

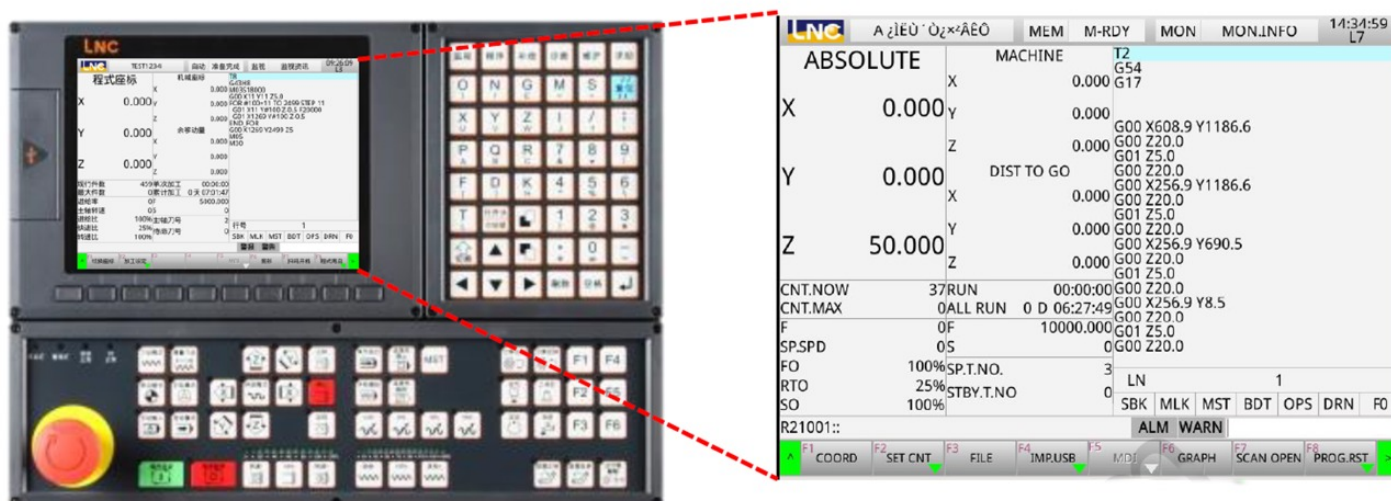
FIGTEK INDUSTRY LNC MW2200 CONTROLLER

INDUSTRIAL CNC ROUTER MOTION CONTROL SYSTEM



ABOUT THE LNC MW2200 CONTROLLER

The LNC MW2200 Controller is a next-generation industrial CNC controller designed for high-performance CNC router applications. It delivers fast processing, smooth motion control, intelligent automation functions, and excellent compatibility with servo systems. This controller is widely adopted in modern CNC machinery for its reliability, intuitive interface, and advanced engineering features.



CORE FEATURES

- Multi-axis synchronized motion control.
- Real-time diagnostics and monitoring dashboard.
- Wireless connection support for remote operator control.
- High-resolution display interface with intuitive menus.
- Macro programming support for automated routines.
- Servo-compatible architecture with high-accuracy feedback.
- Safe shutdown and advanced protection modes.
- Adaptive motion smoothing algorithms.



APPLICATIONS

- Cabinet and furniture manufacturing
- Nested-based CNC machining
- Engineering component cutting
- Composite machining and routing
- Signmaking and 3D carving
- High-speed production environments



ADVANTAGES OF THE LNC MW2200 CONTROLLER

1. High-Precision Motion Control

The MW2200 is engineered for ultra-smooth multi-axis movement with advanced interpolation and trajectory planning. This results in cleaner cuts, reduced vibration, and tighter tolerances on complex toolpaths.

2. Fast Processing & High Responsiveness

The controller handles large NC files, complex nested jobs, and high-speed toolpaths with exceptional efficiency. Its fast CPU ensures low latency and minimal processing delays during heavy workloads.

3. Stable & Reliable Industrial Build

Designed for long-term industrial operation, the MW2200 offers high stability, strong EMC resistance, and consistent performance even in high-dust or high-temperature workshop environments.

4. User-Friendly Interface

Operators benefit from a clean, intuitive interface with logical menu navigation. This shortens training time, reduces operator errors and increases productivity.

