DRAPER

EN

Original Instructions
Version 3 - February 2025

AIR DRILL

83811/84121

Stock No: 83811

Stock No: 84121

UK CA CE

1. Preface

These are the original product instructions. This document is part of the product; retain it for the life of the product, passing it on to subsequent holders. Read this manual in full before attempting to assemble, operate or maintain this product.

This Draper Tools manual describes the purpose of the product and contains all the necessary information to ensure its correct and safe use. Following all the instructions and guidance in this manual will ensure the safety of both the product and the operator and increase the lifespan of the product.

All photographs and drawings within this manual are supplied by Draper Tools to help illustrate correct operation of the product.

Every effort has been made to ensure the information contained in this manual is accurate. However, Draper Tools reserves the right to amend this document without prior warning. Always use the latest version of the product manual.

1.1 Product Reference

User Manual for: Air Drill

Stock No: 83811/84121]

Part No: DAT-RAD10, DAT-RAD-13

1.2 Revisions

Version 1: October 2017
First release

Version 2: July 2021

Version 3: February 2025

As our manuals are continually updated, always ensure that the latest version is used.

Please visit **drapertools.com/manuals** for the latest version of this manual and the associated parts list, if applicable.

1.3 Understanding the Safety Content of This Manual

WARNING! – Situations or actions that may result in personal injury or death.

CAUTION! – Situations or actions that may result in damage to the product or surroundings.

Important: – Information or instructions of particular importance.

1.4 Copyright © Notice

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3. Product Introduction

3.1 Intended Use

This reversible air drill features a quick-change keyless chuck for fast bit changes and suitable for drill bits with diameters up to 10mm (83811) and 13mm (84121).

Any other application beyond the conditions established for use will be considered misuse. Draper Tools accepts no responsibility for improper use of this product.

Read this manual in full before attempting to assemble, operate or maintain the product, and retain it for later use.

3.2 Specification

Stock No.	83811	84121
Part No.	DAT-RAD10	DAT-RAD13
Chuck Size:	10mm (3/8")	13mm (½")
Max. Operating Air Pressure:	90psi (6.2bar)	90psi (6.2bar)
Average Air Consumption:	155L/min (5.5cfm)	184L/min (6.5cfm)
Speed (no load):	2200rpm	700rpm
Minimum Air Line size:	3/8" ID	3/8"ID
Air Inlet:	¼ " BSP	¼ " BSP
Noise emissions:		
Sound pressure level:	87dB (A)	87dB (A)
Sound power level:	98dB (A)	98dB (A)
Vibration level:	1.0m/s^2	1.0m/s^2
Net Weight:	1.48kg	1.66kg

Important: The declared vibration total values and noise emissions values have been measured in accordance with a standard test method and may be used for comparing one tool with another. These values may also be used in a preliminary assessment of exposure.

WARNING! The vibration and noise emissions during actual use of the product can differ from the declared values depending on the type of work and the area upon which it is used. Before each use, estimate the likely exposure resulting from the actual conditions of use. Take into account all parts of the operation cycle in order to identify any safety measures required to protect the operator.

Important: Read all the Health and Safety instructions before attempting to operate, change accessories, maintain or repair this product. Failure to follow these instructions may result in injury or damage to the user, the product or the workpiece.

4.1 General Health and Safety Precautions

- Only qualified and trained operators should use or adjust the air drill.
- **DO NOT** modify this drill. Modifications can reduce the effectiveness of safety measures and increase the risks to the operator.
- Retain the safety instructions for future reference and use by the operator.
- **DO NOT** use the drill if it has been damaged.
- Inspect the tool periodically to verify that the ratings and markings required are attached and legible.
- Keep bystanders away during operation.
- **ALWAYS** wear appropriate personal protective equipment (PPE). Personal protective safety glasses and dust mask shall be used; suitable gloves and protective clothing are recommended.
- Have your tool serviced by a qualified repair person using only identical replacement parts.

4.2 Additional Safety instructions for Compressed Air

WARNING! Compressed air can cause severe injury.

- **ALWAYS** turn off and disconnect the air supply before making any adjustments to the product or leaving it unattended.
- **NEVER** direct this product towards yourself or others.
- Ensure that compressed air is not blocked by or in contact with any part of your body.

- **ONLY** use clean, dry and regulated compressed air.

