

INSTALLATION INSTRUCTIONS

Integris® 2001B Headwall System From Hill-Rom



Product No. P2001B

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Integriss® 2001B Headwall System Installation Instructions

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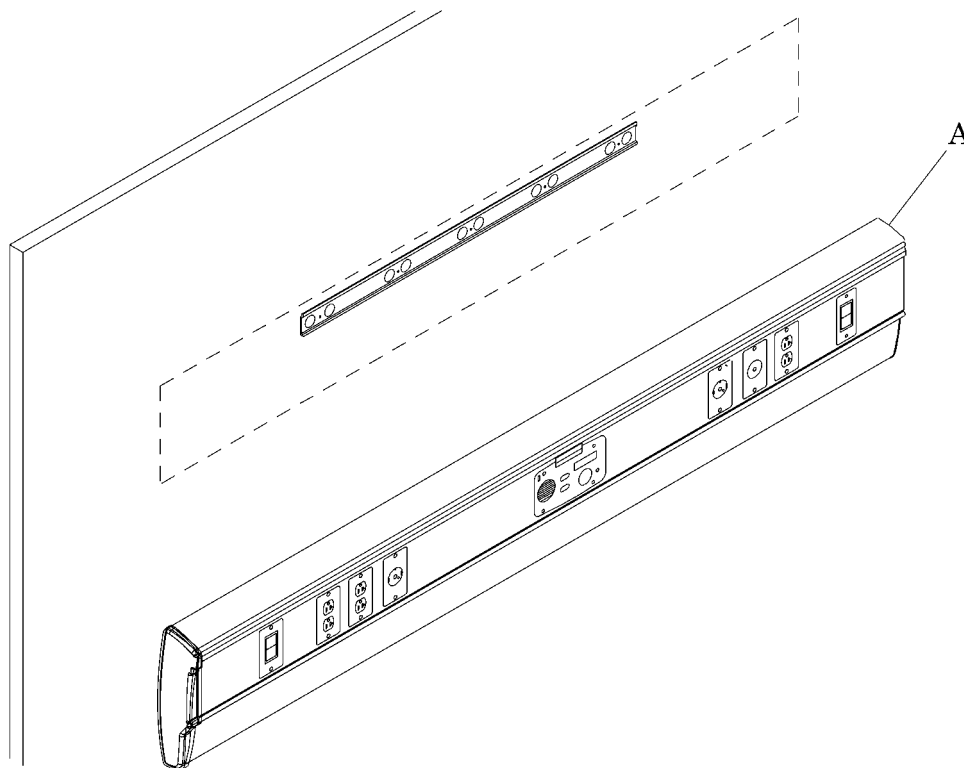
NOTES:

Subject: Integris® 2001B Headwall System Installation Instructions

Introduction

This installation instruction sheet describes how to install the Integris® 2001B Headwall System raceway (A) (see figure 1 on page 1). Prior to installation, carefully read all of the installation instructions for the components you are installing.

Figure 1. Integris® 2001B Headwall System



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WARNING:

For installation of the Integris® 2001B Headwall System (fire-rated/non-seismic), ensure that the walls are constructed of at least 20 gauge steel studs on 16" (41 cm) centerlines, and covered with a minimum of 0.625" (15.9 mm) dry wall. Failure to do so could result in the collapse of the Integris® 2001B Headwall System. Personal injury or equipment damage could occur.

Before installing the headwall system components, the facility's medical gas and vacuum lines should have been run to the general location.

Tools required:

Standard drill/power screwdriver	#2 phillips head screwdriver
¼" drill bit	Medium screwdriver
Ladder	Large screwdriver
7/8" spade bit	11/32" open end wrench
1" spade bit	5/16" hex head nutdriver
Ratchet wrench	3/8" hex head nutdriver
9/16" deep socket with 3" extension	Tape measure
Level	Chalk line
Rubber mallet or block and hammer	Adjustable wrench

Parts required:

(1)	205935	Splice cover, top, complete
(1)	205934	Splice cover, lower, P2001

Related Documents: [Integris[®] B Lite Rail Installation Instructions \(is443\)](#)

Order of Installation

The numbered steps below correspond with the order of installation for the listed components:

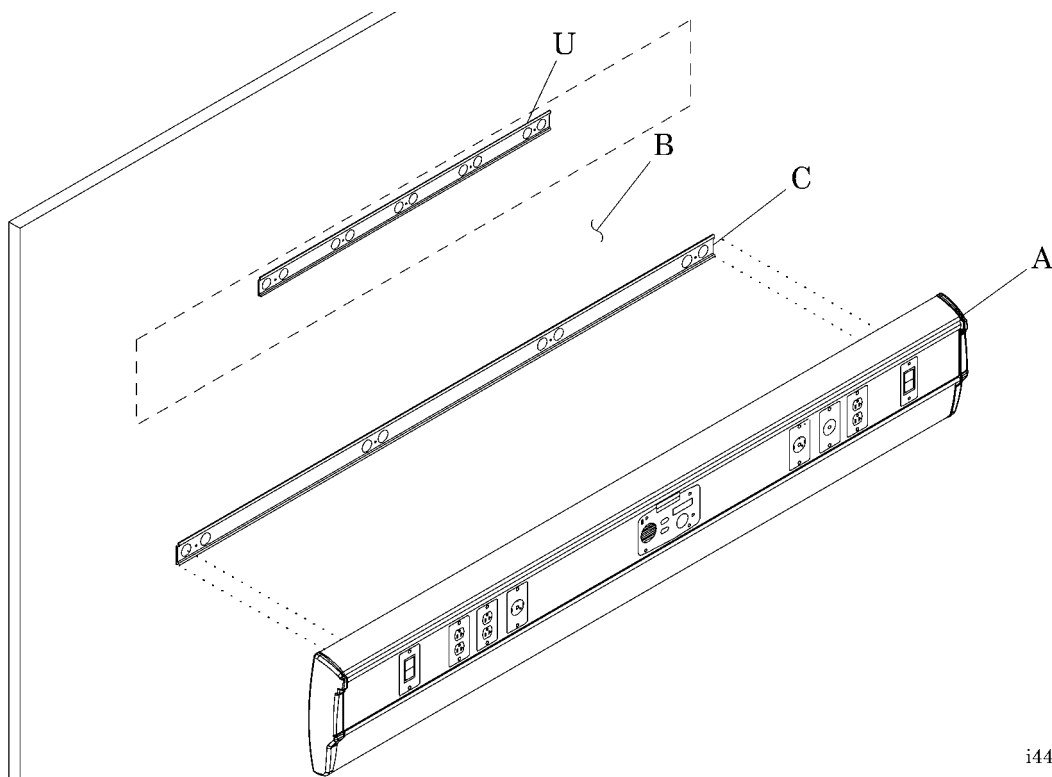


WARNING:

The installation method differs for each wall and construction type. Failure to determine the wall and construction type could result in personal injury or equipment damage.

1. Determine the type of wall (B) and construction type (see figure 2 on page 3).

Figure 2. Component Identification



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2. Lay out the electrical and medical gas rough-in.
3. To install the raceway (A), perform the following:
 - a. Install the hanger bracket(s) (C) and (U).
 - b. Position the raceway (A), and install the junction box.
 - c. Secure the raceway (A) to the wall (B).
 - d. Install the gas pipe and gas pipe cover.
 - e. Mount multiple sections.

Fastener Identification

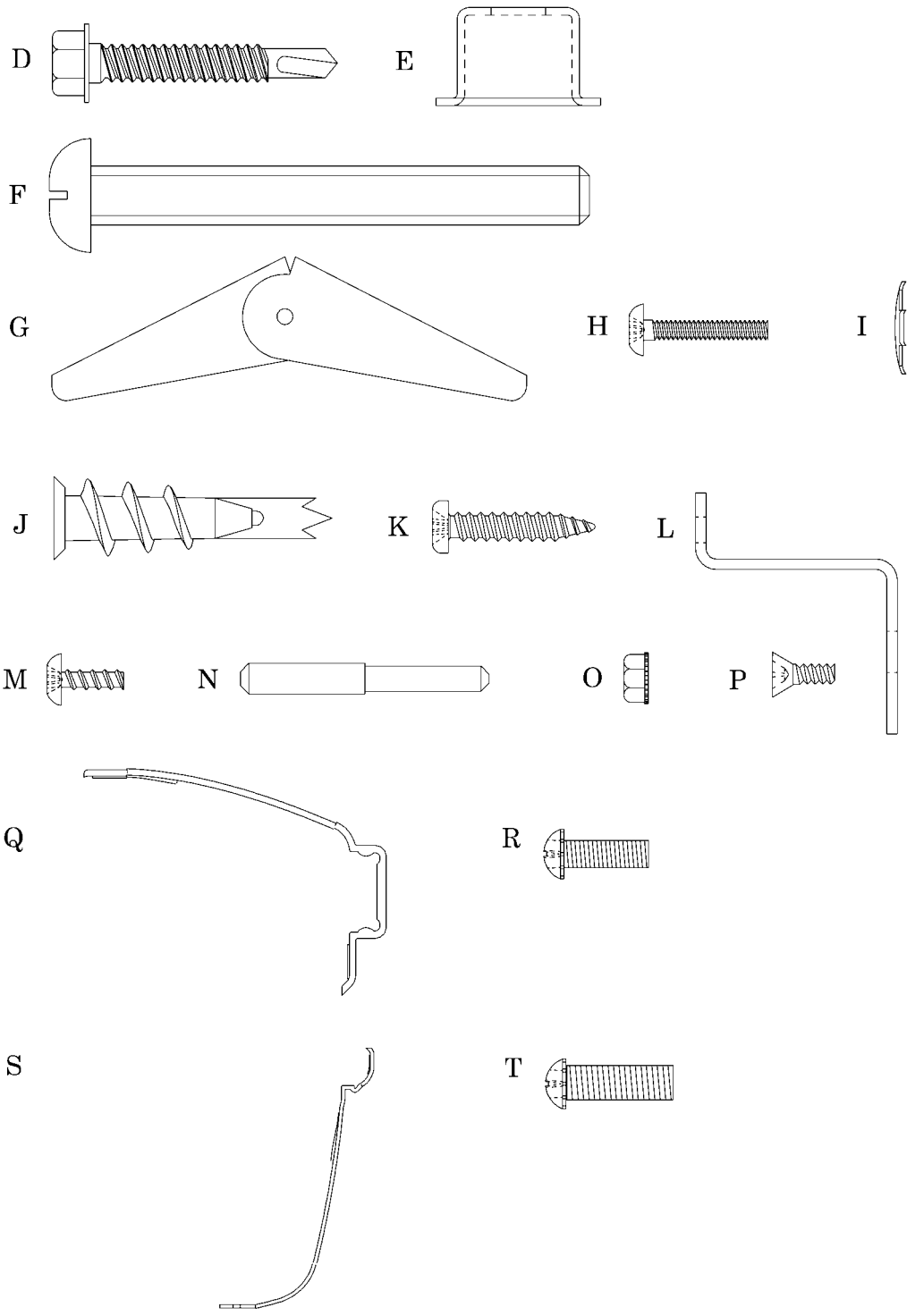
The fasteners in the following installation instructions are referred to by callout letter. For proper fastener identification, see Table 1 on page 4 (see figure 3 on page 5).

