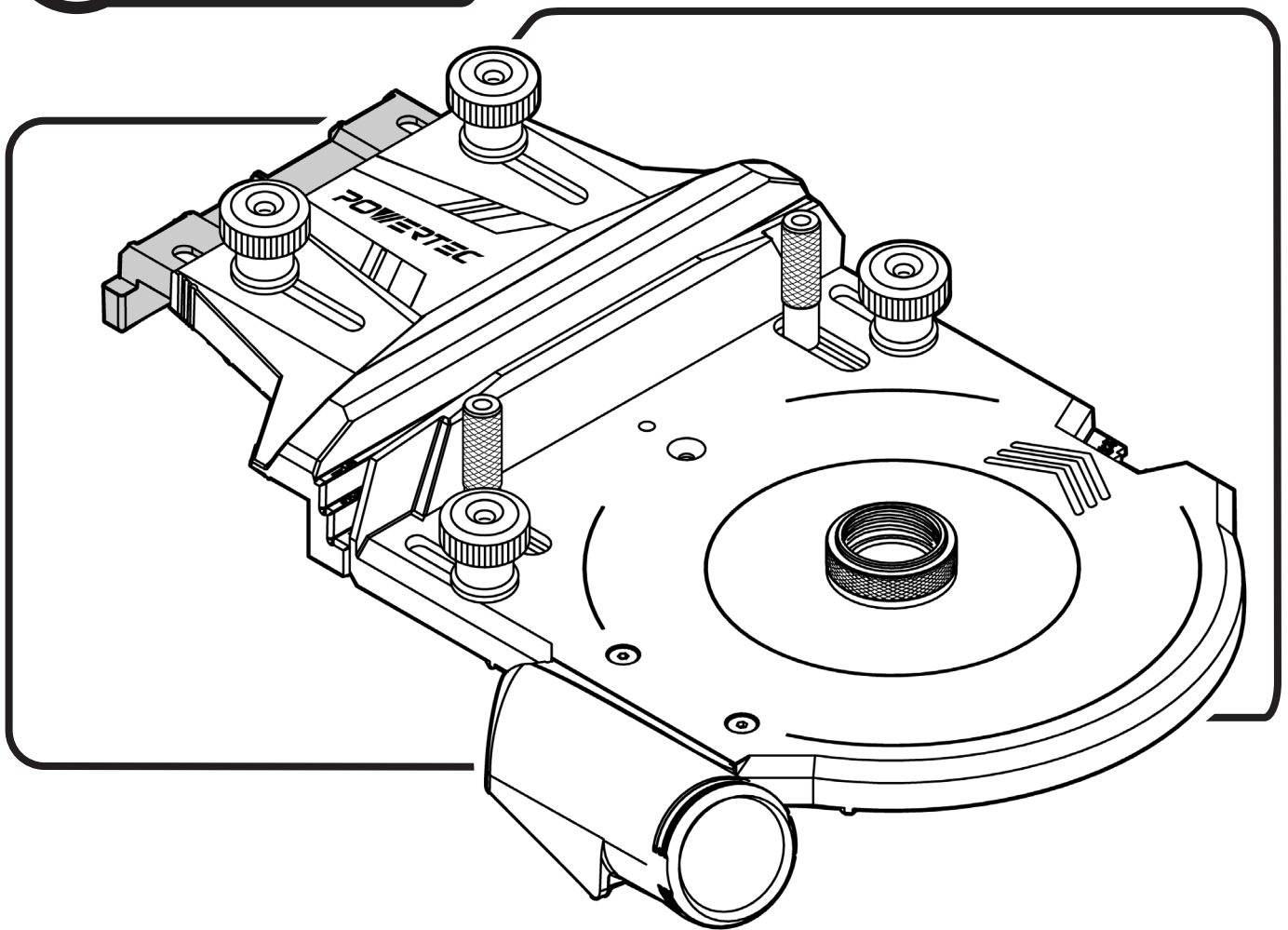


Owner's Manual

POWERTEC®

Router Dado Jig



Visit us on the web at www.powertecproducts.com



You will need this manual for safety instructions, operating procedures, and warranty. Put it and the original sales invoice in a safe, dry place for future reference.

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PRODUCT SPECIFICATIONS

RECOMMENDED ROUTER BIT SPEEDS

BIT DIAMETER	MAXIMUM SPEED
Up to 1" (25 mm)	22,000-24,000 rpm
1" to 2" (25 mm - 51 mm)	18,000-22,000 rpm
2" to 2-1/2" (51 mm - 64 mm)	12,000-16,000 rpm
2-1/2" to 3-1/2" (64 mm - 89 mm)	8,000-12,000 rpm

NOTE: Always follow bit manufacturer's speed recommendations. Some bit designs require specific speeds for safety or performance.

**WARNING**

For your own safety, read and understand all warnings and operating instructions before using any tool or equipment.

