PRE-SITE VISIT / SITE READINESS CHECKLIST
VERTIV EXL S1 UPS SYSTEMS
INSTALLING CONTRACTOR

THIS AREA TO BE COMPLETED BY GENERAL CONTRACTOR / UPS INSTALLER DURING PRE-SITE VISIT.

(List additional equipment information in Section 6.0).

Site Name		**Installing Contractor**	
Address		**Contracting Company**	
City		**Contractor Phone**	
State	**Zip**		
Sales Order #	**Site ID**		
VERTIV Contact Name		**VERTIV Contact Title**	
VERTIV Contact Phone		**VERTIV Contact Email**	
UPS Model #		**UPS Serial #**	
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Use one form for each system (Single Module System or Multi Module System). Attach comments to Section 6.0, or on additional sheets if necessary. Read this checklist completely prior to installation.

Introduction

THIS FORM MUST BE COMPLETED BY THE INSTALLING CONTRACTOR FOR EACH UPS SYSTEM. PROVIDE INITIALS AND DATE FOR EACH STEP AND SIGN THE DOCUMENT ON THE LAST PAGE.

The purpose of this form is to ensure a complete and quality installation of the UPS system and make the start-up process as efficient as possible. FAILURE TO FOLLOW ALL STEPS ON THIS DOCUMENT COULD RESULT IN EQUIPMENT MALFUNCTION.

Sequence:

1. Vertiv Project Management team and/or Vertiv Project Leader must provide a copy of this document to Installing Contractor in advance of the UPS installation. A copy of this document also ships with every UPS and can be found inside the UPS.
2. Installing Contractor must contact Vertiv and review this document in advance of any work and installation of the UPS.
3. Installing Contractor is required to fully complete this form, complete the installation, and return the form to Vertiv prior to unit start-up.

1.0 Documentation & Requirements

Installing Contractor (Initial/Date)

1.1 Confirm that all Installation Manuals and Handling Instructions are on hand for the equipment to be installed. _____

1.2 Confirm that all latest submittals and wire lists are on hand. Contact VERTIV sales representative or your local Vertiv service office if missing. _____

1.3 The Installing Contractor shall thoroughly read ALL installation instructions and Vertiv submittal drawings for proper installation PRIOR to beginning the work. _____

1.4 Review and understand all power and control wire termination points. Find all locations physically on the equipment before beginning installation. Refer to the Installation Manual for additional details.

To prevent damage to the UPS:

- The Installing Contractor shall not drill or cut any metal conduit on top of the unit.
- The Installing Contractor shall not drill or cut any structural material such as rebar or any metal-containing material on top or above of the unit. Metal shavings allowed to enter inside the unit can severely damage the UPS.
- The Installing Contractor must remove the low voltage conduit plate per the Installation Manual and perform drilling/punching holes in the plate away from the unit.
- The Installing Contractor shall not remove the blue filter installed on top of the unit. This filter will be removed by the Vertiv Customer Engineer. _____

- The Installing Contractor shall not walk on top of the unit. There are electronic components under the top panels of the unit that may get damaged and impair equipment operation.
- The Installing Contractor shall not use the top of the unit as a storage location.
- If a separate conduit or plenum is used, the Installing Contractor must ensure that no metal shavings enter the unit.

1.5 Review proper ground requirements. Refer to the Installation Manual for further details. _____

2.0 Inspection of the UPS System

		Installing Contractor (Initial/Date)
2.1	Check for shipping damage internally or externally. Notify VERTIV sales representative about any damage.	_____
2.2	Ensure all cabinets are installed in correct orientation.	_____

3.0 UPS System Installation

		Installing Contractor (Initial/Date)
3.1	Keep all protective shrink wrap on the unit and remove only when required. IF THE UNITS DOES NOT HAVE A BLUE FILTER INSTALLED ON THE TOP OF THE UNIT, CONTACT VERTIV CUSTOMER ENGINEER. Replace the shrink wrap with special Blue Filter identified below. Cover all entries and egress to the UPS. This includes all front filters and top fan grilles to ensure no debris or dust may enter the unit throughout the installation. This filter will be removed by Vertiv Customer Engineer during startup. Blue Filter Part Number: Grainger Part Number 2JTA8 Confirm equipment is placed with adequate clearances as per Installation Manual and NEC. All cabinet doors must be able to open fully.	_____
3.2	Ensure that there is a minimum of 36 inches in front of all circuit breakers to perform maintenance.	_____
3.3	Confirm a minimum of 24 inches clearance at top of equipment for air exhaust. Conduit or other material may only be mounted to locations referenced in the installation manual.	_____
3.4	Adequately cover the equipment as much as possible during work to keep it clean.	_____
3.5	Contact VERTIV BEFORE making mechanical connections of the I/O Cabinet to the UPS and BEFORE running cables to the cabinet. All connections must be torqued as per applicable requirements and marked when complete.	_____
3.6	Complete and terminate all AC and DC power wiring. All connections must be torqued as per applicable requirements and marked when complete. **NOTE:** Do not use a drill or conduct any drilling or self-tapping on top of the UPS. Remove the UPS Top Conduit Box and drill away from the UPS if the Conduit Box cover has no knockout. Ensure the conduit plate is free of metal shavings prior to reinstallation. **NOTE:** Ensure the top of the UPS is protected from any metal shaving or debris by using blue filter material. It is the responsibility of the installer to ensure no conductive material enters the unit. Installer will be billed for any cleaning or failure as a result of debris entering the unit. THE INSTALLING CONTRACTOR WILL BE BILLED AT VERTIV'S PREVAILING LABOR RATES FOR ANY CLEANING OR EQUIPMENT FAILURE THAT RESULTS FROM DEBRIS ENTERING THE UNIT.	_____
3.7	**IMPORTANT NOTE:** DO NOT MEGGER CABLES WHILE ATTACHED TO THE EQUIPMENT. MEGGER CABLES BEFORE ATTACHING TO THE UNIT.	_____
3.8	Ensure clockwise, A-B-C phase rotation for wiring of all equipment. Phasing to be matched for all power feeds (Input, Bypass, Output, Maintenance Bypass, etc.).	_____

