

NetSure[™] -48 VDC to -58 VDC Output Converter Upgrade Kit

Installation Manual

Kit Specification Number: 60029556 For Use in Spec. Nos. 582127000ZZ003, 582127000ZZ011, and 582127000ZZ033 Power Systems The information contained in this document is subject to change without notice and may not be suitable for all applications. While every precaution has been taken to ensure the accuracy and completeness of this document, Vertiv assumes no responsibility and disclaims all liability for damages resulting from use of this information or for any errors or omissions. Refer to other local practices or building codes as applicable for the correct methods, tools, and materials to be used in performing procedures not specifically described in this document.

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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.

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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[™] -48 VDC to -58 VDC Converter Upgrade Kit Installation Instructions

1.1 Kit Description

These instructions provide a step-by-step procedure to field install this kit into Vertiv[™] NetSure[™] 721 Power Systems (Spec. Nos. 582127000ZZ003, 582127000ZZ011, and 582127000ZZ033). Installation of this kit in other equipment should not be attempted.

This kit provides components to change converter module mounting positions for Spec. No. 1C48241500 (-48 VDC to +24 VDC) converter modules to mounting positions for Spec. No. 1C48582000P3 (-48 VDC to -58 VDC) converter modules. It also provides components to change the breaker positions in the distribution cabinet from +24 VDC to -58 VDC. A backout procedure is also provided.

1.2 Restrictions

You MUST have an NCU Controller in your system to use the Spec. No. 1C48582000P3 (-48 VDC to -58 VDC) converter modules.

1.3 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.

P/N	Description	Qty.
60028735	Use Only -58 VDC Converters Caution Label	12
60029476	Load Distribution Position Label (Reversible -58VDC or -48VDC)	10
60029477	Load Distribution Position Direction Arrow Label (-58VDC / -48VDC)	1
60027289	Rectifier/-58 VDC Converter Module Mounting Positions Label	2
60029577	Field Retrofitted for Use with -58 VDC Converters Nameplate Label	1
245126200	Quick Connect Terminal	1
60027773	Fuse Alarm Jumper Harness	1
237650200	Cable Tie	6
552423	Hook-and-Loop Fastener (factory attached to storage pouch)	2
150661	USB Memory Device with Storage Pouch (contains new NCU configuration, NCU Clean-up package, and customer documentation)	1

Table 1.1 Kit Contents

1.4 Tools and Material Required

Table 1.2 lists the items required to install this kit.

Table 1.2 Tools and Material Required

Description
7/16" Socket
Small Flat-Blade Screwdriver
#2 Phillips Screwdriver
Torque Wrench
Spec. No. 1C48582000P3 (-48 VDC to -58 VDC) Converter Modules (as required)

1.5 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.

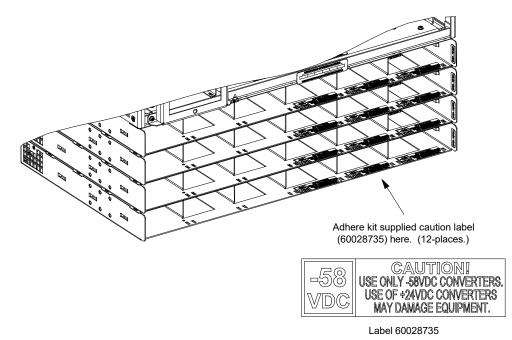
Procedure



DANGER! This procedure is performed on a LIVE system. Observe the "Important Safety Instructions" starting on page v and those listed in the power 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. If your system has an ACU+ controller, replace it with an NCU controller (P/N 1M830DNA559246).
- [] 3. If your system ORIGINALLY had an NCU controller, refer to "Backing Up the NCU Configuration" on page 18 and backup the controller configuration.
- [] 4. Open the distribution cabinet door. Ensure that there are no loads/cables connected to the +24V circuit breaker positions. Upon completion of this upgrade, the system will no longer support +24V loads. If there are loads tied to the +24V positions, these will need to be removed and connected to a separate +24V system.
- [] 5. Remove all existing +24 VDC output converter modules from the module mounting shelves.
- [] 6. Clear the converter Communication and/or Lost alarms via the controller, if applicable. Via the controller front panel main screen, navigate to the Settings Icon in the upper left of the main screen and press the ENT key. Enter your username and password. Use the arrow keys to scroll to the Alarm Settings Menu and press the ENT key. Use the arrow keys to scroll to the ClrAllConvCommF and press the ENT key. Use the arrow keys to scroll to the ClrConvCommFail and press the ENT key. Use the arrow keys to scroll to the Clear Conv Lost and press the ENT key.
- [] 7. Adhere kit supplied "Use Only -58 VDC Converters" caution label (60028735) to each of the twelve (12) module mounting slots shown in Figure 1.1. Orient the labels between the two (2) rectangular slots used for the converter module locking tabs. Align front edge of label to front edge of shelf. **Do Not** cover the converter module locking tab slots.

Figure 1.1 Adhere 60028735 Labels



- [] 8. Open the distribution cabinet front door.
- [] 9. Remove the shield from the top distribution panel by loosening the screws securing it and lifting the shield up and out (see Figure 1.2).

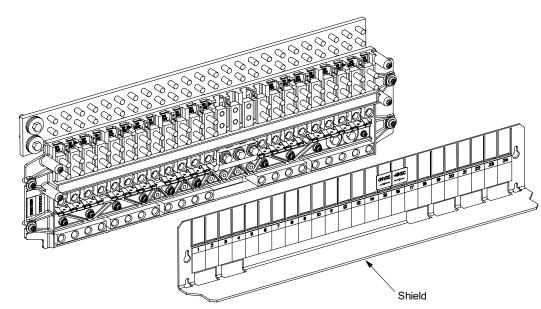


Figure 1.2 Remove Shield

- [] 10. Press in tabs to release distribution device lead busbars. See Figure 1.3.
- [] 11. Remove distribution device lead busbars. See Figure 1.3.