WARNING! NEVER use oxygen, combustible gases or other bottled gases as a supply for this product. Use of these substances may cause the product to explode.

- The use of a whip hose between the tool and the air supply to reduce vibration is recommended.

WARNING! Whipping hoses can cause severe injury. Always check for and replace damaged or loose hoses and fittings.

- Ensure that the product is compatible with the air supply before use.
- Ensure all connections are securely tightened.
- Where universal twist couplings (claw couplings) are used, lock pins must be installed and whip check safety cables must be used to safeguard against possible hose-to-tool or hose-to-hose failure
- **DO NOT** exceed the maximum stated air pressure.
- **DO NOT** obstruct the ability of the trigger to release once depressed.
- **NEVER** carry the tool by the air line.

4.3 Additional Safety Instructions for Air Drills

- Be aware that the failure of the workpiece, or accessories, or even of the inserted tool itself can generate high-velocity projectiles.
- Always wear impact-resistant eye protection during the operation of the drill. The grade of protection required should be assessed for each use.
- Ensure that the workpiece is securely fixed.
- There is a risk of crushing by torque between the drill and the workpiece.
- Keep hands, loose clothing, hair etc. away from the rotating spindle of the drill and accessories.
- Wear suitable gloves to protect hands.
- Hold the tool correctly; be ready to counteract normal or sudden movements and have both hands available.
- It is recommended to use the side handle.
- High-reaction torque can be developed in the case of stalling, which can be caused by excessive loads being applied to the drill bit, by the drill bit snagging on the material being drilled into or by the drill bit breaking through the material being drilled.
- Keep hands away from the rotating chuck and drill bit.
- When using a drill to perform work-related activities, the operator can experience discomfort in the hands, arms, shoulders, neck or other parts of the body.
- While using a drill, the operator should adopt a comfortable posture while maintaining a secure footing and avoiding awkward or off-balanced postures. The operator should change posture during extended tasks, which can help avoid discomfort and fatigue.
- Direct the exhaust so as to minimize disturbance of dust in a dust-filled environment.

- Where dust or fumes are created, the priority shall be to control them at the point of emission to avoid a hazard.
- Release the start and stop device in the case of an interruption of the energy supply.
- Only use lubricants recommended by the manufacturer.
- Disconnect the tool from the energy supply before changing the inserted tool or accessory.
- Use only sizes and types of accessories and consumables that are recommended by the tool manufacturer.
- Avoid direct contact with the inserted tool during and after use, as it can be hot or sharp.
- The drill is not intended for use in potentially explosive atmospheres and is not insulated against coming into contact with electric power. Ensure there are no electrical cables, gas pipes, etc., that can cause a hazard if damaged by use of the tool.

- **Noise Hazards**
  - Exposure to high noise levels can cause permanent hearing loss and other problems. Perform a risk assessment and implement any appropriate controls for identified hazards before performing any operation.
  - Use appropriate hearing protection in accordance with local occupational health and safety regulations.
  - Operate and maintain the tool appropriately to prevent unnecessary increase in noise emissions.

- **Vibration Hazards**
  - Exposure to vibration can cause disabling damage to the nerves and blood supply of the hands and arms.
  - Wear warm clothing when working in cold conditions and keep your hands warm and dry.
  - If you experience numbness, tingling, pain or whitening of the skin in your fingers or hands, stop using the tool and consult a qualified health professional.
  - Operate and maintain the tool appropriately to prevent unnecessary increase in vibration emissions.
  - The risks from vibration hazards are increased when grip force on the tool is higher. – Hold the tool with a light but safe grip, keeping in mind that your grip may need to be altered to react to unexpected forces.

