

RATMMOTOR X Axis

RATMMOTOR JN400S X-Axis Power Feed User Manual

Model: JN400S (X-Axis)

1. INTRODUCTION

This manual provides instructions for the installation, operation, and maintenance of the RATMMOTOR JN400S X-Axis Power Feed. This device is designed to automate the X-axis movement of milling machine tables, offering variable speed control and enhanced torque for efficient machining.

2. SAFETY INFORMATION

Always read and understand all safety warnings and instructions before operating the power feed.

- Ensure the power feed is connected to a 220V power supply. Verify your local voltage requirements.
- Always use the limit switch to prevent over-travel of the milling table, which can cause damage to the machine or injury.
- Disconnect power before performing any maintenance, adjustments, or cleaning.
- Keep hands and loose clothing clear of all moving parts during operation.
- Do not operate the power feed if any components are damaged or missing.

3. SPECIFICATIONS

Parameter	Value
Model	JN400S
Axis	X Axis
Power	90W
Voltage	220V
Weight	6 KG (13.2 lbs)
Current	2.8 AMP

Parameter	Value
Speed Range	2-200 RPM
Torque	650 IN-LB
Package Dimensions	15.35 x 12.99 x 7.09 inches

The JN400S features stable performance, precision bearings, and a durable design. It includes a special safety device to protect against tool collisions and rapid direction changes, ensuring smooth operation and improved working efficiency.

4. PACKAGE CONTENTS

Verify that all components are present and undamaged before proceeding with installation.



Image: Complete accessories for the RATTMOTOR JN400S power feed, including the main unit, copper gear, limit switch box, limit switch springs, and limit blocks.

- JN400S X-Axis Power Feed Unit

- Copper Gear
- Limit Switch Box
- Limit Switch Spring (x2)
- Limit Block (x2)
- Mounting Hardware (screws, washers)

5. SETUP AND INSTALLATION

This section outlines the steps for installing the RATTMMOTOR JN400S X-Axis Power Feed onto your milling machine table.

1. **Prepare the Milling Machine:** Ensure the milling machine is powered off and disconnected from the main power supply. Clean the mounting surface on the X-axis table to ensure a secure fit.
2. **Mount the Fixed Bracket:** Secure the fixed mounting bracket to the milling machine table using appropriate fasteners. Ensure it is firmly attached and aligned correctly.



Image: Close-up of the fixed mounting bracket, designed for secure attachment to the milling machine table.

3. **Install the Copper Gear:** Attach the copper gear to the lead screw of the milling machine's X-axis. Ensure it is properly aligned and secured to allow for smooth power transmission.



Image: Detailed view of the copper gear, which transmits power from the feed unit to the milling machine's lead screw.

4. **Attach the Power Feed Unit:** Mount the JN400S power feed unit onto the fixed bracket. Carefully align the internal gear of the power feed with the copper gear on the lead screw. Secure the unit in place using the provided hardware.



Image: The RATTMMOTOR JN400S X-Axis Power Feed unit, showing its main body and control panel, ready for installation.

- 5. Connect Power:** Plug the power feed unit into a 220V power outlet. Double-check that your power supply matches the unit's voltage requirement (220V) to prevent damage.
- 6. Install Limit Switches:** Attach the limit switch box and limit blocks to the milling machine table. Position them to define the desired travel limits for the X-axis, ensuring they are securely mounted and functional.

INDUSTRIAL GRADE QUALITY



Image: Close-up of the safety locking switch, an essential component of the limit switch system to prevent over-travel and ensure safe operation.

6. OPERATING INSTRUCTIONS

The JN400S power feed offers precise control over your milling machine's X-axis movement. Familiarize yourself with the controls before operation.

DURABLE & LONG-CAST I ING

Safety feature to protect transmission gear and electronic components, as to meet the requirements of ergonomics.