Table 1. Fastener Callout Letters

Callout Letter	Description
D	Screw, #12-14 x 1½", self-drilling, hex head
E	Cup washer
F	Screw, 3/8"-16 x 3", slotted, round
G	3/8"-16 toggle wing
H	Screw, #6-32 x ¾", truss head
I	#8 lockwasher—dish-type
J	E-Z Ancor® ^a screw anchor
K	Screw, #8-18 x 7/8", pan head
L	Installation clip
M	Screw, #6 x 3/8", truss head
N	Transition pin
O	Locknut, #8-32
P	Screw, #6-20 x 3/8", flat head
Q	Top splice cover
R	Screw, #8-32 x ½", pan head
S	Lower splice cover
T	Screw, #10-32 x ½", pan head

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

Figure 3. Fasteners



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Determining the Wall and Construction Type



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 Integris® 2001B Headwall System. Personal injury or equipment damage could occur.

1. Before proceeding, refer to the local or state building codes, and determine the type of wall (B) and construction type (see figure 2 on page 3):
 - **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. Perform **one** of the following:
 - On **seismic** walls (B), install the wall backing plates according to the Office of Statewide Health, Planning, and Development (OSHPD)-approved drawings and the as-built drawings, and then go to “Laying Out Electrical and Medical Gas Rough-In” on page 6.

NOTE:

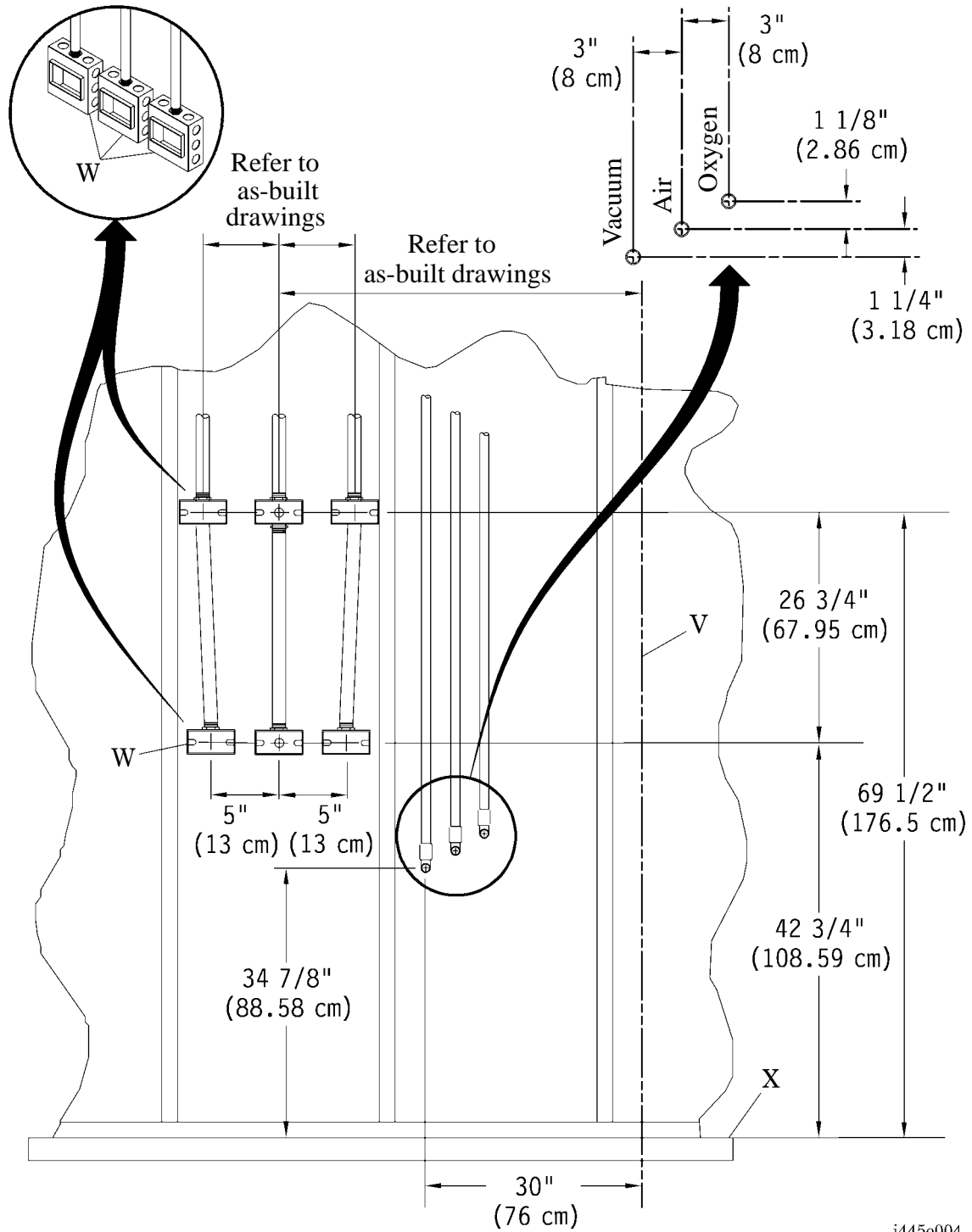
For **seismic** construction requirements, contact Hill-Rom Technical Support at 800-445-3720.

