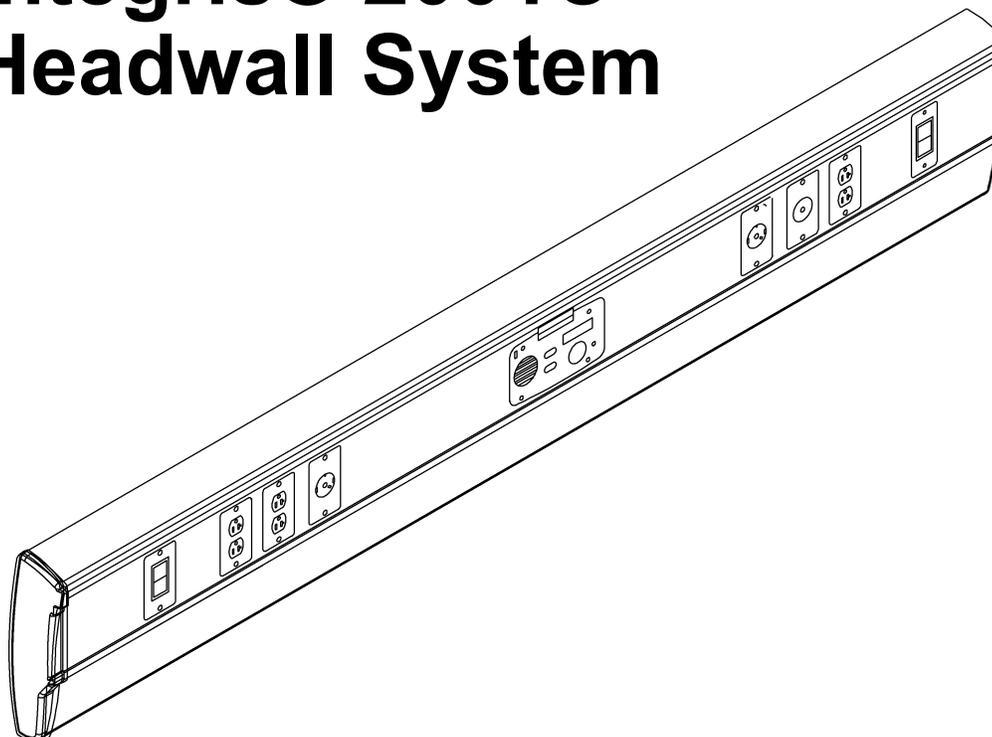


INSTALLATION INSTRUCTIONS



WITTRock
HEALTHCARE

Integris® 2001C Headwall System



Product No. P2001C

Integris® 2001C Headwall System Installation Instructions

Revisions

Revision Letter	Pages Affected	Date
Original Issue		August 2008

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Table of Contents

Introduction	1
Order of Installation	4
Fastener Identification	6
Wall and Construction Type	8
Electrical and Medical Gas Drop Installation	9
Headwall System Installation	11
Headwall System Hanger Bracket(s) Installation	11
Headwall System Section (One Section)	13
Attach the Headwall System	14
Headwall System Sections (Multiple Sections)	16
Medical Gas Pipe Connection	17
Pipe Compartment Cover Installation	19

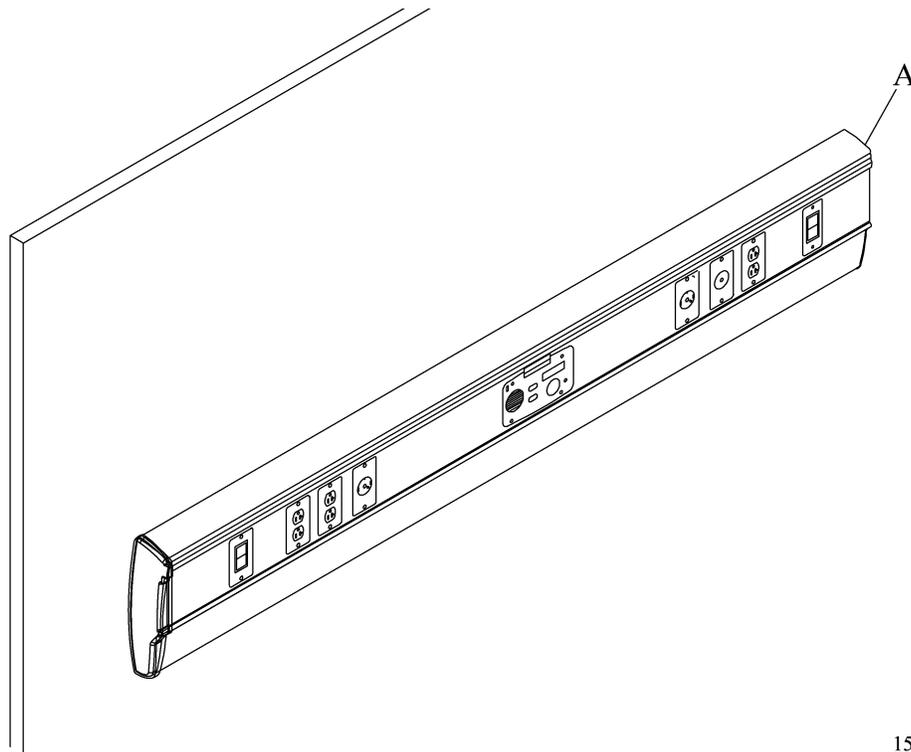
NOTES:

Subject: Integris® 2001C Headwall System (P2001C)—Installation Instructions

Introduction

This installation instruction sheet describes how to install the Integris® 2001C Headwall System (A) (see figure 1 on page 1).

Figure 1. Headwall System



152447_1_002

NOTE:

For installation of the optional Integris® 2003C Lite Rail, refer to the *Integris® 2003C Lite Rail Installation Instructions* (IS443).

NOTE:

For installation of the optional Bed Locator (P0052B1), refer to the *Bed Locator (P0052) Installation Instructions* (150685).

Before the installation, carefully read all of the installation instructions for the components that you must install.



Make sure the facility medical gases, vacuum lines, and electrical lines have been routed to the general location for the headwall system installation, in accordance with the latest editions of these specifications, as well as all applicable national, state or provincial, and local codes.

