Risk of bursting. Too much air pressure causes a hazardous risk of bursting. Check the manufacturer's maximum pressure rating for air tools and accessories. The regulator output pressure must never exceed the maximum pressure rating.**

INSTALLING/REMOVING DRILL BITS

- ALWAYS disconnect drill from air supply before changing drill bits!

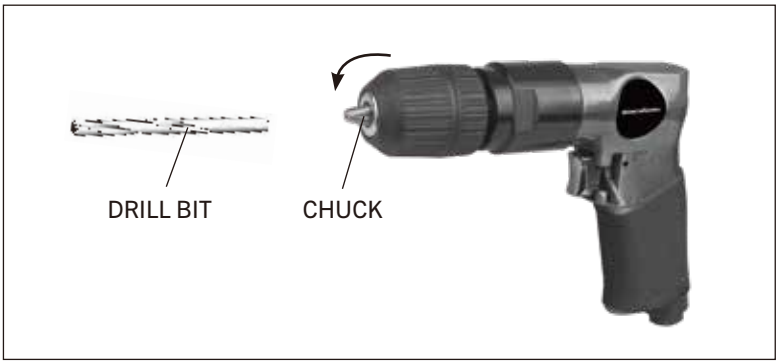


Fig. 5

- To install the drill bit, loosen the chuck jaws by turning the front of the chuck counter-clockwise.
- Carefully insert drill bit into chuck. To ensure proper operation, ensure that the bit is entered between the jaw teeth.

INSTALLING/REMOVING DRILL BITS CONTINUED

- Tighten the chuck jaws by turning the front of the chuck clockwise.

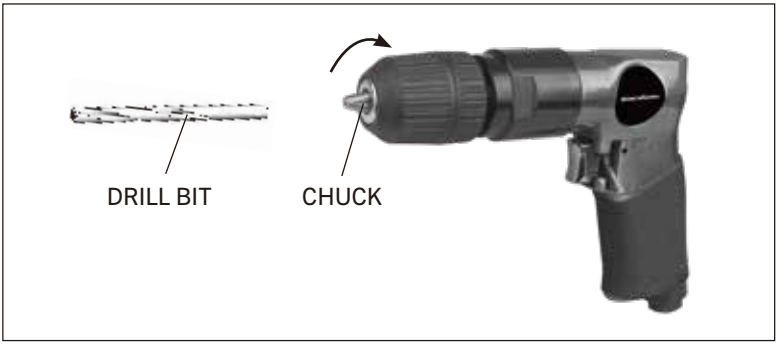


Fig. 6

NOTE: Whenever possible, secure the working piece in a vise or clamp prior to starting drilling.

OPERATING PROCEDURES

START-UP

- Turn on the air compressor and allow the air tank to be filled.
- Set the air compressor regulator to 90 PSI. This air tool operates at a maximum of 90 PSI air pressure.
- Adjust tool either in forward or reverse position.
- Depress the trigger to start operating the tool.

SHUT-DOWN

- Release the trigger in order to stop the tool.
- When changing drills or accessories, always disconnect air supply to avoid injury.
- When job is completed, turn off the air compressor and store the air tool after lubrication.

OPERATING INSTRUCTIONS

- Mark the desired drilling location with an awl or punch to provide a seat for the tip of the bit.
- Place drill bit tip on location of mark and apply pressure to trigger to start drill. If drilling metal, apply lubricant to reduce friction and glazing.
- Apply constant, even pressure while guiding the drill.
- Reduce pressure before cutting through workpiece. Continue depressing trigger until bit is fully removed from the drilled hole.

⚠ **WARNING: Use of safety glasses and a breathing mask is recommended. Drilling certain materials may create hazardous dust which may require special breathing equipment. Check before using the tool. Although the tool has a low noise level, the actual drilling process may cause a noise level such that ear protectors will be required. Safety gloves are recommended.**

⚠ **CAUTION: Drill bit or surface may become extremely hot during drilling. DO NOT touch until cooled.**

MAINTENANCE

NOTE: Do not store the tool anywhere temperatures will fall below freezing.

⚠ **DANGER!** Disconnect the tool from the air compressor before maintenance/ service, adjusting, cleaning jams, reloading, and when it is not in use. Repairs must be performed by a qualified service technician only. Failure to comply will lead to serious injury or loss of life.

LUBRICATION

Air tools require lubrication throughout the lifetime of the tools. The air motor and bearing uses compressed air to power the tool. The compressed air contains moisture that will rust the air motor and other parts inside of the tools, therefore lubrication is required daily. Failure to lubricate the air tool properly will dramatically shorten the life of the tool and will void the warranty.

⚠ **CAUTION: This air tool requires lubrication BEFORE initial use, also before and after each additional use.**

To Lubricate the Air Tool Manually:

1. Remove any attachment on the air tools, such as: drills, accessories, etc.
2. Disconnect the tool from the air supply source, place the air inlet face up.
3. Depress the trigger and place about 1 teaspoon (5cc.) of air tool oil into the air inlet. (Depressing the trigger will help circulate oil in the motor.)

NOTE: Use SAE #10 weight oil if air tool oil is not available.

