MELSEC System Q

Motion Controller

Installation Manual

MT Developer

MITSUBISHI ELECTRIC INDUSTRIAL AUTOMATION

" Safety precautions "
(Read without fail before starting operation.)

Read through this manual as well as relevant manuals referred to in this manual, and take sufficient care of safety and handle the product correctly.
Cautions in this manual describes only the main product. For safety precautions for the programmable logic controller, refer to the QCPU (Q mode) user's manual.
In this "Safety precautions", the safety precautions are divided into the "Warning" and "Caution" categories.

| ⬦ **WARNING** | When a dangerous situation may occur if handling is mistaken leading to fatal or major injuries. |
| ⚠ **CAUTION** | When a dangerous situation may occur if handling is mistaken leading to medium or minor injuries, or physical damage. |

Note that some items described as ⚠ CAUTION may lead to major results depending on the situation. In any case, important information that must be observed is described.

Be sure to deliver this manual to the final user and keep it in a safe place where you can refer to it at any time.

For Sate Operations

1. Prevention of electric shocks

◇ WARNING
- Never open the front case or terminal covers while the power is ON or the unit is running, as this may lead to electric shocks.   - Never run the unit with the front case or terminal cover removed. The high voltage terminal and charged sections will be exposed and may lead to electric shocks.   - Never open the front case or terminal cover at times other than wiring work or periodic inspections even if the power is OFF. The insides of the control unit and servo amplifier are charged and may lead to electric shocks.   - When performing wiring work or inspections, turn the power OFF, wait at least ten minutes, and then check the voltage with a tester, etc. Failing to do so may lead to electric shocks.   - Always ground the control unit, servo amplifier and servomotor with Class 3 grounding. Do not ground commonly with other devices.   - The wiring work and inspections must be done by a qualified technician.   - Wire the units after installing the control unit, servo amplifier and servomotor. Failing to do so may lead to electric shocks or damage.   - Never operate the switches with wet hands, as this may lead to electric shocks.   - Do not damage, apply excessive stress, place heavy things on or sandwich the cables, as this may lead to electric shocks.   - Do not touch the control unit, servo amplifier or servomotor terminal blocks while the power is ON, as this may lead to electric shocks.   - Do not touch the internal power supply, internal grounding or signal wires of the control unit and servo amplifier, as this may lead to electric shocks.

2. For fire prevention

⚠ CAUTION
- Install the control unit, servo amplifier, servomotor and regenerative resistor on inflammable material. Direct installation on flammable material or near flammable material may lead to fires.   - If a fault occurs in the control unit or servo amplifier, shut the power OFF at the servo amplifier's power source. If a large current continues to flow, fires may occur.   - When using a regenerative resistor, shut the power OFF with an error signal. The regenerative resistor may abnormally overheat due to a fault in the regenerative transistor, etc., and may lead to fires.   - Always take heat measures such as flame proofing for the inside of the control panel where the servo amplifier or regenerative resistor is installed and for the wires used. Failing to do so may lead to fires.

3. For injury prevention

⚠ **CAUTION**
● Do not apply a voltage other than that specified in the instruction manual on any terminal. Doing so may lead to destruction or damage.
● Do not mistake the terminal connections, as this may lead to destruction or damage.
● Do not mistake the polarity (+/–), as this may lead to destruction or damage.
● The servo amplifier's heat radiating fins, regenerative resistor and servo amplifier, etc., will be hot while the power is ON and for a short time after the power is turned OFF. Do not touch these parts as doing so may lead to burns.
● Always turn the power OFF before touching the servomotor shaft or coupled machines, as these parts may lead to injuries.
● Do not go near the machine during test operations or during operations such as teaching. Doing so may lead to injuries.

4. Various precautions

Strictly observe the following precautions.
Mistaken handling of the unit may lead to faults, injuries or electric shocks.

(1) System structure

⚠ **CAUTION**
● Always install a leakage breaker on the control unit and servo amplifier power source.
● If installation of a magnetic contactor for power shut off during an error, etc., is specified in the instruction manual for the servo amplifier, etc., always install the magnetic contactor.
● Install an external emergency stop circuit so that the operation can be stopped immediately and the power shut off.
● Use the control unit, servo amplifier, servomotor and regenerative resistor with the combinations listed in the instruction manual. Other combinations may lead to fires or faults.
● If safety standards (ex., robot safety rules, etc.,) apply to the system using the control unit, servo amplifier and servomotor, make sure that the safety standards are satisfied.
● If the operation during a control unit or servo amplifier error and the safety direction operation of the control unit differ, construct a countermeasure circuit externally of the control unit and servo amplifier.
● In systems where coasting of the servomotor will be a problem during emergency stop, servo OFF or when the power is shut OFF, use dynamic brakes.
● Make sure that the system considers the coasting amount even when using dynamic brakes.
● In systems where perpendicular shaft dropping may be a problem during emergency stop, servo OFF or when the power is shut OFF, use both dynamic brakes and magnetic brakes.
● The dynamic brakes must be used only during emergency stop and errors where servo OFF occurs. These brakes must not be used for normal braking.
● The brakes (magnetic brakes) assembled into the servomotor are for holding applications, and must not be used for normal braking.
● Construct the system so that there is a mechanical allowance allowing stopping even if the stroke limit switch is passed through at the max. speed.
● Use wires and cables that have a wire diameter, heat resistance and bending resistance compatible with the system.

⚠ CAUTION

- Use wires and cables within the length of the range described in the instruction manual.
- The ratings and characteristics of the system parts (other than control unit, servo amplifier, servomotor) must be compatible with the control unit, servo amplifier and servomotor.
- Install a cover on the shaft so that the rotary parts of the servomotor are not touched during operation.
- There may be some cases where holding by the magnetic brakes is not possible due to the life or mechanical structure (when the ball screw and servomotor are connected with a timing belt, etc.). Install a stopping device to ensure safety on the machine side.

(2) Parameter settings and programming

⚠ CAUTION

- Set the parameter values to those that are compatible with the control unit, servo amplifier, servomotor and regenerative resistor model and the system application. The protective functions may not function if the settings are incorrect.
- The regenerative resistor model and capacity parameters must be set to values that conform to the operation mode, servo amplifier and servo power unit. The protective functions may not function if the settings are incorrect.
- Set the mechanical brake output and dynamic brake output validity parameters to values that are compatible with the system application. The protective functions may not function if the settings are incorrect.
- Set the stroke limit input validity parameter to a value that is compatible with the system application. The protective functions may not function if the setting is incorrect.
- Set the servomotor encoder type (increment, absolute position type, etc.) parameter to a value that is compatible with the system application. The protective functions may not function if the setting is incorrect.
- Set the servomotor capacity and type (standard, low-inertia, flat, etc.) parameter to values that are compatible with the system application. The protective functions may not function if the settings are incorrect.
- Set the servo amplifier capacity and type parameters to values that are compatible with the system application. The protective functions may not function if the settings are incorrect.
- Use the program commands for the program with the conditions specified in the instruction manual.
- Set the sequence function program capacity setting, device capacity, latch validity range, I/O assignment setting, and validity of continuous operation during error detection to values that are compatible with the system application. The protective functions may not function if the settings are incorrect.
- Some devices used in the program have fixed applications, so use these with the conditions specified in the instruction manual.
- The input devices and data registers assigned to the link will hold the data previous to when communication is terminated by an error, etc. Thus, an error correspondence interlock program specified in the instruction manual must be used.
- Use the interlock program specified in the special function unit's instruction manual for the program corresponding to the special function unit.

(3) Transportation and installation

⚠ CAUTION

- Transport the product with the correct method according to the weight.
- Use the servomotor suspension bolts only for the transportation of the servomotor. Do not transport the servomotor with machine installed on it.
- Do not stack products past the limit.
- When transporting the control unit or servo amplifier, never hold the connected wires or cables.
- When transporting the servomotor, never hold the cables, shaft or detector.
- When transporting the control unit or servo amplifier, never hold the front case as it may fall off.
- When transporting, installing or removing the control unit or servo amplifier, never hold the edges.
- Install the unit according to the instruction manual in a place where the weight can be withstood.
- Do not get on or place heavy objects on the product.
- Always observe the installation direction.
- Keep the designated clearance between the control unit or servo amplifier and control panel inner surface or the control unit and servo amplifier, control unit or servo amplifier and other devices.
- Do not install or operate control units, servo amplifiers or servomotors that are damaged or that have missing parts.
- Do not block the intake/outtake ports of the servomotor with cooling fan.
- Do not allow conductive matter such as screw or cutting chips or combustible matter such as oil enter the control unit, servo amplifier or servomotor.
- The control unit, servo amplifier and servomotor are precision machines, so do not drop or apply strong impacts on them.
- Securely fix the control unit and servo amplifier to the machine according to the instruction manual. If the fixing is insufficient, these may come off during operation.
- Always install the servomotor with reduction gears in the designated direction. Failing to do so may lead to oil leaks.
- Store and use the unit in the following environmental conditions.

Environment	Condition	
	Control unit/servo amplifier	**Servomotor**
Ambient temperature	According to the separate instruction manual.	0°C to + 40°C (With no freezing)
Ambient humidity	According to the separate instruction manual.	80%RH or less (With no dew condensation)
Storage temperature	According to the separate instruction manual.	-20°C to +65°C
Atmosphere	Indoors (where not subject to direct sunlight). No corrosive gases, flammable gases, oil mist or dust must exist.	
Altitude	1000m (305 Feet) or less above sea level.	
Vibration	According to the separate instruction manual.	

- When coupling with the synchronization encoder or servomotor shaft end, do not apply impact such as by hitting with a hammer. Doing so may lead to detector damage.
- Do not apply a load larger than the tolerable load onto the servomotor shaft. Doing so may lead to shaft breakage.
- When not using the unit for a long time, disconnect the power line from the control unit or servo amplifier.
- Place the control unit and servo amplifier in static electricity preventing vinyl bags and store.
- When storing for a long time, contact the Service Center or Service Station.

(4) Wiring

- Correctly and securely wire the wires. Reconfirm the connections for mistakes and the terminal screws for tightness after wiring. Failing to do so may lead to run away of the servomotor.
- After wiring, install the protective covers such as the terminal covers to the original positions.
- Do not install a phase advancing capacitor, surge absorber or radio noise filter (option FR-BIF) on the output side of the servo amplifier.
- Correctly connect the output side (terminals U, V, W). Incorrect connections will lead the servomotor to operate abnormally.
- Do not connect a commercial power supply to the servomotor, as this may lead to trouble.
- Do not mistake the direction of the surge absorbing diode installed on the DC relay for the control signal output of brake signals, etc. Incorrect installation may lead to signals not being output when trouble occurs or the protective functions not functioning.

Servo amplifier
VIN
(24VDC)
Control output
signal
RA
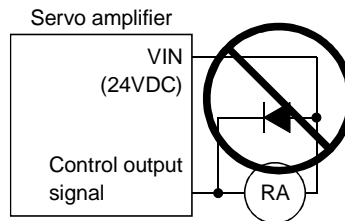
- Do not connect or disconnect the connection cables between each unit, the encoder cable or sequence
  expansion cable while the power is ON.
- Securely tighten the cable connector fixing screws and fixing mechanisms. Insufficient fixing may lead to the cables combing off during operation.
- Do not bundle the power line or cables.

(5) Trial operation and adjustment

- Confirm and adjust the program and each parameter before operation. Unpredictable movements may occur depending on the machine.
- Extreme adjustments and changes may lead to unstable operation, so never make them.
- When using the absolute position system function, on starting up, and when the controller or absolute value motor has been replaced, always perform a home position return.

## (6) Usage methods

⚠ **CAUTION**

- Immediately turn OFF the power if smoke, abnormal sounds or odors are emitted from the control unit, servo amplifier or servomotor.
- Always execute a test operation before starting actual operations after the program or parameters have been changed or after maintenance and inspection.
- The units must be disassembled and repaired by a qualified technician.
- Do not make any modifications to the unit.
- Keep the effect or magnetic obstacles to a minimum by installing a noise filter or by using wire shields, etc. Magnetic obstacles may affect the electronic devices used near the control unit or servo amplifier.
- Use the units with the following conditions.

Environment	Condition	
	Q61P-A1	Q61P-A2
Input power	AC100V to 120V $^{+10\%}_{-15\%}$ (AC85 to 132V)	AC200V to 240V $^{+10\%}_{-15\%}$ (AC170 to 264V)
Input frequency	50/60Hz$\pm$5%	
Tolerable momentary power failure	20ms or less	

(7) Remedies for errors

⚠ **CAUTION**

- If an error occurs in the self diagnosis of the control unit or servo amplifier, confirm the check details according to the instruction manual, and restore the operation.
- If a dangerous state is predicted in case of a power failure or product failure, use a servomotor with magnetic brakes or install a brake mechanism externally.
- Use a double circuit construction so that the magnetic brake operation circuit can be operated by emergency stop signals set externally.
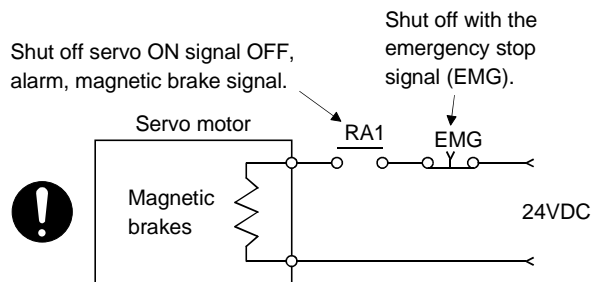
- If an error occurs, remove the cause, secure the safety and then resume operation.
- The unit may suddenly resume operation after a power failure is restored, so do not go near the machine. (Design the machine so that personal safety can be ensured even if the machine restarts suddenly.)

(8) Maintenance, inspection and part replacement

⚠ CAUTION

● Perform the daily and periodic inspections according to the instruction manual.
● Perform maintenance and inspection after backing up the program and parameters for the control unit and servo amplifier.
● Do not place fingers or hands in the clearance when opening or closing any opening.
● Periodically replace consumable parts such as batteries according to the instruction manual.
● Do not touch the lead sections such as ICs or the connector contacts.
● Do not place the control unit or servo amplifier on metal that may cause a power leakage or wood, plastic or vinyl that may cause static electricity buildup.
● Do not perform a megger test (insulation resistance measurement) during inspection.
● When replacing the control unit or servo amplifier, always set the new unit settings correctly.
● When the controller or absolute value motor has been replaced, carry out a home position return operation using one of the following methods, otherwise position displacement could occur.
   (1) After writing the servo data to the PC using peripheral device software, switch on the power again, then perform a home position return operation.
   (2) Using the backup function of the peripheral device software, load the data backed up before replacement.
● After maintenance and inspections are completed, confirm that the position detection of the absolute position detector function is correct.
● Do not short circuit, charge, overheat, incinerate or disassemble the batteries.
● The electrolytic capacitor will generate gas during a fault, so do not place your face near the control unit or servo amplifier.
● The electrolytic capacitor and fan will deteriorate. Periodically change these to prevent secondary damage from faults. Replacements can be made by the Service Center or Service Station.

(9) Disposal

⚠ CAUTION
● Dispose of this unit as general industrial waste. ● Do not disassemble the control unit, servo amplifier or servomotor parts. ● Dispose of the battery according to local laws and regulations.

(10) General cautions

⚠ CAUTION
● All drawings provided in the instruction manual show the state with the covers and safety partitions removed to explain detailed sections. When operating the product, always return the covers and partitions to the designated positions, and operate according to the instruction manual.

Revisions

Print Date	*Manual Number	Revision
Aug., 2001	IB(NA)-0300041-A	First edition
Dec., 2001	IB(NA)-0300041-B	Addition Section 3.4.1(2), Section 3.4.6, Section 3.7, Section 5.5, Section 5.6, Section 5.7, Section 5.8, Section 5.9 Correction Changed from SW3RN-DOSCP description to SW6RN-DOSCP description, Chapter1, Section 1.1, Section 2.1, Section 2.2, Section 2.5, Section 3.1, Section 3.2, Section 3.3, Section 3.4.1(1), Section 3.4.2, Section 3.4.3, Section 3.4.4, Section 3.5, Section 4.1, Section 4.1.1, Section 4.1.2, Section 4.6.1, Section 5.1, Section 5.2, Section 5.3, Section 5.4

CONTENTS

1. OVERVIEW

This manual explains the installation procedures, operating environment and system configuration of the SW6RNC-GSVE Q series motion controller startup support software packages and SW6RNC-GSVHELPE operating manuals.

1.1 Features

The SW6RNC-GSVE Q series motion controller startup support software packages offer a group of software packages which totally supports the control program design environment, maintenance engineering environment and application design environment for configuring a system using the motion controllers.
The software can be used for various applications such as motion controller startup, centralized monitoring and data collection.
In addition, the software supports the development of user-original application software to structure a flexible machine.

2. SYSTEM CONFIGURATION

2.1 Software Makeup

Each software package is made up of the following software.
(1) SW6RNC-GSVE: Q series motion controller startup support software packages
The packages and versions of SW6RNC-GSVE Ver. B are as indicated in Table 2.1.

Table 2.1 Packages of SW6RNC-GSVE Ver. B

	Type	Product Name	Description	Version
Control program design environment	SW6RN-GSV13P *1	Transfer/assembly software	Supports programming, monitor and test for controller OS SV13.	00B
	SW6RN-GSV22P *2	Automatic machine software	Supports programming, monitor and test for controller OS SV22.	00B
	SW3RN-CAMP *3	Cam data creation software	Creates the cam patterns for cam control of controller OS SV22. Needed for use of cams.	00E
	SW3RN-DOCPRNP *4 (For Office 97)	Document printing software	Converts the program and parameter data set on GSV13P, GSV22P or CAMP into the Word/Excel file format, and supports printing them. Converts the sampling data saved on DOSCP into the Excel file format, dumps and graphs them, and supports printing them.	00H
	SW20RN-DOCPRNP *4 (For Office 2000)			00D
Maintenance engineering environment	SW6RN-DOSCP *5	Digital oscilloscope software	Offers the maintenance engineering environment. Shows the motion system control status in terms of waveform and effective for survey, troubleshooting and analysis.	00A
User application design environment	SW6RN-SNETP *6	SSCNET communication system software	Links the motion controller and personal computer by SSCNET communication to access data. When SSCNET communication is used, supports the communication API designed for user application software (VB, VC++).	00B
	EzSocket	FA communication middleware	Links the motion controller and personal computer by RS232C or USB communication to access data.	8.0.0

*1 Hereafter abbreviated to GSV13P.
*2 Hereafter abbreviated to GSV22P.
*3 Hereafter abbreviated to CAMP.
*4 Hereafter abbreviated to DOCPRNP.
*5 Hereafter abbreviated to DOSCP.
*6 Hereafter abbreviated to SNETP.

  *: Among the above software packages marked *1 to *3, install the necessary one according to the controller OS used.
Install either of the software packages marked *4 depending on the operating environment.
You cannot install and operate SW3RN-DOCPRNP and SW20RN-DOCPRNP together.

(2) SW6RNC-GSVHELPE: Motion controller startup support software operating manuals

No.	Manual	Description
1	SW6RN-GSV13P operating manual	Explains the corresponding operations.
2	SW6RN-GSV22P operating manual	
3	SW3RN-CAMP operating manual	
4	SW3RN-DOCPRNP operating manual	
5	SW20RN-DOCPRNP operating manual	
6	SW6RN-DOSCP operating manual	
7	SW6RN-SNETP operating manual	Explains the corresponding operations. Explains the communication API functions.

*Any of the above operating manuals can be browsed from the "Help" menu of the corresponding software package after installation.

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Word and Excel are registered trademarks of Microsoft Corporation in the United States.
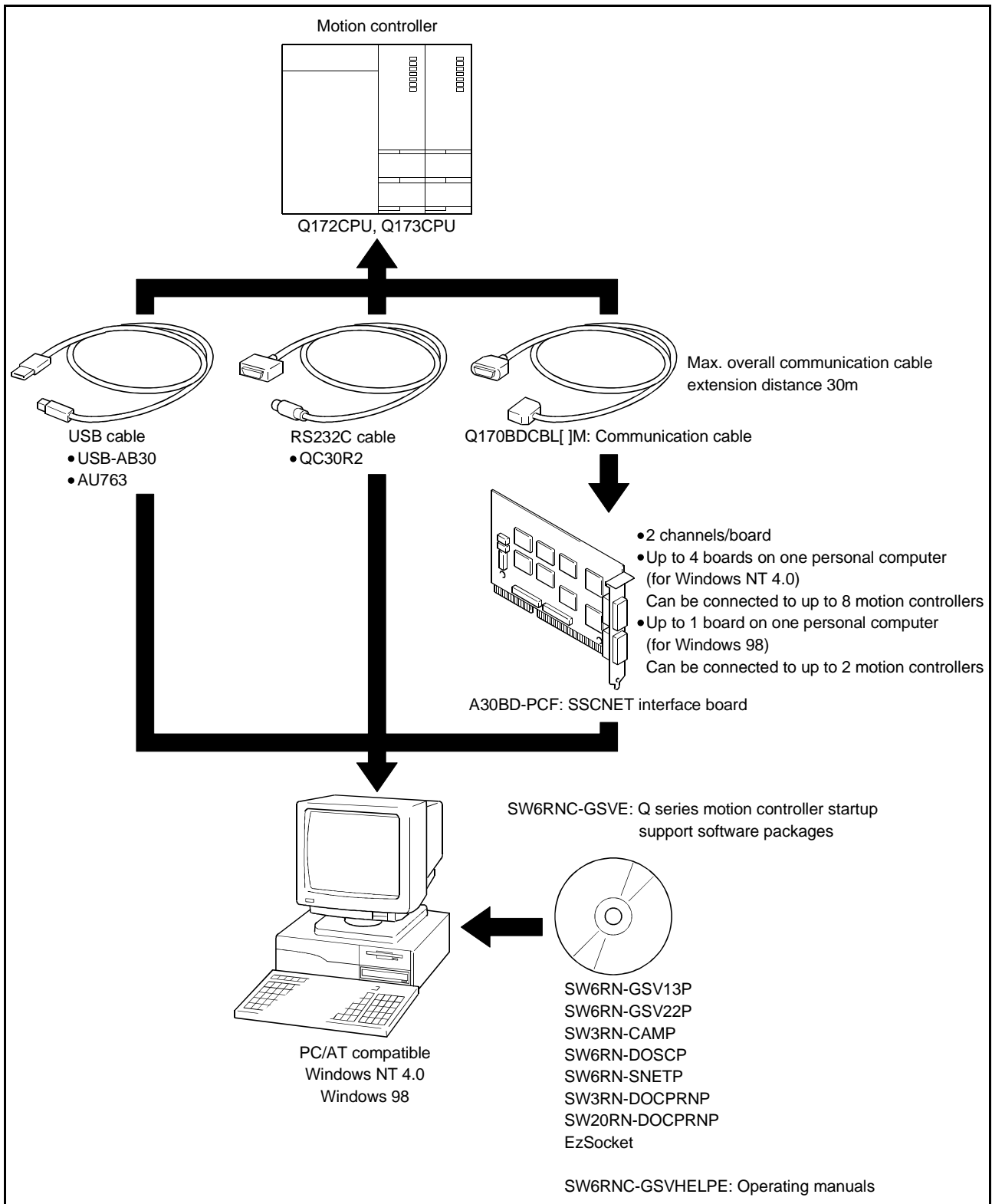

IMPORTANT
 (1) When installing SW6RNC-GSVE (Ver. 00B) newly, refer to "3.1 Installation" and perform installation.
 (2) When updating SW6RNC-GSVE to Ver. 00B, refer to "3.7 Updating Instructions and Procedures" and perform updating.

2. SYSTEM CONFIGURATION

2.2 System Configuration

(1) When using a desktop personal computer

Motion controller

Q172CPU, Q173CPU

USB cable
• USB-AB30
• AU763

RS232C cable
• QC30R2

Q170BDCBL[ ]M: Communication cable

Max. overall communication cable
extension distance 30m

• 2 channels/board
• Up to 4 boards on one personal computer
  (for Windows NT 4.0)
  Can be connected to up to 8 motion controllers
• Up to 1 board on one personal computer
  (for Windows 98)
  Can be connected to up to 2 motion controllers

A30BD-PCF: SSCNET interface board

SW6RNC-GSVE: Q series motion controller startup
support software packages

PC/AT compatible
Windows NT 4.0
Windows 98

SW6RN-GSV13P
SW6RN-GSV22P
SW3RN-CAMP
SW6RN-DOSCP
SW6RN-SNETP
SW3RN-DOCPRNP
SW20RN-DOCPRNP
EzSocket

SW6RNC-GSVHELPE: Operating manuals

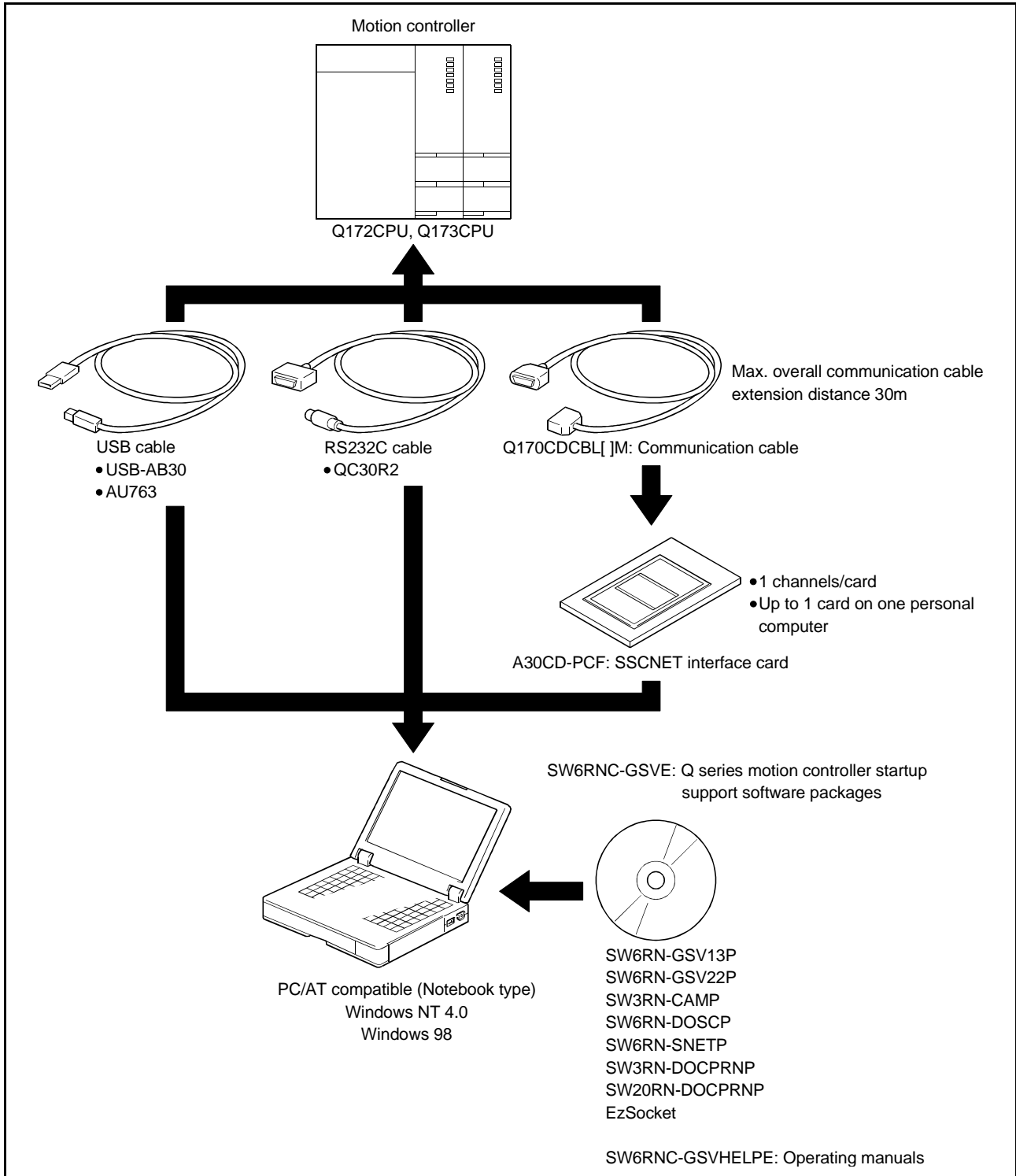| POINT |
|---|

(1) The interface board and interface card cannot be used together.