WARNING

Some dust created by power sanding, sawing, grinding, drilling and other construction activities can expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks and cement and other masonry products.
- Arsenic and chromium from chemically-treated lumber.

NOTE: Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area and work with approved safety equipment. Always wear OSHA/NIOSH approved, properly fitting face mask or respirator when using such tools.

WARNING

Failure to follow these rules may result in serious personal injury. Remember that being careless for even a fraction of a second can result in severe personal injury.

WORK PREPARATION

- Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts of the tool.
- Wear protective hair covering to contain long hair.
- Wear safety shoes with non-slip soles.
- Wear safety glasses complying with United States ANSI Z87.1. Everyday glasses have only impact resistant lenses. They are NOT safety glasses.
- Wear face mask or dust mask if operation is dusty.
- Be alert and think clearly. Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.

WORK AREA PREPARATION

- Keep work area clean. Cluttered work areas invite accidents.
- Do not use power tools in dangerous environments. Do not use power tools in damp or wet locations. Do not expose power tools to rain.
- Work area should be properly lit.
- Proper electrical receptacle should be available for tool. Three-prong plug should be plugged directly into properly grounded, three-prong receptacle.
- Extension cords should have a grounding prong and the three wires of the extension cord should be of the correct gauge.
- Keep visitors at a safe distance from work area.
- Keep children out of the work area. Ensure your work shop is child-proof. Use padlocks, master switches or remove switch keys to prevent any unintentional use of power tools.

TOOL MAINTENANCE

- Always unplug tool prior to inspection.
- Consult manual for specific maintaining and adjusting procedures.
- Keep tool lubricated and clean for a safe operation.
- Remove adjusting tools. Form habit of checking to see adjusting tools or accessories are removed before switching tool on.
- Keep all parts in working order. Check to determine that guard or other parts will operate properly and perform their intended function.
- Check for damaged parts. Check for alignment of moving parts, binding, breakage, mounting and any other condition that may affect tool's operation.
- A guard or any other part that is damaged should be properly repaired or replaced. Do not perform makeshift repairs.

TOOL OPERATION

- Avoid accidental start-up. Make sure that the tool is in the "OFF" position before plugging in.
- Use the right tool for your job. Do not force your tool or attachment to do a job for which it was not designed.
- Disconnect tool when changing parts.
- Don't force the workpiece on the machine. Damage to the machine and/or injury may result.
- Never leave tool running unattended. Turn the power off and do not leave tool until it comes to a complete stop.
- Do not overreach. Loss of balance can make you fall into a working machine, causing injury.
- Never stand on tool. Injury could occur if the tool tips, or if you accidentally contact the cutting tool.
- Know your tool. Learn the tool's operation, application and specific limitations before using it.
- Use a proper extension cord of the correct gauge. The extension cord should have a grounding prong, and should be in good condition.
- Handle workpiece correctly. Keep hands away from moving parts.
- Turn tool off if it jams.
- Always feed workpiece against the direction of the sanding rotation. To maintain control, properly support long or wide work-pieces.

CAUTION

Think safety! Safety is a combination of operator common sense and alertness at all times when tool is being used.

WARNING

Do not attempt to operate tool until it is completely assembled according to the instructions.

**SAVE ALL WARNINGS AND INSTRUCTIONS
FOR FUTURE REFERENCE**

CONTENTS

Examine carton for shipping damage. Check immediately whether all parts and accessories are included. If anything is missing or broken, contact your retailer or call **847-780-6120**.

NOTE: Carefully remove all contents from shipping carton. The shipping carton contains:

ITEM	DESCRIPTION	QTY			
A	Jig Base Plate	1	E	Hex-Bolt 1/4"-20UNC 1" L	4
B	Adaptor Fence	1	F	T-Bolt 1/4"-20UNC 1" L	2
C	Rail Fence	1	G	Socket Flat Screw M4x8L	2
D	Dust Port	1	H	Nylon Nut M4x0.7P	2
			I	Washer D16xd6.6 x2t	4
			J	Spring Washer D13.4xd8.2 x2t	4
			K	Adjustment Knob 1/4"-20UNC	4
			L	Limit Setting Knob	2
			M	1" Bushing and Nut	1