- For **non-seismic** walls (B) (both fire-rated and non-fire-rated), go to “Laying Out Electrical and Medical Gas Rough-In” on page 6.

Laying Out Electrical and Medical Gas Rough-In

1. Determine the bed centerline (V) by referring to the as-built drawings for the Integris® 2001B Headwall System.
2. Ensure that the distance between the raceway rough-in (W) and the finished floor (X) is 42¾" (108.59 cm) (see figure 4 on page 7).

Figure 4. Electrical and Medical Gas Rough-In Layout





WARNING:

Failure to install the Integris® 2001B Headwall System according to Section 517 of the National Electrical Code®¹ (NEC®²) and NFPA 99 could result in personal injury or equipment damage.

3. Install the electrical and medical gas rough-ins (W) according to Section 517 of National Electrical Code® (NEC®) and the *Standard For Health Care Facilities* (NFPA 99).

Installing the Raceway

Installing the raceway (A) involves installing the hanger bracket (C) and junction box, and securing the raceway(s) (A) to the wall (B) (see figure 2 on page 3).

Installing the Raceway Hanger Bracket(s)



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 Integris® 2001B Headwall System. Personal injury or equipment damage could occur.

NOTE:

When installing multiple headwalls, do not allow the breaks between the hanger brackets to align with the breaks between the headwall assemblies.

1. Ensure that the wall meets the required specifications:
 - On **non-seismic** construction, make certain the walls are constructed of at least 20 gauge steel studs on 16" (41 cm) centerlines and covered with a minimum of 5/8" (15.9 mm) dry wall.
 - On **seismic** construction requirements, contact Hill-Rom Technical Support at 800-445-3720.
2. For the locations of the line or low voltage wall boxes (Y), refer to the as-built drawings (see figure 5 on page 9).
3. Locate the bottom of the raceway hanger bracket (C) 2¼" (5.72 cm) from the center-line of the wall box (Y), and 1" (3 cm) from the end of the raceway(s) (A) on the wall (B).

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.

4. If installing the Integris® B Lite Rail, ensure that the distance from the bottom of the raceway hanger bracket (C) to the bottom of the Integris® B Lite Rail hanger bracket (U) is 25 13/16" (65.56 cm). For installation instructions, refer to the [Integris® B Lite Rail Installation Instructions \(is443\)](#).
5. On **non-fire-rated** walls (B), mark both pairs of 1" (3 cm) holes (AM) in the raceway hanger bracket (C).
6. At each pair of marked holes, drill only one of the 1" (3 cm) holes (AM) in the dry wall. If an obstruction or wall stud is in the way, use the alternate marked hole.
7. Perform **one** of the following:
 - For the **non-fire-rated** wall (B), secure the hanger bracket (C) with the slotted round screws (F), toggle wings (G), and cup washers (E).
 - For **fire-rated** and **seismic** walls, secure the hanger bracket (C) to the wall stud or backing plate with the self-drilling hex head screws (D).



CAUTION:

When installing multiple hanger brackets, ensure any additional hanger brackets are level with the first hanger bracket installed. Failure to do so could result in equipment damage.

8. Verify that the hanger bracket(s) (C) and/or (U) is level.
9. If the wall (B) has waviness exceeding 1/16" (1.6 mm) per raceway hanger bracket (C), perform the following:
 - a. At the low spot(s), loosen the toggle wing (G).
 - b. Shim behind the hanger bracket (C).
 - c. Tighten the toggle wing (G).

Positioning the Raceway and Installing the Junction Box



WARNING:

Ensure that no electrical power is supplied to the facility wiring. Personal injury or equipment damage could occur.

1. Ensure that no electrical power is supplied to the facility wiring.



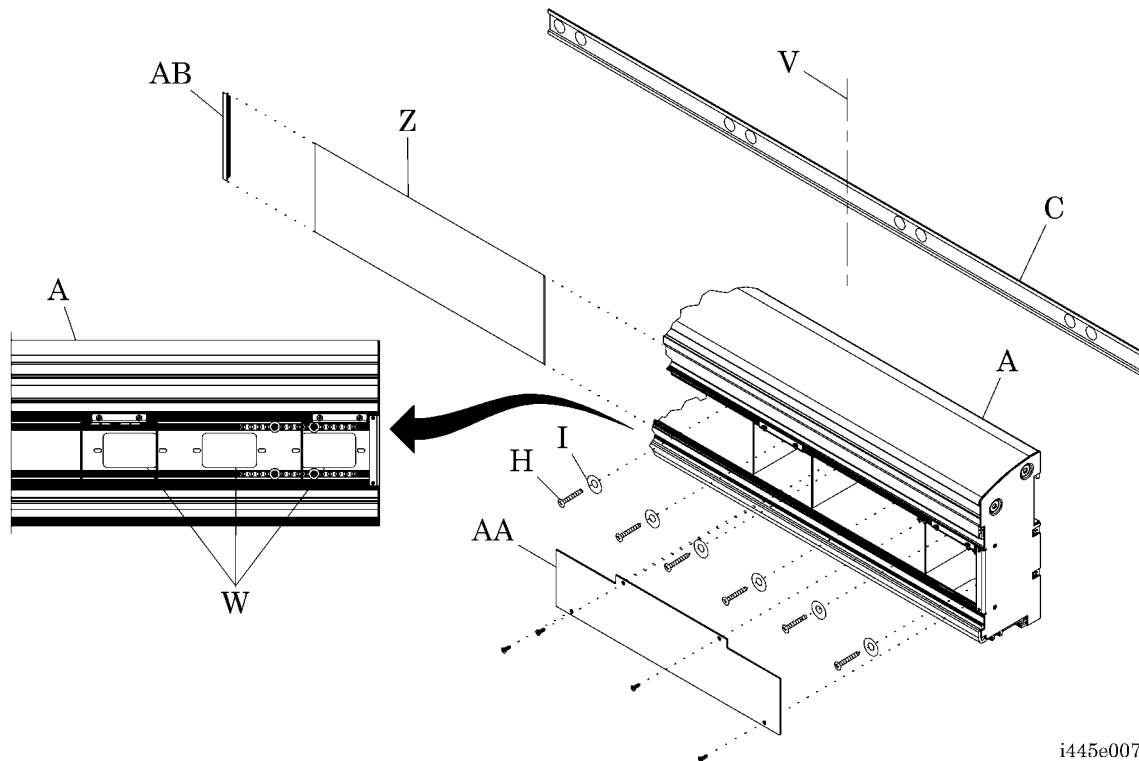
WARNING:

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 Integris® 2001B Headwall System. Personal injury or equipment damage could occur.

2. Ensure that the wall meets the required specifications:
 - On **non-seismic** construction, make certain the walls are constructed of at least 20 gauge steel studs on 16" (41 cm) centerlines and covered with a minimum of 5/8" (15.9 mm) dry wall.
 - On **seismic** construction requirements, contact Hill-Rom Technical Support at 800-445-3720.

3. With the raceway (A) on the floor, perform the following (see figure 6 on page 12):

Figure 6. Raceway Positioning and Junction Box Installation



- a. Remove the fascia cover (Z) by pushing up on it to free its bottom edge.
- b. Remove the junction box cover (AA).
4. Feed wires from wall boxes (Y) through the holes in the back of the raceway (A) (see figure 5 on page 9).
5. Position the raceway (A) on the hanger bracket (C), and align with the rough-in boxes (W) (see figure 6 on page 12).
6. Verify that the raceway (A) is properly positioned on the bed centerline (V).
7. Install the six truss head screws (H) and dish-type lockwashers (I) through the junction box and into the flanges of the rough-in boxes (W) to secure the raceway (A).

NOTE:

Installation of the six truss head screws is required to meet National Electrical Code®¹ (NEC®²) Article 517, *Redundant Ground Requirements*.

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8. After making the electrical connections, install the junction box cover (AA), fascia cover (Z), and cover trim (AB).

Securing the Raceway to the Wall

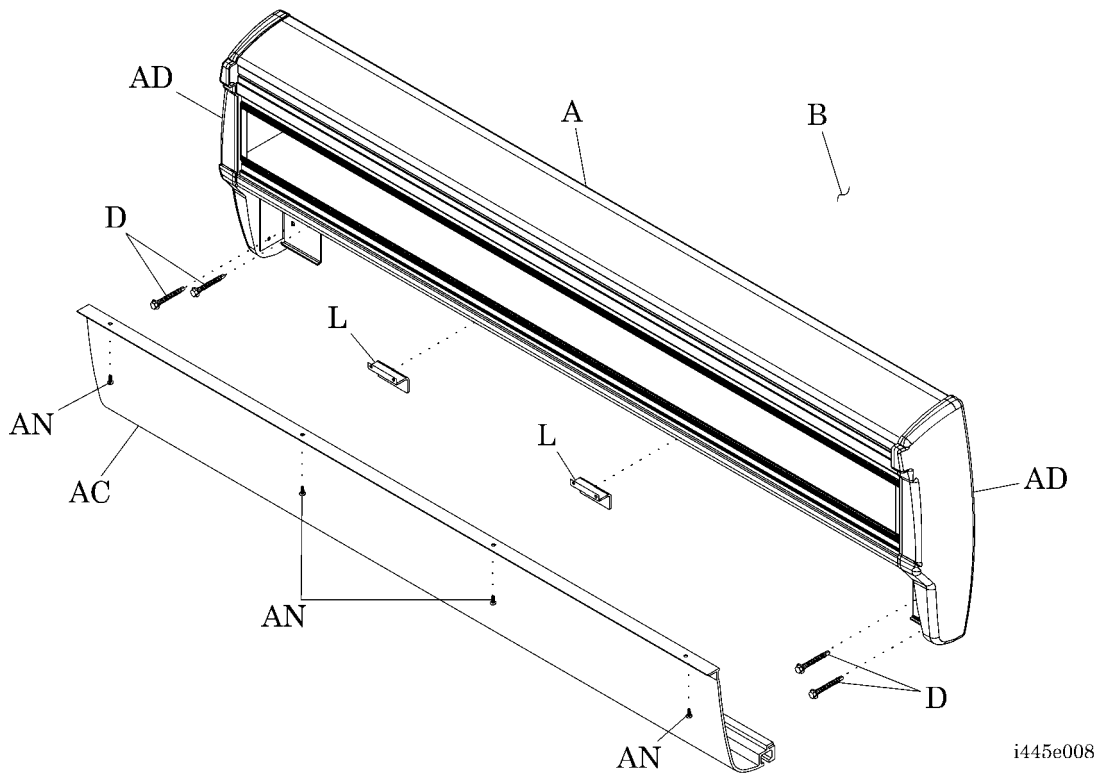


WARNING:

Secure the raceway in a minimum of four places per 7' (213 cm) run of headwall length. Failure to do so could result in the collapse of the Integris® 2001B Headwall System.

1. Remove and **retain** the gas pipe cover screws (AN) (see figure 7 on page 13).

Figure 7. Raceway Mounting



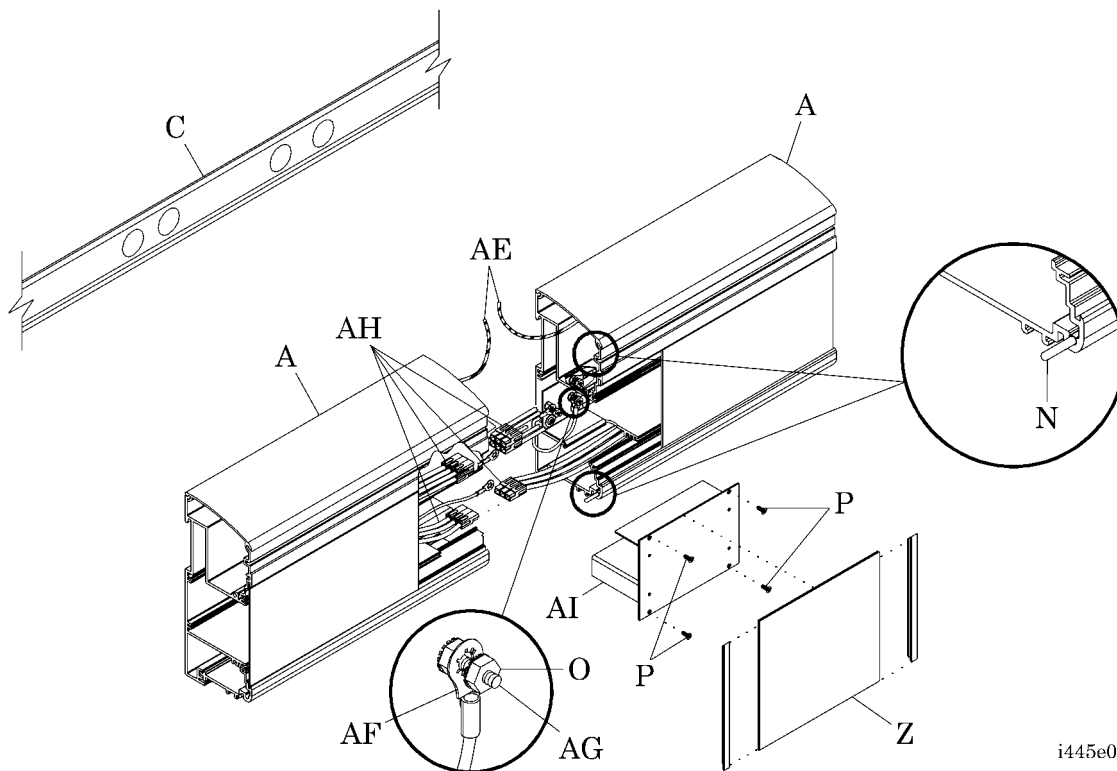
2. Remove and **retain** the gas pipe cover (AC). Save for assembly.
3. Fasten the raceway (A) through the endplate (AD) and into the wall (B) as follows:
 - On **seismic** construction or fire-rated walls (B), install the self-drilling hex head screws (D).

- On **non-seismic** construction, install the E-Z Ancor®¹ screw anchors (J) and the pan head screws (K), or install the slotted round screws (F), toggle wings (G), and cup washers (E) (see figure 3 on page 5).
4. Locate the installation clips (L), provided in the bag assembly, and align them with the wall studs (see figure 7 on page 13).
 5. Install the truss head screws (M) (see figure 3 on page 5) to secure the installation clips (L) to the raceway (A) (see figure 7 on page 13).
 6. Install the self-drilling hex head screws (M) (see figure 3 on page 5) to secure the installation clips (L) to the wall (B) (see figure 7 on page 13).
 7. Make the wiring connections.
 8. Go to “Connecting the Gas Pipe” on page 15.

Mounting Multiple Sections

1. Hang the adjoining raceway (A) on the hanger bracket (C) (see figure 8 on page 14).

Figure 8. Mounting Multiple Sections



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2. Check for proper alignment of the transition pins (N) and the adjoining raceway (A).

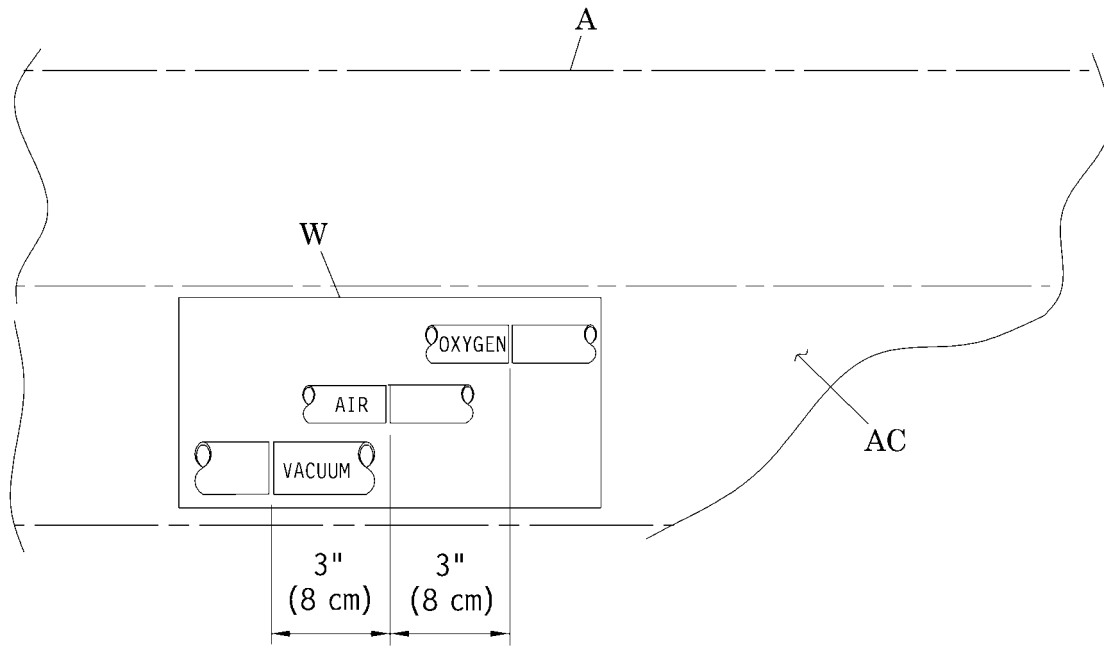
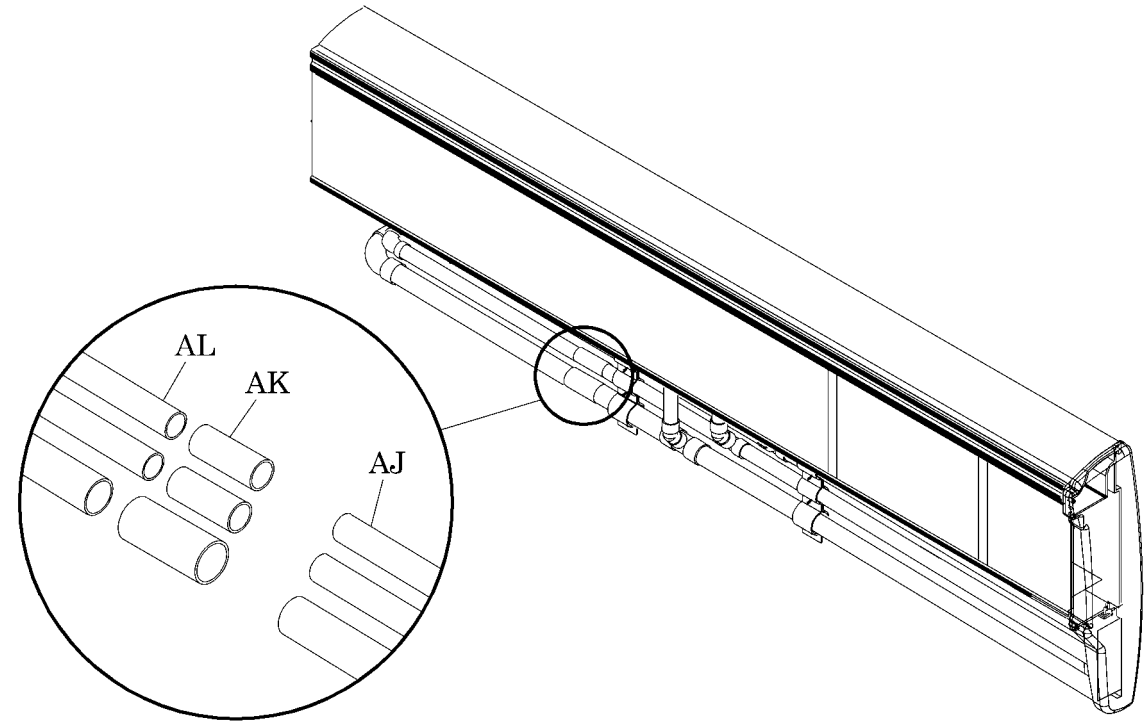
1. E-Z Ancor® is a registered trademark of Illinois Tool Works, Inc.

3. Locate the two strings (AE) attached to the low voltage assemblies on the transition end of both raceways (A), and tie the two strings (AE) together.
4. Join the raceways (A), and ensure that the adjoining ends are flush.
5. Connect the wiring between the raceways (A).
 - a. Pull the loose ends of wiring loops out of the ends of each raceway (A).
 - b. Sort the wires for **Standard Power, Critical Branch, and Communication**.
 - c. Install the ground wires (AF) on the posts (AG) using the locknut (O).
 - d. Connect each wiring connector (AH) to the corresponding connector in the adjoining raceway (A). For the correct wiring connections, refer to the as-built drawings.
 - e. Place the wires in the appropriate raceways (A).
6. Align the cover (AI) with the four grooves in the raceways (A).
7. Ensure that no wires are pinched between the raceway (A) and the cover (AI).
8. Install the four flat head screws (P) to secure the cover (AI) to the raceway (A).
9. Slide the fascia cover (Z) up into the base of the raceway (A) and down into the bottom of the raceway (A).

Connecting the Gas Pipe

1. Remove the gas pipe cover screws (AN) (see figure 7 on page 13) and the gas pipe cover (AC) from the raceway (A) (see figure 9 on page 16).
2. Remove the plastic caps from the end of the gas manifold (AJ).
3. Using the facility-supplied couplings (AK), connect the gas manifold (AJ) to the corresponding facility gas lines (AL) for vacuum, medical air, and oxygen in the rough-in boxes (W).
4. Braze the couplings (AK), gas manifolds (AJ), and facility gas lines (AL) according to the *Standard for Health Care Facilities*, NFPA 99.
5. Check the brazed joints for leaks.

Figure 9. Gas Pipe Connection



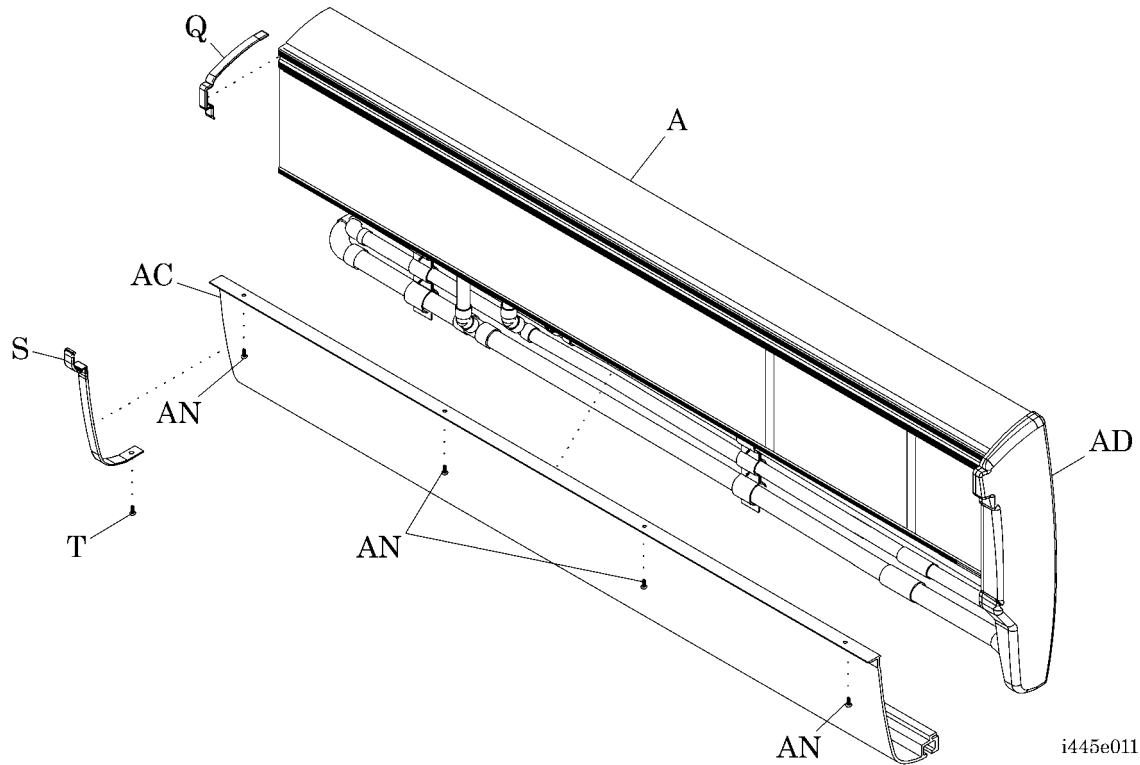
Gas stub layout

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Installing the Covers

1. Hook the lower edge of the gas pipe cover (AC) on the endplates (AD) (see figure 10 on page 17).

Figure 10. Installing Gas Pipe Cover



2. Align the gas pipe cover (AC) with the slots in the bottom of the raceway (A).
3. Install the gas pipe cover screws (AN) as required, based on the length of the gas pipe cover (AC) and raceway (A).
4. Install the top splice cover (Q) and the lower splice cover (S) over the joint where the two raceways (A) meet.
5. Install the screw (T) to secure the lower splice cover (S) to the aluminium slide lock.

NOTES:
