EXL S1 SPLIT SHIPMENT CHECKLIST

EXL S1 to I/O Cabinets 1 and 2 Installation Instructions



Revision Details

Rev.	Date	Details
0	08/14/2018	Initial Release.
1	03/06/2020	Removed applicability of checklist to I/O Cabinet 3.
2	04/06/2020	Added a note to verify CT orientation in step 13.

CONFIDENTIAL COMMUNICATION; NOT INTENDED FOR DISTRIBUTION. This report is solely intended for the use of the individual or entity identified herein.

EXL S1 UPS to I/O Connections

WARNING! LETHAL VOLTAGES EXIST INSIDE THE UNIT DURING NORMAL OPERATION.

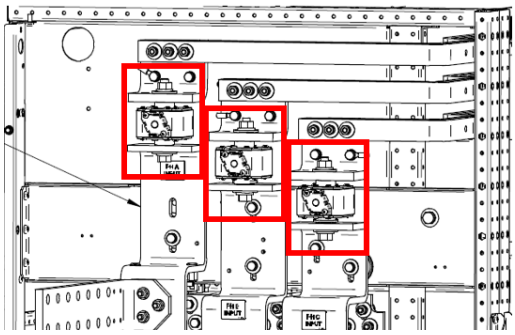
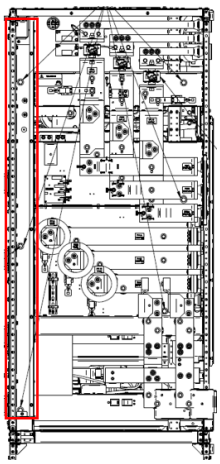
WARNING! ONLY QUALIFIED SERVICE PERSONNEL SHOULD PERFORM MAINTENANCE ON VERTIV POWER EQUIPMENT AND BATTERIES.

WARNING! PROPER PERSONNEL PROTECTIVE EQUIPMENT MUST BE USED DURING THIS PROCEDURE.

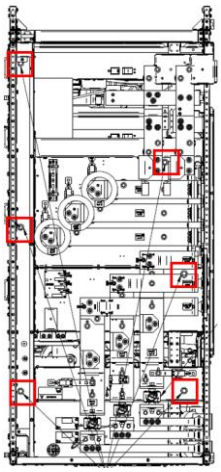
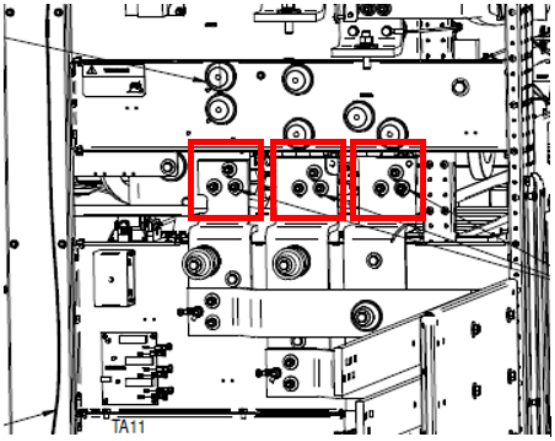
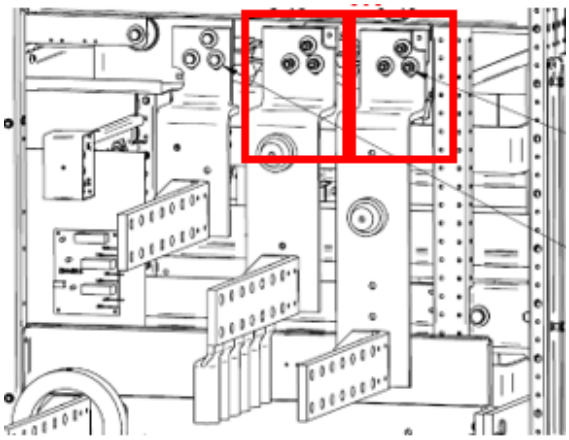
EXL S1 Split Shipment Checklist

Definitions:

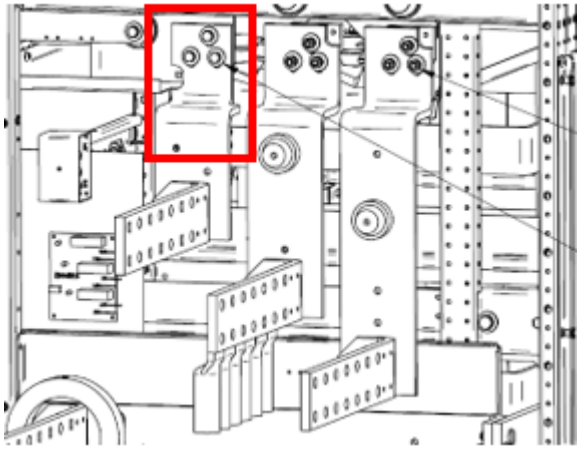
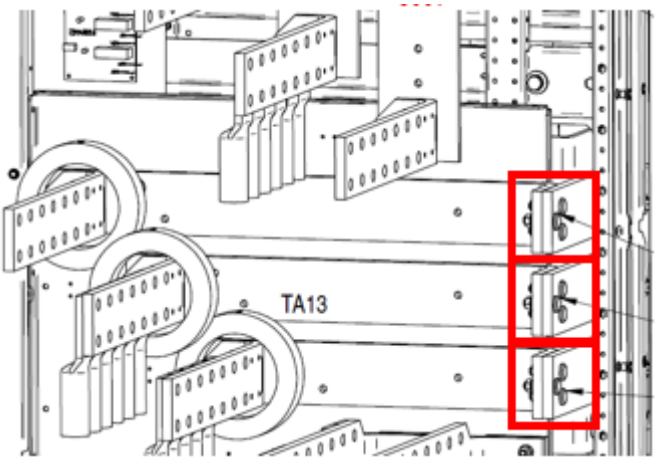
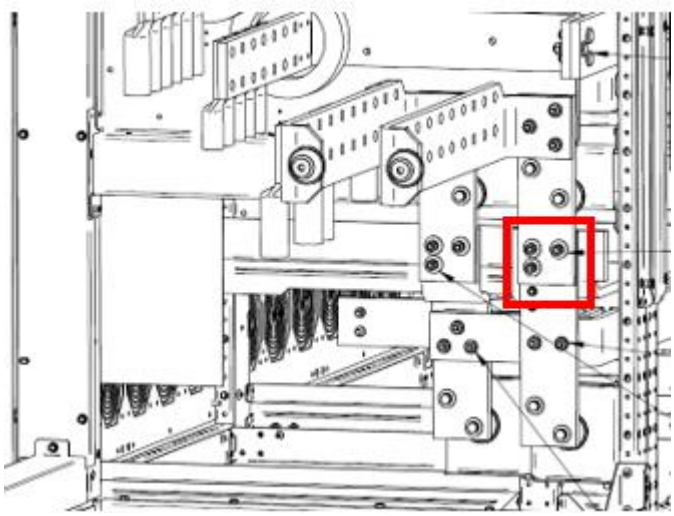
- I/O Cabinet 1 - Contains standard busbars for I/O connections.
- I/O Cabinet 2 - Contains backfeed disconnect breaker and/or sharing inductor options.

	STEPS	MECHANICAL VIEW	COMMENTS
☐	STEP 1 Remove (3) input fuses before joining cabinet sections together and set aside associated hardware.		
☐	STEP 2 Remove LV duct cover to access the front bolt locations for cabinet to cabinet connections.		