Figure 1

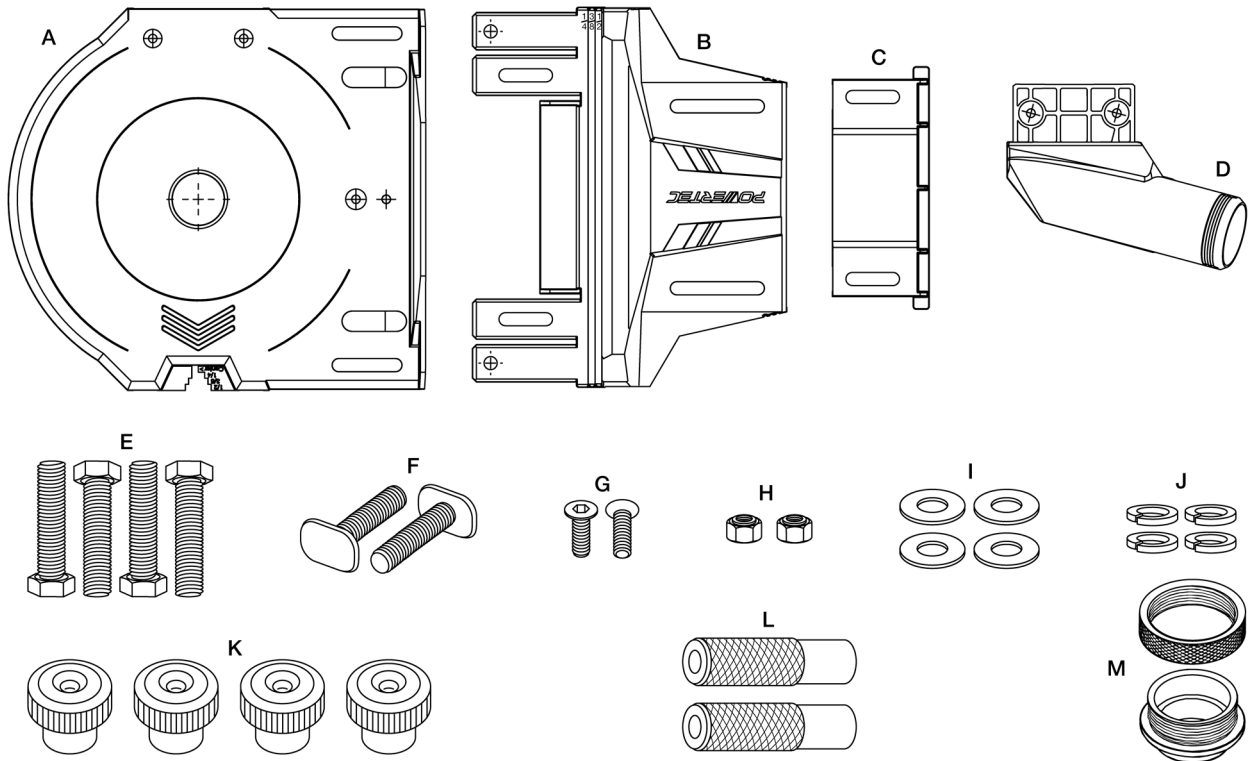
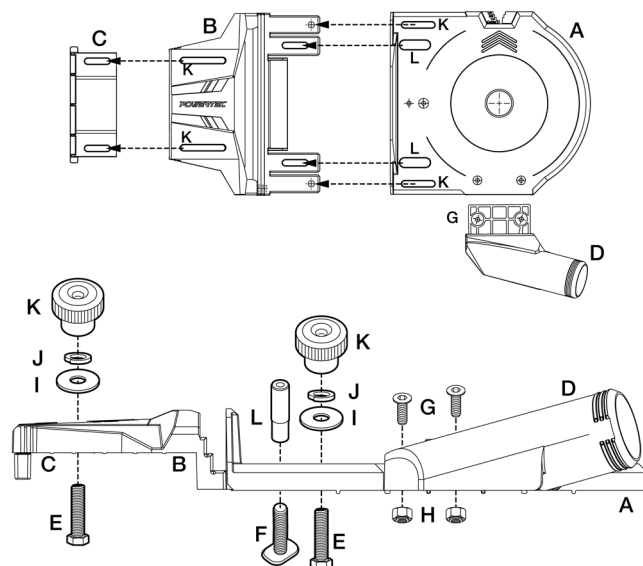


Figure 2



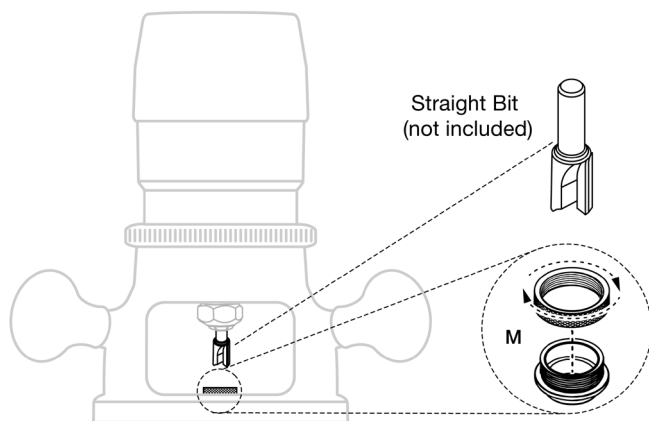
1. Place Adaptor Fence (B) over Rail Fence (C) align slots.
2. From the bottom, insert two Hex Bolts (E) through the slots.
3. Place Washer (I), Spring Washer (J), over Hex Bolt (E).
4. Thread on Adjustment Knobs (K). Do not tighten at this time.
5. Place Router Base Plate (A) over Adaptor Fence (B). Align slots on Base Plate (A) with outside holes on Adaptor Fence (B).
6. From the bottom insert two Hex Bolts (E) through the slots.
7. Place Washer (I), Spring Washer (J), over Hex Bolt (E).
8. Thread on Adjustment Knobs (K). Do not tighten at this time.
9. From the bottom Insert two T-Bolts through the inside slots, thread Limit Setting Knobs (L) onto T-Bolts. Do not tighten at this time.
10. Place Dust Port (D) under Router Base Plate (A) opposite the directional arrow, nestled into molded space.
11. From the top, insert two Socket Flathead Screws (G) into each hole on Base plate (A).
12. Put one Nylon Nut (H) in recessed hole underneath Dust Port (D) and thread on Screw (G). Repeat for the other Nut (H) and Screw (G).

