



Pro-Doweling Kit

USER'S MANUAL



#840

Test Equipment Depot
1-800-517-8431

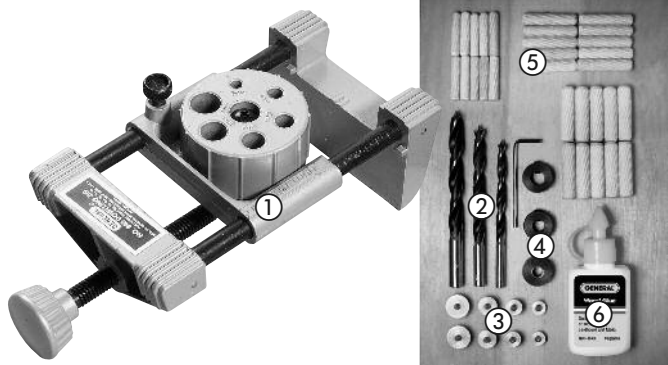
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Please read this manual carefully and thoroughly before using this product.

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PACKAGE CONTENTS:

- ① 1 Doweling Jig
- ② Brad Point Drill Bits, 1/4", 5/16", 3/8"
- ③ Dowel and Tenon Centers Set from 3/16" ID to 1/2" OD
- ④ 3 Drill Stops 1/4", 5/16", 3/8"
- ⑤ 30 Dowel Pins, 10 Each 1/4", 5/16", 3/8"
- ⑥ Wood Glue

SAFETY INSTRUCTIONS

- 1. ALWAYS USE EYE PROTECTION WHEN USING POWER TOOLS. WEAR SAFETY GOGGLES THAT COMPLY TO ANSI 287.1.
- 2. WARNING: ALWAYS UNPLUG DRILL FROM POWER SUPPLY WHEN CHANGING BITS AND ATTACHING DRILL STOPS.

BEFORE YOU GET STARTED

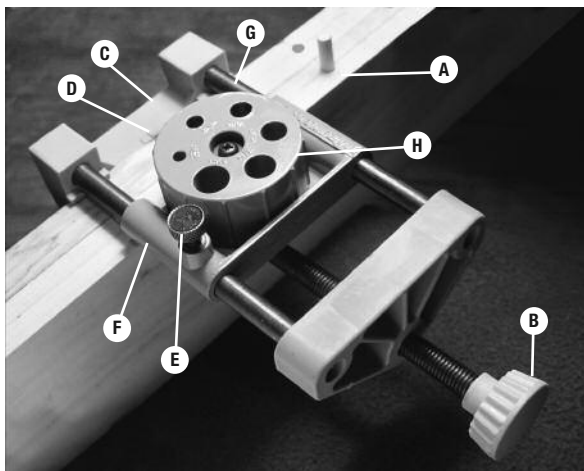
- 1. Practice drilling dowel holes and making joints in scrap pieces of wood to get familiar with the dowel jig.
- 2. Make all markings on the boards exactly as described in the instructions to avoid drilling in the wrong locations.
- 3. Avoid drilling holes too deep.
- 4. Before gluing dowels, fit the pieces together to make sure you are satisfied with the line up.

SELECTING DOWEL SIZE

The dowel size is limited by the thickness of the work piece. Use Table 1 to help you choose the proper dowel size for your project.

Board Thickness	Dowel Size
1/2" – 9/16"	3/16" or 1/4"
5/8" – 11/16"	5/16"
11/16" – 15/16"	3/8"
1" or greater	7/16" or 1/2"

Table 1



A. SCORE LINE

B. CLAMP SCREW

C. FIXED JAW

D. INDEX MARK

E. SLIDE LOCK SCREW

F. SLIDE

G. SCALE ROD

H. TURRET

INSTRUCTIONS FOR EDGE-TO-EDGE JOINTS

1. Place boards that you want to join in the final position and mark them "A" and "B" (See Figure 1).



Figure 1

2. Now position the boards so the surfaces to be joined face you. Using a square, align the edges of the boards (See Figure 2). NOTE: To fit in the jig, the combined width of both boards must not exceed 4 inches. When the combined width exceeds 4 inches, only one board can be in the jig at a time (See Figure 2).



Figure 2

3. Once aligned, use a clamp to secure the boards.

4. Using the square again, mark a line across both boards at the locations you want to drill dowel holes (See Figure 3).



Figure 3

5. Open the CLAMP SCREW (B) on the jig wide enough to fit over the boards.

6. Place the FIXED JAW (C) of the jig against the side of board "A" and align the center of the INDEX MARK (D) with one of the lines marked on the boards. (See Figure 4)

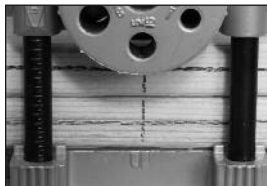


Figure 4

7. Gently tighten CLAMP SCREW (B).

8. Loosen SLIDE LOCK SCREW (E) and move SLIDE (F) along the SCALE ROD (G) until centered on board "A". Use the graduations marked on the SCALE ROD (G) to center the SLIDE (F) (See Figure 5). Once aligned, tighten SLIDE LOCK SCREW (E).



