



NetSure™ +24 VDC to -48 VDC Converter System Upgrade Kit

Installation Manual

Kit Specification Number: 10019684

For Use in Spec. Nos. 584622100 and 584622300 Power Systems

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Technical Support Site

If you encounter any installation or operational issues with your product, check the pertinent section of this manual to see if the issue can be resolved by following outlined procedures.

Visit <https://www.vertiv.com/en-us/support/> for additional assistance.

TABLE OF CONTENTS

Admonishments Used in this Document.....	iv
Important Safety Instructions.....	v
Safety Admonishments Definitions.....	v
Safety and Regulatory Statements.....	v
Déclarations de Sécurité et de Réglementation.....	v
1 Vertiv™ NetSure™ +24 VDC to -48 VDC Converter System Upgrade Kit Installation Instructions.....	1
1.1 Kit Description.....	1
1.2 Kit Contents.....	1
1.3 Tools and Material Required.....	1
1.4 Installation Procedure.....	1

Admonishments Used in this Document



DANGER! Warns of a hazard the reader **will** be exposed to that will **likely** result in death or serious injury if not avoided. (ANSI, OSHA)



WARNING! Warns of a potential hazard the reader **may** be exposed to that **could** result in death or serious injury if not avoided. This admonition is not used for situations that pose a risk only to equipment, software, data, or service. (ANSI)



CAUTION! Warns of a potential hazard the reader **may** be exposed to that **could** result in minor or moderate injury if not avoided. (ANSI, OSHA) This admonition is not used for situations that pose a risk only to equipment, data, or service, even if such use appears to be permitted in some of the applicable standards. (OSHA)



ALERT! Alerts the reader to an action that **must be avoided** in order to protect equipment, software, data, or service. (ISO)



ALERT! Alerts the reader to an action that **must be performed** in order to prevent equipment damage, software corruption, data loss, or service interruption. (ISO)



FIRE SAFETY! Informs the reader of fire safety information, reminders, precautions, or policies, or of the locations of fire-fighting and fire-safety equipment. (ISO)



SAFETY! Informs the reader of general safety information, reminders, precautions, or policies not related to a particular source of hazard or to fire safety. (ISO, ANSI, OSHA)

Important Safety Instructions

Safety Admonishments Definitions

Definitions of the safety admonishments used in this document are listed under “Admonishments Used in this Document” on page iv.

Safety and Regulatory Statements

Refer to Section 4154 (provided with your customer documentation) for Safety and Regulatory Statements.

Déclarations de Sécurité et de Réglementation

Reportez-vous à la Section 4154 (fourni avec les documents de votre client) pour les déclarations de sécurité et de réglementation.

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1 Vertiv™ NetSure™ +24 VDC to -48 VDC Converter System Upgrade Kit Installation Instructions

1.1 Kit Description

These instructions provide a step-by-step procedure to field install this kit into a Vertiv™ NetSure™ +24 VDC to -48 VDC Converter System (Spec. No. 584622100 and 584622300). Installation of this kit in other equipment should not be attempted.

This kit provides a new system interface circuit card (P/N 10017022) which allows the output voltage to be set at a higher level.

1.2 Kit Contents

Table 1.1 lists the items furnished as a part of this kit. Before installing the kit, check the items furnished against those listed to ensure that there are no shortages.

Table 1.1 Kit Contents

P/N	Description	Qty.
10017022	System Interface Circuit Card	1
552421 rev AB	Label	1

1.3 Tools and Material Required

Table 1.2 lists the items required to install this kit.

Table 1.2 Tools and Material Required

Description
Grounding Wrist Strap
Cross-Blade Screwdriver

1.4 Installation Procedure

THESE INSTRUCTIONS SHOULD BE READ THROUGH COMPLETELY BEFORE INSTALLING THE KIT.