- [] 12. Remove +24 VDC distribution position labels and replace with -58 VDC distribution position labels (60029476) (6-places.). See Figure 1.3. Save the +24 VDC distribution position labels.
- [] 13. Reverse order steps to re-assemble. See Figure 1.3.
- [] 14. Adhere load distribution position direction arrow label (-58VDC / -48VDC) (60029477) over existing label (1-place). See Figure 1.3.

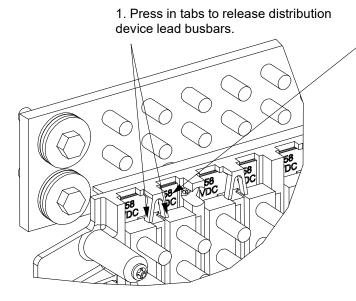


NOTE! If some of the -48V positions on the right side need to be converted to -58V positions, refer to your system manual to rework the distribution bus to convert the desired positions. The system needs to be shut down (not live) to do this if those positions are currently being used for load. If you convert some of the -48V positions to -58V positions, -58V labels are provided in the kit to mark these distribution positions for the new voltage.

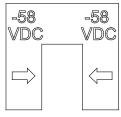


DANGER! If you convert any of the distribution positions on the right side (see Figure 1.3), you MUST shut down the system first if those positions are currently being used for load. Observe the "Important Safety Instructions" starting on page v and those listed in the power system manual.

Figure 1.3 Install 60029476 and 60029477 Labels



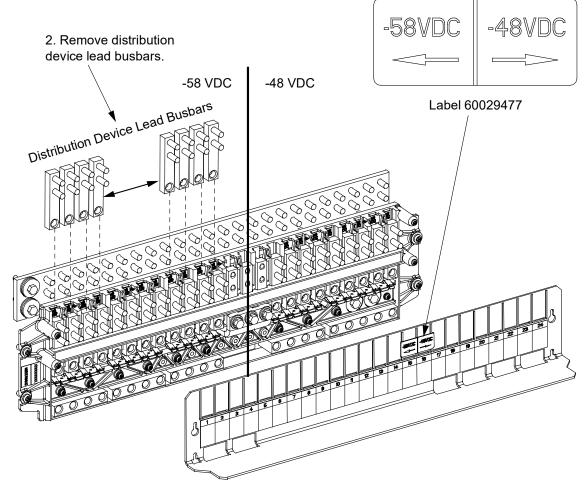
3. Remove +24 VDC distribution position label and
replace with -58 VDC distribution position label (60029476). (6-places.)



Label 60029476

4. Reverse order steps to re-assemble.

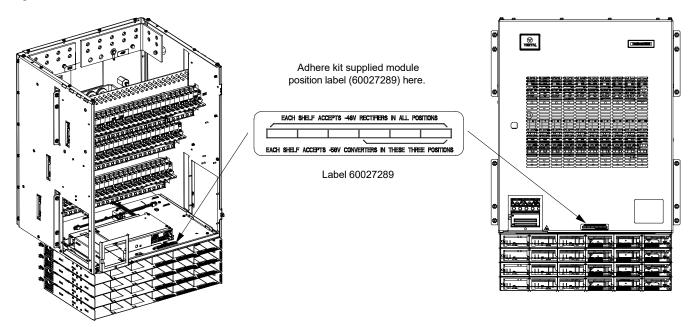
5. Adhere load distribution position direction arrow label (-58VDC / -48VDC) (60029477) over existing label. (1-place.)



[] 15. Replace the top distribution panel shield.

[] 16. Adhere one of the kit supplied module position labels (60027289) over the existing module position label on the front door. Adhere the second kit supplied module position label (60027289) over the existing module position label on the inside bottom of the distribution cabinet. See Figure 1.4.

Figure 1.4 Adhere 60027289 Label



[] 17. Adhere kit supplied nameplate label (60027891) above the existing nameplate label. See Figure 1.5.

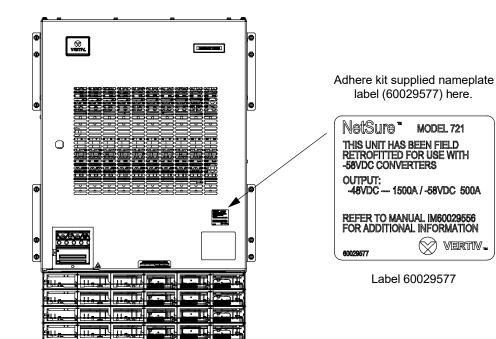
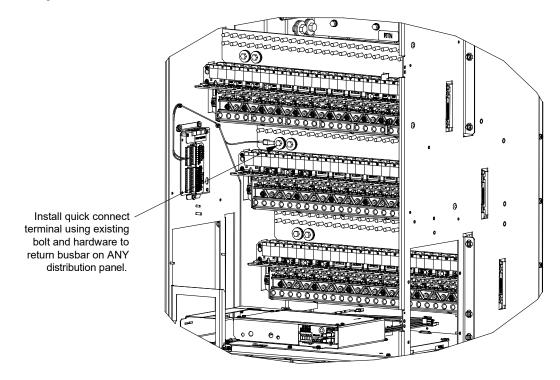


Figure 1.5 Adhere 60029577 Label

[] 18. Install kit supplied quick connect terminal (245126200) to return busbar on ANY distribution panel. Figure 1.6 shows the quick connect terminal attached to the middle distribution panel for reference. Install using the existing 1/4-20 bolt and hardware. Re-torque the 1/4-20 bolt to 84 in-lbs.

