EIBENSTOCK
Elektrowerkzeuge

Original instructions

DBE 201

Important Safety Instructions

Important instructions and warning notices are allegorized on the machine by means of symbols:

Warning of general danger

Warning of dangerous voltage

Warning of hot surface

Machine, drill bit and rig are heavy – Danger of being crushed

Danger of being ripped or cut

In order to protect yourself, implement the following actions:

Wear ear protectors

Wear protective goggles

Wear protective helmet

Wear protective gloves

Wear protective boots

WARNING:

This product can expose you to chemicals including METHANOL, which is known to the State of California to cause birth defects or other reproductive harm.
For more information, go to:
www.P65Warnings.ca.gov

Technical Data

Diamond Core Drill DB 201

Nominal voltage:	120 V ~
Rated current:	18 Amp.
Frequency:	50 / 60 Hz
No-load speed:	575 rpm
Max. drilling diameter:	8”
Collet:	1¼" UNC - ½"
Protection class:	I
Degree of protection:	IP 20
Net weight:	about 34 lbs.
Interference suppression:	EN 55014 and EN 61000

Subject to alterations!

Supply

Diamond core drill unit complete w/ rig, ball valve and GARDENA connector, PRCD protective switch, user manual, in the carton box

Application for Indented Purpose

The diamond core drill **DB 201** is indented for professional use and may be used only by instructed personnel. With an appropriate drill bit, the tool may be used only for wet cutting of concrete, stone and masonry.
It may be used only complete mounted.

Safety Instructions

Safe work with the machine is only possible, if you read these operating instructions completely and strictly follow the instructions contained herein. In addition, the general safety instructions in the enclosed brochure have to be observed. Take part in a practical introduction before the first use.

If the connection cable is getting damaged or cut during the work, don't touch it, but instantly pull the plug out of the socket. Never use the machine with damaged connection cable.

When drilling in ceilings or walls make sure you will not cut through electrical mains, gas or water pipes. Use metal detection systems if needed. Before you start working, consult a statics specialist to determine the exact drilling position.
If drilling through ceilings, secure the place below, because the core may drop out.

Pay attention that the tool is not exposed to direct rain.

- Do not use the tool in an environment with danger of explosion.
- Do not use the tool standing on a ladder.
- Do not drill in asbestos-containing materials.
- Never carry the tool at its cable and always check the tool, cable and plug before use. Have damages only repaired by specialists. Only insert the plug into the socket when the tool switch is OFF.
- Modifications of the tool are prohibited.
- The machine should only run under supervision of. Pull the plug and switch the machine off if it is not under supervision, e.g. in case of setting up and stripping down the machine, in case of voltage drop or when fixing or mounting an accessory.
- Switch the machine off if it stops for whatever reason. This way, you avoid that it starts suddenly and not under supervision.
- Do not use the machine if a part of the housing is damaged or in case of damages on the switch, the connecting cable or plug.
- Power tools have to be inspected visually by a specialist in regular intervals.
- Always lead the cable to the back, away from the machine.
- **When using the drill, cooling water is never allowed to get into the motor and electrical parts.**
- Overhead-drillings only with suitable safety measures (water collection).
- After an interruption of your work, only switch the machine on again after having checked that the drill bit can be turned freely.
- The tool may be used with the drill rig only.
- Do not touch rotating parts.
- Persons under 16 years of age are not allowed to use the tool.
- During use, the user and other persons standing nearby have to wear suitable ear protectors, goggles, helmets, protective gloves and boots.

- **Always work concentrated and carefully. Do not use the tool when you are lacking in concentration.**

For further safety instructions, please refer to the enclosure!

Electrical Connection

The **DB 201** is made in protection class I. For protection purposes the machine can only be run with a GFCI. The machine is standard equipped with a PRCD switch in the cord which allows to connect the unit direct to a grounded socket.

Attention!

- **The PRCD-protective switch must not lay in water.**
- **PRCD-protective switches must not be used to switch the tool on and off.**
- **Before you start working, check the proper functioning by pressing the TEST button.**

Use only 3-wire extension cable with protecting conductor and sufficient cross-section (min. 2.5 mm^2). A cross-section which is to small could lead to excessive power loss and to overheating the motor and the cable.
First, check the correspondence between voltage and frequency against the data mentioned on the identification plate. Voltage differences from + 6 % to – 10 % are allowed.