(2) On some personal computers, the digital oscilloscope may not perform sampling.
In that case, check the BIOS's ISA device memory and IRQ settings.
(For the BIOS settings, refer to the manual of your personal computer.)

(3) If, after SSCNET communication has been made, you remove the interface board and boot the personal computer without that board being reinstalled, Windows NT/98 may not start or may not run properly.
When removing the interface board from the personal computer, you need to stop the SSCNET communication driver.
For the way to stop, refer to "4.5 Stopping the SSCNET Communication Driver".

(4) If the resume function, suspension setting, power-saving function or stand-by mode is set at the personal computer used for communication with the motion CPU, a communication error may occur.
Do not use these functions at the personal computer used for communication with the motion CPU.

(5) If the USB cable is connected or disconnected or the motion CPU is reset or turned off and on frequently during communication of the motion CPU, an unrecoverable communication error may occur.
Disconnect the GSV application from the line* whenever possible when disconnecting or connecting the USB cable or resetting or turning on or off the motion CPU.
If a communication error is not removed, disconnect the USB cable completely and, after five seconds, connect it again. (Though an error may occur during the first communication session after this operation, the correct function is recovered at and after the second session.)
However, a communication error may not be removed even after the above operation with some personal computer models.
In this case, reset the personal computer.
* Offline state (disconnection from line)
State where there is no communication with the Motion CPU (Program or parameter reading/writing, monitoring and testing are made in the online state.)

(6) A communication error may occur according to some combination of the model of the personal computers and the USB cable and so on.
If this happens, repeat operation while referring to the displayed message.

(7) If the baud rate of the serial port of the personal computer (interface on the personal computer side) is changed for high speed communication, communication may be unsuccessful or communication retries may occur to result in slow communication, according to certain PC performance.
If high speed communication is unsuccessful, decrease the baud rate.

(8) USB cable
• The USB cable can be used with Windows 98 or with a USB driver.
• It cannot be used with Windows NT.
• If the USB cable is used, only one motion CPU can be connected.

2. SYSTEM CONFIGURATION

(2) When using a notebook computer

Motion controller

Q172CPU, Q173CPU

USB cable
•USB-AB30
•AU763

RS232C cable
•QC30R2

Q170CDCBL[ ]M: Communication cable

Max. overall communication cable
extension distance 30m

•1 channels/card
•Up to 1 card on one personal
computer

A30CD-PCF: SSCNET interface card

SW6RNC-GSVE: Q series motion controller startup
support software packages

PC/AT compatible (Notebook type)
Windows NT 4.0
Windows 98

SW6RN-GSV13P
SW6RN-GSV22P
SW3RN-CAMP
SW6RN-DOSCP
SW6RN-SNETP
SW3RN-DOCPRNP
SW20RN-DOCPRNP
EzSocket

SW6RNC-GSVHELPE: Operating manuals

2. SYSTEM CONFIGURATION

	POINT

(1) The interface board and interface card cannot be used together.

(2) On some personal computers, the digital oscilloscope may not perform sampling.
In that case, use the card enabler supplied by the personal computer maker or check the PC card controller settings (BIOS settings). (For the BIOS settings, refer to the manual of your personal computer.)

(3) For Windows 98, insert the interface card into the personal computer after installing SNETP and setting up the SSCNET communication drivers.
(SNETP can be reinstalled with the interface card loaded.)

(4) If, after SSCNET communication has been made, you remove the interface card and boot the personal computer without that card being reinstalled, Windows NT may not start or may not run properly.
For Windows NT, you need to stop the SSCNET communication driver when removing the interface card.
For the way to stop, refer to "4.5 Stopping the SSCNET Communication Driver".
(For Windows 98, use the plug and play function to remove. Using this function will not cause such phenomena.)

(5) If the resume function, suspension setting, power-saving function or stand-by mode is set at the personal computer used for communication with the motion CPU, a communication error may occur.
Do not use these functions at the personal computer used for communication with the motion CPU.

(6) If the USB cable is connected or disconnected or the motion CPU is reset or turned off and on frequently during communication of the motion CPU, an unrecoverable communication error may occur.
Disconnect the GSV application from the line* whenever possible when disconnecting or connecting the USB cable or resetting or turning on or off the motion CPU.
If a communication error is not removed, disconnect the USB cable completely and, after five seconds, connect it again. (Though an error may occur during the first communication session after this operation, the correct function is recovered at and after the second session.)
However, a communication error may not be removed even after the above operation with some personal computer models.
In this case, reset the personal computer.
* Offline state (disconnection from line)
State where there is no communication with the motion CPU (Program or parameter reading/writing, monitoring and testing are made in the online state.)

(7) A communication error may occur according to some combination of the model of the personal computers and the USB cable and so on.
If this happens, repeat operation while referring to the displayed message.

(8) If the baud rate of the serial port of the personal computer (interface on the personal computer side) is changed for high speed communication, communication may be unsuccessful or communication retries may occur to result in slow communication, according to certain personal computer performance.
If high speed communication is unsuccessful, decrease the baud rate.

(9) USB cable
• The USB cable can be used with Windows 98 or with a USB driver.
• It cannot be used with Windows NT.
• If the USB cable is used, only one motion CPU can be connected.

2. SYSTEM CONFIGURATION

2.3 Component List

Name	Type	Remarks
SSCNET interface board	A30BD-PCF	ISA bus loading type, 2 channels/board
SSCNET interface card	A30CD-PCF	PCMCIA type II, 1 channel/card
Communication cable	Q170BDCBL 3M	For A30BD-PCF 3m
	Q170BDCBL 5M	For A30BD-PCF 5m
	Q170BDCBL 10M	For A30BD-PCF 10m
	Q170CDCBL 3M	For A30CD-PCF 3m
	Q170CDCBL 5M	For A30CD-PCF 5m
	Q170CDCBL 10M	For A30CD-PCF 10m
USB cable	USB-AB30	Made by Elecom Co., Ltd.; recommended
	AU763	Made by Arbel Co., Ltd.; recommended
RS232C cable	QC30R2	Made by Mitsubishi Electric; recommended

2.4 SW6RNC-GSVSETE Makeup

Type	Product Packed	Remarks
SW6RNC-GSVSETE	SW6RNC-GSVE	Motion controller startup support software packages on 1 CD-ROM
	SW6RNC-GSVHELPE	Motion controller startup support software operating manuals on 1 CD-ROM
	Installation manual	IB(NA)-0300041
	A30CD-PCF	PCMCIA type II, 1 channel/card
	Q170CDCBL 3M	For A30CD-PCF, 3m

2. SYSTEM CONFIGURATION

2.5 Operating Environment

The operating environment is indicated below.

Item	Description
Computer	Pentium 133-MHz or more personal computer on which Windows NT/98 runs (PC/AT compatible)
Operating system	Windows NT 4.0 (Service Pack 2 or later) Windows 98 • In Windows NT 4.0, the use needs Microsoft Internet Explorer 3.01 or higher.
Required memory	32MB or more recommended
Hard disk free space	Refer to the table below.
Disk drive	3.5 inch (1.44MB) floppy disk drive CD-ROM disk drive
Display	Resolution 800×600 dots, 256 or more display colors

The following spaces are required according to the software installed.
• SW3RNC-GSVE

Type	Size	
SW6RN-GSV13P	45MB	
SW6RN-GSV22P	45MB	
SW3RN-CAMP	1MB	
SW6RN-DOSCP	10MB	
SW6RN-SNETP	Standard	3MB
	Custom (when all are selected)	3.5MB
SW3RN-DOCPRNP	25MB	
SW20RN-DOCPRNP	23MB	
EzSocket	40MB	

• SW3RNC-GSVHELPE

Type	Size
SW6RN-GSV13P	23MB
SW6RN-GSV22P	30MB
SW3RN-CAMP	2MB
SW6RN-DOSCP	3MB
SW6RN-SNETP	1MB
SW3RN-DOCPRNP	2MB
SW20RN-DOCPRNP	3MB

POINT

(1) If you have any question as to the operating procedure of Windows in operating this software, refer to the Windows manual or commercially available guidebooks.

(2) Depending on the system font size of Windows NT/98, the screen may not be displayed properly.
Use a small size font.

---

3. INSTALLATION AND UNINSTALLATION

This chapter provides how to install and uninstall GSV13P, GSV22P, CAMP, DOSCP, SNETP and/or DOCPRNP.

3.1 Installation

This section gives the way to install and uninstall GSV13P, GSV22P, CAMP, DOSCP, SNETP and/or DOCPRNP.


POINT

(1) Before starting installation, close all other applications running on Windows NT/98.

(2) If you install this software from the CD-ROM drive of the other Windows 95/98 personal computer via a network, "Setup.Exe not found." appears and installation cannot be made.
After making setting to share the folder of this software to be installed in the CD-ROM drive of the Windows 95/98 personal computer, assign it to the network drive, execute "Setup.Exe", and install this software.

(3) If the installation of this software into the drive compressed in the drive space has stopped at any point, increase the free space of the drive and then press the [Retry] button to resume, or press the [Stop] button to stop and change the drive to the one where the installation destination is not compressed.

(4) In any of the following cases, always uninstall (refer to Section 3.5) and reinstall the software.
• Installation failed midway
• Installation destination drive is to be changed
• Software is to be reinstalled

IMPORTANT

(1) Different versions of SNETP and DOCPRNP cannot coexist and run. Always reinstall them after uninstalling them.
(However, when Windows NT and Windows 98 are installed in a single personal computer, the same versions of SNETP and DOCPRNP can coexist in respective drives without any problem.)

(2) SW3RN-SNETP and SW6RN-SNETP (Ver. 00A) cannot coexist.
To make SW3RN-SNETP and SW6RN-SNETP coexist, install SW6RN-SNETP Ver. 00B or later. (Refer to Section3.4.6 (2) for details.)

(3) For DOCPRNP, install the DOCPRNP software package that meets the operating environment.
You cannot install and operate SW3RN-DOCPRNP and SW20RN-DOCPRNP together.

| Operating Environment	DOCPRNP
Office 97 (Word 97, Excel 97)	SW3RN-DOCPRNP
Office 2000(Word 2000, Excel 2000)	SW20RN-DOCPRNP

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3. INSTALLATION AND UNINSTALLATION
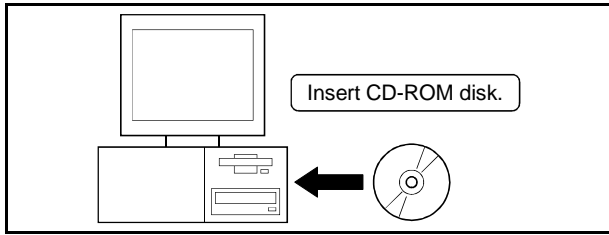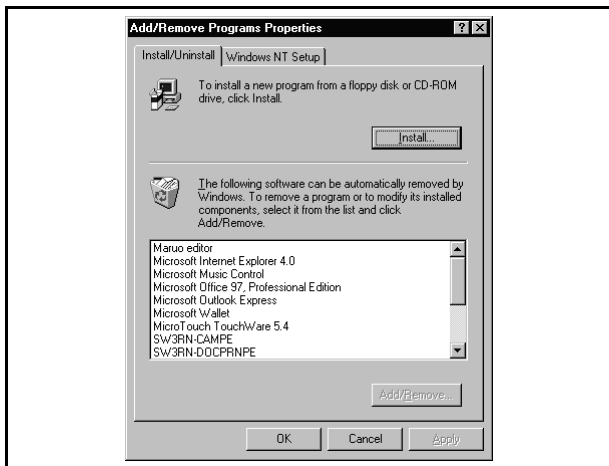
Insert CD-ROM disk.

1) Power on the personal computer and start Windows NT/98.
Insert the CD-ROM disk into the CD-ROM drive.

Click here.
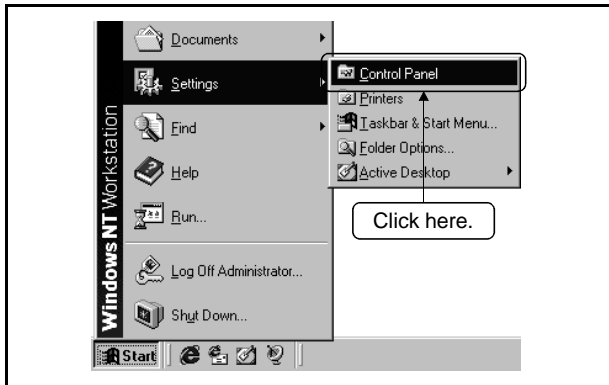
2) Click [Start] on the taskbar and move the cursor to [Settings].
Click [Control Panel].

Double-click this icon.
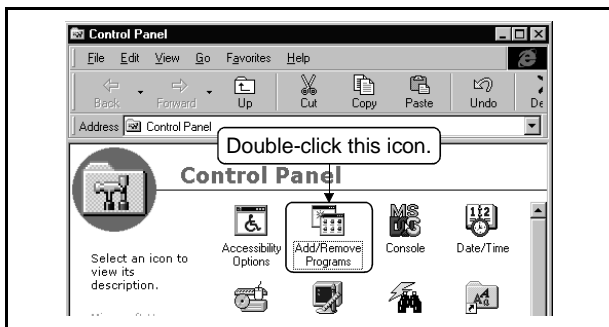
3) The Control Panel window appears.
Double-click "Add/Remove Programs" from Control Panel.

---

4) The "Add/Remove Programs Properties" screen appears.
Click [Install...].

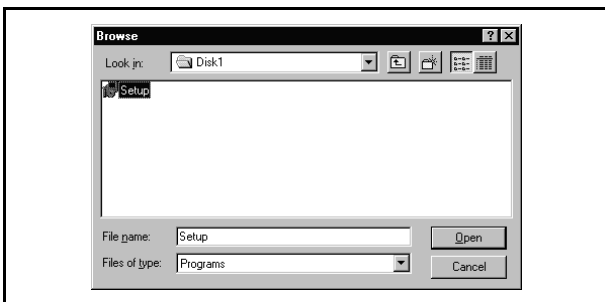To next page

3. INSTALLATION AND UNINSTALLATION

From preceding page

5) The "Install Program From Floppy Disk or CD-ROM" screen appears.
Click [Next >].

6) The "Run Installation Program" screen appears.
Click [Browse...].

7) The "Browse" screen appears.
Choose "Setup.exe" of the "Disk1" folder within the folder of the CD-ROM software to be installed.
Click [Open].

8) The "Run Installation Program" screen appears.
Click [Finish].
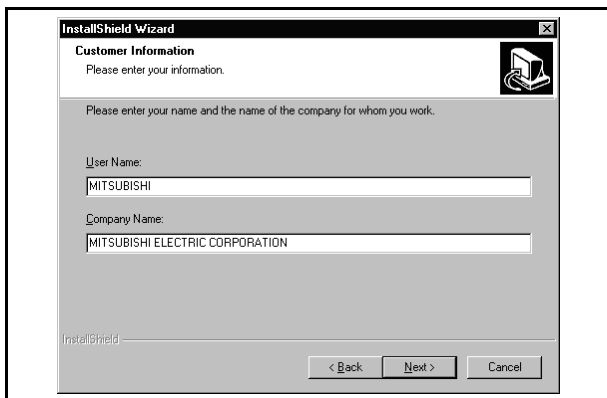
To next page

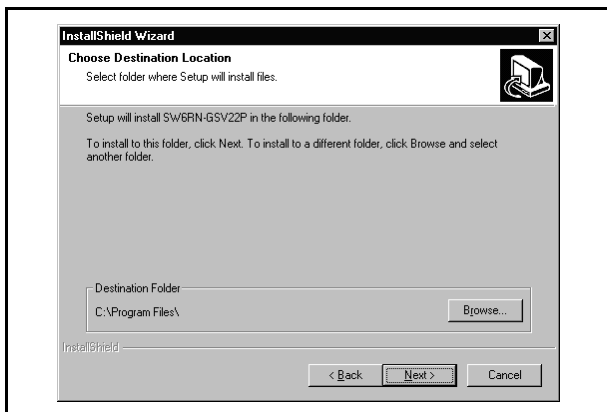# 3. INSTALLATION AND UNINSTALLATION

From preceding page
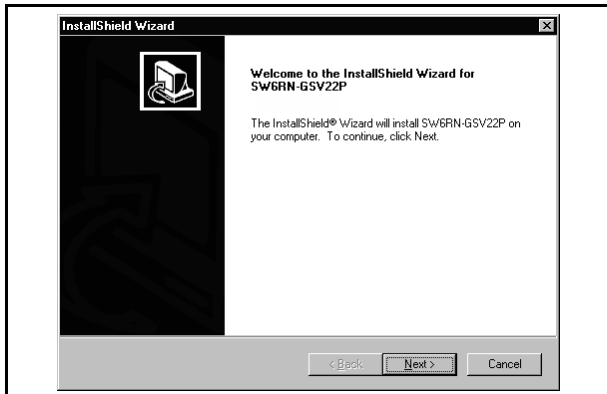
9) The left screen will soon appear. Click [Next >].

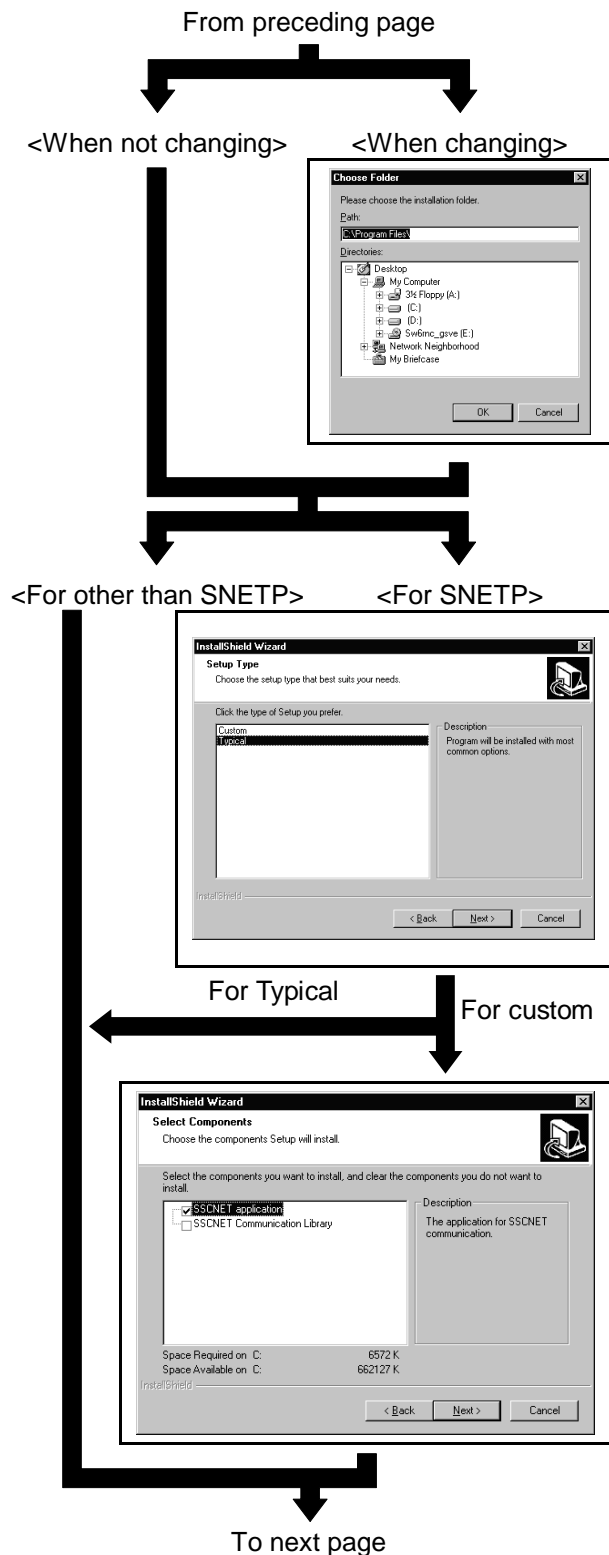10) Type user name and company name, and click [Next >].

11) Choose the installation destination.
The installation destination directory defaults to "C:\Program Files".
When not changing it, click [Next >].
When changing it, click [Browse...].

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3. INSTALLATION AND UNINSTALLATION

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<When not changing>   <When changing>

Choose Folder

Please choose the installation folder.

Path:
C:\Program Files\

Directories:
Desktop
My Computer
3½ Floppy (A:)
(C:)
(D:)
Sw6mc_gsve (E:)
Network Neighborhood
My Briefcase

[OK]   [Cancel]

12) Choose the new drive and directory and click [OK].
When not changing the installation destination directory, the directory selection dialog box does not appear.

<For other than SNETP>   <For SNETP>

InstallShield Wizard

Setup Type
Choose the setup type that best suits your needs.

Click the type of Setup you prefer.

Custom
Typical

Description
Program will be installed with most common options.

InstallShield

[< Back] [Next >] [Cancel]

13) For SNETP, choose the setup method.
Check the setup method and click [Next >].

- "Typical" indicates that only the communication software necessary to use SW6RN-GSV[ ][ ]P/DOSCP is installed.
- "Custom" indicates that you can choose the software to be installed.
Choose Custom when designing the user application using the SSCNET communication API.

For Typical   For custom

InstallShield Wizard

Select Components
Choose the components Setup will install.

Select the components you want to install, and clear the components you do not want to install.

☑ SSCNET application
☐ SSCNET Communication Library

Description
The application for SSCNET communication.

Space Required on C: 6572 K
Space Available on C: 662127 K
InstallShield

[< Back] [Next >] [Cancel]

14) When you selected "Custom" as the setup method, choose the components to be installed.
- When using the SSCNET communication API to design the user application and make communication
Place "☑" in the "SSCNET communication library" checkbox and click [Next >].
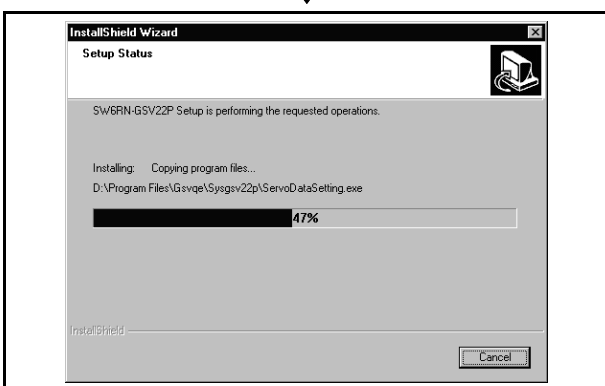
To next page

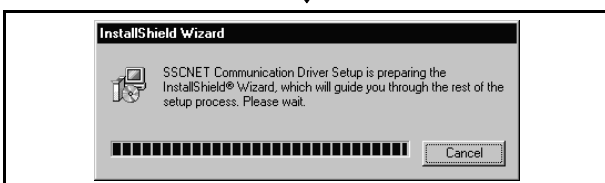# 3. INSTALLATION AND UNINSTALLATION

From preceding page
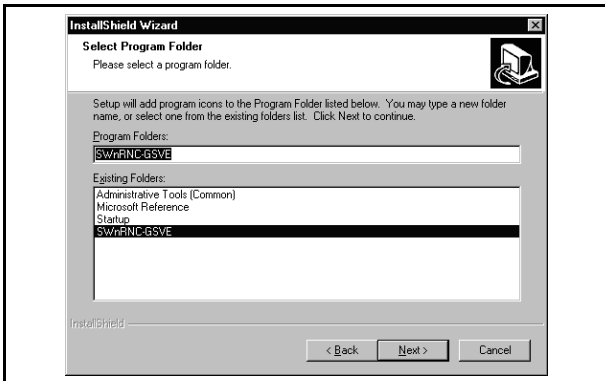
15) Type the program folder name to be registered to the start menu.
The default program folder names to be registered are as follows.
• SWnRNC-GSVE
When not changing, click [Next >].
When changing, type a new program folder name and click [Next >].
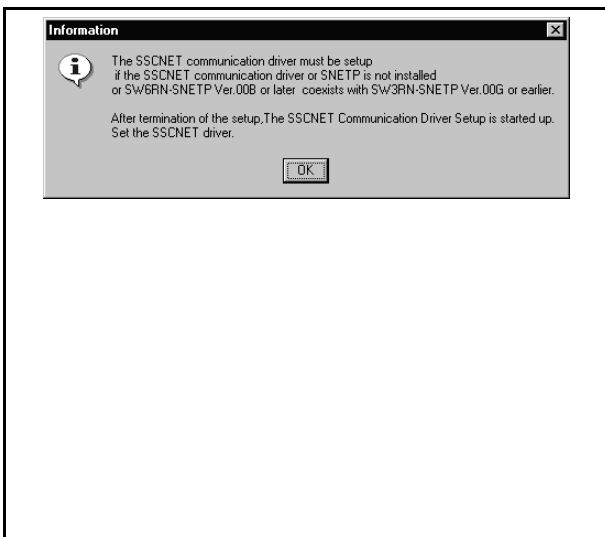
16) The dialog box shown on the left appears if the SSCNET communication driver or SNETP is not installed or SW6RN-SNETP Version 00B or later coexists with SW3RN-SNETP Ver. 00G or earlier. The SSCNET communication driver must be set up. After termination of the setup, set the SSCNET driver. In any of the following cases, the dialog box shown on the left does not appear. You need not set up the SSCNET communication driver.
• SW3RN-SNETP Ver. 00H or later is already installed
• The SSCNET communication driver is already installed
• In the setup method given in step 14), "Custom" is selected and "SSCNET application" is not selected
(Since the SSCNET communication driver is not installed, setting is also unnecessary.)
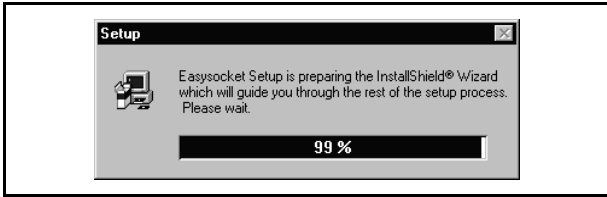

17) Installation starts.

