



eSure™ Power Extend Converter & +27 VDC Vertiv™ eSure™ Bullet Converter Mounting Bracket Kit

Installation Manual

Kit Specification Number: 565391, 565459, 565601

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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™ eSure™ Power Extend Converter & +27 VDC Vertiv™ eSure™ Bullet Converter Mounting Bracket Kit Installation Instructions

1.1 Kit Description

Mounting bracket kits have been designed to easily install Vertiv™ eSure™ Power Extend Converter (Model C48/58-1000B, Spec. No. 1C48581000B) or a +27 VDC Vertiv™ eSure™ Bullet Converter (Model C48/27-375B, Spec. No. 1C4827375B) into a distribution position of a Vertiv™ NetSure™ Power System (see UM565050 or UM60147273 for kit part numbers and descriptions). A mounting bracket kit must be used for grounding and mechanical support. See Table 1.1 for the kits covered by these instructions.

These instructions provide a step-by-step procedure to field install Vertiv™ eSure™ Power Extend Converter or a +27 VDC Vertiv™ eSure™ Bullet Converter using one of the kits listed in Table 1.1. Installation of this kit in other systems not listed in Table 1.1 should not be attempted.

Table 1.1 Power System Mounting Bracket Kits Covered by these Instructions

Mounting Bracket Kit P/N	Description
565391	For use with a List AA (24-position bullet) distribution panel installed in a Spec. No. 582127000 power system. For use with a List DA, DB, DC, DD (21-position bullet dual voltage) distribution panel installed in a Spec. No. 581127000 or 582127000 power system.
565459	For use with a List AL (26-position bullet) distribution panel installed in a Spec. No. 582127000, 582127000100, 582127000101, 582127000102, 582127000103, 582127000203 power system. For use with a List DE, DF, DG, DH, DJ, DK, FE, FF, FG, FH, FJ, FK (26-position bullet dual voltage) distribution panel installed in a Spec. No. 581127000 or 582127000 power system.
565601	For use with a List AA, AM, AN (24-position bullet) distribution panel installed in a Spec. No. 582126000 or 582125000 power system. For use with a List JA, JB, JC (20-position bullet dual voltage) or List JD (22-position bullet dual voltage) distribution panel installed in a Spec. No. 581126000, 581125000, 582126000, 582125000 power system.

1.2 Mounting Bracket Kit Contents

Table 1.2, Table 1.3, and Table 1.4 list the items furnished as a part of the various mounting bracket kits covered by these instructions. Before installing a mounting bracket kit, check the items furnished against those listed to ensure that there are no shortages.

Table 1.2 Mounting Bracket Kit P/N 565391 Contents

P/N	Description	Qty.
565677	Left Side Mounting Bracket	1
565678	Right Side Mounting Bracket	1
565716	Front Side Mounting Bracket	1
132101	#10 Captive Nut (factory attached to left/right brackets)	2
218706400	#10-32 x 5/8" Screw (factory attached to left/right brackets)	2
214108200	#10 Flat Washer (factory attached to left/right brackets)	2
152175	Hot Surfaces Caution Label (factory attached to front bracket)	2
237650200	Cable Tie	4
60010906	Panel Position Label, 30-Pos	1
151950	Storage Pouch	1
552423	Hook-and-Loop Fastener (factory attached to storage pouch)	1
566026	Toggle Breaker Guard Kit, includes... (Qty. 27) L-Shaped Guard Brackets (Qty. 27) #6-32 x 3/16" Screws (Qty. 27) M3-0.5 x 5 mm Screws	1
557682	+24 VDC Designation Label	3
565391IB	Instructions (IM565391)	1

Table 1.3 Mounting Bracket Kit P/N 565459 Contents

P/N	Description	Qty.
565571	Left Side Mounting Bracket	1
565581	Right Side Mounting Bracket	1
565582	Front Side Mounting Bracket	1
132101	#10 Captive Nut (factory attached to left/right brackets)	2
218706400	#10-32 x 5/8" Screw (factory attached to left/right brackets)	2
214108200	#10 Flat Washer (factory attached to left/right brackets)	2
152175	Hot Surfaces Caution Label (factory attached to front bracket)	2
120412	#6-19 x 5/16" Screw	2
60010906	Panel Position Label, 30-Pos	1
151950	Storage Pouch	1
552423	Hook-and-Loop Fastener (factory attached to storage pouch)	1
566026	Toggle Breaker Guard Kit, includes... (Qty. 27) L-Shaped Guard Brackets (Qty. 27) #6-32 x 3/16" Screws (Qty. 27) M3-0.5 x 5 mm Screws	1
SVH23001/1	+24 VDC Designation Label	1
565459IB	Instructions (IM565391)	1

Table 1.4 Mounting Bracket Kit P/N 565601 Contents

P/N	Description	Qty.
565679	Left Side Mounting Bracket	1
565680	Right Side Mounting Bracket	1
565681	Front Side Mounting Bracket	1
132101	#10 Captive Nut (factory attached to left/right brackets)	2
218706400	#10-32 x 5/8" Screw (factory attached to left/right brackets)	2
214108100	#10 Flat Washer (factory attached to left/right brackets)	2
152175	Hot Surfaces Caution Label (factory attached to front bracket)	2
60010906	Panel Position Label, 30-Pos	1
151950	Storage Pouch	1
552423	Hook-and-Loop Fastener (factory attached to storage pouch)	1
566026	Toggle Breaker Guard Kit, includes... (Qty. 27) L-Shaped Guard Brackets (Qty. 27) #6-32 x 3/16" Screws (Qty. 27) M3-0.5 x 5 mm Screws	1
565601IB	Instructions (IM565391)	1

1.3 Tools and Material Required

Table 1.5 lists the items required to install this kit.

Table 1.5 Tools and Material Required

Description
#1 Flat Blade Screw Driver, insulated
#2 Phillips Blade Screw Driver, insulated, 14" long shaft minimum
Torque Wrench, insulated (capable of being set from 9.6 in-lbs to 72 in-lbs)
3/8" Drive Ratchet and Socket Set, insulated
Power Extend Converter Kit (P/N 565050) (Model C48/58-1000B, Spec. No. 1C48581000B) or a +27 VDC Vertiv™ eSure™ Bullet Converter Kit (P/N 60147273) (Model C48/27-375B, Spec. No. 1C4827375B), quantity as needed

1.4 Mounting Bracket Kit 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.

1.4.1 Important Safety Instructions



DANGER! Adhere to the “Important Safety Instructions” starting on page v and those listed in the power system manual.



CAUTION! When performing any step in procedures that requires removal or installation of hardware, use caution to ensure no hardware is dropped and left inside the unit; otherwise service interruption or equipment damage may occur.



NOTE! When performing any step in this procedure which requires removal of existing hardware, retain all hardware for use in subsequent steps, unless otherwise stated.

1.4.2 Installing Bracket Kit P/N 565391, 565459, 565601

Procedure

- [] 1. Performing this procedure may activate external alarms. Initial installation of the converter with the switch in the off position will actuate the CB/Fuse Alarm. 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. Gain access to the distribution panel into which the converter is to be installed.
- [] 3. Remove the plastic shield from the distribution panel by loosening the screws securing it. Slide the shield up and out to remove it. The shield will not be reused. See Figure 1.1, Figure 1.2, or Figure 1.3.

Figure 1.1 565391 Kit

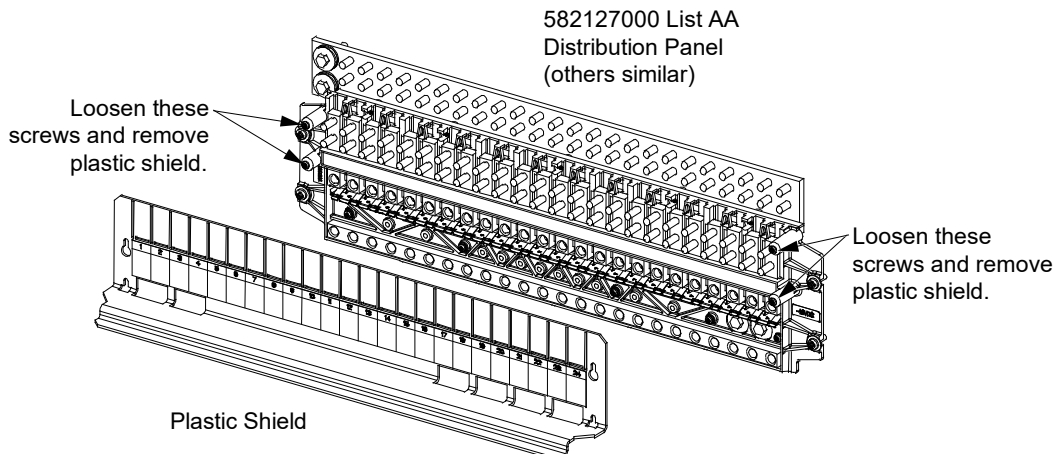


Figure 1.2 565459 Kit

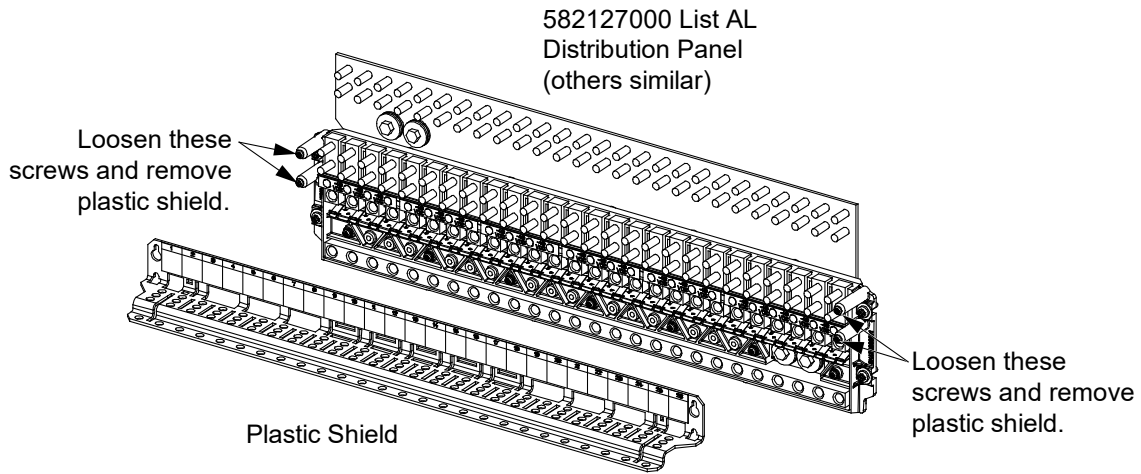
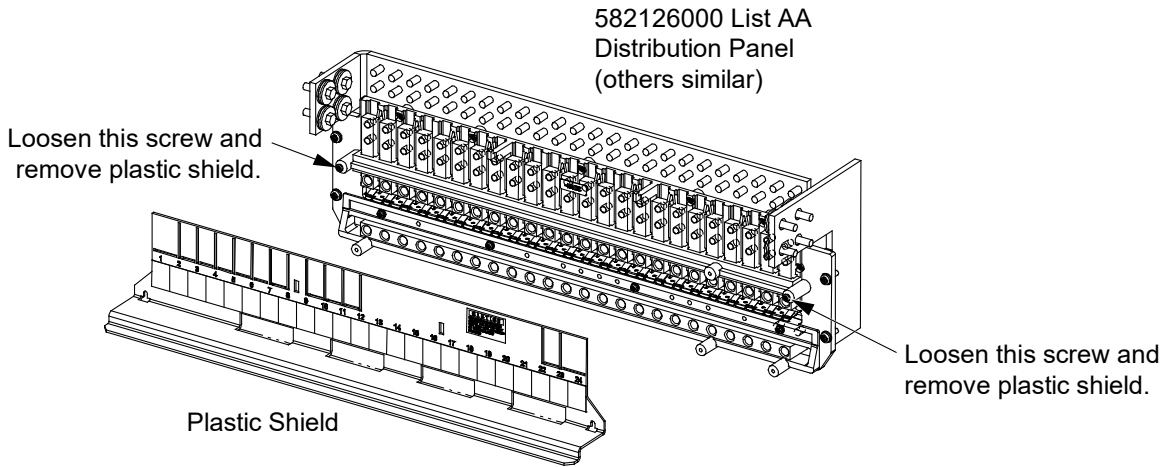