Recommended extension cord sizes for use with portable electric tools:

Length of Cord in Feet										
110 V		*25 Ft.*	*50 Ft.*	*100 Ft.*	*150 Ft.*	*200 Ft.*	*250 Ft.*	*300 Ft.*	*400 Ft.*	*500 Ft.*
Nameplate Ampere Raiting	*0-2*	*18*	*18*	*18*	*16*	*16*	*14*	*14*	*12*	*12*
	2-3	*18*	*18*	*16*	*14*	*14*	*12*	*12*	*10*	*10*
	3-4	*18*	*18*	*16*	*14*	*12*	*12*	*10*	*10*	*8*
	4-5	*18*	*18*	*14*	*12*	*12*	*10*	*10*	*8*	*8*
	5-6	*18*	*16*	*14*	*12*	*10*	*10*	*8*	*8*	*6*
	6-8	*18*	*16*	*12*	*10*	*10*	*8*	*6*	*6*	*6*
	8-10	*18*	*14*	*12*	*10*	*8*	*8*	*6*	*6*	*4*
	10-12	*16*	*14*	*10*	*8*	*8*	*6*	*6*	*4*	*4*
	12-14	*16*	*12*	*10*	*8*	*6*	*6*	*6*	*4*	*2*
	14-16	*16*	*12*	*10*	*8*	*6*	*6*	*4*	*4*	*2*
	16-18	*14*	*12*	*8*	*8*	*6*	*4*	*4*	*2*	*2*
	18-20	*14*	*12*	*8*	*6*	*6*	*4*	*4*	*2*	*2*

The tool includes a start-up speed limiter to prevent fast expulsion fuses from unindented responding.

Water Supply

If the drill bit is not cooled enough with water, the diamond segments could heat up and consequently get damaged and weakened. For this reason, always make sure that the cooling system is not blocked.
In order to supply the machine with water, please proceed as follows:

- Connect the tool to the water supply system or a water pressure vessel by means of the GARDENA connector.
- Always make sure that the machine only runs with enough clear water as the seals get damaged when the machine is running dry.

- Attention! The maximum water pressure should not exceed 3 bar.
- Make sure that the segments are well cooled. If the drilling water is clear, the segments are well cooled.
- Overhead-drilling only with water collection ring.
- In case of frost warning, drain the water system.

Drill Bit Change

Attention!
When you use or sharpen the machine, it might heat up enormously. You could burn your hands or get cut or ripped by the segments. Always disconnect the plug from the mains before the beginning of any work on the tool. Always use protective gloves when changing the drill bit.
The drill spindle has a right-hand thread. To counterhold on spindle always use a jaw wrench SW 32. Never remove the drill bit with impacts, otherwise it could get damaged. With some waterproof grease, which is put on the drill bit thread between spindle and drill bit, and a copper ring between spindle and drill bit you can remove the drill bit easier.

Overload Protection

In order to protect the operator, motor and drill bit, the **DB 200** is equipped with a mechanical and electronic overload protection.

Mechanical: If the drill bit is suddenly blocked in the hole, a clutch will slip disengaging the drill spindle from the motor.

Electronic: In case of overload due to too large feed force, the motor cuts off automatically. After discharge, switching OFF and ON again, drilling can be continued.

Safety Clutch

The safety clutch should absorb shock and excessive stress. It is an aid and not an absolute protection. Therefore you have to handle and drill carefully.
To keep it in good condition, the clutch should slip for a very short time (max. 2 seconds) in each case only. After excessive wearing the clutch has to be renewed by an authorized service shop.

Fastening of the Drill Rig

The **DB 200** diamond core drill may be used only on the drill rig.
The most common way of fixing is dowel fixing. If possible, use only metal dowels. The dowel diameter must not be smaller than 12 mm. For the vacuum, make sure that it is sufficient (minimum -0.8 bar). Make sure that the gaskets are not worn. Do not forget that the levelling screw may be turned out only up to a certain extend in order not to destroy the vacuum.

Drilling

Using the ball valve, adjust a sufficient water quantity to fully flush the material out of the bore hole. If mud is depositing around the bore hole, increase the water quantity. In case that the drill bit does not cut any longer, sharpen it by means of a grinding stone. Make sure that the drill bit does not vibrate. Advance the tool according to bit diameter and machine power.
In case the bit gets jammed, to not dry to release it by switching the tool on and off. Switch the tool off immediately and unfix the drill bit by turning to the left or right using an appropriate open-end wrench. Cautiously pull the tool out of the borehole.

Drill Bits

Diamond drill bits with a 1¼" UNC female thread and with ½" male thread can be screwed directly onto the working spindle.
Always use drill bits which match to the material which has to be drilled. You can treat the machine if you only use balanced and no deformed drill bits. Pay attention that diamond segments have enough relief cut toward the drill bit body.

Care and Maintenance

Before the beginning of the maintenance or repair works you have to disconnect the plug from the mains!

