

Thread cutting function	
Linear thread cutting	○
Variable pitch thread cutting	○
Rigid tapping	○
Thread cutting/retreating angle	○
Thread cutting canned cycles	○
Manual feed rate functions	
Manual rapid feed rate	○
Manual JOG feed rate	○
Manual MPG feed rate	○
Dwell function	
Dwell in seconds	○
Cutting modes	
Exact stop mode	○
Standard cutting mode	○

7. Program memory

Memory capacity	
RAM(64MB) (Above 64MB)	○
CF Card(64MB)(Above 64MB)	○
Program editing	○
Background editing	○
User-definable file name of part programs	○

8. Spindle/auxiliary functions

Spindle functions	
Spindle control types	○
C(H) multi-point positioning by lock pins	○
Constant surface cutting speed	○
S code output	○
Spindle/C axis control	○
Spindle RPM adjustment	○
Spindle RPM display	○
Spindle gear change mechanism	○
Multi-spindle control	○
Spindle synchronous control	○
Auxiliary functions	
M code output	○
(Fin)Auxiliary function finish	○
Wait M codes	○

9. Tool/Compensation functions

Tool functions	
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Current tool number display	○
Tool numbers	○
Macro calls by T codes	○
Tool length measurement	○
Compensation functions	
Tool length compensation	○
Wear compensation	○
Tool nose radius compensation	○
Tool nose wear compensation	○

10. Mechanical auxiliary functions

Built-in PLC	○
Ladder monitor	○
Absolute encoder	○
PMC axis control	○

11. Coordinate systems

Coordinate system setting	
Absolute/relative coordinate system setting	○
Mechanical coordinate system	○
Workpiece coordinate system selection	○
Local coordinate system selection	○
Plane selection	○
Toolholder mirror image	○
Zero return	
Manual zero return	○
Reference return detection	○
Auto zero return	○
2 nd , 3 rd , 4 th reference point return	○
Data input setting	○

12. Operation auxiliary functions

Program testing	
MST neglect	○
MPG dry run	○
Z axis neglect	○
Machine lock	○
Dry run	○
Optional block skip	○
Optional block stop	○
Graphic display	○
Program executed by MPG forward	○
Program executed by MPG backward	○

Program preview	○
Part program control	
Line number search	○
Block serial number search	○
Cycle start	○
Reset & rewind	○
Single block mode	○
Machine hold	○
Multi-line MDI	○
Batch program	○
Handle interrupt	○
Program restart	○
Machining auxiliary functions	
Fixed drilling cycle	○
Tapping cycle	○
Fixed boring cycle	○
Special canned cycles	○
User macro calls	○
Macro variables	○
Precision auxiliary functions	
Exact stop detection	○
Program pre-interpretation	○
Circular test error	○
Automatic corner deceleration	○
G02/03 Feed rate clamping	○

13. Mechanical compensation functions

Backlash compensation	○
Pitch error compensation	○
Spike compensation	○

14. Conversational functions

Cutting cycle	○
Threading	○

15. Security & Maintenance

Security assurance functions	
Emergency stop	○
Hard-limit	○
Soft-limit	○
Maker password protection	○
Troubleshooting detection	
PLC alarm messages	○

PLC operation messages	○
Program alarms	○
Operation alarms	○
Servo alarms	○
Encoder disconnection detection	○
I/O transmission detection	○
Alarm/Warning history	○

16. Standard PLC software

17. Password protection for installment

18. LNC integral transmission software

System	
System upgrade	○
Parameter backup & restore	○
PLC backup & restore	○
Part programs	
Part program transmission	○



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LNC-T800

CNC LATHE DUAL SYSTEM

LNC-T800 is a mill-turn controller which controls a dual system synchronously. Each system has its own tool path with 4 servo axes & 3 spindles control as well as PMC axis function. The interaction and synchronization of each system are finished by M codes. The functions provided by LNC-T800 includes axis synchronization, composite, superposition control, and spindle synchronization control, etc. that accomplishes the machining of complex workpieces that most mill-turn controllers with single system can not achieve.



