

**Subject: Uniflex® 1000 Headwall System (P100201)—Installation  
Instructions**

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**Introduction**

This procedure provides instructions for installing the Uniflex® 1000 Headwall System (P100201). Before starting this procedure, read and understand all of the instructions for the parts being installed. For the correct room elevation and information about the specific Uniflex® 1000 Headwall System, refer to the as-built drawings.

Tools required:	As-built drawings	Level
	Chalk line	Heat shield blankets
	Electric drill or power screwdriver	1" drill bit
	9/64" drill bit	¼" drill bit
	Safety goggles	Broom
	Dustpan	#2 phillips head screwdriver
	Screwdriver or putty knife	Stud finder

Parts required:	(1)	P100201	Uniflex® 1000 Headwall System—3' to 9'
	<b>and</b>		
	(1)	58185	Bag assembly, chaseless
	(3)	16115	Screw (package of 10)
	<b>or</b>		
	(1)	57519	Bag assembly, 3'-4'-5' console
	(1)	57536	Bag assembly, piping console, 3' to 5'
	<b>or</b>		
	(1)	57520	Bag assembly, 6'-7'-8'-9' console
	(1)	57581	Bag assembly, piping console, 6' to 9'
	<b>or</b>		
	(1)	57523	Bag assembly, console—seismic mount
	(1)	57581	Bag assembly, piping console, 6' to 9'
	(6)	53143-01	Screw, #12, self-drilling, hex head

58185, Bag assembly, chaseless, includes the following items:

(2)	3679	Screw (#8 x 5/8")
(1)	57377	Chaseless tie strap

57519, Bag assembly, 3'-4'-5' console, and 57520, Bag assembly, 6'-7'-8'-9' console, include the following items:

(4 or 7)	21045	Toggle bolt
(4 or 7)	21046	Toggle wing
(8 or 14)	53143-01	Screw, #12, self-drilling, hex head
(4 or 7)	29325	Stud guide

57536, Bag assembly, piping console, 3' to 5', and 57581, Bag assembly, piping console, 6' to 9', include the following items:

(4 or 6)	52555-03	Screw, machine, pan, phillips, #8-32, 0.375"
(4 or 6)	53143-01	Screw, #12, self-drilling, hex head
(2 or 3)	57345	Pipe cover retainer

57523, Bag assembly, console—seismic mount, includes the following item:

(14)	53143-01	Screw, #12, self-drilling, hex head
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Related Documents: [Uniflex® 1000 Headwall System \(P100201\)—Rough-in Wall Box Installation Instructions \(is798\)](#)

## Preparing the Wall for Installation



### WARNING:

The installation method differs for each wall and construction type. Failure to determine the wall and construction type could result in the collapse of the Uniflex® 1000 Headwall System. Personal injury or equipment damage could occur.

