



MODEL H8371 POWER FEED FOR KNEE MILLS INSTRUCTIONS

Specifications

Motor 110V 60Hz
 Speed 0-180 RPM
 Maximum Torque650 in./lb.
 Bevel Gear to Drive Gear Ratio 4.8:1

Inventory

Refer to **Figure 1** and the table below to inventory the contents of the shipping box.

REF	PART #	DESCRIPTION
1	PH8371001	MOUNTING BRACKET
2V2	PH8371002V2	PWR FEED & LIMIT SWITCH ASSY V2.07.11
3	PH8371003	COMPLETE BOLT BAG
4	PH8371004	LIMIT STOP ASSEMBLY
5	PH8371005	BEVEL GEAR BRASS

Bolt Bag Inventory

	Qty
Spacer Set 34mm.....	1
Spacer Set 16mm.....	1
Bushing Spacer.....	1
Slotted Flat Washer.....	1
Special Hex Nut 1/2"-20.....	1
Cap Screws 1/4"-20 x 1".....	2
Roll Pins 5.1 x 14mm.....	2
Phillips Head Screws #10-24 x 3/8".....	2
Flat Washers 5mm.....	2
Cable Clamps.....	2
Tie Wraps.....	2

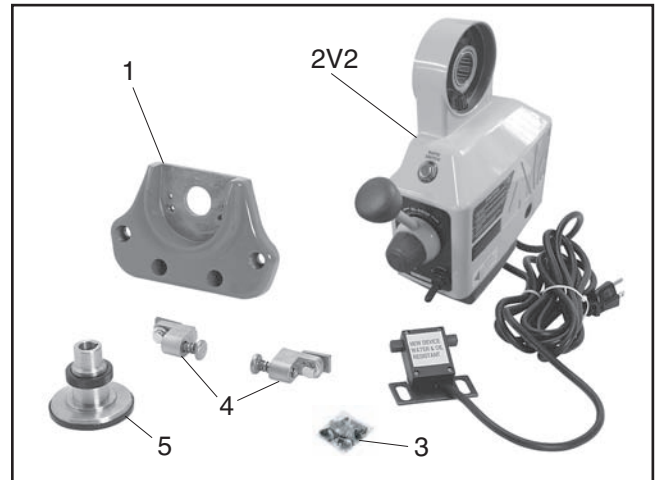


Figure 1. Model H8371 inventory.

If any nonproprietary parts are missing (e.g. a washer or a spacer), we will gladly replace them; or for the sake of expediency, replacements can be obtained at your local hardware store.

If you need help with your new power feed, call our Tech Support at: (570) 546-9663.

⚠ CAUTION

Be sure there is enough running clearance between the table, spindle, vise/clamps, or jigs before turning the power feed ON. Be aware that all of these objects represent potential pinch points.

Functional Overview

The Model H8371 power feed is designed to install on the right side of a knee mill table to provide powered longitudinal movement of the table. Refer to **Figure 2** and the descriptions below to become familiar with the functional parts of the power feed system.

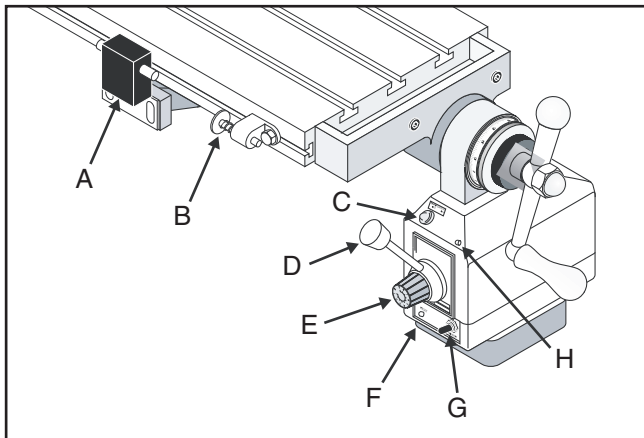


Figure 2. Power feed system.