PREPARE THE ROUTER

NOTE: This Dado Jig works only with 1/4", 3/8" and 1/2" diameter straight router bits. **Do NOT** use undersized plywood router bits.

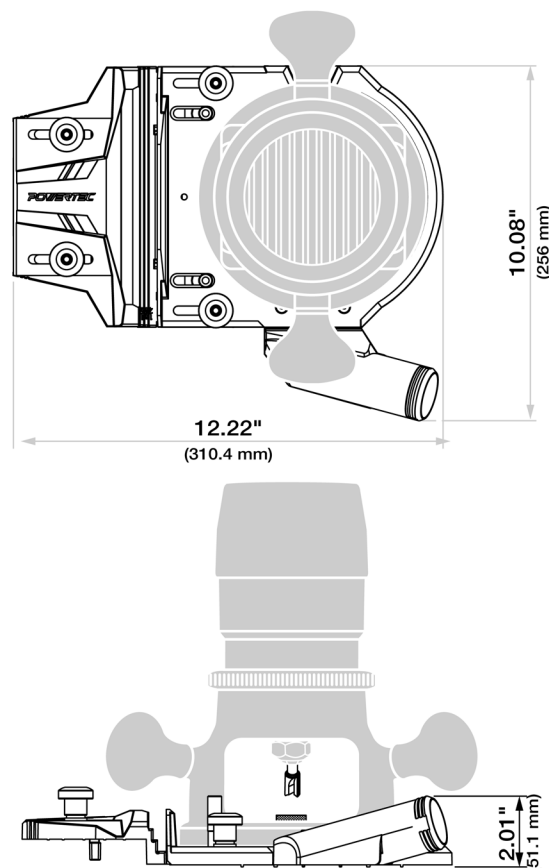
1. Insert 1" OD Guide Bushing (M) into Router Base.
2. Hand twist to secure Lock Nut (M) onto 1" OD Guide Bushing (M) — tighten.
3. Insert and secure Router Bit (not included) into properly sized collet on Router.
4. Set bit depth required for project.
5. Carefully test fit router onto assembled Fluting Jig by aligning Guide Bushing with hole in router base.

Figure 3



NOTE: Some routers may require a router base adaptor to fit the 1" Guide Bushing included with this Fluting Jig. There are many on the market suitable for this product.

Figure 4

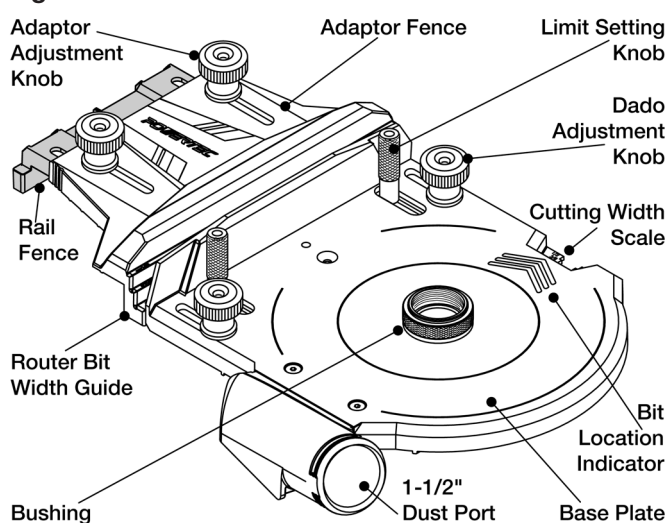


OPERATION

5

FLUTING JIG FUNCTIONS

Figure 5



- **Rail Fence:** Allows user to secure the Jig assembly into a rail slot. Reverse the Adjuster for set-up, based on width.
- **The Adaptor Fence:** Allows user to set up with a straight edge or guide rail.
- **The Adaptor Fence Adjustment Knobs:** Secure the Adaptor Fence and prevent shift during routing.
- **Dado Adjustment Knobs:** Tighten to secure the Jig Base in place after setting the Jig.
- **Limit Setting Knobs:** Tighten to set the chosen limit.
- **Cutting Width Scale:** Indicates the cutting position.
- **Directional Arrows,** along with notch, give user a visual of line to be routed.
- **Router Base Plate:** Securely holds router in position.
- **1-1/2" Dust Port** directs debris away from user and is most effective when combined with a Dust Collection Setup (sold separately)
- **1" Bushing:** Used in conjunction with the router's base (or additional router base plate if needed) aligns the Router and Router Base Plate for accurate cuts.