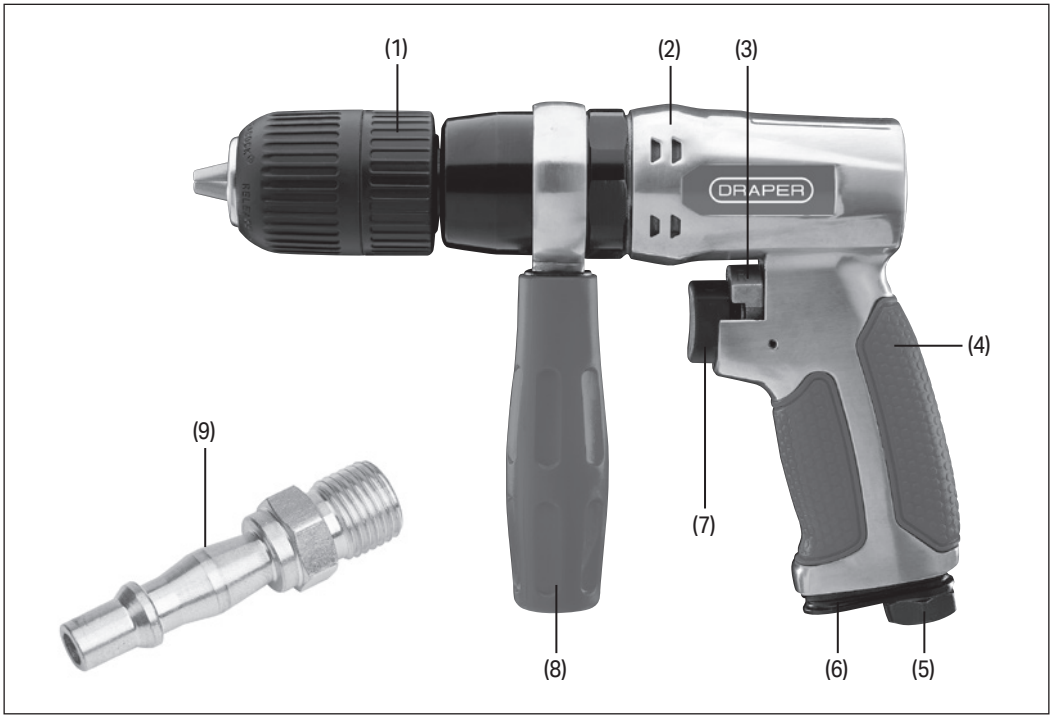
4.4 Residual Risk

The safety instructions in this manual cannot account for all possible conditions and situations that may occur. Exercise common sense and caution when using this product and protect against any additional conceivable risks.

5. Identification and Unpacking

Carefully remove the product from the packaging and examine it for any signs of damage that may have occurred during shipment. If any part is damaged or missing, do not attempt to use the product. Please contact the Draper Helpline; contact details can be found at the back of this manual.

5.1 Product Overview



(1) Keyless chuck
(2) Aluminium body
(3) Forward and reverse switch
(4) Low vibration soft grip handle
(5) Female air inlet (1/4" BSP)
(6) Air exhaust
(7) Trigger switch
(8) Side Handle
(9) Air line coupling screw adaptor

5.2 Packaging

Keep the product packaging for the duration of the warranty period in case the product needs to be returned for repair.

WARNING! Keep packaging materials out of reach of children. Dispose of packaging correctly and responsibly and in accordance with local regulations.

Please visit **drapertools.com** for our full range of accessories and consumables.

6. Assembly Instructions

Important: Before preparing or adjusting this product, read and understand all the safety instructions listed in this manual.

Important: Always disconnect from the air supply before assembling, carrying out adjustments, servicing or maintenance.