- A. Limit Switch:** Stops powered table movement when either limit stop presses a plunger on the switch.
- B. Limit Stop:** Activates the limit switch. Secure these devices along the table to set the range of movement.
- C. Rapid Movement Button:** Moves the table at the maximum speed in the direction selected.
- D. Direction Lever:** Starts, reverses, and stops longitudinal table movement.
- E. Speed Dial:** Controls the speed that the table moves—turn the dial clockwise to increase the speed.
- F. Reset Button:** When a current over 3.5 amps passes through the unit for more than 10 seconds, the internal circuit switch will cut the power to the unit. Investigate and resolve any problems, then use this button to reset the internal circuit switch.
- G. ON/OFF Switch:** The master power switch for the power feed.
- H. Power Lamp:** Lights when the power feed is turned **ON**.

Installation

1. DISCONNECT THE MILL FROM POWER!

Note: During the next step, take care not to misplace the leadscrew keys.

2. Remove the handle and graduated dial assemblies from the right side of the longitudinal (X-axis) leadscrew.
3. Determine if there is adequate support on the mill to mount the power feed unit onto the leadscrew.

—If adequate mounting for the power feed unit exists at the end of the leadscrew, you do not need to use the optional mounting bracket. Continue with **Step 4**.

—If there is not adequate mounting for the power feed unit, you will need to use the provided mounting bracket. Proceed to **Using the Mounting Bracket** on **Page 4**.

4. Make sure the leadscrew is clean of debris and oil, then slide the power feed unit onto the leadscrew and up against the mill, as shown in **Figure 3**.

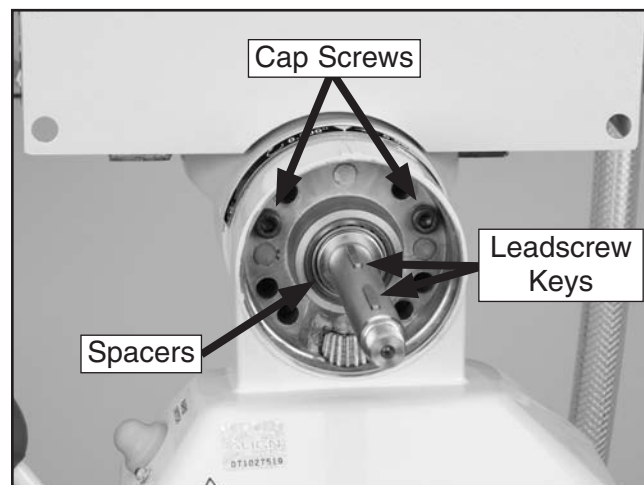


Figure 3. Power feed unit mounted on the leadscrew.

Note: Use the spacers provided where necessary to ensure that the parts installed on the leadscrew stay snug up against one another.



- Secure the power feed unit to the mill with the cap screws.

Note: If the threaded holes in the mill do not align with the holes provided in the power feed unit, drill and tap holes in the mill as necessary to properly secure the unit to the mill.

- Install the keys onto the leadscrew.
- Remove the plastic protective cap from the brass bevel gear, align the keyway in the gear with the leadscrew keys, then slide the gear onto the leadscrew and up against the power feed unit (see **Figure 4**).

Note: Make sure that the teeth of the bevel gear and drive gear mesh properly.



Figure 4. Brass bevel gear installed onto the leadscrew.

- Re-install the graduated dial and handle assemblies.

- Slide the T-nuts of the limit stops into the front slot of the table (see **Figure 5**), position them to limit the range of table movement, then tighten the hex bolts to secure them in place.

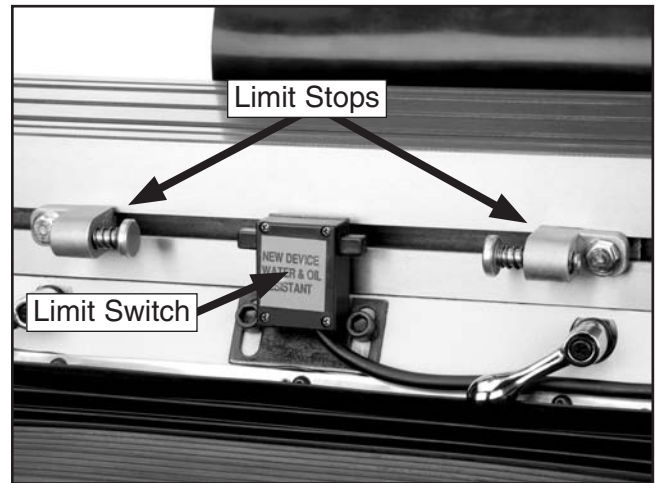
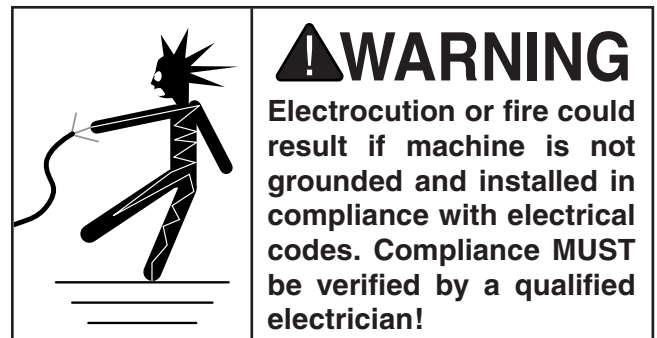