Figure 1.6 Installing Quick Connect Terminal



- [] 19. Remove the shield from the control shelf located at the bottom of the distribution cabinet. See Figure 1.7.
- [] 20. Disconnect the existing system wire harness from J1, J2, J3, and J4 on the system interface board (label connectors before removing). See Figure 1.7.

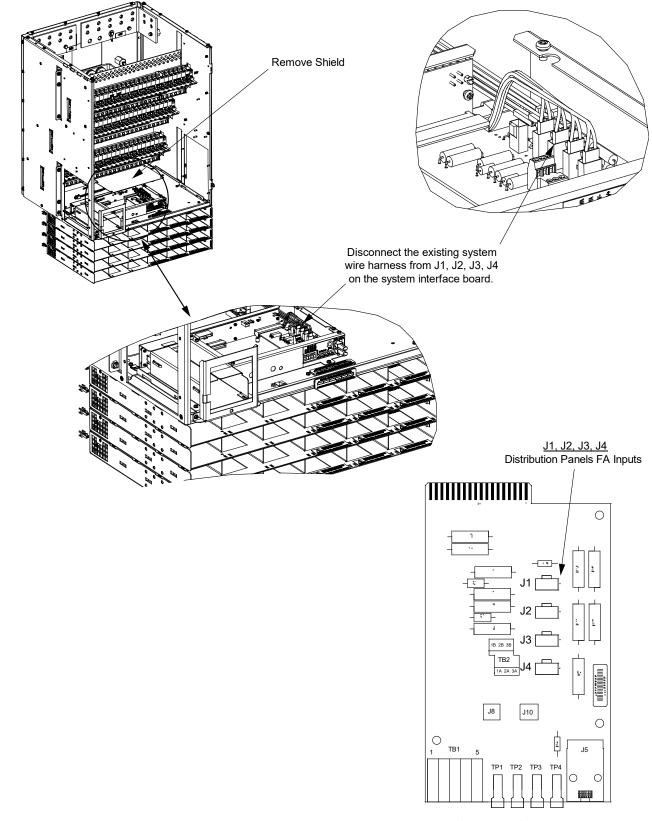


Figure 1.7 Disconnecting Existing System Wire Harness

System Interface Board

- [] 21. Install kit supplied fuse alarm jumper harness (60027773). See Figure 1.8 and Figure 1.9.
 - a) Route the fuse alarm jumper harness ORANGE (O) wire and connect to the IB2-1 controller interface board terminal J4-5 (DI6-). See Figure 1.8.
 - b) Route the fuse alarm jumper harness BLACK (BK) wire and connect to the IB2-1 controller interface board terminal J4-6 (DI6+). See Figure 1.8.
 - c) Connect the fuse alarm jumper harness to the quick connect terminal previously installed ANY distribution panel return busbar. Figure 1.9 shows the quick connect terminal on middle panel for reference.
 - d) Route the fuse alarm jumper harness from the quick connect terminal block down to the system interface board See Figure 1.9.
 - e) Plug the mating connectors (P1, P2, P3, P4) of the fuse alarm jumper harness into J1, J2, J3, and J4 on the system interface board. See Figure 1.9.
 - f) Plug the remaining connectors (J1, J2, J3, J4) on the fuse alarm jumper harness into the mating connector of the existing system wire harness (previously disconnected from J1, J2, J3, and J4 on system interface board in a previous step). See Figure 1.9.

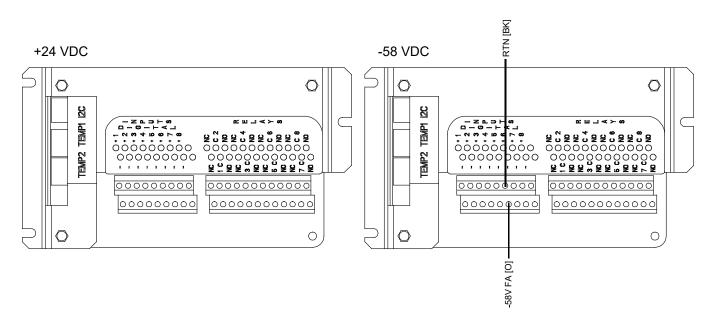
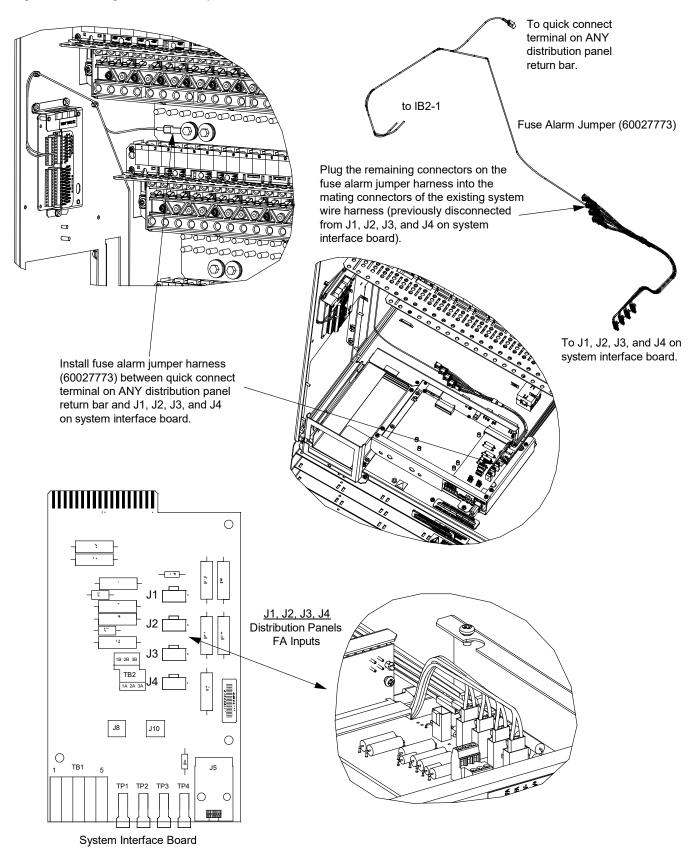


