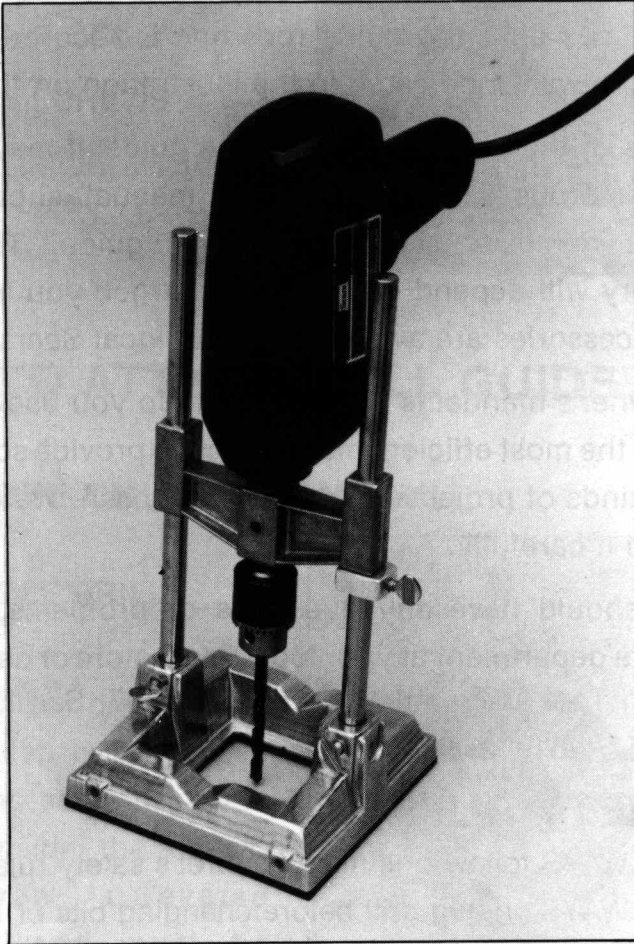


Sears

CRAFTSMAN®

9-11227

DRILL GUIDE



OWNER'S MANUAL

INTRODUCTION

Your new drill guide allows you to use your portable drill for many different kinds of precision work. It attaches to any $\frac{1}{4}$, $\frac{3}{8}$, or $\frac{1}{2}$ inch drill motor with a $\frac{3}{8}$ -24 threaded shaft, and requires virtually no maintenance, although the steel rods should be lightly oiled occasionally, to prevent rust. Your drill guide is packaged as an assembled unit except for the base, which slides onto the guide rods and is secured with two thumb screws as indicated in the illustration on the right.

Because of the versatility of the drill guide, it may be used with numerous accessories. This manual shows many different applications for your drill guide. The exact accessory will depend on the particular job you are doing. Most accessories are available at your local Sears store.

Your owner's manual is designed to help you use your drill guide in the most efficient manner and to provide some ideas on the kinds of projects you can accomplish. We hope you will read it carefully.

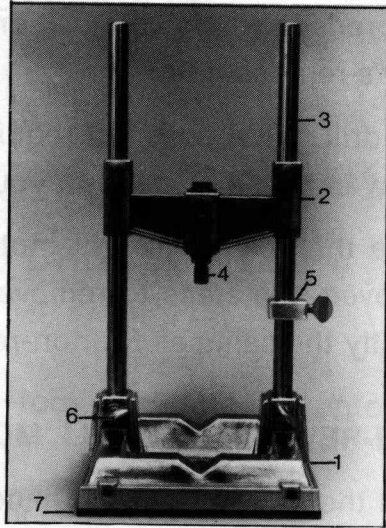
If you should have any questions or problems, call the hardware department at your local Sears store or call or write Portalign Tool Corporation, P.O. Box 80547, San Diego, CA 92138-0547; (619) 297-7750.

SAFETY RULES

1. ALWAYS follow drill manufacturer's safety rules.
2. ALWAYS unplug drill before changing bits or tools.
3. ALWAYS wear safety glasses.
4. ALWAYS keep hands, hair and clothing clear of rotating tools.
5. ALWAYS hold the tool firmly in place when operating.

DRILL GUIDE COMPONENTS

1. BASE
2. ADAPTOR
3. GUIDE ROD
4. ADAPTOR SPINDLE
5. LOCKING COLLAR
6. THUMB SCREWS
7. PROTECTIVE SHOE

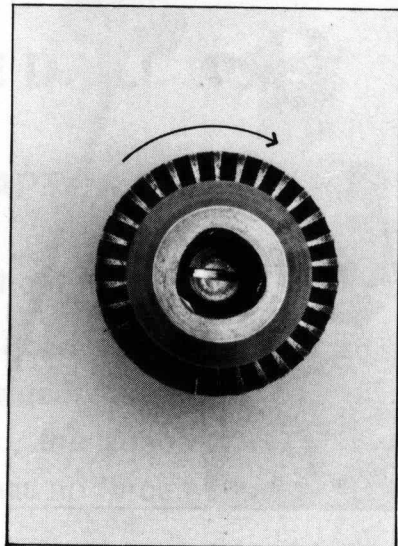


HOW TO ATTACH DRILL GUIDE

1. REMOVE CHUCK FROM DRILL

REVERSIBLE DRILL MOTORS

For reversible drill motors the first step is to remove the locking screw which is located inside the chuck. **This screw is reverse threaded and must be turned clockwise to loosen.**



If you cannot locate the locking screw in your drill or if there is any problem in removing it, see your drill manufacturer's owner's manual or contact the drill manufacturer's representative.

The drill guide does not require the locking screw. Put the screw in a safe place until you need it again.

Once the reversible drill motor's locking screw has been removed, the steps to remove the chuck from the drill are exactly the same as for non-reversible drill motors.

NON-REVERSIBLE DRILL MOTORS

Hold the drill in your left hand with the chuck facing away from your body.

Place the chuck key into one of the three chuck holes so that the key is on the right side of the drill motor.



Sharply rap the chuck key with a mallet or block of wood to loosen the chuck. (Do not use a hammer because it may damage the chuck or the chuck key.) Keep in mind that the key may fly free.

Drill motors which have had considerable use may require several attempts in order to loosen the chuck.

Unscrew the chuck and remove it.

2. ATTACH CHUCK AND DRILL MOTOR TO DRILL GUIDE

Remove adaptor from guide rods and screw it onto the drill shaft.

Screw the chuck to the adaptor.

Slide adaptor over guide rods.

HOW TO REMOVE DRILL GUIDE

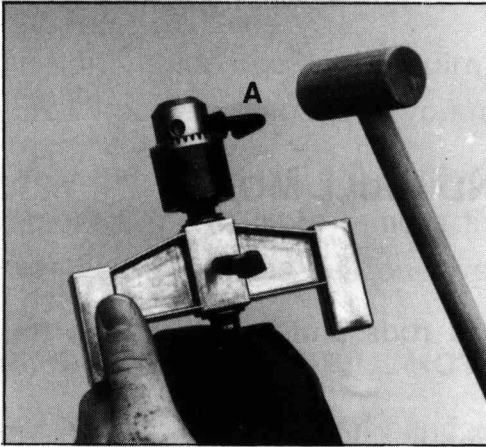
1. LIFT DRILL AND ADAPTOR OFF GUIDE RODS

Your drill is ready to use without the drill guide.

IMPORTANT: There is no need to remove the adaptor. In fact, it provides a convenient handle for normal use. (Note: when not being held, the adaptor spins free, but there is no danger, since it has no force.)

2. REMOVE ADAPTOR

If you decide to remove the adaptor:



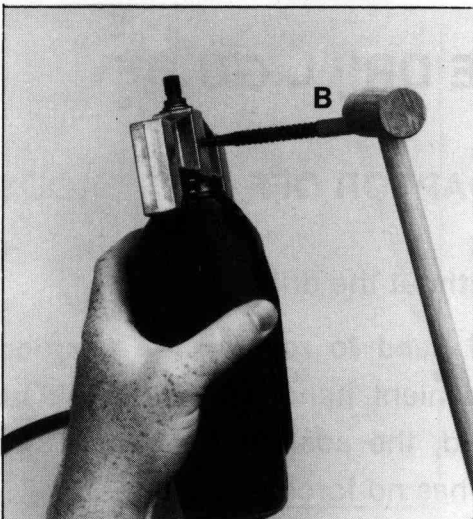
Align the hole in the adaptor spindle with the hole in the adaptor.