5. Full Automation Support

Supports automatic tool changers (ATC), tool height probes, macros, I/O expansion, auto-lubrication systems, dust cover controls, and workflow automation—making the CNC router far more efficient.

ADVANTAGES OF THE LNC MW2200 CONTROLLER

6. Seamless Servo Integration

The controller works exceptionally well with industrial servo drivers, enabling precise position feedback, fast acceleration, and accurate multi-axis synchronization.

7. Excellent Compatibility

Compatible with many CNC router configurations, spindle systems, servo brands, and machine architectures—making it ideal for new builds or retrofits.

8. Real-Time Monitoring & Diagnostics

Built-in live monitoring tools help operators track spindle load, job progress, axis movement, alarms, temperature, and cutting performance.

This greatly improves uptime and troubleshooting speed.

9. Enhanced Safety Systems

Includes integrated E-stop handling, safe-guarded motion, alarm logs, and interlock support, improving machine compliance with industrial safety requirements.

10. Wireless & Remote Control Options

Supports wireless handles and remote operation for safer and more flexible machine control.

USES OF THE LNC MW2200 CONTROLLER ON A CNC ROUTER MACHINE

1. Cabinet & Furniture Manufacturing

Manages high-volume nested-based manufacturing, cutting MDF, plywood, melamine, laminated boards, and timber components with precision.

2. Signmaking & Engraving

Ideal for routing ACM, acrylic, foam PVC, MDF lettering, 3D engravings, profile cutting, and panel work with smooth finishing.

3. Engineering & Industrial Component Machining

Handles aluminium profiles, jigs, fixtures, machine components, composite parts, and precision routing tasks that require consistent tolerances.

4. Composite Fabrication & Plastics Cutting

Used for machining plastics, carbon fiber, fiberglass sheets, engineering plastics and composite materials requiring precise toolpath control.

5. Solid Timber Processing

Controls high-speed motion needed for timber profiling, decorative routing, joinery components, and carving work.



USES OF THE LNC MW2200 CONTROLLER ON A CNC ROUTER MACHINE

6. 3D Carving & Complex Geometry Work

Smooth motion algorithms allow detailed carving, mould making, artistic CNC patterns, and organic shape cutting.

7. Multi-Tool Workflow Automation

Used in ATC CNC routers to perform drilling, pocketing, profiling, bevelling, engraving and finishing operations in a single automated cycle.

8. High-Speed Mass Production

Supports long shifts and continuous duty cycles for businesses needing high throughput and dependable machine control.

9. Retrofit for CNC Router Upgrades

Commonly installed as a modern replacement controller on older CNC router frames to drastically improve speed, automation and reliability.

10. CNC Training & Education

A simplified, intuitive interface makes it ideal for training operators, apprentices, and new CNC users.



FEATURES OF THE LNC MW2200 CONTROLLER

1. Multi-Axis High-Performance Control

Controls 3–5 axis router machines with precise coordinated movement.

2. High-Resolution Touchscreen Interface

Large-format display with easy access to spindle controls, jogging, offsets, work coordinates, and setup menus.

3. Built-in Industrial G-Code Interpreter

Supports standard G/M code as well as extended LNC macro functions.

4. Advanced Look-Ahead Algorithm

Pre-processes toolpaths to optimize speed through corners, reduce mechanical stress and maintain cutting quality.

5. ATC Support for Multiple Tools

Works seamlessly with linear or carousel-type automatic tool changers.

6. Macro Programming Capabilities

Supports CNC macros for repetitive tasks, automated tool change sequences, probing routines, and workflow optimization.

7. Tool Management System

Stores tool length, tool compensation, spindle parameters and offsets for quick multi-tool operations.

8. Real-Time Diagnostics Window

Displays servo errors, alarms, temperature readings, spindle load, and axis status.

FEATURES OF THE LNC MW2200 CONTROLLER

9. Wireless MPG (Manual Pulse Generator) Support

Allows safe manual jogging, setup and alignment.

10. Integrated Safety Functions

Supports door interlocks, safety relays, e-stops, overtravel limits, and soft-limits.

11. I/O Expandability

Large number of digital and analog I/O ports for pumps, sensors, vacuum tables, spindle control and dust extraction linkage.

12. USB, Ethernet, and Network Upload

Allows fast file transfer, remote job management, and network connectivity.