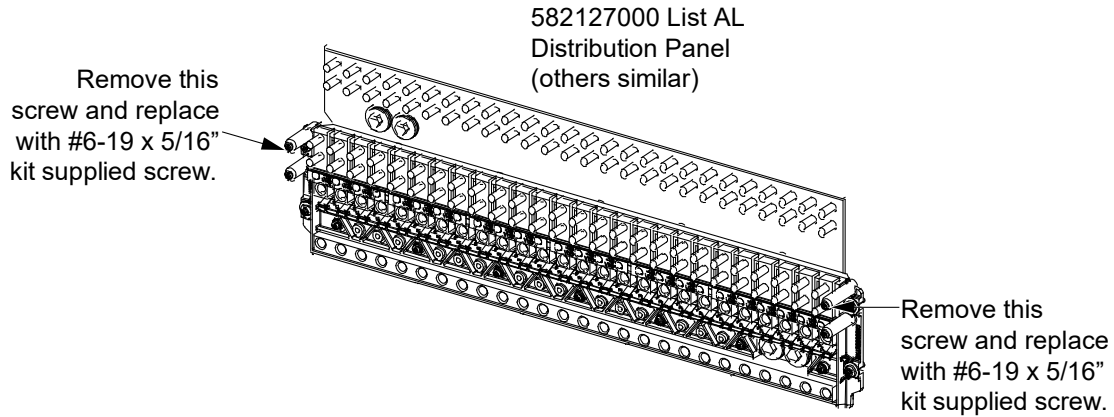
Figure 1.3 565601 Kit



- [] 4. 565459 Kit Only: Completely remove and discard the top two (2) screws (one per side) that secured the shield to the distribution panel, and replace them with the shorter kit supplied screws. Only thread screws a few turns. Tighten or remove the bottom two (2) screws that secured the shield to the distribution panel. See Figure 1.4.

565391 and 565601 Kits Only: Tighten or remove the screws that secured the shield to the distribution panel. See Figure 1.1 or Figure 1.3.

Figure 1.4 565459 Kit



- [] 5. 565391 and 565601 Kits Only: Slightly loosen the two (2) screws shown in Figure 1.5 or Figure 1.7 that secures the distribution panel to the cabinet. It is important that these screws remain in place with some threads engaged. These screws are to be used to secure the kit supplied mounting brackets. It may be advantageous that prior to loosening the bottom screws, loosen each top screw completely and then re-thread three turns. This will provide the ultimate space to insert the flange on the mounting bracket later in this procedure.
- [] 6. Remove the bottom two (2) screws and flat washers (one per side) that secures the distribution panel to the cabinet. These will not be reused. See Figure 1.5, Figure 1.6, or Figure 1.7.

Figure 1.5 565391 Kit

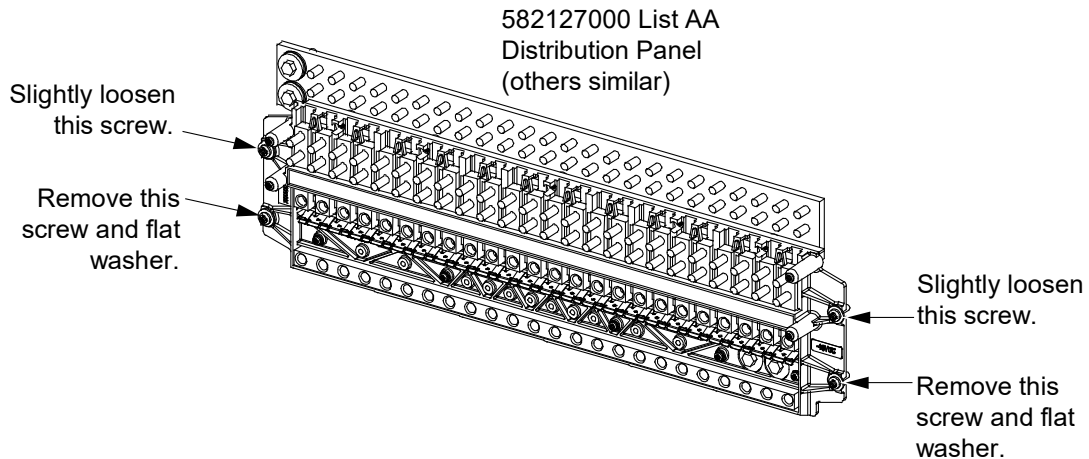


Figure 1.6 565459 Kit

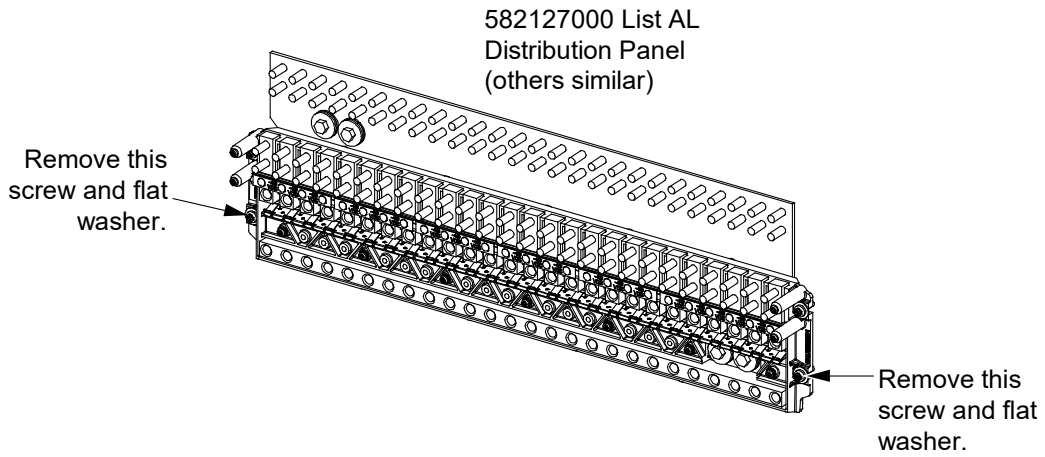
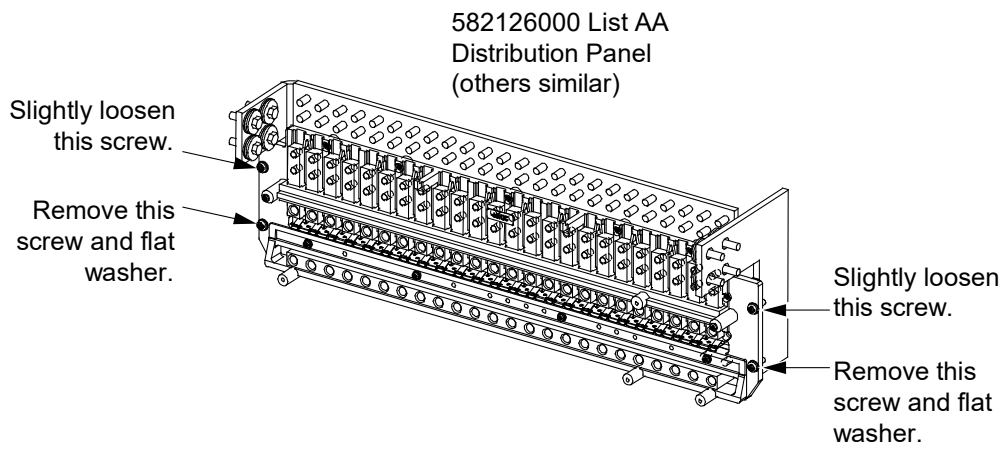


Figure 1.7 565601 Kit



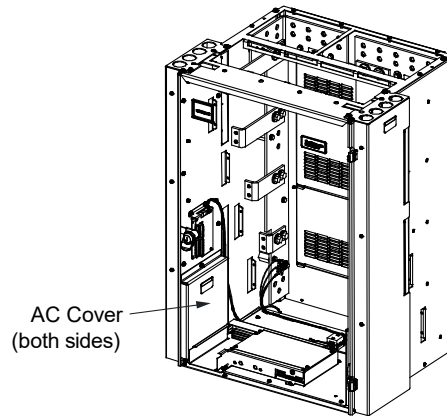
- [] 7. If the distribution panel is located adjacent to the AC covers located on the inside side wall panels of the distribution cabinet and the AC covers protrude into the distribution cabinet where they will interfere with left/right side mounting bracket installation, remove the AC covers. See Figure 1.8.



DANGER! AC input wiring will be exposed. Insulate the AC connection area to prevent contact during this procedure.

- [] 8. In the next step, if system alarm/control wiring interferes with the installation of the left side mounting bracket, cut the cable ties securing the alarm/control wiring and move these forward out of the way. Re-secure with the kit provided cable ties after the left side mounting bracket is installed.

Figure 1.8 AC Covers



- [] 9. Orient the kit supplied left side mounting bracket as shown in Figure 1.9, Figure 1.10, or Figure 1.11. Note that the bracket comes preassembled with bottom mounting hardware. Slide the top mounting slot of the bracket under the existing top mounting screw and washer (previously loosened). Secure the bracket to the bottom of the distribution panel with the preassembled bottom mounting hardware. Secure the bracket to the top of the distribution panel by tightening the top screw. Torque hardware as indicated Figure 1.9, Figure 1.10, or Figure 1.11.