The following is a step-by-step procedure to install the kit. The procedure has been written for ease of use and to minimize the possibility of contact with potentially hazardous energy. This procedure should be performed in the sequence given, and each step should be completely read and fully understood before performing that step. Observe all “Important Safety Instructions” starting on page v and also those presented in the following procedure. As each step of the procedure is completed, the box adjacent to the respective step should be checked. This will minimize the possibility of inadvertently skipping any steps. If the step is not required to be performed for your site, also check the box to indicate that it was read.

Procedure



DANGER! This procedure is performed on a LIVE system. Observe the “Important Safety Instructions” starting on page v and those listed in the system manual.

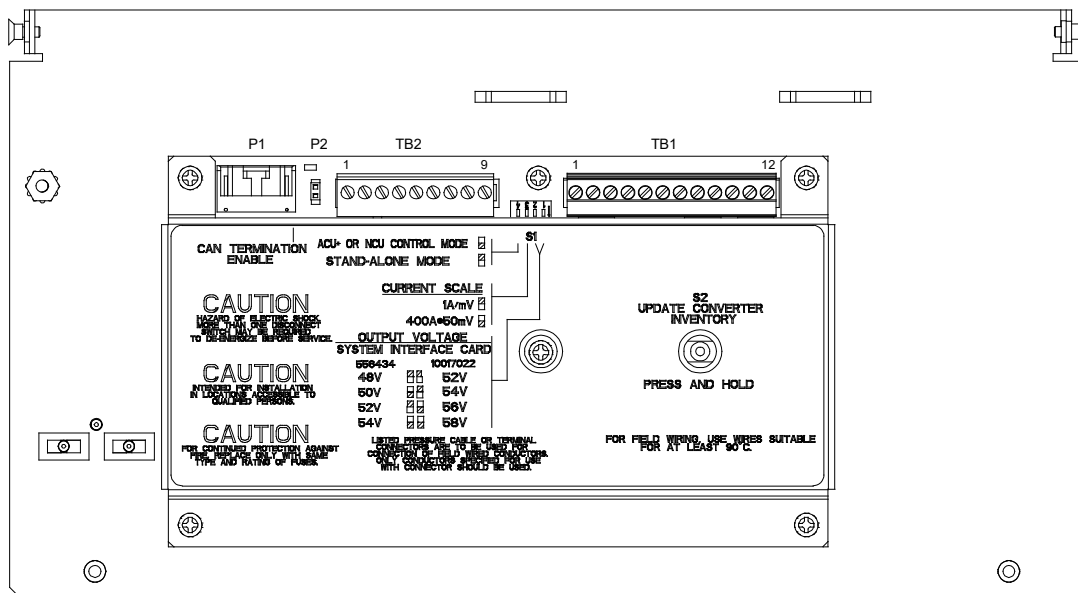
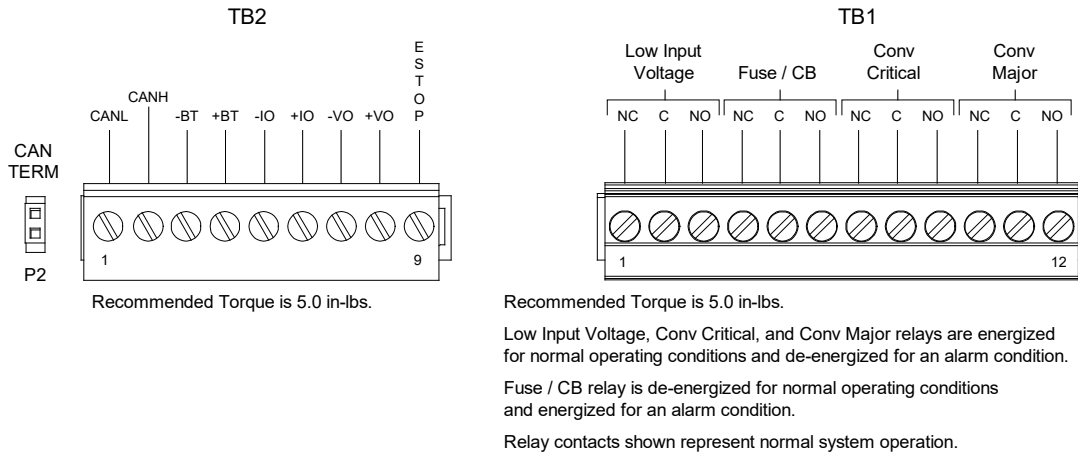
1. Performing this procedure may activate external alarms. Do one of the following. If possible, disable these alarms. If these alarms cannot be easily disabled, notify the appropriate personnel to disregard any future alarms associated with this system while the procedure is being performed.
2. Open the main shelf's front door.