NOTE: Bushing requires center correction. An uncorrected center may cause size deviations.

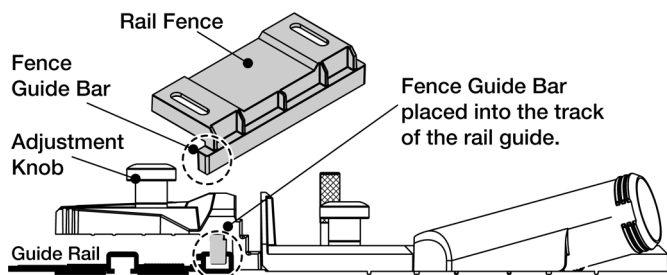
- **Router Bit Width Guide:** Select the routing path width using one of three router bit sizes — 1/4", 3/8", 1/2".

RAIL FENCE SETUP

Change the orientation of the Rail Fence (C) according to the type of the connection required.

Option 1: With a Guide Rail

Figure 6



1. Set Rail Fence (C) guide bar into rail slot.
2. Ensure Base Plate sits on a flat surface when adjusting.
3. Tighten Adjustment Knobs (K) on Adaptor Fence (B).

Option 2: With a Straight Edge

1. Reverse Fence Guide (C) for this setup.
2. Set Rail Fence guide bar to the outside of Straight Edge.
3. Ensure Base Plate sits on a flat surface when adjusting.
4. Adjust track width by loosening Adjustment Knobs (K) on Adaptor Fence (B).
5. When Fence Bar is aligned against the Straight Edge, tighten both Adjustment Knobs.

For both setups: Test the fit. The Dado Jig should slide along the rail guides easily without side-to-side play or friction.

Figure 7

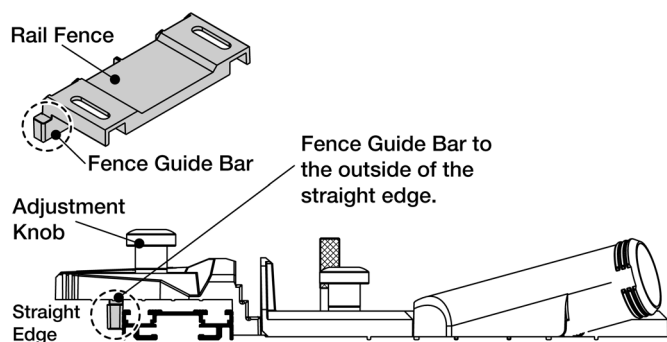
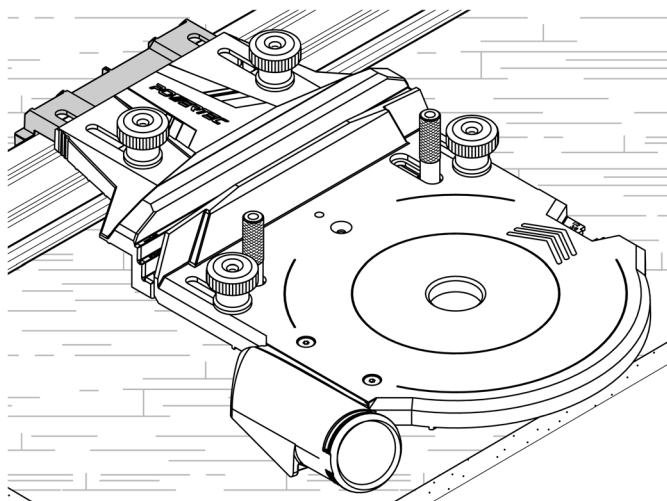


