

CP2 Buried Cable Pedestal Initial & Rehab Installation Instructions

This instruction is intended for CP2 cable pedestal installations and replacements. The following tools will be needed to complete the installation/replacement:

- 216 Tool
- Small Flat-Blade Screwdriver
- Shovel
- 9/16-inch Socket and Ratchet, or a 9/16-inch Open- or Closed-End Wrench
- Mallet
- Saw (for rehab installations only)

Note: Failure to follow this procedure could result in the pedestal not performing properly.

INITIAL INSTALLATION

Use the following procedure to prepare the unit for initial installation of a CP2 buried cable pedestal.

Step	Unit Preparation Procedure
1.	Unpack the unit from the shipping container and inspect all components for damage. Contact the local salesperson or Charles if damage is present.
2.	Remove the dome from the pedestal.
3.	Using a 216 tool, rotate the self-lock a 1/4 turn counter-clockwise while lifting the dome at the same time. (See Figure 1.)
4.	Remove the dome and the backboard, or S-bracket, from the pedestal and set them aside for later use. <i>Note: Do not discard the plastic bag.</i>
5.	If not already installed, seat the drop wire channel (if supplied with the unit) into the stays inside the front half of the base. The top of the drop wire channel should rest on the under side of the square to round transition. (See Figure 2.)
6.	Insert the foam plug into the top of the channel, leaving 1/3 to 1/2 of the foam plug above the top of the channel. (See Figure 2.)
7.	If a UMS stake or a pole-mount stake is required, locate the appropriate knockouts on the rear half of the base using the appropriate mounting holes as a guide.
8.	Lay the rear half of the base on the ground with the stake mounting knockouts facing up. Place the blade of a small flat blade screwdriver in the knockout groove and tap the top of the screwdriver with the mallet. Continue around the groove until the knockout is removed. Repeat these steps for each knockout. <i>Note: The CP2 base is equipped with multiple stake mounting locations and corresponding knockouts.</i>
9.	When utilizing a drop wire channel, the unit is equipped with an elongated knockout on the front half of the base for placement of buried drops (See Figure 2). This knockout should be removed prior to installation of the base. Depending on your company's practices this knockout may have already been removed. If not, you will need a small flat blade screwdriver and a mallet. To remove the elongated knockout, lay the front half of the base on the ground with the inside of the base facing up. Place the blade of the screwdriver in the knockout groove and tap the top of the screwdriver with a mallet. Continue around the elongated knockout until the knockout is removed.

