FORYON HNC 808Di

FORYON HNC 808Di CNC Lathe Controller Instruction Manual

Model: HNC 808Di

1. Introduction

The FORYON HNC 808Di is a sophisticated 5-axis CNC controller designed for precision machining applications, including lathes, turning centers, CNC routers, pick-and-place machines, and milling machines. This controller integrates a human-computer interface for code analysis and an FPGA for underlying algorithms and control pulse generation, ensuring reliable operation and ease of use. Its internal operating system is designed for robust performance in industrial environments.

This manual provides essential information for the proper setup, operation, and maintenance of your HNC 808Di CNC Lathe Controller. Please read it thoroughly before installation and use to ensure safe and efficient operation.

2. Setup and Installation

Proper installation is crucial for the optimal performance and longevity of the HNC 808Di controller. Ensure all connections are secure and follow safety guidelines.

2.1 Unpacking and Inspection

- Carefully unpack the controller and all accessories.
- Inspect the unit for any signs of physical damage that may have occurred during shipping. Report any damage to your supplier immediately.
- Verify that all components listed in the packing list are present.

2.2 Mounting the Controller

The controller should be mounted in a stable, vibration-free environment, away from direct sunlight, excessive heat, dust, and moisture. Ensure adequate ventilation around the unit.

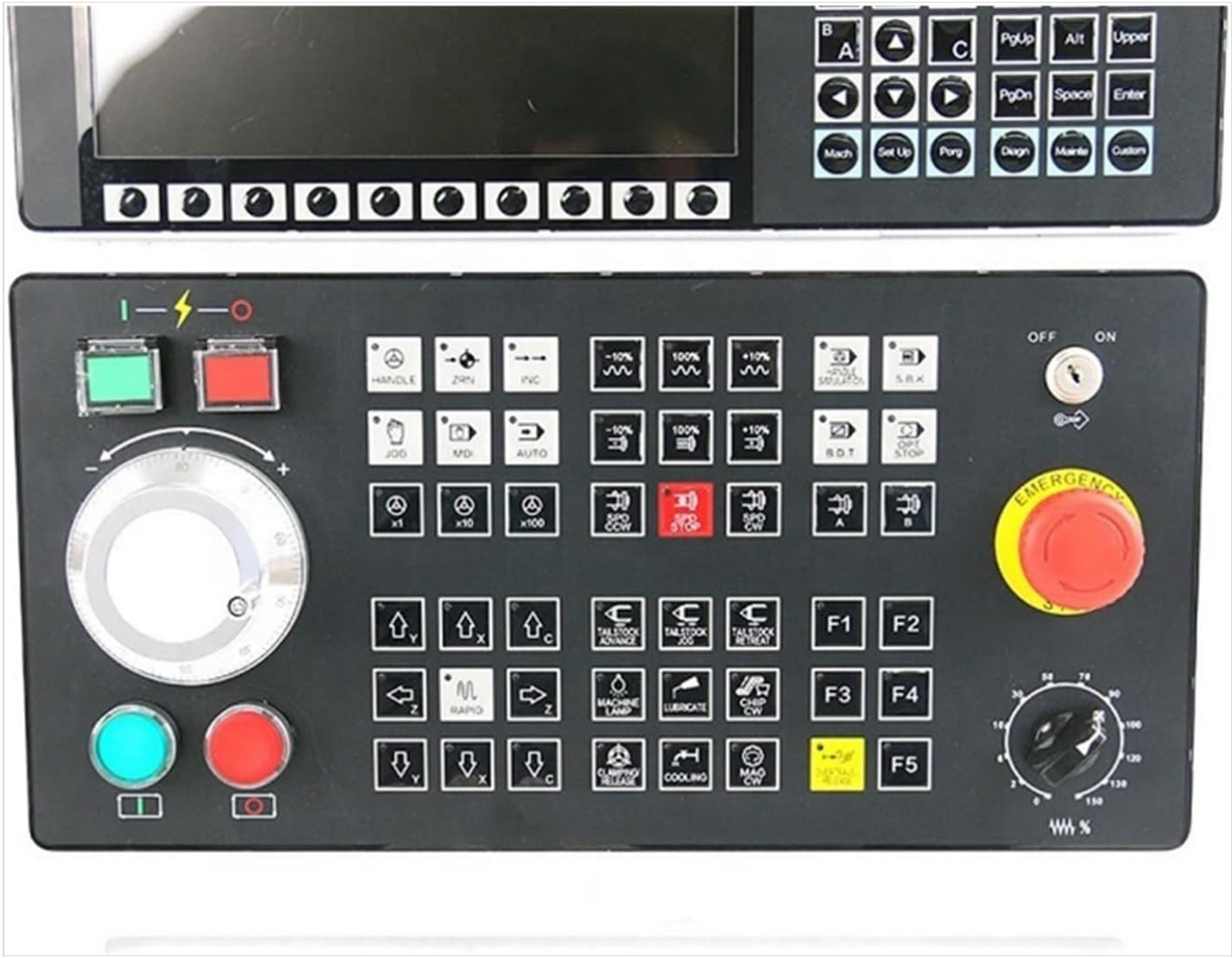


Figure 2.2.1: Front view of the HNC 808Di CNC Lathe Controller, showing the display and control panel.