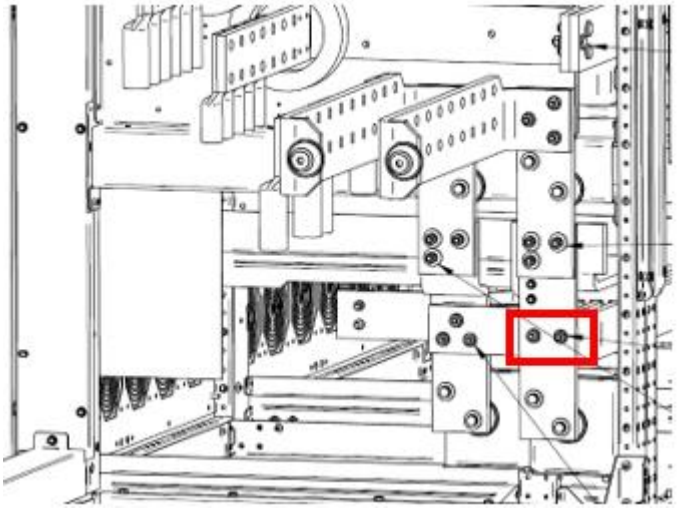
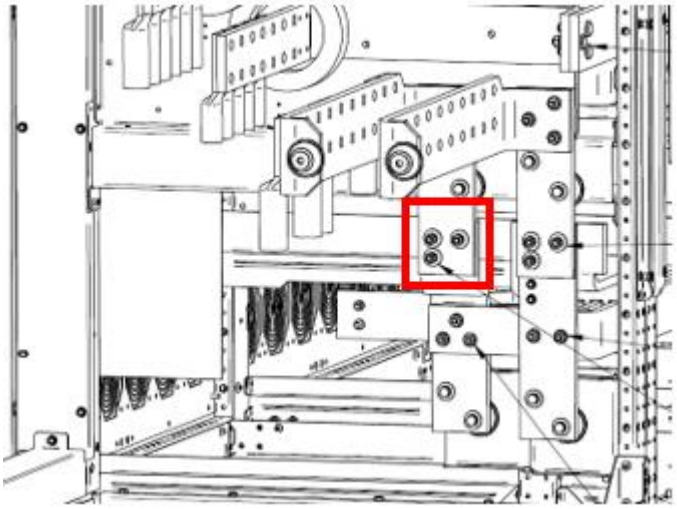
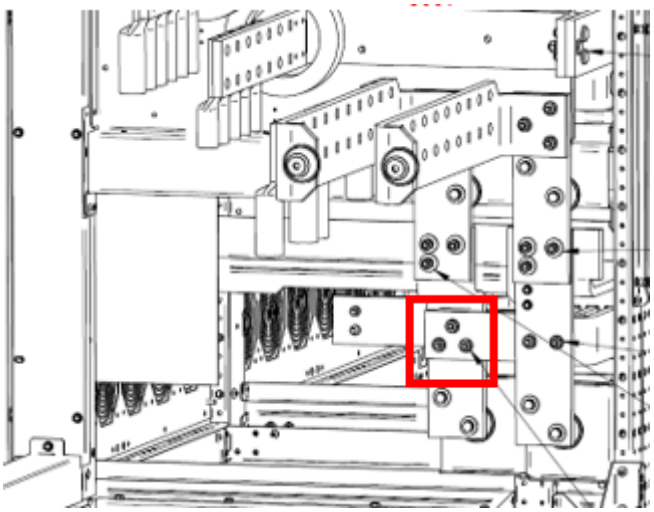
CONFIDENTIAL COMMUNICATION; NOT INTENDED FOR DISTRIBUTION. This report is solely intended for the use of the individual or entity identified herein.

☐	STEP 3 Add cabinet-to-cabinet mounting hardware: M10 LARGE FLAT WASHER (1) {PN: 09-43G00Z-00} M10 SPLIT LOCK WASHER (1) {PN: 09-36G00Z-00} M10 X 30 BOLT (1) {PN: 09-02GL0Z-12} (6 PLACES)		
☐	STEP 4 I/O CABINET 2 ONLY BYPASS Add hardware: M8X40 CARRIAGE BOLT (1) {PN: 09-15EN0Z-14} M8 LARGE FLAT WASHER (1) {PN: 09-43E00Z-00} M8 RIBBED WASHER (2) {PN: 09-39D00Z-A7} M8 NUT (1) {PN: 09-25E00Z-00} (9 PLACES) TORQUE CONNECTIONS 180 in-lbs/20.0 NM		**NOTE:** STEP 4 is shown for I/O Cabinet 2. Skip to 4a if I/O Cabinet 1 is installed.
☐	STEP 4a BYPASS I/O CABINET 1 ONLY Add hardware: **NOTE**: Insert carriage bolt from UPS side and insert cap screw from I/O side: M8X40 CARRIAGE BOLT (1) {PN: 09-02EL0Z-14} M8 LARGE FLAT WASHER (1) {PN: 09-43E00Z-00} M8 RIBBED WASHER (2) {PN: 09-39D00Z-A7} M8 NUT (1) {PN: 09-25E00Z-00} (6 PLACES) TORQUE CONNECTIONS 180 in-lbs/20.0 NM		**NOTE**: 4a and 4b are shown for I/O Cabinet 1.

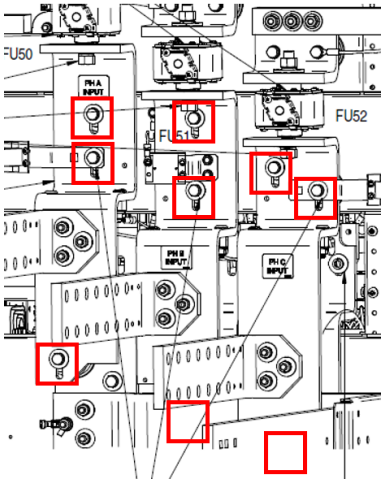
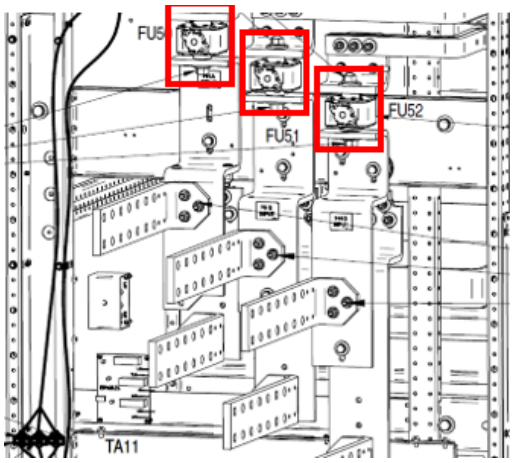
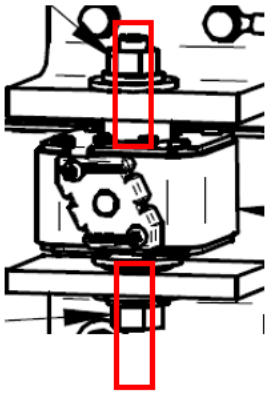
CONFIDENTIAL COMMUNICATION; NOT INTENDED FOR DISTRIBUTION. This report is solely intended for the use of the individual or entity identified herein.

☐	STEP 4b BYPASS I/O CABINET 1 ONLY Add hardware: M8X35 SCREW CAP (1) {PN: 09-02EL0Z-13} M8 LARGE FLAT WASHER (1) {PN: 09-43E00Z-00} M8 RIBBED WASHER (2) {PN: 09-39D00Z-A7} (3 PLACES) TORQUE CONNECTIONS 180 in-lbs/20.0 NM		**NOTE**: 4a and 4b are shown for I/O Cabinet 1 only.
☐	STEP 5 OUTPUT Add hardware: M8 LARGE FLAT WASHER (1) {PN: 09-43E00Z-00} M8 RIBBED WASHER (2) {PN: 09-39D00Z-A7} M8 NUT (1) {PN: 09-25E00Z-00} M8 X 40 CARRIAGE BOLT (1) {PN: 09-15EN0Z-14} (9 PLACES) TORQUE CONNECTIONS 180 in-lbs/20.0 NM		
☐	STEP 6a BATTERY POSITIVE Add hardware: M8 LARGE FLAT WASHER (1) {PN: 09-43E00Z-00} M8 RIBBED WASHER (2) {PN: 09-39D00Z-A7} M8 NUT (1) {PN: 09-25E00Z-00} M8 X 50 CARRIAGE BOLT (1) {PN: 09-15EN0Z-16} (3 PLACES) TORQUE CONNECTIONS 180 in-lbs/20.0 NM		

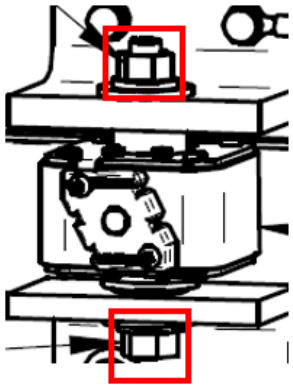
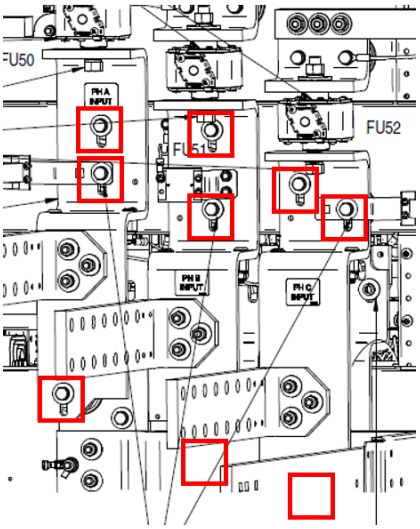
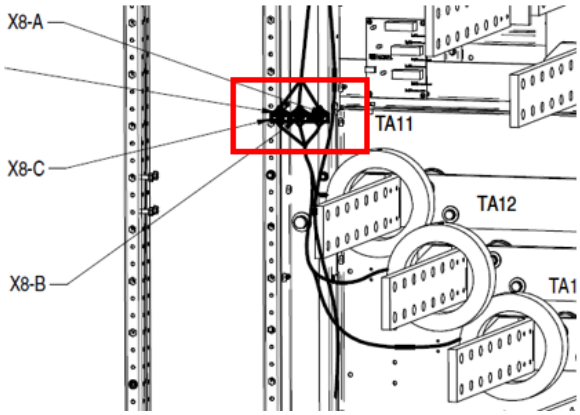
CONFIDENTIAL COMMUNICATION; NOT INTENDED FOR DISTRIBUTION. This report is solely intended for the use of the individual or entity identified herein.

☐	STEP 6b BATTERY POSITIVE Add hardware: M8 LARGE FLAT WASHER (1) {PN: 09-43E00Z-00} M8 RIBBED WASHER (2) {PN: 09-39D00Z-A7} M8 NUT (1) {PN: 09-25E00Z-00} M8 X 40 CARRIAGE BOLT (1) {PN: 09-15EN0Z-14} (2 PLACES) TORQUE CONNECTIONS 180 in-lbs/20.0 NM		
☐	STEP 7a BATTERY NEGATIVE Add hardware: M8 NUT (1) {PN: 09-25E00Z-00} M8 RIBBED WASHER (2) {PN: 09-39D00Z-A7} M8 LARGE FLAT WASHER (1) {PN: 09-43E00Z-00} M8X40 CARRIAGE BOLT (1) {PN: 09-15EN0Z-14} (3 PLACES) TORQUE CONNECTIONS 180 in-lbs/20.0 NM		
☐	STEP 7b BATTERY NEGATIVE Add hardware: M8 NUT (1) {PN: 09-25E00Z-00} M8 RIBBED WASHER (2) {PN: 09-39D00Z-A7} M8 LARGE FLAT WASHER (1) {PN: 09-43E00Z-00} M8X50 CARRIAGE BOLT (1) {PN: 09-15EN0Z-16} (3 PLACES) TORQUE CONNECTIONS 180 In Lbs/20.0 NM		

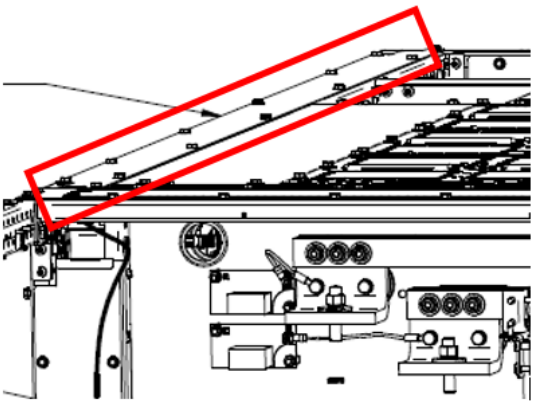
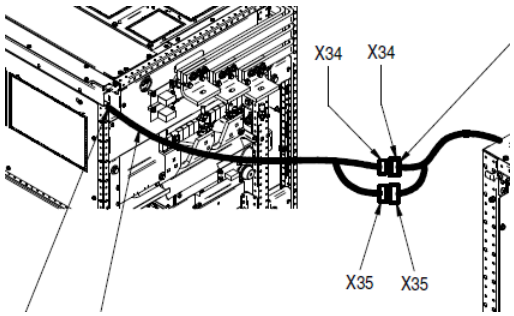
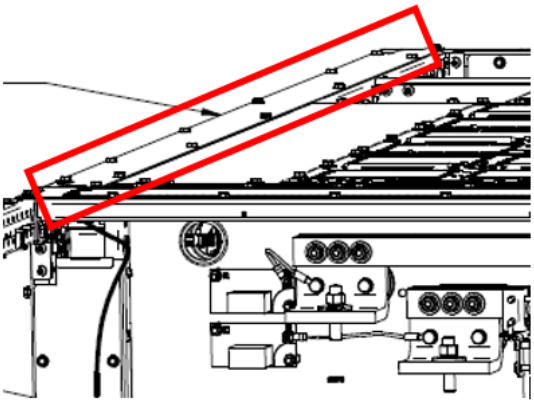
CONFIDENTIAL COMMUNICATION; NOT INTENDED FOR DISTRIBUTION. This report is solely intended for the use of the individual or entity identified herein.

☐	STEP 8 Loosen (3) bolts per phase to allow the busbar to slide down.		
☐	STEP 9 Install the fuses back to the unit. Ensure that the fuses and busbar have a solid and flush connection with no air gaps between them. If the fuses do not make a good connection with the busbars, go back to step 8 and adjust the busbars so that a solid connection can be made.		
☐	STEP 10 Add fuse x (6) set screws only (threaded rod for fuses). TORQUE CONNECITIONS 44 in-lbs/5.0 NM		

CONFIDENTIAL COMMUNICATION; NOT INTENDED FOR DISTRIBUTION. This report is solely intended for the use of the individual or entity identified herein.

☐	STEP 11 Add the following: FUSE X6 NUTS ONLY M12 LARGE FLAT WASHER (1) {PN: 09-43H00Z-00} M12 RIBBED WASHER (2) {PN: 09-39H00Z-B1} M12 NUT (1) {PN: 09-25J00Z-00} M12 SET SCREW (1) {PN: 09-08JY03-15} (2 PLACES EACH FUSE, 6 PLACES TOTAL) ALL FOUND IN HARDWARE KIT TORQUE CONNECTIONS 240 in-lbs/27.0 NM		
☐	STEP 12 Tighten (3) bolts per phase loosened during step 8.		
☐	STEP 13 Make CT connections: • One (1) Cable per CT • All three are close together. • All are tied to the side of the LV cover, not on top.		**NOTE**: Verify CT connector attaches to correct phase CT (A to A, B to B, and C to C). **NOTE:** Verify the CT orientation is installed properly. The **dot** serves as an indication of the side of the current transformer intended to face the source of electricity or line side (the dot should face the UPS).

CONFIDENTIAL COMMUNICATION; NOT INTENDED FOR DISTRIBUTION. This report is solely intended for the use of the individual or entity identified herein.

☐	STEP 14 I/O CABINET 2 ONLY Remove the LV duct cover in UPS.		**NOTE**: I/O Cabinet 2 has additional control/power connections.
☐	STEP 15 I/O CABINET 2 ONLY Connect X34 (if BFD is installed) and X35 from I/O to UPS in LV duct.		**NOTE**: I/O Cabinet 2 has additional control/power connections.
☐	STEP 16 I/O CABINET 2 ONLY Reinstall the LV duct cover in the UPS.		**NOTE**: I/O Cabinet 2 has additional control/power connections.

CONFIDENTIAL COMMUNICATION; NOT INTENDED FOR DISTRIBUTION. This report is solely intended for the use of the individual or entity identified herein.