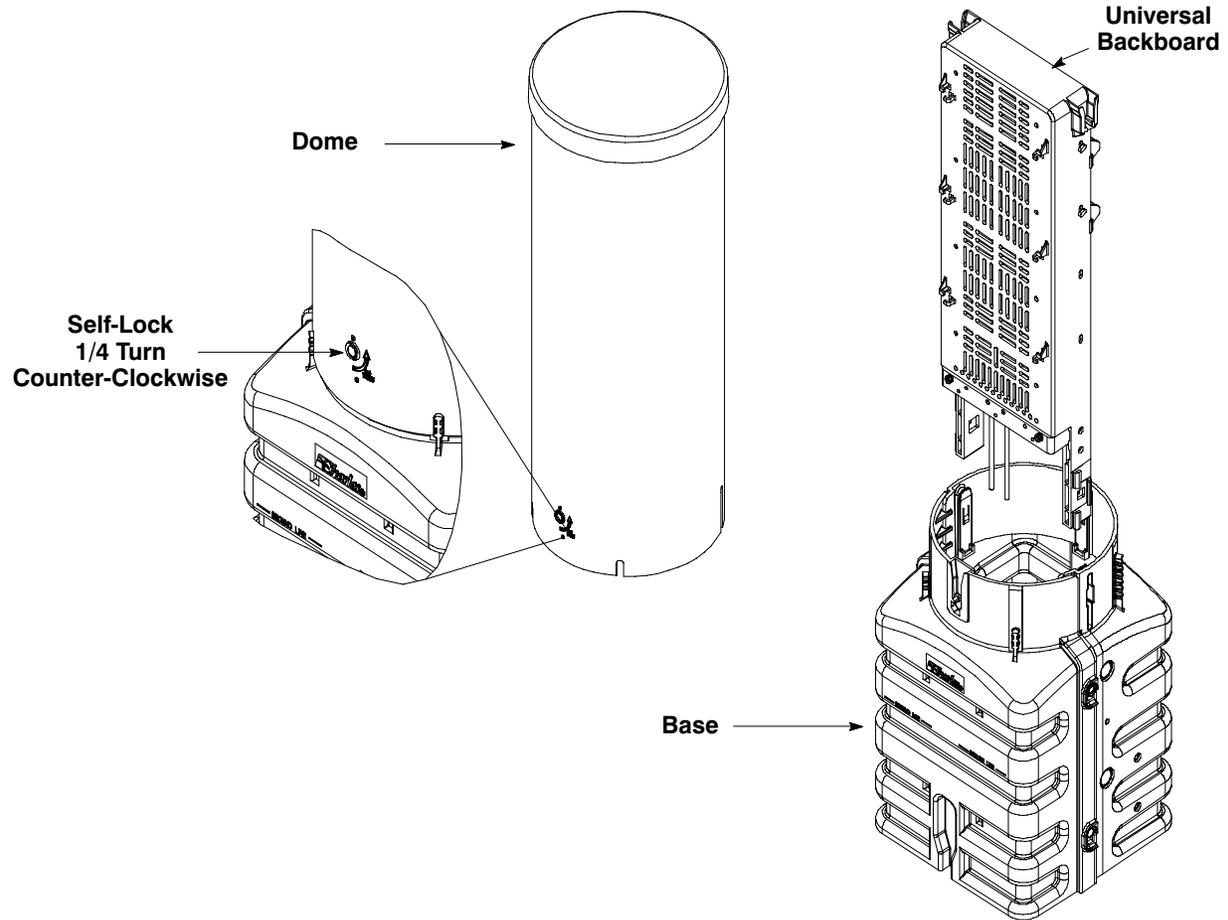


Figure 1. CP2 Components

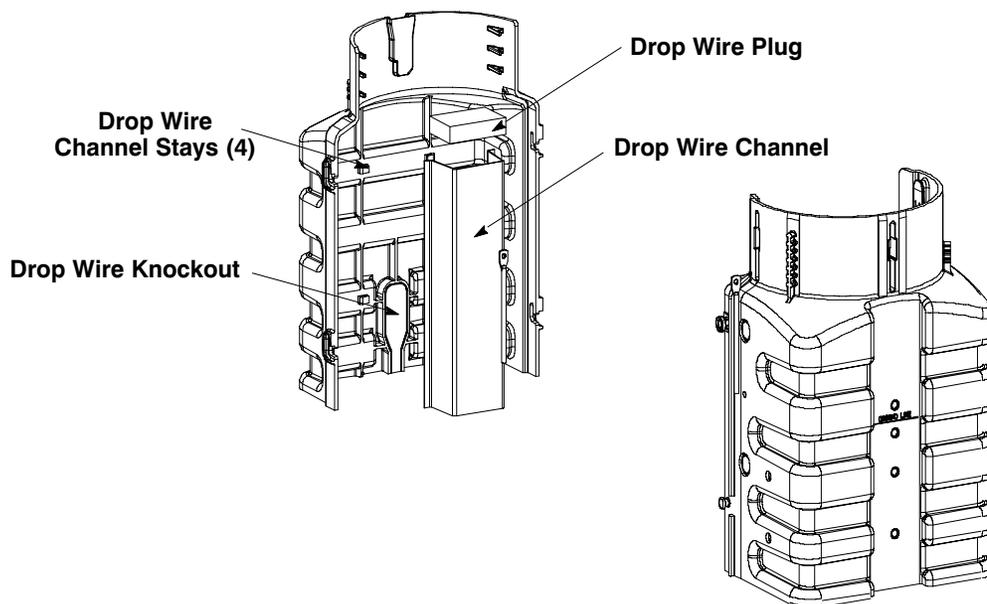


Figure 2. CP2 Base

Step	Base Installation Procedure
1.	Place the assembled base over the top of the conduit or cable. Trench or dig a pit all the way around the base approximately 2 to 4 inches larger than the perimeter of the base. The trench should be approximately 8½-inches deep. If conduit is being used, temporarily place a plug or cap over the conduit to prevent any of the backfill or pea gravel from falling into the conduit. <i>Note: If the assembled base cannot be placed on top of the conduit or cables, disassemble the base by loosening the cup screws on each side of the base and separate the two halves. Place both halves around the conduit or cable and tighten the cup screws.</i>
2.	Back fill the trench around the pedestal and tamp the soil firmly.
3.	Level the base. Verify the level or plumb of the pedestal. To check the level, place a level tool on top of the base collar, first side to side, then front to back. (Alternately, check the plumb of the entire pedestal by temporarily installing the dome and placing a level vertically against the dome at intervals around the dome.) Make any needed base-bottom soil adjustments to get a good/true level or plumb line. The base is designed to maintain its orientation after installation, therefore, it is important to verify and attain the plumbness of the pedestal at installation time. Should it be necessary to straighten a pedestal at any future time (such as in the event of uneven ground settling), never attempt to straighten an installed pedestal by manipulating, pushing, or pulling on the attached dome, as pedestal damage may result. To re-plumb and straighten a pedestal post-installation, always <u>first remove the soil from around the base</u> (and any stakes, if attached), then re-adjust the base until a proper base level is achieved.
4.	Back fill dirt into the base approximately 5-inches and tamp the dirt firmly. This will add stability and prevent the pea gravel from falling out through the bottom of the base after placement.
5.	Carefully remove the backboard or S-bracket from its plastic bag.