Figure 1.9 565391 Kit

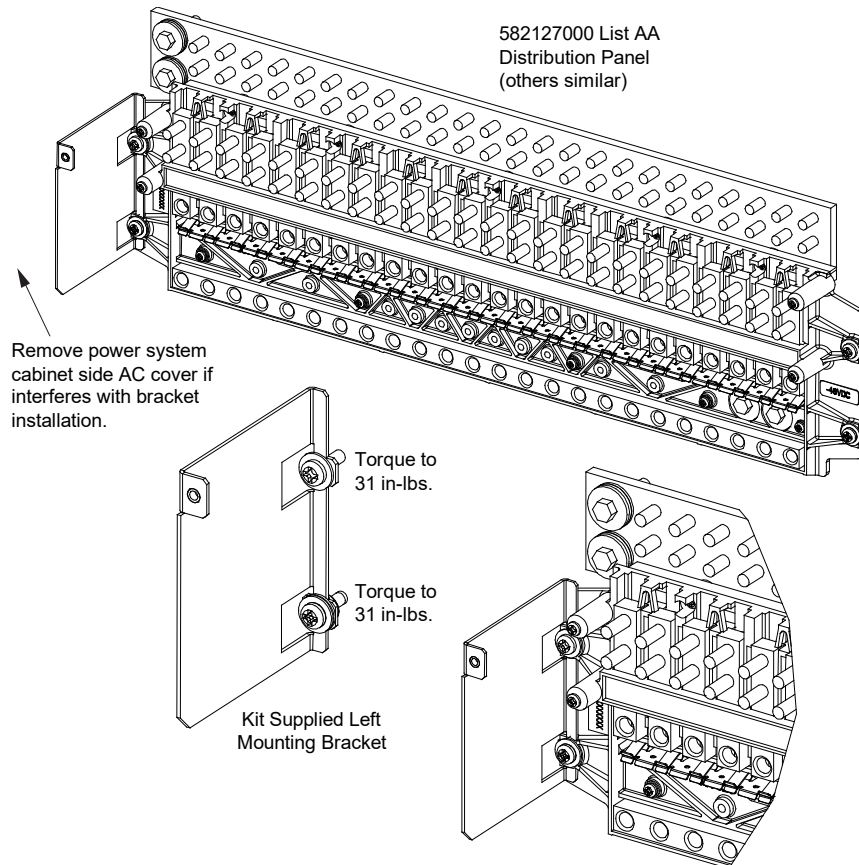


Figure 1.10 565459 Kit

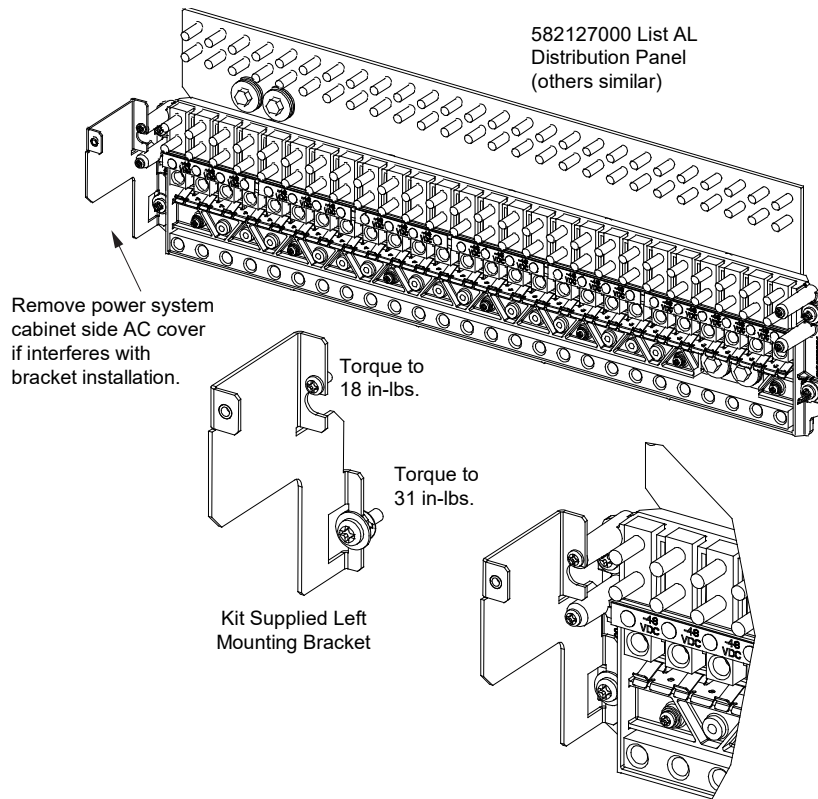
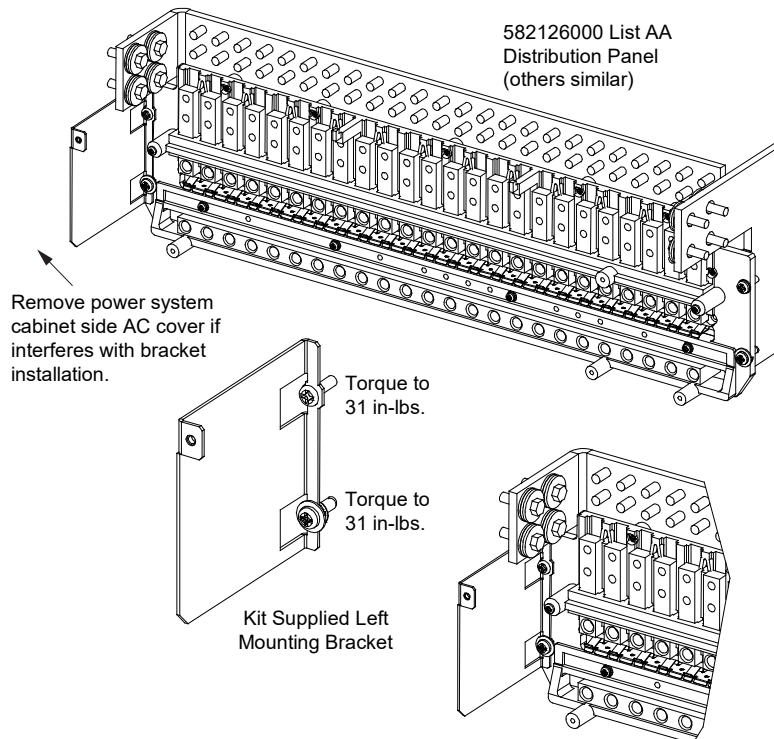


Figure 1.11 565601 Kit



- [] 10. Orient the kit supplied right side mounting bracket as shown in Figure 1.12, Figure 1.13, or Figure 1.14. Note that the bracket comes preassembled with bottom mounting hardware. Slide the top mounting slot of the bracket under the existing top mounting screw and washer (previously loosened). Secure the bracket to the bottom of the distribution panel with the preassembled bottom mounting hardware. Secure the bracket to the top of the distribution panel by tightening the top screw. Torque hardware as indicated Figure 1.12, Figure 1.13, or Figure 1.14.

Figure 1.12 565391 Kit

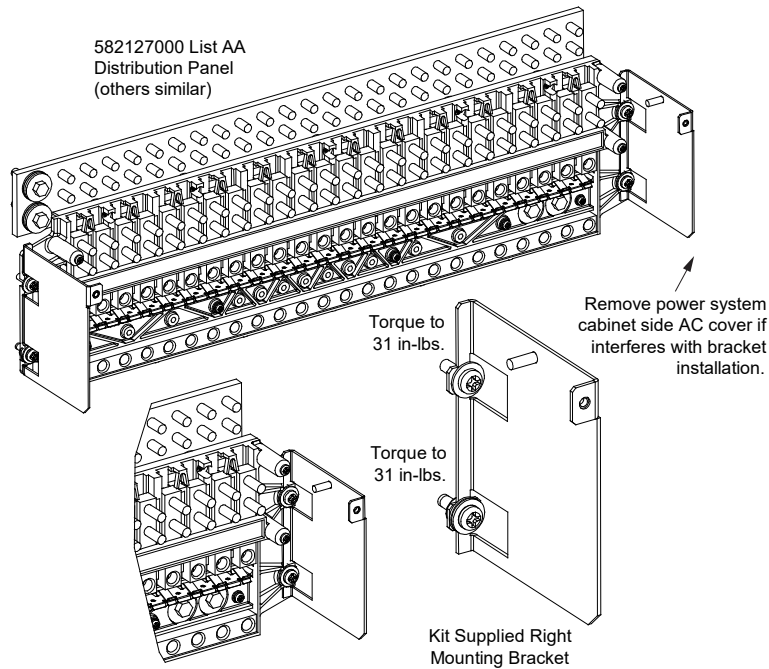


Figure 1.13 565459 Kit

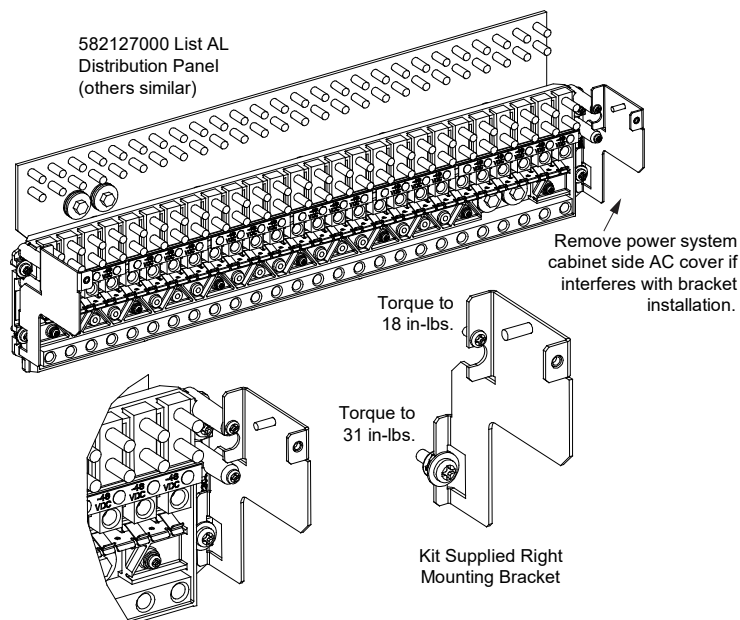
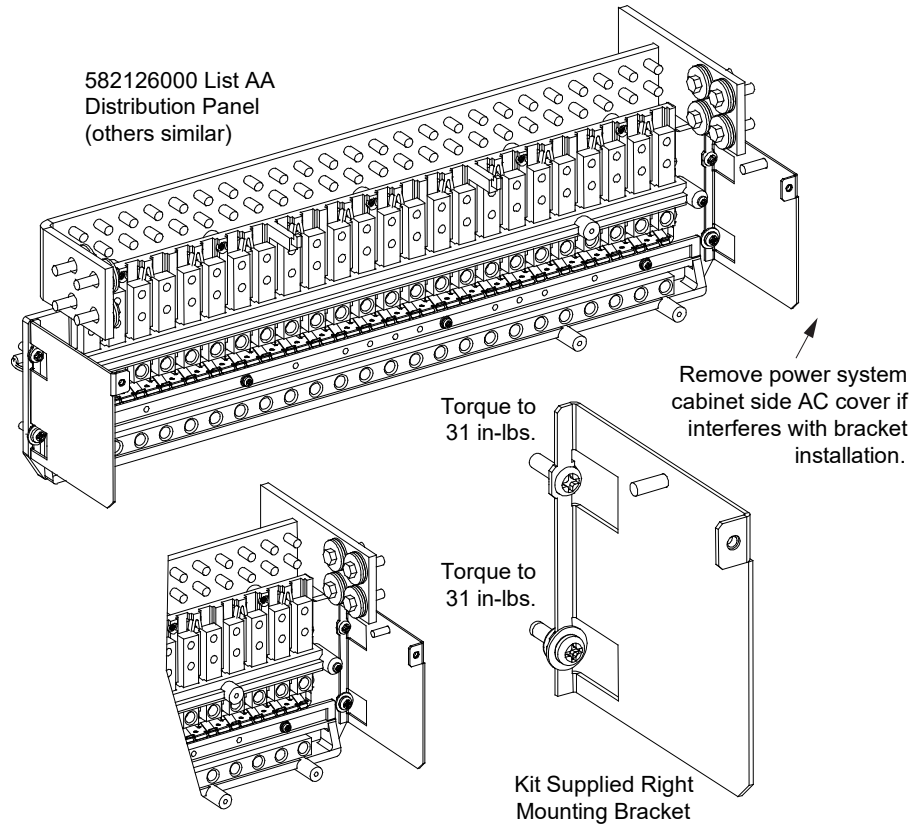


Figure 1.14 565601 Kit



- [] 11. If AC covers were removed to facilitate left/right side bracket installation, replace the AC covers. See Figure 1.8.
- [] 12. If alarm/control wiring was moved to facilitate left/right side bracket installation, re-secure with the kit provided cable ties.
- [] 13. Orient the kit supplied front mounting bracket as shown in Figure 1.15, Figure 1.16, or Figure 1.17. Note that the bracket comes preassembled with mounting hardware. Secure the front bracket to the left and right brackets by tightening the captive fasteners. Torque hardware as shown in Figure 1.15, Figure 1.16, or Figure 1.17.

