

DRAPER[®]

INSTRUCTIONS FOR Reversible Air Drill

Stock Nos. 28829
28830
28831

Part Nos. 4273A
4273KA
4274KA

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY TO ENSURE THE SAFE AND EFFECTIVE USE OF THIS PRODUCT.



DRAPER[®]

GENERAL INFORMATION

These instructions accompanying the product are the original instructions. This document is part of the product, keep it for the life of the product passing it on to any subsequent holder of the product. Read all these instructions before assembling, operating or maintaining this product.

This manual has been compiled by Draper Tools describing the purpose for which the product has been designed, and contains all the necessary information to ensure its correct and safe use. By following all the general safety instructions contained in this manual, it will ensure both product and operator safety, together with longer life of the product itself.

All photographs and drawings in this manual are supplied by Draper Tools to help illustrate the operation of the product. Whilst every effort has been made to ensure the accuracy of information contained in this manual, the Draper Tools policy of continuous improvement determines the right to make modifications without prior warning.

1. TITLE PAGE

1.1 INTRODUCTION:

USER MANUAL FOR:

REVERSIBLE AIR DRILL

Stock nos. 28829, 28830, 28831

Part nos. 4273A, 4273KA, 4274KA

1.2 REVISIONS:

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As our user manuals are continually updated, users should make sure that they use the very latest version.

Downloads are available from: <http://www.drapertools.com/b2c/b2cmanuals.pgm>

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1.3 UNDERSTANDING THIS MANUALS SAFETY CONTENT:

WARNING! Information that draws attention to the risk of injury or death.

CAUTION! Information that draws attention to the risk of damage to the product or surroundings.

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2.1 CONTENTS

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3. GUARANTEE

3.1 GUARANTEE

Draper air tools have been carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship for 12 months from the date of purchase except where tools are hired out when the guarantee period is ninety days from the date of purchase.

Should the machine develop any fault, please return the complete tool to your nearest authorised warranty repair agent or contact Draper Tools Limited, Chandler's Ford, Eastleigh, Hampshire, SO53 1YF. England. Telephone Sales Desk: (023) 8049 4333 or Product Helpline (023) 8049 4344.

A proof of purchase must be provided with the tool.

If, upon inspection it is found that the fault occurring is due to defective materials or workmanship, repairs will be carried out free of charge. This guarantee does not apply to normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accident, or repairs attempted or made by any persons other than the authorised Draper warranty repair agent.

Note: If the tool is found not to be within the terms of warranty, repairs and carriage charges will be quoted and made accordingly.

This guarantee applies in lieu of any other guarantee expressed or implied and variation of its terms are not authorised.

Your Draper guarantee is not effective unless you can produce upon request a dated receipt or invoice to verify your proof of purchase within the guarantee period.

Please note that this guarantee is an additional benefit and does not affect your statutory rights.

NOTE: For this item to run correctly the air must be clean and dry, failure to do so will void your warranty.

4. INTRODUCTION

4.1 SPECIFICATION

Stock nos.....	28829	28830	28831
Part nos.....	4273A	4273KA	4274KA
Maximum Torque	13Nm	13Nm	13Nm
Revolutions Per Minute (no load)	1.800min ⁻¹	1.800min ⁻¹	800min ⁻¹
Chuck Capacity	10mm	10mm	13mm
Capacities:			
Wood	20mm	20mm	25mm
Mild Steel	10mm	10mm	13mm
Spindle Thread	3/8" x 24unf	3/8" x 24unf	3/8" x 24unf
Max. operating air pressure	90psi(6.2bar)	90psi(6.2bar)	90psi(6.2bar)
Average air consumption	2cfm (56.6L/min)	2cfm (56.6L/min)	2cfm (56.6L/min)
Min. air line size (inner Ø)	3/8" (10mm)	3/8" (10mm)	3/8" (10mm)
Air inlet.....	1/4" BSP.....	1/4" BSP.....	1/4" BSP.....
Sound pressure level†	85dB(A)	85dB(A)	89dB(A)
Sound power level††	101dB(A)	101dB(A)	101dB(A)
Vibration level†††.....	0.4m/s ²	0.4m/s ²	0.4m/s ²
Weight	1.1kg	1.1kg	1.4kg

WARNING: WEAR APPROVED SAFETY GLASSES AND EAR DEFENDERS.

† Continuous A-Weighted Sound Pressure Level at the workstation in accordance to prEN ISO 15744:2008 and declared according to EN ISO 4871.

†† A-Weighted Sound Power Level in accordance to prEN ISO 15744:2008 and declared according to EN ISO 4871.

††† A-Vibration Level in accordance to prEN 28927-5, uncertainty K=0.24 m/s sq.).