18) When SNETP is installed after the selection of "Standard" or "SSCNET application" in "Custom", the installation of the SSCNET communication driver starts.
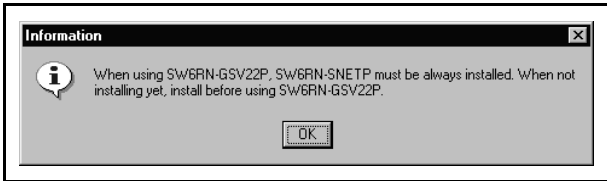
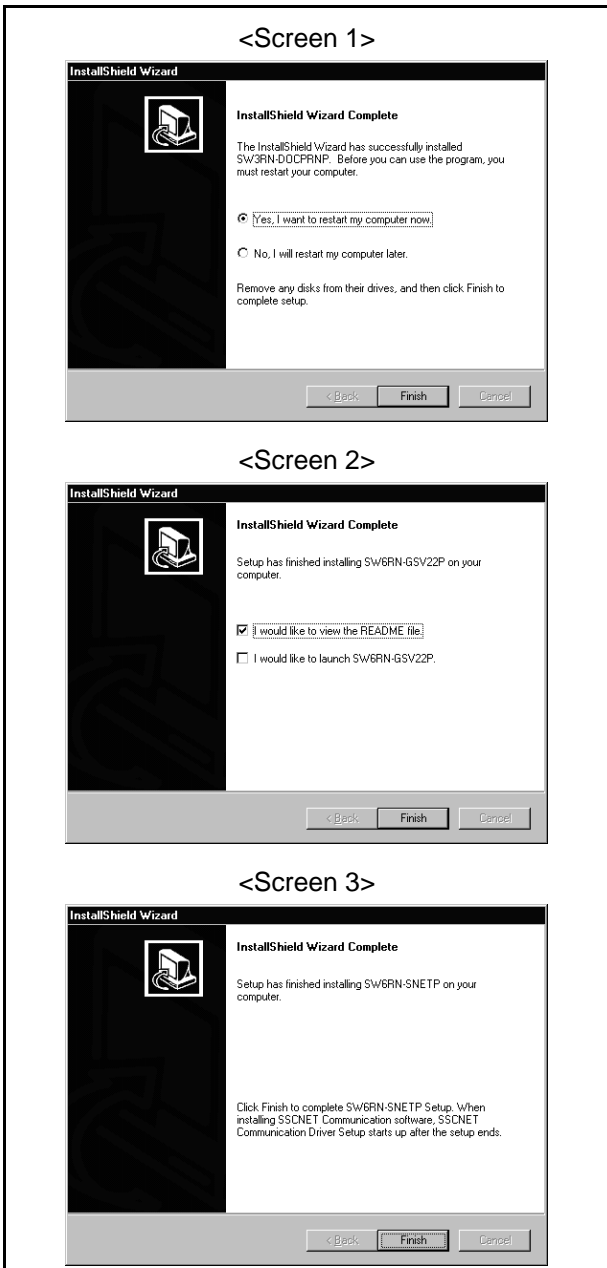To next page

3. INSTALLATION AND UNINSTALLATION

From preceding page

19) If SNETP has been installed, continue installation of EzSocket.
Follow the instructions on the screen to install EzSocket.

20) When you installed GSV13P, GSV22P, or DOSCP, the left dialog box appears.
Click [OK].

<Screen 1>

<Screen 2>

<Screen 3>

21) The left screen appears on completion of installation.
The screen displayed changes with the software installed and their order of installation.

<For screen 1>
When using the software after completion of installation, you need to restart Windows NT/98.
Check "Yes, I want to restart my computer now." and click [Finish] to finish installation and restart Windows NT/98.
Check "No, I will restart my computer later." and click [Finish] to finish installation without restarting Windows NT/98.

<For screen 2>
Check "I would like to view the README file." and click [Finish] to display the REDME.TXT file and finish installation.
Check "I would like to launch SW6RN-GSV22P." and click [Finish] to finish installation and start CAMP.
*The "I would like to launch SW6RN-GSV22P." message changes with the software installed.

<For screen 3>
This screen appears when an SSCNET communication driver setup is required after completion of SNETP installation.
Click [Finish] to finish installation.
To make SSCNET communication, you need to perform SSCNET communication driver setup and communication setting using GSV[ ][ ]P (Section 4.6).
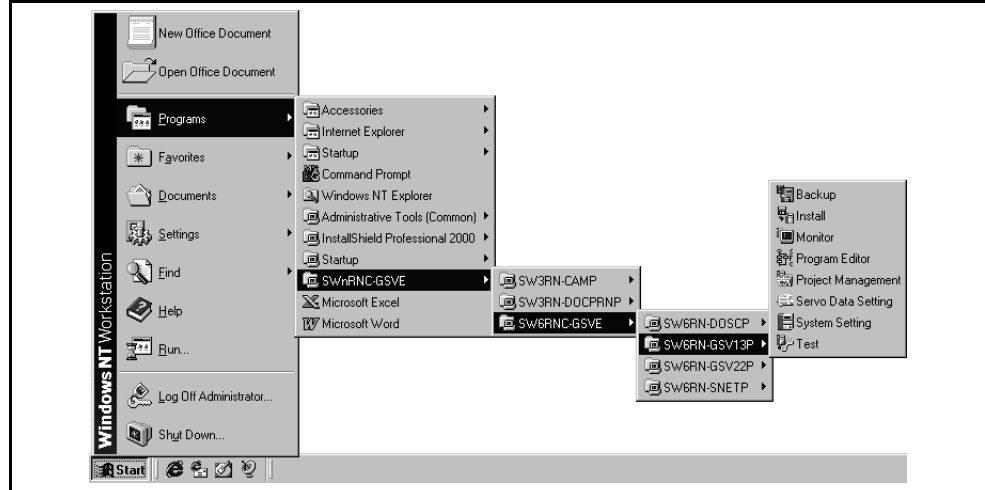For details, refer to Chapter 4.

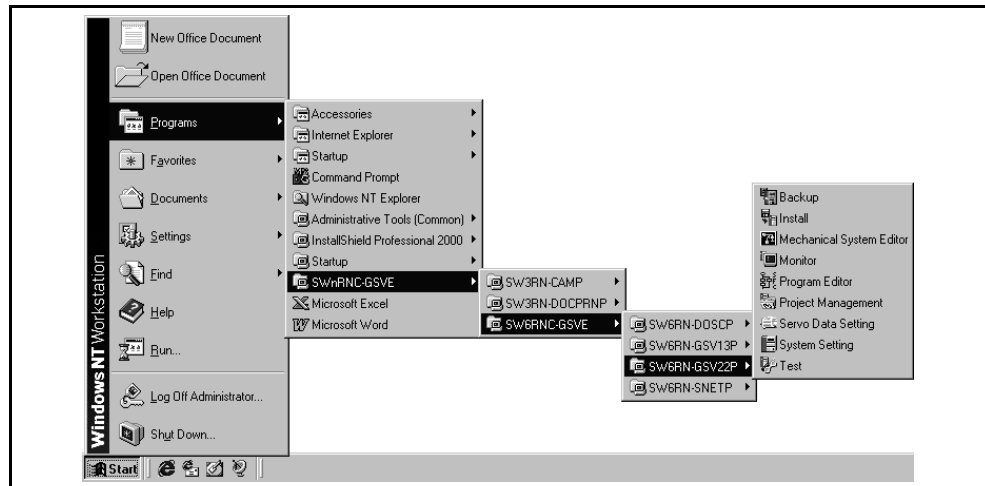# 3. INSTALLATION AND UNINSTALLATION

3.2   Registered Icons

Installing GSV13P, GSV22P, CAMP, DOSCP, SNETP and/or DOCPRNP registers the icons as shown below.

(1) GSV13P

(2) GSV22P

(3) CAMP
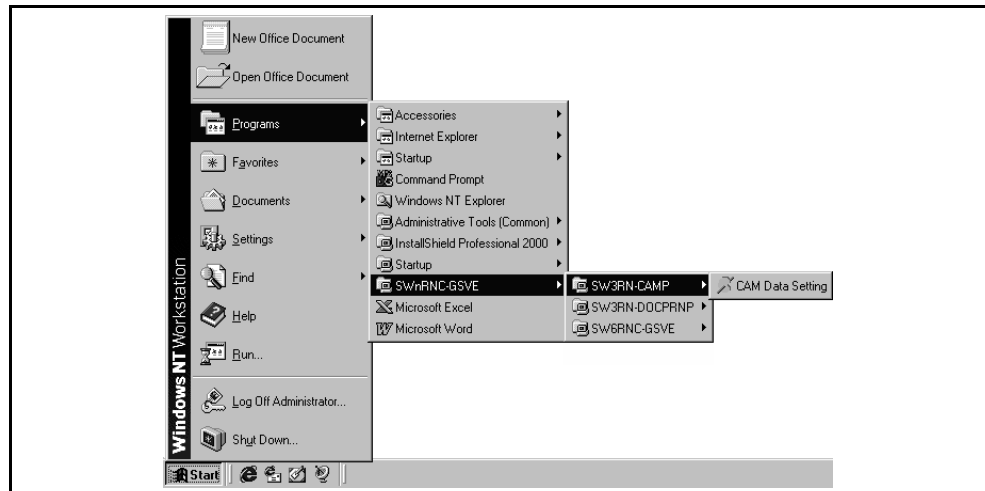
3. INSTALLATION AND UNINSTALLATION

(4) DOSCP
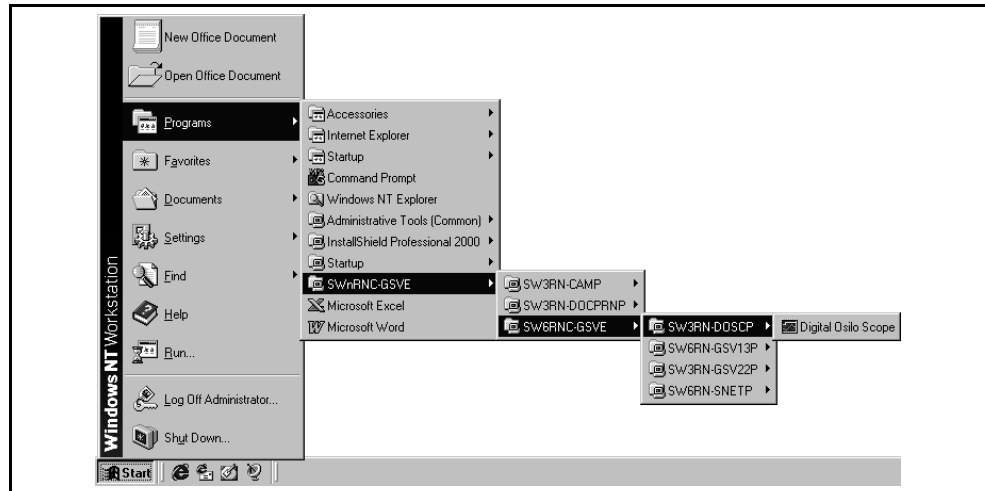
(5) SNETP
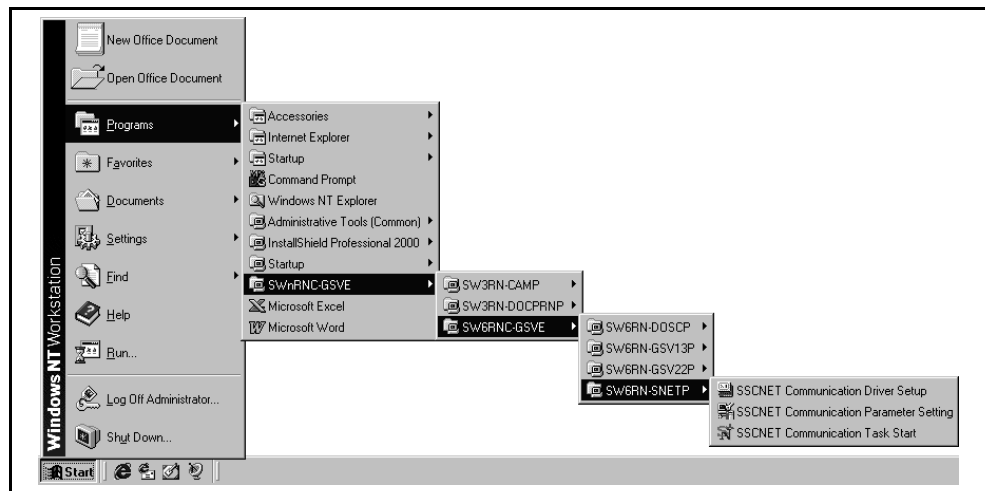
(6) DOCPRNP
   (a) SW3RN-DOCPRNP
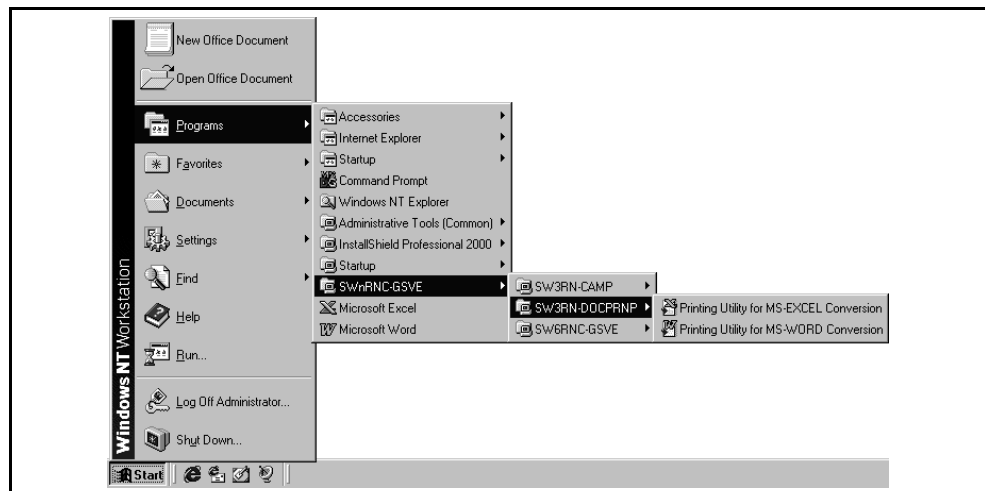
(b) SW20RN-DOCPRNP
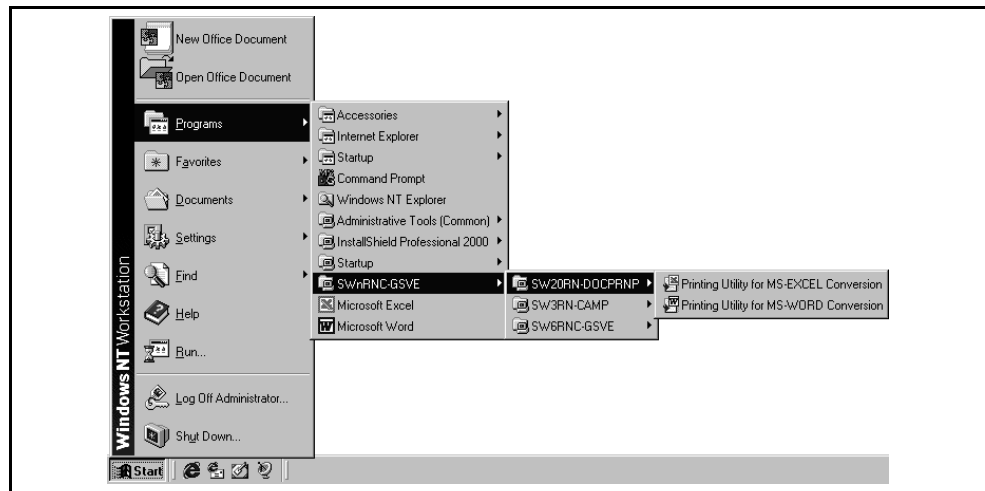
3. INSTALLATION AND UNINSTALLATION

3.3   Created System Directories

Installing GSV13P, GSV22P, SNETP, DOSCP, CAMP, DOCPRNP and/or GSVHELP creates the directories as shown below.

Drive C — Program Files — Gsvqe — Sysgsv13p* / Sysgsv22p* — Defaultsys

Depends on the drive and directory set at installation.

Default — 08, 32

SW6RN-GSV13P
SW6RN-GSV22P

Help — ProgEdit / Svdata

*1: The same folders are created in the Sysgsv13p and Sysgsv22p folders.

Usr — Temp

Sw6Servome — Defaultsys / SysImage SW6RN-DOSCP

Sw6Snetpe SW6RN-SNETP

Came — Sys / Usr SW3RN-CAMP

Use the Q series motion controller startup support software (GSV[ ][ ]P/DOSCP/ SNETP/CAMP/DOCPRNP/GSVHELP) after installing them into the same folder.

Docprnpe — Defaultsys / Graphics / Temp

SW3RN-DOCPRNP
SW20RN-DOCPRNP

*2: Create a folder of DOCPRNP installed according to the operating environment.

Gsvhelpe — Sw6Gsv13p / Sw6Gsv22p / Camp / Sw6Doscp / Sw6Snetp / Docprnp SW6RNC-GSVHELPE

Melsec — Easysocket .... EzSocket

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3. INSTALLATION AND UNINSTALLATION

3.4 Operating Instructions

3.4.1 Precautions for using SW20RN-DOCPRNP

(1) Security levels of Word and Excel
To use SW20RN-DOCPRNP, the security level must be set on Word or Excel.
If the security level setting is "High", you cannot use SW20RN-DOCPRNP.
Before using SW20RN-DOCPRNP, set the security level of Word or Excel to other than "High."
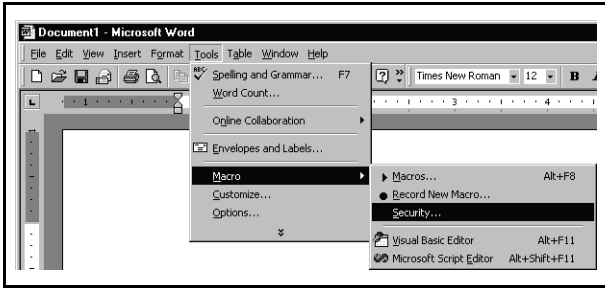
1) Start Word or Excel.
Click [Tools] on the menu bar.
The drop-down menu appears.
Choose and click [Macro]-[Security] in the drop-down menu.
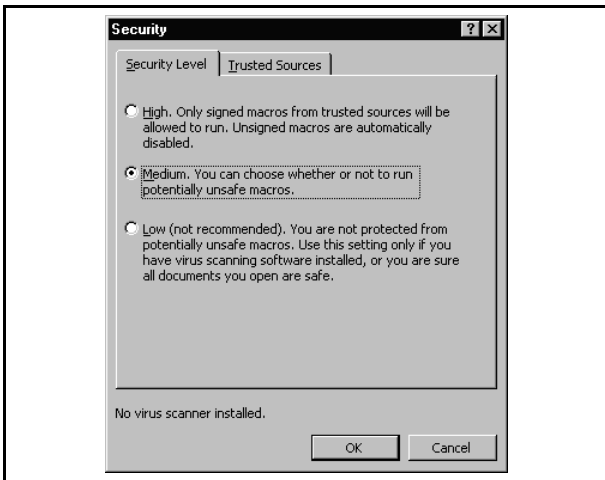
2) The "Security" dialog box appears.
Select "Medium" and click [OK].
Close Word or Excel to terminate the setting.

POINT
If the Word or Excel security level setting is "High" at start of SW20RN-DOCPRNP, SW20RN-DOCPRNP will not start properly as described below and cannot be used. In such a case, change the Word or Excel security level setting to other than "High" and restart SW20RN-DOCPRNP. Word screen   Excel screen
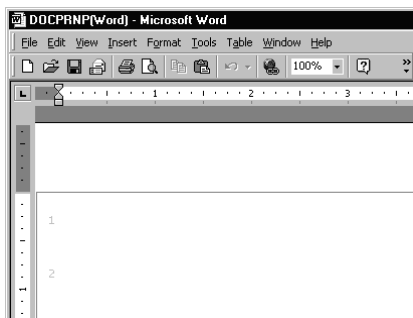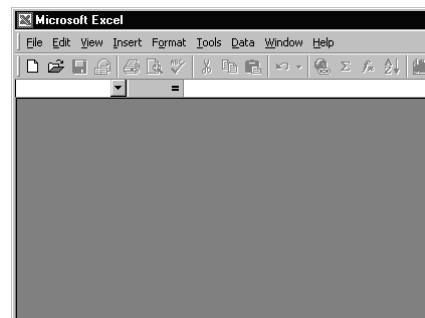
(2) Antivirus software

It has been reported that when the "Norton AntiVirus 2000" antivirus software of Symantec Corporation has been installed in the personal computer, specifying Office 2000 as a control feature from an external program will run the micro virus check software, one of the "Norton AntiVirus 2000" functions, making Office 2000 uncontrollable from other programs.

Hence, when "Norton AntiVirus 2000" has been installed, SW20RN-DOCPRNP that controls Office 2000 externally cannot be booted.

The following are the corrective actions for the above problem.

(a) When it is not necessary to make virus checks
Uninstall "Norton AntiVirus 2000".

(b) When it is necessary to make virus checks
Remove only the micro virus check software of "Norton AntiVirus 2000".
In this case, the other virus checks are performed.

For more information on the micro virus check software problems of "Norton AntiVirus 2000", refer to the home page of Microsoft Corporation or Symantec Corporation.

- Microsoft Corporation
  http://support.microsoft.com/support/kb/articles/Q246/0/18.ASP?LN=EN-US&SD=gn&FR=0&qry=q246018&rnk=1&src=DHCS_MSPSS_gnSRCH&SPR=WRD20
- Symantec Corporation
  http://service1.symantec.com/SUPPORT/nav.nsf/df0a595864594c86852567ac0063608c/8cabdef3ea6d2861882567fd006ea11d?OpenDocument

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3. INSTALLATION AND UNINSTALLATION

• How to remove only micro virus check software from "Norton AntiVirus 2000"
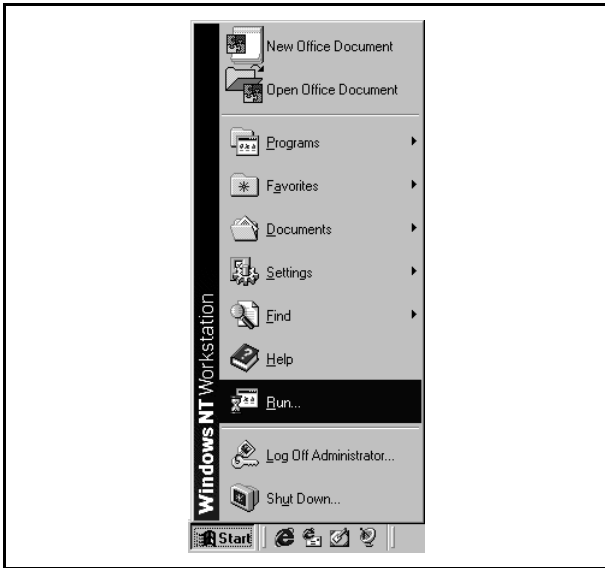
1) Click [Start].
   Choose and click [Run...].
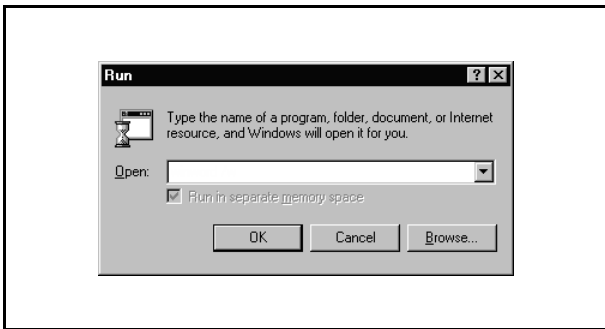
2) The Run dialog box appears.
   Enter the name as indicated below and click [OK].
   • For Windows 98
     [C:\Windows\System\regsvr32␣/U␣"C:\Program␣
     Files\Norton␣AntiVirus\OfficeAV.dll"]
   • For Windows NT
     [regsvr32␣/U␣C:\Program␣Files\Norton␣
     AntiVirus\OfficeAV.dll]
     *In the underlined area, specify the path where
      Norton AntiVirus 2000 has been installed.

3) When the command succeeds, the
   "DllUnregisterServer in C:\Program Files\Norton
   AntiVirus\OfficeAV.dll succeeded" message appears
   and the micro virus check software is removed.
   If it has failed, check the path and execute the
   command again.