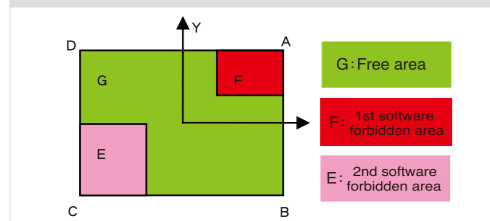
Leading Numerical Controller

Hardware Specifications

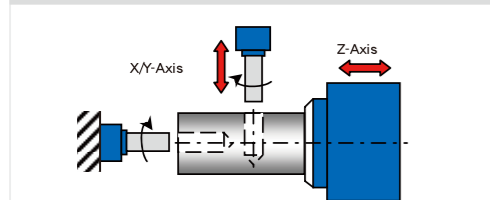
- ⊕ 8 axes pulse control
- ⊕ 4 axes voltage control
- ⊕ MPG control
- ⊕ External CF card
- ⊕ 10.4" TFT LCD
- ⊕ Screensaver Function
- ⊕ RS232/Ethernet
- ⊕ Transit board circuit protection (24V, 5V, OT fuse)
- ⊕ IO module (40 IN/ 32 OUT, or 60 IN/48 OUT, expandable up to 120 IN/ 96 OUT)
- ⊕ Mechanical high-quality operation panel
- ⊕ Absolute encoder with serial communication
- ⊕ Dedicated power supply module for the system's 5V, 12V
- ⊕ Module design of controller parts, convenient for installation & expansion
- ⊕ Easy wiring, High performance, Low price

Features

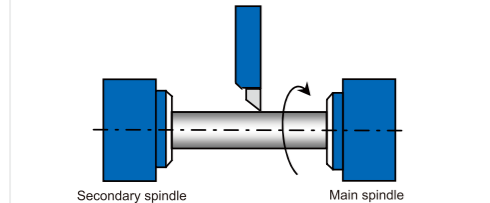
Soft-limit
Switch to the proper soft-limit according to different machining positions.



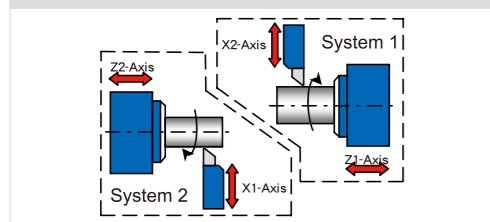
Drilling/Tapping/Boring cycle of end & side faces
Provide multiple kinds of drilling (G83/G87/G187), tapping (G84/G88/G188) & boring (G85/G89/G189) cycles.



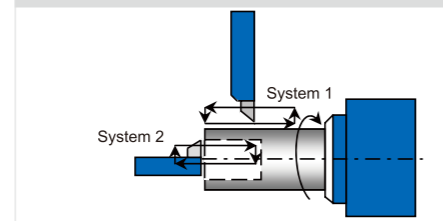
Spindle synchronization control & phase control
* Both main spindle & secondary spindle can be controlled synchronously for clamping both ends of cylindrical or polygonal workpieces.
* Application of spindle C(H) positioning function is available.
* Synchronization control and phase control are also available for spindles with induction motors.



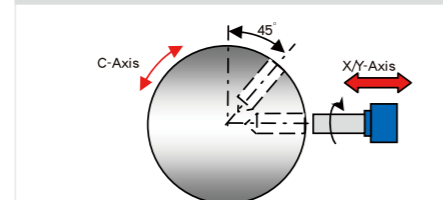
Composite control of servo axes
Part programs can be written in System 1 to control X2 axis and Z1 axis for machining, and also in System 2 to control X1 axis and Z2 axis for machining.