ALERT! Damage to the circuit card may result if the next step is not followed.

- [] 3. Connect an approved grounding strap to your wrist. Attach the other end to a suitable ground.
- [] 4. Remove terminal blocks TB1 and TB2 from the existing system interface circuit card (P/N 556434). Refer to Figure 1.1.
- [] 5. Unplug the J1 connector plugged into P1 on the existing system interface circuit card (P/N 556434). Refer to Figure 1.1.

Figure 1.1 External Alarm, Reference, Monitoring, and Control Connections



Inside View of Main Shelf's Front Door

- [] 6. Remove the screws securing the cover over the existing system interface circuit card (P/N 556434) and remove the cover and circuit card. Refer to Figure 1.2.
- [] 7. Adhere the supplied label over the existing label on the system interface circuit card cover.
- [] 8. Position the replacement system interface circuit card (P/N 10017022) over its mounting position and replace the cover. Secure the cover and circuit card with the screws previously removed. Refer to Figure 1.2.

- [] 9. Reinstall terminal blocks TB1 and TB2 onto the replacement system interface circuit card (P/N 10017022). Refer to Figure 1.1.
- [] 10. Reinstall J1 onto P1 on the replacement system interface circuit card (P/N 10017022). Refer to Figure 1.1.
- [] 11. On the replacement system interface circuit card (P/N 10017022), set the switches and jumper per site requirements. Refer to Figure 1.3. Refer also to Table 1.3, Table 1.4, and Table 1.5.
- [] 12. Remove the grounding wrist strap.
- [] 13. Enable the external alarms or notify appropriate personnel that this procedure is finished.
- [] 14. Ensure that there are no local or remote alarms active on the system.
- [] 15. Close the shelf's front door.
- [] 16. Save these instructions with your existing system instructions to document the new switch settings.