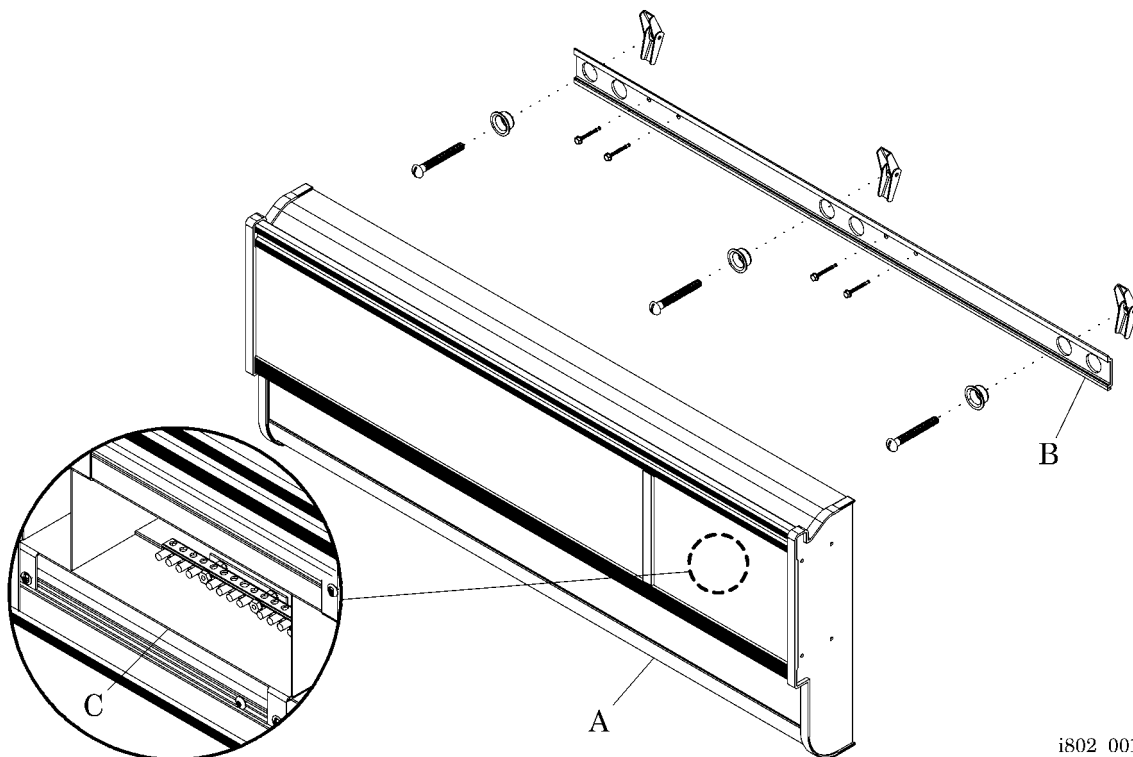
1. Before proceeding, refer to the local or state building codes, and determine the wall type and construction type:
  - **Seismic** walls are constructed to prevent damage from an earthquake.
  - **Non-seismic** walls are **not** constructed to prevent damage from an earthquake.
  - **Fire-rated** walls are constructed to prevent the spread of fire.
  - **Non-fire-rated** walls are **not** constructed to prevent the spread of fire.
2. Do **one** of the following:
  - For **seismic** walls, install wall backing plates according to the Office of Statewide Health, Planning, and Development (OSHPD)-approved drawings and the as-built drawings.
  - For **non-seismic** walls (both **fire-rated** and **non-fire-rated**), make sure the walls are constructed of at least 20-gauge steel studs on 16" (41 cm) centers and covered with a minimum of 5/8" (15.9 mm) drywall.
3. Refer to the as-built drawings, and make sure the wall boxes are installed at the correct location in regard to the desired centerline. Refer to the [Uniflex® 1000 Headwall System \(P100201\)—Rough-in Wall Box Installation Instructions \(is798\)](#).

4. Make sure the **medical gas contractor** made the medical gas drops in the correct location in accordance with all applicable state and local codes, and the following:
  - The latest edition of the National Fire Protection Association (NFPA) 99
  - Canadian Standards Association (CSA) Z305.1, *Non-Flammable Medical Gas Piping Systems*
  - CSA Z318.5, *Commissioning of Electrical Gas Equipment and Standards in Health Care Facilities*
  - CSA Z318.6, *Commissioning of Medical Gas Systems in Health Care Facilities*

## Unpacking the Uniflex® 1000 Headwall System

1. Examine the carton for the type designation to make sure the unit is correct for the room number, if specified.
2. Remove the raceway assembly (A) from the carton. Examine the raceway assembly (A) for physical damage (see figure 1 on page 4).

**Figure 1. Uniflex® 1000 Headwall System**



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3. Refer to the as-built drawings, and make sure the length of the raceway assembly (A) is correct.
4. Examine the ends of the raceway assembly (A) to determine where the junction box (C) is installed.

**NOTE:**

In figure 1, a right-hand raceway assembly is shown. The junction box may be installed on either end of the raceway assembly.