Macine:

Repairs may be executed only by appropriately qualified and experienced personnel.
After every repair the machine has to be inspected by an electric specialist.
Due to its design, the machine needs a minimum of care and maintenance. Regularly the following works have to be carried out or rather the component parts have to be inspected:

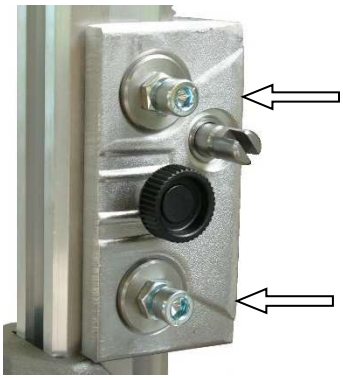
- Clean the drilling unit after you have finished drilling.
- Then grease the thread of the drill spindle.

- The ventilation slots always have to be clean and open.
- Pay attention that no water gets into the machine during the cleaning process.
- After the first 150 hours of operation you have to change the gearbox oil. Gearbox oil changes cause a considerable longer lifetime of the gearbox.
- After approx. 200 hours of operation the carbon brushes have to be checked by an electric specialist and if necessary removed them (use original carbon brushes only).
- Have switch, cable and plug checked by an electric specialist quarterly.

Drill Rig:

- Always keep the drill rig clean, especially the column with the toothing and the 4 sliding pieces in the mounting plate. In order to allow the free movement of the pinion shaft it should be slightly lubricated.
- In order to achieve a good performance of the drill rig, the 4 sliding pieces in the machine holder have to move along the column without backlash.

If the position has changed, it can be readjusted as follows:



- Loosen the counter nut on the Allen screw by means of a jaw wrench SW17
- Adjust the Allen screws and the position of the thrust piece to the column by means of a hex head wrench.
- Tighten the counter nut again and check whether the carriage moves easily on the column.

Environmental Protection

Raw material recycling instead of waste disposal

In order to avoid damages on transportation, the power tool has to be delivered in sturdy packing. The packing as well as the tool and its accessories are made of recyclable materials and can be disposed accordingly. The tool's plastic components are marked according to their material, which makes it possible to remove environmental friendly and differentiated because of available collection facilities.

Noise Emission / Vibration

The indication of noise emission is measured according to DIN 45 635, part 21. The level of acoustic pressure on the work place could exceed 85 dB (A); in this case protection measures must be taken.

Wear ear protectors!

Measured values determined according to EN 62841-3-6.

In Case of Malfunction

In case of breakdown, switch the motor off and disconnect it from the power. Repairs of the electrical parts may only be performed by an authorised service specialist.

Trouble Shooting

Error	Possible Cause	Error Recovery
machine does not work	mains current supply interrupted	plug in another electric appliance and check the functioning
	line cord or plug damaged	have it checked by an electric specialist and replaced if necessary
	switch damaged	have it checked by an electric specialist and replaced if necessary
	the PRCD-switch is off	press RESET to switch on
motor runs, drill bit does not rotate	gearbox damaged	have the tool repaired by an authorised service workshop
drilling speed too slow	water pressure / water flow rate too high	regulate the water quantity
	drill bit damaged	check if drill bit is damaged and replace it if necessary
	gearbox damaged	have the tool repaired by an authorised service workshop
	drill bit is blunt	sharpen the drill bit with a sharpening block while using the flush
motor cuts off	the tool stops	lead the tool in a straight manner
	the tool overheats, overload protection of the motor has reacted	discharge the tool and restart it by pressing the switch
water drops out of the gearbox housing	shaft sealing rings damaged	have the tool repaired by an authorised service workshop
drilling system has too much backlash	guidance has too much backlash	readjust the guidance

Warranty

According to our general terms of delivery for business dealings, suppliers have to provide to companies a warranty period of 12 months for redhibitory defects (to be documented by invoice or delivery note). Damages due to natural wear, overstressing or improper handling are excluded from this warranty. Damages due to material defects or production faults shall be eliminated free of charge by either repair or replacement.
Complaints will be accepted only if the tool is returned in non-dismantled condition to the manufacturer or an authorized Eibenstock service centre.

EU - Declaration of Conformity

We declare under our sole responsibility that the product described under "Technical Data" is in conformity with the following standards or standardization documents:
EN 62841-1, EN 62841-3-6, EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3, EN 50581
according to the provisions of the directives 2011/65/EU, 2014/30/EU, 2006/42/EG

Technical file (2006/42/EC) at:

Elektrowerkzeuge GmbH Eibenstock
Auersbergstraße 10
D – 08309 Eibenstock

Lothar Lässig
General Manager

Frank Markert
Head of Engineering

09.10.2024

GB - Declaration of Conformity

We declare as the manufacturer under our sole responsibility that the product described under “Technical Data” fulfi lls all the relevant provisions of the following Regulations S.I. 2008/1597 (as amended), S.I. 2017/1206 (as amended), S.I. 2012/3032 (as amended) and that the following designated standards have been used:

BS EN 62841-1, BS EN 62841-3-6, BS EN 55014-1, BS EN 55014-2
BS EN 61000-3-2, BS EN 61000-3-3

Technical file (S.I. 2008/1597) at:

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09.10.2024

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