For USA installations:

- National Fire Protection Association®¹ NFPA 99: *Standard For Health Care Facilities* and NFPA 70: *National Electrical Code*® (NEC®)

For Canadian installations:

- Canadian Standards Association (CSA®²) Parts 1 and 2 of the *Canadian Electrical Code* (CSA-22.1 and CAN/CSA-C22.2)
- Nonflammable Medical Gas Pipeline Systems shall comply with CSA Z7396.1: *Medical Gas Pipeline Systems - Part 1: Pipelines for Medical Gases and Vacuum*
- Anaesthetic Gas Scavenging Systems shall comply with CSA Z7396.2: *Medical Gas Pipeline Systems - Part 2: Anaesthetic Gas Scavenging Disposal Systems*
- CSA Z318.0: *Commissioning of Health Care Facilities*

NOTE:

Smoke index for the P2001C decorative plastic parts is 500 < Smoke Index < 999.

Tools required:	Drill/power screwdriver 1/4" diameter drill bit Ladder 7/8" spade bit 1" spade bit Ratchet wrench 9/16" deep socket with 3" extension Level Rubber mallet or block and hammer	#2 phillips screwdriver Flat tip screwdriver Adjustable wrench 11/32" open end wrench 5/16" hex nutdriver 3/8" hex nutdriver Tape measure Chalk line
Parts required:	(1) 205935 (1) 205934 204614, Bag assembly, includes these items: (2) 21045 (2) 21046	Splice cover, top, complete Splice cover, lower, P2001 Screw, 3/8"—16 x 3", slotted, round 3/8"—16 toggle wing

1. National Fire Protection Association®, (NEC®), and National Electrical Code® are registered trademarks of National Fire Protection Association, Inc.

2. CSA® is a registered trademark of Canadian Standards Association, Inc.

(2) 29325PL	Cup washer
(4) 5314301	Screw, #12—14 x 1 1/2", self-drilling, hex
(4) 57185	E-Z Ancor® ¹ screw anchor
(4) 55138	Screw, #8—18 x 7/8", pan head
(8) 5294503	Screw, #6 x 3/8", truss head
(4) 203644	Installation clip

204010, Bag assembly, includes these items:

(6) 5260403	Screw, #6—32 x 3/4", truss head
(6) 12483	#8 lockwasher dish-type

205946, Bag assembly, includes these items:

(4) 15250	Locknut, #8-32
(4) 16115	Screw, #6—20 x 3/8", flat head
(1) 205935	Top splice cover
(1) 205934	Lower splice cover
(1) 15338	Screw, #10—32 x 1/2", pan head

Reference documents: *Integris® Light to Wall Box (P005196A) Installation Instructions (151224)*

Integris® 2003C Lite Rail Installation Instructions (IS443)

Bed Locator (P0052) Installation Instructions (150685)

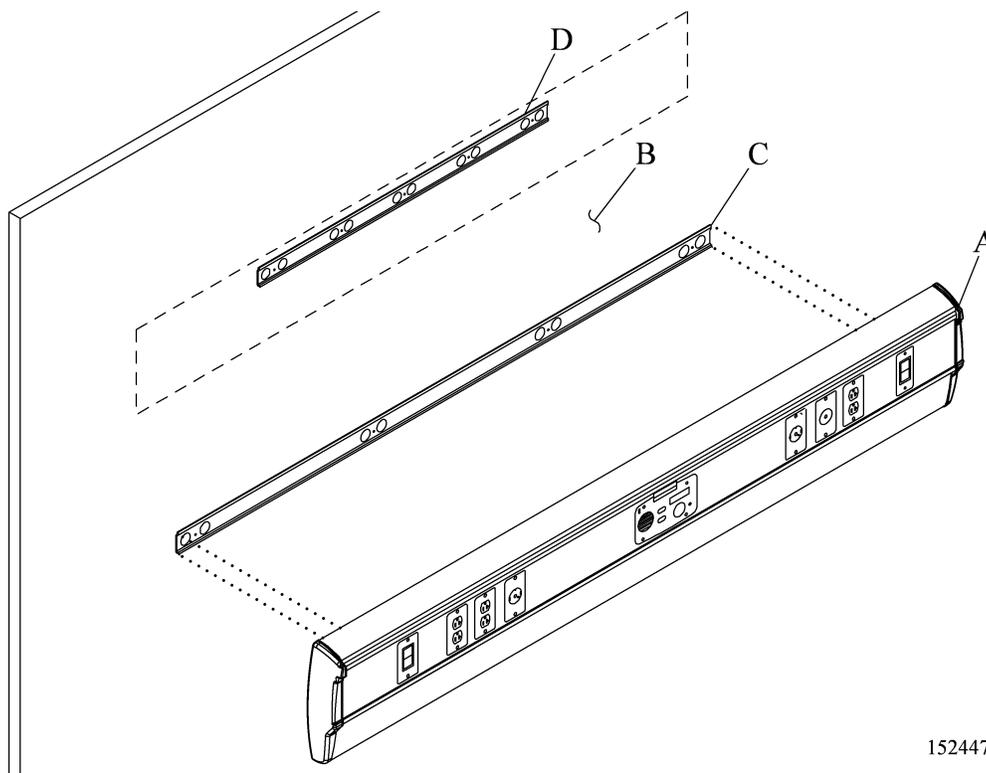
1. E-Z Ancor® is a registered trademark of Illinois Tool Works, Inc.

Order of Installation

These steps summarize the order of installation of the headwall system and its related components:

1. Examine the wall and construction type (see “Wall and Construction Type” on page 8).
2. Install the electrical and medical gas drops (see “Electrical and Medical Gas Drop Installation” on page 9).
3. To install the headwall system (referred to as the raceway) (A) to the wall (B), do these steps (see figure 2 on page 4):
 - a. Install the hanger bracket (C) below the optional Integris® 2003C Lite Rail hanger bracket (D).
 - b. Prepare to install one section of the raceway (see “Headwall System Section (One Section)” on page 13).
 - c. Attach the raceway (A) to the wall (see “Attach the Headwall System” on page 14).
 - d. Prepare to install the multiple sections of the raceway (see “Headwall System Sections (Multiple Sections)” on page 16).

Figure 2. Order of Installation



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4. Connect the medical gas pipes (see “Medical Gas Pipe Connection” on page 17).
5. Install the headwall system (A) med-gas compartment cover (V) (see “Pipe Compartment Cover Installation” on page 19).