Figure 1.8 IB2-1 Controller Interface Board

Figure 1.9 Installing Fuse Alarm Jumper Harness



- [] 22. Re-install the shield to the control shelf located at the bottom of the distribution cabinet.
- [] 23. Dress and secure the fuse alarm jumper harness with the kit supplied cable ties (237650200).
- [] 24. Update the controller configuration file as follows.

NOTE! When using the Web interface to update an NCU containing firmware that is version level 1.2.51B or less to version 1.2.60B or greater, the NCU requires its flash memory to be refreshed. The Clean-up Tool package frees enough flash so that the controller can be updated to 1.2.60B or greater while maintaining the Web user interface.

Starting with version 1.2.60B and later, software is loaded using a different strategy, so this clean-up process is not needed once a controller is updated to 1.2.60B. See the main page (Figure 1.10) to determine software version.

- a) Copy the Application "All" package file and the Clean-up Tool package (ncu_cleanup_V1.1.tar or later) located on the kit-supplied USB drive to your computer. The name of the Application "All" package file ends in either .tar or .tar.gz. The name of the Clean-up Tool package ends in .tar.
- b) Log in to the Web user interface page.
- c) Click "Advanced Settings." See Figure 1.10.

Figure 1.10 Advanced Settings



d) Go to the SW Maintenance tab. Click on "Stop Controller." See Figure 1.11.

Figure 1.11 Stop Controller

	🔯 Ali Alarms(2) 🕰 Observation(0) 🕰 Major(0) 🕕 Critical(2) 😪 Auto Popup	& Welcome: admin SIGN OUT
NetS		
Home Settings History Log System inventory	Ethemnet: Users SNMP Language SW Maintenance Alarms DO(relays) Shunts Fuses Alarm Report Generator Power B Auto Config This function will automatically configure SM units and modiluus devices that have been connected to RS485 bus. Restore Factory Defaults Restore Getault configuration? Restore Getault configuration? Restore SectingParam.tar Retrieve Diagnostics Package Retrieve Diagnostics Package Retrieve Diagnostics Package Retrieve SettingParam.tar	Split Monitor Protocol Clear Data System Status
Advanced Settings	Upload/Download needs to stop the Controller. Do you want to stop the Controller? Stop Controller	Config Version 1.01 Site Information Site Name G3 Site Location Europe

e) After the following window opens, click "OK." See Figure 1.12.

Figure 1.12 Upload/Download - Controller Stopped

<	Ethernet		SNMP	Language	SW Maintenance		DI Alarms	DO(relay)			Alarm Report	Power Split	Monitor Prote
	II Upload/I	Download	l File										
					s with extension .tar o DLLER button before			ded. If the do	wnloaded f	ile is NO	T correct, the Co	ntroller will run	
S	elect File				Bro	wse	Download t	o Controller					
F	ile in contro	oller	Configur	ation Pa Con	troller was stopped s	uccessfully	. You can uple	oad/download	the file.	ОК			
	👪 Start Co	ntroller											
						St	art Controller						
													Þ



ALERT! Never navigate away from this Web page without first clicking on "Start Controller" after loading the appropriate file(s). If you do, you will not have Web access. A manual system reset is required to restore Web access.

NOTE! If the original software version is 1.2.60B or higher, go to step k.

f) After the following window appears (Figure 1.13), browse and select the Clean-up Tool package (ncu_cleanup_V1.1.tar or later) you copied earlier to your computer. Click "Download to Controller." This process may take several minutes. The following screen displays, indicating a successful upload. Click "OK" and then click "Start Controller" to reboot the NCU. This process could take several minutes.

Figure 1.13 Download Clean-Up Tool Package and Start Controller

🔁 Ali Alaema(2) 🔔 Otsaarvaston(3) 🚖 Magar(3) 🔮 Otilisaa(2) 😿 Auto Popup	
NetSure [™] control unit	
Image: Sector of the sector	Self Monitor Protocol Churr Data System Statues Output Vallage Output Vallage Output Current O.GA System Specifications System Name NCU Controller Specifications Product Model M8300 Senal Namber 033221000021 Hardware Version A20 Subtware Version L2.438 Confty Version L0.8 Site Information Site Name Ori Site Name Ori Site Name Data
26/02/2024 30:37:56	62021 Verter Tech Col.(Jat.A8 rights reserved.

- g) Log in to the Web user interface page.
- h) Click "Advanced Settings." See Figure 1.14.

Figure 1.14 Advanced Settings



i) Go to the SW Maintenance tab. Click on "Stop Controller." See Figure 1.15.