Figure 8



SET DADO WIDTH

⚠ WARNING

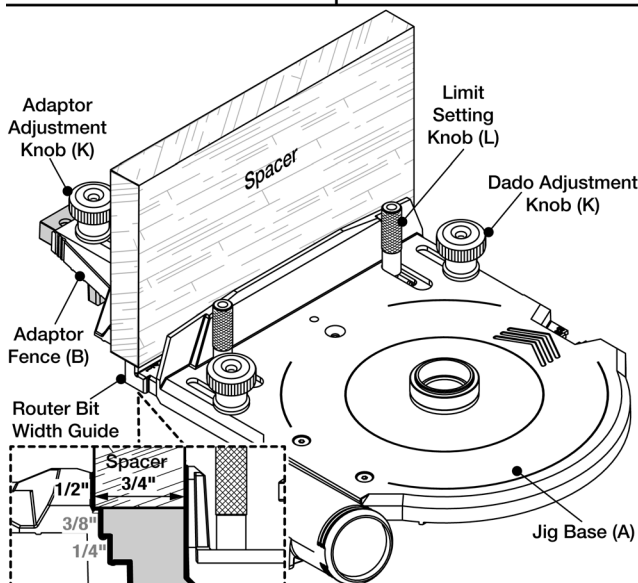
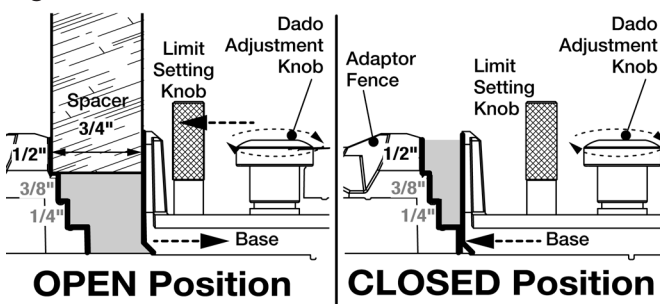
Follow all manufacturers safety precautions for the Router to be used. Read and follow instructions carefully. Failure to do so could lead to serious injury.

EXAMPLE: A dado cut for nominal 3/4" plywood can be cut using a 1/2" diameter straight bit in two passes.

Setting Dado Jig for Material To Be Cut

- Use a spacer, slightly wider than Adaptor Fence (B), taken from the material to be glued into the dado being cut. **The spacer must be straight**—not curved or warped.
- On Jig Base (A) loosen two Adjustment Knobs (K) and the two Limit Setting Knobs (L). Slide Jig Base away from Adaptor Fence (B).
- Fit the spacer in the stepped area between Adaptor Fence (B) and Jig Base (A). Example using 1/2" step.
- **Place spacer on the 1/2" step corresponding to the diameter of the router bit being used.**
- Hold and grip spacer along length of the Fences.
- Ensure **Adaptor Fence** Knobs (K) are tight.
- Push Jig Base (A) toward the spacer until it is flush.
- After pushing Jig Base (A) toward the spacer, tighten **Dado Adjustment Knobs** (K) to lock Jig Base setting.
- Slide Limit Setting Knobs (L) toward fence on Base (A) to the end of the slots. Tighten Limit Setting Knobs (L).
- The two Fences should capture the spacer without play but not so tight the piece is difficult to remove.
- Remove the spacer. This creates the Jig's **OPEN** position.

Figure 9

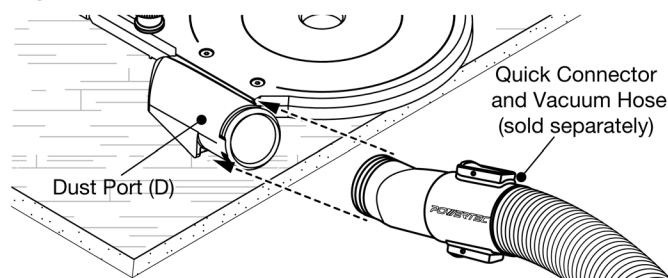


DUST PORT

When set up is complete, place the Dado Jig assembly on the guide rail or straight edge. Make sure it slides freely. Connect vacuum hose to the dust port.

- Because the vacuum hose (sold separately) will have pulling force user may feel some suction resistance while in use.
- There are quick-release threads on the end Dust Port (D) designed for fast on and off use. A quick release hose setup is ideal for this purpose such as **Powertec 70355 Hose Kit** (sold separately).

Figure 10



SET ROUTER BIT DEPTH/HEIGHT

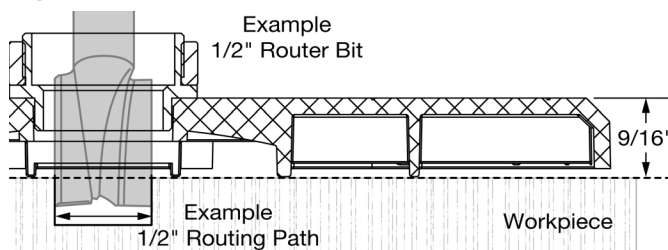
Always choose a router bit (not included) appropriate for the depth of cut needed for the specific project.

Using the correct size and length of bit ensures clean and efficient cuts without putting undue stress on the bit or router.

The Plate thickness is 9/16" (0.57" / 14.5 mm). Add the plate thickness when setting bit cutting depth.

After bit height is set up, test cut on a scrap board. Adjust bit height as needed.

Figure 11



ROUT A DADO (Example: Approximate 3/4" Routing Path Using a 1/2" Bit, in two passes)

Depending on the width of the material and the bit selected—not all Dados require two passes.

NOTE: When cutting 1/2" dados using 3/8" bit, and with the Jig open, align the right side of the 3/8" bit mark-line to the right side of the dado line.