NOTES:

Fastener Identification

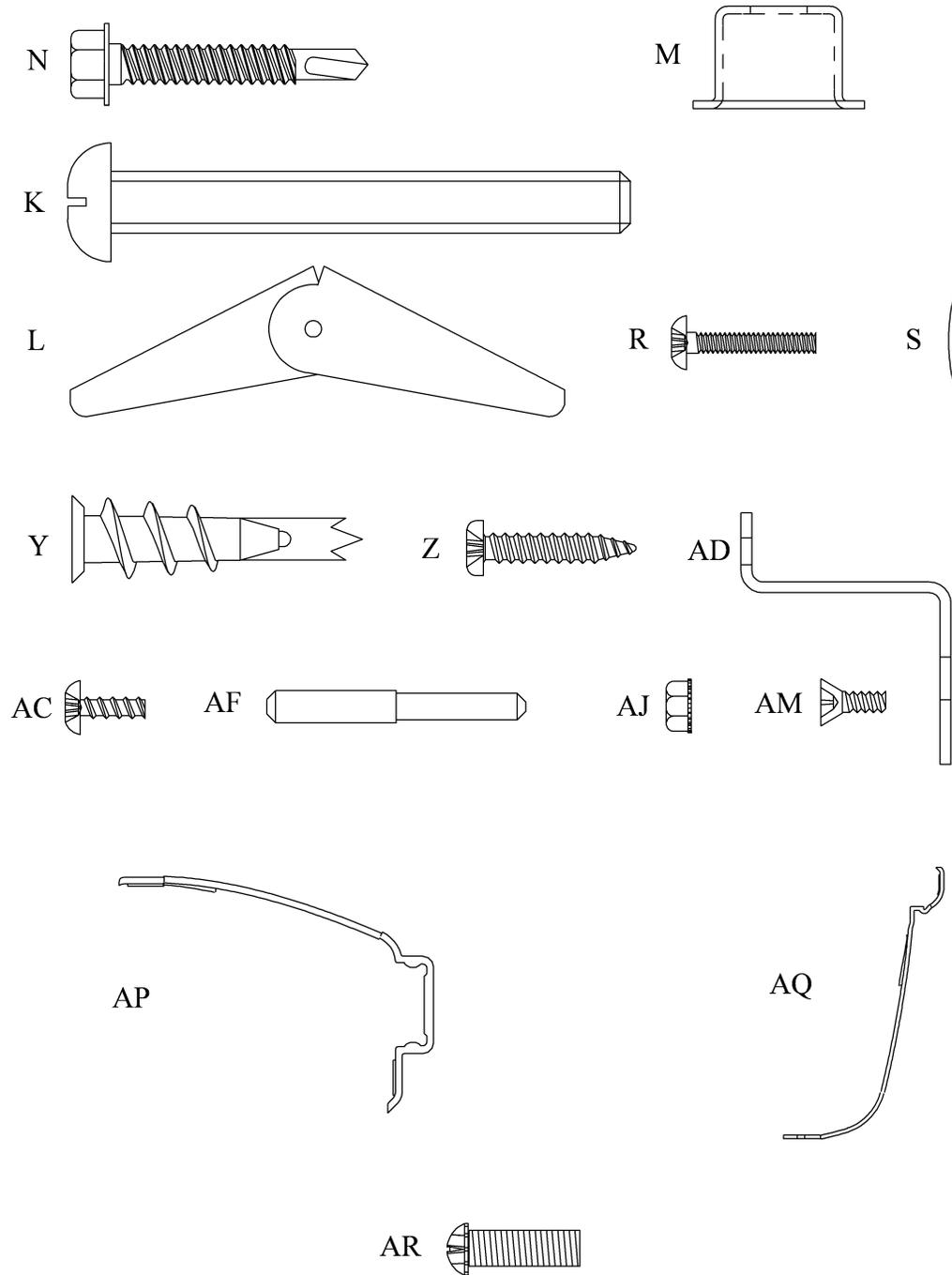
The fasteners in the this document are referred to by callout letter (see table 1 on page 6 and see figure 3 on page 7).

Table 1: Fastener Installation

Item Letter	Part Number	Description
K	21045	Screw, 3/8"-16 x 3", slotted, round
L	21046	3/8"-16 toggle wing
M	29325PL	Cup washer
N	5314301	Screw, #12-14 x 1 1/2", self-drilling, hex head
R	5260403	Screw, #6-32 x 3/4", truss head
S	12483	#8 lockwasher—dish-type
Y	57185	E-Z Ancor [®] screw anchor
Z	55138	Screw, #8-18 x 7/8", pan head
AC	5294503	Screw, #6 x 3/8", truss head
AD	203644	Installation clip
AF	55736	Transition pin
AJ	15250	Locknut, #8-32
AM	16115	Screw, #6-20 x 3/8", flat head
AP	205935	Top splice cover
AQ	205934	Lower splice cover
AR	15338	Screw, #10-32 x 1/2", pan head

a. E-Z Ancor[®] is a registered trademark of Illinois Tool Works, Inc.

Figure 3. Fastener Identification



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Wall and Construction Type



WARNING:

Install the headwall system and components in accordance with the manufacturer's installation instructions and all applicable national, state or provincial, and local codes. Failure to do so could cause injury or equipment damage.

1. Refer to the local and state building codes, and make sure of 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 movement of fire.
 - **Non-fire-rated** walls are **not** constructed to prevent the movement of fire.
2. Do **one** of these:
 - **Seismic** walls—Install the wall back plate. Refer to the Office of Statewide Health, Planning, and Development (OSHPD) approved drawings and the as-built drawings.

NOTE:

For **seismic** construction requirements, speak with WittRock Healthcare Technical Support at 800-445-3720.

- **Non-seismic** walls (fire-rated and non-fire-rated)—Make sure the walls are constructed with at least 20-gauge steel studs 16" (41 cm) between centerlines and have a minimum of 5/8" (16 mm) dry wall.