6.	Insert the plastic bag into the base on top of the fill dirt, fitting it around the conduit or cables. Ideally, the edges of the bag should be folded downwards where they contact the inner walls of the base. This will aid in runoff of moisture into the soil.
7.	Add pea gravel up to 1½-inches below the conduit. (See Figure 3.) <i>Note: Use pea gravel that is no larger than 5/8-inch in size and non-porous.</i>

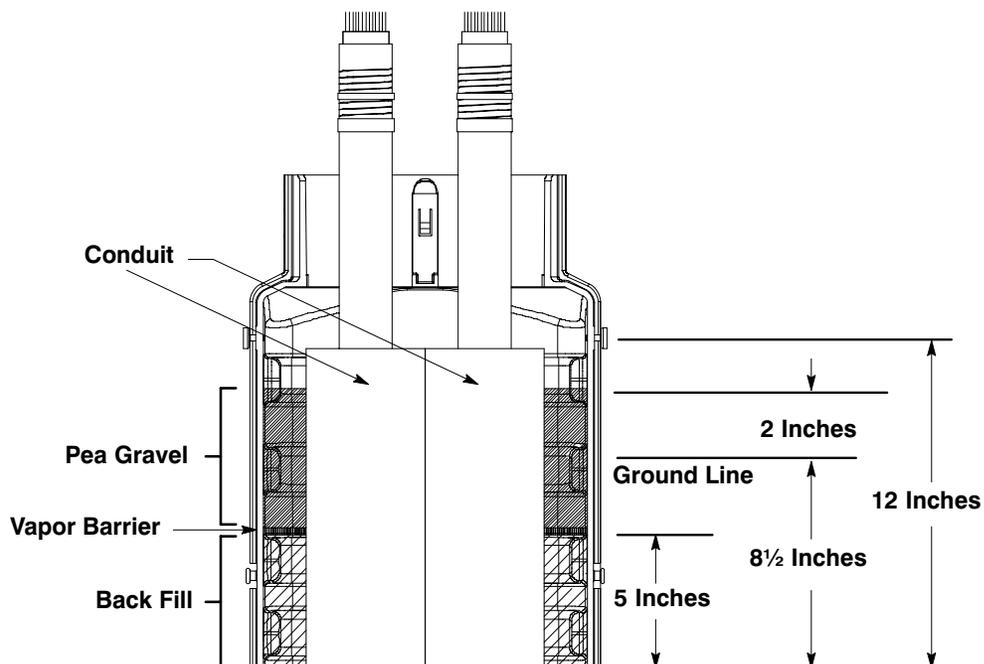


Figure 3. Base Installation

The following procedure is used for cable preparation and splicing, which may vary slightly depending on the unit being installed and your company’s splicing, bonding and grounding guidelines. See Figure 4 for splicing configurations. See Figure 5 and Figure 6 for an internal view of the CP2 base with the backboard or S-bracket.

Step	Cable Preparation and Splicing Procedure
1.	Cut and remove the sheath from around the cables.
2.	Face the backboard with the wire guides towards the Charles logo on the front of the base.
3.	Install the backboard or S-bracket system into the base by sliding the side rails over the mounting guides in the base. Slide the backboard into the base until it stops.
4.	Using an approved cable bonding connector, bond each cable sheath opening to the bonding bracket. Follow your company’s guidelines for bonding and grounding.
5.	Using the splice ladder bars, route and secure the splice to the back of the backboard or Sbracket. Follow your company’s guidelines for splicing.
6.	If a terminal distribution block is being used, place the block against the front of the backboard and line up the mounting holes. Use the screws provided to mount the terminal block. The tall of the block should be brought down and under the backboard and spliced in the back. <i>Note: If a terminal block is required on an S-bracket system, consult your ordering guide or call Charles.</i>
7.	Install the dome onto the base utilizing the longer of the slots on the dome to the longer rib of the base. Slide the dome over the remaining ribs making sure the lock is engaged.
8.	Restore the area to its proper grade and appearance.

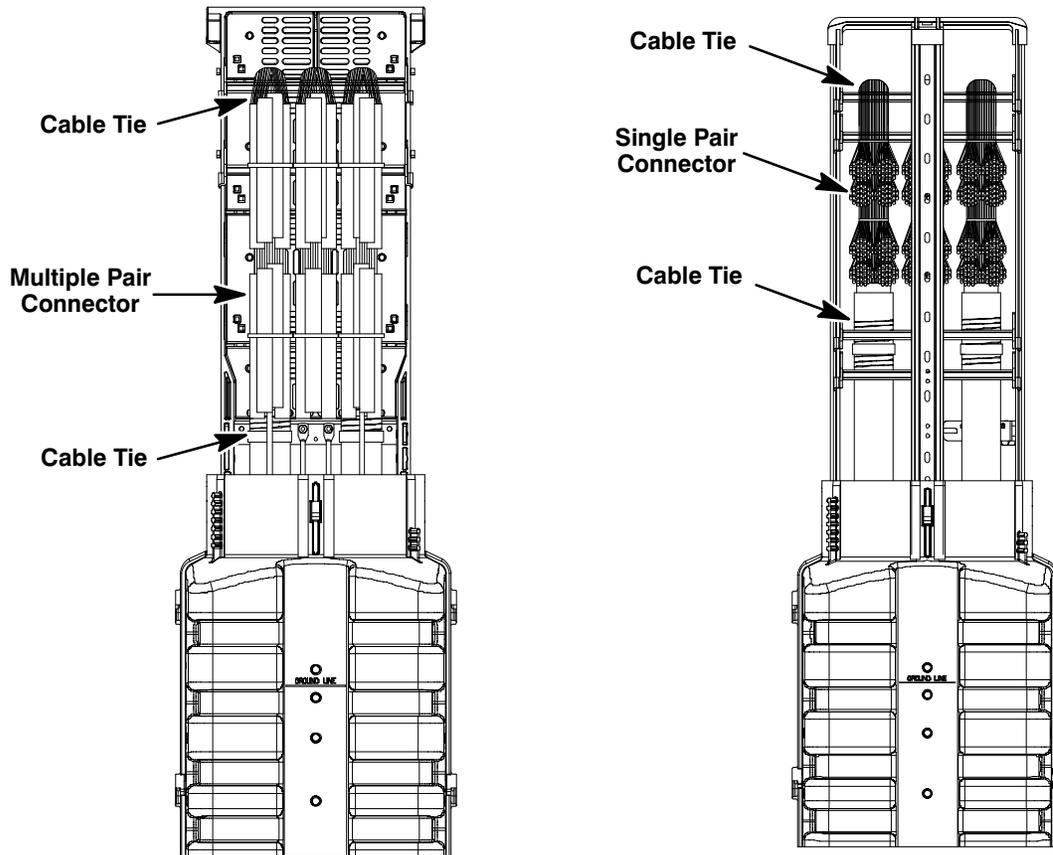


Figure 4. Splice Configurations - Multiple Pair & Single Pair

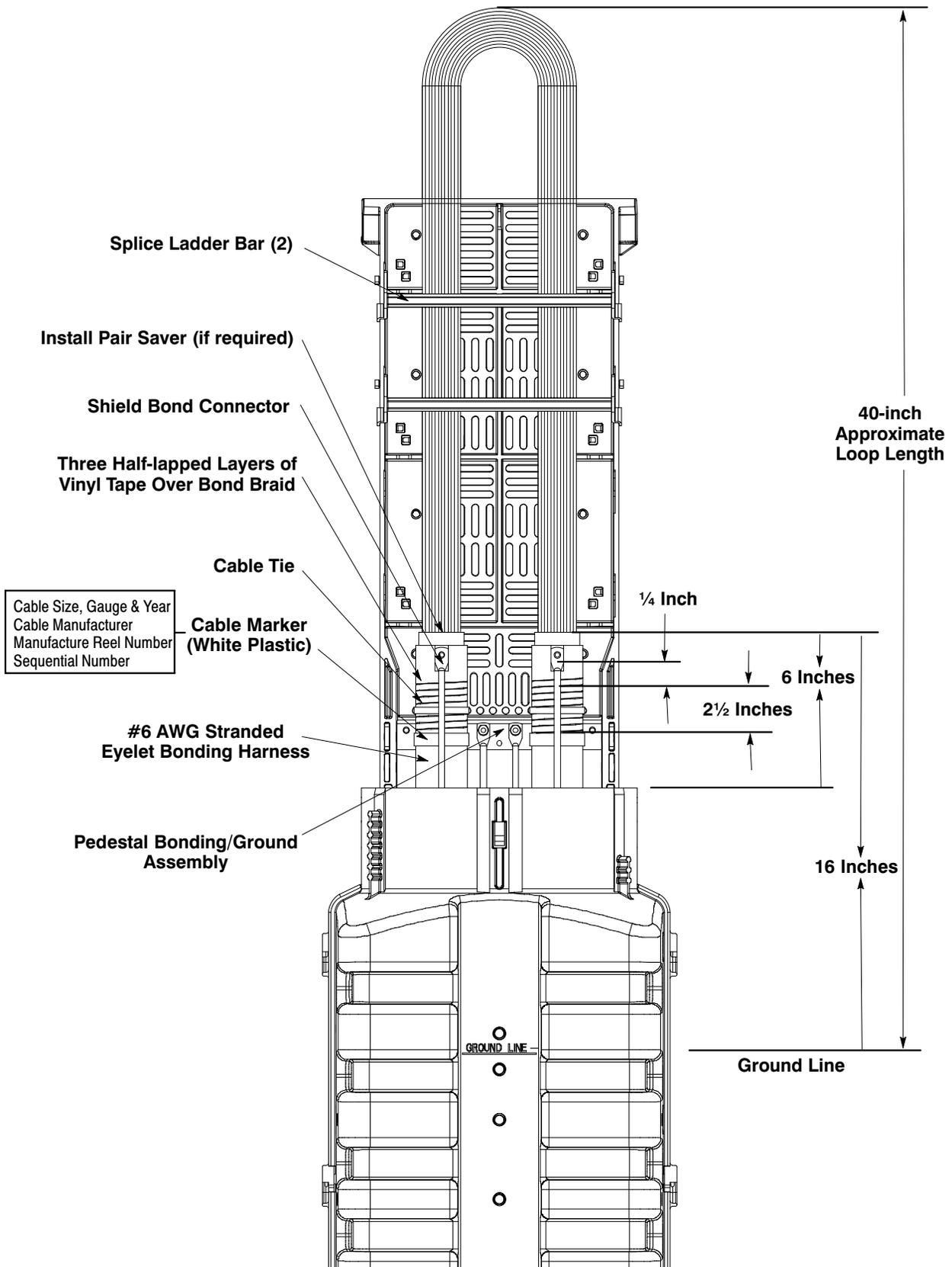


Figure 5. CP2 Base with Backboard

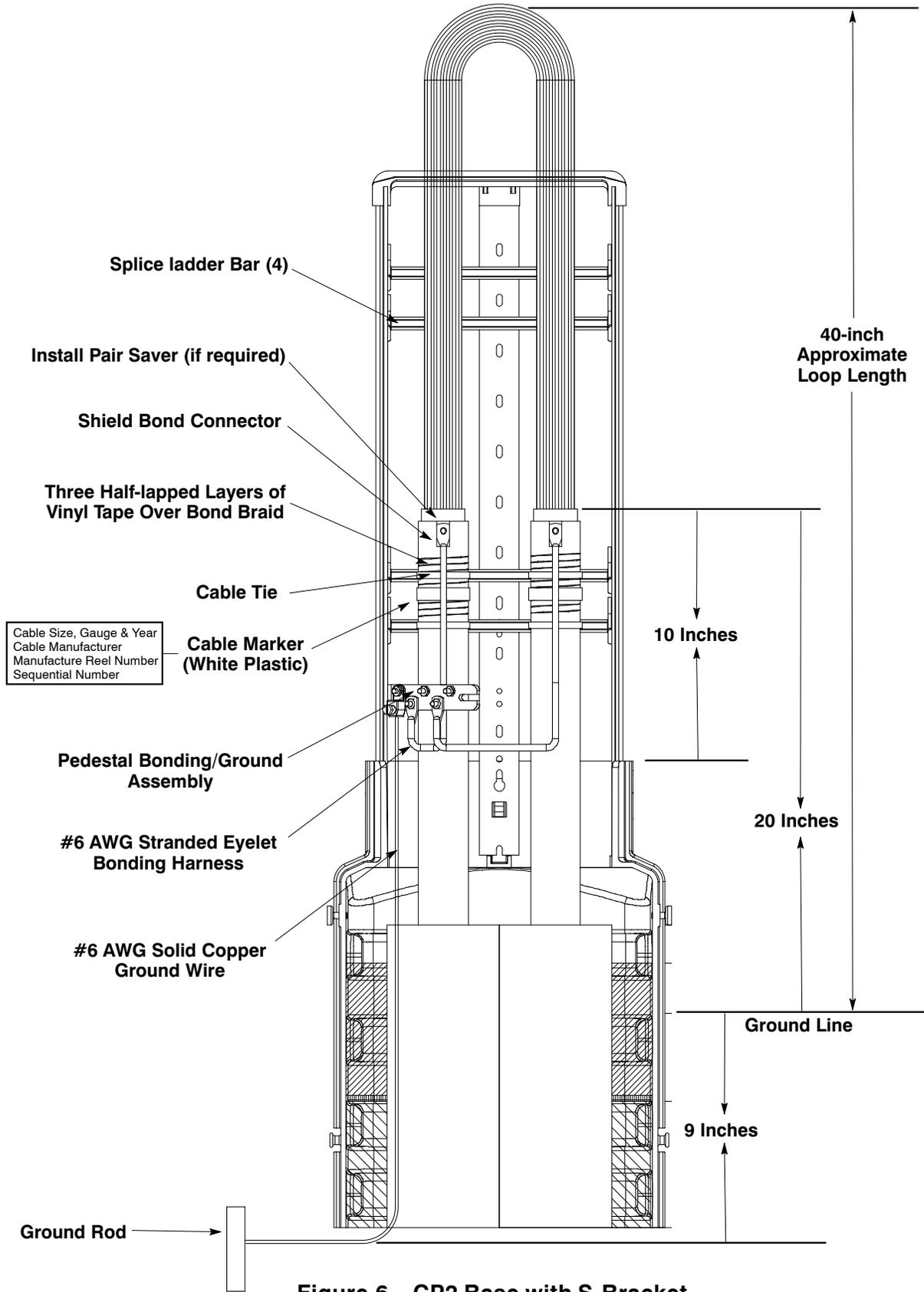


Figure 6. CP2 Base with S-Bracket

The CP2 base can be installed using one of two possible mounting methods. The following procedure is used to install the base using a UMS stake. See Figure 7 for mounting base options.

Step	UMS Stake Installation
1.	Before assembling the stake to the base, use the base as a locating guide for the placement of the stake.
2.	With the base in position around the cables or conduit, position the stake to the side or back of the base. Using a mallet, drive the stake into the ground enough to mark the spot, but so that the unit is still removable.
3.	Remove the base from around the cables or conduit and finish driving the stake into the ground until it is approximately 1½-inches above the ground line.
4.	Attach the base to the stake utilizing the hardware provided. The provided hardware includes: 3/8-inch - 16 x 2-inch Hex Bolts (Qty 2) 3/8-inch Split Lock Washers (Qty 2) 3/8-inch Flat Washers (Qty 2) 3/8-inch - 16 Hex Nuts (Qty 2)
<i>Note: If any of the hardware is lost or missing use the above guidelines to provide replacements. All hardware material is to be either 300 series stainless steel or galvanized steel.</i>	

The following procedure for pole mount stake installation. See Figure 7 for mounting base options.

Step	Pole Mount Stake Installation
1.	After preparing the pit or trench, attach the base to the pole-mounting bracket utilizing the hardware provided. 3/8-inch - 16 x 2-inch Carriage Bolts (Qty 2) 3/8-inch Split Lock Washers (Qty 4) 3/8-inch Flat Washers (Qty 4) 3/8-inch - 16 Hex Nuts (Qty 4) 3/8-inch x 2½-inch Lag Bolts (Qty 2)
<i>Note: If any of the hardware is lost or missing use the above guidelines to provide replacements. All hardware material is to be either 300 series stainless steel or galvanized steel.</i>	
2.	Place the base with the bracket attached against the pole in the desired position, using a lag screw and a mallet; mark the location on the pole for the screw.
3.	Once the screws are started with the mallet, complete the installation of the carriage bolts utilizing either a socket and ratchet or an open-end or closed-end wrench.

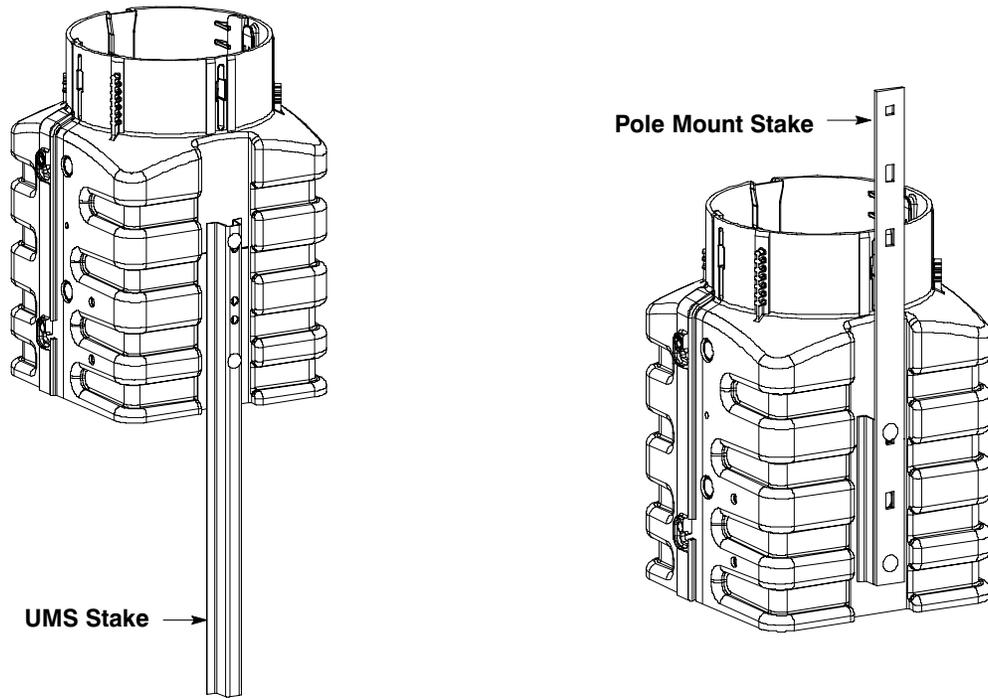


Figure 7. Base Mounting Options

REHAB INSTALLATION

The following procedure is used to do a rehab installation of a CP2 base.

- CAUTION -

When the CP2 is used as a replacement to an existing pedestal, make sure the existing site is free of any potential hazards before replacing the unit. Check the existing stake and base (if the base to be replaced is made of metal) for voltage from a ground fault condition.

Step	Unit Preparation Procedure
1.	Unpack the unit from the shipping container and inspect all components for damage. Contact the local salesperson or Charles if damage is present.
2.	Remove the dome from the pedestal.
3.	Using a 216 tool, rotate the self-lock a 1/4 turn counter-clockwise while lifting the dome at the same time. (See Figure 1.)
4.	Remove the dome and the backboard, or S-bracket, from the pedestal and set them aside for later use. <i>Note: Do not discard the plastic bag.</i>
5.	If not already installed, seat the drop wire channel (if supplied with the unit) into the stays inside the front half of the base. The top of the drop wire channel should rest on the under side of the square to round transition. (See Figure 2.)
6.	Insert the foam plug into the top of the channel, leaving 1/3 to 1/2 of the foam plug above the top of the channel. (See Figure 2.)
7.	If a UMS stake, or a pole-mount stake is required, locate the appropriate knockouts on the rear half of the base using the appropriate mounting holes as a guide.

Step	Unit Preparation Procedure
8.	<p>Lay the rear half of the base on the ground with the stake mounting knockouts facing up. Place the blade of a small flat blade screwdriver in the knockout groove and tap the top of the screwdriver with the mallet. Continue around the groove until the knockout is removed. Repeat these steps for each knockout.</p> <p><i>Note: The CP2 base is equipped with multiple stake mounting locations and corresponding knockouts.</i></p>
9.	<p>When utilizing a drop wire channel, the unit is equipped with an elongated knockout on the front half of the base for placement of buried drops (See Figure 2). This knockout should be removed prior to installation of the base. Depending on your company's practices this knockout may have already been removed. If not, you will need a small flat blade screwdriver and a mallet. To remove the elongated knockout, lay the front half of the base on the ground with the inside of the base facing up. Place the blade of the screwdriver in the knockout groove and tap the top of the screwdriver with a mallet. Continue around the elongated knockout until the knockout is removed.</p>

The following procedure is used to remove an existing pedestal prior to installation of a new pedestal.

Step	Removal of Existing Pedestal Procedure
1.	Remove the back fill from around the existing pedestal, making sure not to cut or damage any existing cables. Approximately 2 to 4-inches all the way around and 8½-inches deep should be removed.
2.	Remove all attachments from the backboard, ground bar and base. Place all hardware removed in a safe area where it will not be lost.
3.	If the ground connection is attached to the pedestal base, remove it and reconnect it (temporarily) to the sheath grounds. This step preserves the sheath ground while the pedestal is being changed.
4.	If possible, disassemble the existing pedestal base. If the base of the pedestal to be removed cannot be disassembled, move the cable plant away from the area best suited for cutting and secure the cable plant. Using an approved saw, cut the existing base away from the cables.
5.	If the pea gravel will be reused, recover as much as possible and store it in the new dome to allow for easy filling of the base.
6.	If a metal stake is required, the stake from the unit being replaced may be used provided it has not incurred damage or corrosion. Place the hardware from the stake in a safe location.

Use the following procedure to install the new base.

Step	Base Installation Procedure
1.	<p>Place the assembled base over the top of the conduit or cable. Trench or dig a pit all the way around the base approximately 2 to 4 inches larger than the perimeter of the base. The trench should be approximately 8½-inches deep. If conduit is being used, temporarily place a plug or cap over the conduit to prevent any of the backfill or pea gravel from falling into the conduit.</p> <p><i>Note: If the assembled base cannot be placed on top of the conduit or cables, disassemble the base by loosening the cup screws on each side of the base and separate the two halves. Place both halves around the conduit or cable and tighten the cup screws.</i></p>
2.	Route any drop wire cables through the elongated knockout in the front of the base and to the inside of the drop wire channel.
3.	Back fill the trench around the pedestal and tamp the soil firmly.

Step	Base Installation Procedure
4.	<p>Level the base. Verify the level or plumb of the pedestal. To check the level, place a level tool on top of the base collar, first side to side, then front to back. (Alternately, check the plumb of the entire pedestal by temporarily installing the dome and placing a level vertically against the dome at intervals around the dome.) Make any needed base-bottom soil adjustments to get a good/true level or plumb line.</p> <p>The base is designed to maintain its orientation after installation, therefore, it is important to verify and attain the plumbness of the pedestal at installation time. Should it be necessary to straighten a pedestal at any future time (such as in the event of uneven ground settling), never attempt to straighten an installed pedestal by manipulating, pushing, or pulling on the attached dome, as pedestal damage may result. To re-plumb and straighten a pedestal post-installation, always <u>first remove the soil from around the base</u> (and any stakes, if attached), then re-adjust the base until a proper base level is achieved.</p>
5.	Back fill dirt into the base approximately 5-inches and tamp the dirt firmly. This will add stability and prevent the pea gravel from falling out through the bottom of the base after placement.
6.	Carefully remove the backboard or S-bracket from its plastic bag.
7.	Insert the plastic bag into the base on top of the fill dirt, fitting it around the conduit or cables. Ideally, the edges of the bag should be folded downwards where they contact the inner walls of the base. This will aid in runoff of moisture into the soil.
8.	<p>Add pea gravel up to 1½-inches below the conduit. (See Figure 3.)</p> <p><i>Note: Use pea gravel that is no larger than 5/8-inch in size and non-porous.</i></p>

The following procedure is used for cable preparation and splicing of the rehab unit.

Step	Cable Preparation and Splicing Procedure
1.	Cut and remove the sheath from around the cables.
2.	Face the backboard with the wire guides towards the Charles logo on the front of the base.
3.	Install the backboard or S-bracket system into the base by sliding the side rails over the mounting guides in the base. Slide the backboard into the base until it stops.
4.	Reconnect all grounding and bonding hardware to the bond bar.
5.	Using the splice ladder bars, route and secure the splice to the back of the backboard or S-bracket. Follow your company's guidelines for splicing.
6.	<p>If a terminal distribution block is being used, place the block against the front of the backboard and lineup the mounting holes. Use the screws provided to mount the terminal block. The tail of the block should be brought down and under the backboard and spliced in the back.</p> <p><i>Note: If a terminal block is required on an S-bracket system, consult your ordering guide or call Charles.</i></p>
7.	Utilizing the splice ladder bars, route and secure the splice to the back of the backboard or the S-bracket.
8.	Dress, route, and secure all service drops to the front of the backboard. The unit is equipped with wire guides on either side of the backboard for this purpose. Charles standard D-clips may also be used.
9.	Install the dome onto the base utilizing the longer of the slots on the dome to the longer rib of the base. Slide the dome over the remaining ribs making sure the lock is engaged.
10.	Restore the area to its proper grade and appearance.

TECHNICAL ASSISTANCE

If technical assistance is required, contact Charles Industries' Technical Services Center at:

847-806-8500 (Local)
800-607-8500 (Toll)
847-806-8556 (Fax)
techserv@charlesindustries.com (e-mail)

WARRANTY

Charles Industries, Ltd. Offers an industry-leading warranty. Contact your local Sales Representative for warranty details. The warranty provisions are subject to change without notice. The terms and conditions applicable to any specific sale of product shall be defined in the resulting sales contract.