Figure 5. Example of limit switch and limit stops installed.

- Position and mount the limit switch in the center of the saddle, as shown in **Figure 5**, so that the plungers on the sides of the unit align with the limit stops.
- Make sure the ON/OFF switch is in the **OFF** position, then connect the power feed unit to a grounded 110V power source.



!WARNING

Electrocution or fire could result if machine is not grounded and installed in compliance with electrical codes. Compliance **MUST** be verified by a qualified electrician!



Using the Mounting Bracket

1. Use the roll pins and cap screws to install the power feed unit onto the mounting bracket (see **Figure 6**).

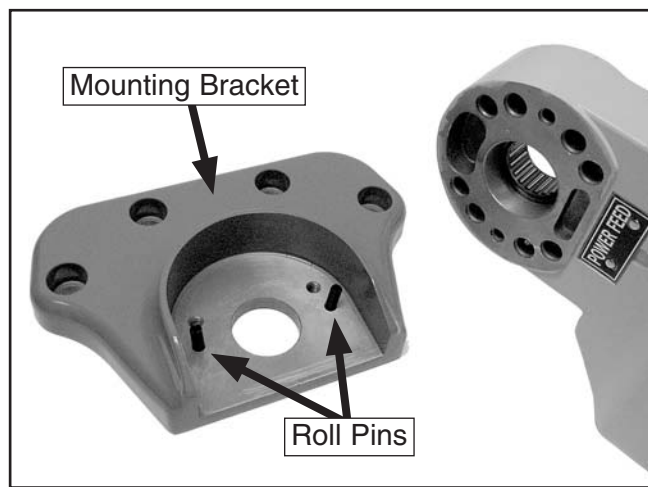


Figure 6. Mounting bracket.

2. Make sure the leadscrew is clean of debris and oil, then slide the assembly onto the leadscrew to mark the points needed to drill and tap holes for mounting screws in the side of the table.

Note: Use the spacers provided where necessary to ensure that the parts installed on the leadscrew stay snug up against one another.

3. Remove the assembly, drill and tap the mounting holes, re-install the power feed assembly onto the leadscrew, then secure the mounting bracket to the table (see **Figure 7**).

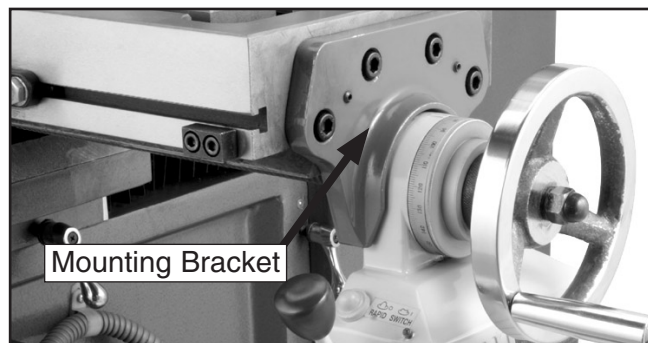


Figure 7. Example of power feed unit installed with the mounting bracket.

4. Continue with **Step 6** on **Page 3**.

Maintenance

Clean and lubricate the power feed gearing every three months of normal use.

To clean and lubricate the power feed gearing:

1. DISCONNECT THE MILL AND POWER FEED FROM POWER!
2. Remove the handle and graduated dial assemblies.
3. Slide the brass bevel gear from the leadscrew, then remove the leadscrew keys.
4. Clean the debris and built-up grime from the leadscrew and the gearing.
5. Brush a light coat of all-purpose grease onto the teeth of the bevel and drive gears.
6. Re-install the parts removed in reverse order.