3.4.2 Precautions for operation under Windows 98

When the GSV application is used under Windows 98, the following phenomena may occur.
Follow the description for the countermeasure.
(1) The color inside the GSV application window is not displayed correctly.
The color inside the GSV application window may not be displayed correctly with the maximum setting of the graphics hardware accelerator.
In this case, change the graphics accelerator setting to a basic setting.
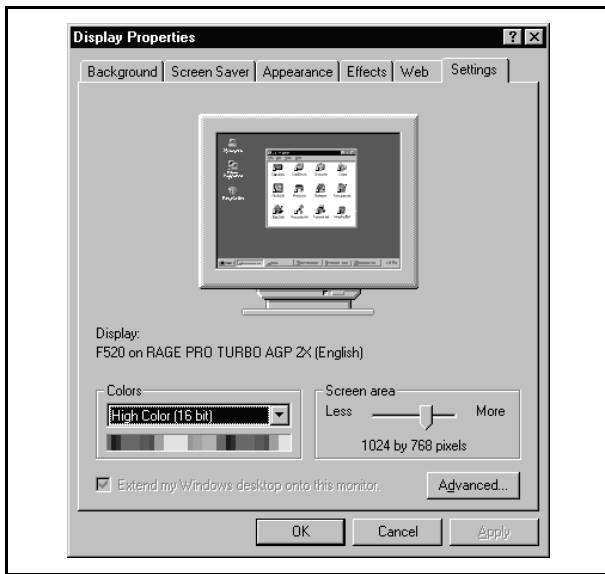
1) Double click on "Display" in the Control Panel.
The "Display Properties" window is displayed.
Select the "Settings" tab and click on [Advanced...].
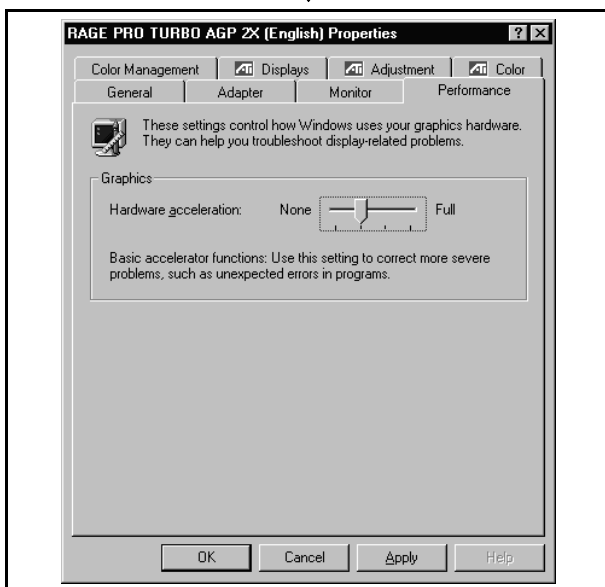
2) Select the "Performance" tab and change the "graphics hardware acceleration" setting to a basic one and click on [OK].
Close "Display Properties" and reset the PC.
* If necessary, recover the original setting of the graphics hardware acceleration.

(2) On the digital oscilloscope (DOSCP) screen, a sampling omission may occur during sampling of data by SSCNET communication.
If one of the following operation is performed during sampling, a sampling failure may occur. (Accordingly there is disorder in the displayed waveform. In the figure below, a spike is displayed in the speed command.)
- Another application is started.
- The function screen of GSV[ ][ ]P is started.
- Programs or parameters are uploaded or downloaded with GSV[ ][ ]P.
If there is a failure in the sampling data even when the above operation is not performed, terminate the other applications.
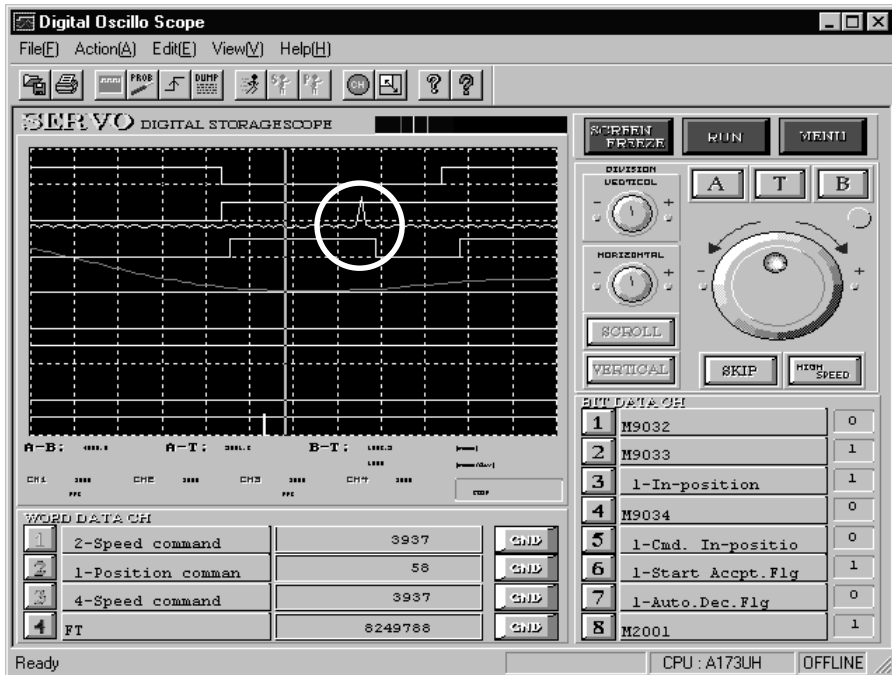
3. INSTALLATION AND UNINSTALLATION

3.4.3 Precautions for simultaneous operation of SW6RNC-GSVE and GX Developer

(1) If SW6RN-SNETP is used for communication over SSCNET
To use the SW6RN-GSV application (communication over SSCNET) and GX Developer (communication via RS232C/USB) simultaneously, take care of the starting and terminating sequence of applications.
[Starting sequence]
- SW6RN-SNETP ---> GSV[ ][ ]P/DOSCP/GX Developer
[Terminating sequence]
- GSV[ ][ ]P/DOSCP/GX Developer ---> SW6RN-SNETP
If the above sequence is not observed, the following phenomena will occur.

(a) If SNETP is started after GX Developer is started
Though the VLINKS window is not displayed, communication over SSCNET is performed correctly, and there is no problem in the operation.

(b) If SNETP is terminated though GX Developer is not terminated
The VLINKS window remains but it is terminated when GX Developer is terminated.
Or SNETP is started without termination of GX Developer, so that communication over SSCNET functions correctly.
Do not close the VLINKS window manually because otherwise the following phenomenon will occur.
- When SNETP is started next time, VLINKS does not start and correct communication over SSCNET becomes unavailable.
If the window is closed manually, exit from GX Developer and restart SNETP.

(c) If GX Developer is started after SNETP is terminated, the following error may occur.

If this error occurs, terminate GX Developer then restart.

3.4.4 Simultaneous execution of SW3RN-GSV[ ][ ]P and SW6RN-GSV[ ][ ]P

SW3RN-GSV[ ][ ]P and SW6RN-GSV[ ][ ]P cannot be used simultaneously.
If the operation described below is attempted, the following error message is displayed in response to the GSV[ ][ ]P started later and startup fails.
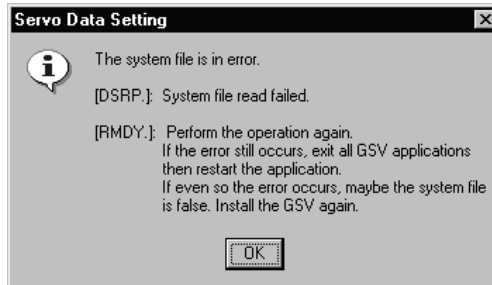
[Operation]
- Starting SW3RN-GSV[ ][ ]P and SW6RN-GSV[ ][ ]P simultaneously from menu
- CAMP (Cam Data Setting) for executing both JUMP icons to SW3RN-GSV[ ][ ]P and SW6RN-GSV[ ][ ]P
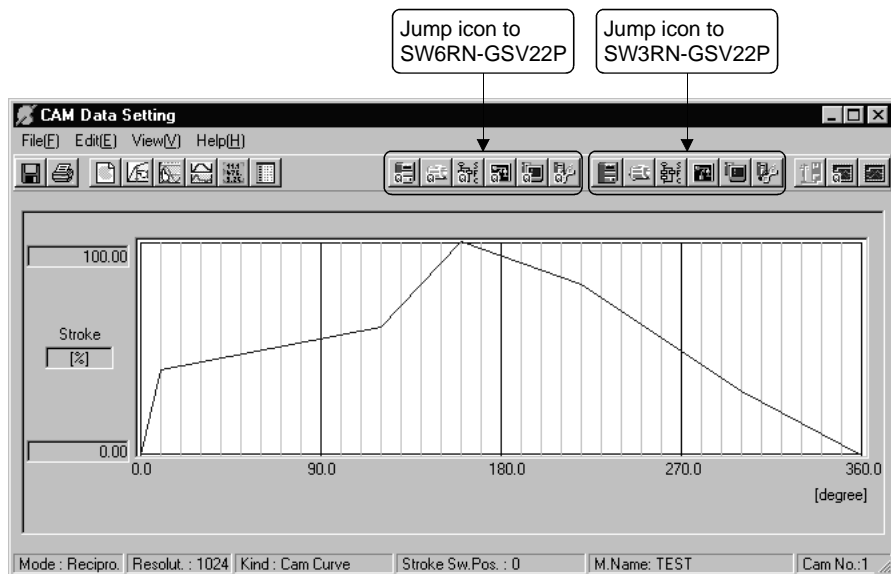
Do not perform above operations.
SW3RN-GSV[ ][ ]P and SW6RN-GSV[ ][ ]P cannot be executed simultaneously.
Start either application only.

3.4.5 Simultaneous execution of SW3RN-DOSCP and SW6RN-DOSCP

You cannot use SW3RN-DOSCP and SW6RN-DOSCP together.
If the following operation is performed, DOSCP booted later is not started and is ignored.

[Operation]
- Starting SW3RN-DOSCP and SW6RN-DOSCP simultaneously from menu
- CAMP (Cam Data Setting) for executing both JUMP icons to SW3RN-GSV[ ][ ]P and SW6RN-GSV[ ][ ]P

Jump icon to SW6RN-DOSCP   Jump icon to SW3RN-DOSCP
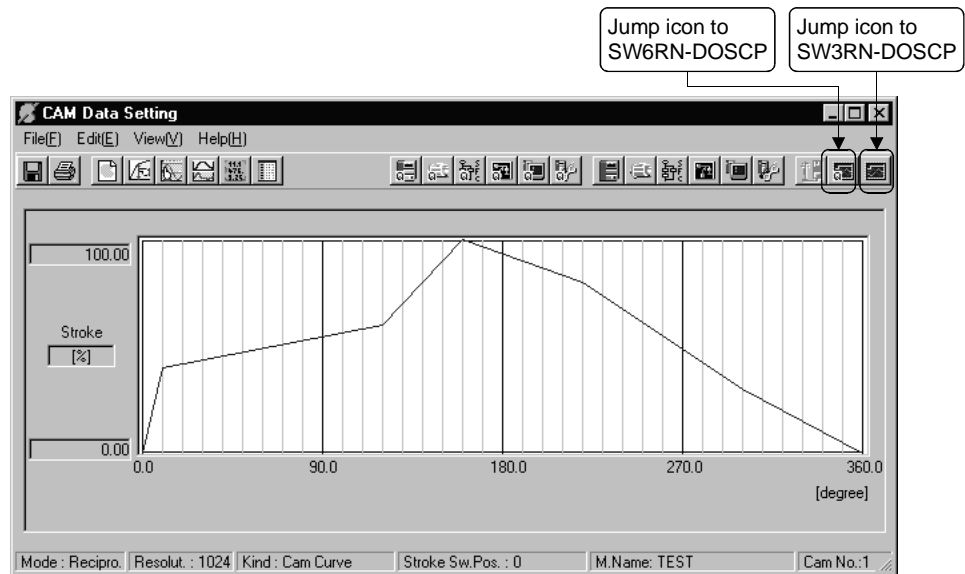
Do not perform above operations.
SW3RN-DOSCP and SW6RN-DOSCP cannot be executed simultaneously.
Start either application only.

3. INSTALLATION AND UNINSTALLATION

3.4.6 Precautions for using SNETP

(1) SW3RN-SNETP or SW6RN-SNETP (Ver. 00A) is in use
(SW6RN-GSV[ ][ ]P (Ver. 00A) is in use)
In any of the following cases, corresponding SNETP may result in a communication error, disabling normal communication.
- SNETP of an early version is used to perform a communication method that is not supported.
- Two or more copies of SNETP of different versions are installed.
- Both SW3RN-SNETP and SW6RN-SNETP are installed.
- Windows NT, Windows 98 and Windows 2000 are installed in a single PC and SNETP of different versions is installed in each drive.
- Windows NT, Windows 98 and Windows 2000 are installed in a single PC and SW3RN-SNETP and SW6RN-SNETP are installed in each drive.

Only one version of corresponding SNETP may be installed into one personal computer.
Install only one copy of SNETP of the best version according to the desired communications means (SSCNET, USB, 232C).
The communications means supported by each version of SNETP is shown in the table 3.1.

Table 3.1 The communications means supported by each version of SNETP

	Version	For A motion SW3RN-GSV[ ][ ]P	For Q motion(Q172/Q173) SW6RN-GSV[ ][ ]P	SW3RN-DOSCP*
SW3RN-SNETP	Ver.00A	Communication can be made over SSCNET.	Q motion is not supported (a communication error is caused).	Can be used. (However, a communication error is caused upon Q172/Q173.)
	Ver.00B		Communication can be made over SSCNET.	Can be used
	Ver.00E or later	Communication can be made over SSCNET or via RS232C.	Communication can be made over SSCNET.	
SW6RN-SNETP	Ver.00A	Communication can be made over SSCNET.	Communication can be made over SSCNET or via RS232C or USB.	

*: SW3RN-DOSCP is only for communication over SSCNET.

IMPORTANT

When updating SW6RN-GSV[ ][ ]P (to Ver. 00B or later), refer to "3.7 Updating Instructions and Procedures" and update one set of SW6RNC-GSVE.
In this case, SW6RN-SNETP is updated (to Ver. 00B or later).
Refer to the instructions in (2) on the next page.

---

(2) Precautions for use of SW6RN-SNETP Ver. 00B or later
    (a) Coexistence of SNETP
        SW6RN-SNETP Ver. 00B or later can be installed to coexist with SW3RN-SNETP.

Table 3.2 SNETP Versions That Can Coexist

Software Packages	Compatible Version	Remarks
SW6RN-SNETP	Ver. 00B or later (Ver. 00A cannot coexist)	Dedicated to the Q motion controller. Incompatible with the applications designed for A motion controllers.
SW3RN-SNETP	Any version[*1]	

    *1: For SW3RN-SNETP Ver. 00G or earlier, however, there are precautions for installation/uninstallation. Refer to "Section 3.4.6 (2) (d)".

    (b) GSV applications compatible with SW6RN-SNETP Ver. 00B or later
        Table 3.3 indicates the GSV applications compatible with SW6RN-SNETP Ver. 00B or later.

Table 3.3 GSV applications compatible with SW6RN-SNETP Ver. 00B or later

Software Packages	Compatible Version	Remarks
SW6RN-GSV13P	Ver.00B or later	When using any of the packages given on the left, use SW6RN-SNETP Ver. 00B or later.
SW6RN-GSV22P		
SW6RN-DOSCP	Ver.00A or later	

    (c) Concurrent execution of SW3RN-SNETP and SW6RN-SNETP
        You cannot use SW3RN-SNETP and SW6RN-SNETP together.
        1) When those programs are started in order of SW3RN-SNETP and SW6RN-SNETP, SW6RN-SNETP booted is ignored.
        2) When the programs are started in order of SW6RN-SNETP and SW3RN-SNETP (Ver. 00H or later), SW3RN-SNETP booted is ignored.
        3) When the programs are started in order of SW6RN-SNETP and SW3RN-SNETP (Ver. 00G or earlier), SW3RN-SNETP displays the following message and does not start properly.
        Exit from SW3RN-SNETP.

(d) Precautions for installation, uninstallation and updating when SW6RN-SNETP (Ver. 00B or later) and SW3RN-SNETP (Ver. 00G or earlier) coexist

When SW6RN-SNETP Ver. 00B or later and SW3RN-SNETP Ver. 00G or earlier coexist, note that there are restrictions on installation and uninstallation.

1) When installing SW3RN-SNETP (Ver. 00G or earlier) into the personal computer where SW6RN-SNETP (Ver. 00B or later) has been installed
   • After installing SW3RN-SNETP, always set the driver setup again.

2) When uninstalling SW3RN-SNETP in the personal computer where SW6RN-SNETP (Ver. 00B or later) and SW3RN-SNETP (Ver. 00G or earlier) coexist
   • Uninstall "SW6RN-SNETP", "SW3RN-SNETP" and "SSCNET communication driver" once.
   After uninstallation, reinstall SW6RN-SNETP and set the driver setup.

3) When updating SW3RN-SNETP to Ver. 00H or later in the personal computer where SW6RN-SNETP (Ver. 00B or later) and SW3RN-SNETP (Ver. 00G or earlier) coexist
   • Refer to Section 3.4.6 (2) (f) 2 1).

(e) Precautions for uninstalling SW6RN-SNETP (Ver. 00B or later) or SW3RN-SNETP (Ver. 00H or later)

Uninstall SW6RN-SNETP Ver. 00B or later or SW3RN-SNETP Ver. 00H or later as described below.

1) When SNETP does not coexist
   a) When uninstalling SW6RN-SNETP (Ver. 00B or later)
      Uninstall "SW6RN-SNETP" and "SSCNET communication driver".
   b) When uninstalling SW3RN-SNETP (Ver. 00H or later)
      Uninstall "SW3RN-SNETP" and "SSCNET communication driver".

2) When SW6RN-SNETP (Ver. 00B or later) and SW3RN-SNETP (Ver. 00H or later) coexist
   a) When uninstalling SW6RN-SNETP (Ver. 00B or later) only
      Uninstall "SW6RN-SNETP" only. (Do not uninstall the "SSCNET communication driver".)
   b) When uninstalling SW3RN-SNETP (Ver. 00H or later) only
      Uninstall "SW3RN-SNETP" only. (Do not uninstall the "SSCNET communication driver".)
   c) When uninstalling both SW6RN-SNETP (Ver. 00B or later) and SW3RN-SNETP (Ver. 00H or later)
      Uninstall "SW6RN-SNETP", "SW3RN-SNETP" and "SSCNET communication driver".

3. INSTALLATION AND UNINSTALLATION

(f) Precautions for updating SNETP
Update SW6RN-SNETP to Ver. 00B or later or SW3RN-SNETP to Ver. 00H or later as described below.
1) When updating SW6RN-SNETP (Ver. 00A) to Ver. 00B or later
After uninstalling "SW6RN-SNETP", install new SW6RN-SNETP and perform a driver setup.
2) When updating SW3RN-SNETP (Ver. 00G or earlier) to Ver. 00P or later
   a) When SNETP does not coexist
After uninstalling "SW3RN-SNETP", install new SW3RN-SNETP and perform a driver setup.
   b) When SW3RN-SNETP coexists with SW6RN-SNETP (Ver. 00B)
After uninstalling "SW3RN-SNETP" and "SSCNET communication driver", install new SW3RN-SNETP and perform a driver setup.
   c) When updating SW6RN-SNETP (Ver. 00B or later)
After uninstalling "SW6RN-SNETP", install new SW6RN-SNETP.
A driver setup is not necessary.
   d) When updating SW3RN-SNETP (Ver. 00H or later)
After uninstalling "SW3RN-SNETP", install new SW3RN-SNETP.
A driver setup is not necessary.

3. INSTALLATION AND UNINSTALLATION

3.5 Uninstallation

This section gives the way to delete GSV13P, GSV22P, CAMP, DOSCP, SNETP and/or DOCPRNP from the hard disk.
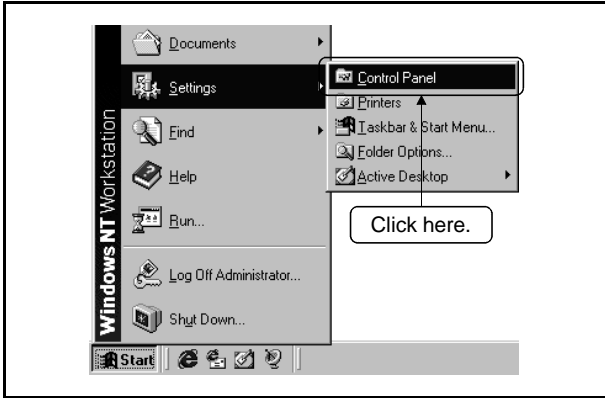
1) Click [Start] on the taskbar and move the cursor to [Settings].
Click [Control Panel].
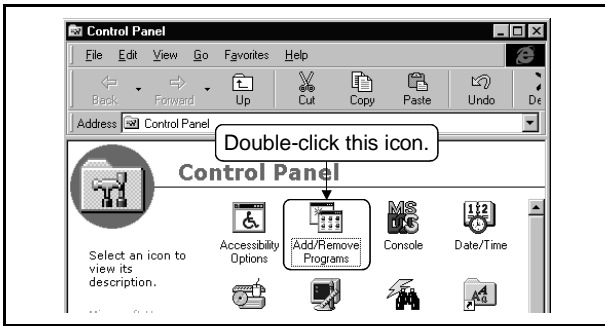
2) The Control Panel window appears.
Double-click "Add/Remove Programs" from Control Panel.
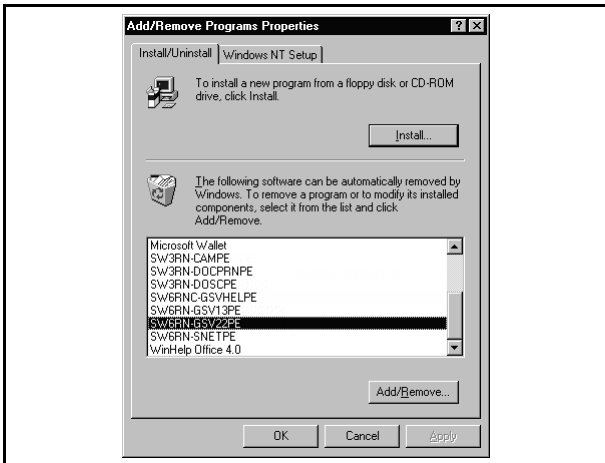
3) The "Add/Remove Programs Properties" screen appears.
Choose the software to be deleted and click [Add/Remove...].

To next page

3. INSTALLATION AND UNINSTALLATION

From preceding page
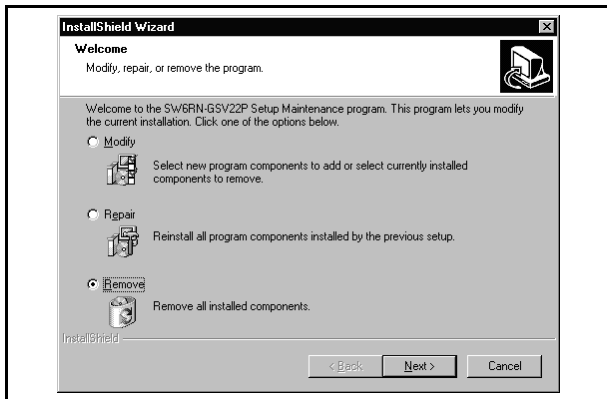
4) The "InstallShield Wizard" screen appears.
Choose the "Remove" and click [OK].
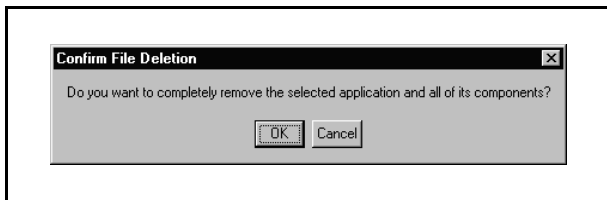
5) Check that the selected application files will be deleted.
Click [OK] to uninstall.
Uninstallation starts.
Click [Cancel] when not uninstalling.
This returns the display to the previous screen.
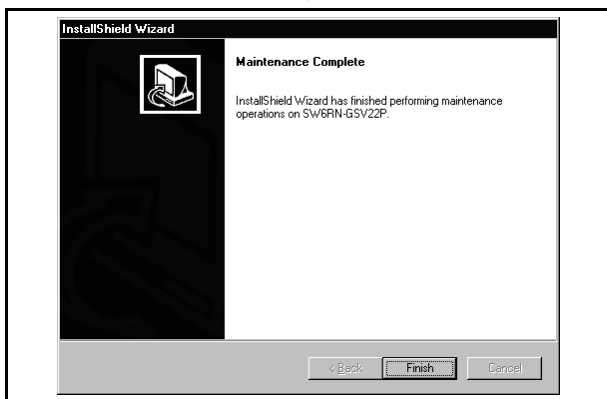
6) This completes uninstallation.
Click [Finish] to finish the addition and removal of applications.

3.6 Operating Manual SW6RNC-GSVHELPE

After installing the SW6RNC-GSVHELPE Operating Manuals, you can browse them by performing the following operation.

(1) You can browse any of the operating manuals from the "Help" menu of the corresponding software package.

(2) Each operating manual is a file in the Windows help format (extension is HLP). Any operating manual can be browsed by directly double-clicking the corresponding file from Explorer or like.
(Refer to Section 3.3 for the folder where SW6RNC-GSVHELPE has been installed.)

3. INSTALLATION AND UNINSTALLATION

3.7 Updating Instructions and Procedures

This section describes the instructions and operating procedures for updating SW6RNC-GSVE to Ver. 00B.

The versions of the SW6RNC-GSVE Ver. 00B packages are indicated in Table 3.4.

Table 3.4 Package Definitions of SW6RNC-GSVE Ver. 00B

Type	Version	Product Name
SW6RN-GSV13P	00B	Transfer/assembly software
SW6RN-GSV22P	00B	Automatic machine software
SW3RN-CAMP	00E	Cam data creation software
SW3RN-DOCPRNP	00H	Document printing software (For Office 97)
SW20RN-DOCPRNP	00D	Document printing software (For Office 2000)
SW6RN-DOSCP	00A	Digital oscilloscope software
SW6RN-SNETP	00B	SSCNET communication system software
EzSocket	8.0.0	FA communication middleware

When updating, update one set of the above packages.

(1) Updating performed when only SW6RNC-GSVE has been installed
- When performing updating in the personal computer where the SW6RNC-GSVE Ver. 00A (the one in Table 3.4 or earlier) version has been installed.

```
                    ┌─────────────────────────┐
                    (        START             )
                    └─────────────────────────┘
                                  │
                                  ▼
    ┌──────────────────────────────────────────────────┐
    │ Uninstall all of the following packages.          │
    │ • SW6RN-GSV13P                                     │
    │ • SW6RN-GSV22P                                     │
    │ • SW3RN-CAMP                                       │
    │ • SW3RN-DOCPRNP(or SW20RN-DOCPRNP)                 │
    │ • SW3RN-DOSCP                                      │
    │ • SW6RN-SNETP                                      │
    └──────────────────────────────────────────────────┘
                                  │
                                  ▼
    ┌──────────────────────────────────────────────────┐
    │ Install all of the following packages.            │
    │ • SW6RN-GSV13P                                     │
    │ • SW6RN-GSV22P                                     │
    │ • SW3RN-CAMP                                       │
    │ • SW3RN-DOCPRNP(or SW20RN-DOCPRNP)                 │
    │ • SW6RN-DOSCP                                      │
    │ • SW6RN-SNETP                                      │
    └──────────────────────────────────────────────────┘
                                  │
                                  ▼
    ┌──────────────────────────────────────────────────┐
    │ Set up the SSCNET driver of SNETP.                │
    │ (Refer to Chapter 4)                              │
    └──────────────────────────────────────────────────┘
                                  │
                                  ▼
                    ┌─────────────────────────┐
                    (         END              )
                    └─────────────────────────┘
```
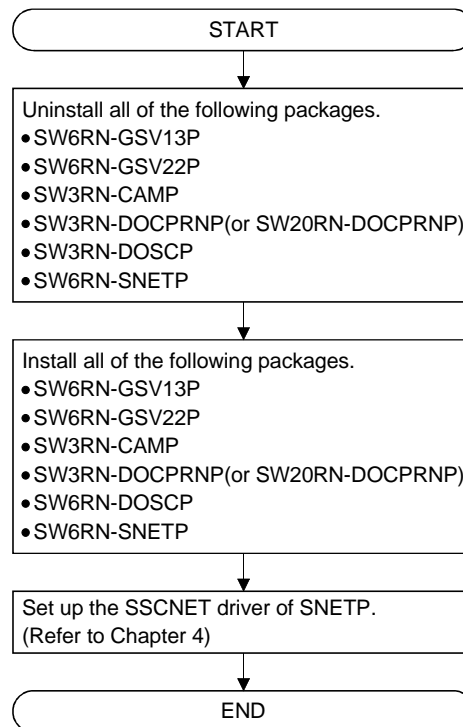
3. INSTALLATION AND UNINSTALLATION

(2) Updating performed when SW6RN-GSV and SW3RN-GSV coexist

```
                    ┌──────────────────────────────┐
                    │            START             │
                    └──────────────────────────────┘
                                   │
      ┌──────────────────────────────────────────────┐
      │ Uninstall all of the following packages.      │ - - - - Note: Do not uninstall SW3RN-DOSCP.
      │   SW6RN-GSV13P                                 │
      │   SW6RN-GSV22P                                 │
      │   SW3RN-CAMP                                   │
      │   SW3RN-DOCPRNP(or SW20RN-DOCPRNP)             │
      │   SW6RN-SNETP                                  │
      └──────────────────────────────────────────────┘
                                   │
      ┌──────────────────────────────────────────────┐
      │ Install all of the following packages.        │
      │   SW6RN-GSV13P                                 │
      │   SW6RN-GSV22P                                 │
      │   SW3RN-CAMP                                   │
      │   SW3RN-DOCPRNP(or SW20RN-DOCPRNP)             │
      │   SW6RN-DOSCP                                  │
      │   SW6RN-SNETP                                  │
      └──────────────────────────────────────────────┘
                                   │
      ┌──────────────────────────────────────────────┐
      │ Set up the SSCNET driver of SNETP.            │
      │ (Refer to Chapter 4)                          │
      └──────────────────────────────────────────────┘
                                   │
                    ┌──────────────────────────────┐
                    │             END              │
                    └──────────────────────────────┘
```
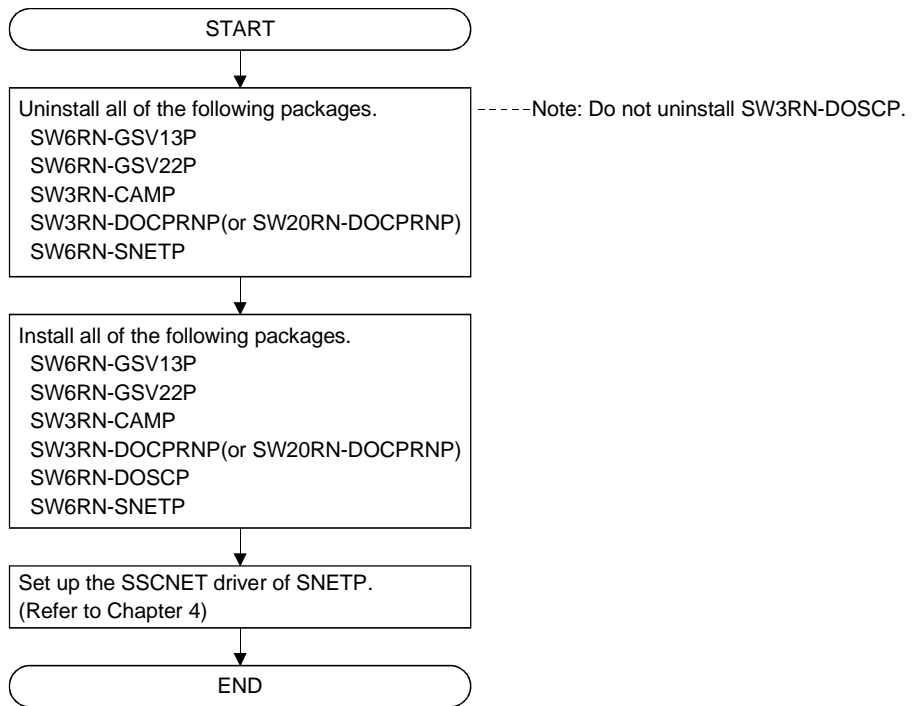
| POINT	
(1)	For the installation/uninstallation operation associated with updating, refer to "3.1 Installation" and "3.5 Uninstallation".

4. SSCNET COMMUNICATION DRIVERS

4. SSCNET COMMUNICATION DRIVERS

4.1 SSCNET Communication Driver Setup Procedure

To make SSCNET communication, you need to perform SSCNET communication driver setup
Perform the setup work of the SSCNET communication drivers in the [SSCNET Communication Driver Setup] window of SNETP.
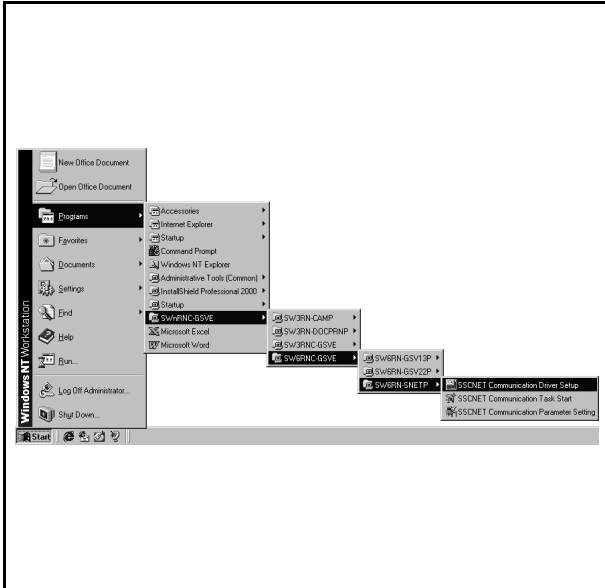
1) Choose and click [Programs]-[SWnRNC-GSVE]-[SW6RNC-GSVE]-[SW6RN-SNETP]-[SSCNET Communication Driver Setup] in the Start menu. The following Communication Driver Setup window appears.

Choose "A30CD-PCF Card Type" when using the A30CD-PCF interface card, or choose "A30BD-PCF Board Type" when using the A30BD-PCF interface board.
Hereafter, the A30CD-PCF interface card is represented as the "interface card" and the A30BD-PCF interface board as the "interface board".

| POINT |
| --- |
| (1) You need not set the driver when you do not fit the interface card or interface board to the personal computer as described below. Always click [Cancel] in the "SSCNET Communication Driver Setup" window.
• When only RS232C/USB communication is used
• When SSCNET communication is not used
 (When only the offline function for program edit, etc. is used)
• When there is no interface card or interface board |

4. SSCNET COMMUNICATION DRIVERS

4.1.1 When using the A30CD-PCF interface card

This section provides the SSCNET communication driver setup procedure for use of the interface card.
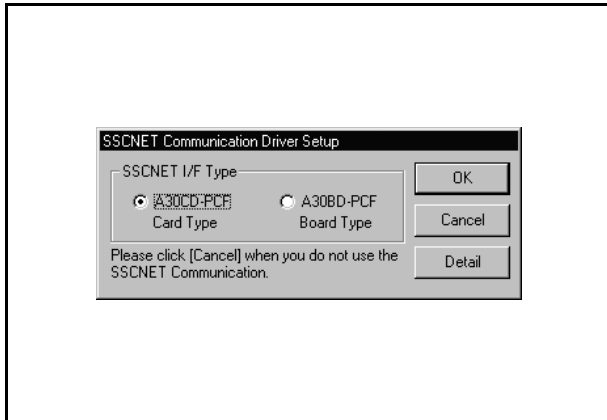
1) The SSCNET Communication Driver Setup window appears.
   *You need not make the setting when you use RS232C communication or do not use SSCNET communication.
   Click [Cancel] to exit from SSCNET Communication Driver Setup.
   <For Windows NT>
   Choose "A30CD-PCF Card Type" and click [Detail].

   <For Windows 98>
   Choose "A30CD-PCF Card Type" and click [OK].
   *Detail setting is not necessary for Windows 98.

For Windows NT   For Windows 98
                           To 4)

2) Check and set the free areas of IRQ Level, Memory Base Address and I/O Port Address.
   Click [OK].
   *For the way to check the free areas, refer to "4.2 How to Check the System Resources".

3) Click [OK].

To next page

4. SSCNET COMMUNICATION DRIVERS

From preceding page

```
┌─────────────────────────────────────────────┐
│ Change SSCNET Communication Driver      [X] │
│  ┌──┐                                        │
│  │! │ To validate the new setting, the computer must be rebooted. │
│  └──┘ Do you want to reboot computer immediately? │
│                                              │
│           ┌─────┐  ┌─────┐                   │
│           │ Yes │  │ No  │                   │
│           └─────┘  └─────┘                   │
└─────────────────────────────────────────────┘
```

4) The left dialog box appears.

<For Windows NT>
   • When the interface card is already loaded
     Click [Yes].
     The personal computer is restarted.
   • When the interface card is not yet loaded
     Click [No].
     Choose "Shut Down" in the Start menu to power off the personal computer.
     After making sure that the power is off, load the interface card into the personal computer.

<For Windows 98>
   Click [Yes].
   The personal computer is restarted.
   After Windows 98 has restarted, load the interface card into the personal computer.
   IRQ Level, Memory Base Address and I/O Port Address are automatically set by the plug and play function of Windows 98.

5) After Windows NT/98 has restarted, choosing and clicking [Programs]-[SWnRNC-GSVE]-[SW6RNC-GSVE]-[SW6RN-SNETP]-[Start SSCNET Task] in the Start menu makes SSCNET communication ready to start.

4. SSCNET COMMUNICATION DRIVERS

4.1.2   When using the A30BD-PCF interface board

This section provides the SSCNET communication driver setup procedure for use of the interface board.

1) The SSCNET Communication Driver Setup window appears.
   Choose "A30BD-PCF Board Type" and click [Detail].
   *You need not make the setting when you use RS232C/USB communication or do not use SSCNET communication.
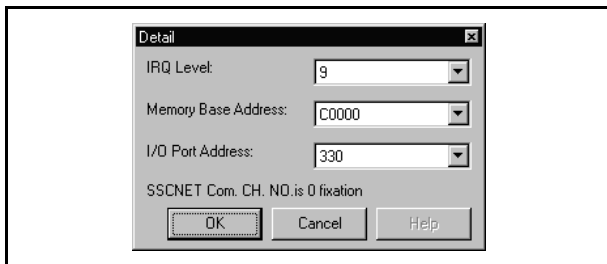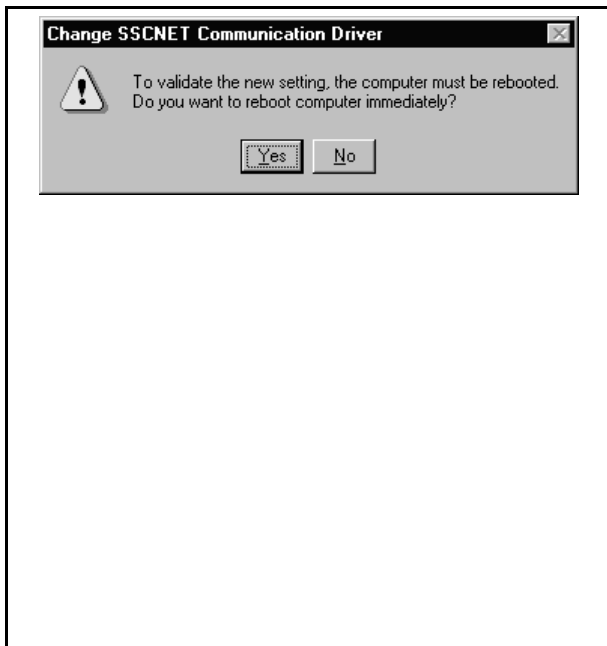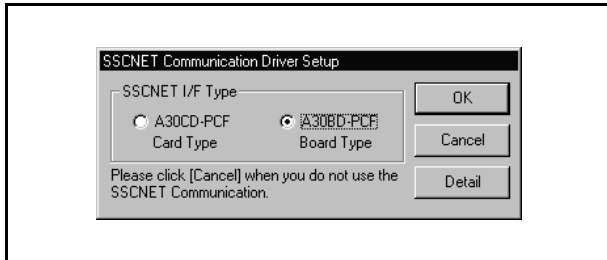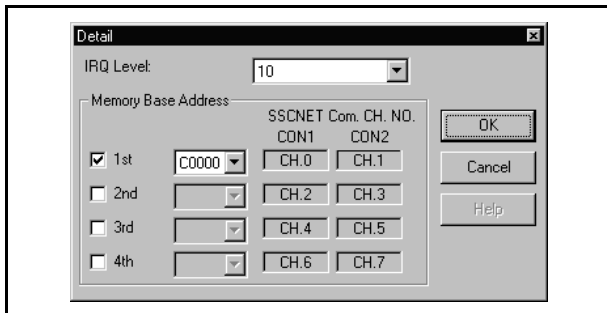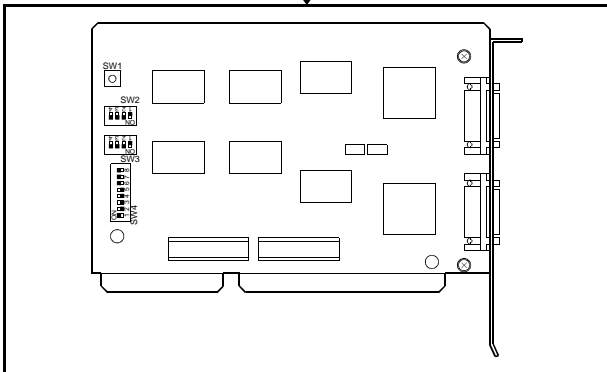   Click [Cancel] to exit from SSCNET Communication Driver Setup.

2) Check and set the free areas of IRQ Level and Memory Base Address.
   Click [OK].
   *For the way to check the free areas, refer to "4.2 How to Check the System Resources".

3) The data set in the Detail Setting window must be reflected on the switch setting of the interface board.
   Refer to "4.3 Setting the A30BD-PCF Interface Board" and make the switch setting of the interface board.
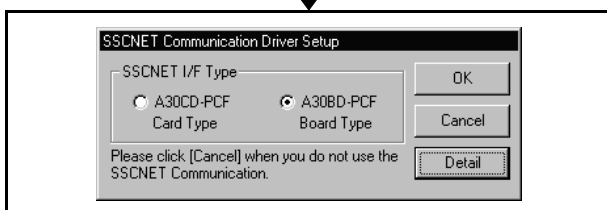
4) Click [OK].

To next page

4 − 4

From preceding page

Change SSCNET Communication Driver

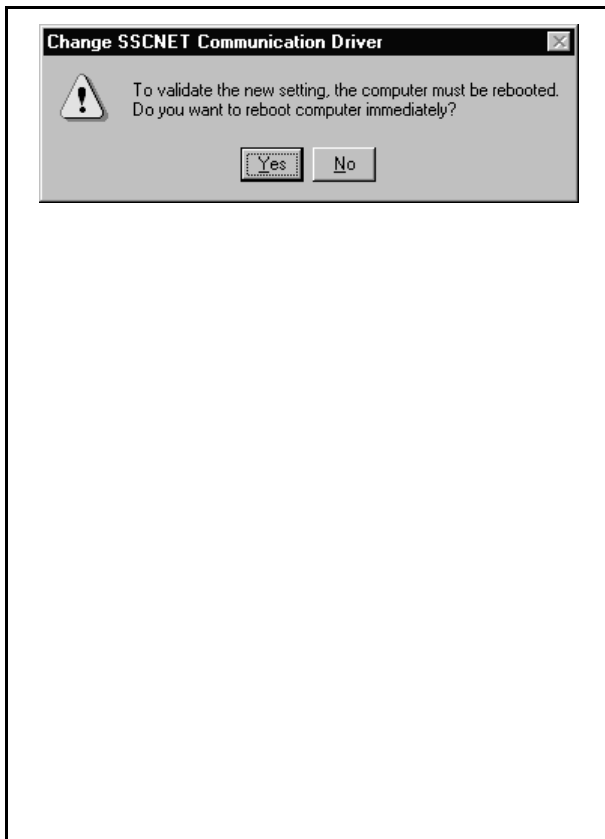⚠ To validate the new setting, the computer must be rebooted.
Do you want to reboot computer immediately?

[Yes] [No]

5) The left dialog box appears.
<For Windows NT>
   Click [No].
   Choose "Shut Down" in the Start menu to power off the personal computer.
   After making sure that the power is off, confirm the switch setting of the interface board and load the interface board into the personal computer.
   After Windows NT has restarted, choosing and clicking [Programs]-[SWnRNC-GSVE]-[SW6RNC-GSVE]-[SW6RN-SNETP]-[Start SSCNET Task] in the Start menu makes SSCNET communication ready to start.

<For Windows 98>
   Click [No].
   Choose "Shut Down" in the Start menu to power off the personal computer.
   After making sure that the power is off, confirm the switch setting of the interface board and load the interface board into the personal computer.
   Restart Windows 98 and register the SSCNET communication drivers.
   For the registration of the SSCNET communication driver, refer to "4.4 Registering the SSCNET Communication Drivers".
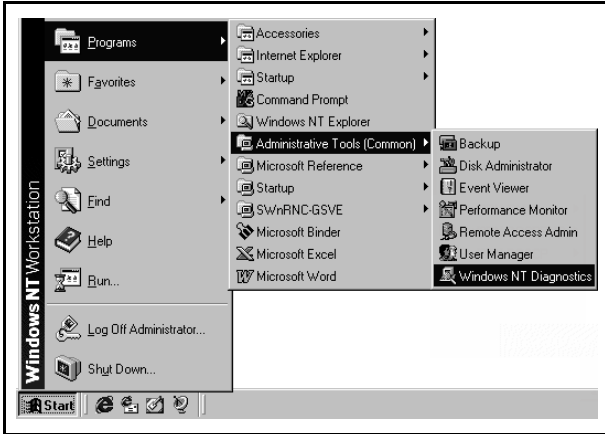
4. SSCNET COMMUNICATION DRIVERS

4.2 How to Check the System Resources

This section explains how to check the free areas of the system resources such as IRQ Level, Memory Base Address and I/O Port Address.

(1) For Windows NT

Refer to the Windows NT diagnostics and check the free areas of the system resources.

1) Choose and click [Programs]-[Administrative Tools (Common)]-[Windows NT Diagnostics] in the Start menu.
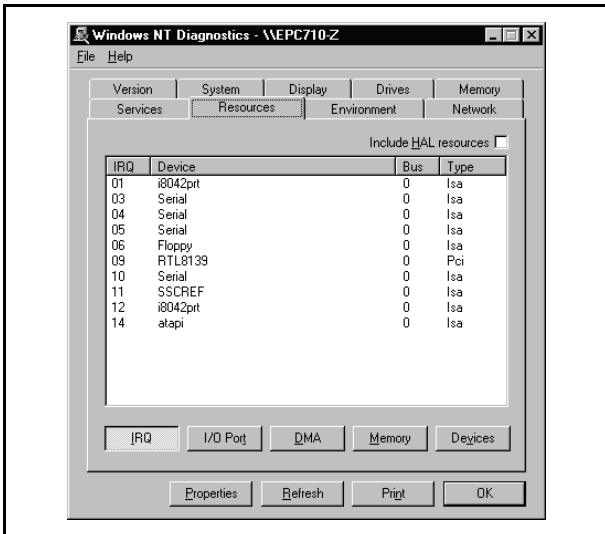
2) The Windows NT Diagnostics window appears.
Click [Resources].
Click [IRQ], [I/O Port] and [Memory] to check the free areas.

[IRQ] .... Check the IRQ level.

[I/O Port] .... Check the I/O Port Address.

[Memory]............ Check the Memory Base Address.

*1 When using the interface board, you need not check the I/O Port Address.

*2 For details of the Windows NT diagnostics, refer to the Windows NT manual.

POINT
The resource use state may be described in the manual of the personal computer. In this case, refer to the manual.

4. SSCNET COMMUNICATION DRIVERS

(2) For Windows 98
Check the free areas of the system resources from the My Computer icon on the desktop.

1) Choose and right-click the My Computer icon on the desktop.
The pop-up menu appears.
Click [Properties] from the pop-up menu.

2) The "System Properties" window appears.
Click [Device Manager].
Make sure that the Computer icon is highlighted and click [Properties].

3) The "Computer Properties" window appears.
Click [Interrupt Request] and [Memory] to check the free areas.
- Interrupt Request ....Check the IRQ level.
- Memory......................Check the Memory Base Address.
*For details of the computer properties, refer to the Windows 98 manual.
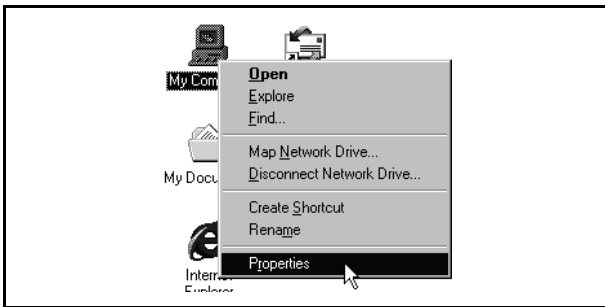
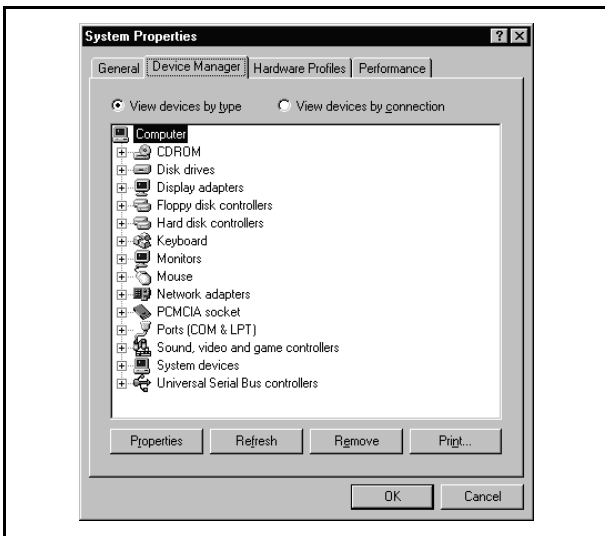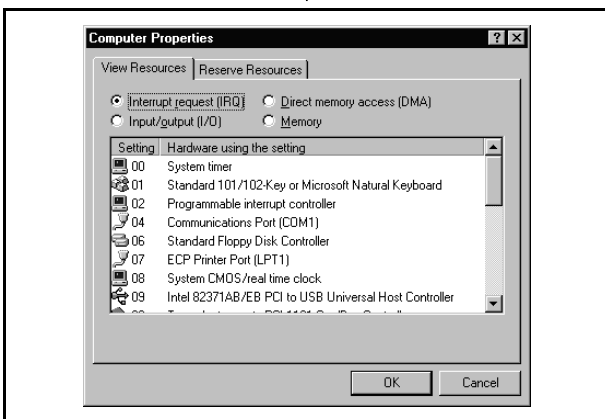| POINT |
| --- |
| The resource use state may be described in the manual of the personal computer.
 In this case, refer to the manual. |

4. SSCNET COMMUNICATION DRIVERS

4.3 Setting the A30BD-PCF Interface Board

This section describes the switch setting of the interface board.
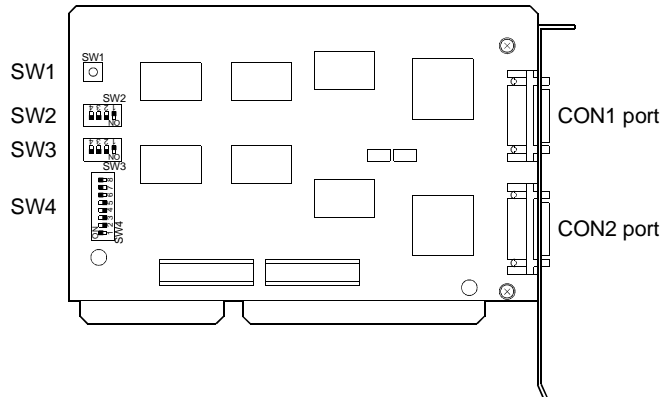
(1) Reset switch (SW1)

Turn on the reset switch (SW1) to reset the interface board.
During communication, do not press the reset switch as it will shut off communication.
If proper communication cannot be made, reset the interface board with the reset switch and then make communication.

(2) Interrupt level (SW2, SW3)

Set the identification number (IRQ level) used by the Operating System to recognize the interface board.
When setting the interrupt level, set to ON only one switch whose level does not overlap the interrupts of the other ISA bus extension boards, and set all other switches to OFF.
Note that the settings of SW2 and SW3 should be the same.

SW2, SW3		Definition	Default	Remarks
	1	IRQ10 enable	OFF	
	2	IRQ11 enable	OFF	OFF : Invalid
	3	IRQ12 enable	OFF	ON : Valid
	4	IRQ15 enable	OFF	

4. SSCNET COMMUNICATION DRIVERS

(3) Setting the occupied addresses (SW4)
   Set the addresses occupied by the interface board on the personal computer.

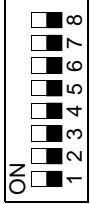| SW4		Definition	Default	Remarks
	1	Not used	OFF	Always set to OFF.
	2	Controller setting line 1 (CON1 port)	OFF	Always set to ON.
	3	Controller setting line 2 (CON2 port)	OFF	
	4	Address selection 1	OFF	Set the occupied addresses. For details, refer to the following Table 4.1.
	5	Address selection 2	OFF	
	6	Address selection 3	OFF	
	7	8/16 bit width selection	OFF	Set the bit width of the ISA bus. Set to OFF (16 bits). OFF : 16 bits ON : 8 bits
	8	IRQ switching	OFF	Always set to ON.

1) Address selection 1 to 3 (SW4-4 to 6) and occupied regions
   One interface board occupies a 16K byte region.
   Table 4.1 Occupied Address Regions

Table 4.1 Occupied Address Regions

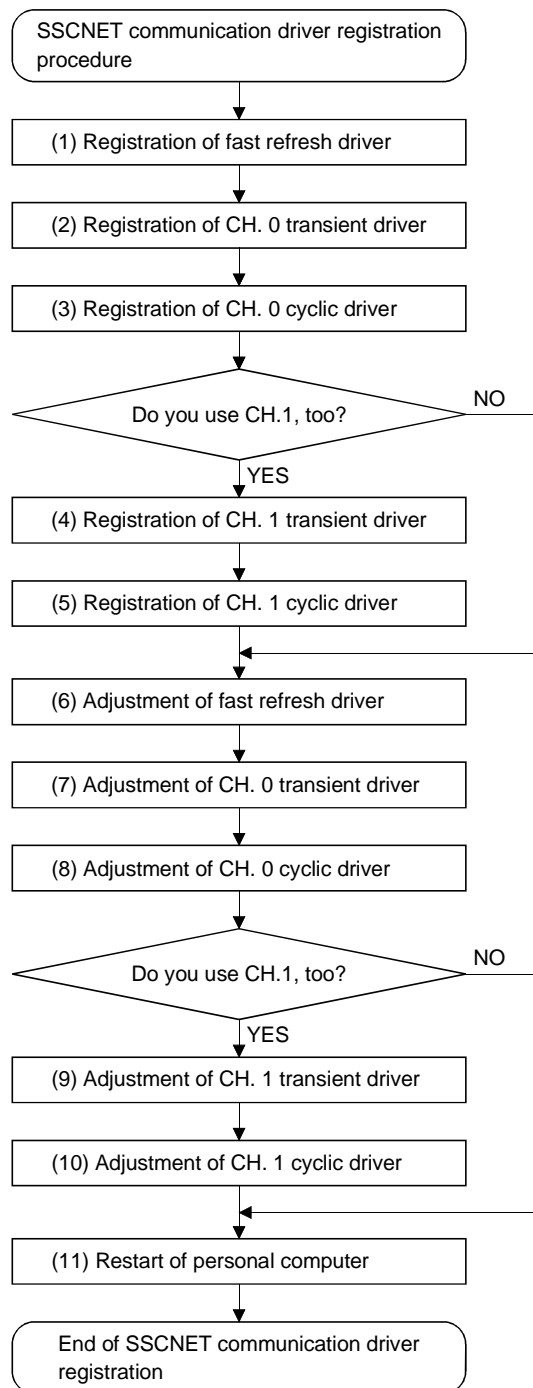| Switch			Occupied Address Region	CON1 Port Region	CON2 Port Region
4	5	6	First to last	First to last	First to last
OFF	OFF	OFF	C0000h to C3FFFh	C0000h to C0FFFh	C1000h to C1FFFh
OFF	OFF	ON	C4000h to C7FFFh	C4000h to C4FFFh	C5000h to C5FFFh
OFF	ON	OFF	C8000h to CBFFFh	C8000h to C8FFFh	C9000h to C9FFFh
OFF	ON	ON	CC000h to CFFFFh	CC000h to CCFFFh	CD000h to CDFFFh
ON	OFF	OFF	D0000h to D3FFFh	D0000h to D0FFFh	D1000h to D1FFFh
ON	OFF	ON	D4000h to D7FFFh	D4000h to D4FFFh	D5000h to D5FFFh
ON	ON	OFF	D8000h to DBFFFh	D8000h to D8FFFh	D9000h to D9FFFh
ON	ON	ON	DC000h to DFFFFh	DC000h to DCFFFh	DD000h to DDFFFh

4. SSCNET COMMUNICATION DRIVERS

4.4 Registering the SSCNET Communication Drivers

When using the interface board on Windows 98 to make SSCNET communication, register the SSCNET communication drivers in the following procedure. (The following operation is not required when using the interface card on Windows NT or Windows 98.)
Since the interface board is not compatible with the plug and play function of Windows 98, you need to register the SSCNET communication drivers to Windows 98 after installing SNETP and setting up the SSCNET communication drivers. (When reinstalling SNETP, the SSCNET communication drivers are already registered and need not be registered again.)
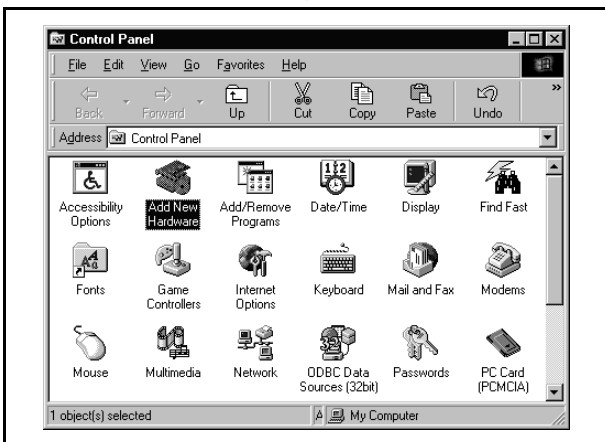Register the SSCNET communication drivers in the following procedure.

```
        ┌─────────────────────────────────────┐
        │ SSCNET communication driver registration │
        │ procedure                            │
        └─────────────────────────────────────┘
                        │
        ┌─────────────────────────────────────┐
        │ (1) Registration of fast refresh driver │
        └─────────────────────────────────────┘
                        │
        ┌─────────────────────────────────────┐
        │ (2) Registration of CH. 0 transient driver │
        └─────────────────────────────────────┘
                        │
        ┌─────────────────────────────────────┐
        │ (3) Registration of CH. 0 cyclic driver │
        └─────────────────────────────────────┘
                        │
                  ◇ Do you use CH.1, too? ──NO──┐
                        │ YES                    │
        ┌─────────────────────────────────────┐ │
        │ (4) Registration of CH. 1 transient driver │ │
        └─────────────────────────────────────┘ │
                        │                        │
        ┌─────────────────────────────────────┐ │
        │ (5) Registration of CH. 1 cyclic driver │ │
        └─────────────────────────────────────┘ │
                        │◄───────────────────────┘
        ┌─────────────────────────────────────┐
        │ (6) Adjustment of fast refresh driver │
        └─────────────────────────────────────┘
                        │
        ┌─────────────────────────────────────┐
        │ (7) Adjustment of CH. 0 transient driver │
        └─────────────────────────────────────┘
                        │
        ┌─────────────────────────────────────┐
        │ (8) Adjustment of CH. 0 cyclic driver │
        └─────────────────────────────────────┘
                        │
                  ◇ Do you use CH.1, too? ──NO──┐
                        │ YES                    │
        ┌─────────────────────────────────────┐ │
        │ (9) Adjustment of CH. 1 transient driver │ │
        └─────────────────────────────────────┘ │
                        │                        │
        ┌─────────────────────────────────────┐ │
        │ (10) Adjustment of CH. 1 cyclic driver │ │
        └─────────────────────────────────────┘ │
                        │◄───────────────────────┘
        ┌─────────────────────────────────────┐
        │ (11) Restart of personal computer    │
        └─────────────────────────────────────┘
                        │
        ┌─────────────────────────────────────┐
        │ End of SSCNET communication driver   │
        │ registration                         │
        └─────────────────────────────────────┘
```

4. SSCNET COMMUNICATION DRIVERS

(1) Registering the fast refresh driver
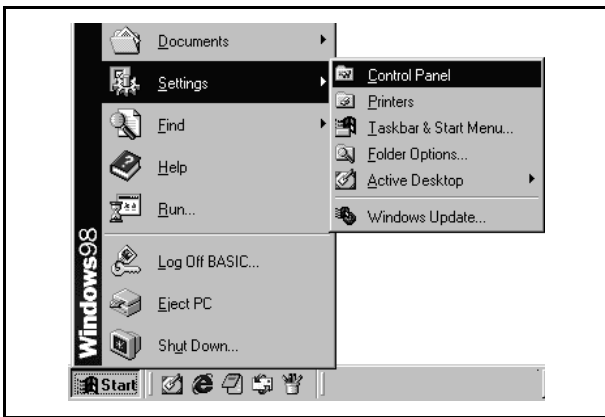
1) Click [Start] on the taskbar and move the cursor to [Settings].
Click [Control Panel].

2) The "Control Panel" window appears.
Double-click "Add New Hardware" from Control Panel.

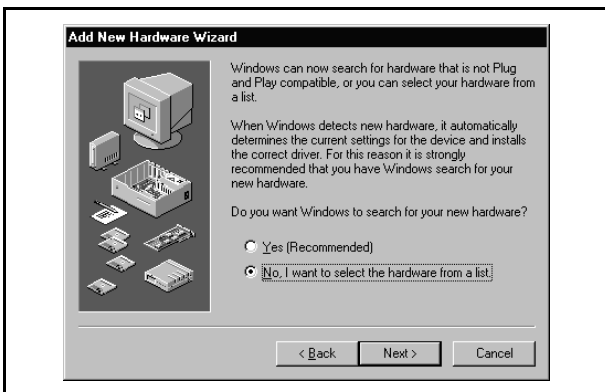3) The "Add New Hardware Wizard" screen appears.
Click [Next >].
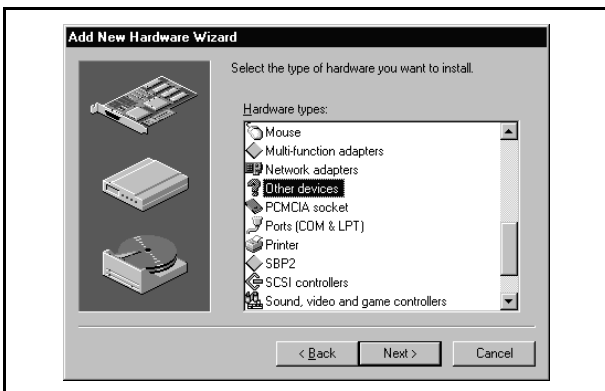
To next page

4. SSCNET COMMUNICATION DRIVERS

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4) Click [Next >].

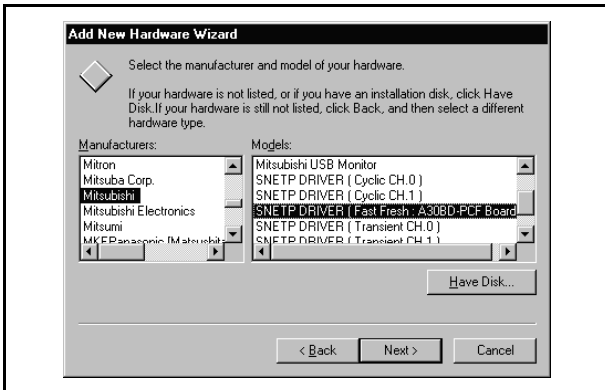5) Check "No, I want to select the hardware from a list." and click [Next >].

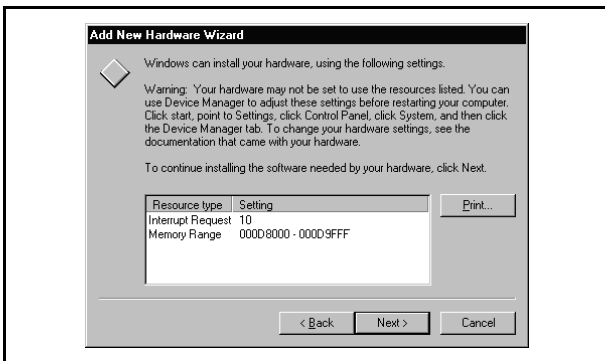6) Choose "Other devices" and click [Next >].

To next page

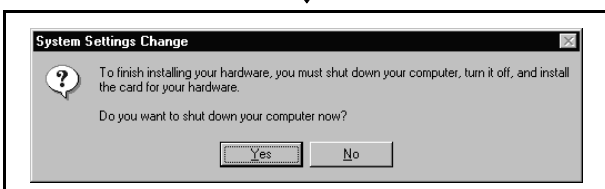# 4. SSCNET COMMUNICATION DRIVERS

From preceding page

7) Choose "Mitsubishi" as Maker and "SNETP DRIVER (Fast Fresh: A30BD-PCF Board)" as Model, and click [Next >].

8) Click [Next >].

9) Click [Finish].
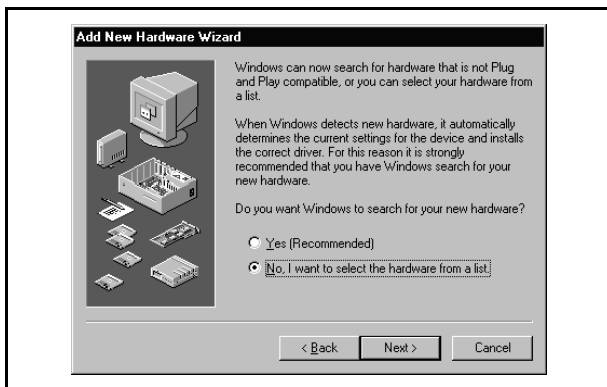

10) Click [No].

4. SSCNET COMMUNICATION DRIVERS
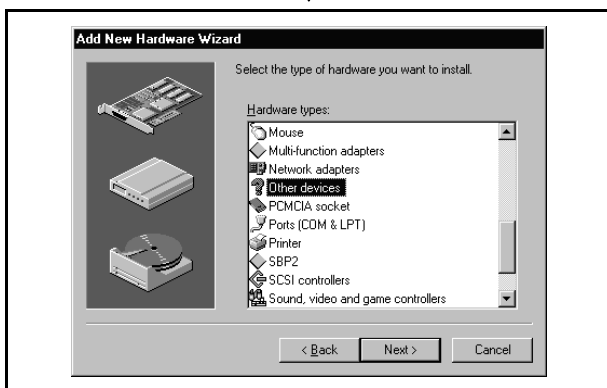
(2) Registering the CH. 0 transient driver

1) Double-click "Add New Hardware" from Control Panel.
   The "Add New Hardware Wizard" screen appears. Click [Next >].

2) Click [Next >].

3) Check "No, I want to select the hardware from a list." and click [Next >].

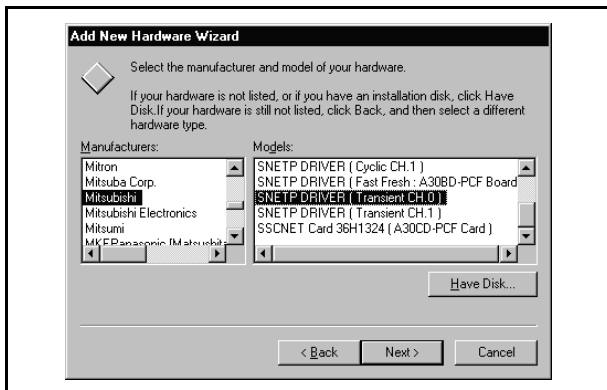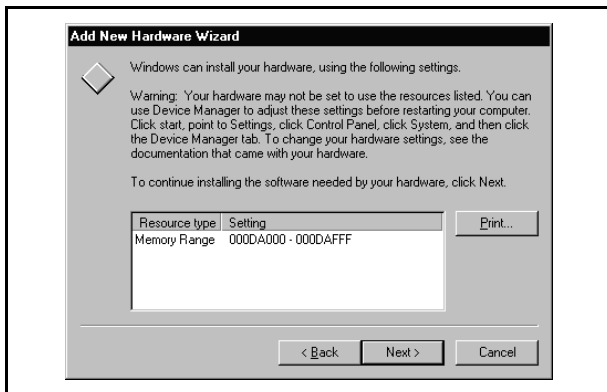4) Choose "Other devices" and click [Next >].

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4. SSCNET COMMUNICATION DRIVERS

5) Choose "Mitsubishi" as Maker and "SNETP DRIVER (Transient CH. 0)" as Model, and click [Next >].
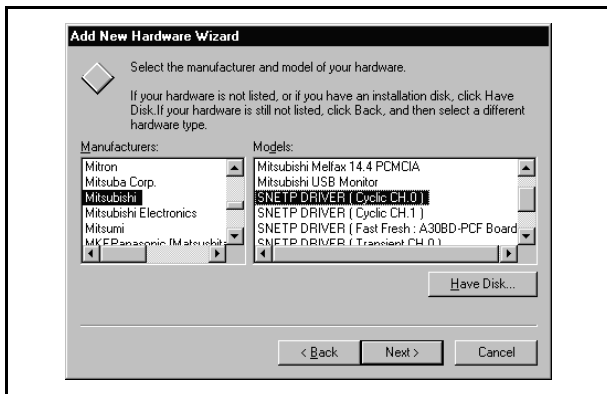

6) Click [Next >].

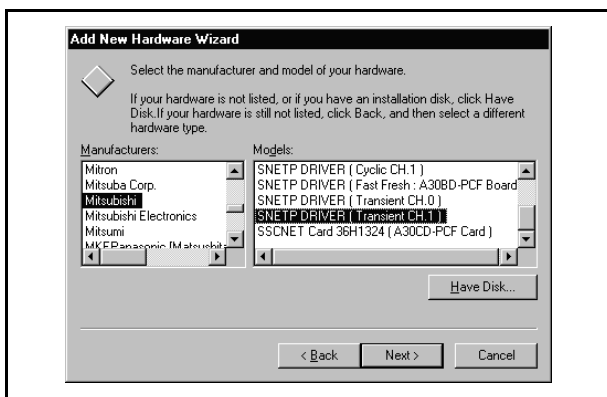
7) Click [Finish].

8) Click [No].

4. SSCNET COMMUNICATION DRIVERS

(3) Registering the CH. 0 cyclic driver

1) Register the CH. 0 cyclic driver in the procedure as in "(2) Registering the CH. 0 transient driver".
Note that "SNETP DRIVER (Cyclic CH. 0)" should be chosen as Model in the hardware maker and model selection window.

(4) Registering the CH. 1 transient driver

1) When not using CH. 1, you need not make this setting.
Proceed to "(6) Adjusting the fast refresh driver".
Register the CH. 1 transient driver in the procedure as in "(2) Registering the CH. 0 transient driver".
Note that "SNETP DRIVER (Transient CH. 1)" should be chosen as Model in the hardware maker and model selection window.

(5) Registering the CH. 1 cyclic driver

1) When not using CH. 1, you need not make this setting.
Proceed to "(6) Adjusting the fast refresh driver".
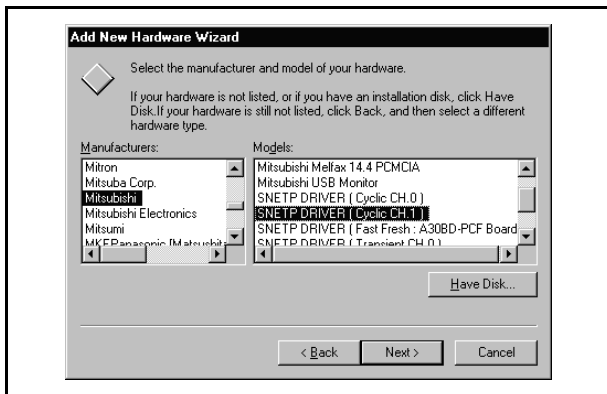Register the CH. 1 cyclic driver in the procedure as in "(2) Registering the CH. 0 transient driver".
Note that "SNETP DRIVER (Cyclic CH. 1)" should be chosen as Model in the hardware maker and model selection window.

4. SSCNET COMMUNICATION DRIVERS

(6) Adjusting the fast refresh driver
Adjust the IRQ and occupied addresses of the SSCNET communication drivers to the data assigned in detail setting of "SSCNET Communication Driver Setup".
The following example assumes that the following assignment was made in detail setting of "SSCNET Communication Driver Setup".
(Example)
- IRQ...................................... 11
- Memory Base Address....... D0000
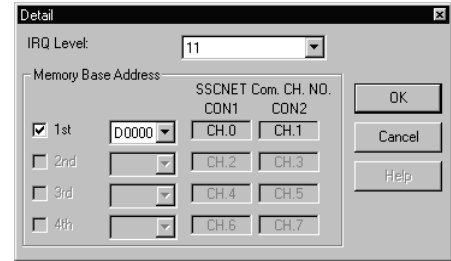
SSCNET Communication Driver Setup window
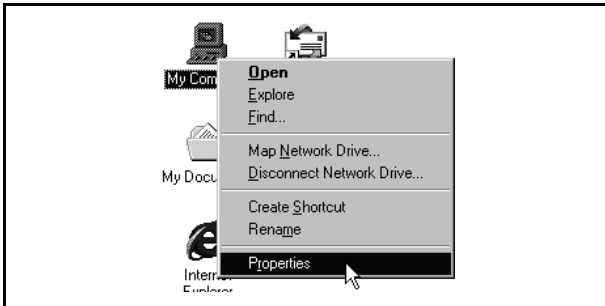
1) Choose and right-click the My Computer icon on the desktop.
The pop-up menu appears.
Click [Properties] from the pop-up menu.
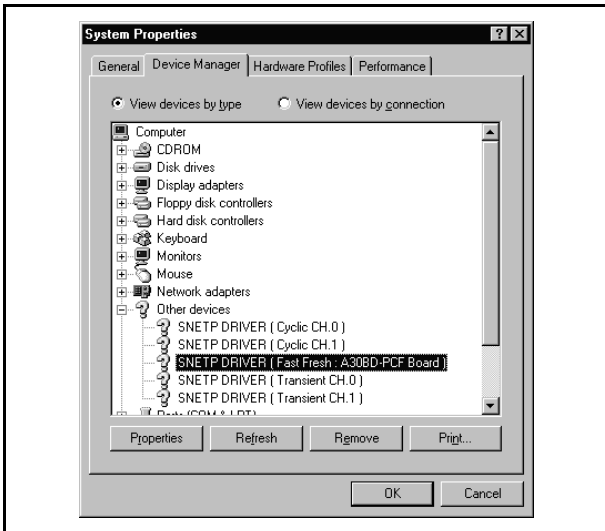
2) The "System Properties" window appears.
Click [Device Manager].
Choose and double-click "Other devices".
You can confirm the interface board drivers registered in (1) to (5).
- SNETP DRIVER (Transient CH. 0)
- SNETP DRIVER (Cyclic CH. 0)
- SNETP DRIVER (Transient CH. 1)*
- SNETP DRIVER (Cyclic CH. 1)*
- SNETP DRIVER (Fast Fresh: A30BD-PCF Board)
  *Displayed only when CH.1 is registered in driver registration.
  When CH. 1 is not used, these drivers are not registered and are not shown.
Here, choose "SNETP DRIVER (Fast Fresh: A30BD-PCF Board)" and click [Properties].

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4. SSCNET COMMUNICATION DRIVERS

From preceding page
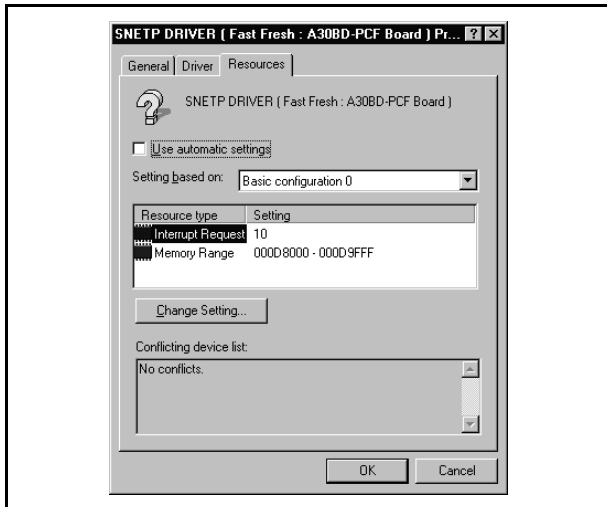
3) The "SNETP DRIVER (Fast Fresh: A30BD-PCF Board) Properties" window appears.
Click [Resources] and confirm the interrupt request and memory range.
- Adjustment is not needed if the settings are the same as in "SSCNET Communication Driver Setup".
Click [OK].
- If the settings differ from the "SSCNET Communication Driver Setup" data, choose the type of the resource to be changed and click [Change Setting...].

4) If the interrupt request (IRQ Level) differs, choose "Interrupt request" to highlight it, and click [Change Setting...].
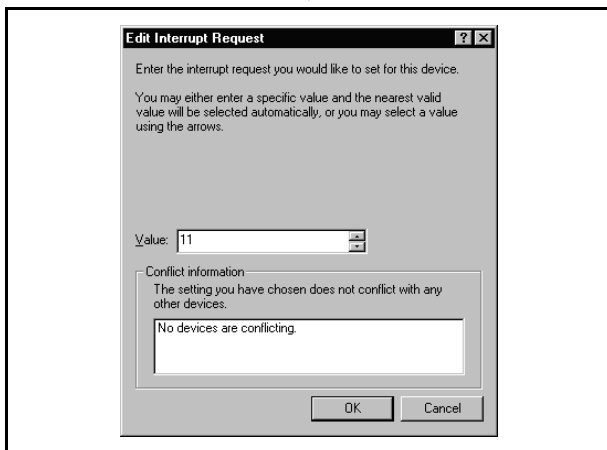
5) The "Edit Interrupt Request" window appears.
Type "11" in the Value field and click [OK].
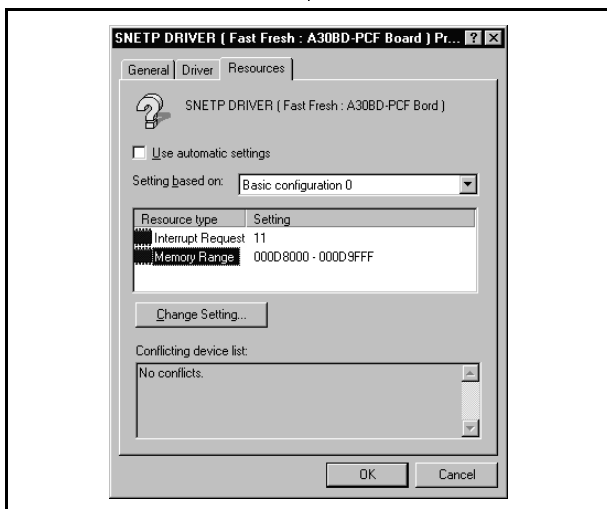
6) If the memory range (Memory Base Address) differs, choose "Memory range" to highlight it, and click [Change Setting...].

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4. SSCNET COMMUNICATION DRIVERS

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7) The "Edit Memory Range" window appears.
   Type "D0000-D1FFF" in the Value field and click
   [OK].
   *Section 4.4 (12) provides the SSCNET
    Communication Driver Setup Memory Base
    Address and driver memory range setting table.
    Use it for your reference.
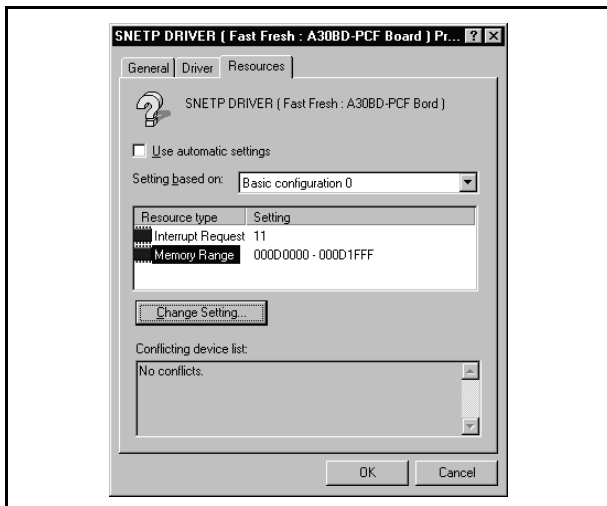
8) Click [OK].
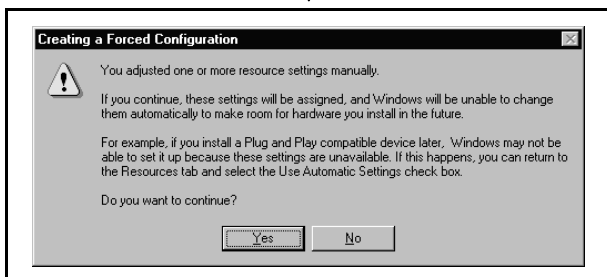
9) The "Creating a Forced Configuration" dialog box.
   Click [Yes].
   This finishes the adjustment of the fast refresh
   driver.

(7) Adjusting the CH. 0 transient driver
　　Adjust this driver as in the adjustment of the fast refresh driver.
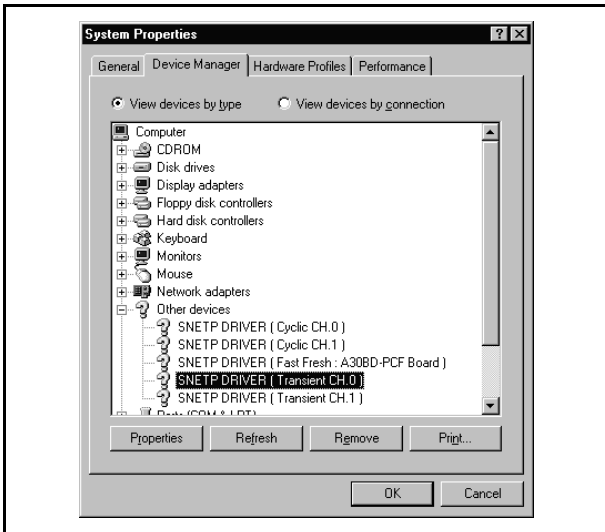
1) As in the adjustment of the fast refresh driver, choose Properties from the My Computer icon to show the "System Properties" window.
Click [Device Manager].
Choose and double-click "Other devices".
Choose "SNETP DRIVER (Transient CH. 0)" and click [Properties].
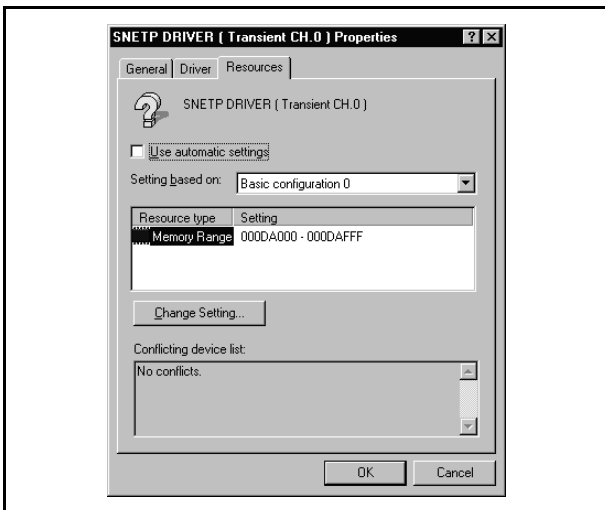
2) The "SNETP DRIVER (Transient CH. 0)" Properties" window appears.
Click [Resources].
Choose "Memory range" to highlight it and click [Change Setting...].
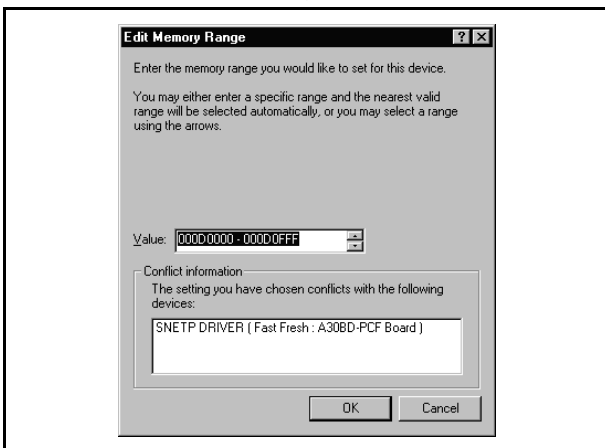
3) The "Memory Range" window appears.
Type "D0000-D0FFF" in the Value field and click [OK].
　*Set the same "Memory range" value as set in the fast refresh driver.
　*Section 4.4 (12) provides the SSCNET Communication Driver Setup Memory Base Address and driver memory range setting table. Use it for your reference.

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4. SSCNET COMMUNICATION DRIVERS
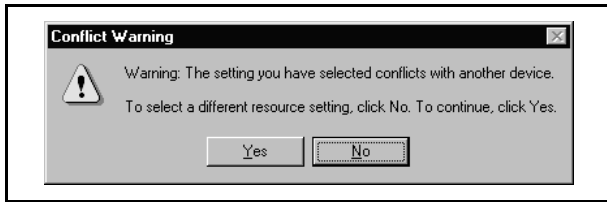
4) The "Conflict Warning" dialog box appears, but click [Yes].
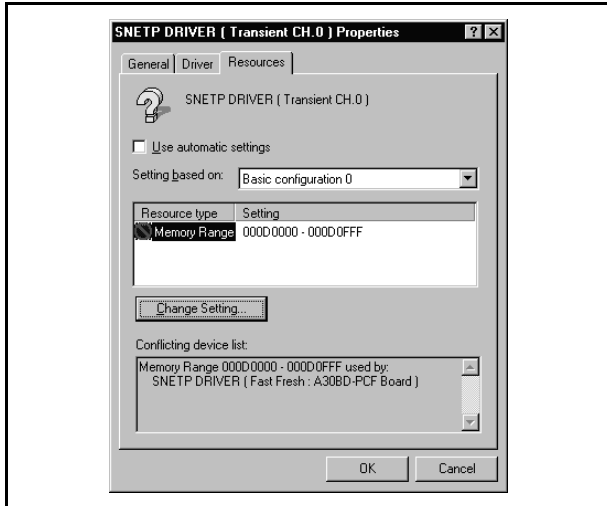
5) Click [OK].
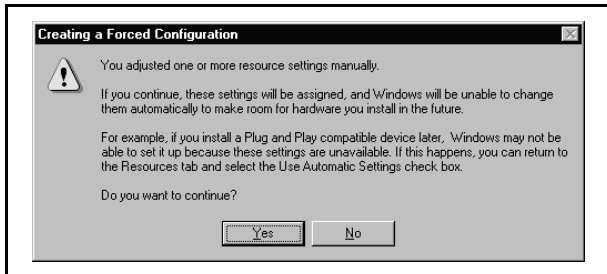
6) The "Creating a Forced Configuration" dialog box. Click [Yes].
   This finishes the adjustment of the CH. 0 transient driver.

(8) Adjusting the CH. 0 cyclic driver
   Adjust the CH. 0 cyclic driver in the procedure as in "(7) Adjusting the CH. 0 transient driver".
   Note that "SNETP DRIVER (Cyclic CH. 0)" should be selected in the "System Properties" window.
   Set the memory range for CH. 0 cyclic driver adjustment to the same value as the memory range of the CH. 0 transient driver.

4. SSCNET COMMUNICATION DRIVERS

(9) Adjusting the CH. 1 transient driver
When not using CH. 1, you need not adjust the CH. 1 transient driver. Proceed
to "(11) Restarting the personal computer".
(a) Adjust the CH. 1 transient driver in the procedure as in "(7) Adjusting the
CH. 0 transient driver".
Note that "SNETP DRIVER (Transient CH. 1)" should be selected in the
"System Properties" window.

(b) Set the memory range for CH. 1 transient driver adjustment to the value set
for the CH. 0 memory range plus "1000".
(example)
When the CH. 0 value is "000D0000-000D0FFF", set the CH. 1 transient
driver value to "000D1000-000D1FFF".

(10) Adjusting the CH. 1 cyclic driver
When not using CH. 1, you need not adjust the CH. 1 cyclic driver. Proceed to
"(11) Restarting the personal computer".
(a) Adjust the CH. 1 cyclic driver in the procedure as in "(7) Adjusting the CH.
0 transient driver".
Note that "SNETP DRIVER (Cyclic CH. 1)" should be selected in the
"System Properties" window.

(b) Set the memory range for CH. 1 cyclic driver adjustment to the same value
as the memory range of the CH. 1 transient driver.

(11) Restarting the personal computer
After all settings are over, click [Close] in "System Properties" to close the
window.
Click [Shut Down] in the Start menu to restart the personal computer.

(12) Memory Base Addresses of SSCNET Communication Driver Setup and
Memory Ranges of Drivers

Memory Base Address	Memory Range of Refresh Driver	Memory Ranges of Transient/Cyclic Driver	
		CH.0	CH.1
C0000	C0000h to C1FFFh	C0000h to C0FFFh	C1000h to C1FFFh
C4000	C4000h to C5FFFh	C4000h to C4FFFh	C5000h to C5FFFh
C8000	C8000h to C9FFFh	C8000h to C8FFFh	C9000h to C9FFFh
CC000	CC000h to CDFFFh	CC000h to CCFFFh	CD000h to CDFFFh
D0000	D0000h to D1FFFh	D0000h to D0FFFh	D1000h to D1FFFh
D4000	D4000h to D5FFFh	D4000h to D4FFFh	D5000h to D5FFFh
D8000	D8000h to D9FFFh	D8000h to D8FFFh	D9000h to D9FFFh
DC000	DC000h to DDFFFh	DC000h to DCFFFh	DD000h to DDFFFh

4. SSCNET COMMUNICATION DRIVERS

4.5 Stopping the SSCNET Communication Driver

When removing the interface board or interface card on Windows NT/98 from the personal computer, you need to stop the SSCNET communication driver.
(When removing the interface card on Windows 98, use the plug and play function of Windows. You need not perform the following operation.)
(1) For Windows NT
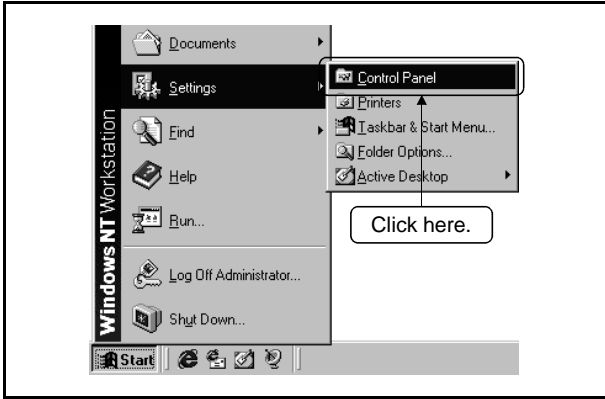
1) Click [Start] on the taskbar and move the cursor to [Settings].
   Click [Control Panel].
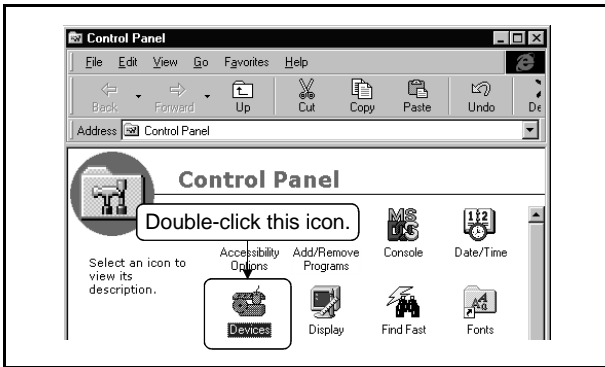
2) The Control Panel window appears.
   Double-click "Devices" from the Control Panel.
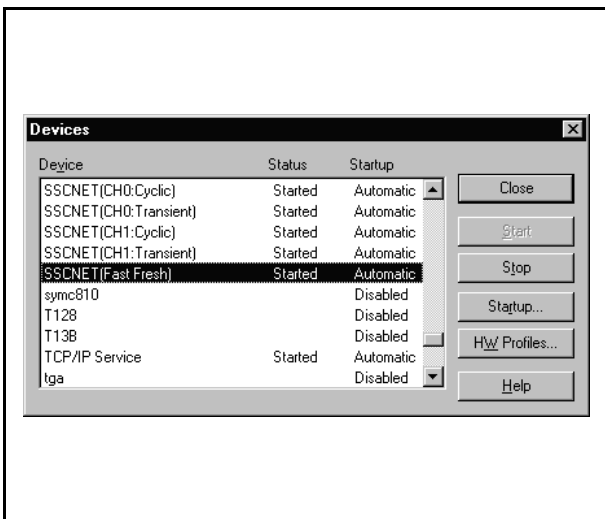
3) The "Devices" screen appears.
   The SSCNET communication devices appear in the device list.
   Make sure that the following devices are displayed.
   - SSCNET (CH. 0: Transient)
   - SSCNET (CH. 0: Cyclic)
   - SSCNET (CH. 1: Transient)*
   - SSCNET (CH. 1: Cyclic)*
   - SSCNET (Fast Fresh)
     *1: For the interface card, CH. 1 does not appear.
     *2: When you are using two or more interface boards, transient and cyclic communication devices for CH. 2 and later are displayed. When there are four boards fitted, devices for up to CH. 8 appear.
4) Choose SSCNET (Fast Fresh) and click [Startup...].

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Device

Device: SSCNET(Fast Fresh)

Startup Type
- Boot
- System
- Automatic
- Manual
- Disabled

[OK]
[Cancel]
[Help]
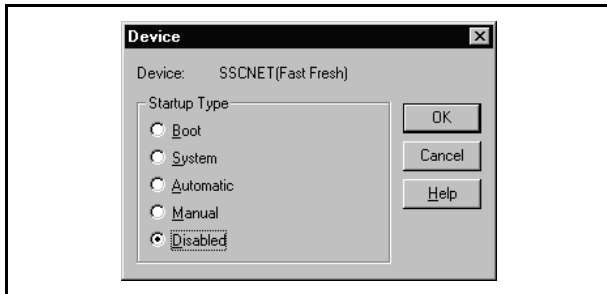
5) Choose "Disabled" from the Startup options and click [OK].

Devices

Device	Status	Startup
SSCNET(CH0:Cyclic)	Started	Automatic
SSCNET(CH0:Transient)	Started	Automatic
SSCNET(CH1:Cyclic)	Started	Automatic
SSCNET(CH1:Transient)	Started	Automatic
SSCNET(Fast Fresh)	Started	Automatic
symc810		Disabled
T128		Disabled
T13B		Disabled
TCP/IP Service	Started	Automatic
tga		Disabled

[Close]
[Start]
[Stop]
[Startup...]
[HW Profiles...]
[Help]
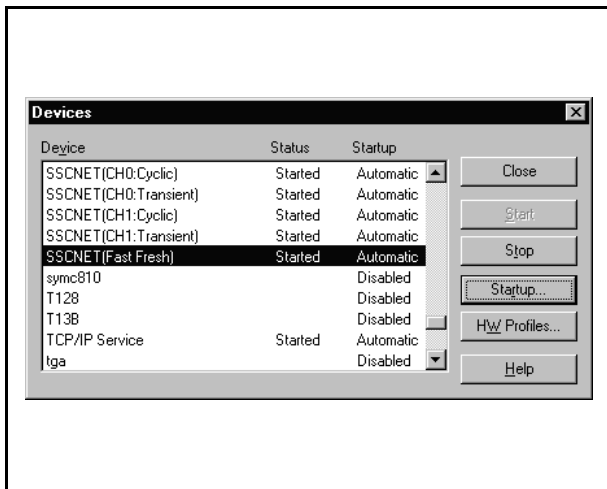
6) The "Devices" screen reappears.
   Perform the operations in steps 4) and 5) also for the other devices.
   - SSCNET (CH. 0: Transient)
   - SSCNET (CH. 0: Cyclic)
   - SSCNET (CH. 1: Transient)*1
   - SSCNET (CH. 1: Cyclic)*1
      *1: For the interface card, CH. 1 does not appear.
      *2: When you are using two or more interface boards, transient and cyclic communication devices for CH. 2 and later are displayed. When there are four boards fitted, devices for up to CH. 8 appear.

7) Click [Close].

8) Close the Control Panel and choose [Shut Down] in the Start menu to reboot the personal computer. The SSCNET communication driver stops after rebooting.
9) Before removing the interface card or interface board, choose [Shut Down] in the Start menu to power off the personal computer.

4. SSCNET COMMUNICATION DRIVERS
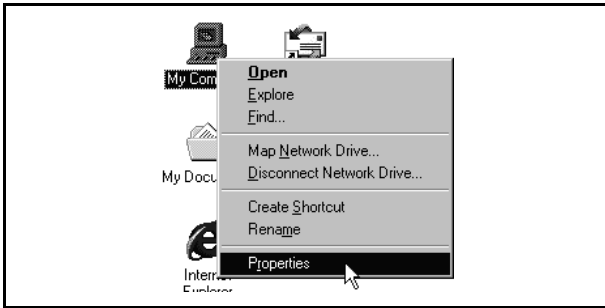
1) Select the My Computer icon on the desktop and right-click.
   The pop-up menu appears.
   Click [Properties] from the pop-up menu.
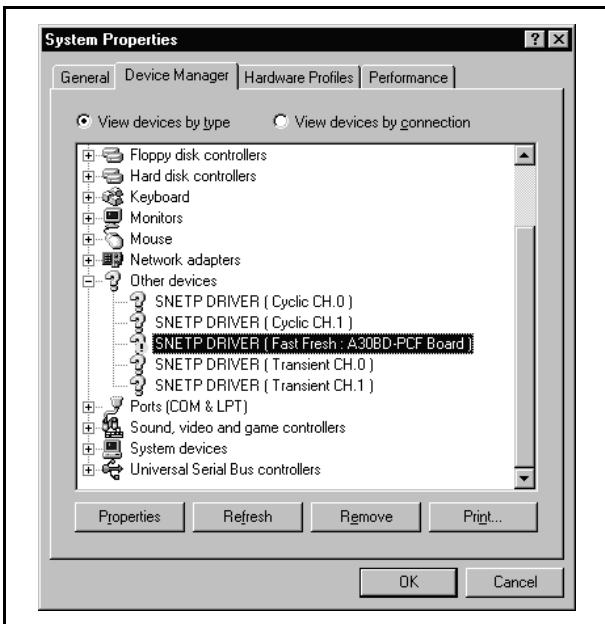
2) The "System Properties" window appears.
   Click [Device Manager].
   Choose "Other devices" and double-click.
   Check to see if there are the following devices in "Other devices".
   • SNETP DRIVER (Transient CH. 0)
   • SNETP DRIVER (Cyclic CH. 0)
   • SNETP DRIVER (Transient CH. 1)*
   • SNETP DRIVER (Cyclic CH. 1)*
   • SNETP DRIVER (Fast Fresh: A30BD-PCF Board)
     *These devices appear only when CH. 1 has been registered in driver registration.
     When CH. 1 is not used, they are not displayed since they have not been registered.
3) Choose "SNETP DRIVER (Fast Fresh: A30BD-PCF Board)" and click [Properties].
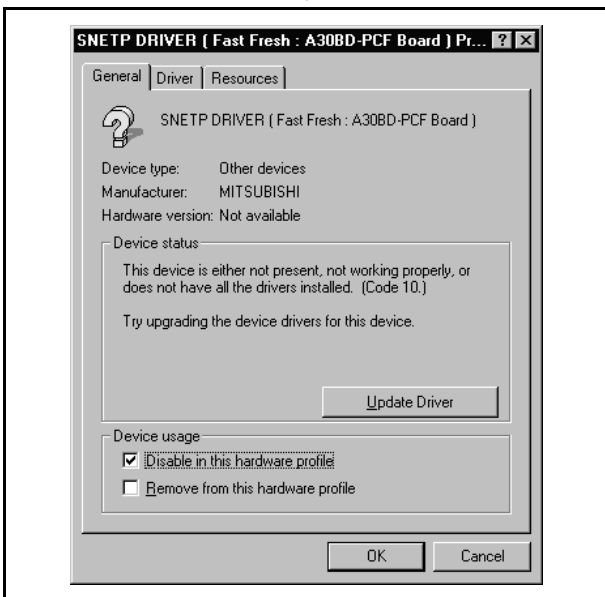
4) The "SNETP DRIVER (Fast Fresh: A30BD-PCF Board) Properties" window appears.
   Turn on "Disable in this hardware profile" under "Device usage" and click [OK].

To next page

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4. SSCNET COMMUNICATION DRIVERS
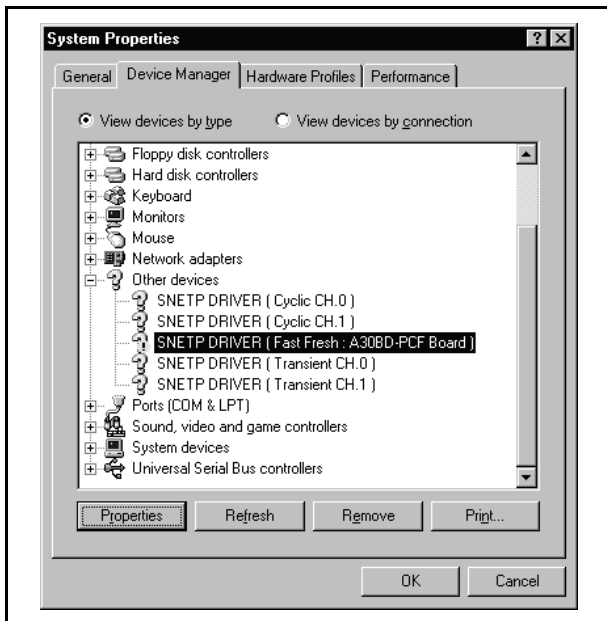
5) The "System Properties" window reappears.
   Perform the operations in steps 3) and 4) also for the other devices.
   • SNETP DRIVER (Transient CH. 0)
   • SNETP DRIVER (Cyclic CH. 0)
   • SNETP DRIVER (Transient CH. 1)*
   • SNETP DRIVER (Cyclic CH. 1)*
     *Perform operations only when CH. 1 has been registered in driver registration.
6) Click [OK] to close the "System Properties" window.

7) Choose "Shut Down" in the Start menu to reboot the personal computer.
   The SSCNET communication driver stops after rebooting.

8) Before removing the interface board, choose [Exit Windows] in the Start menu to power off the personal computer.

4.6 Communication Settings Using GSV[ ][ ]P

Communication settings must be made to start USB/RS232C/SSCNET communication.
To make communication settings, use the "Communication Setting" button in the "Communication Setting" menu or communication dialog box of GSV[ ][ ]P.