Figure 5

EXAMPLE: If both of the boards to be joined are each one inch thick, move the SLIDE (F) so the arrow aligns with the 1/2" graduation on the SCALE ROD (G) to drill the first hole. Then move the SLIDE (F) so the arrow aligns with the 1-1/2" graduation on the SCALE ROD (G) to drill the second hole.

9. Lift TURRET (H) and turn until the correct size hole is aligned with the INDEX MARK (D). The TURRET (H) will snap into place when properly located.
10. ENSURE THE DRILL IS TURNED OFF. Place a depth stop collar on the drill bit at the proper depth to drill the first hole. NOTE: Position the collar to allow for TURRET (H) height as well as desired depth of hole.
11. Ensure SLIDE (F) is locked at proper position and drill dowel hole in board "A". The hole in the TURRET (H) will help you keep the drill straight (See Figure 6).
12. Loosen SLIDE LOCK SCREW (E) and move SLIDE (F) until positioned at board "B" center location.
13. Tighten SLIDE LOCK SCREW (E) and drill hole in board "B" .
14. With clamp in place, loosen the jig CLAMP SCREW (B) and move the jig so the next marked location on the boards aligns with the INDEX MARK (D) on the jig.
15. Gently tighten the CLAMP SCREW (B) and repeat steps 8-14 until all dowel holes are drilled.
16. Apply glue to the dowel pins and insert them in the holes in board "A". Align the holes in board "B" with dowel pins connect boards "A" and "B" to make the joint (See Figure 7).

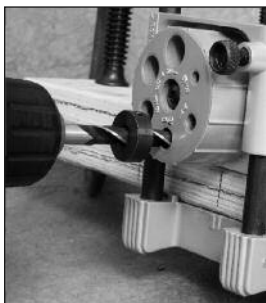
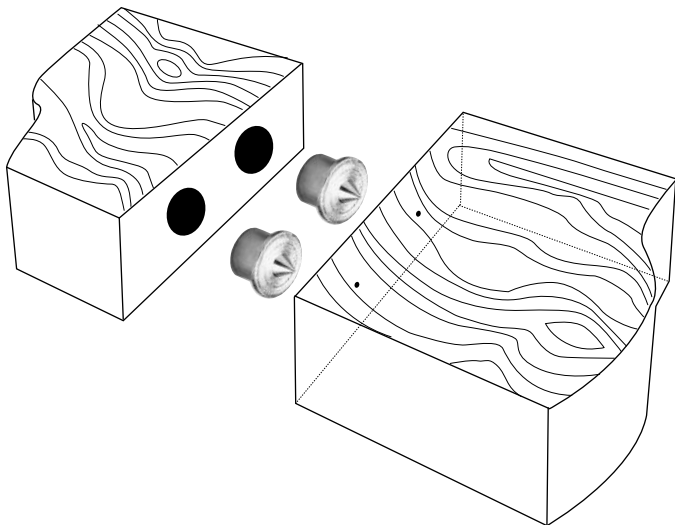


Figure 6



Figure 7

INSTRUCTION FOR USE OF DOWEL CENTERS



These dowel centers help to make it easy to precisely align the holes of two pieces of stock to be joined by a doweled joint—for example, a shelf and each of its supports. They can be used in conjunction with a dowel jig to show where the joining holes need to be drilled.

Drill one set of holes with a diameter of $1/4''$, $5/16''$, $3/8''$ or $1/2''$ in one piece of stock (see photo). Slip the dowel centers of corresponding diameter into the holes, with the sharp points facing out. Then align the two pieces of stock by hand and press them together. The sharp points will leave marks on the second piece of stock indicating exactly where to drill the second set of holes.

To remove the dowel centers, hit the other side of the stock with a rubber mallet.

INSTRUCTIONS FOR T-BUTT JOINTS

NOTE: When using this jig to make T-Butt joints, the width of either surface to be drilled cannot exceed 4 inches.

1. Place boards you want to join in the final position and mark them "A" and "B". Use a square to align the two boards and mark a line along the edge of board "A" on the short side of board "B" (See Figure 8).

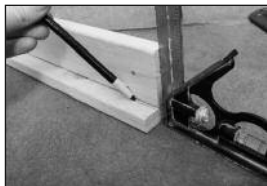


Figure 8

2. Flip board "A" flat so it lies on board "B". Use a square to ensure the edges are still aligned (See Figure 9). Clamp the boards together.