Figure 1.15 565391 Kit

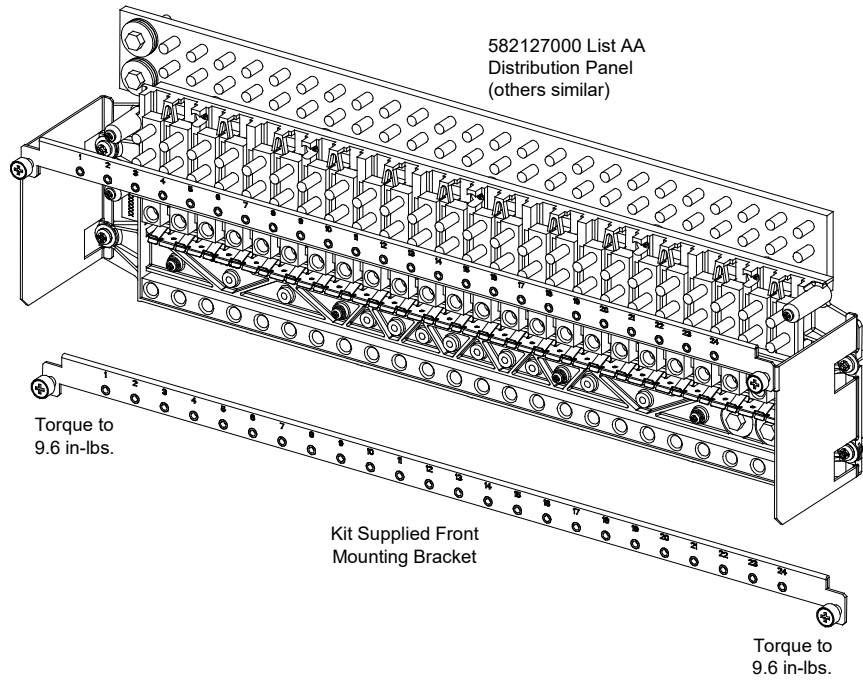


Figure 1.16 565459 Kit

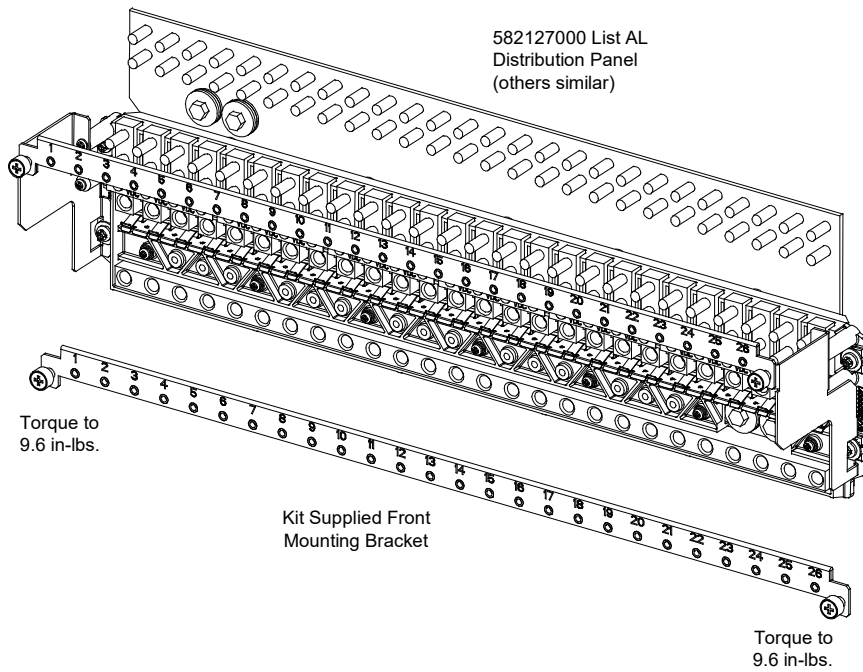
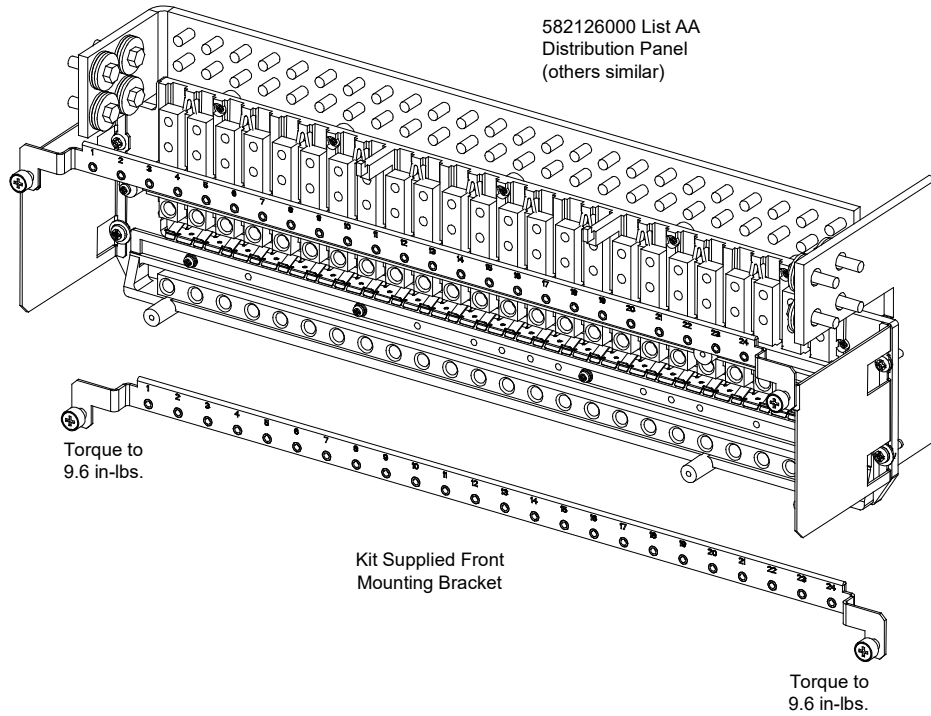



Figure 1.17 565601 Kit



- [] 14. Remove the kit supplied distribution position label (see Figure 1.18) from the kit supplied storage pouch and (using the plastic shield removed from the distribution panel as a guide) record the distribution positions onto the kit supplied label.
- [] 15. Place the kit supplied distribution position label (see Figure 1.18) back into the kit supplied storage pouch or remove the backing from the label and adhere it to a suitable surface near the power system. If the kit supplied distribution position label is placed back into the storage pouch, remove the backing from the hook-and-loop fastener factory attached to the storage pouch and adhere the storage pouch to a suitable surface near the power system.

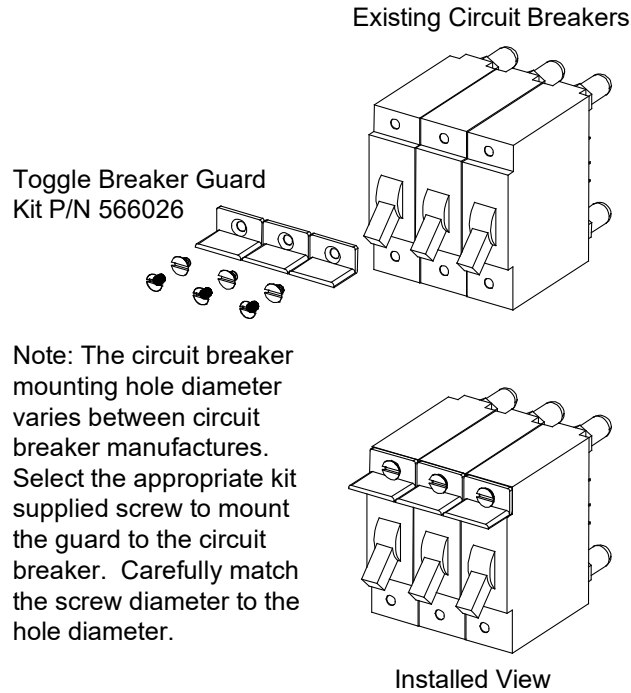
Figure 1.18 Distribution Position Label

Distribution Position Label

 ROW 2 <input type="checkbox"/> ROW 4 <input type="checkbox"/> VERTIV™ ROW 1 <input type="checkbox"/> ROW 3 <input type="checkbox"/>			
POS.	DETAIL	POS.	DETAIL
1		16	
2		17	
3		18	
4		19	
5		20	
6		21	
7		22	
8		23	
9		24	
10		25	
11		26	
12		27	
13		28	
14		29	
15		30	

- [] 16. Install the toggle breaker guard kit (P/N 566026) as required per site requirements. See Figure 1.19.

Figure 1.19 Toggle Breaker Guard Kit (P/N 566026)



- [] 17. Continue with the next procedure to install the converter.

2 Installing the Converter into a Distribution Position

2.1 Important Safety Instructions



DANGER! Adhere to the “Important Safety Instructions” starting on page v and those listed in the power system manual.



ALERT! Only install the converter into a -48 VDC or -58 VDC distribution position. Non-repairable damage will occur if the converter is plugged into a +24 VDC distribution position.



NOTE! The converter can be inserted or removed with power applied (hot swappable) as long as the converter is inserted/removed with the enable/disable switch in the disabled position.



WARNING! The converter and front mounting bracket becomes very hot during converter operation at heavy load. Wear heat resistant gloves or allow the converter to cool down before removing.



NOTE! It is recommended that the +27 VDC Vertiv™ eSure™ Bullet Converters be installed in the side of the panel opposite from where the larger breakers are recommended to be installed to minimize heat concentration.

2.2 Restrictions

Refer to the converter instruction manual (UM565050 or UM60147273) for wire sizing restrictions.

For the eSure™ Power Extend Converter, refer to Table 2.1 for spacing and power restrictions. This table shows how many converters can be placed side by side before skipping a single space at certain average power levels and in specific distribution row positions. These power levels pertain to the average output power (busy hour average power) drawn by the load including any power loss in the cable. The peak power available from each unit remains at 1000 watts regardless of spacing or location. Use the calculator tool that can be obtained at <https://www.vertiv.com/en-us/products-catalog/critical-power/dc-power-systems/esure-power-extend-converter-c4858-1000/#/downloads> to determine the necessity, quantity and spacing requirement of the Power Extend Converter based on the RRU type (or peak load), use application (host power system), trunk and jumper cable size and length, minimum source voltage and minimum RRU operating voltage.

Table 2.1 eSure™ Power Extend Converter Spacing and Power Restrictions: Spec. No. 582127000, 581127000, 582126000, 581126000, 58212500, 581125000 Operating in a 40°C Ambient

Distribution Row	Watts Per Power Extend Converter				
	No Spaces	1 Pole / Space	2 Pole / Space	3 Pole / Space	4 Pole / Space
Row 4 Only	375 W	950 W	725 W	575 W	500 W
Rows 3 and 4	250 W	850 W	625 W	450 W	400 W
Row 1 Only	250 W	900 W	650 W	525 W	475 W
Rows 1 and 2	250 W	850 W	625 W	450 W	450 W

Note: Row 1 is the Bottom Row

For the +27 VDC Vertiv™ eSure™ Bullet Converter, no spacing is required between units. A total of three (3) units can be paralleled together for a total output power of 750 W at 40 °C and 600 W at 65°C. It is recommended that the +27 VDC Vertiv™ eSure™ Bullet Converters be installed in the side of the panel opposite from where the larger breakers are recommended to be installed to minimize heat concentration. As an example, for the Spec. No. 582127000 power system, the larger breakers are recommended to be installed on the left-hand side of the panel. Therefore, the +27 VDC Vertiv™ eSure™ Bullet Converter is recommended to be installed on the right-hand side of the panel.

2.3 Single Converter Installation



NOTE! Mounting bracket kit P/N 565391 with distribution panel 582127000 List AA is used in the following procedure. Other kits and distribution panels similar.