6.1 Preparing the Air Supply for Use (Fig.1)

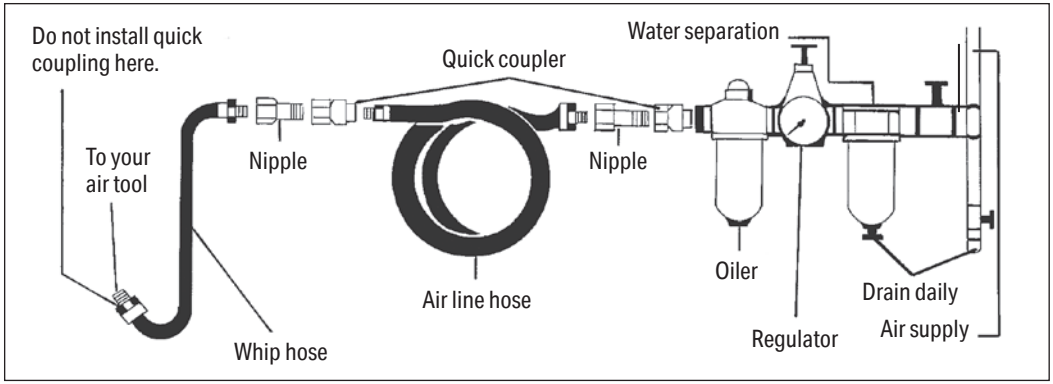


Fig. 1

- **This air tool operates at a max. pressure of 6.2bar (90psi).**
- The compressed air system must be controlled by a combination pressure regulator, in-line lubricator and moisture filter. This will ensure a constant supply of dry air at all times, provided it is properly maintained.
- **Important:** Always check the machine operating pressure before use.
- Water in the compressor tank may cause considerable corrosion to air tools; the compressor should be drained daily to avoid excessive water in the air supply. Dirty or wet air can significantly shorten the lifespan of the product.
- When using an air tool with a hose over 25ft long, Draper Tools recommends increasing the bore of the hose to the next largest available size (i.e. increase 3/8" to 1/2"). This will ensure adequate pressure and volume of air to power the tool.

6.2 Connection To The Air Supply (Fig.2)

Important: Use of a 1/4" BSP male-threaded thread whip hose (not supplied) is recommended to connect the tool to the air line in order to reduce vibration.

1. Wrap a length of PTFE tape around the thread before securing the hose in place.
2. Check that the connection is secure and airtight.

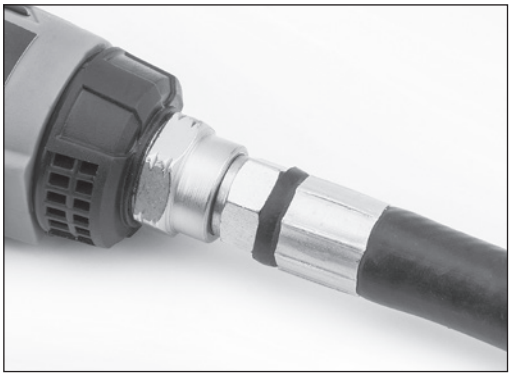


Fig. 2

7. Operating Instructions

Note: Before operating the drill ensure the compressor reservoirs are drained of condensate along all the connected air lines. Check and drain the air line regulator's water trap & fill up the lubrication reservoir.

7.1 Keyless Chuck (Fig.3)

The drill is fitted with a keyless chuck, which negates the requirement for a separate key to secure the accessory in the jaws.

Selection of the correct accessory depends on the material type and the application. Ensure the selected accessory is suitable and speed compatible with the drill.

1. Place the drill bit or accessory into the chuck.
2. Hold the back of the chuck (1.1) and rotate the body (1.2) to grip.

WARNING! Before drilling, carefully check the surface for the presence of electric cables, gas or water pipes or other similar contents. If unsure DO NOT proceed.

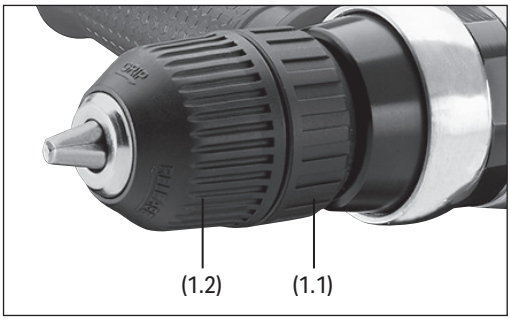


Fig. 3

7.2 Trigger Switch (Fig.4)

- Confirm direction of rotation before starting the drill.
- Press the trigger switch (7) to operate the drill.
- Release the trigger to stop the drill.

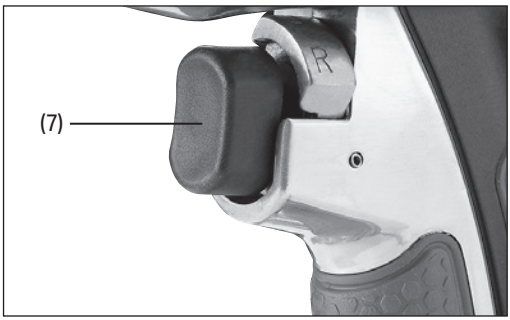


Fig. 4

7.3 Directional control Switch (Fig.5)

- Slide the switch (3) to change the direction for either (F) forward or (R) for reverse.
- Use the trigger switch to adjust the speed setting most suitable for the application. **ONLY** switch direction when the chuck has stopped rotating

WARNING! Changing direction while the chuck is rotating will damage the gearbox.

