UPCBD-Style Pedestals

Buried Distribution

Installation Manual (631-200-015), Revision C
Part Number: P91873

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 Group Corporation 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.

This document may contain confidential and/or proprietary information of Vertiv Group Corporation, and its receipt or possession does not convey any right to reproduce, disclose its contents, or to manufacture or sell anything that it may describe. Reproduction, disclosure, or use without specific authorization from Vertiv Group Corporation is strictly prohibited.

TABLE OF CONTENTS

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 Precautions Definition

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

General Safety Precautions

The following precautions shall be observed at all time when handling and installing the enclosure:

- Observe the general safety precautions against personal injury and equipment damage.
- The procedures outlined in this manual are only recommended guidelines. Ensure that all NEC (National Electric Code) and local codes for safety and wiring are followed.
  - Use listed two-hole compression connectors (lugs) to terminate all ground connections. Selected lug shall match wire and type, and crimped applied as specified by the lug manufacturer.
  - Apply NO-OX-ID-A to all ground connections.
  - Insulation of field-wire conductors should be rated no less than 105 °C, and gauge in a manner that is consistent with the NEC and local codes.
- Always use a non-contact voltage detector, when approaching an enclosure, to verify no leaks or shorts are presents on the external body.
- Read “Enclosure Placement” in its entirety prior to attempting to handle or secure the enclosure.
- A minimum of two persons are required to safely install the enclosure.
- Hard hats and steel-toed boots should be worn while maneuvering the enclosure.
- Safety glasses should always be on while on-site.
- Safety gloves should be on when working in temperature extremes, with batteries, or with sharp objects.
- All electricians, operators, and technicians have been trained for the task at hand.
- Keep bystanders away.
- Ensure that all personnel on site are familiar with the first-aid kit location and emergency procedures in the event of an injury.
- Never leave the enclosure unattended. If leaving the site, close and secure the enclosure.

You Must Follow Approved Safety Procedures

DANGER! Performing the following procedures may expose you to hazards. These procedures should be performed by qualified technicians familiar with the hazards associated with this type of equipment. These hazards may include shock, energy, and/or burns. To avoid these hazards:

a) The tasks should be performed in the order indicated.

b) Remove watches, rings, and other metal objects.

c) Prior to contacting any uninsulated surface or termination, use a voltmeter to verify that no voltage or the expected voltage is present. Check for voltage with both AC and DC voltmeters prior to making contact.

d) Wear eye protection.

e) Use certified and well maintained insulated tools. Use double insulated tools appropriately rated for the work to be performed.

Specific Safety Precautions

DANGER! RISK OF ELECTRICAL SHOCK, GENERAL
All ground connections must be installed and verified prior to connecting any power cables (AC or DC) and turning-up of enclosure.

When connecting any discrete power connection, make the connection first with the ground/return and break last with ground/return.

Do not install equipment showing any physical damage.

DANGER! RISK OF ELECTRICAL SHOCK, AC
Proper actions, include, but not limited to:

a) Verify before contacting the enclosure that no current leakage or ground fault condition is present.

b) Verify a proper ground is in place.

c) Verify for AC hook-up, all enclosure circuit breakers are OFF and the utility incoming feed is OFF.

Use a trained licensed electrician.

DANGER! RISK OF ELECTRIC SHOCK
The DC bus is powered by DUAL power sources – Rectifiers and DC Batteries.

To properly work on the system, de-energize by disconnecting BOTH power sources. Even with the batteries turned off by using a local battery (circuit breaker) disconnect, batteries are still “LIVE” and hazardous, including a voltage >50 VDC, and a source of high short circuit current.

Use extreme caution around the batteries and terminals.

Do not smoke.

DANGER! RISK OF ELECTRICAL SHOCK, OSP CABLES
If joint buried cables are used, check the cable sheath for voltage in accordance with local standards. If voltage is detected, do not proceed with the installation. Contact the supervisor and do not proceed until the voltage hazard is eliminated.