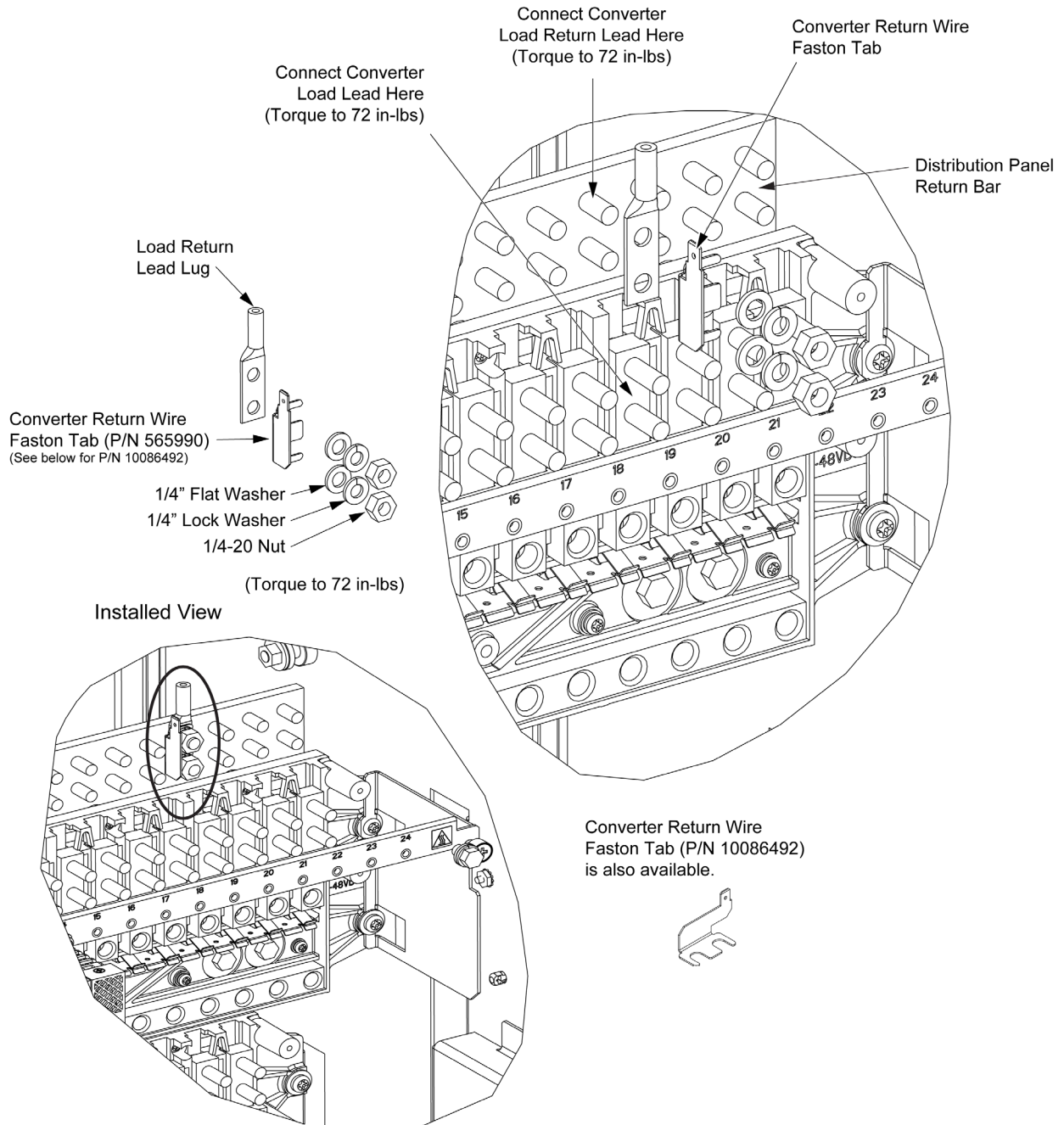
To parallel converters, refer to the procedure “Parallel Converter Installation” starting on page 21.

Procedure

- [] 1. There are two (2) types of voltage designation labels that can be placed behind the +27 VDC Vertiv™ eSure™ Bullet Converter prior to plugging the converter into the panel to designate that the converter provides a +24V nominal output instead of -48 VDC or -58 VDC output. P/N 557682 works in the NetSure™ 7100 (24) position panels and P/N SVH23001/1 works in the NetSure™ 7100 (26) position panels. Once you know the number of positions that the converter(s) and the optional +27 VDC Bullet Nose 6-Position GMT Fuse Board will occupy, you can cut the label to the necessary length prior to installing it. In addition, you can hide one side of the 557682 labels behind an adjacent label if you need an odd number of labels. There are no designation labels used in the NetSure™ 701 or 700 series plants. For the 557682 labels, you will need to remove the lug landing busbars and slide the label behind them when re-installing the busbars. For the SVH23001/1 label, you will need to remove the plastic pins from the front of the existing label, place the label on top of the existing label, and then press the pins back into place.
- [] 2. If the converter is to be installed for a newly connected load, connect the load and load return cables to the distribution position to be occupied by the converter. The connection for the load cable can be one of the busbar lug landing points directly behind the converter or to the positive side of the terminal block on the +27 VDC Bullet Nose 6-Position GMT Fuse Board (only used with the +27 VDC Vertiv™ eSure™ Bullet Converter). The connection for the return lead can be on the Return bar of the plant or the negative side of the terminal block on the +27 VDC Bullet Nose 6-Position GMT Fuse board. At the same time, connect the converter return wire faston tab provided with the converter to the cabinet’s return busbar (if present, use the same location as the return lead to the load). At the same time (if required), connect the separately ordered converter paralleling busbar to the distribution panel load busbars using the same location as the load lead to the load. If two or three converters are to be connected in parallel or if a +27 VDC Bullet Nose 6-Position GMT Fuse Board Kit (10062803) is used along with the converters, a two-position (60016097), three-position (545346), four-position (10078650), or five-position (10078651) lug adapter busbar plate should be installed first, as shown in the installation instructions in UM10062803. See Figure 2.1, Figure 2.6, Figure 2.11, and Figure 2.12. Torque as indicated in Figure 2.1
- [] 3. If the converter is to replace an existing circuit breaker, remove the circuit breaker and verify the load and return cables for the position are wired and labeled correctly. At the same time, connect the converter return wire faston tab provided with the converter to the cabinet’s return busbar (use the same location as the return lead to the load). At the same time (if required), connect the separately ordered converter paralleling busbar to the distribution panel load busbars (using the same location as the load lead to the load). If two or three converters are to be connected in parallel, a two-position (60016097), or three-position (545346), or four-position (10078650), or five-position (10078651) lug adapter busbar plate should be installed first. See Figure 2.1, Figure 2.11, and Figure 2.12. Torque as shown in Figure 2.1

Figure 2.1 Connecting Converter Load and Load Return Cables to the Distribution Panel with the Converter Return Wire Faston Tab

NOTE! Converter Return Wire faston Tab P/N 565990 is shown in the figure. P/N 10086492 is also available.



- [] 4. Connect the 4-inch long return wire jumper extension P/N 565752 provided with the converter to the return wire faston tab previously installed on the distribution panel return bar. See Figure 2.2 for example using kit P/N 565391 with distribution panel 582127000 List AA.

NOTE! The converter is also furnished with an 8-inch long return wire jumper extension P/N 566207. The 8-inch long return wire jumper extension is not used with this mounting bracket kit. It is used in other kits.

- [] 5. Connect the return wire P/N 564330 provided with the converter to the return wire jumper extension P/N 565752. See Figure 2.2 for example using kit P/N 565391 with distribution panel 582127000 List AA.
- [] 6. If the load side cables were disconnected in an above step, reinstall and tighten those cables in the appropriate positions.
- [] 7. Route the return wire (P/N 564330) down and behind the converter's front mounting bracket, then connect it to the converter. See Figure 2.3. Orient the white square on the return wire faston receptacle's locking tab as shown in Figure 2.3.

Figure 2.2 Connecting Converter Return Wire (P/N 564330) and Return Wire Jumper Extension (P/N 565752) to the Converter Return Wire Faston Tab

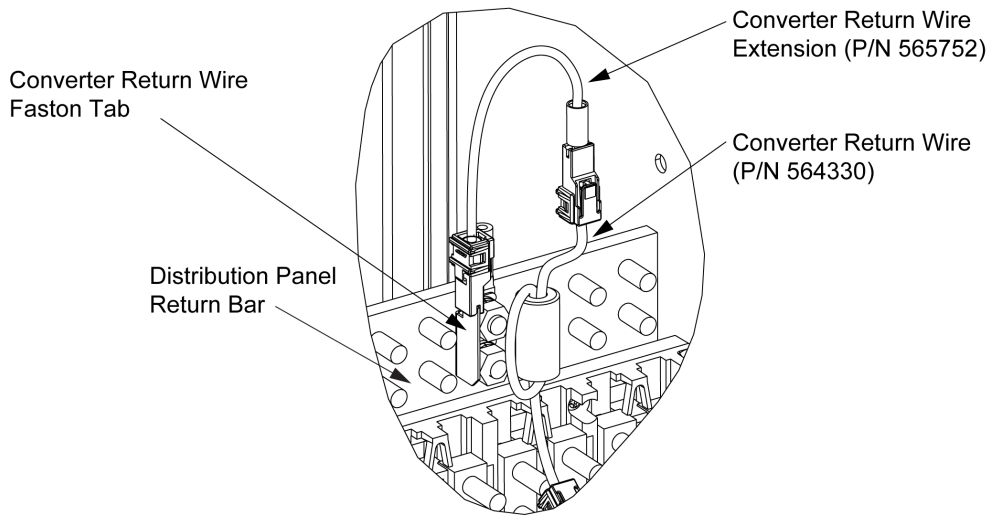
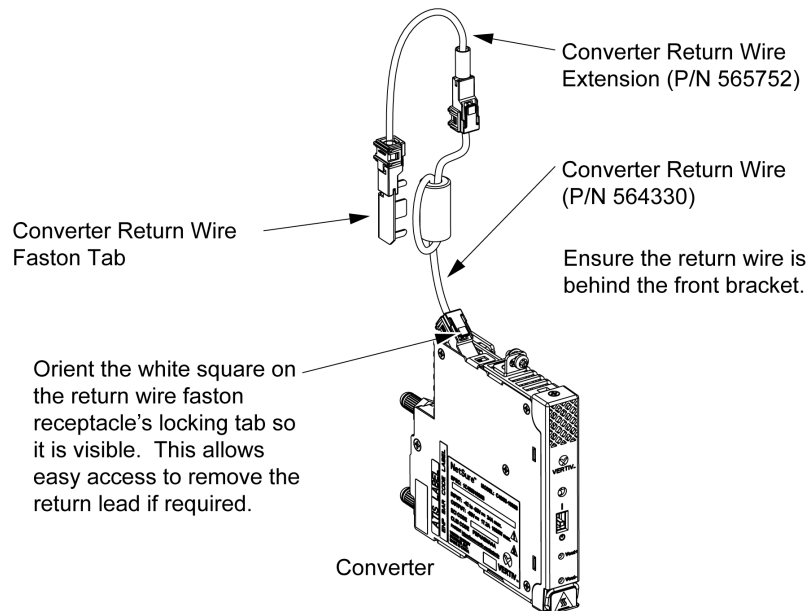
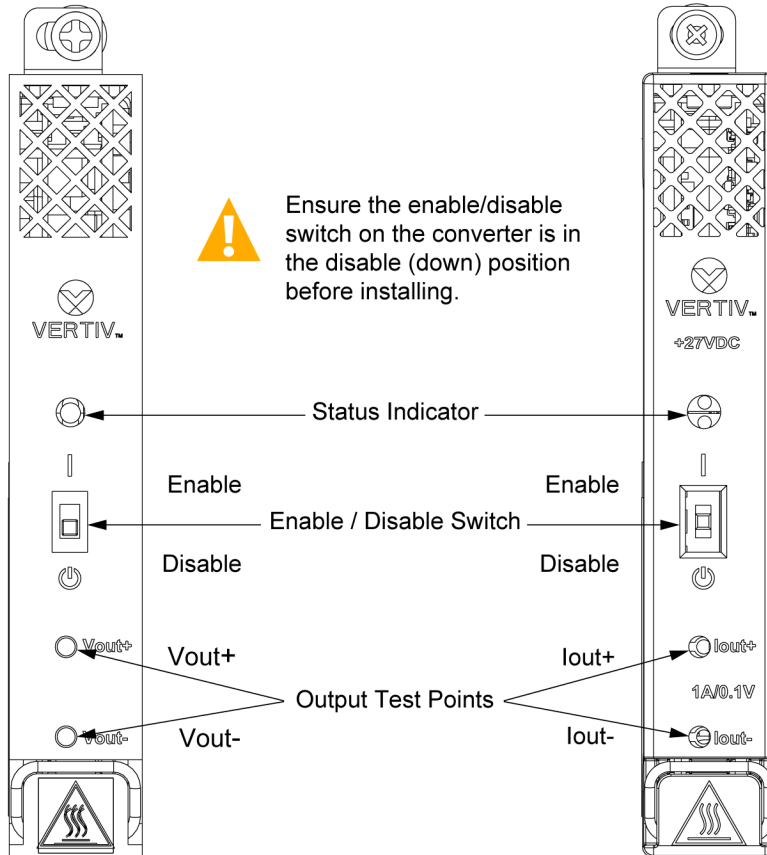


Figure 2.3 Connecting Converter Return Wire (P/N 564330) to the Converter



- [] 8. Ensure the enable/disable switch on the converter is in the disable (down) position. See Figure 2.4.