(1) When using the "Communication Setting" menu of GSV[ ][ ]P
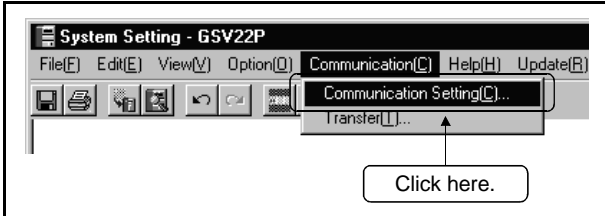
1) Choose "Communication" from the menu of GSV[ ][ ]P.
2) Click [Communication Setting] from the drop-down menu of Communication.
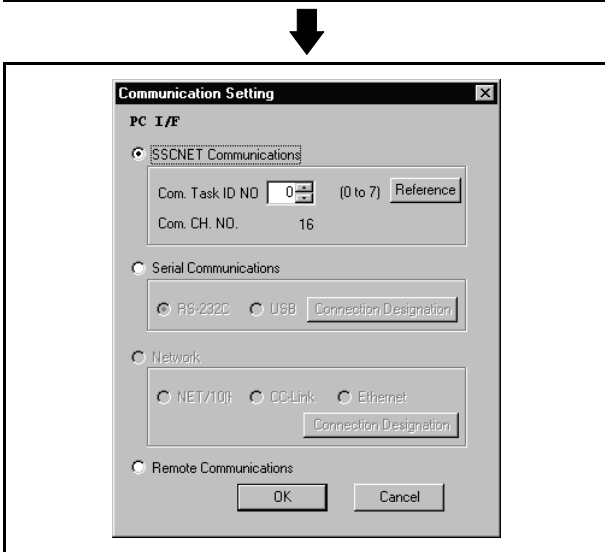
3) The communication setting dialog box appears.
4) Set USB/RS232C/SSCNET communication.
Refer to Help (SW6RNC-GSVHELPE) for the way to set USB/RS232C/SSCNET communication.

4. SSCNET COMMUNICATION DRIVERS

(2) When using the communication dialog box

Click here.
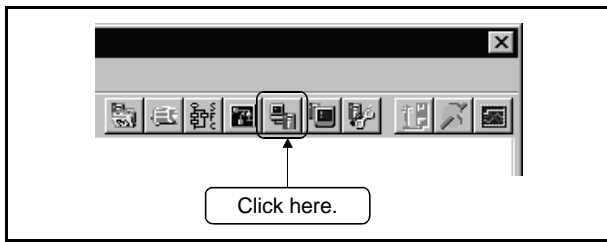
1) Click [Communication] from the Jump button of GSV[ ][ ]P.
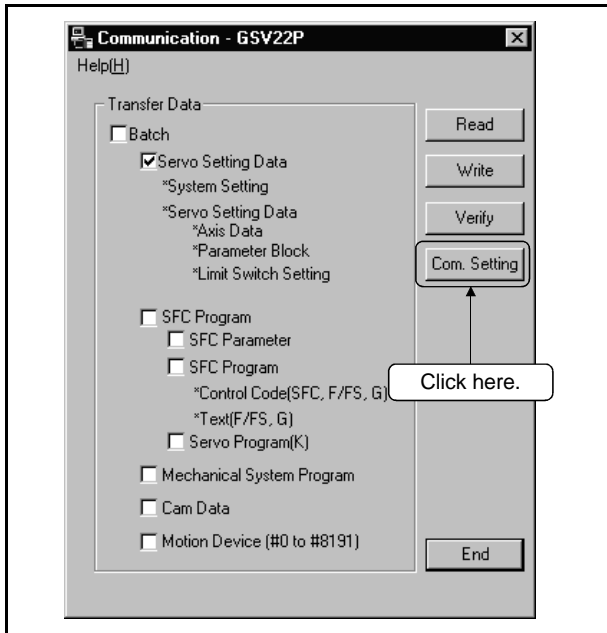
2) The communication dialog box appears.
   Click [Com. Setting].
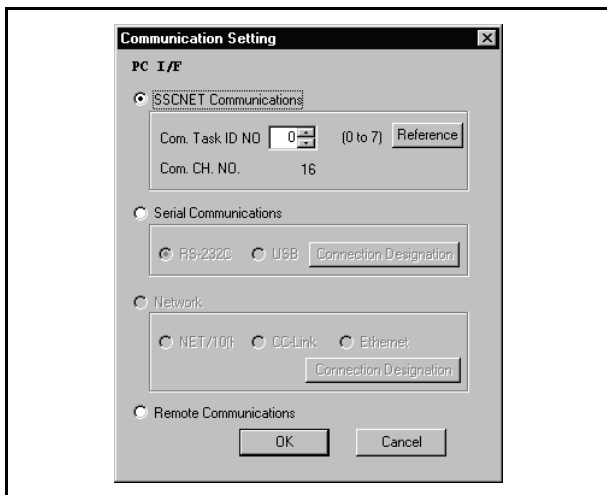
Click here.

3) The communication setting dialog box appears.
4) Set USB/RS232C/SSCNET communication.
   Refer to Help (SW6RNC-GSVHELPE) for the way to set USB/RS232C/SSCNET communication.

4. SSCNET COMMUNICATION DRIVERS
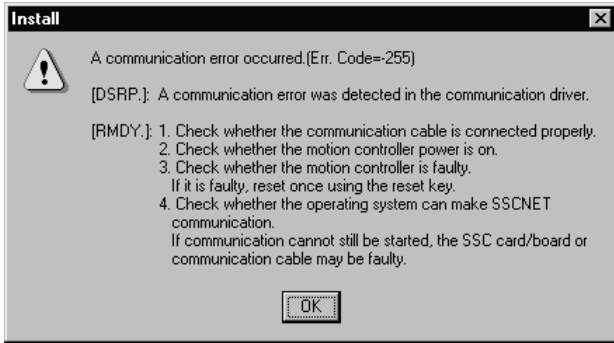
4.6.1 Communication errors

Any of the errors as indicated in Tables 4.2 and 4.3 may occur during communication started after communication settings.
In this case, take action in accordance with Table 4.2 or Table 4.3
(1) For SSCNET communication
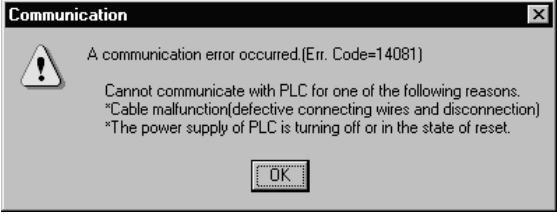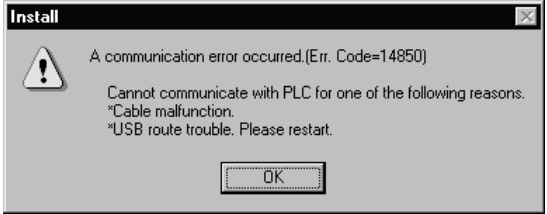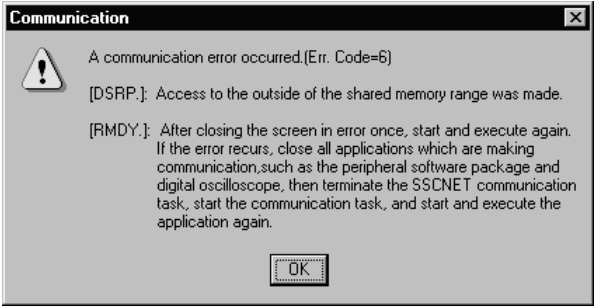
Table 4.2 Communication Error during SSCNET Communication

Error Code	Error Message
-255	
-252	 This error also occurs if SSCNET communication is made with the Q172/Q173CPU, with SW6RN-GSV[ ][ ]P Ver. 00A in either of the following statuses. • Communication is made with earlier SNETP that does not support the Q172/Q173CPU. • The new version of SNETP is installed without uninstalling an early version and communication is made. [Remedy] When making communication with the Q172/Q173CPU, uninstall old SNETP and SW6RN-GSV[ ][ ]P (refer to Section 3.5) and then install and use SW6RN-SNETP Ver. 00B or later and SW6RN-GSV[ ][ ]P Version 00B or later.

(2) For serial communication (USB/RS232C)

Table 4.3 Communication Errors during Serial Communication (USB/RS232C)

Error Code	Error Message
14081	 **Communication** ⚠ A communication error occurred.(Err. Code=14081) Cannot communicate with PLC for one of the following reasons. *Cable malfunction(defective connecting wires and disconnection) *The power supply of PLC is turning off or in the state of reset. [OK]
14850	 **Install** ⚠ A communication error occurred.(Err. Code=14850) Cannot communicate with PLC for one of the following reasons. *Cable malfunction. *USB route trouble. Please restart. [OK]
6	 **Communication** ⚠ A communication error occurred.(Err. Code=6) [DSRP.]: Access to the outside of the shared memory range was made. [RMDY.]: After closing the screen in error once, start and execute again. If the error recurs, close all applications which are making communication,such as the peripheral software package and digital oscilloscope, then terminate the SSCNET communication task, start the communication task, and start and execute the application again. [OK] This error also occurs if SSCNET communication is made with the Q172/Q173CPU, with SW6RN-GSV[ ][ ]P Ver. 00A in either of the following statuses. • Communication is made with an early version of SNETP that does not support communication via USB/RS232C. • The new version of SNETP is installed without uninstalling an early version and communication is made. [Action] When making communication with the Q172/Q173CPU, uninstall old SNETP and SW6RN-GSV[ ][ ]P (refer to Section 3.5) and then install and use SW6RN-SNETP Ver. 00B or later and SW6RN-GSV[ ][ ]P Version 00B or later.

POINT
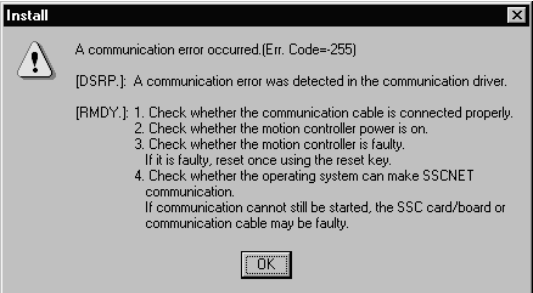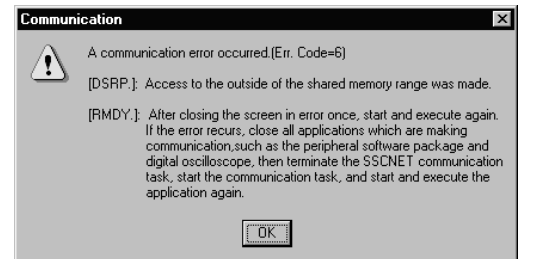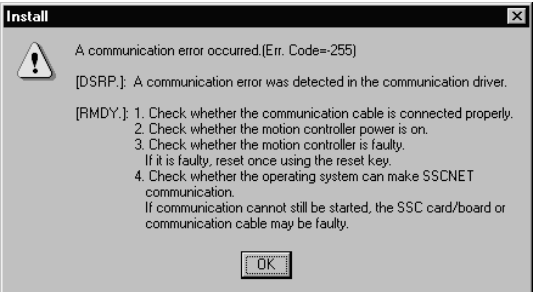
If a communication error occurs at any point during communication using RS232C, check the power saving setting of the personal computer.
If the RS232C item is valid in the power saving setting, make it invalid since an error may occur during communication.
For details of the power saving setting, refer to the manual of the personal computer used.

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5. TROUBLESHOOTING

5. TROUBLESHOOTING

Remedies for trouble are described in this section.
Refer to this section when you are in trouble.

5.1 GSV[ ][ ]P or DOSCP does not start or it is terminated during operation

No.	Phenomenon	Corresponding Version	Cause and remedy
1	When monitor, DOSCP or other application is started from the menu, the following message describing failure to find "sscpdr.dll" is displayed. • Windows NT • Windows 98 	SW6RN-GSV[ ][ ]P (Ver.00A) SW3RN-DOSCP	1) SNETP is not installed. Even if communication with the CPU is not made actually, SNETP must be installed. Refer to section 3.4.6(1) to install the best SNETP. If communication is made only with the Q172/Q173CPU, install SW6RN-SNETP(Ver.00A). • A list of applications for communication with the CPU is displayed. The following applications cause the phenomenon described to the left. (Applications other than those listed below operate without SNETP.) GSV[ ][ ]P : Monitor, communication, program editor, install, mechanical system editor, test, backup, servo data setting (for writing to servo amplifier) SW3RN-DOSCP: Digital oscilloscope 2) SNETP has been installed but is incompatible with the package given on the left. (SW6RN-SNETP (Ver. 00B or later) has been installed.) Refer to "3.7 Updating Instructions and Procedures" and update one set of SW6RNC-GSVE.
2	The communication starting procedure causes the following error and termination of the process. 	SW6RN-GSV[ ][ ]P (Ver.00A)	
3	Even when a Jump icon (monitor, digital oscilloscope or other applications for performing communication) of GSV[ ][ ]P is clicked on, jumping does not occur. (However, no error is caused.)		
4	When monitor, DOSCP or other application is started from the menu, the following message describing failure to find "sscpdr6.dll" is displayed. • Windows NT • Windows 98 	SW6RN-GSV[ ][ ]P (Ver.00B or later) SW6RN-DOSCP	1) SNETP is not installed. Even if communication with the CPU is not made actually, SNETP must be installed. Refer to section 3.1 "Installation" to install the SW6RN-SNETP (Ver. 00B or later. If communication is made only with the Q172/Q173CPU, install SW6RN-SNETP. • A list of applications for communication with the CPU is displayed. The following applications cause the phenomenon described to the left. (Applications other than those listed below operate without SNETP.) GSV[ ][ ]P : Monitor, communication, program editor, install, mechanical system editor, test, backup, servo data setting (for writing to servo amplifier) SW6RN-DOSCP: Digital oscilloscope 2) SNETP has been installed but is incompatible with the package given on the left. (SW6RN-SNETP (Ver. 00B or later) has been installed.) Refer to "3.7 Updating Instructions and Procedures" and update one set of SW6RNC-GSVE.
5	The communication starting procedure causes the following error and termination of the process. 	SW6RN-GSV[ ][ ]P (Ver.00B or later)	
6	Even when a Jump icon (monitor, digital oscilloscope or other applications for performing communication) of GSV[ ][ ]P is clicked on, jumping does not occur. (However, no error is caused.)		

5. TROUBLESHOOTING

5.2 If communication over SSCNET or via RS232C or USB fails with GSV[ ][ ]P

Refer to the description of "Remedy" in the error message basically for the action to be taken upon a communication error.
If the problem is not removed, refer to the table below for corrective action.

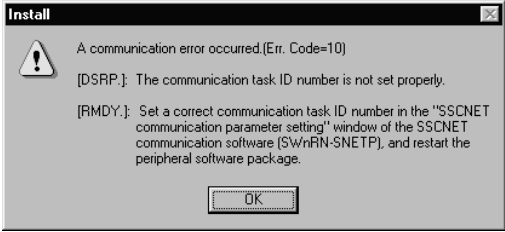| No.	Phenomenon	Cause and remedy
1	Communication error "-255" occurred during communication over SSCNET. Install A communication error occurred.(Err. Code=-255) [DSRP.]: A communication error was detected in the communication driver. [RMDY.]: 1. Check whether the communication cable is connected properly. 2. Check whether the motion controller power is on. 3. Check whether the motion controller is faulty. If it is faulty, reset once using the reset key. 4. Check whether the operating system can make SSCNET communication. If communication cannot still be started, the SSC card/board or communication cable may be faulty. OK	1) The actually connected channel does not agree with the setting. Refer to section 4.6 "Communication setting with GSV[ ][ ]P" to check the SSCNET communication channel. 2) The SSCNET communication driver is not set up correctly. Set up the SSCNET communication driver to perform communication over SSCNET. Refer to section 4.1 "SSCNET communication driver setup procedure" to set up the driver.
2	Communication error "-252" occurred during communication over SSCNET. Install A communication error occurred.(Err. Code=-252) [DSRP.]: An internal error occurred. [RMDY.]: Execute again. If the error recurs, close the screen in error once, then start and execute again. OK	When SW6RN-GSV[ ][ ]P (Ver. 00A) is in use, the phenomenon described on the left may occur. • Refer to "3.7 Updating Instructions and Procedures" and update one set of SW6RNC-GSVE. • When it is not updated, follow the remedy since the possible cause is any of the following 1) to 5). 1) SNETP of an early version is used. (A communication means (SSCNET, 232C or USB) that is not supported is designated, or SNETP of a version that does not support Q172/Q173 is used.) Uninstall the early version and install the new version of SNETP that supports the Q172/Q173CPU. (*1)
3	Communication error "6" occurred during communication via RS232C/USB. Communication A communication error occurred.(Err. Code=6) [DSRP.]: Access to the outside of the shared memory range was made. [RMDY.]: After closing the screen in error once, start and execute again. If the error recurs, close all applications which are making communication,such as the peripheral software package and digital oscilloscope, then terminate the SSCNET communication task, start the communication task, and start and execute the application again. OK	2) Two or more copies of SNETP of different versions are installed. Uninstall all copies of SNETP. If any system directory (file) of SNETP remains after they are uninstalled, delete using Explorer or the like. Next, install only one copy of SNETP of a version that supports the Q172/Q173CPU. (*1) 3) Both SW3RN-SNETP and SW6RN-SNETP are installed in one PC. Uninstall both SW3RN-SNETP and SW6RN-SNETP and install either one again. (*1)
4	Communication error "-255" occurred during communication via RS232C/USB. Install A communication error occurred.(Err. Code=-255) [DSRP.]: A communication error was detected in the communication driver. [RMDY.]: 1. Check whether the communication cable is connected properly. 2. Check whether the motion controller power is on. 3. Check whether the motion controller is faulty. If it is faulty, reset once using the reset key. 4. Check whether the operating system can make SSCNET communication. If communication cannot still be started, the SSC card/board or communication cable may be faulty. OK	4) Windows 98 and Windows NT are installed in one PC and SNETP of different versions is installed in each drive. Uninstall all copies of SNETP then install SNETP of a single version that supports the Q172/Q173CPU to both the Windows 98 and Windows NT drives. (*1) 5) Windows 98 and Windows NT are installed in one PC and SW3RN-SNETP and SW6RN-SNETP are installed in each drive. Uninstall all copies of SNETP then install SNETP of a single version that support the Q172/Q173CPU to both the Windows 98 and Windows NT drives. (*1)

*1: Refer to section 3.4.6(1) to install the best SNETP.
If communication is made only with the Q172/Q173CPU, install SW6RN-SNETP (Ver.00A).

5. TROUBLESHOOTING

No.	Phenomenon	Cause and remedy
5	Communication error "10" occurred during communication over SSCNET. **Install** ⊠ ⚠ A communication error occurred.(Err. Code=10) [DSRP.]: The communication task ID number is not set properly. [RMDY.]: Set a correct communication task ID number in the "SSCNET communication parameter setting" window of the SSCNET communication software (SWnRN-SNETP), and restart the peripheral software package. [OK]	1) SW3RN-SNETP was booted. Exit from SW3RN-SNETP and boot SW6RN-SNETP.

*1: Refer to section 3.4.6(1) to install the best SNETP.
    If communication is made only with the Q172/Q173CPU, install SW6RN-SNETP (Ver.00A).
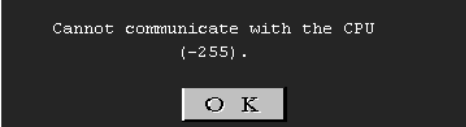
5. TROUBLESHOOTING

5.3 If communication over SSCNET fails with DOSCP

No.	Phenomenon	Cause and remedy

1	Communication error "50" or "51" occurred.
	
	Cannot communicate with the CPU (50).
	O K
	
	Cannot communicate with the CPU (51).
	O K
		When SW3RN-DOSCP is in use
		• SW3RN-SNETP is not booted.
		  Boot SW3RN-SNETP.
		
		When SW6RN-DOSCP is in use
		• SW6RN-SNETP (Ver. 00B or later) is not booted.
		  Boot SW6RN-SNETP (Ver. 00B or later).

2	Communication error "10" occurs.
	
	Cannot communicate with the CPU (10).
	O K
		When SW3RN-DOSCP is in use
		• SW6RN-SNETP (Ver. 00B or later) has been booted.
		  Exit from SW6RN-SNETP (Ver. 00B or later) and boot SW3RN-SNETP.
		
		When SW6RN-DOSCP is in use
		• SW3RN-SNETP has been booted.
		  Exit from SW3RN-SNETP and boot SW6RN-SNETP (Ver. 00B or later).

3	Communication error "-255" occurs.
	
	Cannot communicate with the CPU (-255).
	O K
		The actually connected channel does not agree with the setting. Check the communication channel. (For the channel setting checking method, refer to the help of DOSCP.)
		
		When SW3RN-DOSCP is in use, the phenomenon described on the left may occur.
		• Refer to "3.7 Updating Instructions and Procedures" and update one set of SW6RNC-GSVE.
		  After that, boot SW6RN-DOSCP.
		• When SW3RN-DOSCP is in use, follow the remedy since the possible cause is any of the following 1) to 5).
		  1) SNETP of an early version is used. (A communication means (SSCNET, 232C or USB) that is not supported is designated, or SNETP of a version that does not support Q172/Q173 is used.)
		  Uninstall the early version and install the new version of SNETP that supports the Q172/Q173CPU. (*1)
		  2) Two or more copies of SNETP of different versions are installed.
		  Uninstall all copies of SNETP.
		  If any system directory (file) of SNETP remains after they are uninstalled, delete using Explorer or the like.
		  Next, install only one copy of SNETP of a version that supports the Q172/Q173CPU. (*1)
		  3) Both SW3RN-SNETP and SW6RN-SNETP are installed in one PC.
		  Uninstall both SW3RN-SNETP and SW6RN-SNETP and install either one again. (*1)
		  4) Windows 98 and Windows NT are installed in one PC and SNETP of different versions is installed in each drive.
		  Uninstall all copies of SNETP then install SNETP of a single version that supports the Q172/Q173CPU to both the Windows 98 and Windows NT drives. (*1)
		  5) Windows 98 and Windows NT are installed in one PC and SW3RN-SNETP and SW6RN-SNETP are installed in each drive.
		  Uninstall all copies of SNETP then install SNETP of a single version that support the Q172/Q173CPU to both the Windows 98 and Windows NT drives. (*1)

*1: Refer to section 3.4.6(1) to install the best SNETP.
If communication is made only with the Q172/Q173CPU, install SW6RN-SNETP (Ver.00A).

5. TROUBLESHOOTING

No.	Phenomenon	Cause and remedy
4	Communication error "12" occurs. Cannot communicate with the CPU (12). O K	The SSCNET communication driver is not set up correctly. To perform communication over SSCNET, set up the SSCNET communication driver. To do this, refer to section 4.1 "SSCNET communication driver setup procedure."

*1: Refer to section 3.4.6(1) to install the best SNETP.
  If communication is made only with the Q172/Q173CPU, install SW6RN-SNETP (Ver.00A).
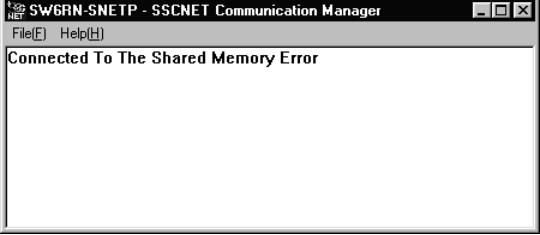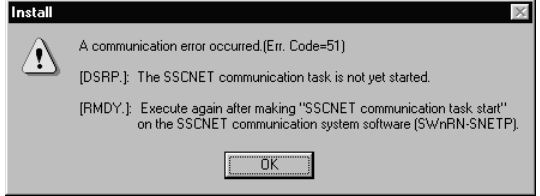
5.4 If no sampling data is obtained from DOSCP

No.	Phenomenon	Cause and remedy
1	No sampling data is obtained. (The waveform is not detected.)	1) The SSCNET communication driver is not set up correctly. To perform communication over SSCNET, set up the SSCNET communication driver. To do this, refer to section 4.1 "SSCNET communication driver setup procedure." 2) The channel setting is OFFLINE. After clicking the [MENU] button, click the [CHANNEL] button to display the "Communication setting window", choose the correct channel, and set ONLINE.

5.5 During USB communication, communication error occurred and communication is not recovered from error

No.	Phenomenon	Cause and remedy
1	A communication error occurred during USB communication with the motion CPU, and communication is not recovered from the error.	Any of operations 1) to 3) was performed during USB communication with the motion CPU. 1) The USB cable was disconnected and connected during communication with the motion CPU. 2) The motion CPU was reset. 3) The motion CPU was powered on/off frequently. Do not perform any of operations 1) to 3) during USB communication. Doing so may cause a communication error, from which communication cannot be recovered. If any of operations 1) to 3) is to be performed, put the GSV applications in an offline status* where possible. If communication is not recovered from the error, disconnect the USB cable once, and after 5 or more seconds have elapsed, reconnect it. (The communication error may occur at the first time after the above operation is performed, but communication will return to normal at the second time and later.) Depending on the personal computer model, however, communication may not be recovered from the error if the above operation is performed. In that case, reset the personal computer. *Offline status: Status in which communication is not made with the motion CPU (In an online status, program/parameter read/write, monitoring, test or like is in execution.)

5.6   SNETP cannot be booted properly

No.	Phenomenon	Cause and remedy
1	The SSCNET communication manager window displays "Shared memory connection error" and SNETP is not booted properly. If SSCNET communication is started in this status, communication error "51" will occur. 	With SW6RN-SNETP and GX Developer booted, operation to exit from SNETP was performed in the procedure of 1) to 3). 1) Exit from SNETP. 2) Here, the VLINKS window remains. (It remains since it is also used on GX Developer.) 3) Close the VLINKS window manually. If the operation to exit from SNETP is performed in the procedure 1) to 3), VLINKS cannot be booted properly at the next start of SNETP, causing the phenomenon given on the left. If you have closed VLINKS manually, exit from GX Developer once and restart SW6RN-SNETP.

5.7   When GX Developer is booted, "Can not allocate Share memory" error occurs

No.	Phenomenon	Cause and remedy
1	When GX Developer is booted, "Can not allocate Share memory" error occurs. 	Booting GX Developer during termination of SNETP may cause the phenomenon given on the left. If this error has occurred, exit from GX Developer once and reboot GX Developer.

5.8   RS232C communication baud rate remains unchanged

No.	Phenomenon	Cause and remedy
1	If you change the baud rate setting of RS232C communication, it is not reflected on the actual communication baud rate.	When making RS232C communication on the same port using GSV[ ][ ]P, DOSCP and GX Developer, use the same baud rate setting. If RS232C communication is made at different settings, the setting used at the first communication started is made valid. Before changing the baud rate setting, stop communication with all CPUs once.

5.9   When SNETP is booted, "Not enogh memory" error occurs

No.	Phenomenon	Cause and remedy
1	When SNETP is booted, "Not enogh memory" error occurs. 	When SNETP is booted in the order of SW6RN-SNETP Ver. 00B or later and SW3RN-SNETP Ver. 00G or earlier, SW3RN-SNETP displays the error given on the left and does not start. Exit from SW3RN-SNETP.

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