



110V DIAMOND CORE DRILL

MODEL NO: **DCD110V**

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions, and properly maintained, give you years of trouble free performance.

IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.



Refer to instructions



Wear eye protection



Wear protective gloves



Wear safety footwear



Wear protective clothing



Wear ear protection

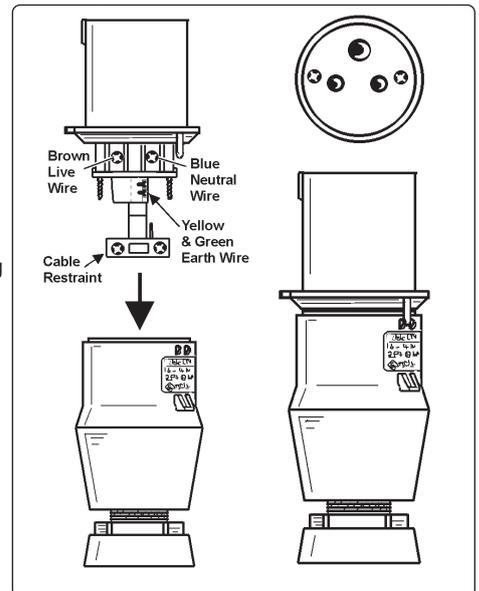


Wear a mask

1. SAFETY

1.1. ELECTRICAL SAFETY

- ❑ **WARNING!** It is the responsibility of the owner and the operator to read, understand and comply with the following:
 - You must check all electrical products, before use, to ensure that they are safe. You must inspect power cables, plugs, sockets and any other connectors for wear or damage. You must ensure that the risk of electric shock is minimised by the installation of appropriate safety devices. A Residual Current Circuit Breaker (RCCB) should be incorporated in the main distribution board. We also recommend that a Residual Current Device (RCD) is used. It is particularly important to use an RCD with portable products that are plugged into a supply which is not protected by an RCCB. If in any doubt consult a qualified electrician. You may obtain a Residual Current Device by contacting your Sealey stockist.
 - ✓ You must also read and understand the following instructions concerning electrical safety.
- 1.1.1. The **Electricity at Work Act 1989** requires that all portable electrical appliances, if used on business premises, are tested by a qualified electrician, using a Portable Appliance Tester (PAT), at least once a year.
- 1.1.2. The **Health & Safety at Work Act 1974** makes owners of electrical appliances responsible for the safe condition of those appliances and the safety of the appliance operators. If in any doubt about electrical safety, contact a qualified electrician.
- ✓ Ensure that the insulation on all cables and on the appliance is safe before connecting it to the power supply.
- ✓ Ensure that cables are always protected against short circuit and overload.
- ✓ Regularly inspect power supply cables and plugs for wear or damage and check all connections to ensure that none are loose.
- ✓ Ensure that the voltage marked on the appliance matches the power supply to be used.
- ✗ **DO NOT** pull or carry the appliance by its power supply lead.
- ✗ **DO NOT** pull the plug from the socket by the power cable.
- ✗ **DO NOT** use worn or damaged cables, plugs or connectors. Immediately have any faulty item repaired or replaced by a qualified electrician.
- ✓ Ensure the unit is correctly earthed via a three-pin 110V plug.
 - a) Connect the GREEN/YELLOW earth wire to the earth terminal 'PE'.
 - b) Connect the BROWN live wire to the live terminal 'L/+'.
 - c) Connect the BLUE neutral wire to the neutral terminal.
 - d) After wiring, check that there are no bare wires, that all wires have been correctly connected, that the cable outer insulation extends past the cable restraint and that the restraint is tight.



