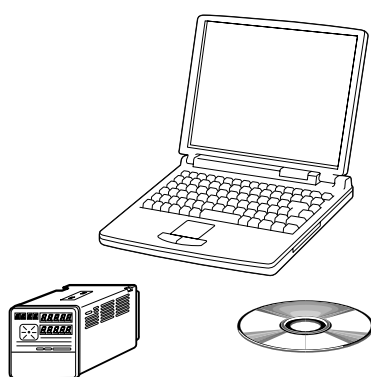


**SLP-P30
Smart Loader Package
for
DCP31/32
DIGITRONIK
Digital Program Controller
User's Manual**



Thank you for purchasing the SLP-P30 for DCP31/32 DIGITRONIK Digital Program Controller.

This manual contains information for ensuring correct use of the SLP-P30. It also provides necessary information for installation, maintenance, and troubleshooting.

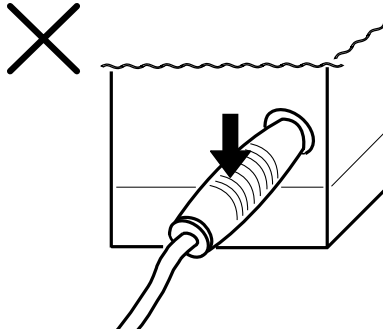
This manual should be read by those who design and maintain devices that use the SLP-P30.

Be sure to keep this manual nearby for handy reference.

Azbil Corporation

IMPORTANT

Do not apply strong force while connecting a loader plug. Doing so might damage the instrument.



! Handling Precautions

Application of excessive force to the loader plug might cause communication failure. If such failure happens, reconnect the loader plug correctly.

NOTICE

Be sure that the user receives this manual before the product is used.

Copying or duplicating this user's manual in part or in whole is forbidden. The information and specifications in this manual are subject to change without notice.

Considerable effort has been made to ensure that this manual is free from inaccuracies and omissions. If you should find an error or omission, please contact the azbil Group.

In no event is Azbil Corporation liable to anyone for any indirect, special or consequential damages as a result of using this product.

© 2004-2013 Azbil Corporation All Rights Reserved.

The DIGITRONIK™ is a trademark of Azbil Corporation in Japan.

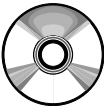

Unpacking

Check the following items when removing the SLP-P30 from its package:

1. Check the model No. to make sure that you have received the product which you ordered.
2. Check the SLP-P30 for any apparent physical damage.
3. Check the contents of the package against the Package List to make sure that all accessories are included in the package.

After unpacking, handle the SLP-P30 and its accessories with care to prevent damage or loss of parts.

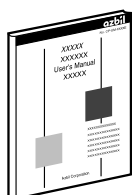
If an inconsistency is found or the package contents are not in order contact your dealer, immediately.

Name	Model No.	Q'ty	Remarks
System disk 	SLP-P30J50	1	CD-ROM
Dedicated cable	-	1	-
User's Manual 	CP-UM-1759JE	1	This manual. This manual is written in both Japanese and English.

The Role of This Manual

The 4 manuals described below are available for the DCP31/32. Read them as necessary for your specific requirements.

If a manual you require is not available, contact the azbil Group or your dealer.

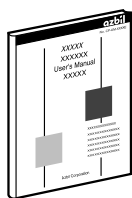


DCP31 DIGITRONIK Digital Program Controller User's Manual

Manual No. CP-UM-1757E

This manual is provided with the DCP31 (single-loop model). It is required reading for those in charge of designing, producing and maintaining control systems incorporating the DCP31, and for those using the DCP31 in other applications.

It describes mounting onto control panels, wiring, parameter setup, program setup, operation methods, maintenance and inspection, troubleshooting and specifications.

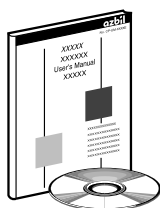


DCP32 DIGITRONIK Digital Program Controller User's Manual

Manual No. CP-SP-1042E

This manual is provided with the DCP32 (double-loop model). It is required reading for those in charge of designing, producing and maintaining control systems incorporating the DCP32, and for those using the DCP32 in other applications.

It describes mounting onto control panels, wiring, parameter setup, program setup, operation methods, maintenance and inspection, troubleshooting and specifications.



SLP-P30 Smart Loader Package for DCP31/32 User's Manual

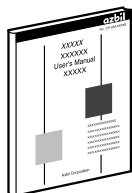
Manual No. CP-UM-1759JE

This manual. This manual is written in both Japanese and English.

This manual is supplied with the Smart Loader Package SLP-P30. The manual describes the software used to make various settings for the DCP31/32 using a personal computer.

Personnel in charge of design or configuration of a system using the DCP31/32 must thoroughly read this manual.

The manual describes software installation, operation of the personal computer, various functions, and setup procedures.



DCP31/32 DIGITRONIK CPL Communication User's Manual

Manual No. CP-SP-1066E

This manual is required reading for those using the CPL communications functions of the DCP31/32.

This manual outlines CPL communications, wiring, communications procedures and DCP31/32 communications data, troubleshooting, and communications specifications.

Organization of This User's Manual

This manual is organized as follows:

Chapter 1. INTRODUCTION

Be sure to read this chapter before you start using the Smart Loader Package. The chapter describes the required operating environment for the personal computer and briefly introduces the features of the Smart Loader Package.

Chapter 2. INSTALLATION AND BASIC OPERATION

This chapter describes how to install, start and quit the SLP-P30, and summarizes its functions, screen configurations and basic operations.

Chapter 3. METHODS OF OPERATION

This chapter describes setup operations for environment, file operations, communications with the DCP31/32 and data.

Chapter 4. TROUBLESHOOTING


This chapter describes error messages and remedies for problems that may occur.


Conventions Used in This Manual

The following conventions are used in this manual:

Handling Precautions:

Handling Precautions indicate items that the user should pay attention to when handling the SLP-P30.

 **Note:** Notes indicate useful information that the user might benefit by knowing.

: This indicates the item or page that the user is requested to refer to.

(1), (2), (3): The numbers within the parentheses indicate steps in a sequence or indicate corresponding parts in an explanation.

[OK] button: Indicates a selection button on a personal computer screen.

[File]: Indicates messages and menus displayed on the personal computer.

[File] → [New]: Indicates a sequence of selections on a personal computer. Select [File] first and then select [New].

>>: Indicates the result of an operation, details displayed on the personal computer or other devices, or the state of a device after an operation.

[Ctrl] key: Indicates keys on the keyboard.

[x] key

[Ctrl]+[x] keys: Indicates the operation of pressing the [x] key with the [Ctrl] key on the keyboard held down.

Contents

Unpacking	
The Role of This Manual	
Organization of This User's Manual	
Conventions Used in This Manual	

Chapter 1. INTRODUCTION

1-1 Overview	E1
1-2 System Operating Environment	E2
■ Hardware	E2
■ Hardware configuration	E2
■ Personal computer used for confirmation of operating environment ..	E2

Chapter 2. INSTALLATION AND BASIC FUNCTION

2-1 Installation, Starting and Quitting the Software Package	E3
■ Installation	E3
■ Installing the device driver	E7
■ Uninstalling the device driver	E12
■ Starting the SLP	E13
■ Quitting the SLP	E14
2-2 Description of Functions	E15
■ SLP functions	E15
2-3 Screen Configuration	E16
■ SLP screen configuration	E16
2-4 Menu Configuration List	E17

Chapter 3. METHODS OF OPERATION

3-1 Type Setup and Environment Setup	E18
■ Type setup	E18
■ Environment setup	E20
3-2 File Operations	E21
■ Making new files	E21
■ Opening existing files	E21
■ Overwriting and saving files	E21
■ Saving files with a new name	E22
■ Outputting CSV format files	E22
■ Outputting HTML format files	E22
3-3 Communications with the DCP	E23
■ Communication from the DCP to the SLP (reading from the DCP)	E23
■ Communication from the SLP to the DCP (writing to the DCP)	E23

3-4	Setting up Data	E24
■	Selecting setup items	E24
■	Entering numerical data	E24
3-5	Editing Program Patterns	E26
■	Editing segments	E26
■	Copying and pasting program patterns	E27
■	Changing tags	E28
■	ASCII code table	E28
3-6	Displaying Graphs	E29
■	Displaying program pattern graphs	E29
■	Displaying input line graphs	E29
3-7	Data Check.....	E30
■	Checking the high and low limits of all data	E30
■	Displaying items with abnormal values	E30

Chapter 4. TROUBLESHOOTING

4-1	Error Messages	E31
■	Communications error messages	E31
■	File error messages	E31
■	Startup error messages	E32

Chapter 1. INTRODUCTION

1 - 1 Overview

The SLP-P30 (simply called “SLP” from here on) is an engineering tool for the DIGITRONIK Digital Program Controller DCP31/32 (simply called “DCP” from here on).

The SLP runs on Windows XP Home Edition/XP Professional/Vista (32 bit type)/7 (32 bit type, 64 bit type) (simply called “Windows” from here on) on a personal computer.

The SLP has the following functions:

- (1) Program pattern editing and parameter editing
- (2) Data communication (program patterns, writing/reading of parameters)
- (3) File management (program patterns, writing/reading of parameters)

1 - 2 System Operating Environment

The following system environment is required for using the loader:

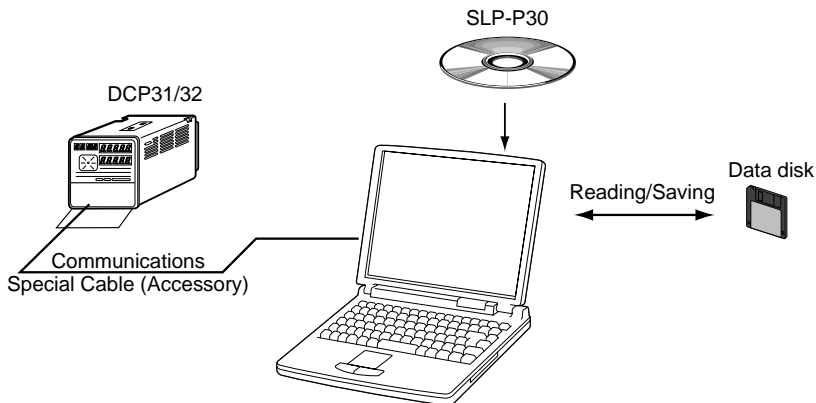
■ Hardware

Item	Description	
Personal Computer	Target model	PC/AT compatibles with a Pentium chip or higher
	Memory	32 MB or more
	Operating system	Windows XP Home Edition/XP Professional/Vista (32 bit type)/ 7 (32 bit type, 64 bit type)
Peripheral Devices	Display	800 x 600 pixels or more, 16-bit color or more
	USB port	1 port or more
	Hard disk drive	Hard disk with at least 40 MB of free space
	CD-ROM drive	1 drive or more.
	Pointing device	Windows-compatible mouse or equivalent device

! Handling Precautions

- Before starting up SLP-P30, quit all other applications. If you start up SLP-P30 while another application is running, SLP-P30 may malfunction.
- This loader is so designed that it runs on almost all the PC/AT compatibles.
- The communication time-out may occur if the loader is connected through the RS-232C communication for an extended period of time while Windows' power management is running. In this case, turn OFF the power management (power management setting of Control Panel).

■ Hardware configuration



■ Personal computer used for confirmation of operating environment

Manufacturer	Model No.
Dell	OptiPlex G1

Chapter 2. INSTALLATION AND BASIC FUNCTION

2 - 1 Installation, Starting and Quitting the Software Package

■ Installation

Install the SLP on the hard disk of a personal computer.

Keep the system disk that you purchased as a backup.

This section describes how to install the SLP on a personal computer.

! Handling Precautions

- This disk does not contain the PC operating system, and you cannot use it without an operating system.
- The installation program may malfunction if you start it while another application is running. Close other applications before starting up the installation program. The SLP sometimes cannot be started depending on the combination of other applications and drivers.

For details on Windows and personal computer settings, refer to their user's manuals.

● Installing the SLP

(1) Put the CD in the CD-ROM drive of your personal computer.

>> The following screen appears for installing the driver for the USB loader cable and selecting a SLP model.



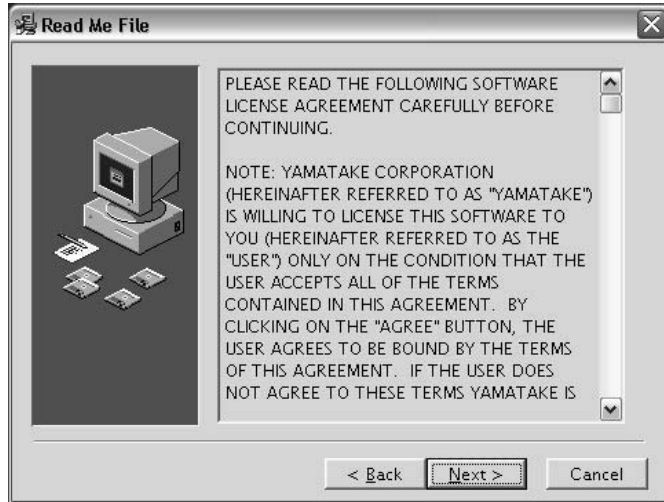
(2) Click the [Install SLP] button.

>> The following screen appears:



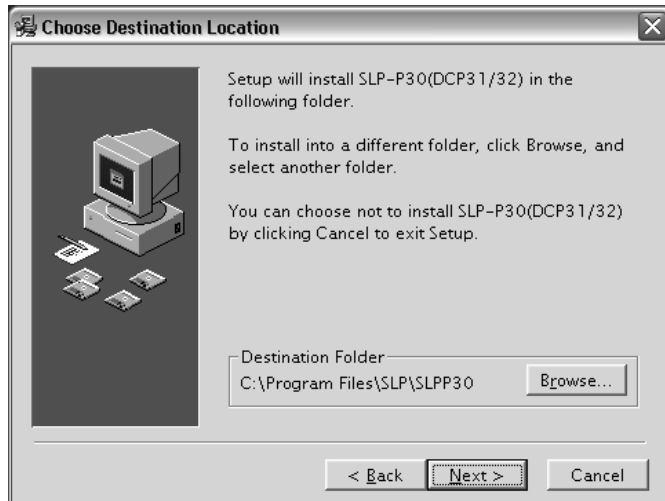
(3) Click the [Next >] button.

>>The following screen appears:



(4) If you agree to the software license agreement and wish to install the loader, click the [Next >] button. If you want to abort the installation, click the [Cancel] button.

>>After clicking the [Next >] button, the following screen appears:



Note

- To change the installation destination directory, click the [Browse...] button.

(5) Click the [Next >] button.

>>The following screen appears:

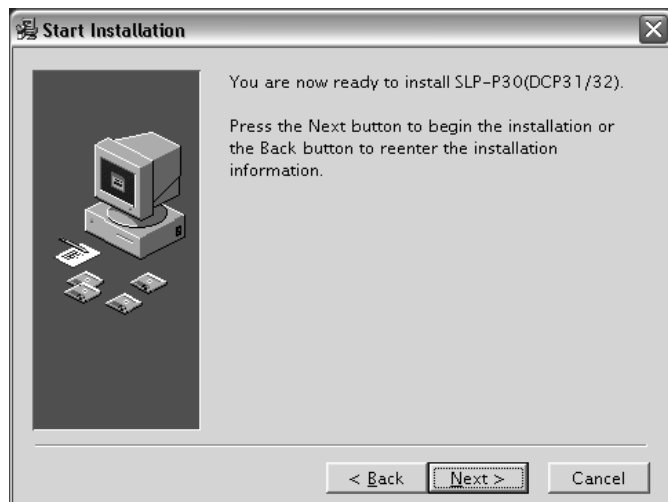


Note

- To change the group, enter the new group name.

(6) Click the [Next >] button.

>>The following screen appears:



(7) Click the [Next >] button.

>>The following screen appears:



(8) Click the [Finish >] button.

>>When the installation is completed successfully, the display will return to the Windows desktop.

■ Installing the device driver

A device driver must be installed before using the USB loader cable.

