GENERAL CATALOGUE 2004

Motion & Drives





- Motion Controllers
- Servo Systems
- Frequency Inverters
- Software

Advanced Industrial Automation

Cat. No. Y203-EN2-01 DRIVES

OMRON

Software

WS02-NCTC1-E

CX-Position

Set, transfer, store, and print position control unit data and monitor operation online

Increase productivity in all position control tasks, from design and startup to system maintenance.

Key Features

The CX-Position software simplifies every aspect of position control, from creating/editing the data used in Position Control Units (NC Units) to communicating online and monitoring operation. The software is equipped with functions that can improve productivity, such as automatically generating project data and reusing existing data.

Creating and managing data

Data can be created for various applications

The CX-Position enables data for multiple NC Units on up to 1,000 PLCs to be handled as 1 project. Data is displayed in tree format and the data for an NC Unit can be moved or copied (overwritten) between PLCs in the project tree. This feature allows data to be edited and re-used in other PLCs or NC Units.

- The CX-Position can read information from NC Units connected online and automatically generate project data.
- Data created for a C200HW-NC□□□ using the SYSMAC-NCT can be imported and used as data for the CS1W-NC□□□ or CJS1W-NC□□□.

NC Monitor

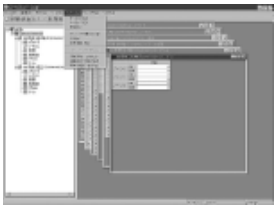
Display the NC units' present positions, error codes, sequence numbers, and I/O status.

The sequence numbers and present positions can be dis-played for up to 4 Units. In addition, the contents of the operating memory area and operating data area can be monitored and the error log can be displayed.

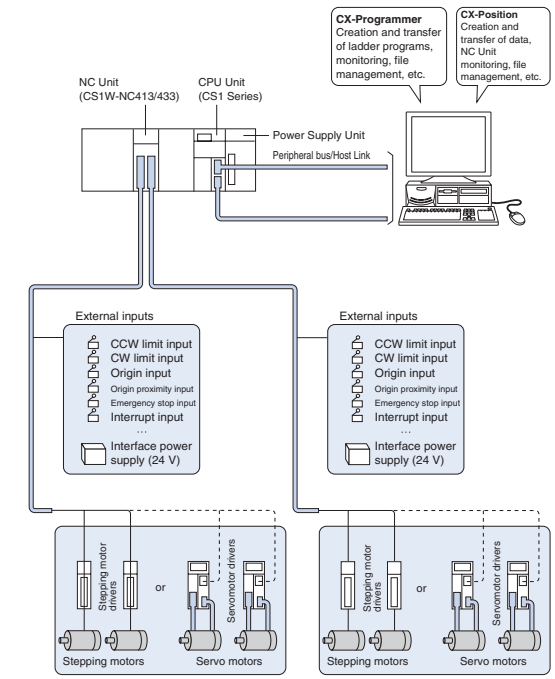
Communications

Communicate with NC units through the network.

It is possible to communicate with NC Units through the Fins-Gateway. Depending on the FinsGateway driver version, HostLink or Ethernet. can be used to perform online operations (monitoring operation or transferring/verifying parameters,sequences, etc.) with the NC Unit.



System Configuration with CS1W-NC413/433



Specifications

Compatible Position Control Units:	CS Series:CS1W-NC113/NC133/NC213/NC413/NC433 CJ Series: CJ1W-NC113/NC133/NC213/NC413/NC433
Basic Functions	Create, edit, and print the Position Control Unit's parameter data,sequence data, speed data, acceleration/deceleration data, dwell times, and zone data. Monitor the Position Control Unit's operating status.
Created files	CX-Position project files (*.nci) Contents: Parameter data, sequence data, speed data, acceleration/deceleration data, dwell times, and zone data

Operating Environment

CPU:	Pentium 100 MHz or faster CPU
OS:	Windows 95, 98, NT4.0, W2000 or XP

Compatible PLCs:

CS Series and CJ Series

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. I26E-EN-01

WS02-MCTC1-EV

CX-Motion

Creates programs to control the motion controller and monitors controller status

Provides the ideal environment for motion control support, from motion controller program development to full system operation.

Key Features

The CX-Motion software can be used to create, edit, and print the various parameters, position data, and motion control programs (G code) required to operate Motion Controllers, transfer the data to the Motion Control Units, and monitor operation of the Motion Control Units. Increase productivity in every step of the motion control process, from development of the motion control program to system operation.

Motion Control Programs

Easily create motion control G Code programs and parameters.