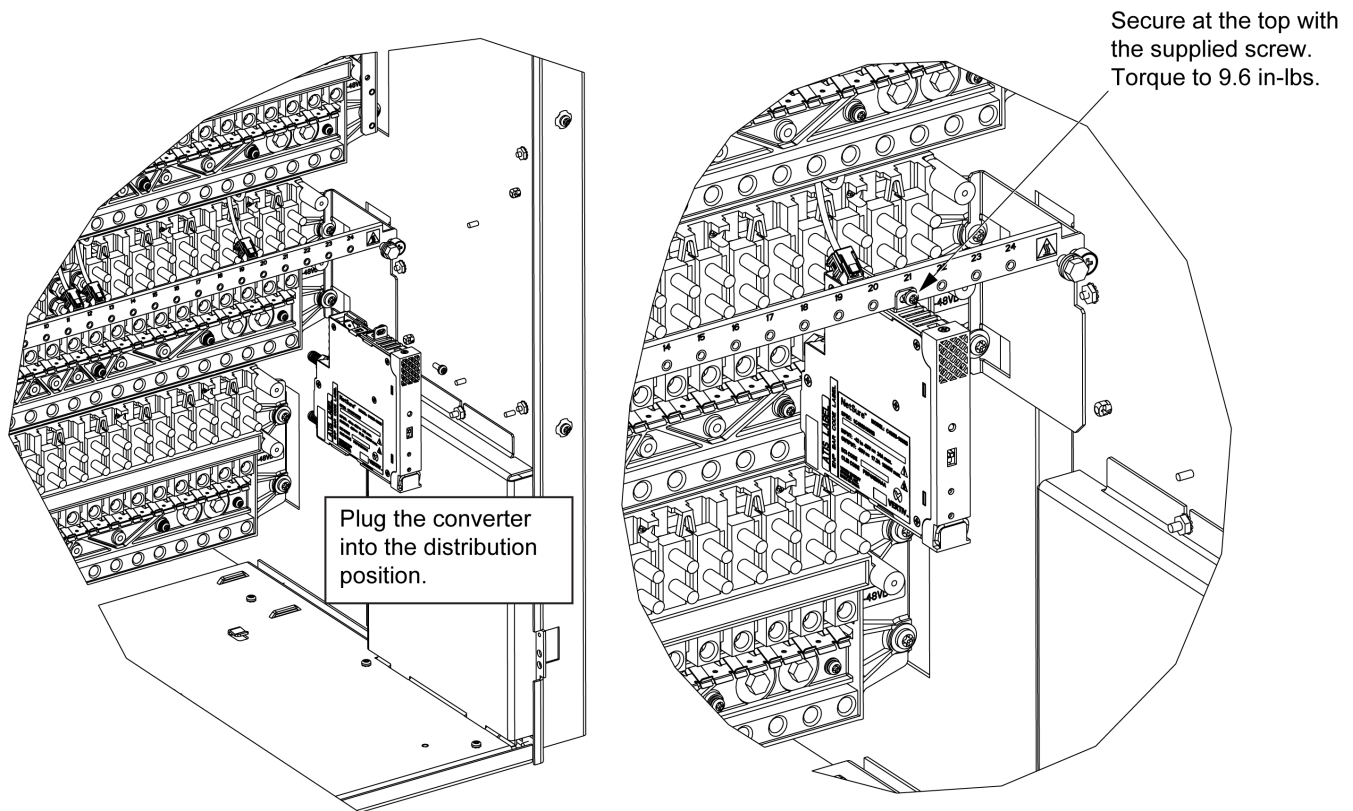
Figure 2.4 Enable/Disable Switch



Note: Output Voltage measurement on the +27 VDC Vertiv™ eSure™ Bullet Converter represents output current. 1A/0.1V

- [] 9. Plug the converter into the distribution panel. See Figure 2.5.
- [] 10. Secure the converter to the front mounting bracket with the screw provided with the converter. Torque as indicated in Figure 2.5.
- [] 11. Place the enable/disable switch on the converter to the enable position. See Figure 2.4.
- [] 12. Observe the status of the converter front panel local indicator. If operating normally, this indicator should be illuminated green. See Figure 2.4.
- [] 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 power system.

Figure 2.5 Installing Converter



2.4 Parallel Converter Installation



NOTE! Mounting bracket kit P/N 565391 with distribution panel 582127000 List AA is used in the following procedure. Other kits and distribution panels similar.

To install a single converter, refer to the procedure “Single Converter Installation” starting on page 17.

Procedure

- [] 1. There are two (2) types of voltage designation labels that can be placed behind the +27 VDC Vertiv™ eSure™ Bullet Converter prior to plugging the converter into the panel to designate that the converter provides a +24V nominal output instead of -48 VDC or -58 VDC output. P/N 557682 works in the NetSure™ 7100 (24) position panels and P/N SVH23001/1 works in the NetSure™ 7100 (26) position panels. Once you know the number of positions that the converter(s) and the optional +27 VDC Bullet Nose 6-Position GMT Fuse Board will occupy, you can cut the label to the necessary length prior to installing it. In addition, you can hide one side of the 557682 labels behind an adjacent label if you need an odd number of labels. There are no designation labels used in the NetSure™ 701 or 700 series plants. For the 557682 labels, you will need to remove the lug landing busbars and slide the label behind them when re-installing the busbars. For the SVH23001/1 label, you will need to remove the plastic pins from the front of the existing label, place the label on top of the existing label, and then press the pins back into place.

- [] 2. If the converter is to be installed for a newly connected load, connect the load and load return cables to the distribution position to be occupied by the converter. The connection for the load cable can be one of the busbar lug landing points directly behind the converter or to the positive side of the terminal block on the +27 VDC Bullet Nose 6-Position GMT Fuse Board (only used with the +27 VDC Vertiv™ eSure™ Bullet Converter). The connection for the return lead can be on the Return bar of the plant or the negative side of the terminal block on the +27 VDC Bullet Nose 6-Position GMT Fuse board. At the same time, connect the converter return wire faston tab provided with the converter to the cabinet's return busbar (if present, use the same location as the return lead to the load). At the same time (if required), connect the separately ordered converter paralleling busbar to the distribution panel load busbars using the same location as the load lead to the load. If two or three converters are to be connected in parallel or if a +27 VDC Bullet Nose 6-Position GMT Fuse Board Kit (10062803) is used along with the converters, a two-position (60016097), three-position (545346), four-position (10078650), or five-position (10078651) lug adapter busbar plate should be installed first, as shown in the installation instructions in UM10062803. See Figure 2.1, Figure 2.6, Figure 2.11, and Figure 2.12. Torque as indicated in Figure 2.6.
- [] 3. If the converter is to replace an existing circuit breaker, remove the circuit breaker and verify the load and return cables for the position are wired and labeled correctly. At the same time, connect the converter return wire faston tab provided with the converter to the cabinet's return busbar (use the same location as the return lead to the load). At the same time (if required), connect the separately ordered converter paralleling busbar to the distribution panel load busbars (using the same location as the load lead to the load). If two or three converters are to be connected in parallel, a two-position (60016097), or three-position (545346), or four-position (10078650), or five-position (10078651) lug adapter busbar plate should be installed first. See Figure 2.6, Figure 2.11, and Figure 2.12. Torque as indicated Figure 2.6.



NOTE! *The following images show two- and three-position lug adapter busbar plates. Four- and five-position adapter plates are also available and are installed similarly.*

Figure 2.6 Connecting Converters Load Return Cables to the Distribution Panel with the Converters Return Wire Faston Tabs
Connecting Converters Load Cables to the Distribution Panel with the Converters Paralleling Busbar (P/N 60016097 or 514717) (cont'd on next page)

Installed View

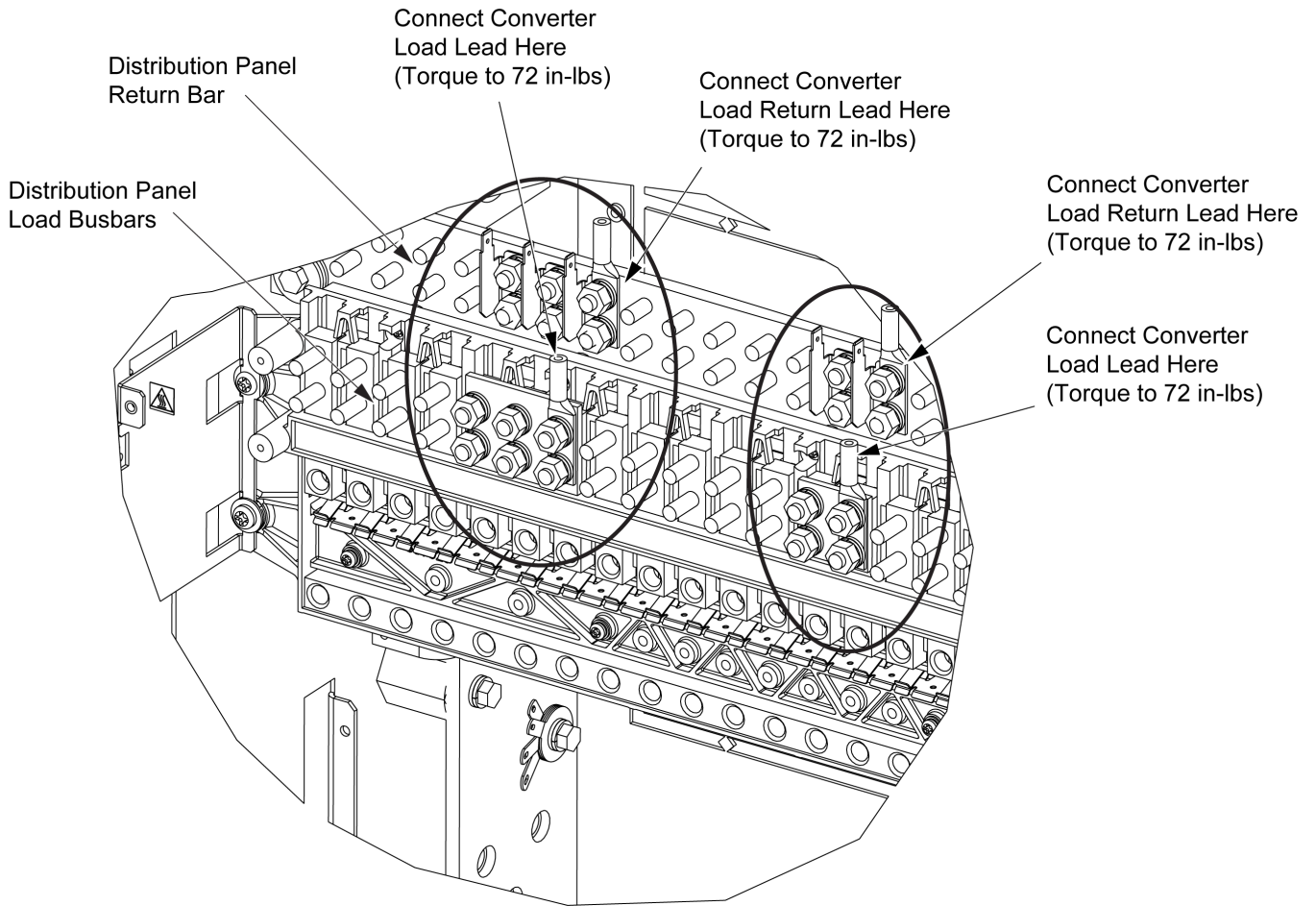
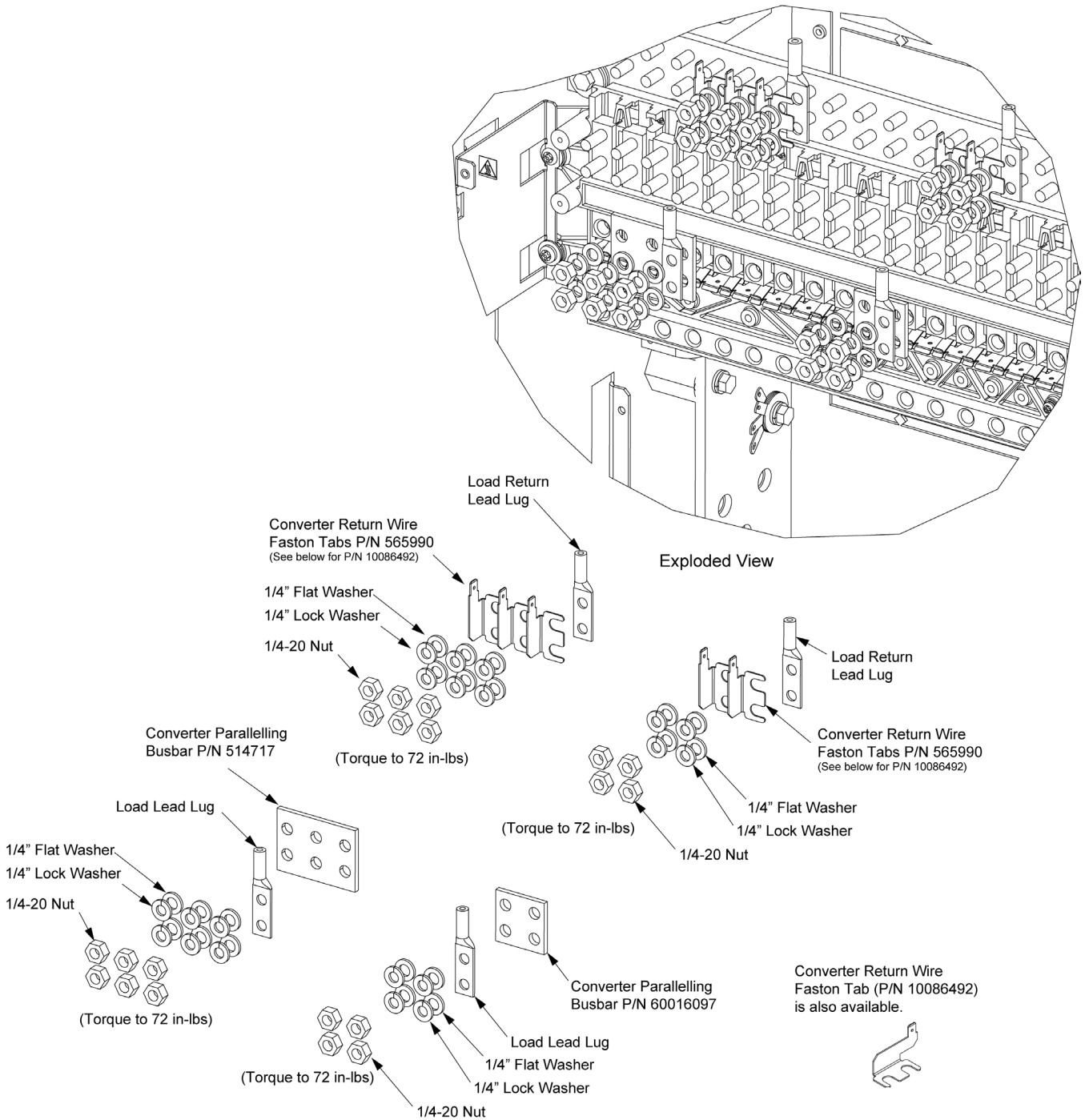