Figure 1.2 Replacing the System Interface Circuit Card

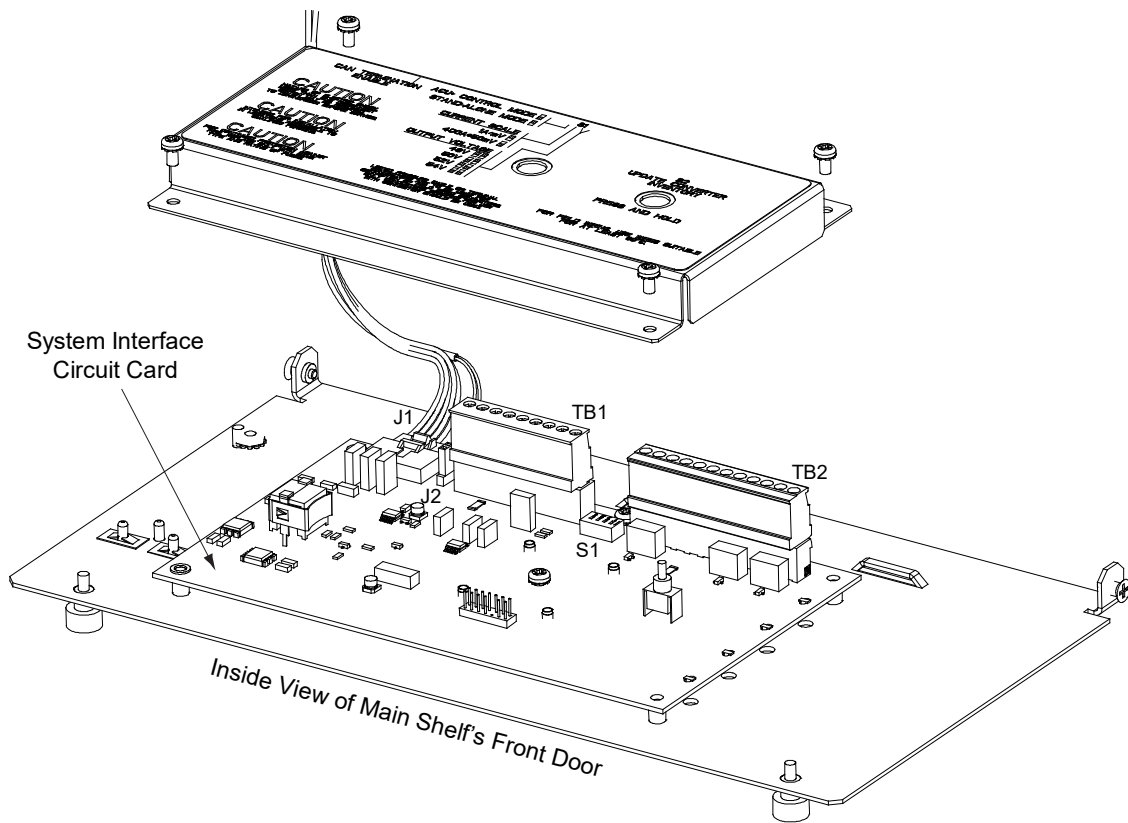
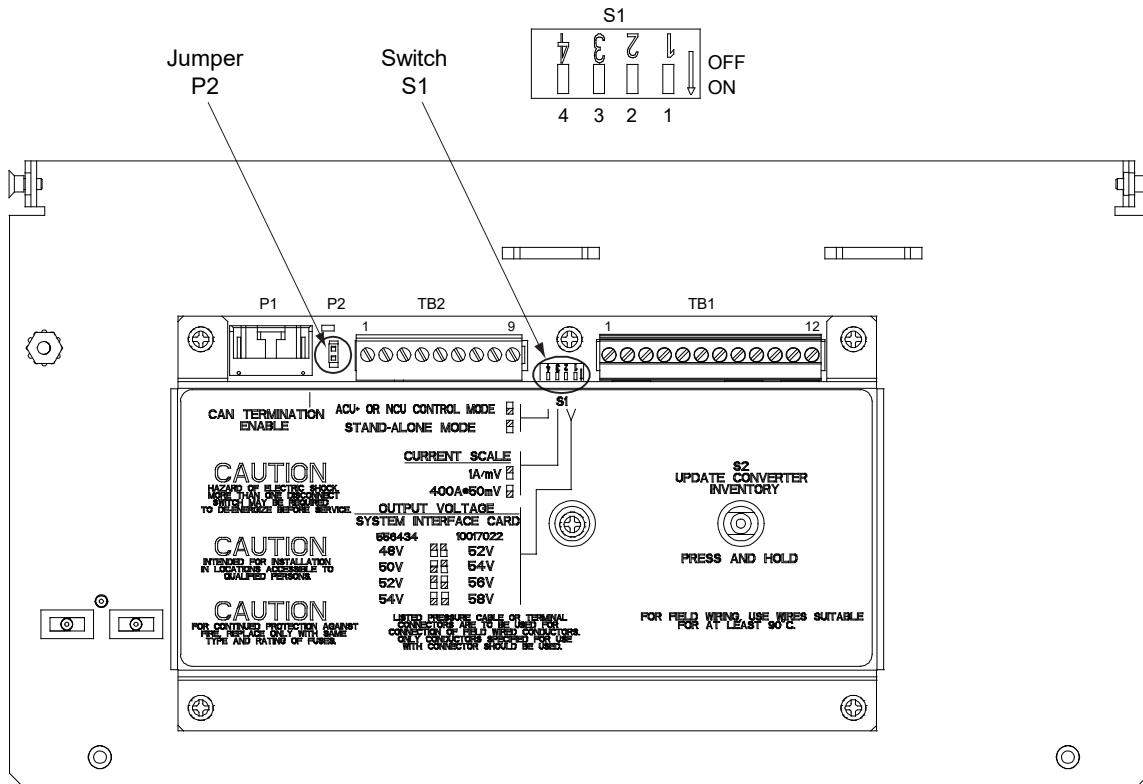
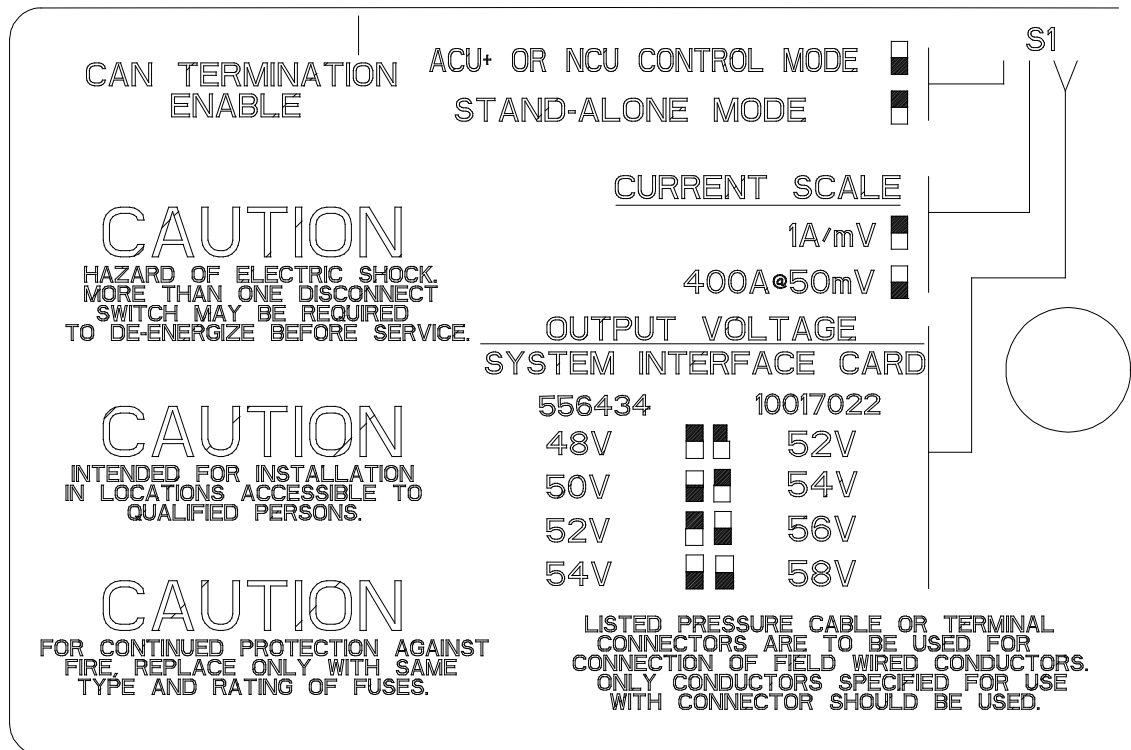


Figure 1.3 System Interface Circuit Card Jumper and Switch Locations



Inside View of Main Shelf's Front Door



Switch S1**Switch Positions 1 and 2 of S1**

Selects the converter system's output voltage as shown in Table 1.3.

Table 1.3 Converter System Output Voltage Selection

S1	52V	54V	56V	58V
Switch 1	OFF	OFF	ON	ON
Switch 2	OFF	ON	OFF	ON

Switch Position 3 of S1

Selects the current scale for the output current test points as shown in Table 1.4.

Table 1.4 Output Current Test Points “Current Scale” Selection

S1	1A / 1mV	400A / 50mV
Switch 3	OFF	ON

Switch Position 4 of S1

Selects whether converter system output voltage is controlled by the system interface circuit card (stand alone mode) or by an ACU+ as shown in Table 1.5.

Table 1.5 Output Voltage Control Selection

S1	Stand Alone Mode	ACU+ Controller Mode
Switch 4	OFF	ON

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