

YASKAWA 1000-Series Option USB Copy Unit Technical Manual

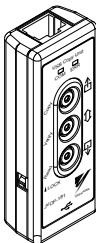
Type: JVOP-181

To properly use the product, read this manual thoroughly and retain for easy reference, inspection, and maintenance. Ensure the end user receives this manual.

安川1000シリーズ オプション USB付きコピーユニット 取扱説明書

形 式 JVOP-181

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MANUAL NO. TOBP C730600 25D

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1 Preface and Safety

1 Preface and Safety

◆ Terms and Abbreviations

Note:	Indicates supplemental information that is not related to safety messages.
Option:	YASKAWA 1000-Series Option USB Copy Unit
Unit:	YASKAWA 1000-Series Drives, YASKAWA Energy-Saving Unit D1000 and R1000
Drive:	YASKAWA 1000-Series Drives

◆ Registered Trademarks

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◆ General Safety

Read and understand this manual before using the option.

The following conventions are used to indicate safety messages in this manual. Failure to heed these messages could result in serious or possibly even fatal injury or damage to the products or to related equipment and systems.

1 Preface and Safety

WARNING

Indicates a hazardous situation, which, if not avoided, could result in death or serious injury.

NOTICE

Indicates a property damage message.

NOTICE: *will also be indicated by a bold key word embedded in the text followed by an italicized safety message.*

◆ **Safety Messages**

WARNING

Electrical Shock Hazard

Do not remove covers or touch circuit boards while the power is on.

Failure to comply could result in death or serious injury.

2 Receiving

2 Receiving

Please perform the following tasks after receiving the option:

1. Inspect the option for damage. If the option appears damaged upon receipt, contact the shipper immediately.
2. Verify receipt of all components, including the option; USB cable (30 cm/11.8 in.); RJ-45 cable (1 m/39.4 in.).

3 Product Overview

◆ About this Product

The USB Copy Unit has two functions:

- Reading and copying unit parameter settings so that those settings can be transferred to another unit
- Allows the unit to connect to the USB port on a PC

Note: PC software includes DriveWizardPlus and DriveWorksEZ.

DriveWizardPlus is used for editing parameters, operating the unit, and monitoring unit performance when the unit is connected to a PC.

DriveWorksEZ uses visual programming to allow the user to create customized application programs.

3 Product Overview

◆ Compatible Units

The option is compatible with the following units:

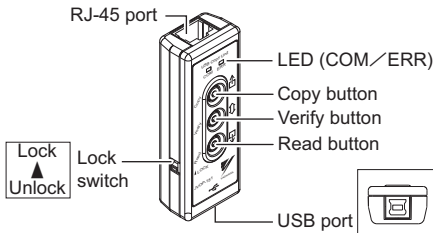
Unit	Software Version <1>
A1000	All Versions
V1000	1010 and later
J1000	All Versions
D1000	All Versions
R1000	All Versions

<1> The software version appears on the unit nameplate next to “PRG”.

4 Components and Functions

4 Components and Functions

◆ Component Names and Functions



◆ Communication Ports

- RJ-45 port or communication port of the unit connects the option to a unit using the provided RJ-45 cable
- USB port connects the option to a PC using the provided USB cable.

Note: When connecting the option to a PC or unit, use only the cables provided.
Yaskawa cannot guarantee proper operation if other cables are used.

4 Components and Functions

◆ Buttons/Switch

Button/ Switch	Operation
Read <I>	Saves parameter settings from the unit
Verify <I>	Compares parameters on the unit with the settings saved to the option
Copy <I>	Copies parameters settings that have been saved to the option onto the unit
Lock	Read button is locked when the switch is set to the up position

<1> Press and hold the button for at least one second to activate the function.

4 Components and Functions

◆ Option LED Display

Below is a list of meanings for the various LED combinations on the option.

COM	ERR	Meaning
ON	ON	Lights for 0.5 seconds when the power is first switched on
ON	OFF	Normal operation
Flashing	OFF	Data is being exchanged between the unit and the option
OFF	Flashing	No parameters have been saved to the option <1>
OFF	OFF	Cable is not properly connected <2>
OFF	ON	Indicates an error in the option <3>

<1> After properly setting all unit parameters, connect the option and press and hold the Read button for one second to save parameter settings to the option.

<2> Make sure the cable is properly connected.

<3> Replace the option.

5 Connecting the Unit to a PC

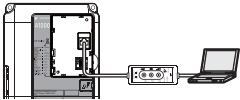
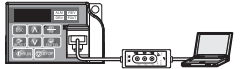
5 Connecting the Unit to a PC

◆ Usage

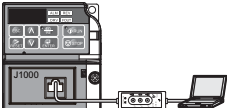
- The copy function does not work when the option is used for connecting the unit to a PC.
- The option will not function if connected to a PC that is in sleep mode.

◆ Connection Diagram and Instructions

Note: For instructions on connecting a PC to the unit, refer to the unit manual. Connect A1000/D1000/R1000 to the USB port on any PC using a USB cable.

Unit	Connection Port	Port Location
A1000 D1000 R1000	RJ-45 Port of the Unit	
V1000	Communications Port of the Drive	

5 Connecting the Unit to a PC

Unit	Connection Port	Port Location
J1000	RJ-45 Port of RS232C Interface Connected to a Drive	

1. Install the USB driver from the installation CD of DriveWizardPlus or our Web site.
U.S.: <http://www.yaskawa.com>
Europe: <http://www.yaskawa.eu.com>
Japan: <http://www.e-mechatronics.com>
Other areas: contact a Yaskawa representative
2. All communication ports in the option are used to connect to a PC or unit using the cables provided.
3. Use DriveWizardPlus or DriveWorksEZ to operate the unit. Refer to the manuals for those products for detailed operating instructions.

