Drill Doctor® SB

PP60080KF Rev 0 04/10

USERS GUIDE

Safety & Operation Instructions

IMPORTANT SAFETY INSTRUCTIONS

For your own safety read all of these instructions before attempting to operate this product and save these instructions. Wear eye protection.

Precautions

WARNING! When using electric tools, basic safety precautions should always be followed to prevent the risk of fire, electric shock, and personal injury.

- KEEP GUARDS IN PLACE and in working order.
- KEEP WORK AREA CLEAN. Cluttered areas and bench invite accidents.

- DO NOT USE IN DANGEROUS ENVIRONMENT. Do not use power tools in damp or wet locations or expose them to rain. Keep work area well lit. Do not use tools in the presence of flammable liquids or gases.
- KEEP CHILDREN AWAY. All visitors should be kept safe distance from work area.
- MAKE WORKSHOP KID PROOF with padlocks, master switches, or by removing starter keys.
- DO NOT FORCE THE TOOL. It will do the job better and safer at the rate for which it was designed.
- USE THE RIGHT TOOL. Don't force tool or attachment to do a job for which it was not designed.
- GUARD AGAINST ELECTRICAL SHOCK, avoid body contact with earthed or grounded surfaces.
- USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. The ***Drill Doctor***® has a 1.75 ampere rating (.4 ampere in E.U; .74 ampere in Japan). Therefore, when choosing an extension cord, please select cords of the following gauge:

  —a 25 ft. cord must be at least 18 gauge

  —a 50 or 100 ft. cord must be at least 16 gauge

  —a 150 ft. cord must be at least 14 gauge

- USE MARKED OUTDOOR EXTENSION CORD LEADS when the tool is used outdoors.
- SECURELY MOUNT THIS TOOL TO YOUR WORKBENCH during use.
- WEAR PROPER APPAREL. Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Nonslip footwear is recommended.Wear protective hair covering to contain long hair.
- ALWAYS USE SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.
- USE EAR PROTECTION DURING USE. ***Drill Doctor***® can generate up to 85 dB (A) noise emissions when in operation.
- SECURE WORK. Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.
- DO NOT OVERREACH. Keep proper footing and balance at all times.
- MAINTAIN TOOLS WITH CARE. Keep the ***Drill Doctor***® clean for best and safest performance. Follow instructions for maintenance and changing accessories. Inspect cords periodically and if damaged have them repaired by an authorized service facility. Inspect extension cords periodically and replace if damaged. Keep unit dry, clean and free from oil and grease.
- DISCONNECT TOOLS from power supply before servicing. Always disconnect the ***Drill Doctor***® when cleaning, inspecting, and changing accessories, such as the diamond sharpening wheel. When not in use, disconnect from the power supply. Never touch internal parts of the sharpener when it is turned on or plugged in. The rotating diamond wheel can cause injury.
- REDUCE RISK OF UNINTENTIONAL STARTING. Make sure switch is in the "OFF" position before plugging in.
- **WARNING!** USE RECOMMENDED ACCESSORIES. Consult this manual for recommended accessories. The use of any accessory or attachment other than one recommended in this instruction manual may present a risk of personal injury
- NEVER STAND ON TOOL. Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
- CHECK DAMAGED PARTS. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated in the instruction manual. Have defective switches replaced by an authorized service center. Do not use the tool if the switch does not turn it on and off. Do not use if the grinding wheel is damaged. Use only grinding wheels recommended by ***Drill Doctor***®.
- NEVER LEAVE TOOL RUNNING UNATTENDED; TURN POWER OFF. Don't leave the tool until it comes to a complete stop.
- USE THE RIGHT TOOL, do not force small tools to do the job of a heavy duty tool, do not use tools for purposes not intended (for example do not use this unit to sharpen anything other than standard twist bits or spade bits).
- STORE IDLE TOOLS. When not in use, tools should be stored in a dry, locked-up place out of the reach of children.
- DO NOT ABUSE THE CORD. Never yank the cord to disconnect it from the socket. Keep the cord away from heat, oil and sharp edges.
- STAY ALERT. Watch what you are doing, use common sense and do not operate the tool when you are tired.
- HAVE YOUR TOOL REPAIRED BY A QUALIFIED PERSON.This electric tool complies with the relevant safety rules. Repairs should only be carried out by qualified persons using original spare parts; otherwise this may result in considerable danger to the user.