Figure 2.2.2: Angled view of the HNC 808Di CNC Lathe Controller, highlighting its compact design.

2.3 Electrical Connections

- Connect the power supply according to the specifications provided in the technical documentation. Ensure proper grounding.
- Connect motor drives, sensors, and other peripheral devices to the appropriate ports. Refer to the detailed wiring diagrams in the supplementary technical manual for specific connections.
- Verify all connections are secure before applying power.



Figure 2.3.1: Rear view of the HNC 808Di controller, showing internal components and connection points. Consult the wiring diagram for specific port identification.

3. Operating Instructions

The HNC 808Di controller features a user-friendly interface designed for intuitive operation and high-precision machining.

3.1 Powering On and Initializing

1. Ensure all safety precautions are observed.
2. Turn on the main power switch for the CNC machine and then the controller.
3. The system will perform a self-check and initialize. Follow any on-screen prompts.

3.2 Control Panel Overview

The control panel provides access to various functions and settings. It includes a display, alphanumeric keypad, and dedicated function buttons.



Figure 3.2.1: Close-up view of the HNC 808Di control panel, showing the main operational buttons and display area.



Figure 3.2.2: Detailed view of the HNC 808Di control panel, highlighting the manual pulse generator (MPG) dial, axis control buttons, and function keys.

3.3 Programming and Operation Modes

- **Manual Data Input (MDI):** Allows direct input of G-code and M-code commands for immediate execution.
- **Automatic Mode:** Executes pre-loaded programs from memory.
- **Jog Mode:** Enables manual movement of machine axes using the control panel buttons or the Manual Pulse Generator (MPG) dial.
- **Program Editing:** Use the interface to create, modify, and save CNC programs. The controller supports graphical programming for simplified program creation.

3.4 High Precision Machining

The HNC 808Di utilizes advanced digital control technology to precisely control machining processes. It ensures accuracy and consistency through precise position and speed control, and can further enhance accuracy with error compensation functions.

4. Maintenance

Regular maintenance ensures the longevity and reliable operation of your HNC 808Di controller.

4.1 Cleaning

- Keep the control panel and display clean using a soft, dry cloth. Avoid abrasive cleaners or solvents.
- Periodically clean ventilation openings to prevent dust buildup, which can lead to overheating.

4.2 Environmental Conditions

- Operate the controller within specified temperature and humidity ranges.
- Protect the unit from excessive vibration and electromagnetic interference.

4.3 Software Updates

Check the manufacturer's website periodically for software and firmware updates. Keeping your controller's software up-to-date can improve performance and add new features.

5. Troubleshooting

This section provides solutions to common issues you might encounter. For problems not listed here, please contact technical support.

Problem	Possible Cause	Solution
Controller does not power on.	No power supply; loose power cable; faulty power switch.	Check power connections; ensure main power is on; test power switch.
Machine axes do not move.	Emergency stop engaged; motor drives not enabled; incorrect program.	Disengage emergency stop; check drive status; verify program logic.
Display shows error message.	System fault; communication error; sensor issue.	Note the error code and consult the detailed error code manual or contact support.

6. Specifications

Key technical specifications for the FORYON HNC 808Di CNC Lathe Controller:

- **Model Number:** HNC 808Di
- **Application:** Lathe and Turning Center, CNC Routers, Pick&Place, Milling Machines
- **Control Axes:** 5 Axis Control
- **Weight:** 8 KG (approximately 17.64 pounds)
- **Dimensions (LxWxH):** 530 x 235 x 365 mm
- **Manufacturer:** FORYON
- **ASIN:** B0DGFLLFBW

Note: Specifications are subject to change without prior notice.

7. Warranty and Support

For warranty information, technical support, or service inquiries, please contact your authorized FORYON dealer or the manufacturer directly. Keep your purchase receipt and product serial number handy when contacting support.

Manufacturer: FORYON

Return Policy: Refer to your point of purchase for specific return policy details. Generally, a 30-day refund/replacement policy may apply.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question