CX-Motion can create all of the data needed in the Motion Control Unit, such as parameters, position data, and the program. The program can be input in either G code or mnemonics.

- When the Unit is connected online, data can be transferred,verified, and saved.
- Data for different Units can be registered and managed as separate projects.

Operation Monitor

Powerful support during startup and operation

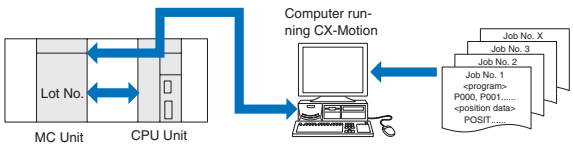
The MC Unit Monitoring function can display vital information at the computer, such as the present position, task being executed, I/O status, error displays, and servo system trace data.

- Up to 20 errors that have occurred in the Motion Control Unit can be stored and displayed (CS1W-MC421/221 and CV500-MC421/221 Motion Control Units only).

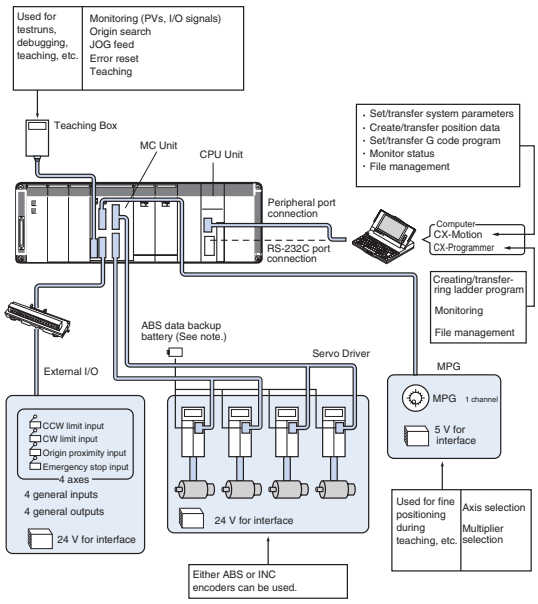
Automatic Loading Function

Ideal for flexible, small-lot production lines

Various programs and position data can be stored on disks for the computer running the CX-motion software and the required program/position data can be substituted into the Motion Control Unit when necessary. More than 100 different application programs can be available for execution if the computer is used to storedata for the MC Unit.



System Configuration with CS1W-MC421/221



Note: A data backup battery is required when an ABS encoderis used.

Specifications

Basic Functions	Create/transfer/print various parameters, position data, and the MC program, transfer data to the MC Unit, and monitor MC Unit's operating status.
Other Functions	Automatic loading, Servo data tracing
Created files	CX-Motion project files (*.mci) Contents: System parameters, position data, program, scripts, etc.

Operating Environment

CPU:	Pentium 100 MHz or faster CPU
OS:	Windows 95, 98, NT4.0, W2000 or XP.

Compatible PLCs:

CS Series, C200HX/HG/HE Series, and CVM1/CV Series

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. I27E-EN-01

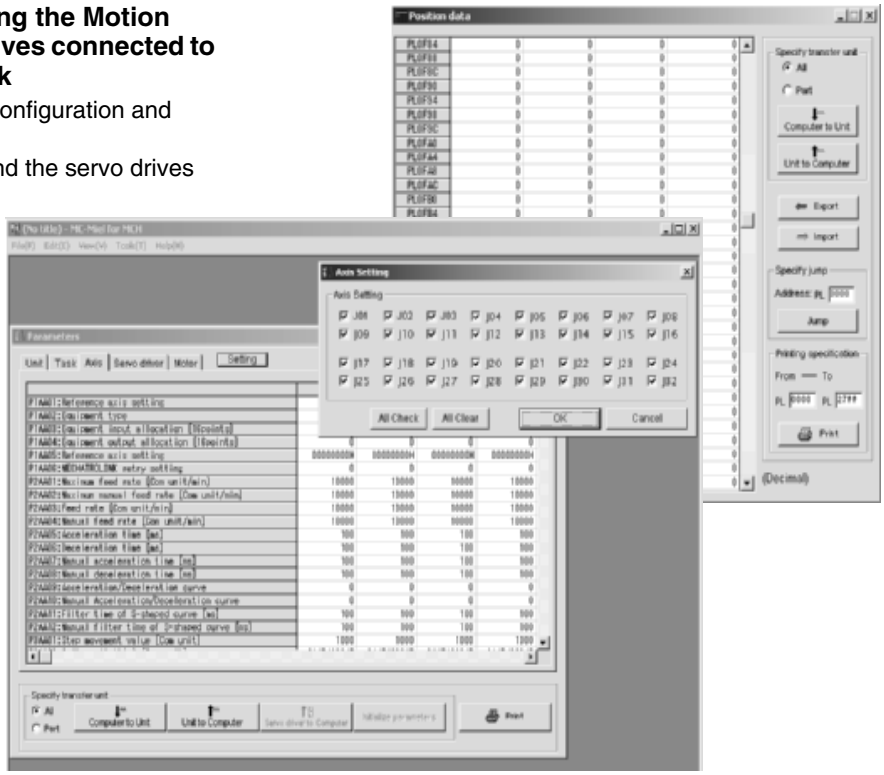
In the interest of product improvement, specifications are subject to change without notice.