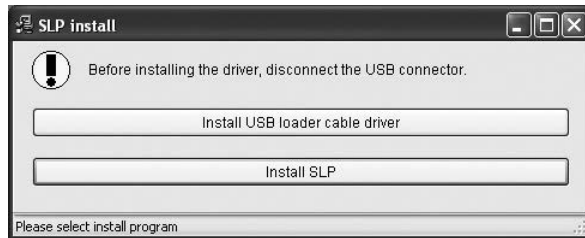
Follow the procedure below to install the device driver.

! Handling Precautions

- Be sure to follow the procedure below when installing the device driver. The USB cable may not be recognized if the procedure is not followed. If the cable is not recognized, uninstall the driver and then install it again.
- Administrator privileges on the computer are required for driver installation. Installation should be done by the administrator or by a user who belongs to the administrator group. The USB loader cable is supported on Windows XP/Vista (32 bit type)/7 (32 bit type, 64 bit type). It is not supported on Windows XP(64 bit type), or on Windows 2000, Windows 95, Windows NT, MS-DOS or PC-DOS.
- If there are multiple USB ports, connect the USB loader cable to the same port every time. If it is connected to a different port, there is a chance that driver installation may be required again.

1. Put the SLP CD-ROM into the CD-ROM drive of the personal computer.

>>The installation program is then started up automatically and the following screen appears:



(1) Click the [Install USB loader cable driver] button.

>> The following screen appears:



(2) Click the [Next >] button.

>> The following screen appears:



(3) Select [A]GREE and click the [N]ext> button.

>>The following screen appears :



(4) Click the [C]ontinue Anyway button.

>>The installation program then starts up, and after it is completed, the following screen appears:



(5) Click [Finish] button to complete the installation.

2. Insert the USB loader cable into the USB port.

>>When Windows recognizes the USB cable, the notification shown below appears on the task tray and the driver installation wizard appears.



3. Install the device driver.

(1) Usually, when Windows recognizes the USB loader cable, the window shown below appears. (In some cases, depending on the Windows environment, it may not appear.) Select [No, not this time] and click the [Next >] button.



- (2) For the retrieval location of the device driver to be installed, select the [Install the software automatically (Recommended)] and click the [Next >] button.



>>Retrieval of the device driver starts.



>>When the device driver is found, the following window appears:



- (3) Click [Continue Anyway].
>>Installation of the device driver starts



>>When the device driver installation is complete, the following window appears:

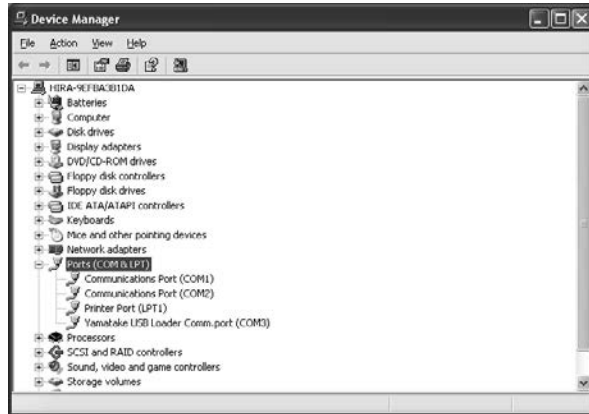


(4) Click [Finish].

>>When the installation is complete, the notification shown below appears on the task tray, and Windows now correctly recognizes the USB loader cable.



- (5) Select [Control Panel] → [System] → [Hardware] → [Device Manager] (for Windows XP), [Control Panel] → [Device Manager] (for Windows Vista/7), and find the port number for the Yamatake USB Loader Comm. from [Ports (COM & LPT)].



- (6) Start the SLP, select [Menu] → [Option], and set to the communications port number obtained in the previous step. Then press the [OK] button to complete the configuration.

Note

- If the CD-ROM for the SLP is not available, execute [drvsetup.exe] (32 bit type) or [drvsetup64.exe] (64 bit type) on the computer on which the SLP is installed. Then install the device driver.
Normally [C:\Program Files\slp\SLPP30] (32 bit type), or [C:\Program Files(x86)\slp\SLPP30] (64 bit type).

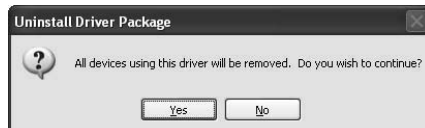
■ Uninstalling the device driver

! Handling Precautions

- Removing the driver requires restarting the computer. Close other applications first, and then uninstall the driver.
- To uninstall the driver, administrator rights are required on the computer. Uninstalling should be done by the administrator or by a user who belongs to the administrator group.

1. Execute the driver removal program.

- (1) Go to [Control Panel] → [Add or Remove Programs] and click on [Windows Driver Package - Yamatake (Yc slp) USB (04/10/2008 2.0.2.8)]. Click the [Change/Remove] button.



- (2) Click the [Yes] button.
 (3) Restart the computer.

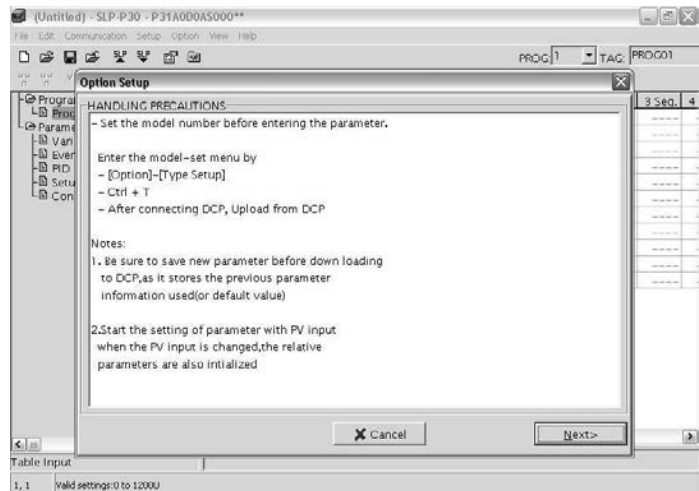
■ Starting the SLP

! Handling Precautions

- Before starting the SLP, quit all other applications. If you start the loader while another application is running, the SLP may not function. Also, set any power saver function, infrared communications and screen saver to OFF.
- Make sure that the Decimal Symbol setting is “ . ” for [Control Panel] \wedge E [Regional Settings] \rightarrow [Number] command. If it has been set to some other character, the loader cannot correctly function.

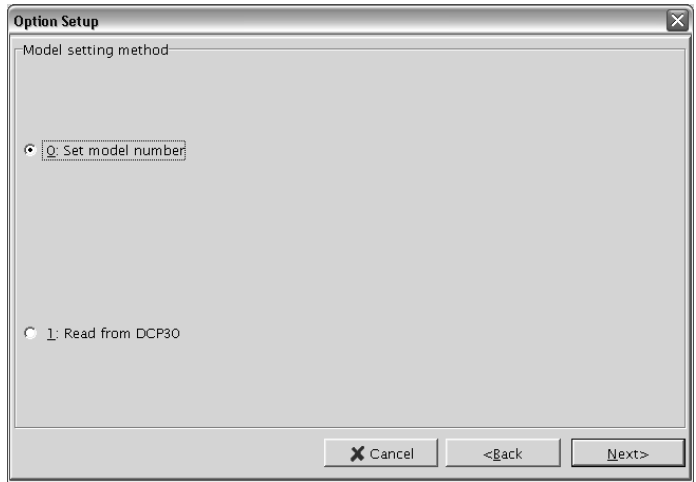
(1) Click the [Start] button at the lower portion of the screen and select [Programs] \rightarrow [SLP] \rightarrow [SLP-P30(DCP31,32)] command.

>>The SLP starts and the menu window is displayed, along with handling precautions.



(2) Click the [Next >] button.

>>The model setting method screen appears:



(3) Select either method on the model setting method screen and click the [Next>] button.

>>If [0: Set model number] is selected, the basic model screen basic model No. will appear.

If [1: Read from DCP30] is selected, the communication range selection screen Select will appear.

For more details, refer to the sections listed below.

When the basic model screen is displayed:

3-1 Type Setup and Environment Setup (see page E18).


When the communication range selection screen is displayed:

3-3 Communications with the DCP (see page E23).