Grounding Instructions

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. ***Drill Doctor***® is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly wired and grounded (110V) in accordance with all local codes and ordinances.

DO NOT MODIFY THE PLUG PROVIDED. If it does not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with installation (having an outer surface that is green with or without yellow stripes) is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded. Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug. Repair or replace damaged or worn cord immediately.

GROUNDED, CORD-CONNECTED TOOLS, such as the ***Drill Doctor***®, are intended for use on a supply circuit having a nominal rating less than 150 volts.

USA Only

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in Figure A. It has a grounding plug that looks like the one in Figure B. A temporary adapter, which looks like the adapter illustrated in Figures C & D, may be used to connect this plug to a 2-pole receptacle as shown in Figure D if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear, lug, and the like, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

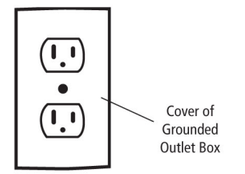

Fig. A

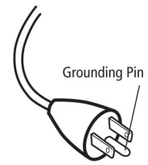

Fig. B

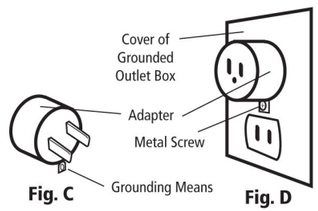

Fig. C Fig. D

Installation

- Carefully unpack the ***Drill Doctor***® drill bit sharpener and set it on a table. Check to see that no damage has occurred in shipment. Check all packing material to be sure that all parts are present. See User's Guide for part identification diagram.
- The unit is completely assembled; the ***Drill Doctor***® only needs to be mounted securely to your workbench.
- Connect to properly wired outlet and grounded (110V) outlet.

Service

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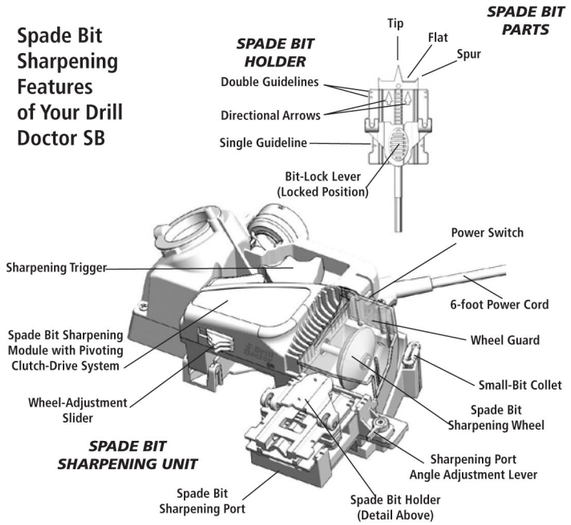
Phone: 1-800-597-6170
FAX: 1-541-552-1377
Email: techsupport2@darex.com

WARNING:
Some dust created by power sanding, grinding, miscellaneous construction activities, as well as contents from the machine including the molding, wiring, grinding wheel, or any other parts may contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm and can be hazardous to your health.

HOW TO SHARPEN SPADE BITS & TWIST BITS WITH YOUR DRILL DOCTOR® SB

Your Drill Doctor® SB is two bit-sharpening tools in one. One part sharpens a wide variety of twist bits, including masonry bits, the other sharpens a wide variety of spade bits.

HOW TO SHARPEN SPADE BITS



Part A • Aligning Spade Bits

***NOTE**: Before aligning your bit, make sure the unit is turned off. Please read through all the alignment steps before proceeding with your bit alignment.*

STEPS

A1. Move the bit-lock lever on the spade bit holder to the loose position. Insert the shaft of the spade bit into the spade bit holder and pull the bit shaft until the bit is fully inserted and stops. This will be a tight fit and you may have to use some pressure to pull the bit fully into the spade bit holder.