4.2 HANDLING & STORAGE

Although this machine is small in size, care must still be taken when handling and lifting. Dropping this machine will have an effect on the accuracy and may also result in personal injury. This machine is not a toy and must be respected.

The environment will have a negative result on its operation if you are not careful. If the air is damp, components will rust. If the machine is unprotected from dust and debris; components will become clogged: And if not cleaned and maintained correctly or regularly the machine will not perform at its best.

5. HEALTH & SAFETY INFORMATION

5.1 GENERAL SAFETY INSTRUCTION FOR AIR TOOL USE

IMPORTANT:

Draper Tools Limited recommends that this machine should not be modified or used for any application other than that for which it was designed. If you are unsure of its relative applications do not hesitate to contact us in writing and we will advise you.

- Power tools shall not be used in potentially explosive atmospheres unless specifically designed for that purpose.
- Power tools shall be isolated from the energy source before changing or adjusting the inserted tool.
- **WARNING:**
 - There is a risk of loose clothing, hair, etc. being caught in the rotating spindle of the power assembly tool.
 - There is a risk of being injured by whipping air hoses.
- Unexpected direction of inserted tool movement can cause a hazardous situation.
- Release the start and stop device in the case of an interruption of the energy supply;
- Only lubricants recommended by the manufacturer shall be used;
- Release pressure when not in use. Disconnect from air line;
- Do not modify this air tool in any way.
- Do not carry or move the tool by the air line.
- In the event of hydraulic fluid/monograde oil contact or spillage refer to the manufacturer's datasheet. As a general guide refer below.

IMPORTANT NOTE:

Residual Risk. Although the safety instructions and operating manuals for our tools contain extensive instructions on safe working with power tools, every power tool involves a certain residual risk which can not be completely excluded by safety mechanisms. Power tools must therefore always be operated with caution!

5.2 AIR SUPPLY

FAILURE TO FOLLOW THESE INSTRUCTIONS WILL LEAD TO PREMATURE MALFUNCTION OF THE EQUIPMENT WHICH IS NOT COVERED BY THE GUARANTEE.

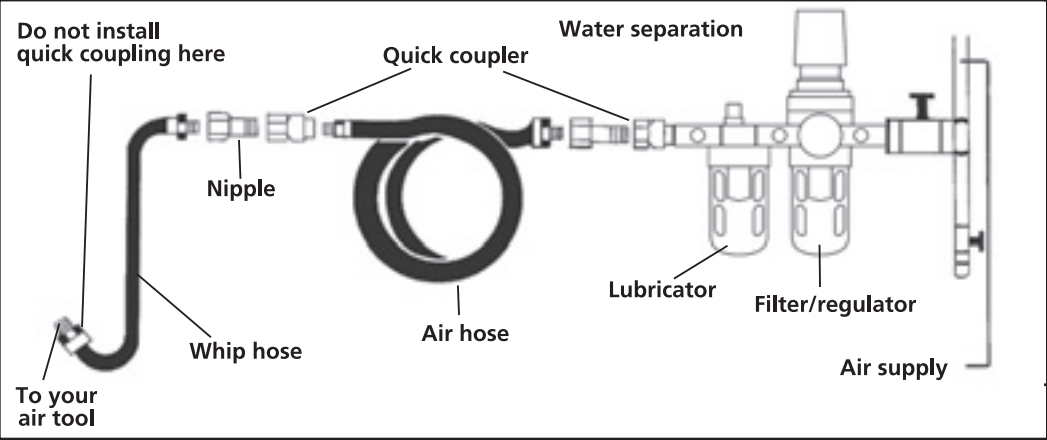
This air tool operates at a maximum pressure of 90psi and must be controlled via a combination pressure regulator, filter and lubricated such as the Draper range (see your local Draper stockist) which with proper maintenance will ensure a constant supply of clean, dry, lubricated air at all times (see illustration). Always check machine operating pressure before use.

WATER IN THE COMPRESSOR TANK WILL CAUSE SERIOUS CORROSION TO YOUR AIR TOOLS AND SHOULD BE DRAINED DAILY TO AVOID EXCESSIVE WATER IN YOUR AIR SUPPLY. DIRTY WET AIR RAPIDLY SHORTENS THE LIFE OF YOUR AIR TOOL.

If you are using an air tool on a hose over 25ft. long it is advisable to increase the bore of the hose to the next larger size available ie. 1/4" increases 3/8". This will ensure adequate pressure and volume of air to power the machine.

5. HEALTH & SAFETY INFORMATION

5.3 RECOMMENDED AIR SUPPLY SET UP



6. TECHNICAL DESCRIPTION

6.1 IDENTIFICATION



- ① 10mm keyless chuck - Stock No.28830
13mm keyless chuck - Stock No.28831
- ② 10mm geared chuck - Stock No.28829
- ③ Auxiliary handle (Stock No.28831 only).
- ④ Variable speed trigger switch

- ⑤ Forward/Reverse selector
- ⑥ Soft grip handle
- ⑦ $\frac{3}{8}$ " air inlet

7. BASIC AIR DRILL OPERATIONS

7.1 DUST AND SWARF

A correctly fitted dust mask, suitable for the activity and in accordance to the relevant standard must be worn.