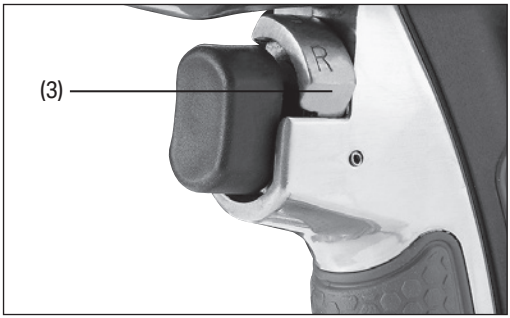


Fig. 5

7.4 Using the Drill

Dust and Swarf

- **ALWAYS** wear safety glasses and a correctly fitted dust when using the drill.
- A mask rated at least FFP2 should be used if the application involves exposure to fine wood dust.
- Swarf produced by metal drilling is extremely sharp. Take care when clearing metal swarf.
- The 'burr' left on the edge of the workpiece is also sharp and should be removed with a suitable tool.

Drilling Wood and Plastic

- To prevent splitting around the drill holes on the reverse side, place a piece of scrap timber under the material to be drilled.

Drilling Metal

- The drill is suitable for use with metals such as sheet steel, aluminium and brass.
- To help the drill bit to locate mark the point to be drilled with a centre punch.
- Add a drop of oil on the cutting point to help aid penetration and prolong the life of the drill bit.

Screwdriving

- To prevent slipping or damage to the screw head, match the screwdriver bit to the screw head size.

8. To Maintenance Storage and Disposal EN

- Always unplug from the air supply and switch off before carrying out any cleaning or maintenance.
- Regularly inspect and clean the drill to keep it in good working condition.
- Wipe over with a damp cloth only. **DO NOT** use solvents or abrasives to clean the product.
- When not in use store the product in a dry safe place out of the reach of children.

At the end of its working life, dispose of the product responsibly and in line with local regulations. Recycle where possible.

- **DO NOT** dispose of this product with domestic waste; most local authorities provide appropriate recycling facilities.

9. Troubleshooting

Problem	Possible Cause	Remedy
Tool will not operate. Air flows slightly from exhaust. Spindle turns freely.	Motor or throttle seized with dirt.	• Check for dirt in air inlet. • Pour air tool lubricating oil into air inlet. • Operate trigger in short bursts • Disconnect air line supply, then turn drill chuck by hand. Reconnect air supply. • If motor fails to turn contact the Draper Tools product helpline for advice.
Tool runs slowly. Air flows slightly from exhaust.	Rotor vane seized.	• Pour air tool lubricating oil into air inlet. • Operate trigger in short bursts. • Disconnect air supply, rotate drill by hand. Reconnect air supply. • If still not functional. contact the Draper Tools product helpline for advice.
Spindle seized.	Motor vane broken.	Contact the Draper Tools product helpline for advice.
Tool will not shut off.	'O' rings throttle valve dislodged from seat inlet valve.	Replace 'O' ring or contact the Draper Tools product helpline for advice.

10. Warranty

Draper Tools products are carefully tested and inspected before shipment and are guaranteed to be free from defective materials and workmanship.

Should the tool develop a fault, return the complete tool to your nearest distributor or contact Draper Tools directly. Contact information can be found at the back of this manual.

Proof of purchase must be provided.

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 warranty period covers parts and labour for 6 months from the date of purchase.

This warranty does not apply to any consumable parts, batteries or normal wear and tear, nor does it cover any damage caused by misuse, careless or unsafe handling, alterations, accidents, or repairs attempted or made by any personnel other than the authorised Draper Tools repair agent.

In all cases, to make a claim for faulty workmanship or materials within the standard warranty period, please contact or return the product to the place of purchase. Proof of purchase may be required.

If the place of purchase is no longer trading or if you experience any difficulties with your warranty, please contact Customer Services with the product details and your proof of purchase. Contact details can be found at the back of this manual.

If the tool is not covered by the terms of this warranty, repairs and carriage charges will be quoted and charged accordingly.

This warranty supersedes any other guarantees expressed or implied and variations of its terms are not authorised.

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

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

Draper Tools Limited

11. Explanation of Symbols

Read the instruction manual

Wear safety glasses

Wear ear defenders

Wear protective gloves

Warning!

Warning! Risk of crushing!

Direction of rotation

European conformity

UK Conformity Assessed

Notes

Contact Details

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