

EtherCAT N-Smart Series Library



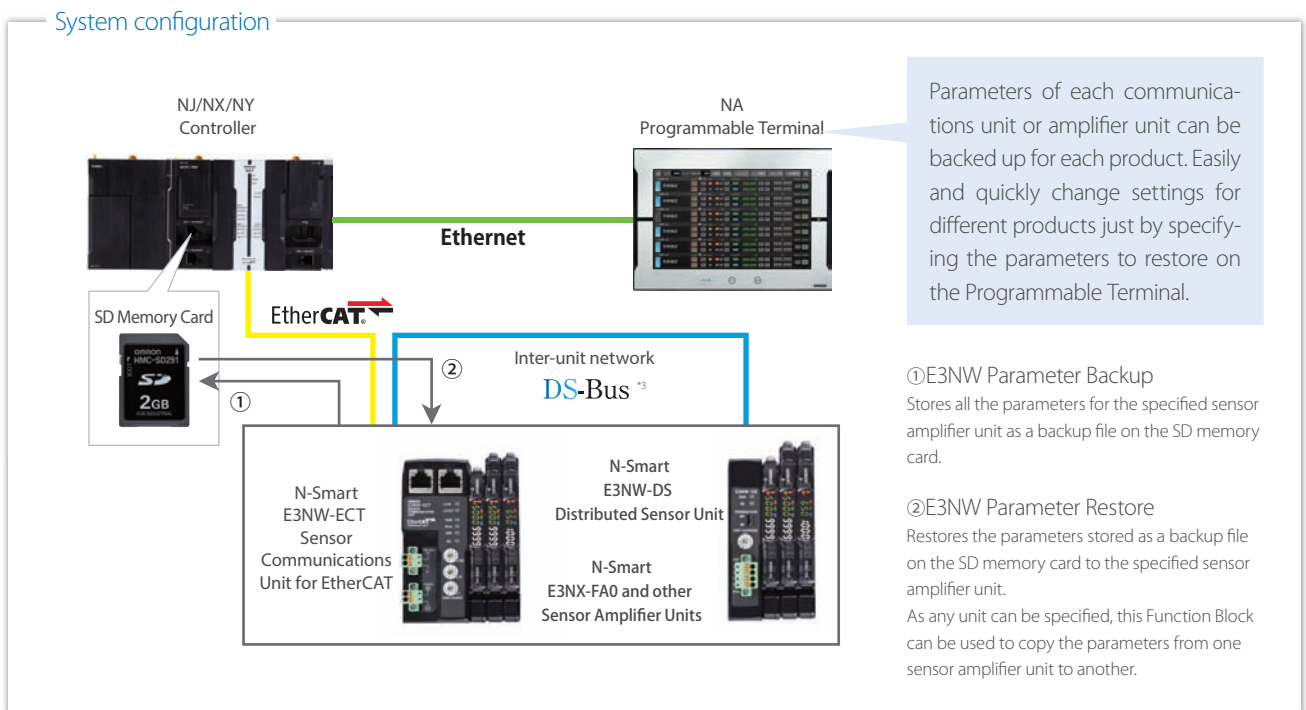
✓ Reduce sensor setting and replacement work at setup, changeover, maintenance, and operation times.

- Issue 1** It takes time to set up many sensors.
- Issue 2** Operation rates are low because it takes time to change sensor settings.
- Issue 3** When a sensor is replaced, time is needed to change settings and setting errors may occur.

EtherCAT N-Smart Series Library offers solution!

The Parameter Backup Function Block backs up the parameters for each sensor communications unit*¹ or sensor amplifier unit*² individually (upload settings from the unit), and the Parameter Restore Function Block restores them individually (download settings to the unit), without connecting to a PC.

You can easily change settings for sensor communications units and sensor amplifier units.



*1. The Backup and Restore functions of the NJ/NX CPU Unit and the NY IPC Machine Controller can back up and restore the parameters for all the E3NW-ECT Sensor Communication Units at once. The addition of this library allows you to back up and restore the parameters for each node individually.

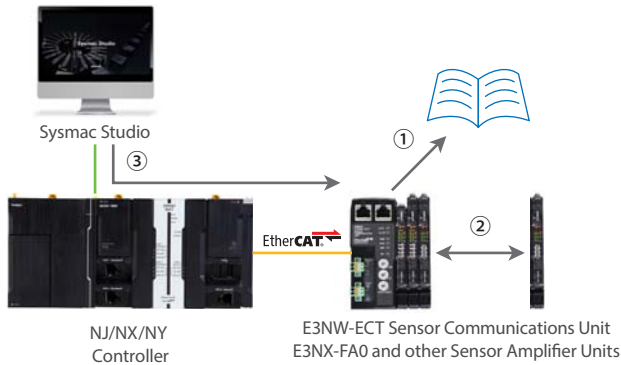
*2. This library can be used to back up and restore parameters for each sensor amplifier unit individually, which is not possible with the Backup and Restore functions of the NJ/NX CPU Unit and the NY IPC Machine Controller.