Figure 2.6 Connecting Converters Load Return Cables to the Distribution Panel with the Converters Return Wire Faston Tabs
 Connecting Converters Load Cables to the Distribution Panel with the Converters Paralleling Busbar (P/N 60016097 or 514717) (cont'd from previous page)



- [] 4. Connect the 4-inch long return wire jumper extensions P/N 565752 provided with the converters to the return wire faston tabs previously installed on the distribution panel return bar. See Figure 2.7 for example using kit P/N 565391 with distribution panel 582127000 List AA. Do this for all converters.



NOTE! The converter is also furnished with an 8-inch long return wire jumper extension P/N 566207. The 8-inch long return wire jumper extension is not used with this mounting bracket kit. It is used in other kits.

- [] 5. Connect the return wires P/N 564330 provided with the converters to the return wire jumper extensions P/N 565752. See Figure 2.7 for example using kit P/N 565391 with distribution panel 582127000 List AA. Do this for all converters.
- [] 6. If the load side cables were disconnected in an above step, reinstall and tighten those cables in the appropriate positions.
- [] 7. For each converter, route the return wire (P/N 564330) down and behind the converter's front mounting bracket, then connect it to the converter. See Figure 2.8. Orient the white square on the return wire faston receptacle's locking tab as shown in Figure 2.8.

Figure 2.7 Connecting Converter Return Wire (P/N 564330) and Return Wire Jumper Extension (P/N 565752) to the Converter Return Wire Faston Tabs

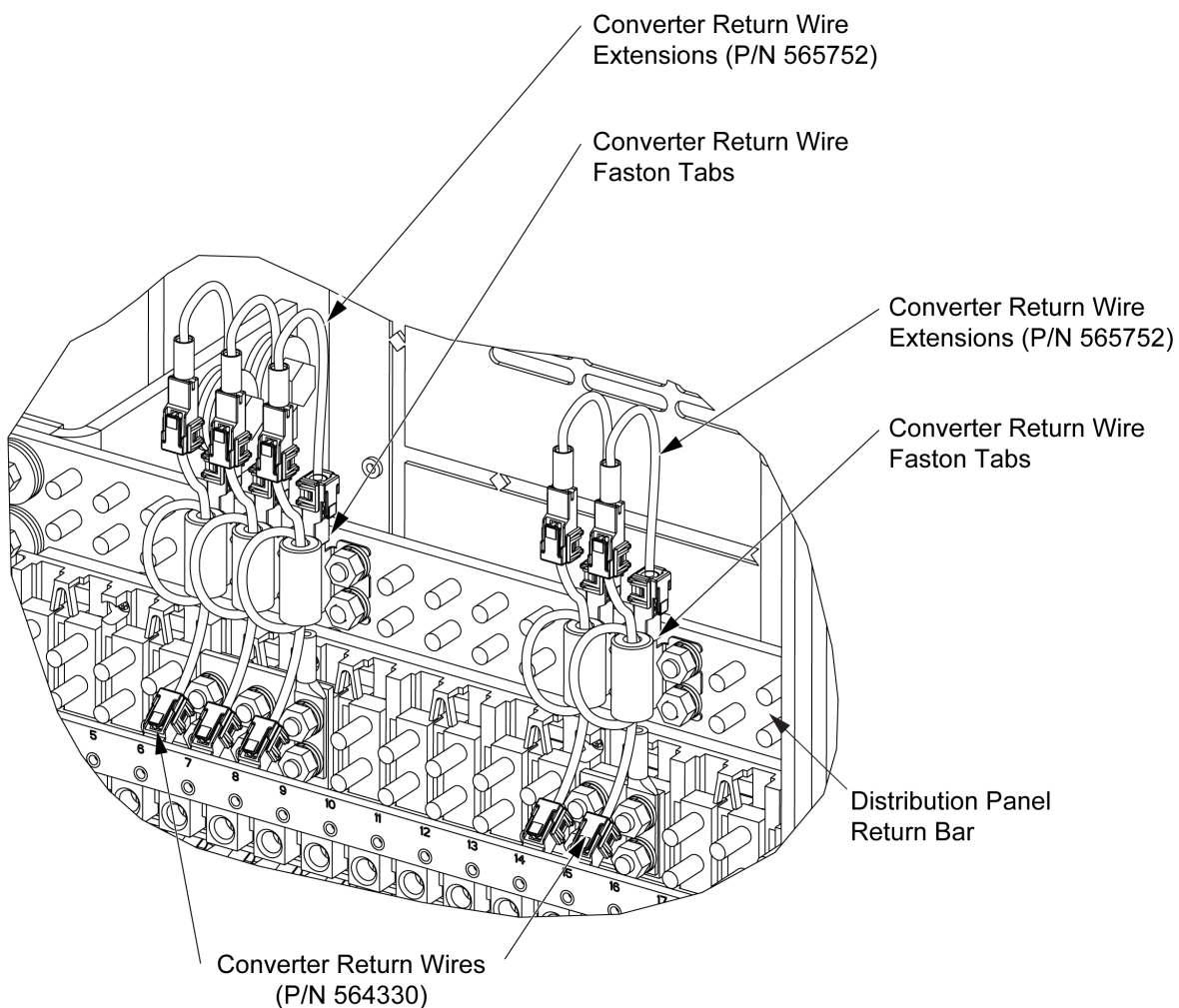
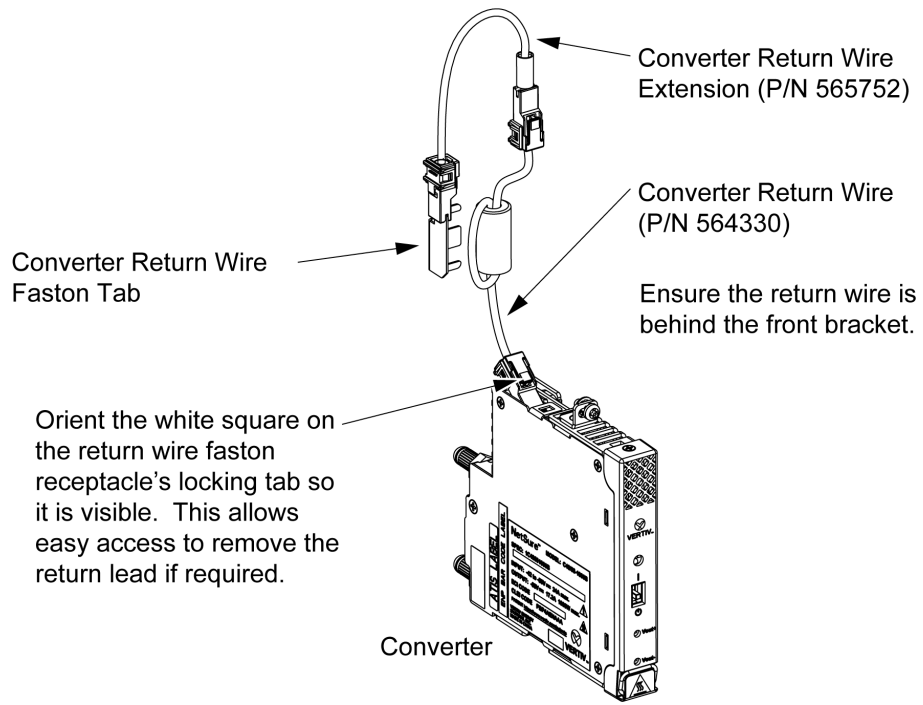
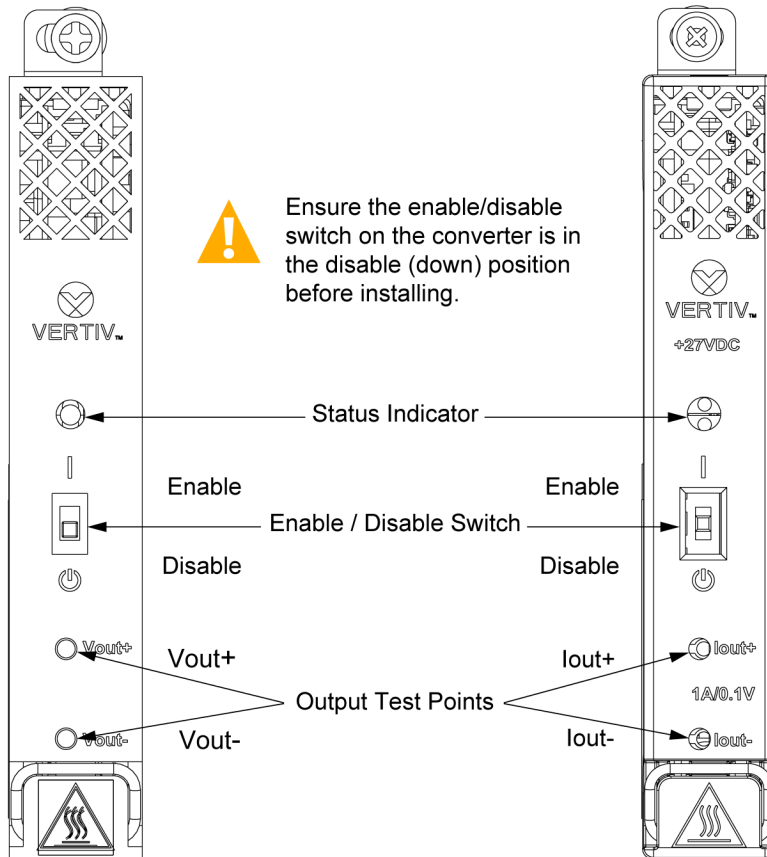


Figure 2.8 Connecting Converter Return Wire (P/N 564330) to the Converter



- [] 8. Ensure the enable/disable switch on the converter is in the disable (down) position. See Figure 2.9.