 **Note**

- For details on the operating system or the mouse you are using, refer to the user's manual provided with Windows or with your personal computer.

■ Quitting the SLP

(1) Click the  icon at the top right of the screen. You can also quit by selecting [Menu] → [Quit] command.

>>The following screen appears:



(2) Click the [OK] button.

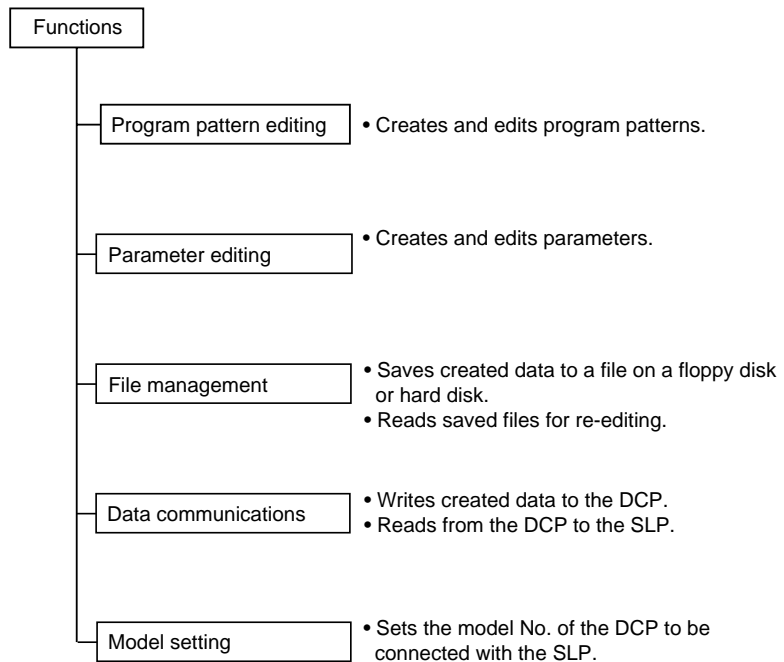
2 - 2 Description of Functions

■ SLP functions

The SLP provides the following functions for configuring DCP operation:

- Program pattern editing
- Parameter editing
- File management
- Data communications
- Model setting

The figure below shows what these functions do.



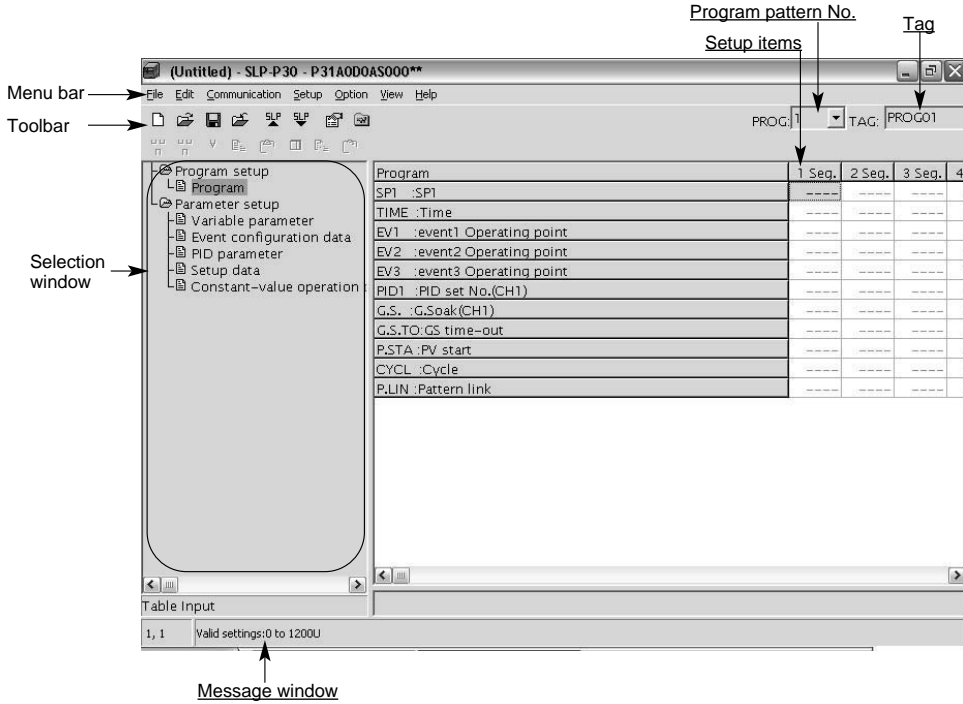
Note

- “File” refers to data for one DCP. Each file comprises the various parameter settings and the model number information.

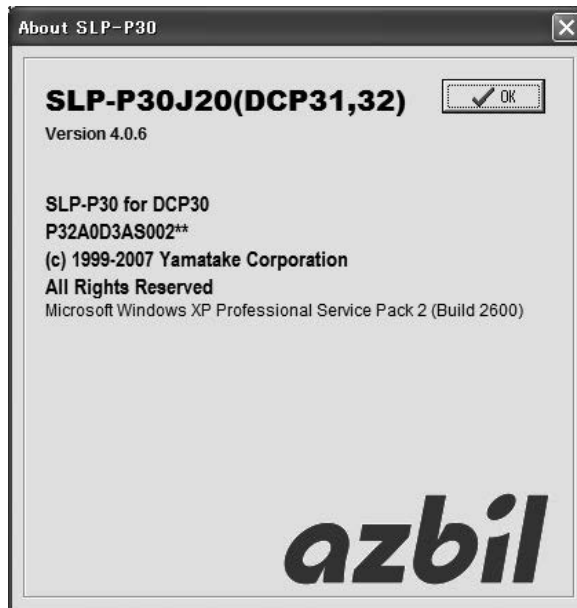
2 - 3 Screen Configuration

■ SLP screen configuration

















- Basic SLP screen



- Dialog box displayed when [Help] → [Version(A)] command is selected.



2 - 4 Menu Configuration List


Menu	Icon	Sub Menu 1	Sub Menu 2	Description	Shortcut Keys
File		New	-	Creates new data.	[Ctrl]+[n]
		Open	-	Opens existing data.	[Ctrl]+[o]
		Save	-	Saves the active data.	[Ctrl]+[s]
		Save As	-	Saves the active data with a new name.	[Ctrl]+[a]
	-	CSV Out (X)	-	Saves the active data in CSV format.	-
	-	HTML Out (H)	-	Saves the active data in HTML format.	-
	-	Quit	-	Quits the application.	[Ctrl]+[q]
Edit	-	Data Check	-	Checks all values.	-
		Insert Segment	New Segment	Inserts a new segment.	-
		-	Segment Copy	Inserts the copied segment data.	-
		Cut Segment (I)	-	Copies the selected segment data and deletes it.	[Ctrl]+[x]
		Copy Segment	-	Copies the selected segment data.	[Ctrl]+[c]
		Paste Segment	-	Overwrites (pastes) the copied segment data onto the selected segment.	[Ctrl]+[v]
		Clear (A)	-	Initializes the selected data.	-
		Copy Pattern (Y)	-	Copies the selected pattern data.	-
		Paste Pattern (S)	-	Overwrites (pastes) the copied pattern data onto the selected pattern.	-
Communication		Read (DCP30→SLP)	-	Reads the device data.	[Ctrl]+[r]
		Write (SLP→DCP30)	-	Writes the data to the device.	[Ctrl]+[w]
Setup	-	Program setup (A)	Program	Displays the program setup.	[Ctrl]+[Shift]+[a]
	-	Parameter setup (B)	Variable parameter	Displays the variable parameter.	[Ctrl]+[Shift]+[b]
			Variable parameter2	Displays the variable parameter 2.	[Ctrl]+[Shift]+[c]
			Event configuration data	Displays the event configuration data.	[Ctrl]+[Shift]+[d]
			PID parameter	Displays the PID parameter.	[Ctrl]+[Shift]+[e]
			PID parameter2	Displays PID parameter 2.	[Ctrl]+[Shift]+[f]
			Setup data	Displays the setup data.	[Ctrl]+[Shift]+[g]
			Table data	Displays the table data.	[Ctrl]+[Shift]+[h]
			Constant-value operation data	Displays the constant-value operation data.	[Ctrl]+[Shift]+[i]
Option		Type setup	-	Changes the type setup.	[Ctrl]+[t]
		Environment setup	-	Changes the environment setup.	[Ctrl]+[e]
View	-	Pattern Graph	-	Displays the pattern graph.	-
	-	Table Graph	-	Displays the table graph.	-
Help	-	Version (A)	-	Displays the version information.	-