Electrical and Medical Gas Drop Installation

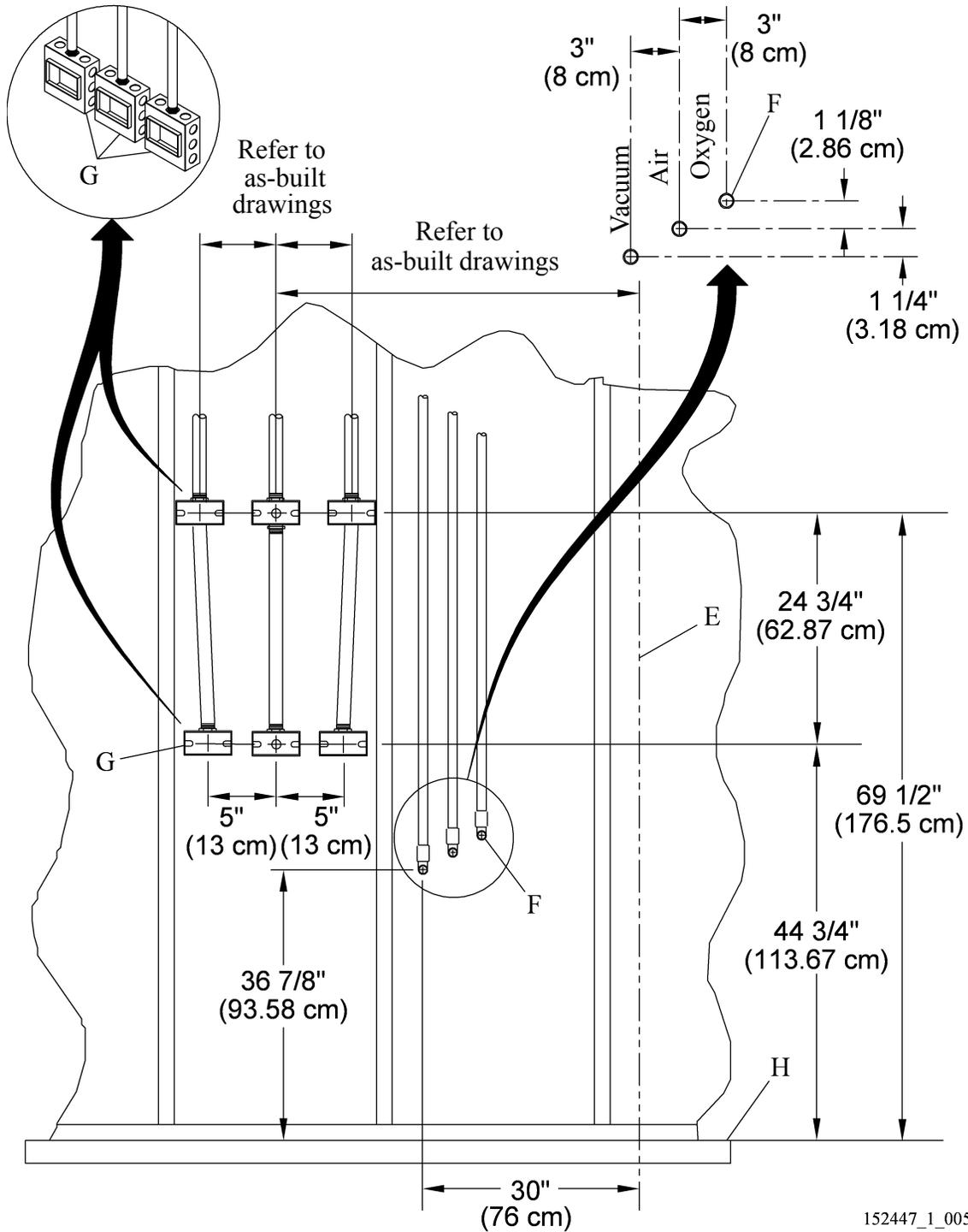


WARNING:

Install the headwall system and components in accordance with the manufacturer's installation instructions and all applicable national, state or provincial, and local codes. Failure to do so could cause injury or equipment damage.

1. Refer to the as-built drawings for the necessary dimensions and make a line for the bed centerline (E) at the proper distance from the gas rough-in (F) and the electrical rough-in (G) (see figure 4 on page 10).
2. Make sure that the distance between the electrical rough-in (G) and the finished floor (H) is 44 3/4" (113.67 cm).
3. Install the electrical and medical gas rough-ins in accordance with NFPA 99 and Section 517 of NFPA 70 requirements (CSA C22.1, CSA Z7396.1, and Z7396.2 for Canada).

Figure 4. Electrical and Medical Gas Drop Installation



Headwall System Installation

Headwall System Hanger Bracket(s) Installation



SHOCK HAZARD:

Disconnect the electrical power from the facility wiring. Failure to do so could cause injury or equipment damage.

NOTE:

When multiple headwall system sections are to be installed, do not permit breaks between the hanger brackets to be in line with breaks between the headwall system sections.