4. Connect the tool to an air source, cover the exhaust end with a towel and run for about 20 to 30 seconds.

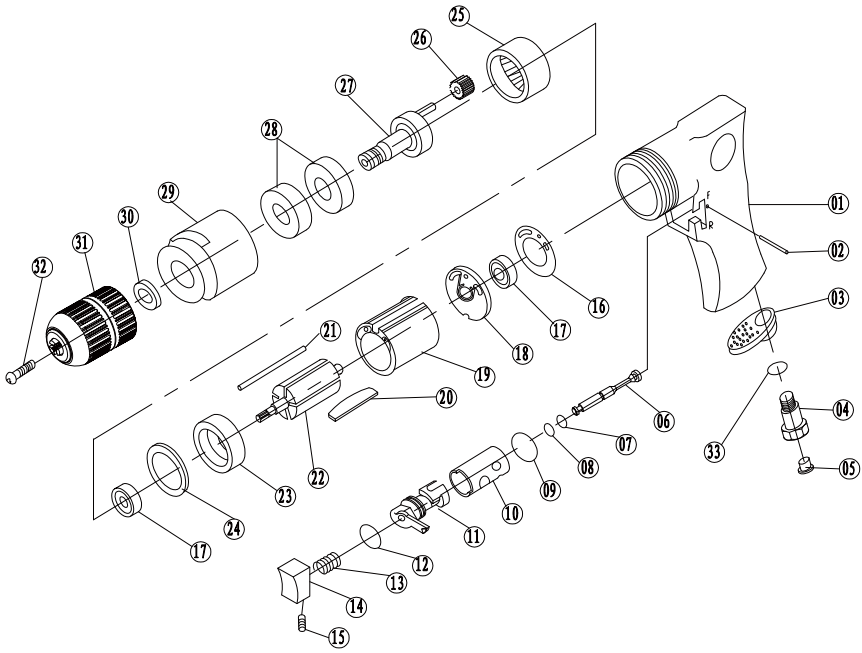
⚠ **WARNING: Keep out of the reach of children. If taken internally, do not induce vomiting, call a doctor immediately.**

⚠ **WARNING: Any excess oil in the motor is immediately expelled from the exhaust port. Always direct exhaust port away from people or objects.**

STORAGE:

If it is necessary to store the tool for an extended period of time, apply a generous amount of lubrication before storing. The tool should be allowed to run for approximately 30 seconds after lubricating, in order to ensure that the lubrication is uniformly distributed throughout the tool.

EXPLODED VIEW



PARTS LIST

⚠ **WARNING:** When servicing, use only original equipment replacement parts. The use of any other parts may create a safety hazard or cause damage to the tool. Any attempt to repair or replace electrical parts on this tool may create a safety hazard unless repairs are performed by a qualified technician. For more information, call the Toll-free Helpline, at 1-866-349-8665.

Always order by part number.

Key #	Part #	Part Name	Quantity
1	03.02.01.011.040-09	Housing	1
2	03.05.04.049	Pin 3x24	1
3	03.02.01.011.019	Exhaust Deflector	1
4	03.02.01.011.024-02	Air inlet	1
5	05.02.17.0080	Dust guard cover	1
6	03.02.01.011.015	Pin	1
7	03.05.01.415	O-ring 4x2	1
8	03.05.01.191	O-ring 4x1.1	1
9	03.05.01.051	o-ring 12x3	1
10	03.02.01.011.018	Bushing	1
11	03.02.01.011.017	Reverse lever	1
12	03.05.01.043	O-ring 11.5×1.8	1
13	03.02.01.011.016	Spring	1
14	03.02.01.011.022	Trigger	1
15	03.05.07.075	Bolt M4×8	1
16	03.02.01.011.002	Sealing washer	1
17	03.05.02.144	Bearing 626ZZ	2
18	03.02.01.011.003	End Plate	1
19	03.02.01.011.004	Cylinder	1
20	03.02.01.011.005	Rotor Blade	5
21	03.02.01.011.001	Steel wire	1
22	03.02.01.011.006	Rotor	1
23	03.02.01.011.007	Front Plate	1
24	03.02.01.011.008	Washer	1
25	03.02.01.011.010	Gear wheel	1
26	03.02.01.011.009	Idle Gear	3
27	03.02.01.011.013	Gear shaft	1
28	03.05.02.090	Bearing 6201Z	2
29	03.02.01.011.012	Clamp nut	1

Key #	Part #	Part Name	Quantity
30	03.02.01.011.020	Washer	1
31	03.05.11.051	Chuck 3/8"	1
32	03.05.07.244	Chuck Screw	1
33	03.05.01.027	O-ring 10.6x1.8	1

WARRANTY

BENCHMARK WARRANTY

If this Benchmark tool fails due to a defect in material or workmanship within five years from the date of purchase, return it to any Home Hardware store with the original bill of sale for exchange. 3-year warranty for the battery and charger. This warranty does not include expendable parts including but not limited to blades, brushes, belts, light bulbs. This warranty covers defects in material or workmanship only. It does not cover normal wear and tear, failure due to abuse/misuse, or defects caused by careless or accidental mishandling. If this Benchmark product is used for commercial or rental purposes, this warranty does not apply.

3/8" PNEUMATIC DRILL

*5-year limited warranty on tool

BENCHMARK™MC

BENCHMARK TOOLS CANADA
ST. JACOBS, ONTARIO N0B 2N0

CUSTOMER SERVICE/TECH SUPPORT
1-866-349-8665

1282 661
Made in China

LIMITED 5 YEAR* WARRANTY

* This Benchmark™ product carries a five (5) year LIMITED warranty against defects in workmanship and materials. The charger and batteries carry a three (3) year LIMITED warranty. See Owner's Manual for full details.

READ ALL INSTRUCTIONS BEFORE FIRST USE. KEEP THIS MANUAL FOR FUTURE REFERENCE. KEEP AWAY FROM CHILDREN.

WEAR CSA APPROVED EYE PROTECTION

WEAR EAR PROTECTION

WEAR A FACE MASK