

FOREDOM®

OWNER'S MANUAL

for the

DP-95 Drill Press

Optional Accessories for the DP-95 Drill Press:

Machinist's Steel Drills (Kit 250)- Consists of 11 "stub" length high speed steel twist drills. Use for drilling wood, metal, pearls, gems, PC board and plastic. Seven sizes ranging from 76 through 5/32" (.020"-.156"dia.)

Micro Chuck (MC-2) - An accurate, economical adapter chuck, used for 60 to 80 wire gauge drills. The MC-2 can be held in any 1/8" or 3/16" collet.

Micro Chuck (M-50) - For use with 70 to 80 wire size drills, 3/32" shank.

Tungsten Carbide and Hardened Tool Steel Drills - Drill point sizes from 5/0 (.5mm) to #8 (2.3mm). Refer to the Foredom Accessory Catalog for a complete listing of sizes. All have 3/32" diameter shanks.

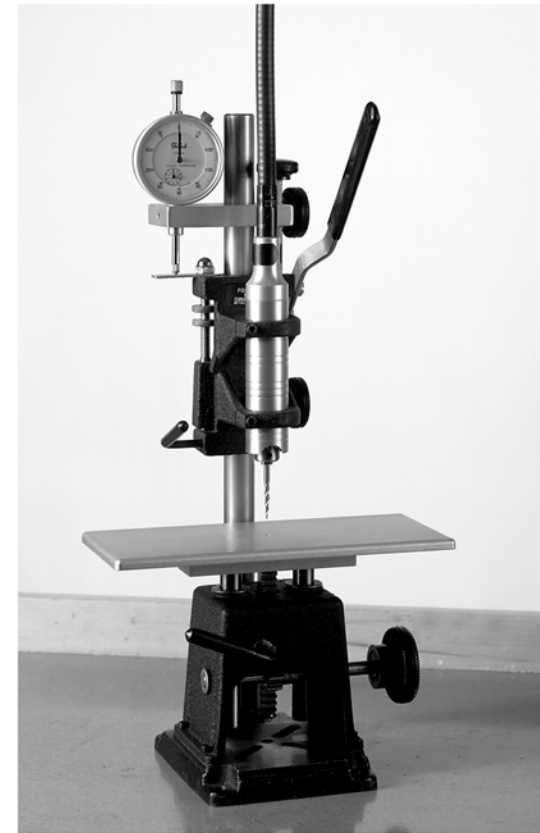
Chuck Key Handle (CKH-1)- For Nos. 30®, 25C and 30H Handpiece users. Comes with #0 chuck key in handle.

For More Information

For more information on Foredom machines, handpieces and accessories, contact your local dealer. When no local dealer is available, write The Foredom Electric Company, 16 Stony Hill Road, Bethel, CT 06801 USA or call 203-792-8622.

Repair or replacement will be made at our option if the product is returned post-paid to:

The Foredom Electric Company
16 Stony Hill Road
Bethel, CT USA 06801



For Your Own Safety:

Always wear eye protection

Read this Owner's Manual before operating
your Foredom tool

GENERAL INFORMATION

The Foredom® DP-95 Drill Press is designed for use with the Nos. 30® and 44® Handpieces. It securely holds the handpiece in a vertical position for drilling straight, accurate holes to specified depths. It is ideal for drilling, modeling, spotfacing, countersinking and reaming in wood, wax, plastic, metal, glass and gemstone. When used in combination with any of Foredom's flexible shaft machines, the variable speed range is 0-18,000 RPM.

PLEASE FOLLOW THESE IMPORTANT SAFETY INSTRUCTIONS:

ALWAYS wear safety glasses to protect eyes from flying debris and chips.

NEVER continue to use a drill or accessory which appears to be wobbling, out of round, vibrating or not running true.

ALWAYS use drills and accessories rated for 18,000 RPM or higher.

NEVER wear loose clothing, dangling jewelry or other apparel which may become caught in the equipment.

ALWAYS keep hands, fingers and hair well away from the drill or other accessories.

ALWAYS bolt down the Drill Press for extra stability.

SET-UP and OPERATION

As you unpack the Drill Press, make sure that you have the complete DP-95 assembly (see illustration) and the allen wrench provided. Loosen the adjusting knob (43) and move the head up the post (7) to the desired height, leaving approximately one inch between tip of accessory and workpiece. Tighten the knob securely. Be sure that the head, table and base are aligned and centered. Foredom recommends bolting the drill press to the workbench or platform for extra stability. Insert suitable length bolts through the four holes provided in the base plate (9). Fasten to the workbench or to a piece of plywood approximately 2' x 2' x ¾".

Arm Adjustment

Test the downstroke action of the handle. This has been preadjusted at the factory, but may have rattled loose during shipping. It should feel smooth and free. If it feels too loose, adjust the shoulder screws (46) in the handle arm assembly. These screws should be tightened snugly.