6 Using the Copy Function

6 Using the Copy Function

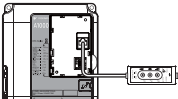
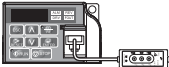
◆ Usage

NOTICE: *Never use the option while the unit is running the motor. Whenever using the option, the unit should be fully stopped. Failure to comply could result in abnormal operation of unit or equipment.*

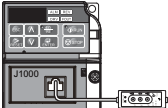
- Parameters can only be saved to a unit when the voltage class, capacity, control mode, and software version match.

◆ Connecting the Option and Instructions

Using the option with a unit requires the RJ-45 cable included in the package.

Unit	Connection Port	Port Location
A1000 D1000 R1000	RJ-45 Port of the Unit	
V1000	Communications Port of the Drive	

6 Using the Copy Function

Unit	Connection Port	Port Location
J1000	RJ-45 Port of RS232C Interface Connected to a Drive	

While reading, verifying, or copying data between the unit and the option, the “COM” light on the option will flash, and a message will appear on the unit’s display screen.

Once the task of reading, copying, or verifying data is complete, the “COM” light on the option will go out and “END” will appear on the unit’s display screen.

- **Read**
Press and hold the Read button for one second to save parameters from the unit to the option. While saving settings from the unit to the option, “READ” will flash on the display screen.
- **Verify**
Press and hold the Verify button for one second to confirm that the parameter settings in the unit and the parameter settings saved to the option match. During this time, “VERIFY” will flash on the display screen.

6 Using the Copy Function

- Copy
Press and hold the Copy button for one second to write parameter settings from the option to the unit. While saving settings from the option to the unit, “*CoPy*” will flash on the display screen.

◆ Unit LED Display and Meaning

Use the table below to understand the unit LED when the option is connected.

Display		Description
<i>CoPy</i>	CoPy	Writing parameter settings (flashing)
<i>CPEr</i>	CPEr	Control mode of the unit does not match the option <1>
<i>CPyE</i>	CPyE	Error writing data <2>
<i>CSEr</i>	CSEr	Error occurred in the option <3>
<i>dFPS</i>	dFPS	Unit model does not match to the another unit <1>
<i>End</i>	End	Task completed
<i>iFEr</i>	iFEr	Communication error between option and unit
<i>ndAT</i>	ndAT	• Model, voltage class, capacity, and/or control mode differ <1> • No data is saved to the option <4>

6 Using the Copy Function

Display		Description
	rdEr	Error reading data <5>
	rEAd	Reading parameter settings (flashing)
	vAEr	Voltage class and/or unit capacity does not match <1>
	vFyE	Parameter settings in the unit and those saved to the option are not the same
	vrFy	Comparing parameter settings (flashing)

- <1> Parameters can only be copied to a unit when the power supply specifications, capacity, control mode, and software version match.
- <2> Press and hold the Copy button for one second. The option will copy parameter settings previously saved to the option to the unit.
- <3> Replace the option.
- <4> Connect the option to a unit with the proper parameter settings and press and hold the Read button for one second. The option will then save the settings from the unit.
- <5> Press and hold the Read button for one second. The option will save the settings from the unit.

7 Specifications

7 Specifications

Item	Specification
Port	RJ-45
	USB 2.0
Power supply	Powered from a PC or unit
Operating system	OS compatible with 32-bit memory: • Windows 2000 (Service Pack 1 or later) • Windows XP OS compatible with 32-bit and 64-bit memory: • Windows 7
Memory	Stores parameters settings for a single unit
Operating temperature	-10 to +50°C (+14 to +122°F)
Storage temperature	-20 to +60°C (-4 to +140°F)
Dimensions (W × H × D)	30 × 80 × 20 mm (1.18 × 3.15 × 0.79 in.)

8 Yaskawa Locations

DRIVE CENTER (INVERTER PLANT)

2-13-1, Nishimiyaichi, Yukuhashi, Fukuoka, 824-8511, Japan
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<http://www.yaskawa.co.jp>

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<http://www.yaskawa.com>

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(Address revision No.: 13-7-11)

9 Revision History

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The revision dates and numbers of the revised manuals are given on the bottom of the back cover.

MANUAL NO. TOBP C730600 25B

Published in Japan August 2008 07-6 ①

 └─ Date of publication └─ Date of original publication └─ Revision number

Date of Publication	Rev. No.	Section	Revised Content
September 2013	⑥	All chapters	Addition: Application to R1000.
		Chapter 8	Revision: Address
February 2013	⑤	All chapters	Addition: Application to D1000.
			Revision: Reviewed and corrected entire documentation.
		Front cover, back cover	Revision: The title of the Manual
July 2012	④	Back cover	Revision: Address

9 Revision History

Date of Publication	Rev. No.	Section	Revised Content
June 2011	③	Front cover, back cover	Revision: Format
September 2010	②	Chapter 8	Revision: Address
August 2008	①	All chapters	Revision: The title of the Manual
			Addition: Application to the A1000 and J1000 drives.
June 2007	—	—	First edition

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安川1000シリーズ オプション

USB付きコピーユニット 取扱説明書

Any inquiries related to the product can be directed to the address listed at chapter 8.

この製品に関するお問い合わせ先については、8章 お問い合わせ先をご覧ください。



YASKAWA ELECTRIC CORPORATION

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MANUAL NO. TOBP C730600 25D

Published in Japan September 2013 07-6  4