1.2. GENERAL SAFETY

- ✓ Disconnect the drill from the mains power before changing accessories, servicing or performing any maintenance.
- ✓ Maintain drill in good condition. Check moving parts and alignment and keep drill bits sharp. If necessary use an authorised service agent.
- ✓ Replace or repair damaged parts. Use recommended parts only. Unauthorised parts may be dangerous and will invalidate the warranty.
- ✓ Wear approved safety eye protection with side shields and a dust mask if drilling generates dust. Rubber gloves are recommended when using outdoors and safety gloves when drilling items such as steel, brick work etc.
- ✓ Remove ill fitting clothing. Remove ties, watches, rings, other loose jewellery and contain long hair.
- ✓ Use drill in an adequate working area for its function, keep area clean, tidy and free from unrelated materials and ensure adequate lighting.
- ✓ Prevent body contact with grounded surfaces to avoid electric shock i.e. pipes, radiators, ranges, refrigerators etc.
- ✓ Evaluate your working area before using the drill i.e. ceiling, floors and enclosures may contain hidden electrical wires or water piping.
- ✓ Maintain correct balance and footing.
- ✓ The supplementary handle grip should always be attached for use.
- ✓ Keep children and unauthorised persons away from the working area.
- ✓ Secure non stable work piece with a clamp, vice or other adequate holding device.

- ✓ Avoid unintentional starting and ensure the lock-on button is disengaged before use.
 - ✓ Use suitable detectors to determine if utility lines are hidden in the work area or contact local utility companies for assistance. Contact with electric lines can lead to fire and electric shock. Damaging a gas line can lead to explosion. Penetrating a water line causes property damage and may cause electric shock.
 - ✓ Hold the tool only by the insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord. Contact with a "live" wire will also make the exposed metal parts of the power tool "live" and shock the operator.
 - ✓ When working with machine, always hold it firmly with both hands and provide for a secure stance. The power tool is guided more securely with both hands.
 - ✓ Always wait until the machine has come to a complete stop before placing it down. The tool insert can jam and lead to loss of control of the power tool.
 - ✓ Take protective measures when dust can develop during working that is harmful to one's health, combustible or explosive.
 - ✓ Always use the auxiliary handle supplied with the machine. Loss of control can cause personal injury.
 - ✗ **DO NOT** work materials containing asbestos. Asbestos is considered carcinogenic.
 - ✗ **DO NOT** force the drill to achieve a task it was not designed to perform.
 - ✗ **DO NOT** operate drill where there are flammable liquids or gasses.
 - ✗ **DO NOT** get the drill wet or use in damp or wet locations.
 - ✗ **DO NOT** operate the drill if any parts are missing or the drill is damaged as this may cause failure and/or possible personal injury.
 - ✗ **DO NOT** operate the drill when you are tired, under the influence of alcohol, drugs or intoxicating medication.
 - ✗ **DO NOT** carry the drill with your finger on the power switch, or carry by the power cord, or leave the drill running whilst unattended.
 - ✗ **DO NOT** over-reach and ensure the floor is not slippery and wear non skid shoes.
 - ✗ **DO NOT** hold unsecured work in your hand.
 - ✗ **DO NOT** use the machine with a damaged cable. **DO NOT** touch the damaged cable, but turn off the power supply at socket.
 - ✗ **DO NOT** use the drill without the auxiliary handle fitted
 - ✓ When not in use, switch drill off, remove plug from power supply, clean the drill and store in safe, dry, child proof area
- 1.3. DIAMOND CORE DRILL BIT SAFETY**
- ☐ **WARNING!** Once a core cutter is within the hole and cutting, it can snag or grab at any moment without warning. This can easily harm your wrist or arm.
 - ✓ When drilling through floors make sure the area beneath the floor you are working on is cordoned off and that co-workers are aware of what you are doing. The core is likely to fall from the ceiling when you have finished drilling.
 - ✓ Check both the inside and outside of the core drill for damage, wear or debris before using it.
 - ✓ Silica dust will be created when drilling concrete wear a mask.
 - ✓ Diamond core drilling is the slowest method of cutting a hole. Have realistic expectations as to the time required for cutting.