Personal Protective Equipment (PPE)

DANGER! ARC FLASH AND SHOCK HAZARD.
Appropriate PPE and tools required when working on this equipment. An appropriate flash protection boundary analysis should be done determine the "hazard/risk" category, and to select proper PPE.

Only authorized and properly trained personnel should be allowed to install, inspect, operate, or maintain the equipment.

Do not work on LIVE parts. If required to work or operate live parts, obtain appropriate Energized Work Permits as required by the local authority, per NFPA 70E "Standard for Electrical Safety in the Workplace".

Maintenance and Replacement Procedures

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 procedures that requires removal of existing hardware, retain all hardware for use in subsequent steps, unless otherwise directed.

STATIC WARNING

This equipment contains static sensitive components. The warnings listed below must be observed to prevent damage to these components. Disregarding any of these warnings may result in personal injury or damage to the equipment.

1. Strictly adhere to the procedures provided in this document.
2. Before touching any equipment containing static sensitive components, discharge all static electricity from yourself by wearing a wrist strap grounded through a one megohm resistor. Some wrist straps have a built-in one megohm resistor; no external resistor is necessary. Read and follow wrist strap manufacturer's instructions outlining use of a specific wrist strap.
3. Do not touch traces or components on equipment containing static sensitive components. Handle equipment containing static sensitive components only by the edges that do not have connector pads.
4. After removing equipment containing static sensitive components, place the equipment only on conductive or anti-static material such as conductive foam, conductive plastic, or aluminum foil. Do not use ordinary Styrofoam™ or ordinary plastic.
5. Store and ship equipment containing static sensitive components only in static shielding containers.
6. If necessary to repair equipment containing static sensitive components, wear an appropriately grounded wrist strap, work on a conductive surface, use a grounded soldering iron, and use grounded test equipment.

ABOUT THIS DOCUMENT

Purpose

This practice provides installation instructions for the UPCBD-style pedestal (**Figure 1**). See **Table 1** for dimensions.

Reason for Reissue

This practice has been reissued to reflect a change in corporate identity, and to change the issue from Issue 1 to Version AA.

Additional Information

Refer to other local practices or building codes for proper tools, methods, and materials to be used in performing procedures not specifically described in this practice. Note that the information contained in this practice is subject to change and may not be suitable in all situations.

Figure 1: *UPCBD3 Pedestal*

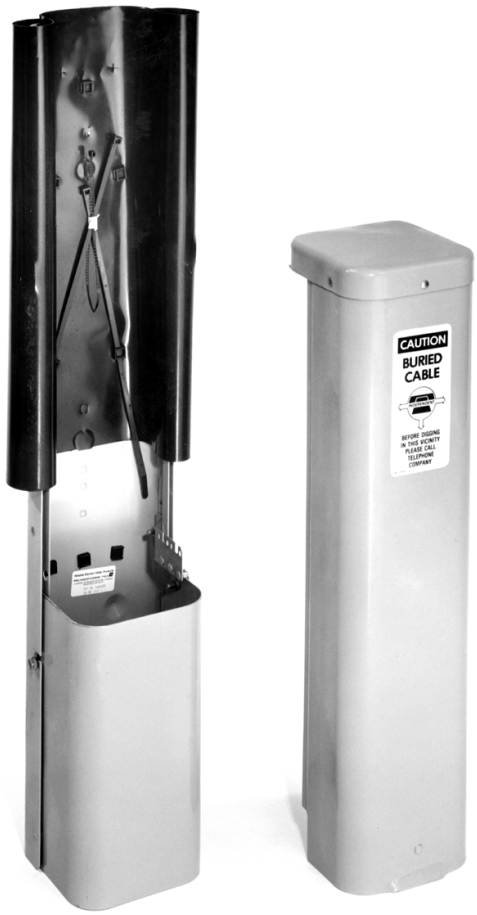

Table 1: *Dimensions*

Catalog Number	Height	Lower Cover Length	Upper Cover Length	Depth	Width
UPCBD2	36-1/2" 927.1mm	12" 304.8mm	24-1/2" 622.3mm	4" 101.6mm	4" 101.6mm
UPCBD3	37-1/4" 946.1 mm	12" 304.8mm	25-1/4" 641.3mm	6-3/4" 171.4mm	6-3/4" 171.4mm
UPCBD4	37-1/4" 945.1mm	12" 304.8mm	25-1/4" 641.3mm	8-1/2" 215.9mm	8-1/2" 215.9mm
UPCBD5	43-1/4" 1098.5mm	12" 304.8mm	31-1/4" 793.7mm	10-1/2" 260.3mm	10-1/2" 260.3mm

DESCRIPTION

UPCBD-style pedestals are constructed of heavy gauge mill-galvanized steel treated with a multi-stage finishing process for protection in most environments. Though product life expectancy is dependent upon local environmental conditions, the UPCBD-style pedestals are built to last 20 years.

INSTALLATION

1. Locate the cable pedestals as shown on the construction work prints.
2. A pedestal is normally placed on the trench line. When offsetting a pedestal from the cable trench, the engineer will specify each pedestal location and indicate the amount of offset on the construction drawings.

NOTE! *If possible, avoid offsetting a pedestal from the trench line. Offset cables are difficult to locate. Cables are often cut during other excavations or cable placement.*

WARNING! Notify the proper personnel and perform all necessary safety procedures and precautions s according to local practices before proceeding with and during the pedestal installation.

3. Dig a hole approximately two inches larger than the pedestal to be placed, (for example, 10”x10” for a UPCBD4) and approximately 10 inches deep to align the ground line with the recommended depth of the pedestal during final placement.
4. If a ground rod is needed to comply with local bonding and grounding practices, install it at this time. Attach a sufficient length of 6-gauge copper wire to an L70 connector (not provided). Mount the L70 connector on the bond bracket, using the .218 or .265 hole located on the angle portion of the bracket. Attach the other end of the 6-gauge copper wire to the ground rod with a ground rod clamp (not provided) according to local practices.
5. Unpack the pedestal, and dispose of the packing materials properly. Using a 216-type tool, remove the upper front cover assembly as follows: Turn the 216-type tool counterclockwise to loosen the locking bolt on the lower right side of the cover. Use the hand pocket on the bottom of the cover to lift the cover up and off.
6. To remove the lower front cover, use the 216-type tool to loosen the locking bolts on the left and right side of the pedestal. Lift the cover up and out.
7. If stake mounting the pedestal, carefully drive the stake into the ground so that the flanges of the stake rest on the outside of the pedestal wall, and the top of the stake is approximately at the ground line. The bottom 10 inches of the UPCBD pedestal will be buried below ground.
8. To secure the backplate to the mounting stake, align the holes in the stake with the holes in the backplate. Install the mounting hardware through the holes and secure it.
9. Prepare the cables according to local practices.
10. Perform all remaining bonding and grounding procedures according to local practices.
11. Reassemble the lower front cover. Ensure that the cover is in its lowest position by fully seating the bolts on the cover into the slots on the backplate. Tighten all bolts securely using a 216-type tool.
12. Backfill with soil around the outside of the pedestal. At final grade, the top two inches of the lower cover should be above ground and the bottom ten inches should be below ground.

13. At this time, place gravel inside the pedestal, or as local practices apply.
14. Perform all splicing operations as applicable according to local practices.
15. Reassemble the upper cover assembly and tighten the locking bolt with a 216-type tool.

ACCESSORIES

Table 2: *Accessories*

Catalog Number	Description
GBRREA	Bond ground bracket
GBREXT	Stud mt. grd. ext. brkt-6 pos.
GBREXTKIT	Slot mt. grd. ext. brkt-6 pos.
ALP387	L-70 type ground lug
Retrolock	Padlock security device (10 per pkg)
P43197	C-service wire clamp
P41219	14" ground strap (10 per pkg.)
TF74	Cup bolt--closure locking screw
MS1342	42" mounting stake

This page is intentionally blank.

VertivCo.com | **Vertiv Headquarters,** 1050 Dearborn Drive, Columbus, OH, 43085, USA

631-200-015 (RC 10/17)