

Inverter SF-520 Option RS-232C Interface

Technical Manual

Type SI-232/JC-H

NOTICE

1. Make sure that this installation manual is delivered to the end user of inverter unit.
2. Read this manual before installing or operating the inverter unit, and store it in a safe place for reference.



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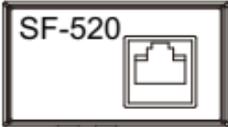
1 Preface and Safety

1 Preface and Safety

◆ Applicable Documentation

The following manuals are available for the RS-232C Interface Option:

Option Unit

Option Unit	
 The image shows a rectangular connector labeled "SF-520" with a smaller inset showing the internal pin configuration of the connector. <p>SF-520</p>	<p>SF-520 RS-232C Interface Option Technical Manual</p> <p>Read this manual first. The Technical Manual is packaged with the RS-232C Interface Option and contains a basic overview of wiring, settings, functions, and fault diagnoses.</p>

1 Preface and Safety

Inverter

 The image shows the SF-520 Series Inverter, a rectangular device with a control panel at the top. The panel includes a digital display and several buttons labeled with symbols for stop, forward, reverse, and other functions. Below the panel, the text 'SF-520' is printed. At the bottom of the device, there are technical specifications and a warning section with a triangle icon and Japanese text.	SF-520 Series Operating and Maintenance Manual No. DM2201E	To obtain instruction manuals for Sumitomo products access these sites: http:// www.shi.co.jp/PTC
	SF-520 Series Technical Manual No. DM2202E	

◆ Terms

Note: Indicates a supplement or precaution that does not cause drive damage.

Drive: SF-520 Series

Option: SF-520 RS-232C Interface Option

1 Preface and Safety

◆ Registered Trademarks

- Company names and product names listed in this manual are registered trademarks of those companies.
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◆ Supplemental Safety Information

Read and understand this manual before installing, operating, or servicing this option unit. The option unit must be installed according to this manual and local codes.

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.

DANGER

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

WARNING

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

1 Preface and Safety

CAUTION

Indicates a hazardous situation, which, if not avoided, could result in minor or moderate injury.

NOTICE

Indicates an equipment damage message.

2 Receiving

2 Receiving

◆ Receiving

Confirm the packaging after receiving the RS-232C Interface Option. If the wrong model is received or the RS-232C Interface Option does not function properly, contact your supplier.

Components packaged with the option:

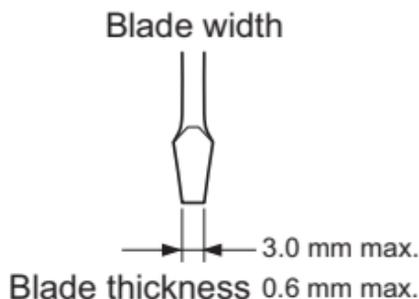
- The RS-232C Interface for copy unit/PC communication (SI-232/JC-H)
- Technical manual

◆ Additional Parts (Sold Separately)

Option	Part Number	Comments
PC Interface Cable	WV103	D-sub 9 pin - RJ-45
LED Operator	JVOP-182-H	Parameter setting and copy
LED Operator Cable	1 meter: ICS-1 3 meter: ICS-3	CAT5e UTP straight-through cable with RJ-45 8 pin connector

◆ Tool Requirements

Use a flat-blade screwdriver with the dimensions below for installation or removal of the option cover and RS-232C option.



3 Product Overview

3 Product Overview

◆ About this Product

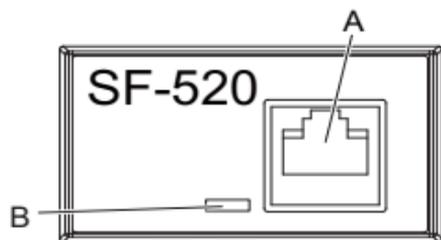
The RS-232C Interface Option allows the drive to be connected to a network or external device.

Possible connected devices include:

- LED Operator
- Personal computer using PC Setup Tool

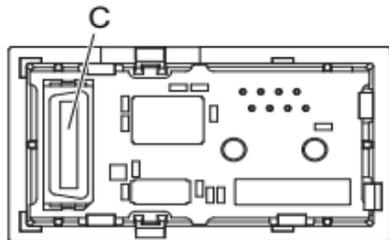
These devices can be used to edit, view, and copy parameter settings in the drive.