Programming Software for Mechatrolink-II Motion Controllers

MCH-Tool

Programming tool for Programming the Motion Cotrol Unit, and configuring all Drives connected to the MECHATROLINK-II motion link

- Acccess to all system programming, configuration and monitoring from one connecting point.
- Complete configuration of the MCH and the servo drives
- Programming in Basic type Motion Control language
- On-line Monitoring
- Imports CAM tables



Specifications

Functions

System setting	Setting communication parameters
Data input	- Editing of system parameters
	- Programming in BASIC type Motion Control language
	- Load, save, delete parameter files, etc.
	- Imports CAM tables
Test options/Online operation	- Transfer Motion Controller unit data
	- On-line monitor
	- Transfer of Servo Drives parameter data

Operating Enviroment

Operating systems		Windows 2000/NT
Processor		Pentium class at 300 Mhz or higher
Memory requirements	Hard disk	100 MB free memory space
	RAM	64 MB min.
Screen		800x600 resolution or higher
Peripheral connections		CD-ROM drive, serial port

Compatible Units

	Specification
Motion Controllers	CS1W-MCH71

Ordering Information

Software

Description	Model
MCH-MIel	MOTION TOOLS CD

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. I29E-EN-01

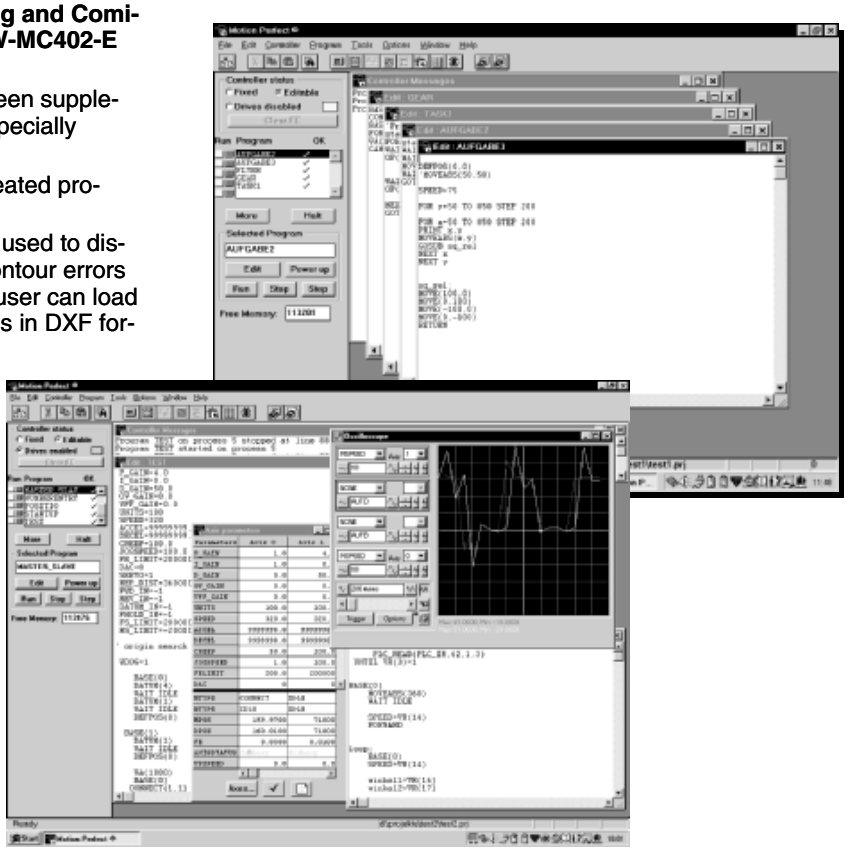
In the interest of product improvement, specifications are subject to change without notice.

Programming Software for Advanced Motion Controllers

Motion Perfect

Software Tool for Programming, Configuring and Comisioning the Motion Controller units C200HW-MC402-E and R88A-MCW151-E.