Figure 1.15 Stop Controller

	13 All Alarms(2) 🕰 Observation(0) 🕰 Major(0) 😗 Critical(2) 🔀 Auto Popup	A Welcome: admin SIGN OUT
NetS		
Home Home Settings History Log Fystem Inventory Advanced Settings	Ethernet Users SMMP Language SW Maintenance Alarms Di Alarms DO(relays) Shunts Fuses Alarm Report Generator Power # Auto Config This function will automatically configure SM units and modbus devices that have been connected to RS485 bus. Auto Config Auto Config # Restore Factory Defaults Restore Defaults Restore Defaults Restore Defaults Restore Defaults Retrieve SettingBraam.tar Retrieve SettingBraam.tar Retrieve File Retrieve Diagnostics Package Retrieve File # Upload/Download Upload/Download needs to stop the Controller. Do you want to stop the Controller? Stop Controller Stop Controller	Split Monitor Protocol Clear Data System Status
22/02/2024 17:20	:30	C2021 Vertiv Tech Co.,Ltd.All rights reserved.

j) After the following window opens, click "OK." See Figure 1.16.

Figure 1.16 Upload/Download – Controller Stopped

< Ethernet User	s SNMP	Language	SW Maintenance		DI Alarms	DO(relay)		Fuse	Alarm Report	Power Split	Monitor Pr
II Upload/Downlo	ad File										
			s with extension .tar o OLLER button before			ided. If the do	wnloaded	file is NC	T correct, the Co	introller will run	
Select File			Bro	wse	Download	to Controller					
File in controller	Configur	ation Con	itroller was stopped s	uccessfully	. You can upl	oad/download	the file.	ок			
Start Controller											
				St	lart Controller						

ALERT! Never navigate away from this Web page without first clicking on "Start Controller" after loading the appropriate files. If you do, you will not have Web access. A manual system reset is required to restore Web access.

k) After the following window appears (Figure 1.17), browse and navigate to the folder where the file to download is located. Select the application "All" package you copied earlier to your computer. Click "Download to Controller." This process may take several minutes. The following screen displays, indicating a successful upload. Click "OK" and then click "Start Controller" to reboot the NCU with the downloaded file installed. This process could take several minutes.

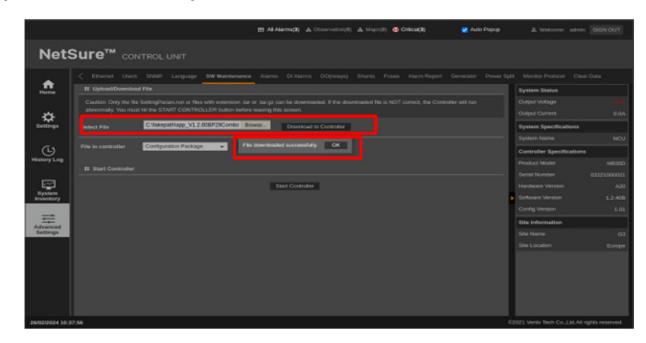


Figure 1.17 Download Firmware Package and Start Controller

NOTE! If a V1.260B or greater package file is downloaded in the previous steps to a revision 1.2.51B or less revision controller before using the clean-up tool, one of the following error messages will display:

Figure 1.18 Error Message 1: "Failed to download file or wrong package type."

		(2) All Alarmo(5) A Minor(0) A Major(0) (2) Critical(5)	🛃 Auto Popup	& Welcome: admi	
NetS	Sure™ cor	NTROL UNIT			
		SNMP Language SW Maintenance Alarms DI Alarms DO(relays) Shunts Fuses Alarm Report			
Home	II Upload/Downloa	d File		System Status	
æ		e SettingParam.run or files with extension. tar or .tar.gr can be downloaded. If the downloaded file is NOT correct, the Contr It hit the START CONTROLLER button before leaving this screen.			
Settings	Select File	C:tfakepathlapp_V1.2.60BP29Combo Browse Download to Controller		System Specifications	
	File in controller	Configuration Package Failed to download file or wrong package type. OK		System Name	
History Log	File in controller	Computation Package		Controller Specification	15
HISTORY LOG	Start Controller				
System		Start Controller	-	Serial Number Hardware Version	
Inventory				Software Version	
≓					Default
Advanced				Site Information	
Gunnga					
02/22/2024 14:52	:52			02023 Vertiv Tech Co.,Ltd.All	rights reserved.

OR

Figure 1.19 Error Message 2: "Failed to download file."

	🖪 All Alarms(3) 🛕 Observation(0) 🛕 Major(0) 🚯 Critical(3) 😿 Auto Po	opup	.≛ Welcome: ad	Imin SIGN OUT
NetSu	UTE [™] CONTROL UNIT			
Home Settings History Log	CONTROL UNIT Enternet Users SNMP Language SW Maintenance Alarms Di Alarms DO(relay) Shurds Fuse Alarm Report Generator Power Upload/Download File Cause on the two strategies with extension fair or fair go can be downloaded. If the downloaded file is NOT correct, the Controller will run abnormally. You must he the START CONTROLLER button before leaving this screen. Select File Controller Controller Controller Controller Start Controller Start Controller	Spit	Monitor Protocol Cle System Status Output Voltage Output Voltage Output Current System Specification System Name Controller Specification Product Model Product Model Serial Number Hardware Version Config Version Site Information Site Information Site Location	0.0A s NCU
22/02/2024 11:15:43			2018 Vertiv Tech Co.,Ltd.	All rights reserved.