4 Option Components



A – RJ-45 Port

**B – Option
Model
Number**

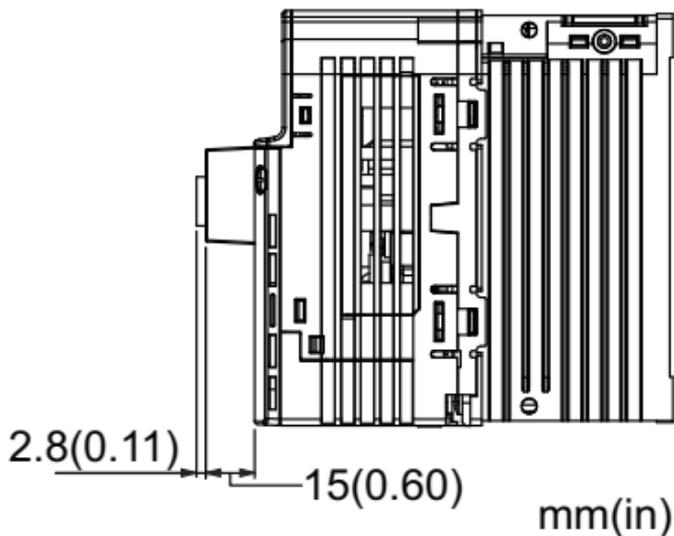


**C – Drive
Connector**

4 Option Components

◆ Dimensions

The installed Option interface adds 17.8 mm (0.70 in) to the total depth of the drive.



5 Installation Procedure

◆ Section Safety

 **DANGER**

Electrical Shock Hazard

Disconnect all power to the drive, before servicing.

Failure to comply will result in death or serious injury.

Wait at least one minute after all indicators are off. The drive has internal capacitors that remain charged even after the main power supply is disconnected. The drive charge LED will extinguish when the DC bus voltage is below 50Vdc. Measure drive DC bus voltage to confirm safe level.

5 Installation Procedure

NOTICE

Damage to Equipment

Use only Sumitomo connection cables or recommended cables.

Failure to comply may cause the drive or option to function incorrectly.

Properly connect the connectors.

Failure to comply may prevent proper operation and possibly damage equipment.

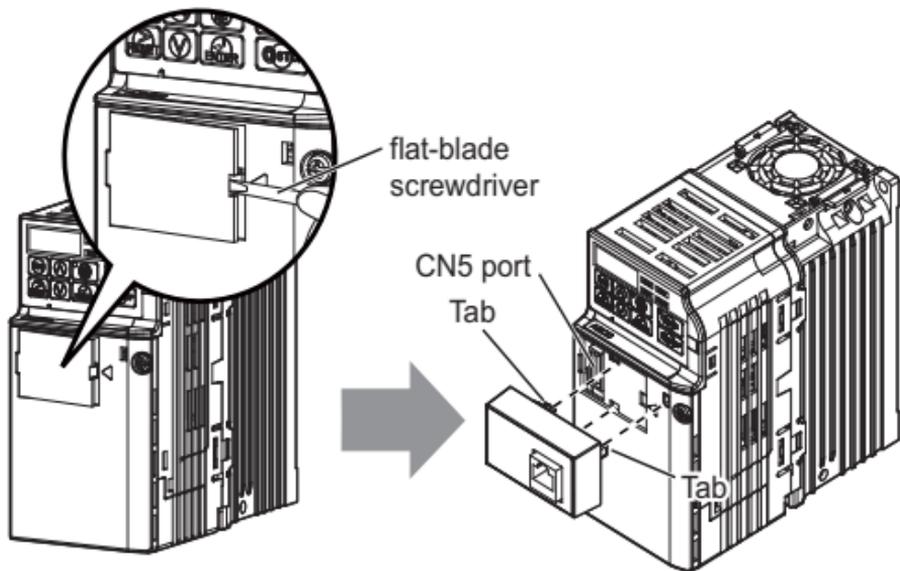
Do not exceed communication cable bend radius specifications.