2. INTRODUCTION

Manufactured using high quality components for performance and reliability. Lightweight and compact unit. Fitted with soft start, variable speed and overload protection. Designed for use in construction and other applications when working with masonry and concrete. Supplied with adaptor, water cooling kit and side handles. Can be used independently or with optional Model No. DCDST Diamond Core Drill Stand.

3. SPECIFICATION

Model No:..... **DCD110V**
 Masonry Drilling Range:..... Ø18-160mm
 Concrete Drilling Range:..... Ø18-130mm
 Power Supply:..... 110V - 50Hz
 Motor Power:..... 2300W
 No Load Speed:..... 0 - 1900rpm
 Borehole Depth:..... 380mm
 Maximum Cutter Size:..... Ø160 x 380mm
 Adaptor: 1-1/4"UNC Thread
 Optional Drill Stand: Model No. DCDST
 Cable Length:..... 3.5m

Noise power..... <85dB(A)
 Noise pressure..... 69dB(A)
 Vibration..... <2.5m/s²
 Uncertainty..... 1.5m/s²

4. OPERATION



fig.1

- ☐ **WARNING!** Make sure there are no cables or pipes hidden in the wall. Never assume that work hasn't been done by someone else in the intended drilling area beforehand.

- 4.1. Choose the correct size drill for the hole that you wish to make, rectifying mistakes may be difficult.
- Note:** If the depth of the hole is longer than the drill bit you will need to withdraw the drill bit and chop out the core with a hammer and bolster.
- × **DO NOT** force the drill whilst drilling however use less pressure when you are nearly finished cutting your hole.
- 4.2. Make sure you have selected the correct type of cutting bit for the material you will be drilling into.
- 4.3. CONNECTING TO A WATER SUPPLY**
- ✓ Make sure the water source that you are connecting to is clean and free from grit and other particulate.
 - ✓ Make sure the supply you are connecting to is no more than 3 bar of pressure.
 - × **DO NOT** get the power supply or drill wet.
- 4.3.1. Attach the short reinforced suction hose to the collar above the chuck.
- 4.3.2. Connect water hose to the reinforced tube.
- ✓ Make sure that all water connections are secure before turning the water supply on.

5. MAINTENANCE

- **WARNING!** Disconnect from mains supply before performing any maintenance.
- 5.1. Brushes should be replaced by a competent person. Contact your Sealey stockist for more information.
- 5.2. Remove the cutting bit, before storing.
- 5.3. Keep the tool clean.
- 5.4. Store in a dry, childproof location in its case.

6. TROUBLESHOOTING

FAULT	SOLUTION
Overheating Material While Drilling	There is not enough water reaching the drilling area.
	Run water through the core at a high pressure.
	Run water through the sides of the drill pointed at the drilling area.
Material/Drill Vibration, Resulting in Uneven Drill Holes	Check your machine and rig for run out (if using a rig).
	Make sure the machine is mounted correctly, if using a rig.
	Make sure the core bit is tightly connected to the machine.
	Make sure the material is held securely using clamps.
Excessive Chipping With Diamond Core Drills	Dress the drill to expose a fresh layer of diamond to cut the material. Make 3-5 drill holes in an abrasive stone such as sandstone using plenty of water. Doing this several times should be enough to wear away the metal carrier to expose a fresh layer of diamond to cut the material.
	Possible incorrect choice of diamond core drill due to a mismatch between the bond of the segment and the material.
	Check the rotation speed for the diameter of the core drill and the material.
	Make sure the material is held securely using clamps.
	Check the condition of the machine being used.
Diamond Drill is Drilling Material Very Slowly	Make sure there is enough water in the drilling area.
	This is often due to the "glazing" of the diamond segment, where the drill may have been used at an incorrect speed and the tool has become overheated, resulting in the metal bond that holds the diamond failing to wear away at the correct rate to exposure new diamond crystals.
	Use a Sharpening Block to dress the drill to expose a fresh layer of diamond to cut the material. Make 3-5 drill holes in an abrasive stone such as sandstone using plenty of water. Doing this several times should be enough to wear away the metal carrier to expose a fresh layer of diamond to cut the material.
	Check that the core plug or debris is not lodged inside the core drill.
Segment Loss When Core Drilling	Adjust the RPM speed and feed rate.
	This is the most common issue we see with core drills. It usually caused by overheating which results in a fracture at the point of the segment weld or a collision caused by an unsecured workpiece.
	Consider using a Water Feed to run water through the internal hole of the drill.
	Check that a sufficient rate of water is reaching the drilling area.
	Make sure the material is held securely using clamps.
	Check that the core plug or debris is not lodged inside the core drill.