Swarf produced by metal drilling is extremely sharp. Take precautions when clearing swarf. The burr left on the hole is also sharp and should be removed with a suitable tool.

Always wear safety goggles.

WARNING: Drill bit will be hot after use.

7.2 INSTALLING AND REMOVING BITS (Stock No.28829) - FIG. 1

The drill is fitted with a geared chuck, this means that a chuck key is required to secure the drill .

- i. Place the drill bit shoulder into the chuck as far as it will go.
- ii. Tighten the chuck firmly.



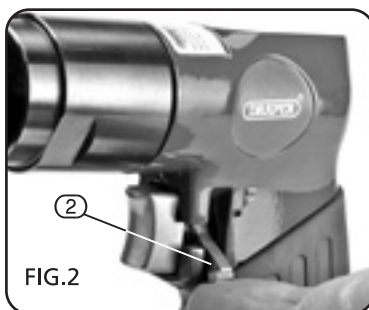
7.3 FORWARD/REVERSE SELECTOR - FIG. 2

The switch determines the direction of rotation of the chuck, i.e. clockwise or anticlockwise.

- i. Stop the drill and push switch (2) to the up or down position.

NOTE: When the direction switch is pushed to the up, the chuck will rotate clockwise.

Before operation, check that the switch is set in the required position. Do not change the direction of rotation until the chuck comes to a complete stop.



7. BASIC AIR DRILL OPERATIONS

7.4 TRIGGER - FIG. 3

When the trigger is depressed, the chuck will rotate (provided the direction switch is set in the forward or reverse position). The speed varies according to how far the trigger switch is depressed. The further it is depressed, the faster the chuck will rotate. The lighter it is depressed, the slower it will rotate.



7.5 HOLDING THE DRILL - FIG. 4

The drill casing is designed to be held comfortably by the handle.



7. BASIC AIR DRILL OPERATIONS

7.6 CONNECTING YOUR DRILL TO AIR SUPPLY - FIG. 5

It is recommended to use a whip hose (Draper Stock No.54438 for example) to connect an air line to your drill.



7.7 AUXILIARY HANDLE - FIG. 6

Stock No.28831 is supplied with an auxiliary handle for additional support.



8. TROUBLESHOOTING

8.1 TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	REQUIRED ACTION
<ul style="list-style-type: none">• Tool will not operate. Air flows slightly from exhaust. Spindle turns freely.	<ul style="list-style-type: none">• Motor or throttle seized with dirt.	<ul style="list-style-type: none">• Check for dirt in air inlet.• Operate trigger in short bursts.• Disconnect air line supply, then turn spindle by hand. Reconnect air supply.• If motor fails to turn return to service agent.
<ul style="list-style-type: none">• Tool runs slowly. Air flows freely from exhaust.	<ul style="list-style-type: none">• Rotor vane seized.	<ul style="list-style-type: none">• Operate tool in short bursts.• Tap motor housing gently with plastic mallet.• If still not functional, return to service agent.
<ul style="list-style-type: none">• Spindle seized.	<ul style="list-style-type: none">• Motor vane broken.	<ul style="list-style-type: none">• Return to service agent.
<ul style="list-style-type: none">• Tool will not shut off.	<ul style="list-style-type: none">• 'O' rings throttle valve dislodged from seat inlet valve.	<ul style="list-style-type: none">• Replace 'O' ring or return to service agent.

9. MAINTENANCE

Air tools require constant lubrication to ensure trouble free operation. We recommend the use of Draper 24326 or 24333 filter, lubricator unit.

9.1 EVERY DAY:

Before connection to the air supply;

- Drain the compressor reservoir of condensate.
- Drain the air lines of condensate.
- Drain the combined separator filter, regulator, water trap.
- Check the line pressure is correct for the tool.
- Lubricate the tool before use.

9.2 AFTER DAILY USE:

- Repeat the above procedures.

10. EXPLANATION OF SYMBOLS

10.1 EXPLANATION OF SYMBOLS



Warning! Operator's instruction shall be read before work starts



Warning! Eye protection shall be used or safety glasses worn



Warning! Hearing protection shall be worn

11. DISPOSAL

11.1 DISPOSAL

- At the end of the machine's working life, or when it can no longer be repaired, ensure that it is disposed of according to national regulations.
- Contact your local authority for details of collection schemes in your area.

In all circumstances:

- Do not dispose of power tools with domestic waste.
- Do not incinerate.
- Do not abandon in the environment.

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