- Programming is done in BASIC which has been supplemented with a powerful set of commands especially adapted for Motion Control requirements.
- A debugging function facilitates testing of created programs.
- The 4-channel software oscilloscope can be used to display signals such as rpm, position values, contour errors etc. With an additional software module the user can load traversing curves created with CAD programs in DXF format and convert them directly into a BASIC program code.
- All program steps can also be entered in a terminal window and tested online.
- Versatile test and monitor functions.



Specifications

Functions

System setting	Setting communication parameters
Data input	- Editing of general parameters, position data, ramp up/ramp down, speeds etc.
	- Programming of position algorithms in BASIC
	- Load, save, delete parameter files, position data etc.
Test options/Online operation	- Transfer and comparison of parameter data
	- Monitor mode to display the actual position of status information (e.g. input/output signals, errors)
	- Online recording of different axis parameters (e.g. speeds, ramps, positions etc.)
Tools	- Windows for axis parameters
	- Oscilloscope function
	- Program debugger
	- I/O status display
	- Jog mode facility for every axis

Operating Enviroment

Operating systems		WINDOWS 95/98/ME/2000/NT4.0 (Service Pack 5)
Processor		Min. Pentium 150 MHz (200 MHz or higher recommended)
Memory requirements	Hard disk	10 MB free memory space
	RAM	16 MB min.
Screen		SVGA graphic or higher
Peripheral connections		CD-ROM drive, serial port

Compatible Units

	Specification
Supported Motion Controllers	C200HW-MC402 Unit, R88A-MCW151-E, R88A-MCW151-DRT-E

Ordering Information

Software

Description	Model
Motion Perfect. Programming Monitoring and Debugging Software	MOTION TOOLS CD

Cables

Description	Model
Serial cable to the Motion Controller	R88A-CCM002P4-E

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. I28E-EN-01

Setup Software for Servo Systems

SigmaWin+

Programming tool for configuring and parameter setting of the Sigma and SmartStep Servo Systems

- The WINDOWS interface makes for simple handling and convenient working.
- Description of all the parameters with setting ranges and factory settings
- Fast Comisioning
- Parameters Setting
- Variables Monitoring
- Digital oscilcospe

Specifications

Functions

System setting	Setting communication parameters
Data input	- Editing of all parameters
	- Load, save, delete parameter files, etc.
Test options/Online operation	- Transfer and comparison of parameter data
	- Variables Monitoring
	- On-line recording for axis speed(torque)
Tools	- Digital Osciloscope, jog mode monitor

Operating Enviroment

Operating systems		Windows 95/98/NT/ME/2000
Processor		Pentium class at 200 Mhz or higher
Memory requirements	Hard disk	100 MB free memory space
	RAM	64 MB min.
Screen		800x600 resolution, 256 colors recomended
Peripheral connections		CD-ROM Drive RS232 or RS-422 serial port

Compatible Units

	Specification
Motion Controllers	Sigma-II Series, SmartStep, Sigma-I Series, JUSP-NS600

Software

Software

Description	Model
SigmaWin+	MOTION TOOLS CD

Cables

Description	Model
Computer Connecting cable	R88A-CCW002P2 or JZSP-CMS02

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. I30E-EN-01

Programing Software for XtraDrive

XtraWare

Advanced software tool for the setup, optimal tuning and user programming of the Xtradrive Servo Drive

- User-friendly software tool that allows complete control of the system
- Setup Wizard for an easy Drive setup
- Immediate execution of control commands
- Servo AutoTuning
- Alarm Display
- Parameters Setting
- Program Editor and Debugger
- Variables Monitoring
- Chart utility (Digital scope)
- Mechanical Analysis (FFT)

Specifications

Functions

System setting	Setting communication parameters
Data input	- Editing of general parameters, position data, ramp up/ramp down, speeds etc.
	- Program Editor
	- Load, save, delete parameter files, etc.
Test options/Online operation	- Transfer and comparison of parameter data
	- Variables Monitoring
	- Immediate execution of control commands
	Servo AutoTuning
Tools	- Setup Wizard
	- Chart utility (Digital scope)
	- Program Editor and Debugger
	Mechanical Analysis (FFT)

Operating Enviroment

Operating systems		Windows 95/98/NT/ME/2000/XP
Processor		Pentium class at 300 Mhz recommended
Memory requirements	Hard disk	100 MB free memory space
	RAM	64 MB min.
Screen		800x600 resolution or higher, minimum 256 colors
Peripheral connections		CD-ROM Drive RS232 or RS-422 serial port