- [] 25. If your system ORIGINALLY had an NCU controller, refer to "Reloading a Backed-Up NCU Configuration" on page 21 and restore the backed-up controller configuration file saved in step [] 3.
- [] 26. Close the distribution cabinet front door.
- [] 27. Install separately ordered converter modules 1C48582000P3 in the far right mounting positions shown in Figure 1.1 and Figure 1.4, as required.
- [] 28. Click on the converter icon in the NCU WEB interface power system status block diagram. This brings up the converter group status page. Check the converter output voltage and the status of each converter installed to verify all converters installed are active.
- [] 29. Enable the external alarms or notify appropriate personnel that this procedure is finished.
- [] 30. Ensure that there are no local or remote alarms active on the system.
- [] 31. If your system ORIGINALLY had an ACU+ controller, refer to "Backing Up the NCU Configuration" on page 18 and backup the controller configuration. Save this configuration file in case the NCU configuration ever needs to be reloaded.
- [] 32. Save these instructions in case a backout procedure needs to be performed at a later date.

Backout Procedure

If the power system needs to revert back to -48V/+24V operation, perform the following procedure.

- [] 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. Remove all existing -58 VDC output converter modules from the module mounting shelves.
- [] 3. Remove the "Use Only -58 VDC Converters" caution labels (60028735).
- [] 4. Open the distribution cabinet front door.
- [] 5. Remove the shield from the top distribution panel.
- [] 6. Press in tabs to release distribution device lead busbars for the -58V positions.
- [] 7. Remove distribution device lead busbars for the -58V positions.
- [] 8. Remove -58 VDC distribution position labels and replace with the saved +24 VDC distribution position labels (6-places).
- [] 9. Reverse order steps to re-assemble.
- [] 10. Remove load distribution position direction arrow label (-58VDC / -48VDC) (60029477) (1-place).
- [] 11. Replace the shield to the top distribution panel.
- [] 12. Remove the kit supplied module position label (60027289).
- [] 13. Remove the kit supplied nameplate label (60027891).
- [] 14. Remove the shield from the control shelf located at the bottom of the distribution cabinet.
- [] 15. Remove, insulate, and tie-back the fuse alarm jumper harness BLACK (BK) wire from the IB2-1 controller interface board terminal J4-6 (DI6+).
- [] 16. Remove, insulate, and tie-back the fuse alarm jumper harness ORANGE (O) wire from the IB2-1 controller interface board terminal J4-5 (DI6-).
- [] 17. Remove and insulate the connector plugged in J1, J2, J3, and J4 of the system interface board.
- [] 18. Separate and insulate the connectors on the fuse alarm jumper harness from the system wire harness. Connect the system wire harness connectors to J1, J2, J3, and J4 on the system interface board.
- [] 19. Remove, insulate, and tie-back the fuse alarm jumper harness from the quick connect terminal installed on the middle distribution panel return busbar.
- [] 20. Re-install the shield to the control shelf located at the bottom of the distribution cabinet.
- [] 21. Close the distribution cabinet front door.
- [] 22. Install converter modules 1C48241500 in the far-right converter module mounting positions, as required.
- [] 23. Enable the external alarms or notify appropriate personnel that this procedure is finished.
- [] 24. Ensure that there are no local or remote alarms active on the system.

1.6 Backing Up the NCU Configuration

1.6.1 NCU Version 1.1.80, or Later

General

To back up the NCU configuration, simply save the file named "SettingParam.tar".

Saving the "SettingParam.tar" File

Local Menu Navigation:

None.

Web Menu Navigation:

Advance Settings Menu / SW Maintenance Tab.

Procedure

1. Click on the "Retrieve File" button to save the file named "SettingParam.tar" to your computer. Select where you want the file to be copied to on your computer.

To aid in file management, you may change the name of the "SettingParam.tar" file to differentiate it from other "SettingParam.tar" files saved. The new name can use alpha and numeric characters preceding the original "SettingParam.tar" name (the end of the new file name **must** always be "SettingParam.tar"; for example, an acceptable filename would be "seville4SettingParam.tar").

Figure 1.20 Retrieve "SettingParam.tar" File

	C Ethernet Users SNMP Language SW Maintenance Alarms DI Alarms DO(relays) Shunts	s Fuses Alarm Rep	port Power Split Monitor	Protocol Clear Data	
Home	# Auto Config			System Status	
	This function will automatically configure SM units and modbus devices that have been connected to RS485 bus.		Auto Config	System Voltage	53.9∨
☆	Restore Factory Defaults			System Current	0.0A
Settings	Restore default configuration? The system will reboot.	Restore Defaults	Reboot controller	System Specifications	
6-	# Retrieve SettingParam.tar			System Name	NCU
L) History Log	Retrieve the current settings of the controller's adjustable parameters.		Retrieve File	Rectifiers	4
matory Log	# Retrieve Diagnostics Package		Reineve File	Controller Specifications	
~					M830D
System	Retrieve a diagnostics package to help troubleshoot controller issues		Retrieve File		307690
Inventory	: Upload/Download			Hardware Version	A16
≓	Upload/Download needs to stop the Controller. Do you want to stop the Controller?		Stop Controller		2.20P08 Default
Advanced Settings					Delault
Settings				Site Information	NCU
				Site Location	Vertiv
					veruv
01/04 Do	you want to open or save SettingParam.tar (46.0 KB) from 10.201.229.44?		Open	Save Cancel ×	/ed.

1.6.2 NCU Version 1.1.70, or Earlier

General

There are two steps in backing up the system's NCU configuration:

- Save the NCU configuration package. This package includes the base configuration and any changes made to alarm severity levels, relay assignments, signal names and site information.
- Save a file named "SettingParam.run". This file contains changes made to alarm setpoints and other settings such as float/ equalize voltage, etc. A file named "SettingParam.run" is automatically created/appended by the controller whenever a User (or the factory at the time of shipment) makes changes to parameter settings via the local display or Web Interface. This file can be saved to your computer so you can restore any custom settings you may have made.

Saving the Configuration Package

Local Menu Navigation:

None.

Web Menu Navigation:

Advance Settings Menu / SW Maintenance Tab.

Procedure

You can upload (from the controller to your computer) a configuration package.

1. To upload a file, you need to shut down the controller first. When you select the SW Maintenance Tab, click on the "Stop Controller" button.

Figure 1.21 Upload - Stop Controller

pload/Download	
	Upload/Download needs to stop the Controller. Do you want to stop the Controller?
	Stop Controller

2. The following window opens.

Figure 1.22 Upload - Controller Stopped

Upload/Download	1 File								
Caution: Only the t	file SettingPar	am run or filo	e with extension tar	or tar az c	an he downly	adad If the c	lownloado	d filo ie N	TOL
	_		s with extension .tar u must hit the STAR						101
							-		
Select File	Contro	ollor was stor	anad sussassfully. V		ad/download	the file			
Select File	Contro	oller was stop	pped successfully. Y	ou can uplo	ad/download	the file.	ок		
		oller was stop on Package			oad/download	the file.	DK		
Select File File in controller					oad/download	the file.	DK		

- 3. Click "OK".
- 4. The following window opens.

Figure 1.23 Upload File

Advance	ed Settings	> SW Maint	enance				🚨 We	lcome:	admin Log	out
Ethernet Users	SNMP	Language	SW Maintenance	Alarms	DI Alarms	DO(relay)	Shunts	Fuse		>>
# Upload/Download	1 File									1
			es with extension .tar						TOF	
	ller will run :	abnormally. Ye	ou must hit the STAR				ng this scre	en.		
Select File			Brow	/se	Download to	o Controller				
File in controller	Configura	tion Package	✓ Upload to C	omputer						
Start Controller										1
			Start	Controller						

ALERT! Never navigate from this Web page without first clicking on "Start Controller". If you do, you will not have Web access. A manual system reset is required to restore Web access.

5. To **upload** a file to your computer, select "Configuration Package" from the "File in Controller" drop-down list box, and click on the "Upload to Computer" button to save the file to your computer. Select where you want the file to be copied to on your computer. Click "Start Controller" to restart the Controller.

Saving the SettingParam.Run File

Local Menu Navigation:

None.

Web Menu Navigation:

Advance Settings Menu / SW Maintenance Tab.

Procedure

1. Click on the "Retrieve File" button to save the file named "SettingParam.run" to your computer. Select where you want the file to be copied to on your computer.

To aid in file management, you may change the name of the "SettingParam.run" file to differentiate it from other "SettingParam.run" files saved. The new name can use alpha and numeric characters preceding the original "SettingParam.run" name (the end of the new file name **must** always be "SettingParam.run"; for example, an acceptable filename would be "seville4SettingParam.run").

Figure 1.24 Retrieve SettingParam.run

Retrieve the current settings of the controller's adjustable parameters.

1.7 Reloading a Backed-Up NCU Configuration

1.7.1 NCU Version 1.1.80, or Later

<u>General</u>

To reload the NCU configuration, simply download a saved "SettingParam.tar" file into the NCU.

Reloading the "SettingParam.tar" File

Local Menu Navigation:

None.

Web Menu Navigation:

Advance Settings Menu / SW Maintenance Tab.

Procedure

1. To download a file, you need to shut down the controller first. When you select the SW Maintenance Tab, click on the "Stop Controller" button.

Figure 1.25 Download - Stop Controller

<	Ethernet	Users	SNMP	Language	SW Maintenance	Alarms	DI Alarms	DO(relays)	Shunts	Fuses	Alarm Report	Power Split	Monitor Pr
	II Auto Cor	nfig											
	This functior	n will auto	matically c	onfigure SM ι	nits and modbus dev	ices that h	ave been con	nected to RS4	35 bus.			Auto Cor	nfig
	Restore	Factory D)efaults										
	Restore defa	ault config	uration? T	he system wil	l reboot.					Restor	e Defaults	Reboot contro	ller
	II Retrieve	SettingP	aram.tar										
	Retrieve the	current s	ettings of t	he controller's	adjustable paramete	rs.						Retrieve F	File
	II Retrieve	Diagnost	ics Packa	ge									
	Retrieve a d	iagnostics	package	to help trouble	shoot controller issue	es						Retrieve F	File
	Upload/E	ownload											
	Upload/Dow	nload nee	eds to stop	the Controlle	. Do you want to stop	the Contro	oller?					Stop Contro	ller

2. The following window opens.

Figure 1.26 Download - Controller Stopped

<	E	hernet	Users	SNMP	Language	SW Maintena	nce Alai	irms DI	Alarms	DO(relay)	Shunts	Fuse	Alarm Report	Power Split	Monitor Prot
	II U	pload/D	ownload	l File											
						s with extension OLLER button be				ded. If the do	wnloaded 1	ile is NO ⁻	F correct, the Co	ntroller will run	
	Select	t File			_		Browse	D	ownload t	o Controller					
	-ile in	contro	ller	Configur	ation Pa Co	ntroller was stopp	ed success	sfully. You	u can uplo	ad/download	the file.	ОК			
	# S	tart Cor	itroller												
								Start C	ontroller						
															Þ

- 3. Click "OK".
- 4. The following window opens.