Failure to comply may result in broken wires or loose connections.

5 Installation Procedure

◆ Attaching the Option Interface

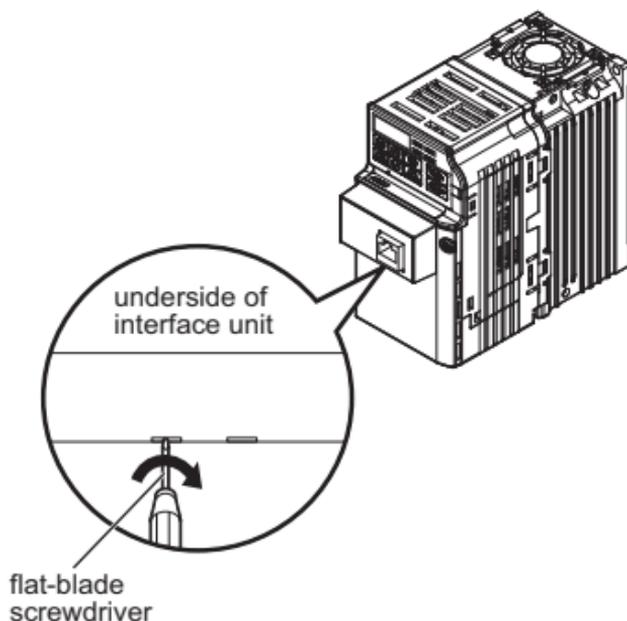
1. Insert a flat-blade screwdriver into the opening as shown in the diagram below to remove the option cover from the drive.
2. Insert the connector on the back of the interface into the CN5 port and click into position.



5 Installation Procedure

◆ Removing the option interface

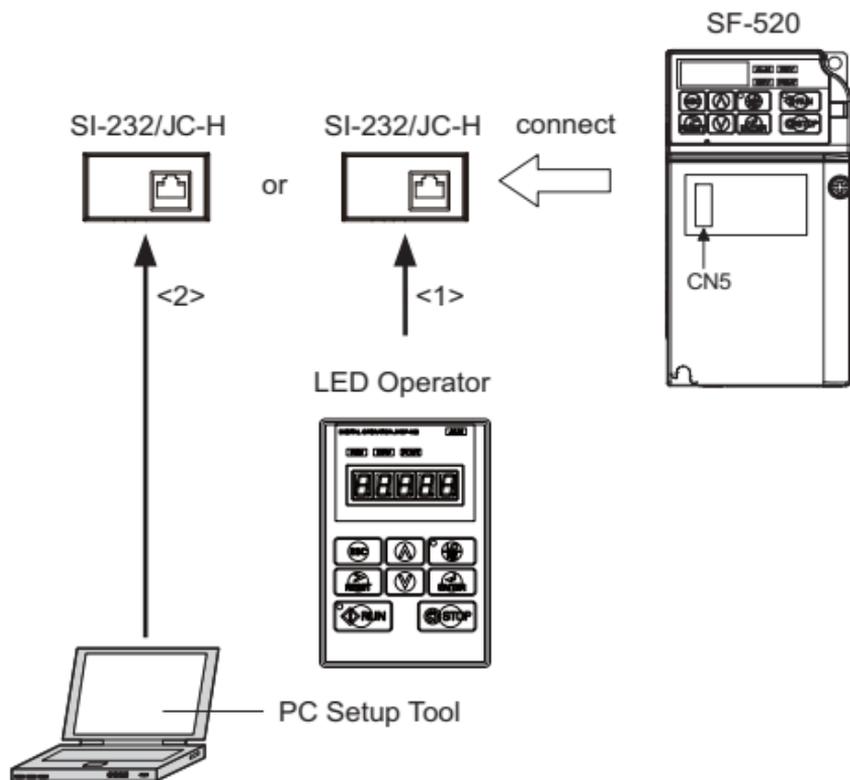
1. Use a flat-blade screwdriver as shown in the diagram to press gently against the small openings and disconnect the option unit.