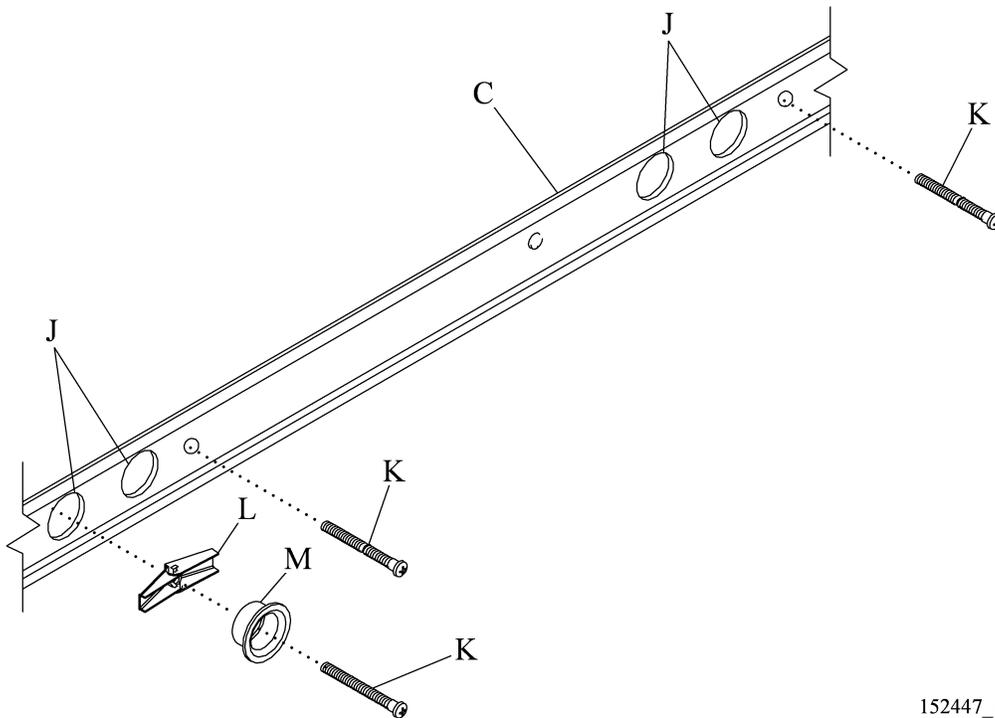
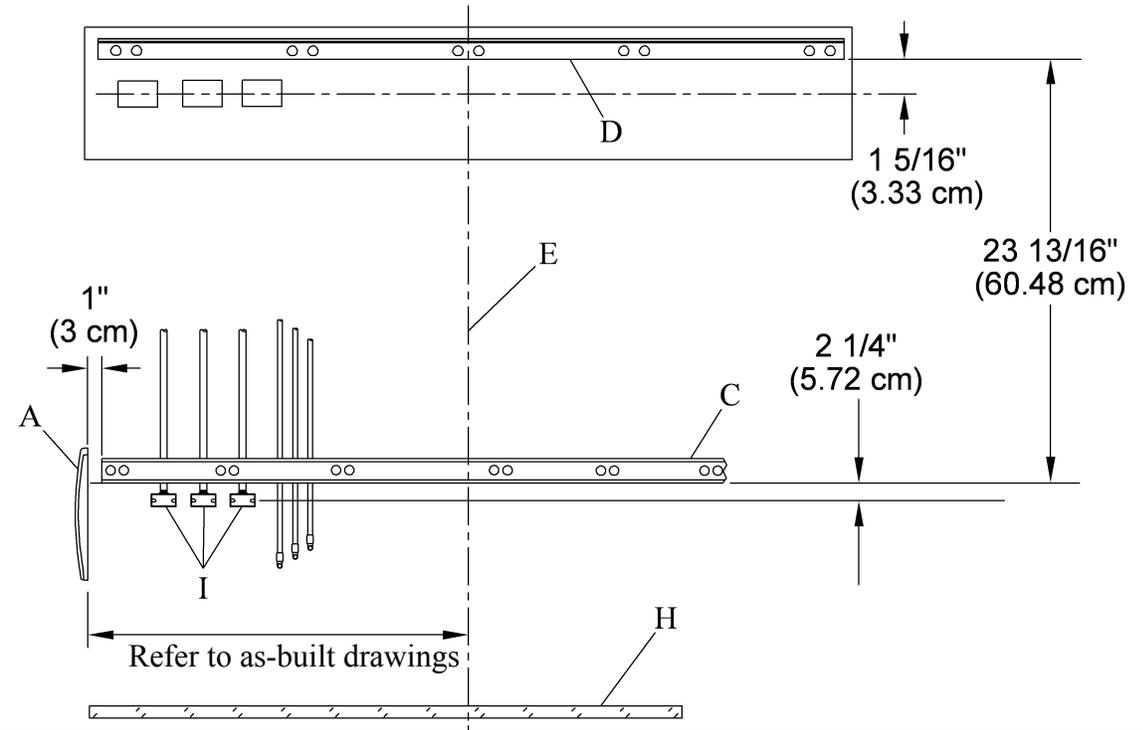


WARNING:

Install the headwall system and components in accordance with the manufacturer's installation instructions and all applicable national, state or provincial, and local codes. Failure to do so could cause injury or equipment damage.

1. Make sure the facility electrical power is removed from the wiring.
2. Examine the wall and construction type (see "Wall and Construction Type" on page 8).
3. Refer to the as-built drawings in order to find the electrical wall boxes (I) (see figure 5 on page 12).
4. Put the headwall system (raceway) hanger bracket (C) on the wall so that the bottom edge is 2 1/4" (5.72 cm) from the centerline of the electrical wall boxes (I) and 1" (3 cm) from the end of the current raceway(s) (A) on the wall.
5. If the optional Integris® 2003C Lite Rail is to be installed, make sure that the distance from the bottom of the raceway hanger bracket (C) to the bottom of the Integris® 2003C Lite Rail hanger bracket (D) is 23 13/16" (60.48 cm). For installation instructions, refer to the *Integris® 2003C Lite Rail Installation Instructions* (IS443).
6. On **non-fire-rated** walls, make marks on the wall to show the two pairs of 1" (3 cm) holes (J) in the raceway hanger bracket (C).
7. At each pair of marks, drill one 1" (3 cm) hole in the dry wall at a location of easy access. If an obstacle or wall stud is in the way, drill where the other hole is identified.

Figure 5. Headwall System Hanger Bracket Installation



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8. Attach the raceway hanger bracket (C).
 - For the **non-seismic, non-fire-rated** walls, install the hanger bracket (C) with the slotted round screws (K), toggle wings (L), and cup washers (M).
 - For **fire-rated** and **seismic** walls, install the hanger bracket (C) to the wall stud or back plate with the self-drilling hex head screws (N).



CAUTION:

When you install multiple headwall system (raceway) hanger brackets, make sure each new hanger bracket is level with the first hanger bracket. Failure to do so could cause equipment damage.

9. Make sure that the hanger bracket(s) (C) is/are level.
10. If the wall has more than 1/16" (1.5 mm) of waviness along the hanger bracket (C), do these:
 - a. At the low point(s), loosen the slotted round screws (K).
 - b. Put a shim behind the hanger bracket (C).
 - c. Tighten the slotted round screws (K).

Headwall System Section (One Section)

1. Put the raceway (A) on the floor (see figure 6 on page 14) and do these steps:
 - a. Remove the fascia cover (O). Lift to release its bottom edge.
 - b. Remove the junction box cover (P).
2. Pull the wires from the electrical wall boxes through the holes (Q) in the rear of the raceway (A).
3. Install the raceway (A) on the hanger bracket (C). Align the raceway holes (Q) with the electrical wall boxes.
4. Make sure that the raceway (A) is correctly positioned on the bed centerline (E).