Figure 1.27 Download File

<	Ethernet	Users	SNMP	Language	SW Maintenance	Alarms	DI Alarms	DO(relay)	Shunts	Fuse	Alarm Report	Power Split	Monitor Prot
	Upload/[Download	l File										
l					s with extension .tar o DLLER button before			ded. If the do	wnloaded t	file is NO	T correct, the Co	ntroller will run	
s 	elect File				Bro	wse	Download t	to Controller	1				
F	ile in contro	ller	Configur	ration Package	e 🔻 Uplo	ad to Com	puter						
	Start Co	ntroller											
						St	art Controller						

ALERT! Never navigate from this Web page without first clicking on "Start Controller". If you do, you will not have Web access. A manual system reset is required to restore Web access.

5. To download (from your computer into the controller) a "SettingParam.tar" file; click the "Browse..." button and navigate to the folder where the file to download is located. Select the file to be downloaded and then click the "Download to Controller" button. Click "Start Controller" to restart the controller with the downloaded file installed.

1.7.2 NCU Version 1.1.70, or Earlier

General

There are two steps in reloading a backed-up NCU configuration:

- One step to reload the saved NCU configuration package.
- One step to reload the saved "SettingParam.run" file.

Reloading the Configuration Package

Local Menu Navigation:

None.

Web Menu Navigation:

Advance Settings Menu / SW Maintenance Tab.

Procedure

You can download (from your computer into the controller) a configuration package (filename has a tar or tar.gz extension).

1. To download a file, you need to shut down the controller first. When you select the SW Maintenance Tab, click on the "Stop Controller" button.

Figure 1.28 Download - Stop Controller

 Upload/Download	
Upload/Download needs to stop the Controller. Do you want to stop the Controller?	
Stop Controller	

2. The following window opens.

Figure 1.29 Download - Controller Stopped

Upload/Download File	NMP Language	SW Maintenance	Alarms	DI Alarms	DO(relay)	Shunts	Fuse	
Caution: Only the file Se								
	ettingParam.run or file	s with extension .tar	or .tar.oz (an be downlo	aded. If the d	lownloaded	t file is N	TOT
correct, the Controller w								
Select File								
	Controller was stop	oped successfully. Ye	ou can uplo	oad/download	the file.	ок		
File in controller Co	figuration Package	Upload to C	computer	l				
Start Controller								
		Start	Controller					

- 3. Click "OK".
- 4. The following window opens.

Figure 1.30 Download File

Home > Advanc	<u> </u>	> SW Maint	enance SW Maintenance	Alarms	DI Alarms	DO(relay)	& We	lcome:	admin	Logout
Upload/Downloa	4 53-									
	_		es with extension .tar ou must hit the STAR Brow	T CONTRO		before leavir			тог	
File in controller	Configurat	tion Package	Upload to C	omputer	1					
Start Controller										
			Start							

ALERT! Never navigate from this Web page without first clicking on "Start Controller". If you do, you will not have Web access. A manual system reset is required to restore Web access.

5. To download (from your computer into the controller) a configuration package; click the "Browse..." button and navigate to the folder where the file to download is located. Select the file to be downloaded and then click the "Download to Controller" button. Click "Start Controller" to restart the controller with the downloaded file installed.

Reloading the SettingParam.Run File

Local Menu Navigation:

None.

Web Menu Navigation:

Advance Settings Menu / SW Maintenance Tab.

Procedure

You can download (from your computer into the controller) a "SettingParam.run file".

1. To download a file, you need to shut down the controller first. When you select the SW Maintenance Tab, click on the "Stop Controller" button.

Figure 1.31 Download - Stop Controller



2. The following window opens.

Figure 1.32 Download - Controller Stopped

		Language				DO(relay)			
Upload/Download	l File								
Caution: Only the f	ile SettingPar	am.run or file	es with extension .tar	or .tar.gz o	an be downlo	aded. If the d	lownloaded	d file is N	OT
correct, the Contro	ller will run ab	onormally, Yo	u must hit the STAR	T CONTRO	DLLER button	before leavin	a this scre	en.	
correct, the Contro	ller will run at	onormally. Yo	u must hit the STAR	T CONTRO	OLLER button	before leavin	g this scre	en.	
correct, the Contro Select File								en.	
	Contr	oller was stop	pped successfully. Y	ou can uplo			g this scree	en.	
	Contr		pped successfully. Y	ou can uplo				en.	
Select File	Contr	oller was stop	pped successfully. Y	ou can uplo				en.	

- 3. Click "OK".
- 4. The following window opens.

Figure 1.33 Download File

University Descention	4 50-								
Upload/Downloa	d File								
Caution: Only the	file SettingPa	ram.run or files	with extension .tar	or .tar.gz o	an be downlo	aded. If the d	ownloaded	d file is N	от
correct, the Contro	oller will run al	onormally. You r	must hit the STAR	T CONTRO	OLLER button	before leavin	g this scre	en.	
	oller will run al	onormally. You r	must hit the STAR		DLLER button		g this scre	en.	
Select File		onormally. You r		/se			g this scre]	en.	
correct, the Contro Select File File in controller			Brow	/se			g this scre	en.	

ALERT! Never navigate from this Web page without first clicking on "Start Controller". If you do, you will not have Web access. A manual system reset is required to restore Web access.

5. To **download** (from your computer into the controller) a "SettingParam.run" file; click the "Browse..." button and navigate to the folder where the file to download is located. Select the file to be downloaded and then click the "Download to Controller" button. Click "Start Controller" to restart the controller with the downloaded file installed.

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