Compatible Units

	Specification
Motion Controllers	All XtraDrive Servo Drives

Ordering Information

Software

Description	Model
XtraWare	MOTION TOOLS CD

Cables

Description	Model
Computer Connecting cable	R88A-CCW002P2 or JZSP-CMS02

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. I32E-EN-01

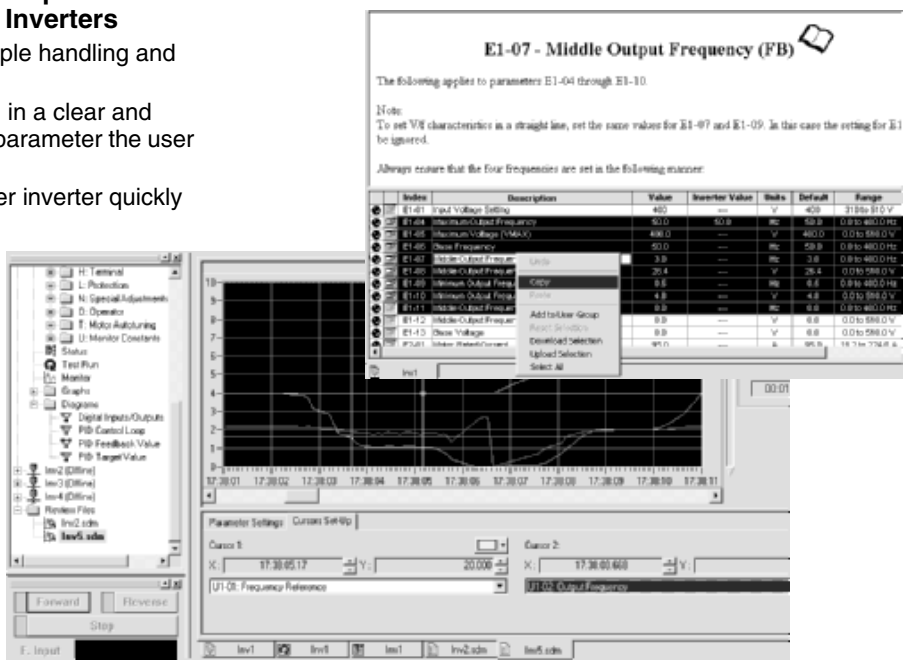
In the interest of product improvement, specifications are subject to change without notice.

Programming Software for Frequency Inverters

SYSDRIVE Configurator

Programming tool for configuring and parameter setting of the Varispeed Frequency Inverters

- The WINDOWS interface makes for simple handling and convenient working.
- The individual parameters are displayed in a clear and easy-to-read matrix structure. For each parameter the user is given a detailed description .
- Parameters can be transferred to another inverter quickly and easily.
- The integrated test function makes motor commissioning easy.
- A comprehensive monitor window shows information about the operating status and the status of the digital inputs and outputs.



Specifications

Functions

System setting	Setting communication parameters
Data Input	- Transfer and comparison of parameter data - Online Parameter Editing of all parameters:ramp, ramp/up, down,speeds,etc... - Graphical parameter configuration: analog inputs, jump frequencies, etc... - Load,save Parameter Files and Workspaces - Export and Import parameter data from text files, excel, etc...
Monitor Mode	- Monitor mode for displaying actual frequency, output current, etc., status information and input/output signals - Multiple parameters monitorization, cursors, trigger and monitor data logger
Diagrams	- Graphical configuration and monitorization of diagrams (PID, ASR, Torque)
Status	- Status window showing all inverter status data
DI/DO	- Digital input/outputs monitorization and simulation
Test Run	- Run motor wizard
Autotunnig	- Inverter autotunne wizard
Database Upgrade	- Database can be upgraded to support new inverter firmwares
Documentation	- Straightforward printout of parameters settings - Extended parameter help

Operating Enviroment

Operating systems		Windows 95/98/NT/ME/2000/XP
Processor		Pentium class at 300 Mhz or higher
Memory requirements	Hard disk	100 MB free memory space
	RAM	64 MB min.
Screen		800x600 resolution or higher
Peripheral connections		CD-ROM drive COMx serial port Mouse Parallel printer port (any Windows supported port)

Compatible Inverters

	Specification
Supported frequency inverters	Varispeed J7,E7,F7,L7 and 3G3MV

Ordering Information

Software

Description	Model
Sysdrive Configurator Software	SYSDRIVE CONFIGURATOR V2.1

Cables

Description	Model
Connecting cable and RS-232C adapter for Varispeed J7	3G3IV-PCN329-E 3G3JV-PSI232 (SI-232J7)
Connecting cable for Varispeed E7, F7, L7 and 3G3MV	3G3IV-PCN329-E

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. I31E-EN-01