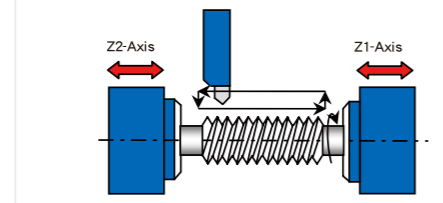
Turning / threading simultaneously on the workpiece externally & internally
Individual tool path planning is available for System 1 & 2 to perform turning/threading on the same spindle simultaneously.



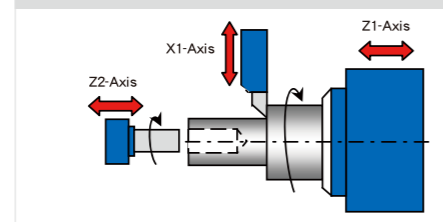
Spindle C (H) positioning / C servo axis positioning
* Provide clamp signals for the control of spindle pin/dowel or brake.
* Spindles can be switched to servo axes for positioning at varied angles to fulfill the need of workpiece side face machining.



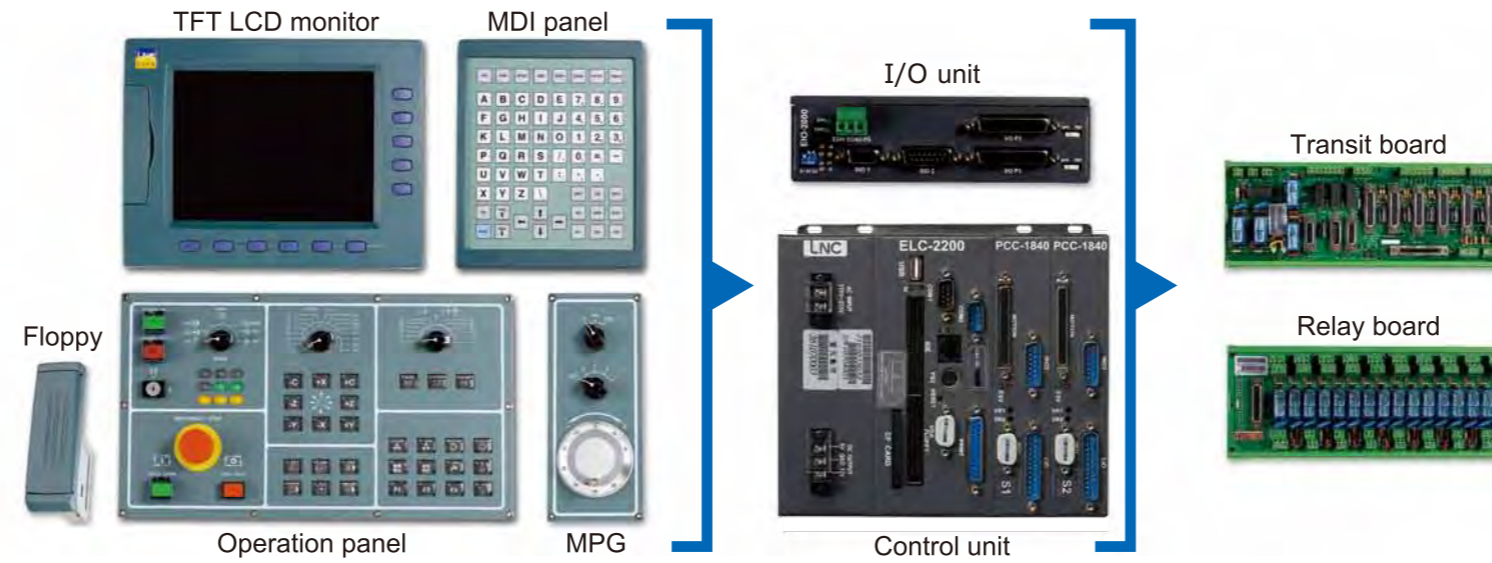
Synchronization control of servo axes
Suitable for the machining of long workpieces such as threading, rigid tapping, or knurling.