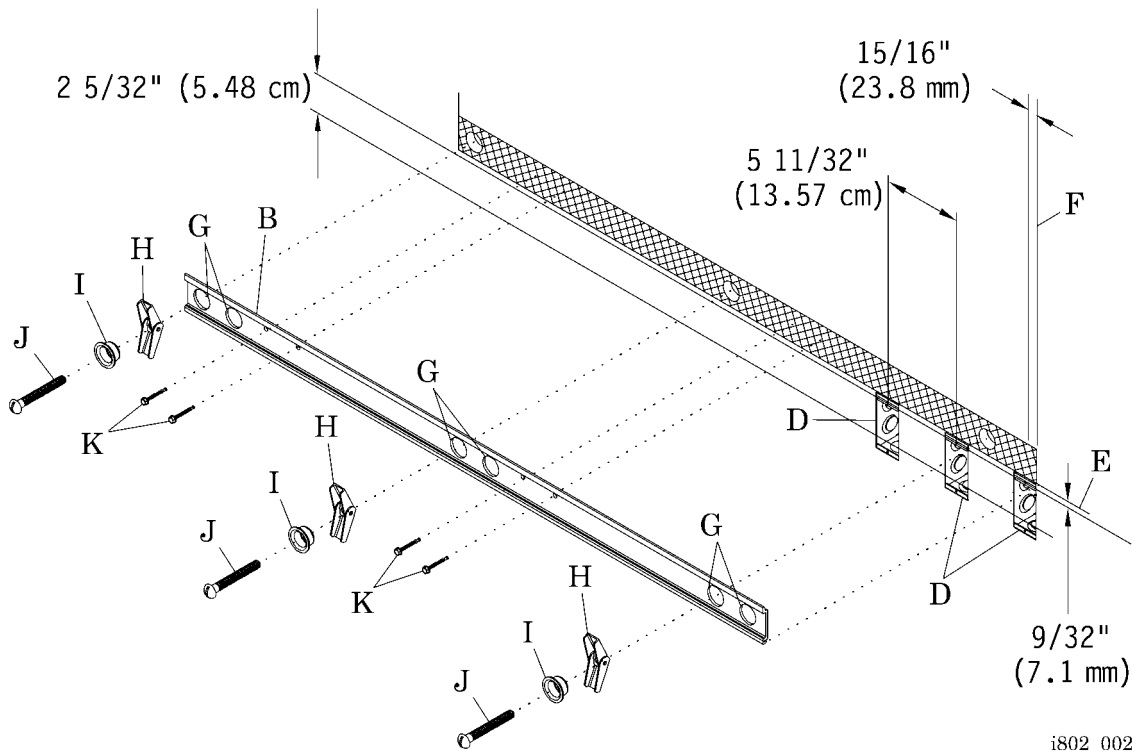
5. Find the raceway hanger (B) and mounting hardware for each section of the raceway assembly (A).

## Installing the Uniflex® 1000 Headwall System

### Installing the Raceway Hanger

1. From the center of the top hole in the wall boxes (D), measure up  $9/32''$  (7.1 mm), and strike a level horizontal chalk line (E) (see figure 2 on page 5).

**Figure 2. Raceway Hanger**



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2. On the horizontal chalk line (E), measure out  $15/16''$  (23.8 mm) from the center of the end wall box (D), and strike a vertical line (F).
3. Set the **bottom** of the raceway hanger (B) on the horizontal chalk line (E) and the **end** of the raceway hanger (B) on the vertical line (F).
4. Starting at the end of the raceway hanger (B) with the wall boxes (D), follow the length of the raceway hanger (B), and mark the locations of the 1" diameter holes (G) on the wall.
5. Lower the raceway hanger (B) away from the wall.



**WARNING:**

Wear eye protection. Failure to do so could result in eye injury.

6. Put on the safety goggles.

7. On **non-fire-rated** or **non-seismic** wall, do the following:
- At each pair of holes (G) marked in step 4, drill a 1" hole at a hole (G) that is free from obstruction.
  - Clean up any debris from drilling.
  - Assemble the toggle wings (H), stud guides (I), and toggle bolts (J) together.
  - At each hole location from step 7, install a toggle wing (H), stud guide (I), and toggle bolt (J) to secure the raceway hanger (B) to the wall.