NOTE: When cutting 3/8" dados using 1/4" bit, and with the Jig open, align the right side of the 1/4" bit mark-line to the right side of the dado line.

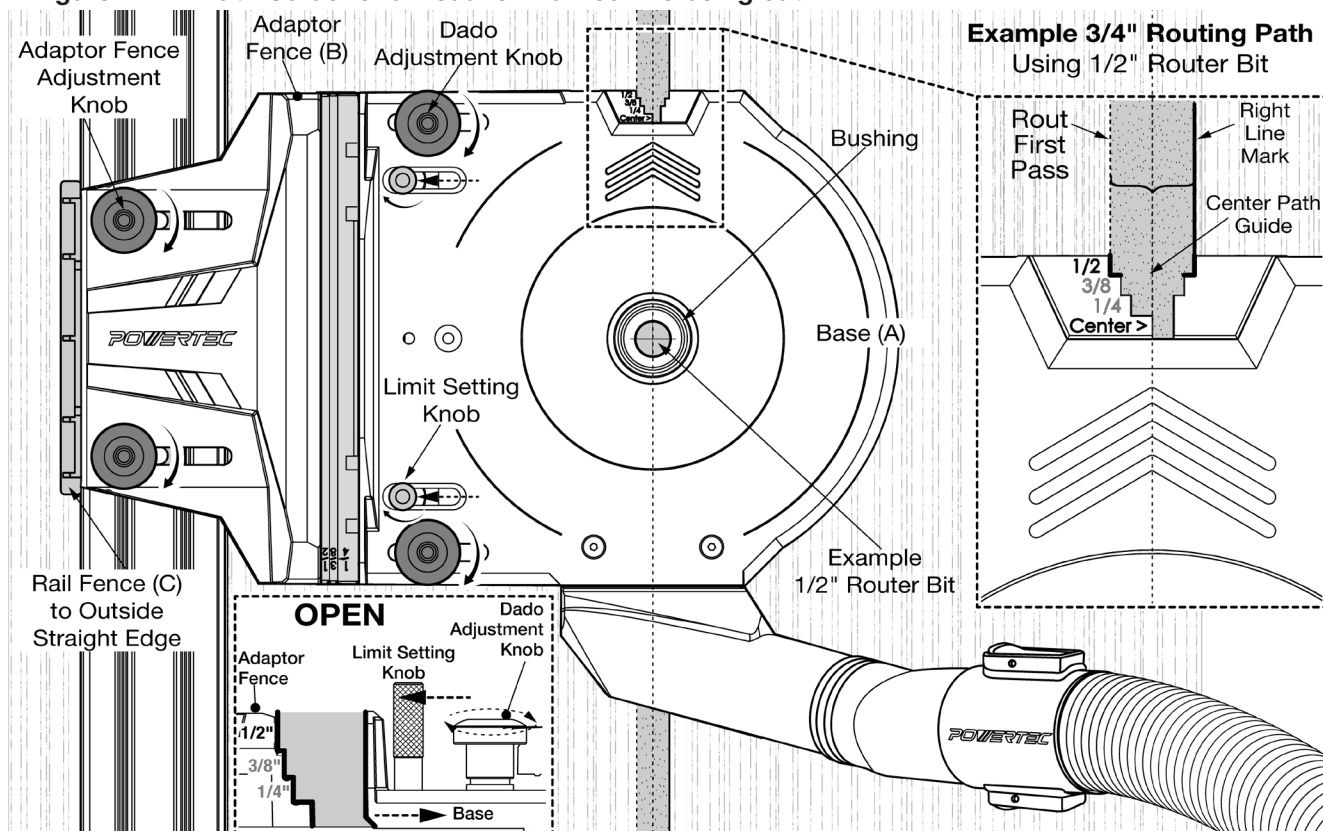
WARNING

Risk of personal injury. Do not remove the router from the Jig until the bit has come to a complete stop. Do not adjust the setting while the router is operating. Failure to do so could result in physical harm or equipment damage.

- Mark right line of dado position.
- Set up the Dado Jig for a 1/2" router bit. See Figure 9.
- Tighten Dado Adjustment Knobs to secure position.
- Push Limit Setting Knobs toward fence—tighten.
- Jig is now set in the **OPEN** position.

- With Jig in Open position, and attached to a straight edge or track guide, align the right side of the 1/2" bit mark-line to the right side of the dado line.
- Check Jig alignment by sliding the Jig along the rail ensuring Jig aligns to mark.
- Place router into Bushing on Jig Base. Firmly hold the router to prevent tilting. Turn on the router and let it come up to speed before entering the workpiece.
- Rout the First Pass.
- Turn **OFF** the router.
- **DO NOT** remove it until the bit comes to a complete stop.

Figure 12 Path Guide for a visual of marked line being cut.