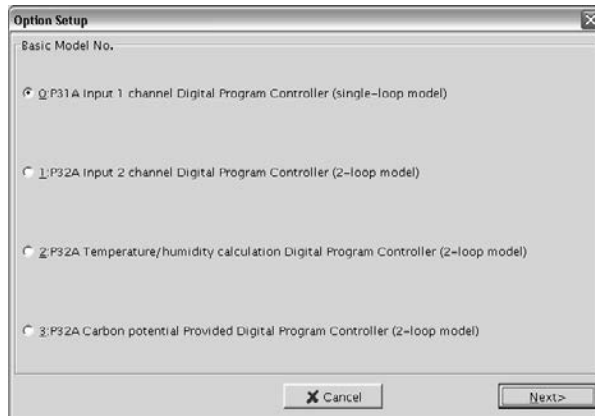
Chapter 3. METHODS OF OPERATION

3 - 1 Type Setup and Environment Setup

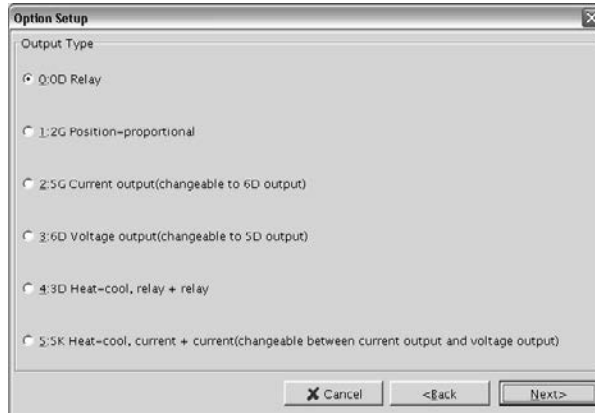
■ Type setup

First, set the SLP type appropriate for the DCP model.

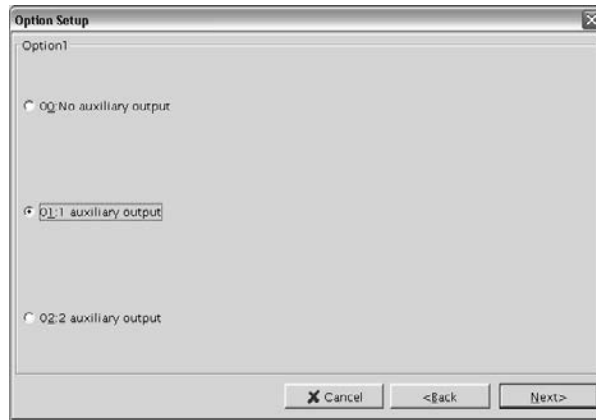
- (1) Click the  icon. This has the same result as selecting [Option] → [Type setup] command, or pressing [Ctrl] + [t] keys.
>>The type setup dialog box appears.



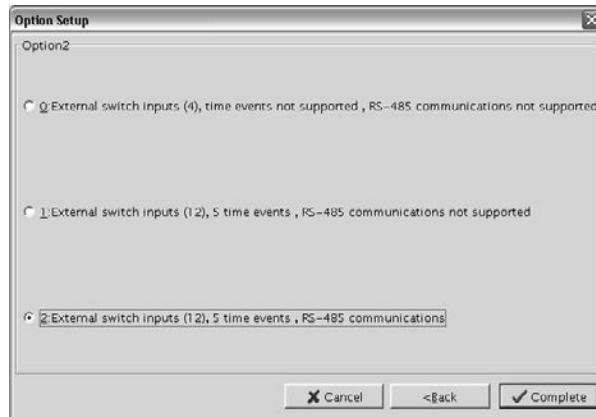
- (2) Select the DCP and click the [Next >] button.
>>The output type dialog box appears.



- (3) Select the output type and click the [Next >] button.
>>The option 1 dialog box appears.



- (4) Select option 1 and click the [Next >] button.
>>The option 2 dialog box appears.




- (5) Select option 2 and click the [Complete] button.

! Handling Precautions

- The type setting here is for the internal use of the loader.
Be sure to set the correct DCP type.

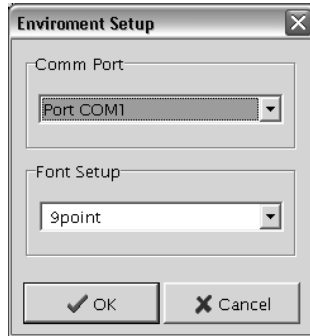
■ Environment setup

Set the communications port and font on the personal computer.

- (1) Click the  icon.

Alternatively, select [Option] → [Environment setup] command, or press the [Ctrl] + [e] keys.

>>The environment setup dialog box appears.



- (2) Select the communications port.

- (3) Select the font size.


- (4) Click the [OK] button.

Handling Precautions


- Normally, use “Port COM1.”
Even if another communications port can be selected, it sometimes cannot be used, depending on its configuration.

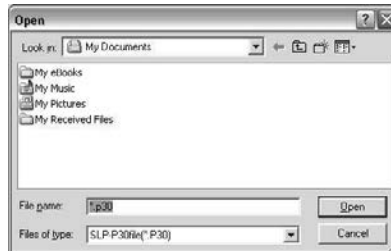
3 - 2 File Operations

■ Making new files

- (1) Click the  icon, select the [File] → [New] command, or press the [Ctrl] + [n] keys.
>>The New dialog box appears.
- (2) Click [OK] button.
>>A new file opens.


■ Opening existing files

- (1) Click the  icon, select the [File] → [Open] command, or press the [Ctrl] + [o] keys.
>>The open dialog box appears.




- (2) Select the folder (directory) from the [Look in:] drop-down menu.
- (3) Click (select) the file name.
- (4) Click the [Open] button.
>>The file you selected opens.

■ Overwriting and saving files

- (1) Click the  icon, select the [File] → [Save] command, or press the [Ctrl] + [s] keys.
>>The file is overwritten and saved.

■ Saving files with a new name

- (1) Click the  icon, select the [File] → [Save As] command, or press the [Ctrl]+[a] keys.
>>The Save As dialog box appears.
- (2) Select the folder name under the [Save in:].
- (3) Enter the file name in the [File name] input box.
- (4) Click the [Save] button.
>>The file is saved under the file name that you entered.



Note

- The file is overwritten and saved if you click on (select) a file name in the File name window.

■ Outputting CSV format files

- (1) Select the [File] → [CSV Out(X)] command.
>>The CSV output dialog box appears.
- (2) Select the folder name under [Save in:].
- (3) Enter the file name at [File name].
- (4) Click the [Save] button.
>>The file is output under the file name that you entered.



Note

- The file is overwritten and saved if you click on (select) a file name in the File name window.

A CSV file is a text file delimited by commas, and can be used in Microsoft Excel or other off-the-shelf spreadsheet applications.

- When opening a CSV file using Microsoft Excel, the display format for numerical values, time and the line, is converted into the standard Microsoft Excel format.

■ Outputting HTML format files

- (1) Select the [File] → [HTML Out(H)] command.
>>The HTML output dialog box appears.
- (2) Select the folder name under [Save in:].
- (3) Enter the file name at [File name].
- (4) Click the [Save] button.
>>The file is output under the file name that you entered.




Note

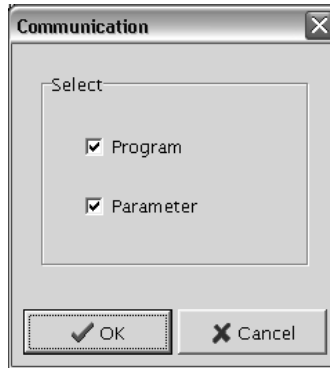
- The file is overwritten and saved if you click on (select) a file name in the File name window.
- An HTML file can be used with browsers like Microsoft Internet Explorer, like and word processors Microsoft Word.