Insert a metal pin (a large nail will do) through both holes.

Hold the adaptor with the chuck away from your body.

Place the chuck key into one of the three chuck holes so that the key is on the right side of the drill motor.

Sharply rap on the chuck key location "A" with a mallet or block of wood to loosen the chuck.



Unscrew the chuck and remove it.

Sharply rap on the right side of the adaptor with a mallet or piece of wood at location "B" to loosen it.

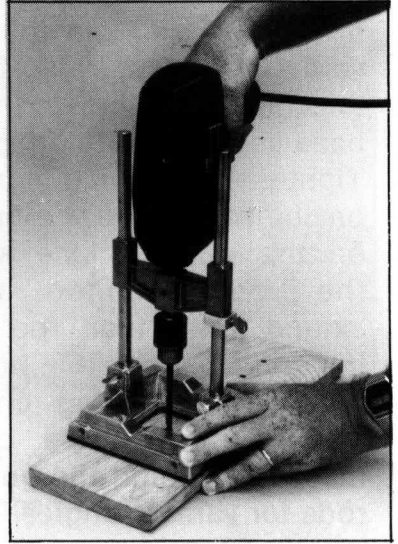
Grip the threaded end of the adaptor, unscrew from the drill and remove it.

USES FOR YOUR DRILL GUIDE

Your drill guide will provide complete accuracy in many common drilling jobs. It also creates new uses for a portable drill.

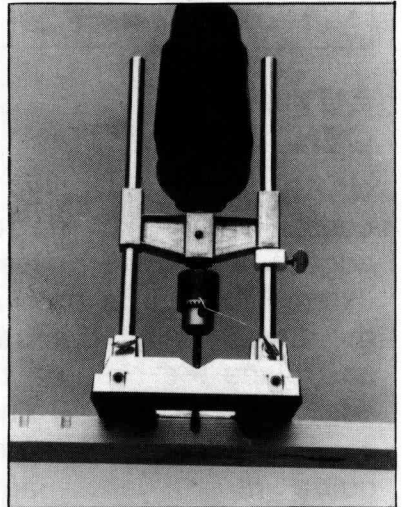
90° DRILLING

Hold the drill guide base flush to the workpiece to be drilled, and a 90° hole is assured. The accuracy provided is especially important on jobs like installing door hardware.



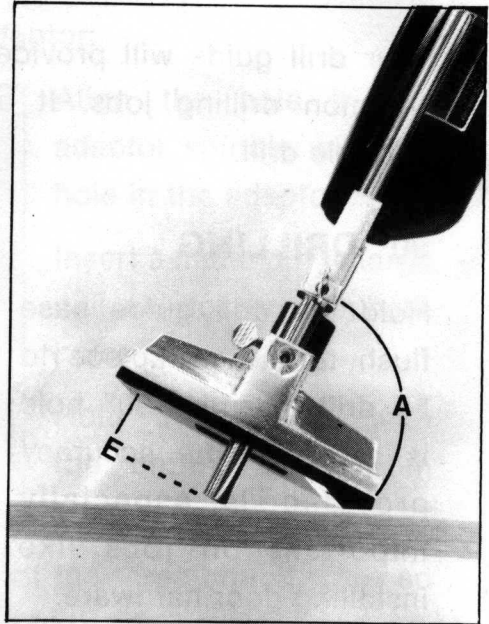
DEPTH CONTROL DRILLING

The lock collar provides consistent depth control. Loosen the thumb screw to slide the lock collar to the desired depth. This feature is ideal for countersinking. Simply install a countersink bit in the chuck and adjust the lock collar to the desired depth.



ANGLE DRILLING

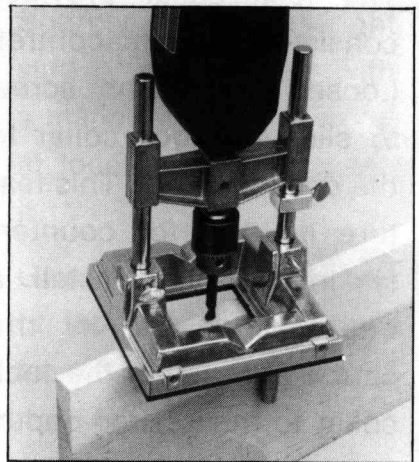
Many projects require consistent angle drilling. For example, installing pegs on a coat rack is a simple job with your drill guide. To set up the drill guide for angle drilling, loosen the thumb screws in the base and slide one guide rod beyond the base to the proper depth. Tighten the thumb screw on the rod. Place the base on the work surface with the rod extended and extend the other rod to the surface. Lock it in position. The following chart shows approximate distances to extend the guide rods for various angles.



Angle "A" Degrees	85°	80°	75°	65°	60°	55°	45°
"E" Extension	1/4"	1/2"	3/4"	1 1/4"	1 1/2"	1 3/4"	2 5/8"
Metric mm	6.35	12.7	19.0	31.7	38.1	44.4	66.7

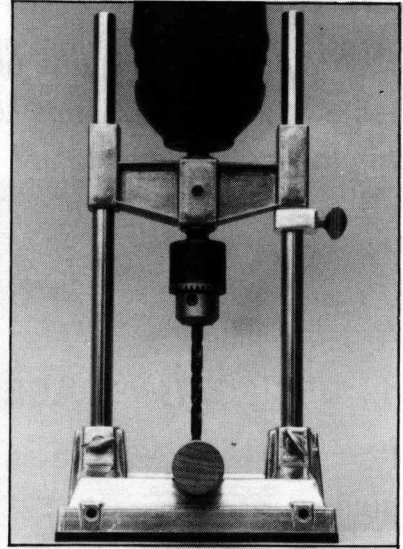
AUTOMATIC CENTERING

NARROW EDGES — To center holes on narrow edges (3 1/2 inches or less), extend the guide rods on the drill beyond the base and place the base on the edge of the workpiece. Then rotate the base to bring the guide rods flush against both sides of the workpiece.



LARGE ROUND STOCK —

Large round stock or stationary round stock, such as pipe that is already installed, can be drilled in the same manner as narrow edges. For single wall drilling through pipe, be sure to use the lock collar for depth control.



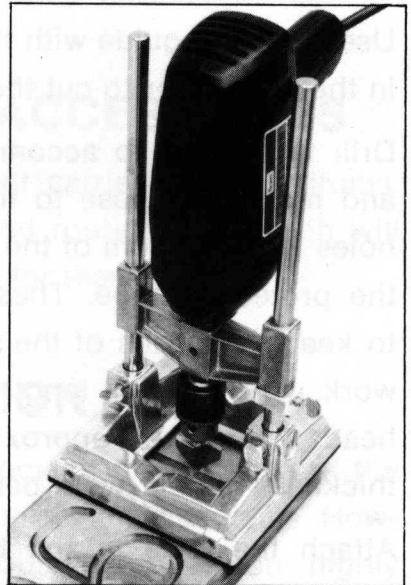
SMALL ROUND STOCK —

V-blocks are provided on the drill guide base to hold small and round stock for 90° drilling and automatic centering. For this purpose, the guide rods remain flush with the base.

90° drilling and automatic centering. For this purpose, the guide rods remain flush with the base.

ROUTING

Routers typically operate at 20-25,000 RPM, whereas most drills operate at 1,900-3,500 RPM. However, if a router is not available, your drill guide can do a fair job on most woods with regular router bits, although it is slower.



HOW TO MOUNT THE DRILL GUIDE UNDER A WORK BENCH

Mounting the drill guide under a work bench or other work table allows both hands to be free and expands the uses for the drill guide. Many drill guide owners purchase an extra base for their drill guide so they can leave it permanently attached to the work bench.

1. MOUNT THE BASE TO THE WORK BENCH

Remove the protective shoe from the bottom of the drill guide.

Use the protective shoe as a template to locate: (1) a hole $2\frac{1}{2}$ or 3 inches in diameter to be cut in your bench; and (2) four screw holes to mount the base to the bottom of the work bench.

Use your drill guide with the proper size hole saw mounted in the drill motor to cut the hole in your work bench.