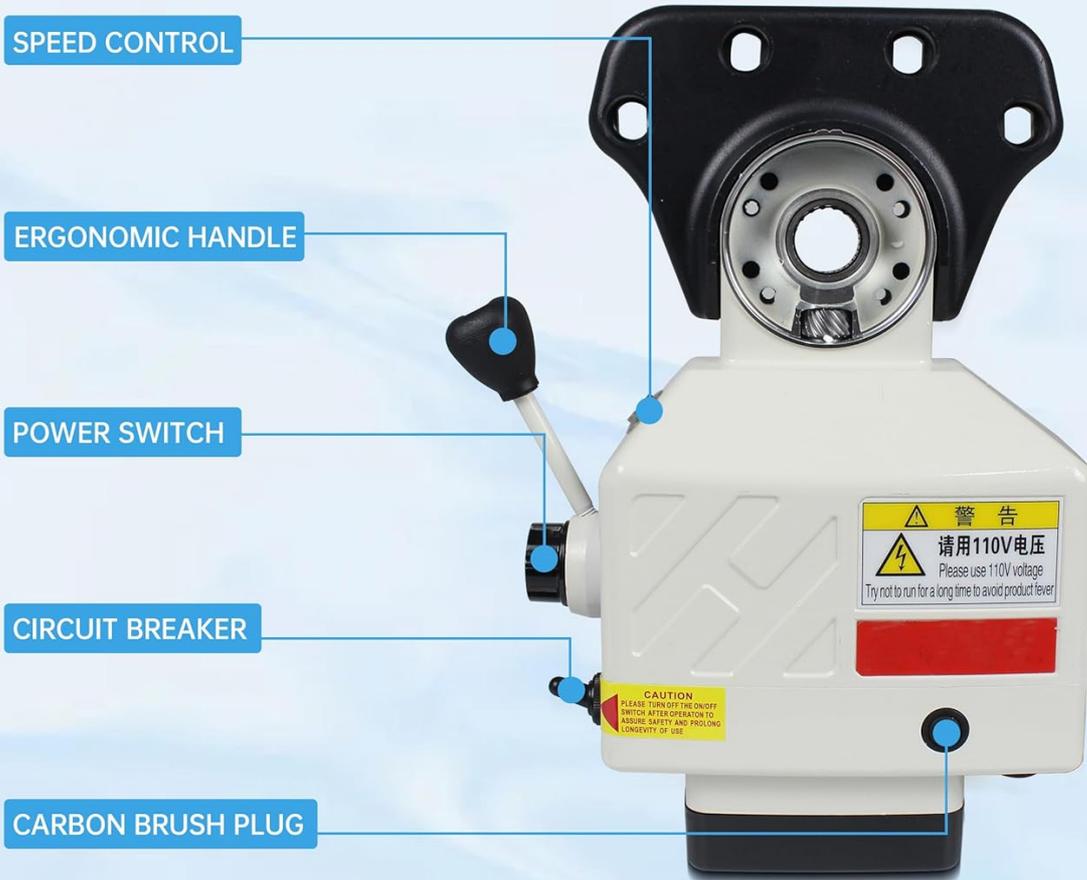


Image: The control panel of the RATTMOTOR JN400S power feed, clearly showing the speed control knob and the directional lever for X-axis movement.

1. **Power On:** Locate the main power switch on the unit and turn it to the 'ON' position. The unit should power up.
2. **Direction Control:** Use the directional lever to select the desired direction of travel for the X-axis (left or right). The lever provides quick and intuitive control.
3. **Speed Adjustment:** Rotate the speed control knob to adjust the feed rate. The speed range is 2-200 RPM. Start with a lower speed and gradually increase as needed for your specific machining operation and material.
4. **Emergency Stop:** In case of any unexpected behavior or emergency, immediately press the power switch to cut power to the unit.
5. **Limit Switch Activation:** The power feed will automatically stop when the limit switch is activated, preventing the table from exceeding its set travel limits and ensuring safety.

Important: This product operates on 220V. Ensure your power supply matches this requirement to avoid damage to the unit or electrical hazards.

7. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your RATTMOTOR JN400S Power Feed.

- **Cleaning:** Keep the unit clean and free from dust, metal chips, and debris. Use a soft, dry cloth for cleaning. Avoid using harsh chemicals.
- **Lubrication:** Periodically check and lubricate moving parts as recommended by your milling machine's maintenance schedule. Ensure the lead screw is adequately lubricated.
- **Carbon Brush Replacement:** The carbon brushes may need replacement over time due to wear. Refer to the diagram for the carbon brush plug location for access.

PRECISION DURABLE HANDLE STYLE

(Practical tool feeder)

Model	JN400S
Voltage	220V
Weight	6KG
Current	2.8AMP
Speed regulation range	2~200RMP
Torque	650IN-LB
Product features	High cost-effectiveness



Image: Diagram highlighting key components of the RATTMOTOR JN400S power feed, including speed control, ergonomic handle, power switch, circuit breaker, and the carbon brush plug for maintenance.

- **Inspection:** Regularly inspect all cables, electrical connections, and mounting hardware for any signs of wear, damage, or looseness. Tighten any loose fasteners.
- **Gear Check:** The internal plastic gears are designed for durability and quiet operation. While they have a long service life, inspect them periodically for any signs of excessive wear or damage.

8. TROUBLESHOOTING

This section addresses common issues you might encounter with your power feed and provides potential solutions.

Problem	Possible Cause	Solution
Power feed does not turn on	No power supply or loose connection	Check power connection to the outlet and the unit. Ensure the power switch is ON. Verify 220V power supply.
Power feed stops unexpectedly during operation	Limit switch activated or overload protection engaged	Reposition the table away from the limit switch. Reduce cutting load if an overload is suspected.
Irregular or noisy operation	Worn gears, bearings, or lack of lubrication	Inspect gears and bearings for wear. Apply appropriate lubricant as needed. Ensure proper alignment.
Inconsistent feed rate or speed fluctuations	Speed control knob issue or motor brush wear	Ensure the speed control knob is clean and functioning correctly. Check and replace carbon brushes if worn.

9. PRODUCT VIDEO

The following video demonstrates the RATTMMOTOR power feed. Please note that this specific video showcases a Z-axis power feed, but the general operation and features are similar to the X-axis model.

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Video: Demonstration of the RATTMMOTOR JN400S Power Feed (Z-Axis model shown). This video illustrates the unit's functionality, speed control, and directional operation, providing a visual guide to its use.

10. WARRANTY AND SUPPORT

For warranty information or technical support, please contact RATTMMOTOR customer service. Refer to your purchase documentation for specific warranty terms and conditions.

You can also visit the [RATTMMOTOR Store on Amazon](#) for additional product information and support resources.