Figure 9

3. Use the square to mark the edge of board "A" and the surface of board "B" to be drilled at all desired dowel pin locations (See Figure 9).
4. Remove the clamp and place board "A" in the jig as detailed in "HOW TO MAKE EDGE-TO-EDGE JOINTS", steps 5-7.
5. Drill holes in board "A" at all desired locations. Follow steps 8-15 in "HOW TO MAKE EDGE-TO-EDGE JOINTS."
6. Remove board "A" from the jig once all holes are drilled.
7. Open the CLAMP SCREW (B) on the jig wide enough to fit over the board "B" with surface to be drilled facing up.
8. Place the FIXED JAW (C) of the jig against the side of board "B" that is closer to the marked line from step 1. Align the center of the INDEX MARK (D) with one of the lines marked, from step 3, on the board. (See Figure 10)



Figure 10

9. Loosen SLIDE LOCK SCREW (E) and, starting from the marked line on board “B”, move the SLIDE (F) along the SCALE ROD (G) until the distance the SLIDE (F) is away from the line is half the thickness of board “A”. Use the graduations marked on the SCALE ROD (G) for measuring (See Figure 11). Once aligned, tighten SLIDE LOCK SCREW (E).



Figure 11

10. Lift TURRET (H) and turn until the correct size hole is aligned with the INDEX MARK (D). The TURRET (H) will snap into place when properly located.
11. ENSURE THE DRILL IS TURNED OFF. Place a depth stop collar on the drill bit at the proper depth to drill the first hole. NOTE: Position the collar to allow for TURRET (H) height as well as desired depth of hole.

12. Ensure SLIDE (F) is locked at proper position and drill dowel hole in board “B”. The hole in the TURRET (H) will help you keep the drill straight (See Figure 12).

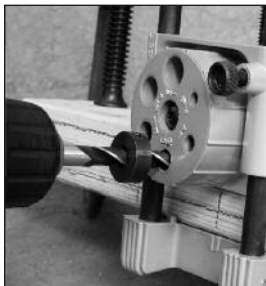


Figure 12

13. With clamp in place, loosen the jig CLAMP SCREW (B) and move the jig so the next marked location on the board aligns with the INDEX MARK (D) on the jig.
14. Gently tighten the CLAMP SCREW (B) and repeat steps 8-13 until all dowel holes are drilled.

15. Apply glue to the dowel pins and insert them in the holes in board “A”. Align the holes in board “B” with dowel pins connect boards “A” and “B” to make the joint (See Figure 13).



Figure 13

INSTRUCTIONS FOR CORNER JOINTS

NOTE: When using this jig to make corner joints, the width of either surface to be drilled cannot exceed 4 inches.

1. Place boards you want to join in the final position and mark them "A" and "B". Use a square to ensure proper alignment (See Figure 14).
2. Flip board "A" flat so it lies on board "B". Use a square to ensure the edges are still aligned (See Figure 15). Clamp the boards together.
3. Use the square to mark the edge of board "A" and the surface of board "B" to be drilled at all desired dowel pin locations (See Figure 16).
4. Remove the clamp and place board "A" in the jig as detailed in "HOW TO MAKE EDGE-TO-EDGE JOINTS", steps 5-7.
5. Drill holes in board "A" at all desired locations. Follow steps 8-15 in "HOW TO MAKE EDGE-TO-EDGE JOINTS."
6. Remove board "A" from the jig once all holes are drilled.
7. Open the CLAMP SCREW (B) on the jig wide enough to fit over the board "B" with surface to be drilled facing up.
8. Place the FIXED JAW (C) of the jig against the side of board "B" that is closest to the marked lines from step 3. Align the center of the INDEX MARK (D) with one of the lines marked, from step 3, on the board. (See Figure 17)



Figure 14



Figure 15

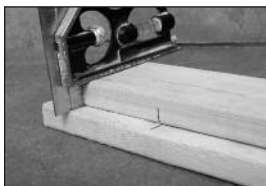


Figure 16



Figure 17

9. Loosen SLIDE LOCK SCREW (E) and move the SLIDE (F) along the SCALE ROD (G) until the distance the SLIDE (F) is away from the edge is half the thickness of board "A", Use the graduations marked on the SCALE ROD (G) for measuring (See Figure 18), Once aligned, tighten SLIDE LOCK SCREW (E).



Figure 18

10. Lift TURRET (H) and turn until the correct size hole is aligned with the INDEX MARK (D), The TURRET (H) will snap into place when properly located.
11. ENSURE THE DRILL IS TURNED OFF. Place a depth stop collar on the drill bit at the proper depth to drill the first hole, NOTE: Position the collar to allow for TURRET (H) height as well as desired depth of hole.

12. Ensure SLIDE (F) is locked at proper position and drill dowel hole in board "B", The hole in the TURRET (H) will help you keep the drill straight (See Figure 19).

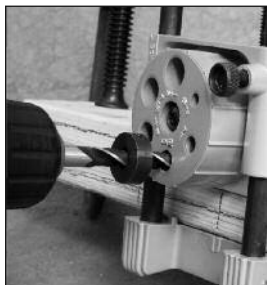


Figure 19

13. With clamp in place, loosen the jig CLAMP SCREW (B) and move the jig so the next marked location on the board aligns with the INDEX MARK (D) on the jig,
14. Gently tighten the CLAMP SCREW (B) and repeat steps 8–13 until all dowel holes are drilled,
15. Apply glue to the dowel pins and insert them in the holes in board "A", Align the holes in board "B" with dowel pins connect boards "A" and "B" to make the joint.