5 Installation Procedure

◆ Connecting Peripheral Devices to the RS-232C Interface Option

NOTICE: Only use specific cables recommended by Sumitomo. Sumitomo cannot guarantee proper operation if non-specified cables are used.



5 Installation Procedure

- <1> Use the LED operator cable, ICS-1 or ICS-3.
- <2> Only use the cable, PN: WV103, when connecting the drive to a PC.

6 Related Drive Parameters

6 Related Drive Parameters

No.	Name	Description	Default
o2-06	Operation Selection when Digital Operator is Disconnected	Determines if the drive will stop when the digital operator is removed in Local mode or with b1-02 set to zero. 00: Disabled - The drive will not stop when the digital operator is removed. 01: Enabled - The drive will fault (OPR) and coast to stop when the digital operator is removed.	00

7 Troubleshooting

7 Troubleshooting

Problems with the option interface may trigger an operator error. Refer to the SF-520 Technical Manual for all other errors.

◆ Fault

LED Operator Display		Fault Name
	oPr	Digital operator connection fault
Cause		Possible solution
LED operator is not properly connected to the drive or cables are damaged		<ul style="list-style-type: none">• Check the connection between the LED operator and the drive• Replace the cable if damaged• Turn off the drive input power and disconnect the LED operator• Next reconnect the operator and turn the drive input power back on

8 Specifications

◆ Drive Specification

Item	Specification
Model Number	SI-232/JC-H: RS-232C Interface for use with copy unit and PC communication
Storage/Installation Area	Indoors (an area free from oil mist and dust)
Ambient Temperature	-10 to +50°C
Humidity	95% RH or less with no condensation
Storage Temperature	-20 to +60°C allowed for short-term transport of the product
Altitude	1000 m or less

9 Warranty

9 Warranty

◆ Warranty policy on inverter

Warranty period	The warranty period is 18 months from date of shipment or 12 months after initial operation, whichever comes first.
Warranty condition	<p>In the event that any problem or damage to the Product arises during the "Warranty Period" from defects in the Product whenever the Product is properly installed and combined with the Buyer's equipment or machines maintained as specified in the maintenance manual, and properly operated under the conditions described in the catalog or as otherwise agreed upon in writing between the Seller and Buyer or its customers; the Seller will provide, at its sole discretion, appropriate repair or replacement of the Product without charge at a designated facility, except as stipulated in the "Warranty Exclusions" as described below.</p> <p>However, if the Product is installed or integrated into the Buyer's equipment or machines, the Seller shall not reimburse the cost of: removal or re-installation of the Product or other incidental costs related thereto, any lost opportunity, any profit loss or other incidental or consequential losses or damages incurred by the Buyer or its customers.</p>

Warranty exclusion	<p>Notwithstanding the above warranty, the warranty as set forth herein shall not apply to any problem or damage to the Product that is caused by:</p> <ol style="list-style-type: none">1. Installation, connection, combination or integration of the Product in or to the other equipment or machine that rendered by any person or entity other than the Seller.2. Insufficient maintenance or improper operation by the Buyer or its customers such that the Product is not maintained in accordance with the maintenance manual provided or designated by the Seller;3. Improper use or operation of the Product by the Buyer or its customers that is not in-formed to the Seller, including, without limitation, the Buyer's or its customers' operation of the Product not in conformity with the specifications;4. Any problem or damage on any equipment or machine to which the Product is installed, connected or combined or any specifications particular to the buyer or its customers;5. Any changes, modifications, improvements or alterations to the Product or those func-tions that are rendered on the Product by any person or entity other than the Seller;6. Any parts in the Product that are supplied or designated by the Buyer or its customers;
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9 Warranty

Warranty exclusion	<ol style="list-style-type: none">7. Earthquake, fire, flood, salt air, gas, lightning, acts of God or any other reasons beyond the control of the Seller;8. Normal wear and tear, or deterioration of the Product's parts, such as the cooling fan bearings;9. Any other troubles, problems or damage to the Product that are not attributable to the Seller.
Others	The Seller will not be responsibility for the installation and removal of the inverter. Any inverter transportation cost shall be born by both Seller and Buyer.

- Specifications, dimensions, and other items are subject to change without prior notice.



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