**NOTE:**

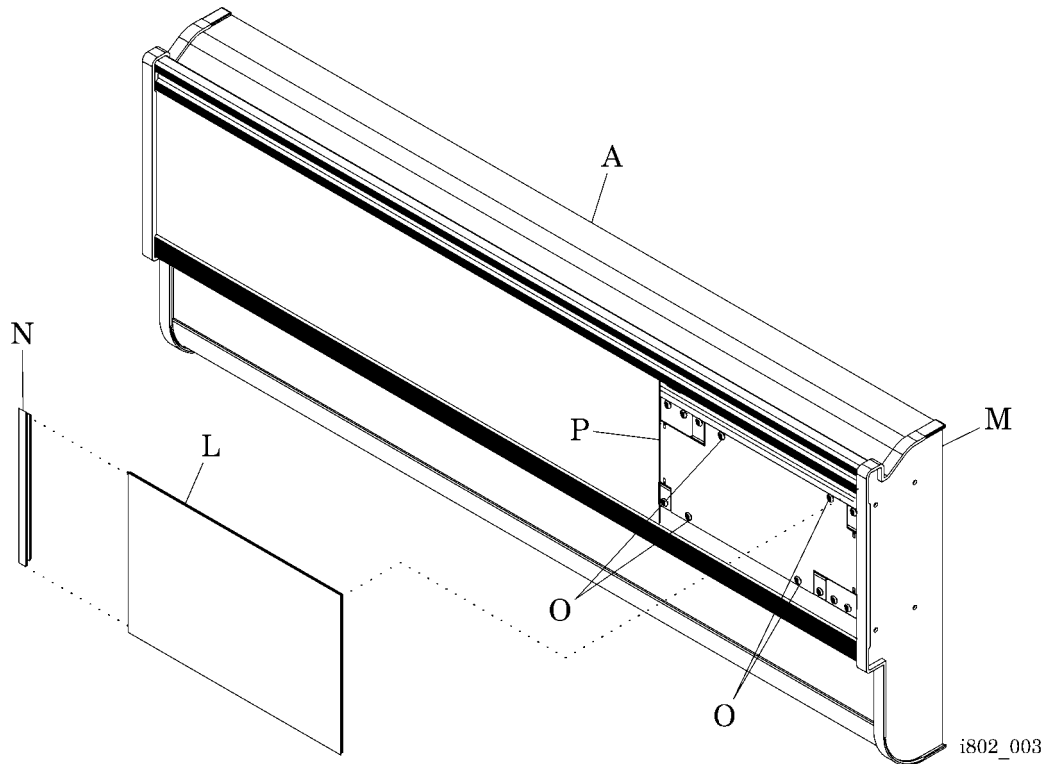
The toggle bolts will be spaced approximately 16" (41 cm) apart.

- If the wall has a waviness that exceeds 1/16" (1.6 mm) per foot, loosen the toggle bolt (J) at the low spots, shim behind the raceway hanger (B), and then tighten the toggle bolt (J).
8. On **fire-rated** or **seismic** walls, do the following:
- Find the wall studs, and mark their locations along the horizontal line (E).
  - Position the bottom of the raceway hanger (B) on the horizontal chalk line (E) and the end of the raceway hanger (B) on the vertical line (F).
  - Mark the location of the wall studs on the raceway hanger (B).
  - Lower the raceway hanger (B) from the wall.
  - At the stud locations marked on the raceway hanger (B), drill a ¼" hole.
  - Position the bottom of the raceway hanger (B) on the horizontal chalk line (E) and the end of the raceway hanger (B) on the vertical line (F).
  - Install the self-drilling screws (K) to secure the raceway hanger (B) to the backing plate and/or wall studs.
  - If the wall has a waviness that exceeds 1/16" per foot, loosen the toggle bolt (J) at the low spots, shim behind the raceway hanger (B), and then tighten the toggle bolt (J).

### Installing the Raceway Assembly

1. At the raceway assembly (A), slide the fascia cover (L) towards the nearest end cap (M) as far as possible (see figure 3 on page 7).

**Figure 3. Fascia Cover and Galvanized Cover**



2. Using a screwdriver or putty knife, pry the cover trim (N) out of the side opposite the end cap (M).
3. Slide the fascia cover (L) out from under the end cap (M), and push up on the fascia cover (L) to free its bottom edge.
4. Slide the screwdriver or putty knife under the bottom edge of the fascia cover (L), and pry the fascia cover (L) from the raceway assembly (A).
5. Remove and **retain** the four screws (O) that secure the galvanized cover (P) to the raceway assembly (A).
6. Remove the galvanized cover (P) from the raceway assembly (A).

7. Remove and **retain** the two screws (Q) that secure the chaseless tie strap (R) to the back of the raceway assembly (A) (see figure 4 on page 9) (see view S).
8. Remove the chaseless tie strap (R) from the raceway assembly (A).
9. If a chaseless tie strap is **not** already installed on the wall boxes (F), install the three screws (T) to secure the chaseless tie strap (R), removed in step 7, to the top holes of the wall boxes (F).
10. Remove and **retain** the four screws (U) that secure one end cap (M) to the raceway assembly (A).
11. Remove one end cap (M) from the raceway assembly (A).
12. Remove and **retain** the screws (V) that secure the pipe cover (W) to the accessory track (X).
13. Remove the pipe cover (W) from the raceway assembly (A).
14. Lift the raceway assembly (A) up and over the raceway hanger (B) on the wall, and adjust the location laterally as necessary.
15. Install the two screws (Q) to secure the raceway assembly (A) to the chaseless tie strap (R) installed at the wall boxes (F).
16. Install the pipe cover retainers (Y) (see view Z):
  - a. Find the wall studs, and set the pipe cover retainers (Y) against the bottom of the raceway assembly (A) at the stud locations closest to the ends of the raceway assembly (A).

