Amphenol Broadband Solutions®

Z14 Generation 2 Louvered Low Profile Housing General Description and Installation

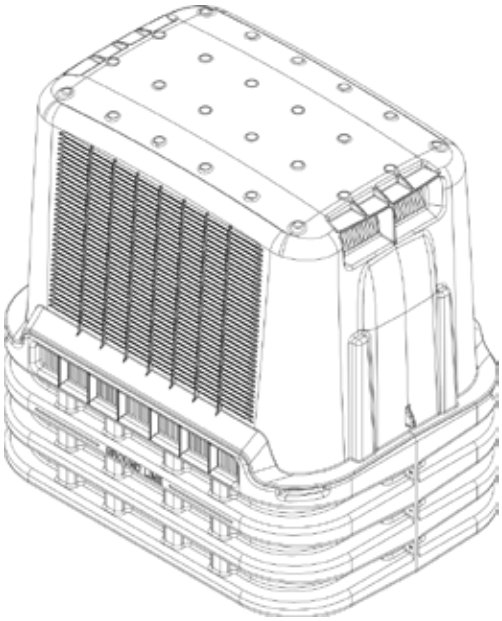

Figure 1: Z14 G2-LLPH

Product Purpose

Molded of high density polyethylene (HDPE), the lightweight and rugged Z14 can be easily transported to and installed at equipment sites to provide a secure housing for optical node devices and related RF equipment.

Product Mounting and Location

The outdoor, weather-resistant Z14 housing is intended for use with high-heat generating optical and RF equipment used in cable telecommunications networks. Detailed installation information is covered in *Installation Procedures*.

Site Selection

The ideal site is level grade; however, the Z14 housing can accommodate up to a 15° change in grade over its 30" width. For sites with an incline greater than 15°, use local practices to build up and support the grade. For example, install retaining wall blocks or landscape timbers to build up the grade and prevent erosion.

Product Description

The Z14 housing is designed to accommodate and protect the environmentally hardened active and passive electronic housings typically found in a cable telecommunications hybrid fiber coax (HFC) network, including optical nodes, RF amplifiers, RF directional taps, power inserter modules, and RF line passives.

The Z14 is equipped with venting to allow for heat dissipation for the active electronics installed within the housing. The Z14 has an internal bracket structure, depending on the application, to allow for affixing the CATV equipment housing.

The Z14 is designed for burial directly in the soil and includes a molded-in ground line in the mounting base for consistent installations by field technicians and contractors.

Figure 2 shows the Z14's overall dimensions.

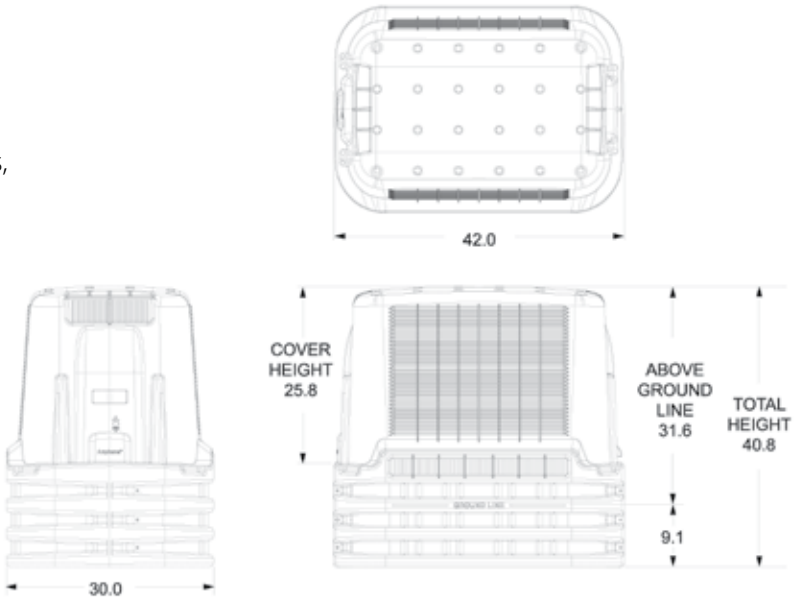

Figure 2: Z14 Dimensions (in inches)

Installation Procedures:

Warnings and Precautions

- Follow all national safety codes, OSHA requirements, and local environmental, workplace and company codes, safety procedures and practices
- Wear approved safety gear when installing the Z14 housing
- Ensure proper tamping, compaction and leveling during all stages of installation

Tools and Equipment

- Appropriate digging/trenching equipment and tools according to local practices
- Tamping tools
- Gravel for leveling

WARNING! Risk of injury! Always exercise caution when lifting and installing the Z14 housing.

STEP 1: INSTALLING THE BASE

1. At the installation site, dig a hole 2" larger (minimum) than the perimeter of the Z14's base, approximately 44" x 32", and 11" deep so that the base can be buried to the height of the molded-in ground line with the addition of a minimum of 2" of leveling gravel.
2. Route any conduits or cables so their entry depth is below the target depth pertaining to the bottom of the Z14 housing.
3. Backfill and tamp the ground around the conduit and the mounting hole, ensuring that it is securely compacted and level to avoid heaving and conduit movement issues in the future.
4. Ensure all open conduits are capped or covered. Fill the hole with approximately 2" of gravel (or per company guidelines). Tamp the gravel so that it is compact and level to ensure proper drainage and leveling of the Z14.
5. Remove the Z14's dome (cover) from the base. There is a lifting slot in each corner of the pedestal between the dome and base. Placing one hand in the lifting slot, using your other hand, rotate the lock counterclockwise 1/8 of a turn (using the appropriate key) and lift/tilt the dome. Once the dome is unlocked, using both hands, push the dome slightly to unhook the catch located on the far end of the dome and then lift the dome off over the interior brackets.
6. After the hole has been properly prepared, place the Z14 base into position. There is also the option to separate the base into two pieces to allow it to be placed around the cables or conduits; then reassembled. Re-verify the Z14's ground line is level with the final grade; adding/removing gravel as necessary.

*** Verify the pedestal is positioned such that the optical node, when installed on the internal mounting bracket, will be facing in a direction accessible by a technician. Correct the pedestal's position at this time to avoid having to re-excavate at a later time. ***

INSTALLING THE BASE *(CONTINUED)*:

7. Using a user supplied leveling device, level the Z14 base in all directions to ensure a professional installation.

8. Backfill the inside of the base with gravel or soil to a depth of 2-inches. This helps retain its position during the next step.

9. Backfill around the outside of the Z14 base with removed soil until the ground line/final grade is reached. Tamp the dirt every three inches of depth to ensure that it is properly compacted. Take caution to ensure that the base's side vents are not below grade level (buried), as this will impede the airflow and heat dissipation properties of the enclosure.

10. Replace the Z14 dome when the installation has been completed. When replacing the dome, start by installing the dome so the base's catch is inserted in the dome's slot.

11. Confirm the dome is secured by lifting up on the dome at both ends of the pedestal.

STEP 2: INSTALLING EQUIPMENT

- **It is important to keep fiber and coax cables within the confines of the base and top of the mounting bracket to allow dome closure and prevent damage to cables and equipment.**
- **Right angle (90^0) connectors are recommended on coax and fiber entry connectors to reduce potential interference with dome closure.**
- **Follow all approved company methods and procedures for deployment of equipment in the Z14 housing.**

Z14 with Node Hanging Bracket and Fiber Slack Storage Bracket (Option 007)

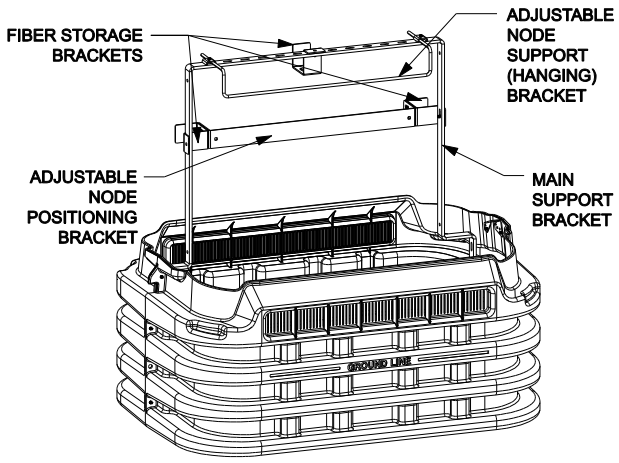

Figure 3

Installing Bracket Option 007:

1. Mount the customer supplied optical node onto the hanging bracket using the two mounting brackets that are typically installed on the node.
2. To optimize the position of the node hanging bracket for incoming and outgoing cables, loosen the two bolts on the top of the main support bracket and slide the node hanging bracket forward or backward. When the desired position is reached, tighten the bolts.
3. To optimize the optical node's vertical position, slide the adjustable node positioning bracket forward or backward until it rests against the node's housing.
4. Attach the coax and fiber connections to the optical node housing.
5. The feed and node fiber cable slack are typically taped together and routed to a customer supplied splice dome closure for splicing. Once fibers are spliced, coil the fiber cable bundle around the three fiber storage brackets located behind the node. Position the fiber splice dome closure at approximately a 45^0 angle, with the dome's end resting on the bottom of the pedestal. Alternatively, the closure can be hung from the adjustable node positioning bracket using two user supplied Deltec™-style straps.

Figures 4 and 5 show the Z14 (dome removed) with an optical node and an ABS Fiber Optical Dome Closure (FODC) installed inside. The FODC is used for splicing operations.

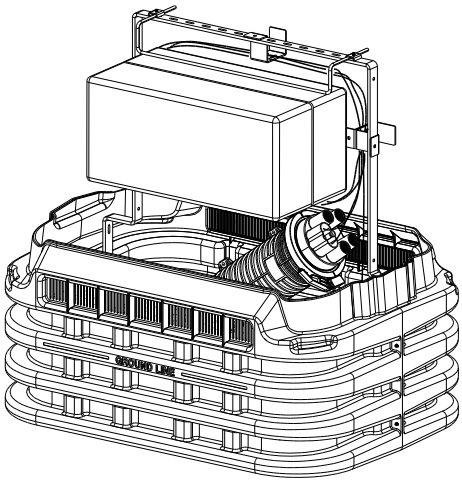

Figure 4: Z14 with Optical Node, FODC

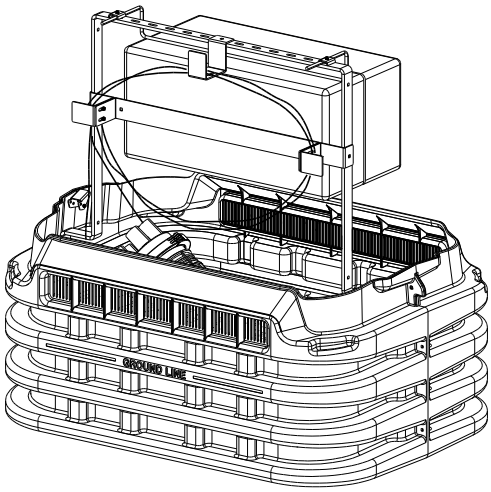

Figure 5: Z14 with Optical Node, FODC, Slack Storage Side

STEP 3: CLOSING THE Z14

- **Replace the Z14 dome when the installation is complete by inserting the base's catch into the dome's slot.**
- **Confirm the dome is secured by lifting up on the dome at both ends of the pedestal.**