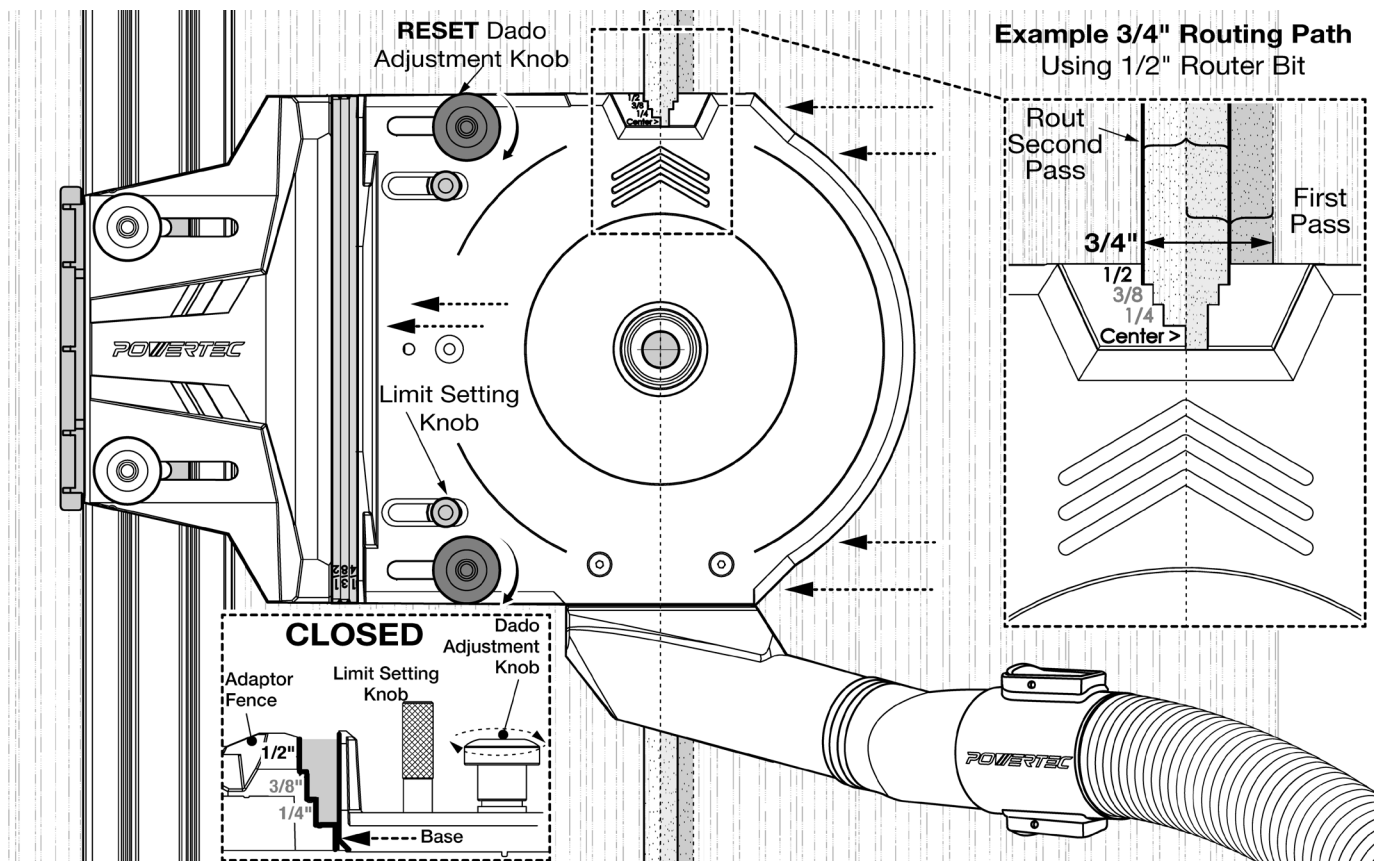


(continued next page)

Route the Second Pass to Complete 3/4" Dado

- Turn **OFF** the router and remove it from the Jig.
- Loosen Dado Adjustment Knobs.
- Push the Jig Base toward the Adaptor Fence.
- Tighten Dado Adjustment Knobs.
- The Jig is now set in the **CLOSED** position.
- Move Jig to starting point.
- Place the router into the Bushing on Jig Base. Firmly hold the router to prevent tilting. Turn on the router and let it come up to speed before entering the workpiece.
- Rout the Second Pass.
- Turn **OFF** the router
- **DO NOT** remove it until the bit comes to a complete stop.

Figure 13



8



MAINTENANCE

⚠ WARNING

When servicing, use only identical replacement parts. Use of any other parts may create a hazard or cause product damage.

⚠ WARNING

Keep the Router Dado Jig dry, clean, and free from oil and grease. Always use a clean cloth when cleaning. Never use brake fluids, gasoline, petroleum-based products or any strong solvent to clean the Router Dado Jig. Chemicals can damage, weaken or destroy plastic which may result in serious personal injury.

POWERTEC®

Southern Technologies, LLC
Chicago, IL 60606