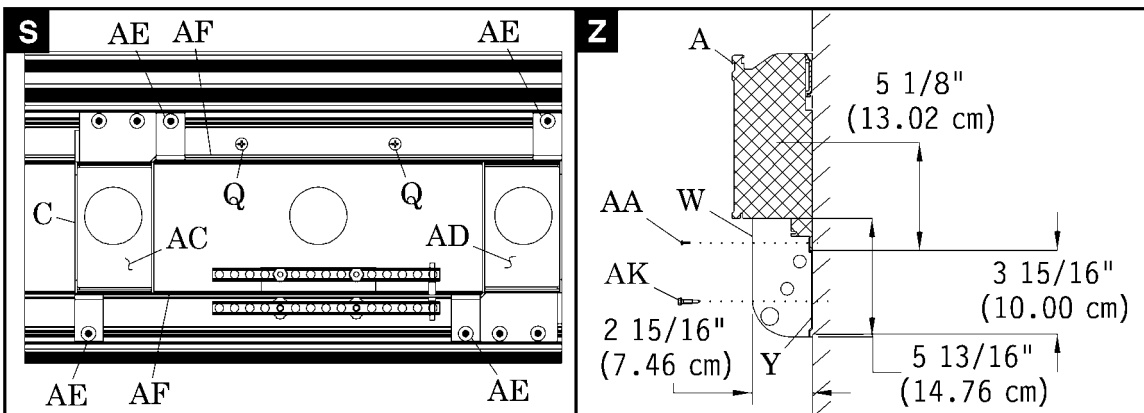
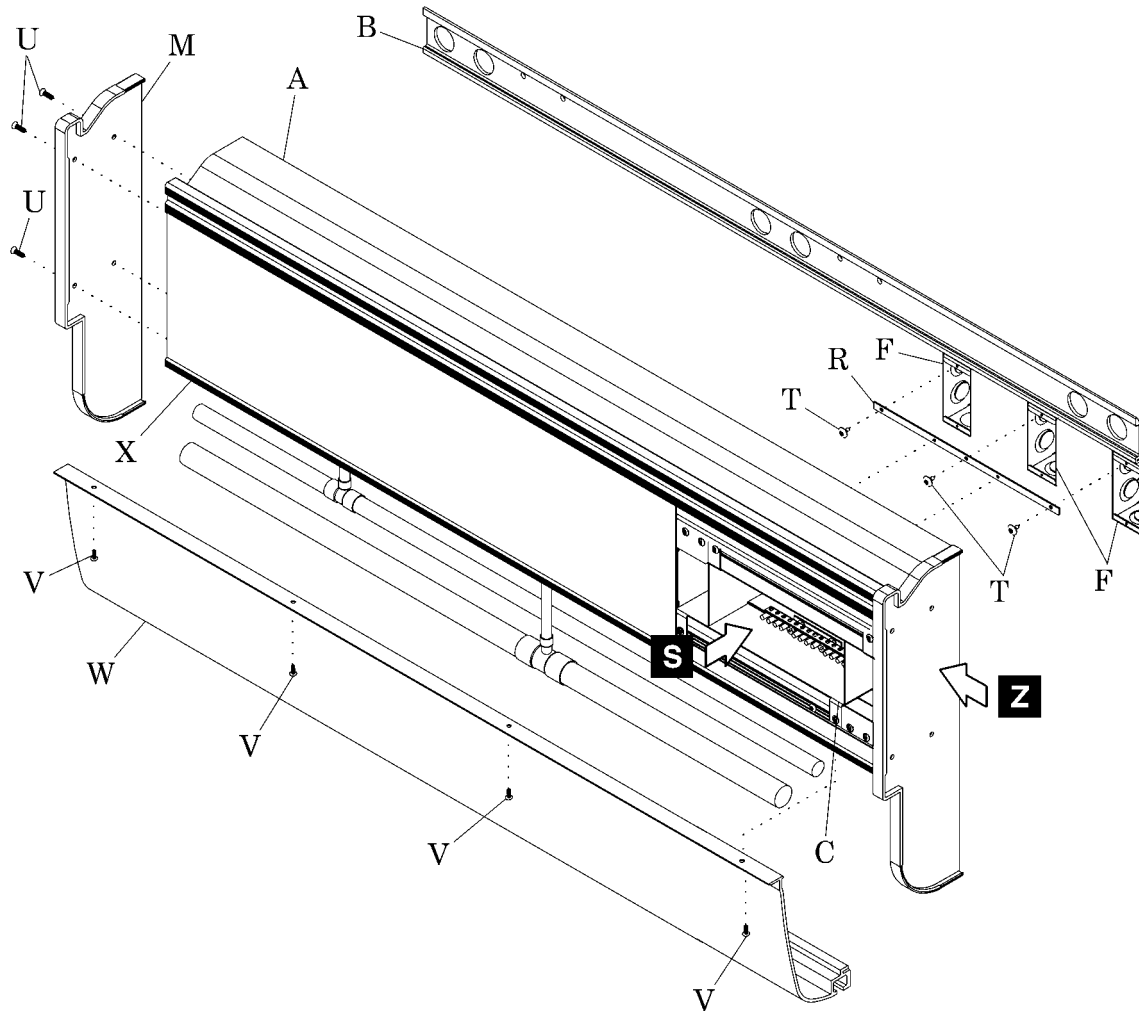