3 - 3 Communications with the DCP

■ Communication from the DCP to the SLP (reading from the DCP)

- (1) Click the  icon, select the [Communication] → [Read (DCP30→SLP)] command, or press the [Ctrl]+[r] keys.

>>The communication dialog box appears.




- (2) Check the contents of the communication and click the [OK] button.

>>The confirm dialog box appears.

- (3) Click the [OK] button.

>>Reading from the DCP starts.

■ Communication from the SLP to the DCP (writing to the DCP)

- (1) Click the  icon, select the [Communication] → [Write (SLP→DCP30)] command, or press the [Ctrl]+[w] keys.

>>The communication dialog box appears.

- (2) Check the contents of the communication and click the [OK] button.

>>The confirm dialog box appears.

- (3) Click the [OK] button.

>>Writing to the DCP starts.

Handling Precautions

- If data settings are incorrect, an error list appears and the communication does not start.
- If the main unit model does not match the settings in the loader, an error message appears, showing that the settings are for the wrong model.

3 - 4 Setting up Data

■ Selecting setup items

● Moving the highlighted section of the display with the keyboard

- (1) Press the [↑], [↓], [←] or [→] key to move the highlighted section of the screen.

● Moving the highlighted section of the display with the mouse

- (1) Click the section you want to move.
- (2) Click the scroll bar to scroll the screen.
>>The screen cannot be scrolled beyond the topmost or bottommost rows on screen.

● Changing the active window

- (1) Press the [Tab] key.
>>The screen moves to the next operation window.

Note

- Setup items are moved to according to their order on the screen.

■ Entering numerical data

● Entering numerical values

The following describes how numerical values are entered:

- To enter a numerical value, press the [0] to [9] keys on the keyboard.
- To enter a hexadecimal number, press the [0] to [9] keys or the [A] to [F] keys on the keyboard.
- To enter a decimal point, press the [.] key at the desired decimal point position.
- To enter a minus value, press the [-] key.
- To enter time data, press the [0] to [9] keys, [:] key, and [.] key on the keyboard.

Note

- To enter “2:00”, press the [2], [:], [0], and [0] keys or press the [1], [2], and [0] keys.
- When entering time in h:min or min:s format, you cannot use the [.] key. Likewise, when entering time in the 0.1s format, you cannot use the [:] key.
- To correct a wrong entry, press the [Back Space] key.
>>The current displayed value is deleted.
- To cancel the currently entered numerical value, press the [Esc] key.
>>The original value is redisplayed.

● Entering values for setup items

Use the [0] to [9] keys on the keyboard to enter values.

- (1) Select the setup item to highlight it.
 - (2) Enter the desired value with the [0] to [9] keys.
 - (3) Press the [Enter] key. Pressing the [↑] or [↓] key gives the same result.
- >>The value is set.

Note

- If you set the numerical value by pressing the [↑] or [↓] key, the highlighted section moves on the screen. If you move a setup item using the mouse, the value is not set.
- If an entered value is invalid, the original value is redisplayed. To cancel a value midway during entry, press the [Esc] key.

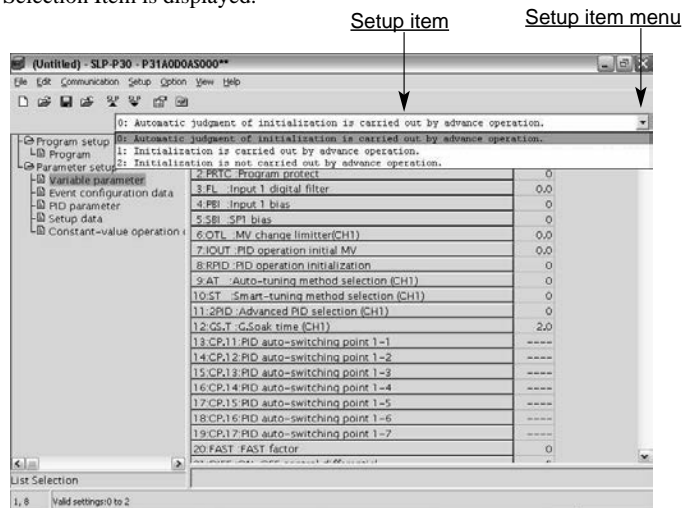
● Selecting and entering data

Note

- Items that can be selected and entered are automatically displayed.

- (1) Select a setup item from the drop-down menu, or press the [Tab] or [Alt]+[↓] keys.

>>Selection Item is displayed.



- (2) Click on a setup item with the mouse, or press the [↑], [↓], [←] or [→] keys, or press the [Enter] key.

>>The value is set.

Note


- When you use the mouse, the value is set at the same time that you select it with the mouse.

3 - 5 Editing Program Patterns


■ Editing segments

Before using any segment editing function, it is necessary to move the highlighted section onto a target segment.

● Inserting a new segment

- (1) Click the  icon, or select the [Edit] → [Insert Segment] → [New Segment] command.
>>The confirm dialog box appears.
- (2) Click the [OK] button.
>>A new segment is inserted.


● Inserting a copied or cut segment

- (1) Click the  icon, or select the [Edit] → [Insert Segment] → [Segment Copy] command.
>>The confirm dialog box appears.
- (2) Click the [OK] button.
>>The copied or cut segment is inserted.

Handling Precautions

- Before inserting a copied or cut segment, it is necessary to copy or cut the segment. The same copied or cut segment may be inserted any number of times.


● Cutting a segment

- (1) Click the  icon, select the [Edit] → [Cut Segment(I)] command, or press the [Ctrl] + [x] keys.
>>The confirm dialog box appears.
- (2) Click the [OK] button.
>>The selected segment is cut.

Handling Precautions

- Cut data is retained in the loader's memory. When using the cut data for another segment, refer to the following descriptions:
 - Inserting a copied or cut segment (see above)
 - Pasting a segment (see page E27)


● Copying a segment

- (1) Click the  icon, select the [Edit] → [Copy Segment] command, or press the [Ctrl] + [c] keys.
>>The confirm dialog box appears.
- (2) Click the [OK] button.
>>The selected segment is copied.

Handling Precautions

- The copied data is retained in the loader's memory. When using the copied data for another segment, refer to the following descriptions:
 - Inserting a copied or cut segment (see page E26)
 - Pasting a segment (see below)

● Pasting a segment

(1) Click the  icon, select the [Edit] → [Paste Segment] command, or press the [Ctrl] + [V] keys.

>>The confirm dialog box appears.


(2) Click the [OK] button.

>>The segment is pasted.

Handling Precautions

- Before pasting a segment, it is necessary to copy or cut a desired segment.
- Pasted values overwrite any values that were previously set.
- Copied or cut values can be pasted any number of times.

● Clearing data

(1) Click the  icon, or select the [Edit] → [Clear(A)] command.

>>The confirm dialog box appears.

(2) Click the [OK] button.

>>The set values are cleared.

Note

- The clear command is used to return the set values to their default values.


Handling Precautions

- When “Display OFF” is selected with setup data C68 to C71, the program items of the main unit are not displayed, but rather the program pattern window items of the SLP-P30.

■ Copying and pasting program patterns

Before using any program-pattern editing function, it is necessary to display a target program pattern.

● Copying a program pattern

(1) Click the  icon, or select the [Edit] → [Copy Pattern(Y)] command.

>>The confirm dialog box appears.


(2) Click the [OK] button.

>>The selected program pattern is then copied.

Handling Precautions

- The copied data is retained in the SLP-P30 memory. When using the copied data for another program pattern, refer to the following description:
 - Pasting a program pattern (see below)

● **Pasting a program pattern**

- (1) Click the  icon, or select the [Edit] → [Paste Pattern(S)] command.
>>The confirm dialog box appears.
- (2) Click the [OK] button.
>>The program pattern is pasted.

 **Handling Precautions**

- Before pasting a program pattern, it is necessary to copy a pattern. When there are already values set for the program pattern, the pasted values overwrite them. Copied pattern values can be pasted any number of times.

■ **Changing tags**

● **Changing a tag**

- (1) Double-click a tag text.
>>The tag is highlighted.
- (2) Enter a desired tag through the keyboard.
- (3) Press the [Enter] key.

 **Note**

- If any illegal character is entered, the tag name is returned to the previous tag name. Only alphanumeric characters and symbols having an ASCII code ranging from 20 to 5FH may be used. (see table on page E24.)

■ **ASCII code table**

		Upper 3bits →							
		0	1	2	3	4	5	6	7
Lower 4bits ↓	0	NUL	SLE	space	0	@	P	'	p
	1	SOH	CS1	!	1	A	Q	a	q
	2	STX	DC2	"	2	B	R	b	r
	3	ETX	DC3	#	3	C	S	c	s
	4	EOT	DC4	\$	4	D	T	d	t
	5	ENQ	NAK	%	5	E	U	e	u
	6	ACK	SYN	&	6	F	V	f	v
	7	BEL	EIB	'	7	G	W	g	w
	8	BS	CAN	(	8	H	X	h	x
	9	HT	EM	)	9	I	Y	i	y
	A	LF	SIB	*	:	J	Z	j	z
	B	VT	ESC	+	;	K	[	k	{
	C	FF	FS	,	<	L	\	l	|
	D	CR	GS	-	=	M	]	m	}
	E	SO	RS	.	>	N	^	n	~
	F	SI	US	/	?	O	_	o	DEL

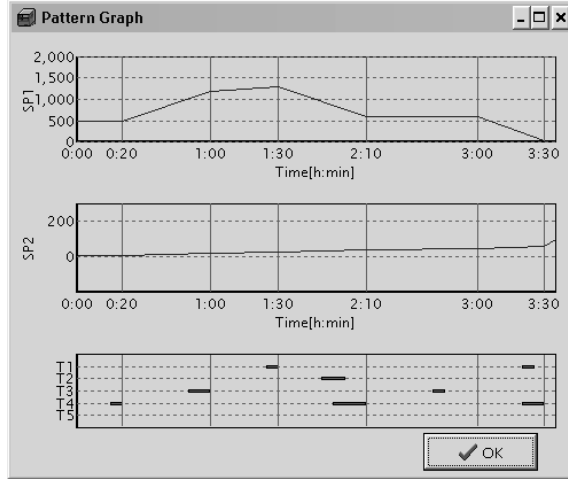
The shaded part (■) is not used.

3 - 6 Displaying Graphs

■ Displaying program pattern graphs

Select [View] → [Pattern Graph] command.

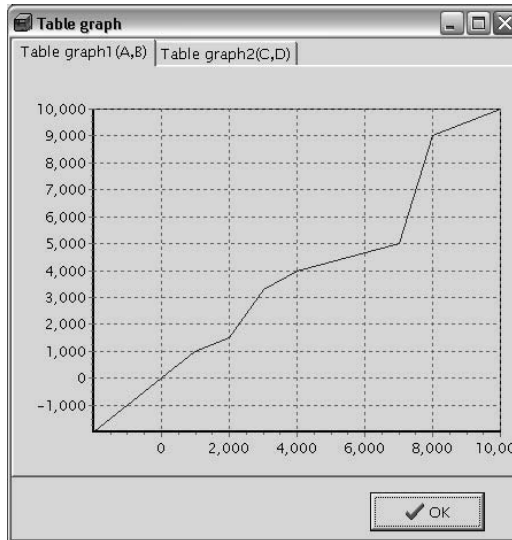
>>The pattern graph of the selected program pattern is displayed.



■ Displaying input line graphs

Select [View] → [Table Graph] command.

>>The line graph is displayed.



Note

- To select an area you want to enlarge, drag the mouse from the upper left portion to the lower right portion of the area. If you drag the mouse in the reverse direction, the enlarged graph scale is returned to its previous size.

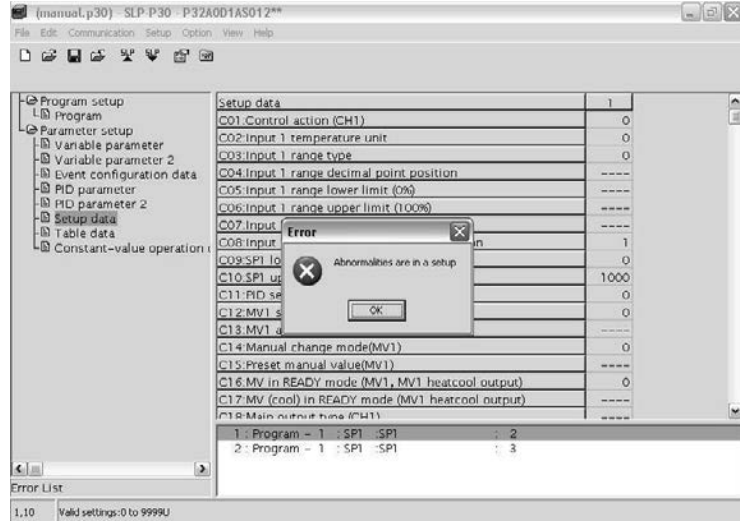
3 - 7 Data Check

■ Checking the high and low limits of all data

Select [Edit] → [Data Check] command.
>>The data check begins.

■ Displaying items with abnormal values

If any setting error is found through the check of high and low data limits, an error dialog box appears and the erroneous items are listed.



- (1) Click the [OK] button in the error dialog box.
- (2) Double-click a setup item you want to display in the error list. The same operation can also be performed by selecting (highlighting) a setup item you want to display and pressing the [Enter] key.
>>The relevant setup item is displayed.

Note

- The format of the error list is Serial No.: Setup group name: Item name: Line No. Additionally, when the setup group is the program, the setup group name is displayed as Program - Program No.

Chapter 4. TROUBLESHOOTING

4 - 1 Error Messages

■ Communications error messages

Category	Message	Description	Remedy
Communication error	Time out.	The message could not be received within the time limit. An instrument other than DCP31/32 might be connected. The main unit might not be connected.	Check the cable connections and contacts. Use the loader while it is connected to the DCP31/32.
	Cannot open communications port.	The communication port could not be opened.	Do not run the loader and another application that uses the communication port at the same time.
	Communications error has occurred.	A system error occurred.	Try again or quit the loader and restart Windows.
DCP status error	Operating through the console or CPL communication.	Other operation is running on the main unit or via CPL communication.	After quitting the other operation, try again.
	Cannot be written since the mode is other than the READY mode.	The main unit is not READY.	Put the main unit in the READY mode and try again.
	Data, which cannot be written, exists since the mode is other than the READY mode.		After checking the mode of the main unit, try again.
	Cannot be written according to the status of the instrument.		
	Check the currently connected instrument.	Currently connected instrument is not the DCP31/32, or the DCP31/32 is not connected.	Connect the DCP31/32 and start the operation.
Cannot support currently connected DCP31/32.	Versions of SLP-P30 or DCP31/32 are not supported.	Contact the azbil Group or your dealer.	

■ File error messages

Category	Message	Description	Remedy
File name error	This file name is not valid.	An invalid file name has been entered.	Enter the correct file name.
	This file cannot be found. Make sure that the correct path and file name are given.	A non-existent file name has been entered, or the directory (folder) is incorrect.	Correctly enter the name and path of an existing file.
	This file name is a reserved device name. Use a different file name.	A file name reserved as a device name has been entered.	Enter the correct file name.
Disk error	Not enough free space on disk.	There is not enough free space on disk.	Secure enough free space on disk.
	The device is not ready.	The disk is not prepared.	Prepare a disk, and repeat the operation.
	Cannot make file.	The save destination might be a CD-ROM.	Save to a different destination.
	File name too long.	The file name is too long.	Limit file names to 255 or fewer characters.
Path name error	The path does not exist. Make sure that the correct path is given.	An illegal path name has been entered.	Enter the correct path name, and repeat the operation.
File information error	Illegal file size.	File is damaged.	Damaged files cannot be used. Recreate the file.
	Illegal file information.		

■ **Startup error messages**

Category	Message	Description	Remedy
Loader system error	Can't start up two or more SLP-P30s at once.	An attempt was made to start up two or more SLP-P30s at once.	Click the [OK] button.

Revision History

Printed date	Manual Number	Edition	Revised pages	Description
Apr. 2004	CP-UM-1759E	1st Edition		
Feb. 2005		2nd Edition	E2	USB adapter USB-RSAQ2→USB-RSAQ3 changed. HP address changed.
Aug. 2005		3rd Edition	E2	About Serial port explanation changed. Handling precautions added.
Jan. 2008		4th Edition	E11	[Help] → [Version(A)]: screen changed
Aug. 2008	CP-UM-1759JE	9th Edition		Manual Number changed.
Apr. 2012		10th Edition		Company name changed.
Apr. 2013		11th Edition	Cover, Ei, Eii, E2 E1, E2 E2 E3 E4 E7 to E12 E13 to E32	Floppy disk→CD-ROM Operating Environment, Windows 95/98/Me/2000/XP changed to Windows XP Home Edition/XP Professional/ Vista (32 bit type)/7 (32 bit type, 64 bit type). Handling precautions changed. (SLP-SE6→SLP-P30) Serial port→USB port About Serial port explanation deleted. Explanation of “● Installing the SLP” was changed. “■ Installing the device driver” and “■ Uninstalling the device driver” were added. Old E8 to E28 page.

Terms and Conditions

We would like to express our appreciation for your purchase and use of Azbil Corporation's products.

You are required to acknowledge and agree upon the following terms and conditions for your purchase of Azbil Corporation's products (field instruments, control valves, and control products), unless otherwise stated in any separate document, including, without limitation, estimation sheets, written agreements, catalogs, specifications and instruction manuals.

1. Warranty period and warranty scope

1.1 Warranty period

Azbil Corporation's products shall be warranted for one (1) year from the date of your purchase of the said products or the delivery of the said products to a place designated by you.

1.2 Warranty scope

In the event that Azbil Corporation's products has any failure attributable to azbil during the aforementioned warranty period, azbil shall, without charge, deliver a replacement for the said product to the place where you purchased, or repair the said product and deliver it to the aforementioned place.

Notwithstanding the foregoing, any failure falling under one of the following shall not be covered under this warranty:

- (1) Failure caused by your improper use of Azbil Corporation's products (noncompliance with conditions, environment of use, precautions, etc. set forth in catalogs, specifications, instruction manuals, etc.);
- (2) Failure caused for other reasons than Azbil Corporation's products;
- (3) Failure caused by any modification or repair made by any person other than azbil or azbil's subcontractors;
- (4) Failure caused by your use of Azbil Corporation's products in a manner not conforming to the intended usage of that product;
- (5) Failure that the state-of-the-art at the time of Azbil Corporation's shipment did not allow us to predict; or
- (6) Failure that arose from any reason not attributable to Azbil Corporation, including, without limitation, acts of God, disasters, and actions taken by a third party.

Please note that the term "warranty" as used herein refers to equipment-only-warranty, and Azbil Corporation shall not be liable for any damages, including direct, indirect, special, incidental or consequential damages in connection with or arising out of Azbil Corporation's products.

2. Ascertainment of suitability

You are required to ascertain the suitability of Azbil Corporation's products in case of your use of the same with your machinery, equipment, etc. (hereinafter referred to as "Equipment") on your own responsibility, taking the following matters into consideration:

- (1) Regulations and standards or laws that your Equipment is to comply with.
- (2) Examples of application described in any documents provided by Azbil Corporation are for your reference purpose only, and you are required to check the functions and safety of your Equipment prior to your use.
- (3) Measures to be taken to secure the required level of the reliability and safety of your Equipment in your use. Although Azbil Corporation is constantly making efforts to improve the quality and reliability of Azbil Corporation's products, there exists a possibility that parts and machinery may break down. You are required to provide your Equipment with fool-proof design, fail-safe design, anti-flame propagation design, safety design, or the like so that the said Equipment may satisfy the level of the reliability and safety required in your use, whereby preventing any occurrence of physical injuries, fires, significant damage, and so forth.

3. Precautions and restrictions on application

Azbil Corporation's products other than those explicitly specified as applicable (e.g. azbil Limit Switch For Nuclear Energy) shall not be used in a nuclear energy controlled area (radiation controlled area). Any Azbil Corporation's products shall not be used for/with medical equipment.

In addition,

you are required to conduct a consultation with our sales representative and understand detail specifications, cautions for operation, and so forth by reference to catalogs, specifications, instruction manual, etc. in case that you intend to use Azbil Corporation's products for any purposes specified in (1) through (6) below.

Moreover, you are required to provide your Equipment with fool-proof design, fail-safe design, anti-flame propagation design and other designs of protection/safety circuit on your own responsibility to ensure the reliability and safety, whereby preventing problems caused by failure or nonconformity.

- (1) For use under such conditions or in such environments as not stated in technical documents, including catalogs, specification, and instruction manuals
- (2) For use of specific purposes, such as:
 - * Nuclear energy/radiation related facilities
[For use outside nuclear energy controlled areas] [For use of Azbil Corporation's Limit Switch For Nuclear Energy]
 - * Machinery or equipment for space/sea bottom
 - * Transportation equipment
[Railway, aircraft, vessels, vehicle equipment, etc.]
 - * Antidisaster/crime-prevention equipment
 - * Burning appliances
 - * Electrothermal equipment
 - * Amusement facilities
- (3) Supply systems such as electricity/gas/water supply systems, large-scale communication systems, and traffic/air traffic control systems requiring high reliability
- (4) Facilities that are to comply with regulations of governmental/public agencies or specific industries
- (5) Machinery or equipment that may affect human lives, human bodies or properties
- (6) Other machinery or equipment equivalent to those set forth in items (1) to (5) above which require high reliability and safety

4. Precautions against long-term use

Use of Azbil Corporation's products, including switches, which contain electronic components, over a prolonged period may degrade insulation or increase contact-resistance and may result in heat generation or any other similar problem causing such product or switch to develop safety hazards such as smoking, ignition, and electrification.

Although acceleration of the above situation varies depending on the conditions or environment of use of the products, you are required not to use any Azbil Corporation's products for a period exceeding ten (10) years unless otherwise stated in specifications or instruction manuals.

5. Recommendation for renewal

Mechanical components, such as relays and switches, used for Azbil Corporation's products will reach the end of their life due to wear by repetitious open/close operations.

In addition, electronic components such as electrolytic capacitors will reach the end of their life due to aged deterioration based on the conditions or environment in which such electronic components are used. Although acceleration of the above situation varies depending on the conditions or environment of use, the number of open/close operations of relays, etc.

as prescribed in specifications or instruction manuals, or depending on the design margin of your machine or equipment, you are required to renew any Azbil Corporation's products every 5 to 10 years unless otherwise specified in specifications or instruction manuals.

Field instruments (sensors such as pressure/flow/level sensors, regulating valves, etc.) will reach the end of their life due to aged deterioration of parts.

For those parts that will reach the end of their life due to aged deterioration, recommended replacement cycles are prescribed. You are required to replace parts based on such recommended replacement cycles.

6. Other precautions

Prior to your use of Azbil Corporation's products, you are required to understand and comply with specifications (e.g., conditions and environment of use), precautions, warnings/cautions/notices as set forth in the technical documents prepared for individual Azbil Corporation's products, such as catalogs, specifications, and instruction manuals to ensure the quality, reliability, and safety of those products.

7. Changes to specifications

Please note that the descriptions contained in any documents provided by Azbil Corporation are subject to change without notice for improvement or for any other reason.

For inquires or information on specifications as you may need to check, please contact our branch offices or sales offices, or your local sales agents.

8. Discontinuance of the supply of products/parts

Please note that the production of any Azbil Corporation's products may be discontinued without notice.

For repairable products, we will, in principle, undertake repairs for five (5) years after the discontinuance of those products. In some cases, however, we cannot undertake such repairs for reasons, such as the absence of repair parts.

For field instruments, we may not be able to undertake parts replacement for similar reasons.

azbil

Azbil Corporation
Advanced Automation Company

1-12-2 Kawana, Fujisawa
Kanagawa 251-8522 Japan

URL: <http://www.azbil.com>

Specifications are subject to change without notice. (09)

1st edition: Dec. 2004 (W)
11th edition: Apr. 2013 (F)