*3. The DS-Bus is an Omron inter-unit network communications protocol that connects the E3NW-ECT Sensor Communications Unit and E3NW-DS Distributed Sensor Units.

Downloading settings when replacing a sensor amplifier unit

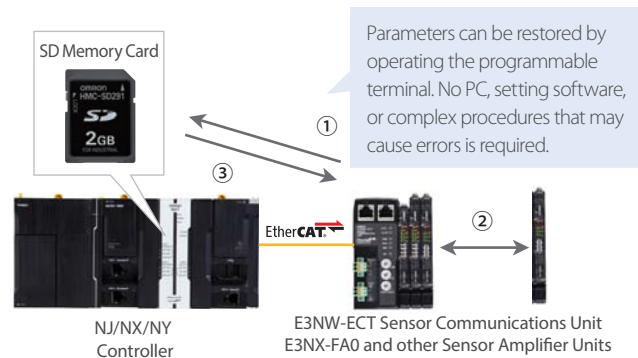
From

- ① Manually record parameters to make a procedure manual
- ② Replace a sensor amplifier unit
- ③ Set parameters manually according to the procedure manual



To

- ① Store parameters on an SD memory card
- ② Replace a sensor amplifier unit
- ③ Restore the parameters stored on the SD memory card




Compatible Models

Name	Model	Version
Machine Automation Controller NJ/NX CPU Unit	NX701-1□□□/NJ101-□□□□	Version 1.10 or later
	NJ501-□□□□/NJ301-□□□□	Version 1.01 or later
	NX1P2-□□□□□□(1)	Version 1.13 or later
	NX102-□□□□	Version 1.30 or later
	NX502-□□□□	Version 1.60 or later
Industrial PC Platform NY IPC Machine Controller	NY5□□-1	Version 1.12 or later
	NY5□□-5	Version 1.18 or later
Automation Software Sysmac Studio	SYSMAC-SE2□□□	Version 1.14 or higher
Sensor Communications Unit (EtherCAT)	E3NW-ECT	Version 1.03 or later (The E3NX-CA0 is supported for Ver.1.06 or later.)
Distributed Sensor Unit	E3NW-DS	—
Smart Laser Amplifier Unit	E3NC-LA0	—
Smart Laser Amplifier Unit (CMOS type)	E3NC-SA0	—
Smart Fiber Amplifier Unit	E3NX-FA0	—
Color Fiber Amplifier Unit	E3NX-CA0	—
Contact-Type Smart Amplifier Unit	E9NC-TA0	—
SD Memory Card	HMC-SD□□□	—

Function Block (FB) Specifications

Name	FB name	Description
E3NW Parameter Backup	Backup_E3NW	Backs up the parameters for the sensor amplifier unit that is connected to an E3NW-ECT Sensor Communications Unit or E3NW-DS Distributed Sensor Unit and stores them on the SD memory card inserted into the controller.
E3NW Parameter Restore	Restore_E3NW	Restores the backup data on the SD memory card to the sensor amplifier unit that is connected to an E3NW-ECT Sensor Communications Unit or E3NW-DS Distributed Sensor Unit.

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Note: Do not use this document to operate the Unit.

OMRON Corporation Industrial Automation Company

Kyoto, JAPAN

Contact : www.ia.omron.com

Regional Headquarters

OMRON EUROPE B.V.

Wegalaan 67-69, 2132 JD Hoofddorp
 The Netherlands
 Tel: (31) 2356-81-300 Fax: (31) 2356-81-388

OMRON ELECTRONICS LLC

2895 Greenspoint Parkway, Suite 200
 Hoffman Estates, IL 60169 U.S.A.
 Tel: (1) 847-843-7900 Fax: (1) 847-843-7787

OMRON ASIA PACIFIC PTE. LTD.

438B Alexandra Road, #08-01/02 Alexandra
 Technopark, Singapore 119968
 Tel: (65) 6835-3011 Fax: (65) 6835-3011

OMRON (CHINA) CO., LTD.

Room 2211, Bank of China Tower,
 200 Yin Cheng Zhong Road,
 PuDong New Area, Shanghai, 200120, China
 Tel: (86) 21-6023-0333 Fax: (86) 21-5037-2388

Authorized Distributor:

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