**WARNING:**

Wear eye protection. Failure to do so could result in eye injury.

- b. Put on the safety goggles.
- c. At the pipe cover retainers (Y), drill a 9/64" (3.6 mm) hole through the bottom flange of the raceway assembly (A).
- d. Clean up any debris from drilling.
- e. Install the sheet metal machine screws (AA) to secure the pipe cover retainers (Y) to the bottom flange of the raceway assembly (A).
- f. Install the self-drilling screws (K) to secure the pipe cover retainers (Y) to the wall studs.

**Figure 4. Raceway Assembly**



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**WARNING:**

Protect the raceway assembly and its junction box from heat of the brazing torch. Failure to do so could result in personal injury or equipment damage.

17. Using heat shield blankets, protect the raceway assembly (A) and its junction box (C) from excessive heat.
18. Make sure all portions of the piping falls within the 3 15/16" x 2 15/16" (10.00 cm x 7.46 cm) high space allowed, and have the **medical gas contractor** make the medical gas hook-ups to the optional manifold or individual gas outlet tail piece in accordance with all applicable state and local codes, and the following:
  - The latest edition of the National Fire Protection Association (NFPA) 99
  - Canadian Standards Association (CSA) Z305.1, *Non-Flammable Medical Gas Piping Systems*
  - CSA Z318.6, *Commissioning of Medical Gas Systems in Health Care Facilities*
19. Have the **electrical contractor** install and connect the electrical power and communication conductors in the junction box in accordance with the as-built drawings and all applicable state and local codes, and the following:
  - NFPA 70, *National Electrical Code*®<sup>1</sup> (NEC®<sup>2</sup>)
  - CSA C22.1, *Canadian Electrical Code—Safety Standard for Electrical Installations*
  - CSA Z318.5, *Commissioning of Electrical Gas Equipment and Standards in Health Care Facilities*
  - CSA Z318.7, *Commissioning of Communication Systems in Health Care Facilities*
20. For easier access to the communications area (AC) and critical branch area (AD) of the junction box (C), remove the two screws (AE) that secure each barrier (AF), and remove the barriers (AF) from the junction box (C) (see view S).

**NOTE:**

When the field conduit connectors are installed in concentric knockouts that are punched to impair the electrical connection of the raceway system to the ground, the **electrical contractor** must install #10 American Wire Gauge (AWG) ground jumpers from the reference ground point to the grounding bushings on the conduit connectors. The ground jumpers must meet the requirements of Article 250 of the NEC®. The **electrical contractor** must provide the ground jumpers and ground bushings.

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1. National Electrical Code® is a registered trademark of National Fire Protection Association, Inc.

2. NEC® is a registered trademark of National Fire Protection Association, Inc.

21. If the four screws (AE) were removed, install them to secure the two barriers (AF) to the junction box (C) (see view S).
22. Install the four screws (O) to secure the galvanized cover (P) to the raceway assembly (A) (see figure 3 on page 7).
23. Install the fascia cover (L) and cover trim (N) on the raceway assembly (A).
24. Install the lower lip of the pipe cover (W) on the pipe cover retainers (Y) (see figure 4 on page 9) (see view Z).
25. Install the screws (V) to secure the pipe cover (W) to the accessory track (X).
26. Install the four screws (U) to secure the end cap (M) to the raceway assembly (A).

**NOTES:**

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