Inserting the Handpiece

Do not tighten cap screws unless handpiece is inserted in holder. To insert the handpiece, loosen the two socket cap screws (13) with the allen wrench provided. Insert the handpiece into the handpiece guides. When using the No. 30® Handpiece, make sure the chuck key hole is facing forward and is accessible. If using the No. 44® Handpiece, make sure that the pin hole is accessible. Insert the handpiece through both guides until the tip of the collet or chuck is approximately 1" below the bottom guide. Tighten alternately the two socket cap screws (13) enough to prevent the handpiece from turning in the guides. Next, insert the drill or accessory and tighten securely in the chuck or collet using the chuck key for the No. 30 Handpiece and the pin and wrench for the No. 44.

Be sure to remove the pin from the handpiece hole of the No. 44 before starting the motor.

Work Table Operation

The rise and fall of the work table is controlled by a large black knob on the right side of the press (30). To raise the work table, simply rotate the work table adjustment knob to the desired elevation. The work table can then be locked into place by turning work table locking lever (11) facing the operator.

Dial Indicator Installation and Adjustment

The Foredom DP-95 is equipped with a dial indicator measurable in millimeters. (The tic marks on the face of the large dial represent 1/100 mm; small dial represents full millimeters.) This feature allows an operator to have precise control of the vertical movement of the handpiece head assembly. Install the indicator by placing it into the hole in the indicator mounting bracket (16), and tightening set screw (1).

Adjusting dial indicator to zero:

1. Shape workpiece to desired size.
2. Lower head using handle (35) until the accessory or drill touches the workpiece. Lock in place using head locking arm (19).
3. Loosen dial using indicator mount locking knob (49) with your right hand and holding mounting bracket (16) with your left hand.
4. Lower dial indicator assembly until it touches datum (17), stopping at desired measurement (no. of mm) on small dial (10mm. max). Hold in place by retightening knob.
5. Turn outer ring of dial indicator until needle meets the zero point.
6. Turn precision stroke adjustment knob (39) until the screw touches the black head assembly. Release head locking arm (19).

Now you can achieve accurate depth measurements by turning the precision stroke adjustment knob (39) clockwise for increased depth, and counter-clockwise for decreasing depth.

Drill Stroke Adjustment

This adjustment will allow you to return to the same specified depth for multiple drilling strokes. To adjust the drill stroke depth, move the head to the desired position by pressing down on the handle, and move locknuts (3).

Drilling

High speed steel, carbide and diamond drills are most often used. Whatever accessory you use, let the speed of the tool do the work. Too much feeding pressure can damage or break your drill, and may cause loss of control. When drilling, lift the drill up and down frequently to clear away dust and chips. *Note:* when using twist drills for drilling holes on work items with rounded surfaces such as rods, it is a good idea to centerpunch a starting hole to keep the tip of the drill from "walking" or wandering from the desired starting point.