Diamond Drill Is Not Drilling or Cutting	This is also usually associated with the “glazing” of the diamond tip.
	Check the rotation speed for the diameter of the core drill and the material.
	Use a Sharpening Block to dress the drill to expose a fresh layer of diamond to cut the material. Make 3-5 drill holes in an abrasive stone such as sandstone using plenty of water. Doing this several times should be enough to wear away the metal carrier to expose a fresh layer of diamond to cut the material.
	Increase the RPM speed.
	Check that the core plug or debris is not lodged inside the core drill.
	Possible incorrect choice of diamond core drill due to a mismatch between the bond of the segment and the material.
Diamond Core Drill Not Lasting - Short Life Span	Possible incorrect choice of diamond core drill due to a mismatch between the bond of the segment and the material.
	Check that a sufficient rate of water is reaching the drilling area.
	Check that the plug or debris is not lodged inside the core drill.
	Consider using a Water Feed to run water through the internal hole of the drill.
	Check the rotation speed for the diameter of the core drill and the material.
	Make sure the material is held securely using clamps.

WARNING! – Risk of Hand Arm Vibration Injury.

This tool may cause Hand Arm Vibration Syndrome if its use is not managed adequately.

This tool is subject to the vibration testing section of the Machinery Directive 2006/42/EC.
This tool is to be operated in accordance with these instructions.

Measured vibration emission value (a): <2.5 m/s²

Uncertainty value (k): 1.5 m/s²

Please note that the application of the tool to a sole specialist task may produce a different average vibration emission. We recommend that a specific evaluation of the vibration emission is conducted prior to commencing with a specialist task.

A health and safety assessment by the user (or employer) will need to be carried out to determine the suitable duration of use for each tool.

NB: Stated Vibration Emission values are type-test values and are intended to be typical.

Whilst in use, the actual value will vary considerably from and depend on many factors.

Such factors include; the operator, the task and the inserted tool or consumable.

NB: ensure that the length of leader hoses is sufficient to allow unrestricted use, as this also helps to reduce vibration.

The state of maintenance of the tool itself is also an important factor, a poorly maintained tool will also increase the risk of Hand Arm Vibration Syndrome.

Health surveillance.

We recommend a programme of health surveillance to detect early symptoms of vibration injury so that management procedures can be modified accordingly.

Personal protective equipment.

We are not aware of any personal protective equipment (PPE) that provides protection against vibration injury that may result from the uncontrolled use of this tool. We recommend a sufficient supply of clothing (including gloves) to enable the operator to remain warm and dry and maintain good blood circulation in fingers etc. Please note that the most effective protection is prevention, please refer to the Correct Use and Maintenance section in these instructions. Guidance relating to the management of hand arm vibration can be found on the HSC website www.hse.gov.uk - Hand-Arm Vibration at Work.



ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.



WEEE REGULATIONS

Dispose of this product at the end of its working life in compliance with the EU Directive on Waste Electrical and Electronic Equipment (WEEE). When the product is no longer required, it must be disposed of in an environmentally protective way. Contact your local solid waste authority for recycling information.

Note: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

Important: No Liability is accepted for incorrect use of this product.

Warranty: Guarantee is 12 months from purchase date, proof of which is required for any claim.

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