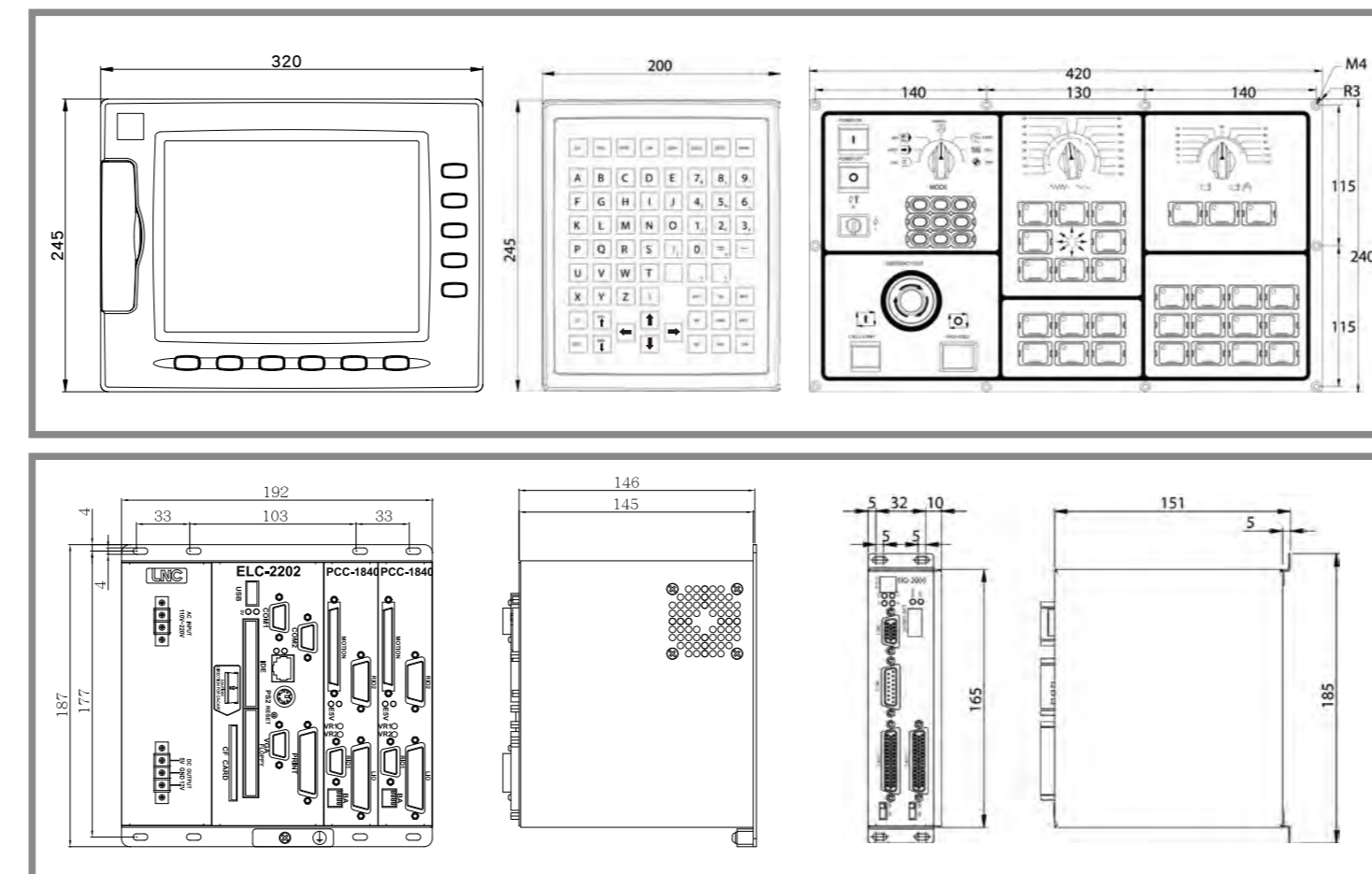
Superposition control of servo axis
Provide a move command of an axis relative to the position of a different axis in another system. This function can accomplish profile threading & end-face drilling at the same time. Suitable for Swiss type lathes.



Layout



Dimensions



Specifications

1. Control system/Axes

■ Control system (2 control paths)	Dual system
■ Control axes (4 servo axes + 3 spindles) x 2 control paths	14 axes (Max. axis no. for software)

2. Servo axes

■ Servo axes (for each control path)	4 axes
■ Interpolated axes (for each control path)	4 axes
■ Control type of servo axes	pulse
■ Detach function of servo axes	<input type="checkbox"/>
■ Motion types of servo axes	
Linear axis	<input type="checkbox"/>
Rotary axis	<input type="checkbox"/>
■ Compound functions of servo axes	
Synchronization control of servo axes	<input type="checkbox"/>
Composite control of servo axes	<input type="checkbox"/>
Superposition control of servo axes	<input type="checkbox"/>

3. Operation/ Display functions

■ Display monitor (10.4")	TFT LCD
■ Display mode/content	
Program execution status	<input type="checkbox"/>
Current coordinates	<input type="checkbox"/>
Parameter settings	<input type="checkbox"/>
Accumulated operation time	<input type="checkbox"/>
Language (English/Traditional Chinese/Simplified Chinese)	<input type="checkbox"/>
Manual digital input data setting & display	<input type="checkbox"/>
Function key hints	<input type="checkbox"/>
Parameter hints	<input type="checkbox"/>
Part counts	<input type="checkbox"/>
Machining time	<input type="checkbox"/>
Program content	<input type="checkbox"/>
Cutting speed	<input type="checkbox"/>
User-definable parameter level	<input type="checkbox"/>
CS Bit hints	<input type="checkbox"/>
User-definable HMI display color	<input type="checkbox"/>
■ Program input mode	
CF card storage of part programs	<input type="checkbox"/>
Ethernet disk sharing	<input type="checkbox"/>
Floppy	<input type="checkbox"/>
■ Data input/output	
Part programs	<input type="checkbox"/>

Tool compensation data	<input type="checkbox"/>
System variables	<input type="checkbox"/>
Common variable data	<input type="checkbox"/>
Other system data	<input type="checkbox"/>
Program parameter data	<input type="checkbox"/>

4. Input commands

■ Unit of input commands (1um, 0.0001Inch, 0.001") Least setting unit (1um, 0.0001Inch, 0.001") Least command unit	<input type="checkbox"/>
■ Values	
Absolute/Incremental values	<input type="checkbox"/>
Least command unit	<input type="checkbox"/>
Decimal input of programs	<input type="checkbox"/>
■ Metric/Imperial unit system	<input type="checkbox"/>
■ Diameter/Radius mode	<input type="checkbox"/>
■ G code types (A/B/C)	<input type="checkbox"/>

5. Orientation/Interpolation functions

■ Orientation functions	
Rapid traverse	<input type="checkbox"/>
Synchronous orientation	<input type="checkbox"/>
■ Interpolation functions	
Linear interpolation	<input type="checkbox"/>
Arc interpolation	<input type="checkbox"/>
Single block skip	<input type="checkbox"/>
Normal direction control	<input type="checkbox"/>

6. Feed functions

■ Feed rate	
Rapid feed rate	<input type="checkbox"/>
Cutting feed rate	<input type="checkbox"/>
Manual feed rate	<input type="checkbox"/>
■ Input method of feed rate	
Feed rate per minute	<input type="checkbox"/>
Feed rate per revolution	<input type="checkbox"/>
■ Feed rate adjustment function	
Rapid feed rate adjustment	<input type="checkbox"/>
Cutting feed rate adjustment	<input type="checkbox"/>
JOG feed rate adjustment	<input type="checkbox"/>
■ Accel./decel. function	
Auto accel./decel. of rapid feed rate (Linear/S curve)	<input type="checkbox"/>
Auto accel./decel. of cutting feed rate (Exponential/S curve)	<input type="checkbox"/>