Speed

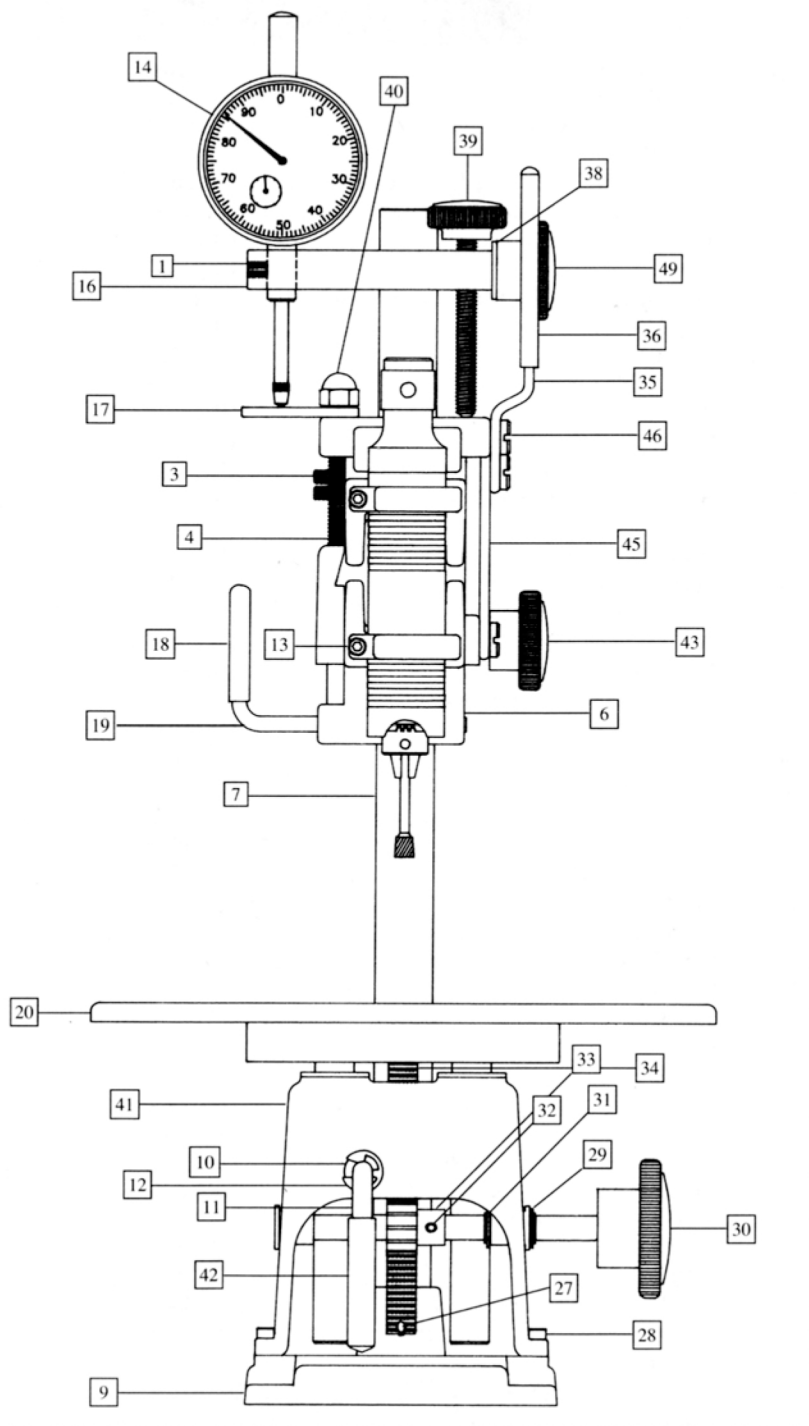
Always use drills and accessories rated for 18,000 RPM or higher. Generally, work speed is determined by experience and varies with the type of material being drilled or worked on, the type of drill or accessory, the thickness of the material and the type of work being done. Follow recommendations of the drill or accessory manufacturer. Usually, higher speeds are used on soft materials and lower speeds on harder materials. It is always a good idea to experiment on a scrap piece of material before beginning the final work operation.

Coolants

Coolants are sometimes needed to help keep the accessory cool and to keep the workpiece clean of debris. Which type to use is determined by the material and the accessory and will vary with operator preference. Wetting agents with rust inhibitors, waxes, oils and water are often used when drilling extremely hard materials such as metals, gems and stones.

Lubrication

All unpainted surfaces are sprayed with a rust inhibitor when shipped. Be sure to clean away all debris after use. Respray with rust inhibitor when necessary, especially during storage. The spring and two shoulder screws (46) should be lubricated periodically with a light coat of oil.



PARTS LIST

Item	Description	Part No.
1	Slotted Set Screw	UA11029
2	Spring (not shown)	DP10612
3	Lock Nut	DP10614
4	Threaded Rod	DP10613
5	Knob Spacer (not shown)	UA11021
6	Wax Machine Head	DP10603WM
7	Post	UA11030
8	Flat Point Socket Set Screw (not shown)	UA11027
9	Wax Machine Base	DP10618WM
10	Flanged Bearing	UA11008
11	Work Table Locking Lever	UA11013
12	Retaining Ring	UA11015
13	Socket Head Cap Screw	DP10610
14	Metric Dial Indicator	UA11025
15	Head Locking Pin (not shown)	UA11018
16	Indicator Mounting Bracket	UA11023
17	Indicator Datum	UA11017
18	Locking Grip	UA11020
19	Head Locking Arm	UA11019
20	Wax Machine Table	UA11001
21	Rack Mount	UA11002
22	Flat Head Socket Cap Screw	UA11026
23	Flanged Bearing	UA11006
24	Pinion Shaft	UA11009
25	Flanged Bearing	UA11007
26	Guide Shaft	UA11003
27	Cotter Pin	UA11016
28	Socket Head Cap Screw	UA11028
29	Retaining Ring	UA11031
30	Work Table Adjustment Knob	UA11010
31	Fiber Washer	MP115TK
32	Groove Pin	UA11012
33	Spur Gear	UA11011
34	Rack	UA11004
35	Handle	DP10608
36	Handle Grip	DP10609
38	Flat Washer	BG1-242
39	Dial Indicator Control Knob	UA11024
40	Acorn Nut	DP10617
41	Wax Machine Housing	UA11005
42	Locking Grip	UA11014
43	Adjusting Knob	UA11022
44	Wax Machine Stop (not shown)	DP10604WM
45	Link	DP10606
46	Shoulder Screw	DP10607
47	Disc Spring (not shown)	HP10708
48	Hardened Washer (not shown)	HP10707
49	Indicator Mounting Locking Knob	UA11022