A2. Place spade bit holder and bit into sharpening port so the bit lock lever is face up. Use the single guidelines on the sharpening port and the spade bit holder as a reference.

A3. Slide the wheel-adjustment slider to the left to move the sharpening wheel out of the way.

A4. Slide the spade bit holder (unlocked position) forward in the sharpening port until it stops. Use the double guidelines on the sharpening port and the spade bit holder as a reference.

A5. Push the shaft of the spade bit forward (this will feel snug) until the flat makes firm contact with the sharpening wheel. Flip the bit-lock lever to the locked position as shown to secure bit.

A6. Slide the wheel-adjustment slider to the right to place the sharpening wheel in contact with the spade bit tip. You are now ready to sharpen your spade bit.

***NOTE**: If you are sharpening a screw point or skew cutter type spade bit, see Advanced Spade Bit Functions later in these instructions for proper alignment and sharpening steps.*

Part B • Sharpening Spade Bits

STEPS

B1. Pull the spade bit holder back until it stops. Use the single guidelines on the sharpening port and the spade bit holder as a reference.

B2. Turn the unit on. The motor will be running, but the sharpening wheel will not engage until you push down on the spade bit sharpening module to engage the clutch-drive system.

B3. Slowly push the spade bit holder forward until the bit contacts the sharpening wheel and comes to a stop near the double guidelines. There will be sparks at this point as you begin to sharpen. Maintain pressure on the spade bit holder.

B4. Keeping the clutch-drive engaged, pull back on the red sharpening trigger. This will move the sharpening wheel along the flat of the bit to sharpen it. Make several passes along the surface of the bit.

***NOTE:** For spade bits with spurs, sharpen just to the spur, so as not to grind it off. For flat spade bits, sharpen all the way across.*

B5. When you are satisfied with the bit's sharpness, disengage the clutch by removing pressure from the spade bit sharpening module. Remove the spade bit holder from the sharpening port and turn it over so that you can sharpen the bit's other side. Repeat steps B1 through B4.

Advanced Spade Bit Functions

To Change the Angle of the Sharpening Port

- You can adjust the sharpening port angle to accommodate skew cutter type spade bits.
- Loosen the sharpening port angle adjustment lever and swivel the sharpening port to the right to match the angle of the flat of your spade bit. Re-tighten the sharpening port angle adjustment lever.

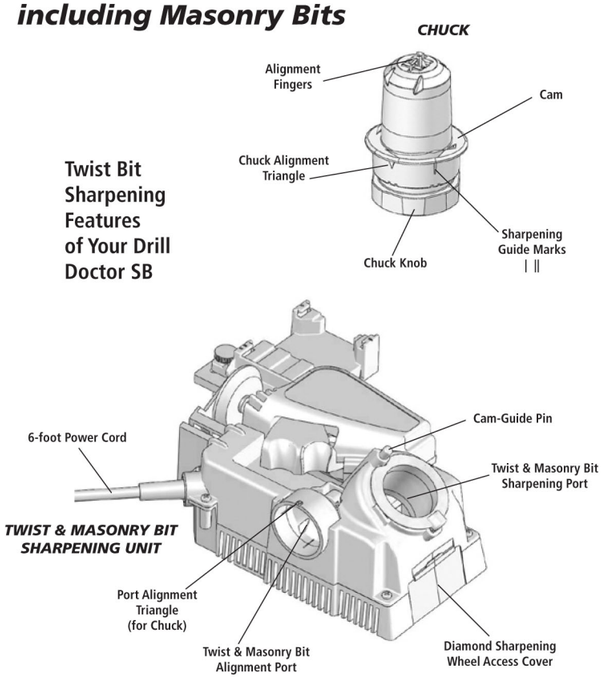
To Sharpen Small Spade Bits

- Use the red small-bit collet to secure a bit that is too small to clamp well in the spade bit holder.
- Slide the bit into the collet from the rear of the collet.
- Use the spade bit holder as usual to sharpen your bit.

To Sharpen Screw-Tip Spade Bits

- During the alignment process, use the wheel-adjustment slider to set the wheel position so that it will not grind off the screw threads as the bit is sharpened.

HOW TO SHARPEN TWIST BITS including Masonry Bits



Tips for Best Results

- Read all instructions before beginning to sharpen.
- To ensure a precision grind on your drill bit, keep the cam in contact with the cam-guide pin throughout the sharpening process.
- Light pressure is sufficient for effective sharpening. Only use enough force during sharpening to keep the chuck's cam against the cam-guide pin.
- Always turn the chuck an even number of half-turns:
  3/32 to 1/4-inch bits — 4 to 8 half turns
  5/16 to 3/8-inch bits — 8 to 12 half turns
  7/16 to 1/2-inch bits — 16 to 20 half turns

Part A • Aligning Twist Bits

STEPS

A1. Insert your drill bit into the front of the chuck. Leave about 1/2 inch of bit sticking out.

A2. Turn the chuck knob clockwise until the bit is snug, but still able to slide back and forth in the chuck. (You will tighten the chuck completely in step A6.)

A3. Make sure the chuck-alignment mark (white triangle on the chuck) lines up with the port-alignment mark (white triangle) on the unit's alignment port. Slide the chuck and bit into the alignment port.

A4. While keeping the chuck firmly in the alignment port, push the drill bit forward through the chuck until it stops against the alignment port's drill stop.

A5. Keeping the bit against the drill stop, rotate the drill bit clockwise until the leading edge of the flute is against the alignment finger.

A6. While keeping the chuck firmly in the alignment port, tighten the chuck completely, then remove it. Your bit is now aligned and you are ready to sharpen.

Part B • Sharpening Twist Bits

STEPS

B1. Turn the unit on.

B2. Insert the chuck into the sharpening port, making sure the chuck alignment mark (single white line) lines up with the cam-guide pin of the alignment port.

B3. Keeping the chuck's cam in contact with the cam-guide pin, rotate the chuck clockwise by half-turns. Rotate between the single- and the double-line guide marks an even number of times. The larger the bit, the greater the number of half-turns you will need to completely sharpen it.

Part A • Aligning Masonry Bits

STEP

A1. Manually align the insert on the tip of the masonry bit so that the chuck's alignment fingers are right under the insert.

Part B • Sharpening Masonry Bits

STEPS

B1. Insert the chuck into the sharpening port, making sure the chuck alignment triangle lines up with the cam-guide pin.

B2. Instead of rotating the chuck in the sharpening port, simply plunge the chuck into the sharpening port once. Remove the chuck, rotate 180° to align the other alignment triangle to the cam-guide pin, and plunge again. Start with two plunges each side. Inspect bit and continue plunging if needed.

If you experience any difficulty with this tool or seem to be missing any parts ***please do not return it to the retailer***. Call us at **800-597-6170**. We are committed to your satisfaction and are ready to help you!

Drill Doctor®

USA and Canada Only

Your Drill Doctor is warranted to be free of defects due to workmanship or design for 3 years from the purchase date. If your Drill Doctor fails to operate, or if any operating problem occurs, contact Drill Doctor Technical Service at:

In North America: 1-800-597-6170

(Please call 8:00 AM-3:30 PM Pacific Time.)

Do not return this product to the store where you purchased it. Do not attempt any service or repairs other than those suggested by a Drill Doctor Technical Service Representative (TSR). During the period of warranty, Drill Doctor will, at our discretion, repair or replace this product free of charge and refund postage or shipping charges providing that the following conditions are met:

1. A copy of the proof of purchase is provided.
2. The product has been operated for the purpose intended as described in the operating instructions and has not been abused or mishandled in any way.
3. The product has not been dismantled and no service or repairs have been attempted other than those suggested by a Drill Doctor TSR.
4. The Return Goods Authorization number (RGA #) (assigned by the Drill Doctor TSR) is written on the shipping label. Please make certain to package items in such a way as to eliminate further damage during shipping. Ship via a traceable carrier and properly insure the package.

No CODs are accepted. Unapproved shipping charges are nonrefundable.

Complete and mail back the Warranty Registration Card or register online (USA and Canada only) at www.DrillDoctor.com.

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