Drill four holes to accommodate a 10-24 machine screw and mount the base to the work bench, using the same holes in the bottom of the base which were used to secure the protective shoe. These holes should be countersunk to keep the heads of the screw from interfering with your work. The overall length of the screws, including the heads, should be approximately $\frac{1}{4}$ inch longer than the thickness of your work bench.

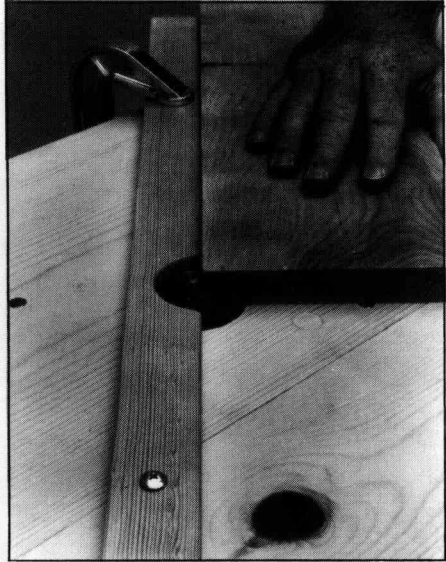
Attach the base to the bottom of the work bench and install the guide rods.

2. POSITION THE DRILL AND ADAPTOR

Mount the drill guide with the adaptor above the lock collar. Use the lock collar to position the drill motor and adaptor to the proper height for the accessory you wish to use.

3. INSTALL A FENCE

With under-bench mounting, it is advisable to use a fence (material guide) secured on top of the work surface for certain kinds of work. This illustration shows one way to mount the fence. It may also be done by attaching the fence with two C-Clamps.



DRILL GUIDE WITH ACCESSORIES

Your Sears hardware department carries sanding drums, grinders, buffers, shaper bits and routing bits which will permit you to use the drill guide for these tasks.

SURFACE PROTECTION

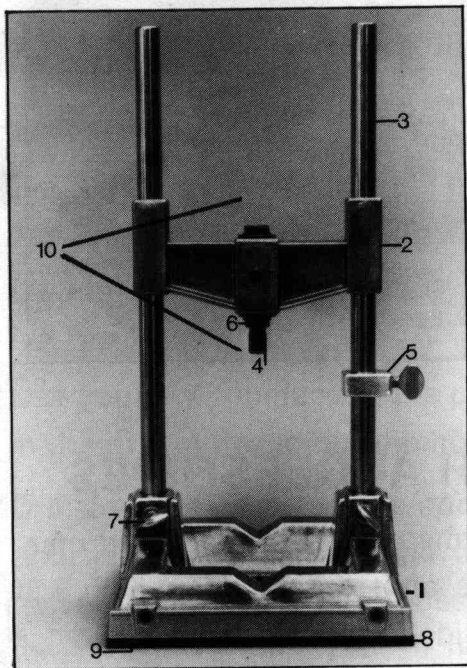
The protective shoe, which is located on the base of the drill guide, is adequate protection for most projects. However, additional protection should be used on highly polished or extremely soft surfaces.

HOW TO ORDER PARTS

All parts listed herein may be ordered through PORTALIGN TOOL CORP. When ordering parts by mail, selling prices will be furnished on request or parts will be shipped at prevailing prices, C.O.D.

WHEN ORDERING PARTS, ALWAYS GIVE THE FOLLOWING INFORMATION:

1. NAME OF PRODUCT
2. MODEL NUMBER
3. PART DESCRIPTION



- 301A-1 BASE
- 301A-2 ADAPTOR
- 301A-3 GUIDE ROD
- 301A-4 ADAPTOR
SPINDLE
- 301A-5 LOCKING COLLAR
- 301A-6 SNAP RINGS
- 301A-7 THUMB SCREWS
- 301A-8 PROTECTIVE
SHOE
- 301A-9 MOUNTING
SCREWS*
- 301A-10 COMPLETE
ADAPTOR
ASSEMBLY

*Note: These are standard 10-24 machine screws and are available in any store that carries hardware.

Mail order to:

PORTALIGN TOOL CO.
P.O. Box 80547
San Diego, CA 92138-0547