3.9 Run and terminate ALL control wiring (installer is responsible to terminate). Wires MUST be marked as per VERTIV wire list numbers. THERE SHOULD BE NO SOLID CONTROL WIRE.

NOTE: Ensure no wire clippings enter the unit. Strip the wire away from the unit.

3.10 Ensure all control wiring is run in their own conduits (as per the cable groups on the VERTIV submittal wire lists) and separated from power wiring. Verify the UPS System is wired following the supplied installation instructions. Consult Vertiv Customer Engineer if needed.

3.11 For 1+N systems, the cabling impedances for the bypass feeds to each UPS must be within 5% from maximum to minimum. If the cabling impedances are greater than 5%, then inform the customer that the installation may result in an overload condition when operating on bypass. Customer may consider optional bypass sharing inductors for the application. Consult Vertiv Customer Engineer if needed.

3.12 Check if the shipped unit has sharing inductors in the I/O Cabinet of each UPS. Consult with Vertiv Customer Engineer if needed.

3.13 Check all shipping split connections. The connection points and shipping splits for the UPS system are described in the installation drawings included in the Installer Guide.

- 559322P1 Mechanical installation, 800 & 1200kVA UPS with Input/Output Cabinet 1
- 561763P1 Mechanical installation, 800 & 1200kVA UPS with Input/Output Cabinet 2 or 3

3.14 Confirm if the UPS is configured as a dual or single-input unit.

3.15 Check if the box containing paralleling connectors is present in any of these locations: I/O cabinet, UPS cabinet, or the shipping split box marked EXLS1-MMSKIT (size 9×5×2in).

4.0 Battery Installation

4.1 Review DC cabling, control wiring, power supply requirements, and battery breaker installation. For the DC cabling, the positive and negative pairs must be placed properly in each conduit run. Ensure no control wiring is installed with the power wiring, etc.

4.2 Installing Contractor must understand proper installation requirements and has the battery manufacturer's installation manual on-hand.

- For Samsung Lithium battery installations, ensure that Rack 1 contains the System BMS. The 1-LIBSGXXX1PS cabinet contains the System BMS board which has the red *Reset* button. This cabinet must always be Cabinet 1 regardless of the configuration (left-to-right or right-to-left).
- For Vertiv High Power Lithium (HPL) battery installations, consult with the Vertiv Customer Engineer or product user manual for additional details.
- Do NOT use cable lube to aid in sliding of jars (i.e., Yellow77). This will ruin the jars.
- Installing Contractor must follow proper post-preparation (i.e., no wire brushes).
- Installing Contractor must follow the proper torque setting (manufacturing requirements and in-lbs or Nm specifications).

4.3 Ensure that the battery system has a minimum of 36 inches of clearance for service access.

4.4 Complete internal battery connections (cabinets) or battery installation (rack- based systems). All connections to be completed before Battery Verification (or equivalent) is performed.

4.5 Confirm battery spill containment installed as applicable, as well as hydrogen detectors, if required.

4.6 Ensure that the battery room exhaust is installed. BATTERY ROOM EXHAUST MUST BE WORKING BEFORE BATTERY CHARGING CAN BEGIN. Check compliance to NEC, if applicable.

Installing Contractor (Initial/Date)

5.0 Closeout and Schedule Startup

Installing Contractor (Initial/Date)
_____
_____
_____

5.1 The Installing Contractor must schedule the start-up at least 10 business days in advance with the VERTIV contact (name and number listed on Page 1) or Vertiv local service office. If start-up must be rescheduled, call ASAP before the arranged date.

5.2 Confirm the UPS equipment room is clean, and the air-conditioning unit is working before start-up begins. The room must be ready and safe. Adequate lighting must be available. All grounding must be tested and functional before the UPS can be energized.

5.3 The Installing Contractor must sign the form at the bottom of the last page when the installation is completed and email the form to the VERTIV contact listed above. Start-up may be scheduled in advance, but start-up cannot begin without this form completed and signed.

6.0 Comments / Additional Equipment Information

IMPORTANT: IF VERTIV ARRIVES ON SITE FOR START-UP AND THE EQUIPMENT OR SITE IS NOT READY, THE INSTALLING CONTRACTOR WILL BE BILLED FOR ADDITIONAL SERVICES PERFORMED BY VERTIV PRIOR TO THE STARTUP AT VERTIV'S PREVAILING LABOR RATES (A P.O. WILL BE REQUIRED FOR START-UP TO BEGIN).

Installing Contractor Representative

Signature _____ Date _____

Printed Name _____ Company _____

Save and Submit

Click Save and Submit button to save this file.
After the file has been saved, an Outlook e-mail item will be opened with the saved file attached.