Figure 2.9 Enable/Disable Switch



Note: Output Voltage measurement on the +27 VDC Vertiv™ eSure™ Bullet Converter represents output current. 1A/0.1V

- [] 9. Plug the converter into the distribution panel. See Figure 2.10.
- [] 10. Secure the converter to the front mounting bracket with the screw provided with the converter. Torque as indicated in Figure 2.10.
- [] 11. Place the enable/disable switch on the converter to the enable position. See Figure 2.9. If two or three converters are connected in parallel to a load that exceeds the peak load rating for a single converter, they should be switched on simultaneously.
- [] 12. Observe the status of the converter front panel local indicator. If operating normally, this indicator should be illuminated green. See Figure 2.9.
- [] 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 power system.

Figure 2.10 Installing Converters

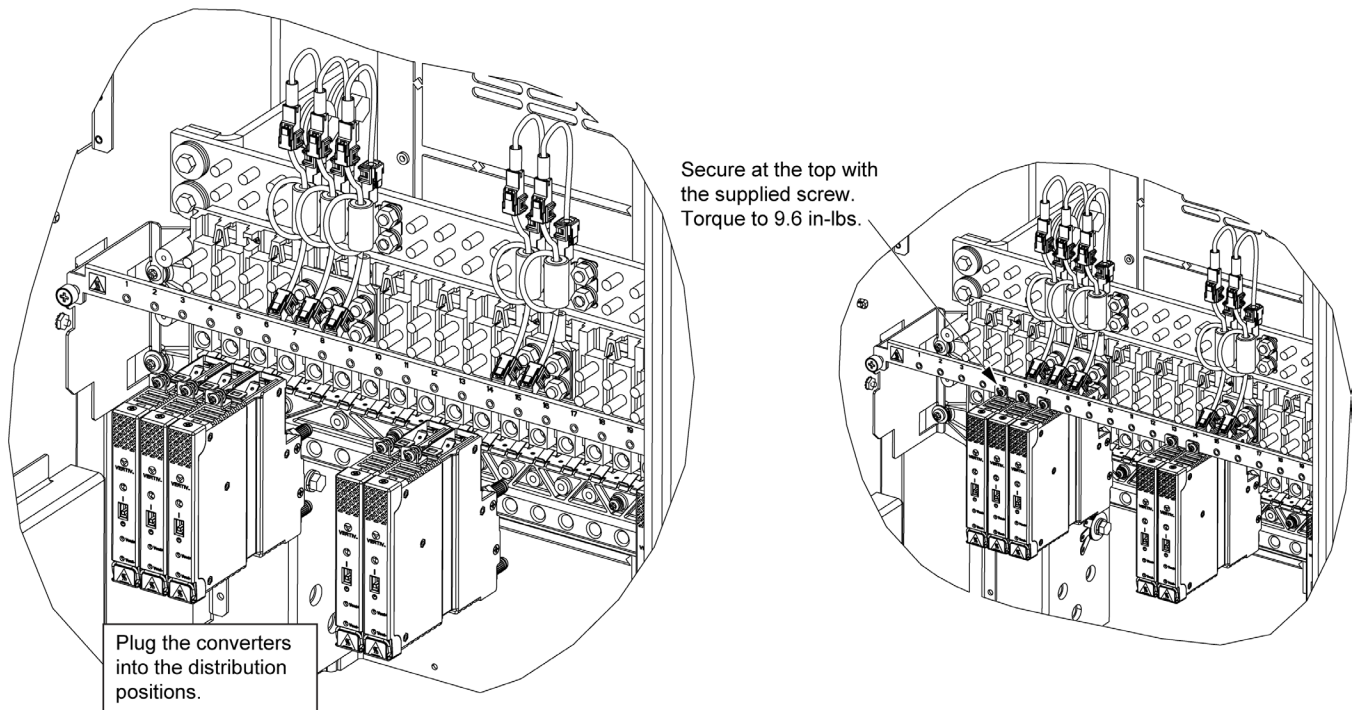


Figure 2.11 Installed +27 VDC Vertiv™ eSure™ Bullet Converters and +27 VDC Bullet Nose 6-Position GMT Fuse Board in a NetSure™ 7100 (26) position Distribution Panel

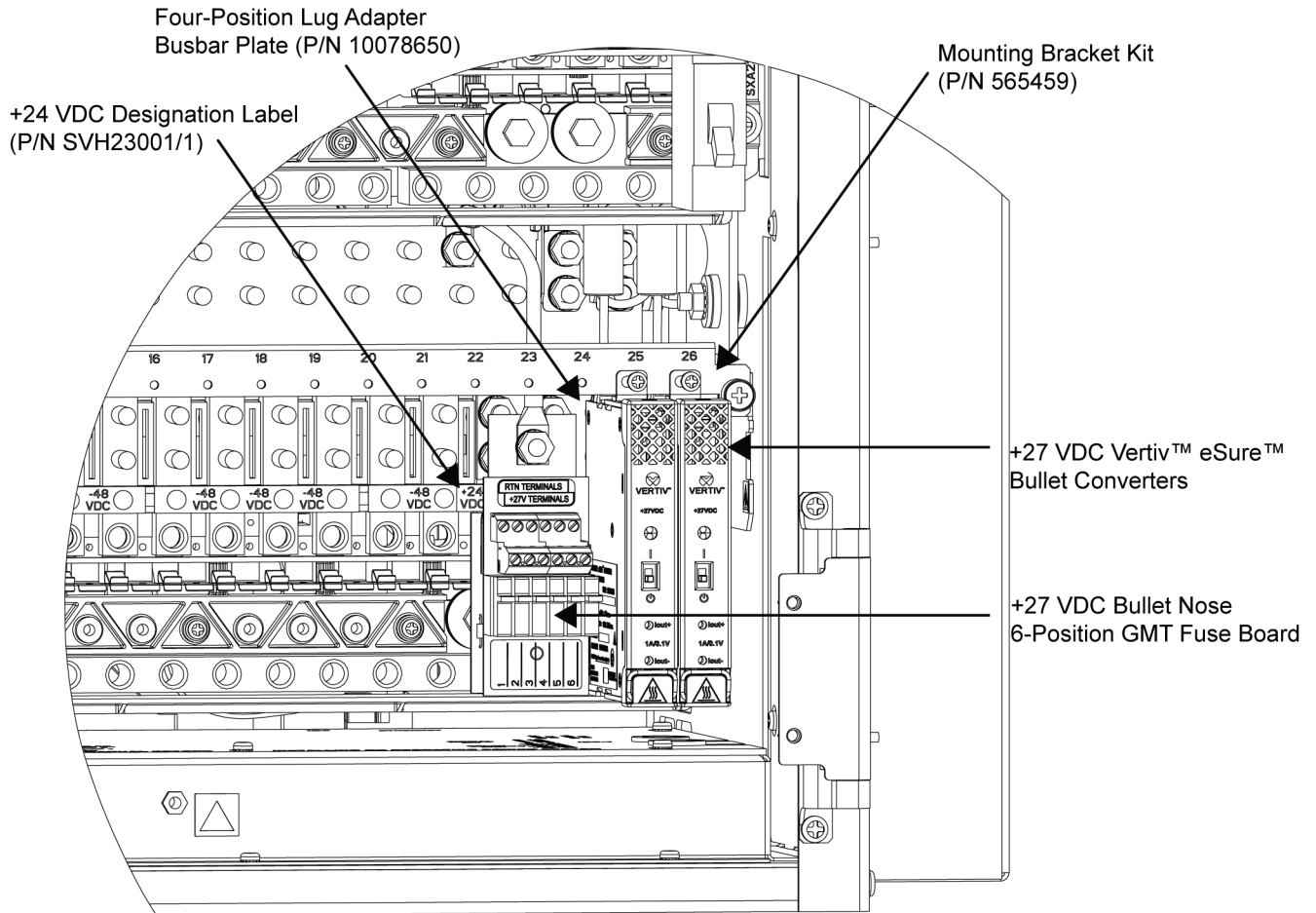
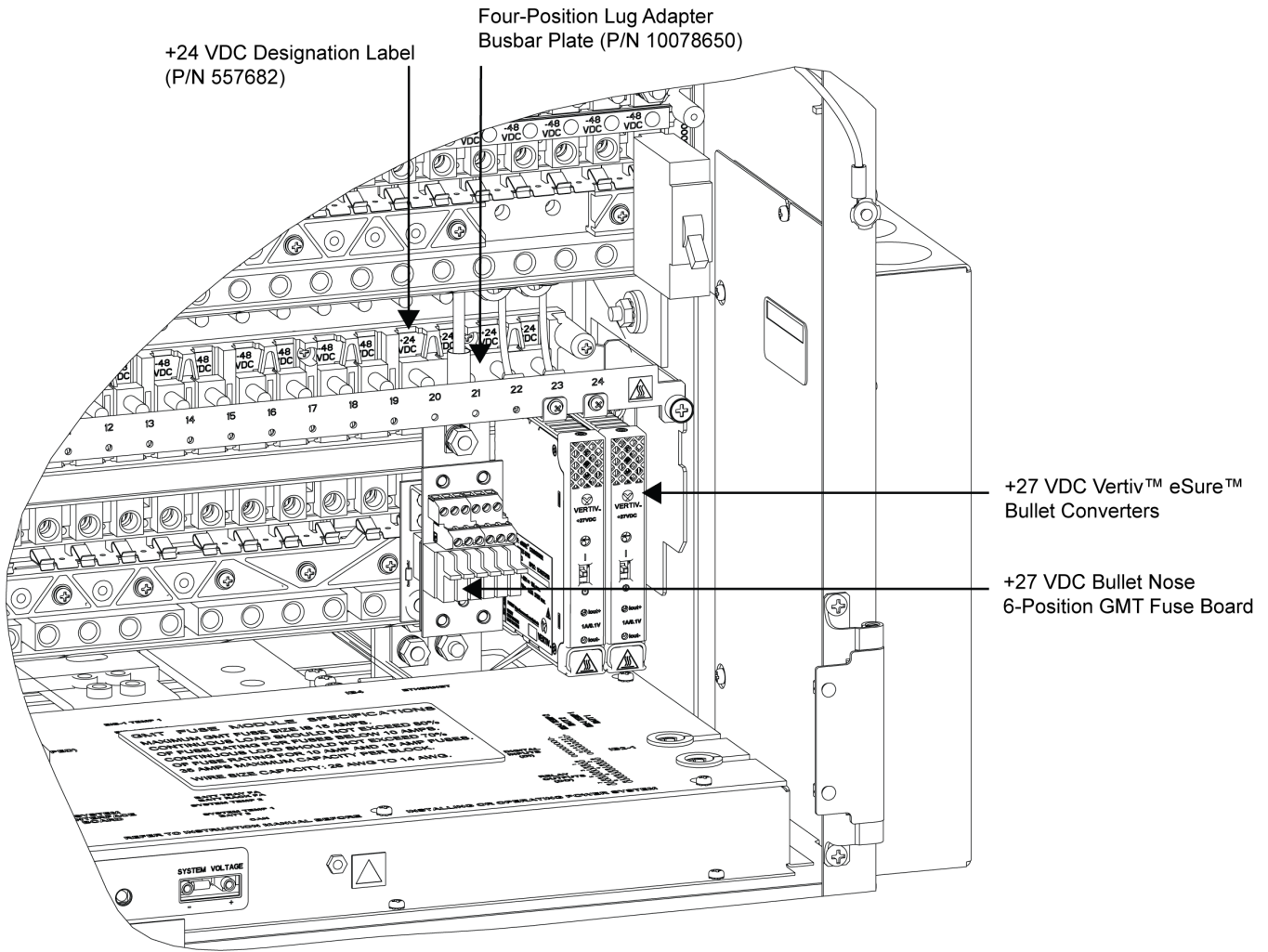


Figure 2.12 Installed +27 VDC Vertiv™ eSure™ Bullet Converters and +27 VDC Bullet Nose 6-Position GMT Fuse Board in a NetSure™ 7100 (24) position Distribution Panel



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