WARNING:

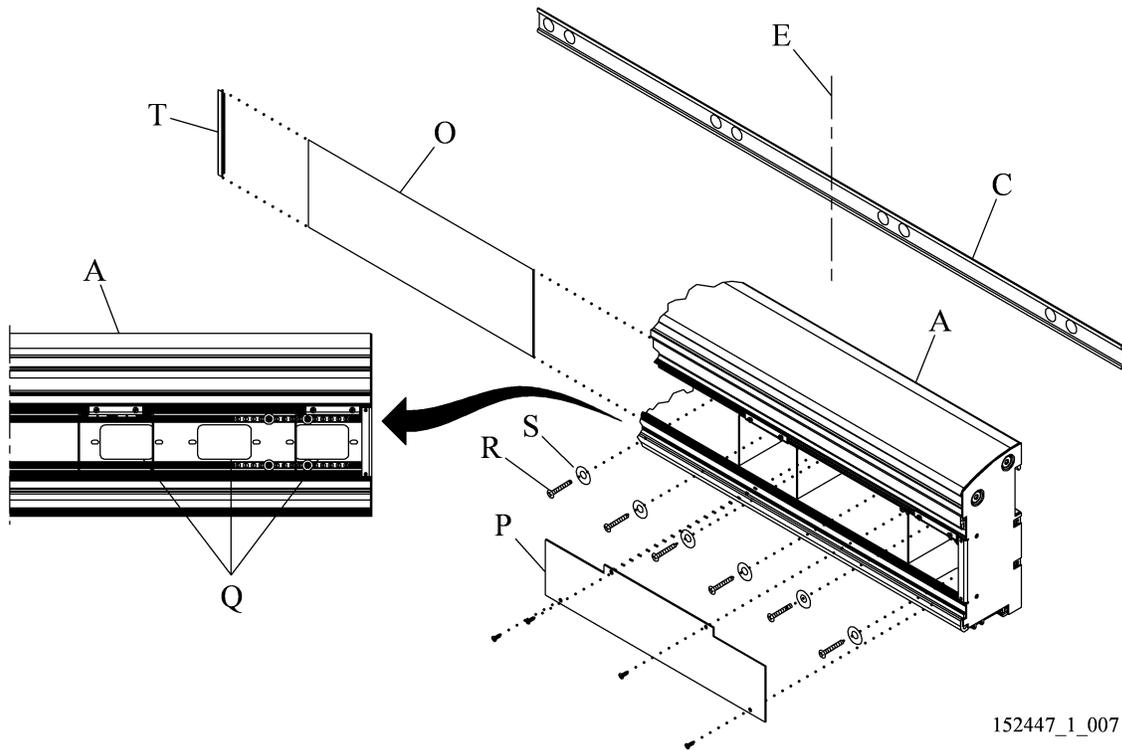
Installation of the six truss head screws must be in accordance with the requirements of the NEC®¹ Article 517: *Redundant Ground Requirements*. Failure to do so could cause injury.

5. Install the six truss head screws (R) and dish-type lockwashers (S) through the junction box and into the flanges of the electrical wall boxes to install the raceway (A).

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6. Make the electrical connections.
7. Install the junction box cover (P), fascia cover (O), and cover trim (T).

Figure 6. Headwall System Section (One Section)



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Attach the Headwall System



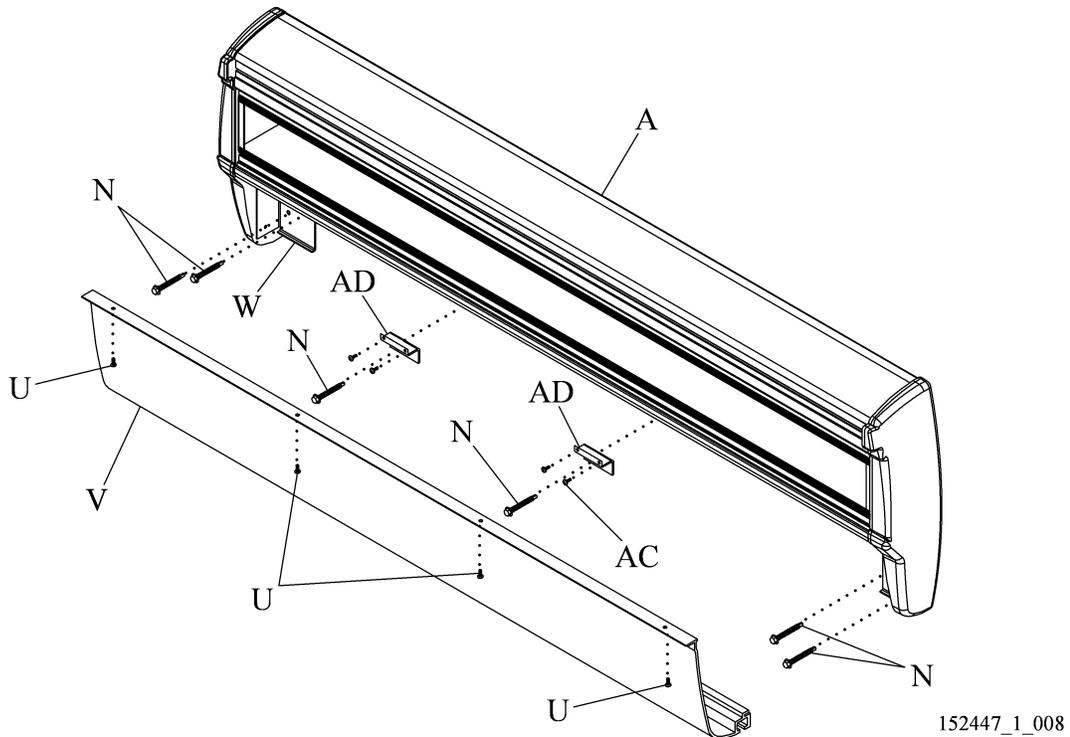
WARNING:

Attach the headwall system (or raceway) a minimum of four places for each 7' (213 cm) length in order to prevent a collapse of the headwall system. Failure to do so could cause injury or equipment damage.

1. Remove and keep the med-gas compartment cover screws (U) (see figure 7 on page 15).
2. Remove and keep the med-gas compartment cover (V).
3. Attach the raceway (A) through the endplate (W) and in the wall as follows:
 - On **seismic** construction or fire-rated walls, install the self-drilling hex head screws (N).

- On **non-seismic** construction, install the E-Z Ancor®¹ screw anchors (Y) and the pan head screws (Z), or install the slotted round screws (K), toggle wings (L), and cup washers (M) (see figure 3 on page 7).

Figure 7. Attach the Headwall System



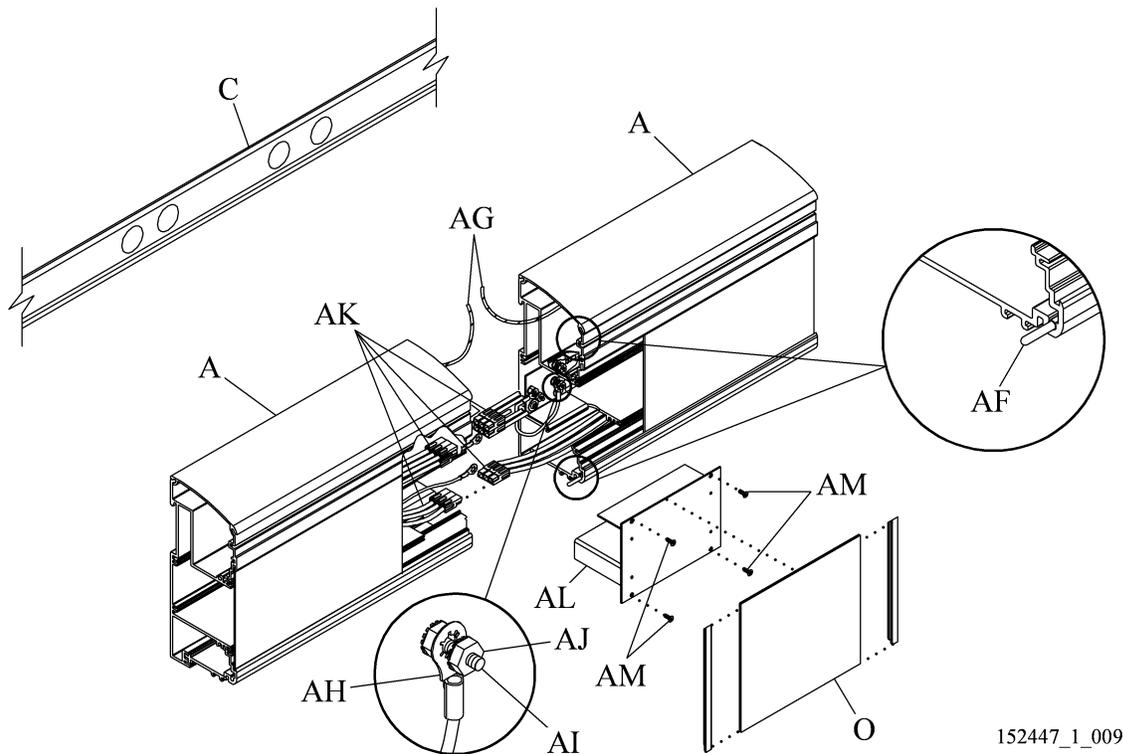
4. Align the installation clips (AD) (supplied in the bag assembly) with the wall studs along the raceway (see figure 7 on page 15).
5. Attach the installation clips (AD) to the raceway (A) with the truss screws (AC).
6. Attach the installation clips (AD) to the wall with the self-drilling hex screws (N).
7. Go to “Medical Gas Pipe Connection” on page 17.

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Headwall System Sections (Multiple Sections)

1. Hang the subsequent raceway (A) on the raceway hanger bracket (C) (see figure 8 on page 16).

Figure 8. Headwall System Sections (Multiple Sections)



2. Examine for correct alignment of the transition pins (AF) and the raceway (A).
3. Find the two strings (AG) attached to the low voltage assemblies on the transition end of the two raceways (A) and secure the ends of the two strings (AG) together.
4. Connect the raceways (A) and make sure that the ends align correctly.
5. Connect the wire between the raceways (A) and do these steps in accordance with NFPA 70 requirements (CSA C22.1 and C22.2 for Canada):
 - a. Pull the loose ends of the wire loops out of the ends of each raceway (A).
 - b. Put the wires for the standard electrical power, critical branch, and communication into groups.
 - c. Install the ground wires (AH) on the posts (AI) with the locknut (AJ).
 - d. Connect each wire connector (AK) to the correct connector in the adjacent raceway (A). For the correct wire connections, refer to the as-built drawings.
 - e. Install the wires in the applicable raceways (A).

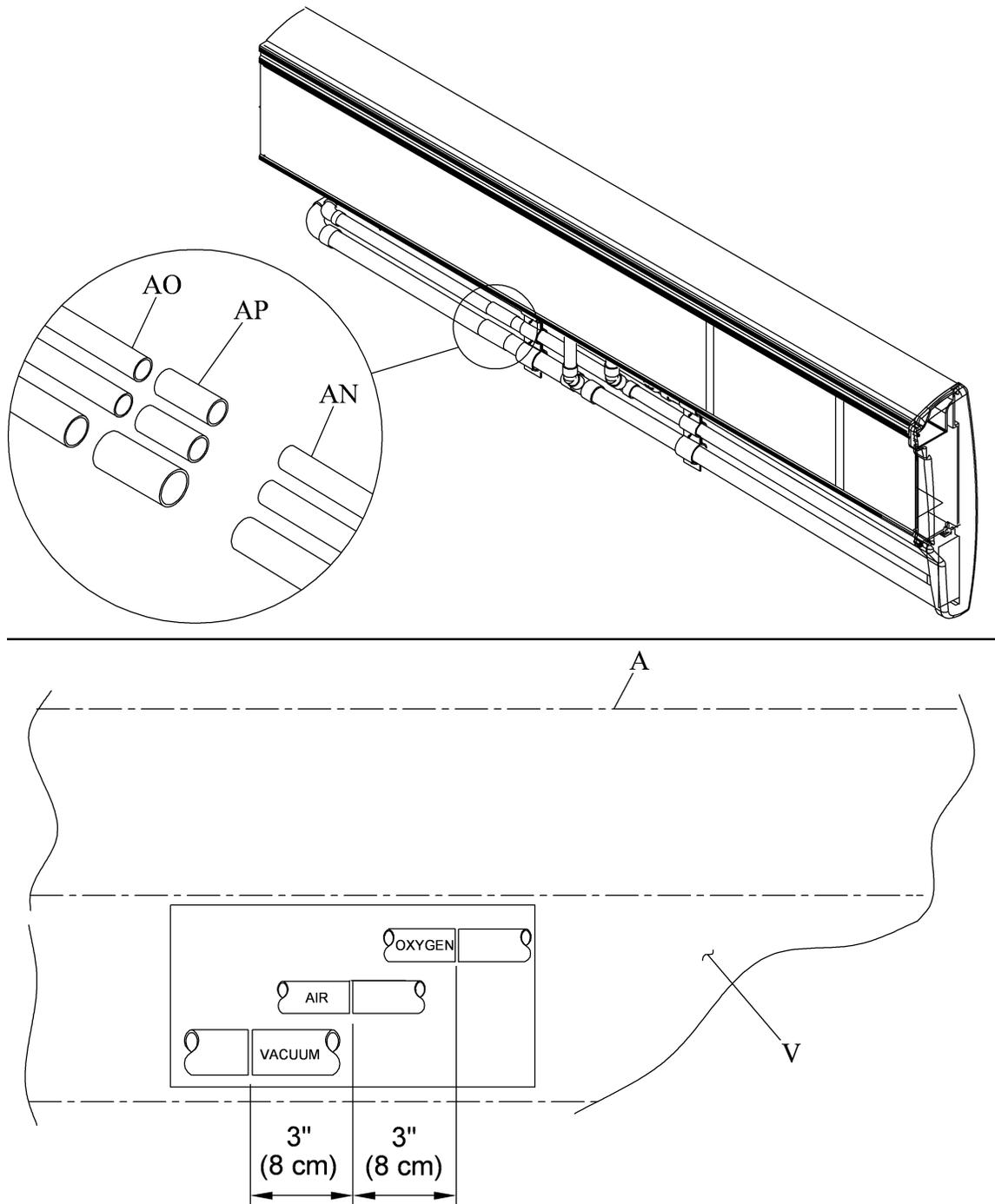
6. Align the cover (AL) with the four grooves in the raceways (A).
7. Make sure that no wires are pinched between the raceway (A) and the cover (AL).
8. Install the four flat head screws (AM) to attach the cover (AL) to the raceway (A).
9. Slide the fascia cover (O) into the base of the raceway (A) and down into the bottom of the raceway (A).

Medical Gas Pipe Connection

Do these steps in accordance with NFPA 99 requirements (CSA Z318.0, CSA Z7396.1, and CSA Z7396.2 for Canada).

1. Open the headwall system (A) med-gas compartment cover (V) (see “Pipe Compartment Cover Installation” on page 19).
2. Remove and discard the plastic caps from the end of the gas manifold (AN) (see figure 9 on page 18).
3. Connect the gas manifold (AN) to the applicable facility gas lines (AO) for vacuum, medical air, and oxygen. Use the facility-supplied couples (AP) for the connection.
4. Braze the couples (AP), gas manifolds (AN), and facility gas lines (AO) in accordance with NFPA 99.
5. Examine the brazed joints for leaks.

Figure 9. Medical Gas Pipe Connection

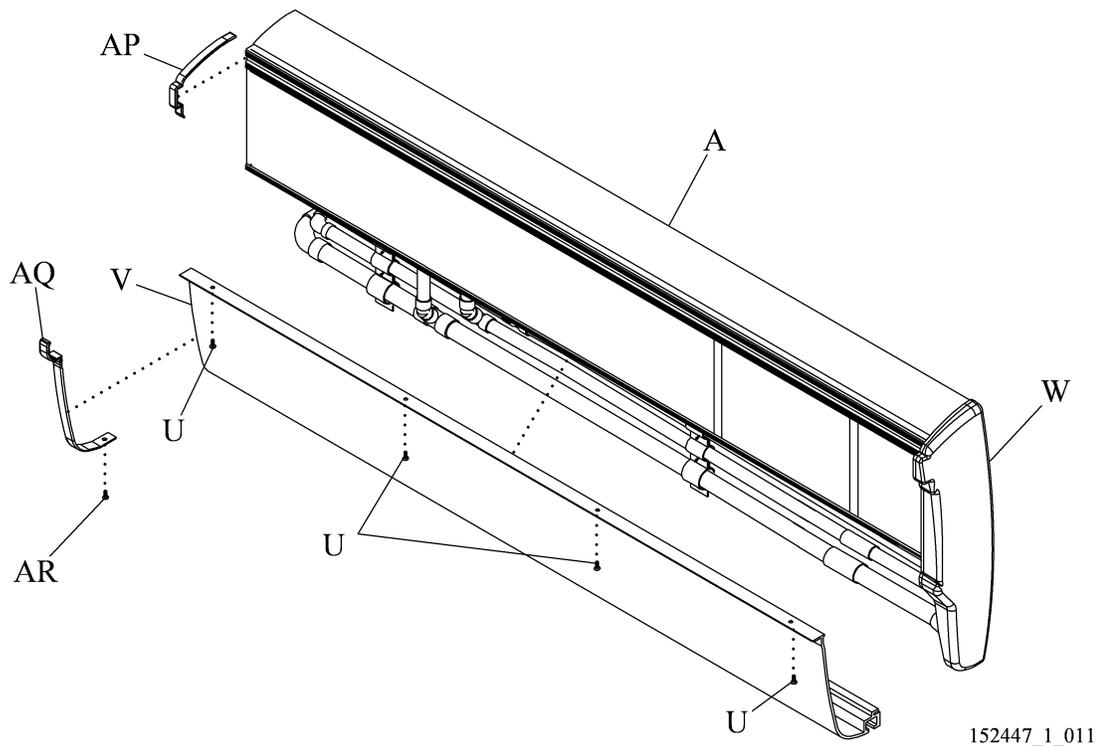


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Pipe Compartment Cover Installation

1. Attach the lower edge of the med-gas compartment cover (V) on the endplates (W) (see figure 10 on page 19).

Figure 10. Cover Installation



2. Align the med-gas compartment cover (V) with the slots in the bottom of the raceway (A).
3. Install the med-gas compartment cover screws (U) as required, based on the length of the med-gas compartment cover (V) and the raceway (A).
4. Install the top splice cover (AP) and the lower splice cover (AQ) over the joint where two raceways (A) touch.
5. Attach the lower splice cover (AQ) to the aluminum slide lock and install the pan head screw (AR).

NOTES:
