



- Nonflammable Medical Gas Pipeline Systems must follow CSA Z7396.1: *Medical Gas Pipeline System - Part 1: Pipelines for Medical Gases and Vacuum*
- CSA Z318.0: *Commissioning of Health Care Facilities*

**NOTE:**

Emergency power and essential power will be referred to as critical power in these instructions.

## **Contour® Headwall System Installation**

Go to “Ceiling Rough-in Unit” on page 6 to install the optional ceiling rough-in.

### **Standard Rough-in Unit**

1. Make sure the hanger brackets (A and B) are installed correctly (see figure 1 on page 3) for the type of wall and material configuration. Refer to the *Contour® Headwall System Hanger Bracket (P668B01) Installation Instructions (154359)*.

**NOTE:**

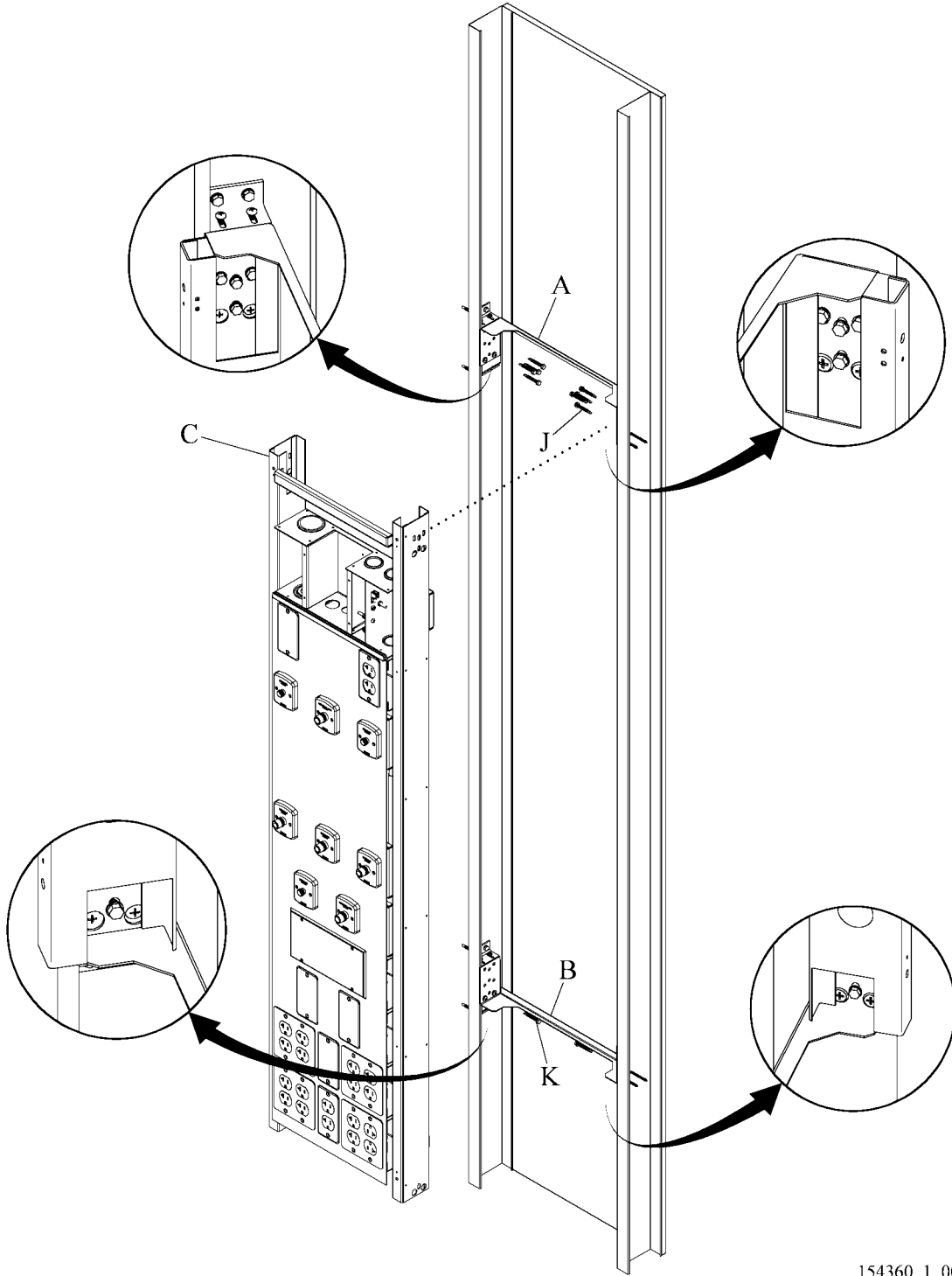
The position of the support wall studs must be between 15 7/8" (40.32 cm) and 16 1/8" (40.96 cm) on center and must be at least 25-gauge steel. The open area between the studs must be 14 3/4" (37.47 cm) ± 1/8" (3.2 mm). If you use 1 5/8" (4.13 cm) studs, the position of the studs must be adjusted to keep them at an interval of 14 3/4" (37.47 cm).

**NOTE:**

When you install a standard rough-in Contour® Headwall System, the top surface of the upper hanger must measure 80 3/8" (204.15 cm) from the finished floor line and the bottom surface of the lower hanger bracket must measure 17 1/4" (43.82 cm) from the finished floor line. There must be 63 1/8" (160.34 cm) between the upper and lower hanger brackets.

2. Unpack the Contour® Headwall System (C) and make sure the headwall (C) meets the requirements for the room (refer to the approved shop drawings or architectural plans).
3. Put the headwall (C) down on a flat surface.

**Figure 1. Contour® Headwall System Hanger Bracket and Headwall**



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4. Examine the unit for damage.
5. Remove and keep the bag attached to the accessory track frame (D) (see figure 2 on page 5).
6. Slide the accessory track frame (D) upward to disengage the four screws (E).
7. Remove and keep the accessory track frame (D).
8. Remove and keep the top access panel (F).
9. Remove and keep the four screws (G) that attach the junction box cover (H) to the junction box (I).
10. Remove and keep the junction box cover (H) from the headwall (C).
11. Set the headwall (C) on the hanger bracket (B).
12. Turn the headwall (C) on the hanger bracket (A).
13. Push the headwall (C) on the hanger brackets (A and B) until the headwall (C) is seated against the rear and bottom of hanger bracket (B) and rear of hanger bracket (A).

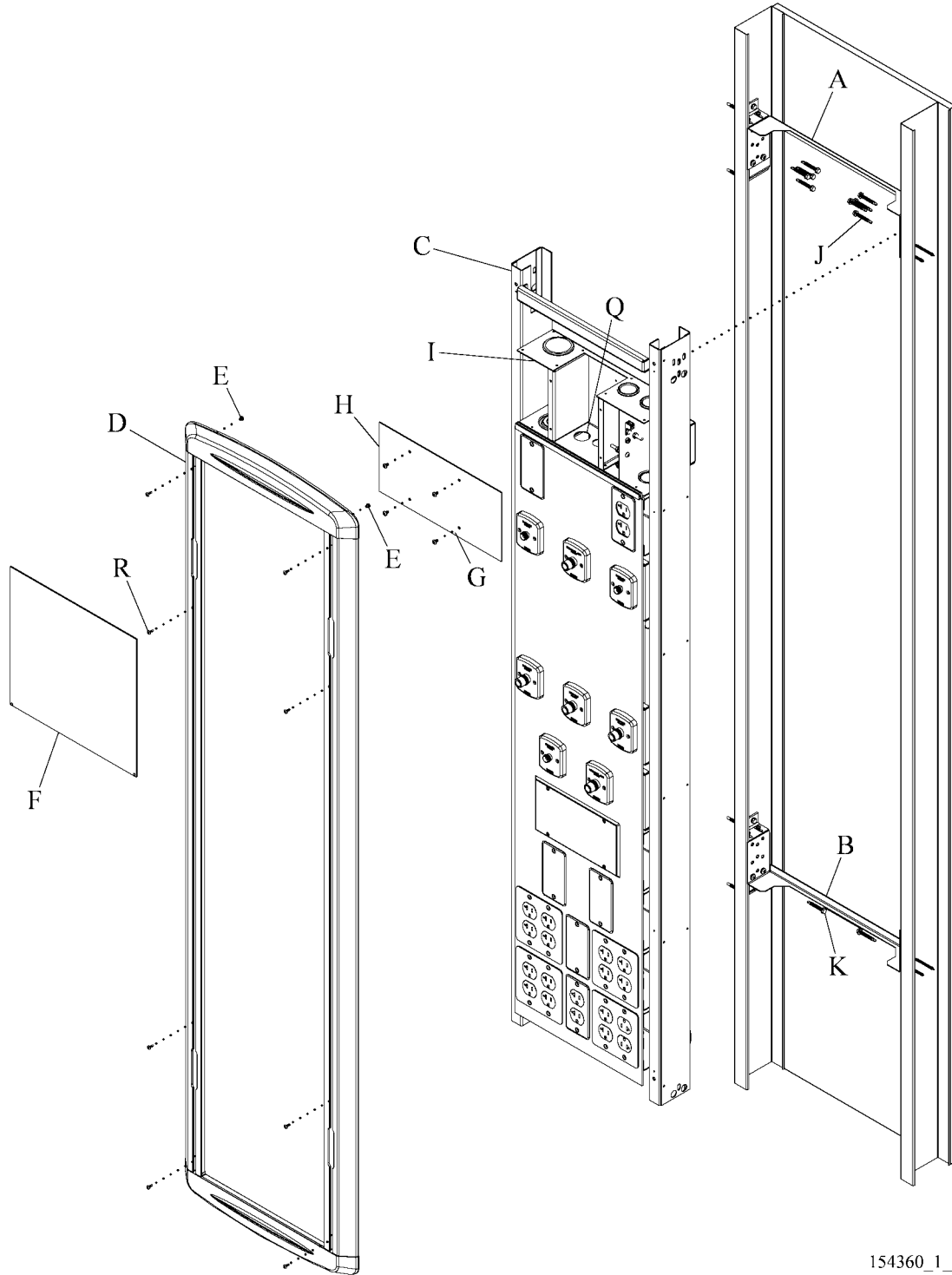


**WARNING:**

Attach the headwall to the hanger and the retainer brackets immediately after you put the headwall into the mount location. Failure to do so could cause injury or equipment damage.

14. Immediately after you put the headwall (C) into the mount location, install the eight self-drilling screws (J) to attach the top of the headwall (C) to the hanger (A) and the studs.
15. Install the two self-drilling screws (K) from the bag assembly to attach the bottom of the headwall (C) to the hanger bracket (B) and the stud.
16. Make sure the Contour<sup>®</sup> Headwall System (C) is level and examine the fit of the accessory track frame (D) against the wall. It must fit against and around the headwall (C) when hung on the screws (E).
17. Put all of the parts removed in step 5 through step 10 in a safe location where they can be found easily. These parts are installed after the headwall (C) is fully connected to the facility's gas and electric services.
18. If the parts can not be put in a safe location, do step 3 through step 7 on page 11 to install them now.

**Figure 2. Contour® Headwall System Accessory Frame**



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**NOTE:**

If the parts are installed, the electrical and mechanical contractors have to remove them before they start their work.

### **Ceiling Rough-in Unit**

1. Refer to the *Contour® Headwall System Hanger Bracket (P668B01) Installation Instructions* (154359) to make sure the wall is prepared correctly for the type of wall and material configuration.

**NOTE:**

When you install a ceiling rough-in Contour® Headwall System, you must remove the stud wall top plate in the stud bay where the material is to be installed.

2. Unpack the Contour® Headwall System (C) and make sure the headwall (C) meets the requirements for the room (refer to the approved shop drawings or architectural plans) (see figure 3 on page 8).
3. Put the headwall (C) down on a flat surface.
4. Examine the unit for damage.
5. Remove and keep the bag attached to the accessory track frame (D).
6. Slide the accessory track frame (D) upward to disengage the four screws (E).
7. Remove and keep the accessory track frame (D).
8. Remove and keep the top access panel (F).
9. Remove and keep the four screws (G) that attach the junction box cover (H) to the junction box (I).
10. Remove and keep the junction box cover (H) from the headwall (C).
11. Set the headwall (C) into the stud wall.



**WARNING:**

Attach the headwall to the hanger and the retainer brackets immediately after you put the headwall into the mount location. Failure to do so could cause injury or equipment damage.

12. Put the rough-in plate (L) on the stud wall top plate (M).

13. Immediately after you put the headwall (C) into the mount location, do these steps:
  - a. Install the lower hanger bracket (B) to the headwall (C).
  - b. Install the two self-drilling screws (K) from the bag assembly to attach the bottom of the headwall (C) to the hanger bracket (B) and the stud.
  - c. Install the eight self-drilling screws (J) to attach the top of the headwall (C) to the studs.
14. Use the four self-drilling screws (J) to attach the rough-in rear top plate (N) to the rough-in plate (L). The rough-in rear top plate (N) must be even with the rear surface of the studs.
15. Make sure the Contour® Headwall System (C) is level and examine the fit of the accessory track frame (D) against the wall. It must fit against and around the headwall (C) when hung on the screws (E).
16. Put all of the parts that were removed in step 5 through step 10 on page 6 in a safe location where they can be found easily. These parts are installed after the headwall (C) is fully connected to the facility's gas and electric services.
17. If the parts can not be put in a safe location, do step 3 through step 7 on page 11 to install them now.

**NOTE:**

If the parts are installed, the electrical and mechanical contractors have to remove them before they start their work.



## Electrical Contractor



### **SHOCK HAZARD:**

Correctly wire, ground, and do a test of the Contour® Headwall System in accordance with all applicable national, state or provincial, and local codes. Failure to do so could cause injury or equipment damage.

1. Make the applicable electrical connections for the normal power and critical power circuits in accordance with NFPA 70 (CSA-C22.1 and CSA-C22.2 for Canadian installations).
2. If low-voltage devices will be installed, use the pull cords supplied to pull the low-voltage wire and cables to the correct locations.
3. Make sure normal power goes to normal power outlets (O) and critical power goes to critical power outlets (P) (see figure 3 on page 8).
4. Make sure the polarity of the power outlets (O) and (P) is correct.
5. Make sure the ground circuit impedance and voltage values are correct.
6. Do a test of the electrical connections in accordance with all other applicable national, state or provincial, and local codes.

## Medical Gas Contractor



### **WARNING:**

Shield the adjacent electrical conduit and wires from the heat of the brazing torch. Failure to do so could cause injury or equipment damage.

1. Use a heat shield blanket to shield the adjacent surfaces and electrical conduit from the heat of the brazing torch as necessary.
2. If the electric wires are loose, use tape to attach them to the outside walls of the junction boxes (I) to shield them from the heat of the brazing torch (see figure 3 on page 8).
3. Braze the medical gas risers (Q) in the headwall (C) to the gas service drops in accordance with NFPA 99 requirements.
4. Make sure there are no leaks where the oxygen riser in the headwall (C) connects to the facility's oxygen drop. Repair if necessary.

**WARNING:**

Do a test for the correct medical gas and vacuum connections in accordance with the applicable national, state or provincial, and local codes. Incorrect connection of medical gas or vacuum can cause injury to patients.

5. Do a test of all the medical gas connections in accordance with all applicable national, state or provincial, and local codes.

## Final Inspection and Installation

**WARNING:**

Make sure to follow all national, state or provincial, and local building and electrical codes when you do this installation. Install these products in accordance with the National Fire Protection Association<sup>®1</sup> NFPA 70: *National Electrical Code*<sup>®</sup> (NEC<sup>®</sup>) and NFPA 99: *Standard for Health Care Facilities*. In Canada, install in accordance with the Canadian Standards Association (CSA<sup>®2</sup>) Parts 1 and 2 of the *Canadian Electrical Code* (CSA-22.1 and CSA-C22.2), Part 1 of CSA Z7396.1, and CSA Z318.0. Failure to install the unit in accordance with these requirements could cause injury and equipment damage.

1. Connect the electrical and communications services in accordance with all national, state or provincial, and local building and electric codes, and as follows:

For USA installations:

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

For Canadian installations:

- Canadian Standards Association (CSA<sup>®</sup>) Parts 1 and 2 of the *Canadian Electrical Code* (CSA-22.1 and CAN/CSA-C22.2)

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2. CSA<sup>®</sup> is a registered trademark of Canadian Standards Association, Inc.

2. Have the contractor make the medical gas hookups to the facility medical gas system pipelines. Make sure the medical gas hookups are in accordance with the last editions of these specifications, as well as all applicable national, state or provincial, and local codes:

For USA installations:

- National Fire Protection Association®<sup>1</sup> NFPA 99: *Standard For Health Care Facilities*

For Canadian installations:

- Nonflammable Medical Gas Pipeline Systems shall comply with Canadian Standards Association (CSA®<sup>2</sup>) CSA Z7396.1: *Medical Gas Pipeline Systems - Part 1: Pipelines for Medical Gases and Vacuum*
- CSA Z318.0: *Commissioning of Health Care Facilities*

3. Install the four screws (G) to attach the junction box cover (H) to the junction box (I) (see figure 3 on page 8).
4. Slide the top access panel (F) into the correct position on the headwall (C).



**WARNING:**

Failure to install the accessory tracks as instructed could cause injury or equipment damage.

5. Hang the accessory track frame (D) on the mount screws (E).



**CAUTION:**

Make sure the screws used to mount the accessory track frame are not over-tightened. To do so could cause equipment damage.

6. Install the eight screws (R) to attach the accessory track frame (D) sides to the sides of the headwall (C).
7. Securely tighten the eight screws (R). Do not over-tighten.

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



**NOTES:**

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