



**Subject: Contour® Headwall System Hanger Bracket (P668B01)
Installation Instructions**

Tools required: #2 phillips head screwdriver Level
Reciprocating saw 5/16" nut driver
Tape measure Pencil
Electric drill or power screwdriver
Ground impedance tester
Approved shop drawings or architectural plans

Parts required: (2) 152692 Hanger bracket
(2) 153313 Stud filler assembly
(8) 5314301 Screw, self-drilling
(8) 58902025000 Screw, flat head

Related Documents: *Contour®¹ Headwall System (667B) Installation Instructions (154360)*
Contour® Headwall System Design and Application Manual (DS178)

Introduction



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®² *NFPA 70: National Electrical Code® (NEC®)* and *NFPA 99: Standard for Health Care Facilities*. In Canada, install in accordance with the Canadian Standards Association (CSA®³) 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.

Install the Contour® Headwall Hanger Bracket in accordance with all national, state or provincial, and local building and electric codes, and in accordance with these standards:

For USA installations:

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

1. Contour® is a registered trademark of Hill-Rom Services, Inc.
2. National Fire Protection Association®, National Electrical Code®, and NEC® are registered trademarks of National Fire Protection Association, Inc.
3. CSA® is a registered trademark of Canadian Standards Association, Inc.

For Canadian installations:

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

The Contour® Headwall System is designed to mount in walls finished with 5/8" (15.9 mm) dry wall. Special considerations must be taken to mount the headwall in any other type of wall.

Prepare the Wall for Installation

NOTE:

The Contour® Headwall System is designed to mount in walls finished with 5/8" (15.9 mm) dry wall.



WARNING:

Make sure the wall is constructed of sufficient strength and quality for the Contour® Headwall System installation and use. Failure to do so may cause injury or equipment damage.

1. Have a structural engineer examine the wall to make sure it has sufficient strength to hold the Contour® Headwall System and the planned loads for the accessories.

NOTE:

The Contour® Headwall System weighs approximately 60 lb (27 kg). The safe working load for accessories is 250 lb (113 kg).

2. Compare the contents of the container used to ship the headwall with the packing list. If any parts are not there, call Hill-Rom Technical Support at 800-445-3720.
3. Refer to the approved shop drawings or architectural plans for the location of the installation and the two support wall studs.

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. The support wall studs must be 25-gauge steel or heavier. The opening between the support wall studs must be 14 3/4" (37.47 cm) \pm 1/8" (3.2 mm). If you use 1 3/8" (4.13 cm) wide studs, the position of the studs must be adjusted to maintain the opening at 14 3/4" (37.47 cm).

4. If the finished floor (A) is not installed, find the finished floor line and put a mark to show the location (see figure 1 on page 4).
5. For a standard rough-in unit, do these steps:
 - a. Put two marks on the first support wall stud (B): one mark (C) at 17 1/4" (43.82 cm) from the finished floor (A) and one mark (D) at 80 3/8" (204.15 cm) from the finished floor (A).
 - b. Make sure the support wall stud (B) is rotated to have the flat surfaces face each other. This will eliminate the need for the stud filler assembly.
 - c. Put two marks on the second support wall stud (E) that align with the two marks on the first wall stud (B).
 - d. Make sure the marks on the support wall studs (B) and (E) are aligned and level with the finished floor (A).
6. If the Contour® Headwall System is to be installed where the dry wall has already been hung, do these steps:
 - a. Make sure the wall surface is flat and smooth.
 - b. Cut an access hole in the dry wall that measures approximately 14 1/2" (36.83 cm) wide by 63 1/8" (160.34 cm) tall.
7. For a ceiling rough-in option unit, do these steps:
 - a. Rotated the support stud (E) so the stud flat surfaces face each other. The stud rotated surfaces are 16" (40.64 cm) on center.
 - b. Cut and remove the portion (F) of the stud wall top plate (V) between the support wall studs (B) and (E) (see figure 2 on page 5).

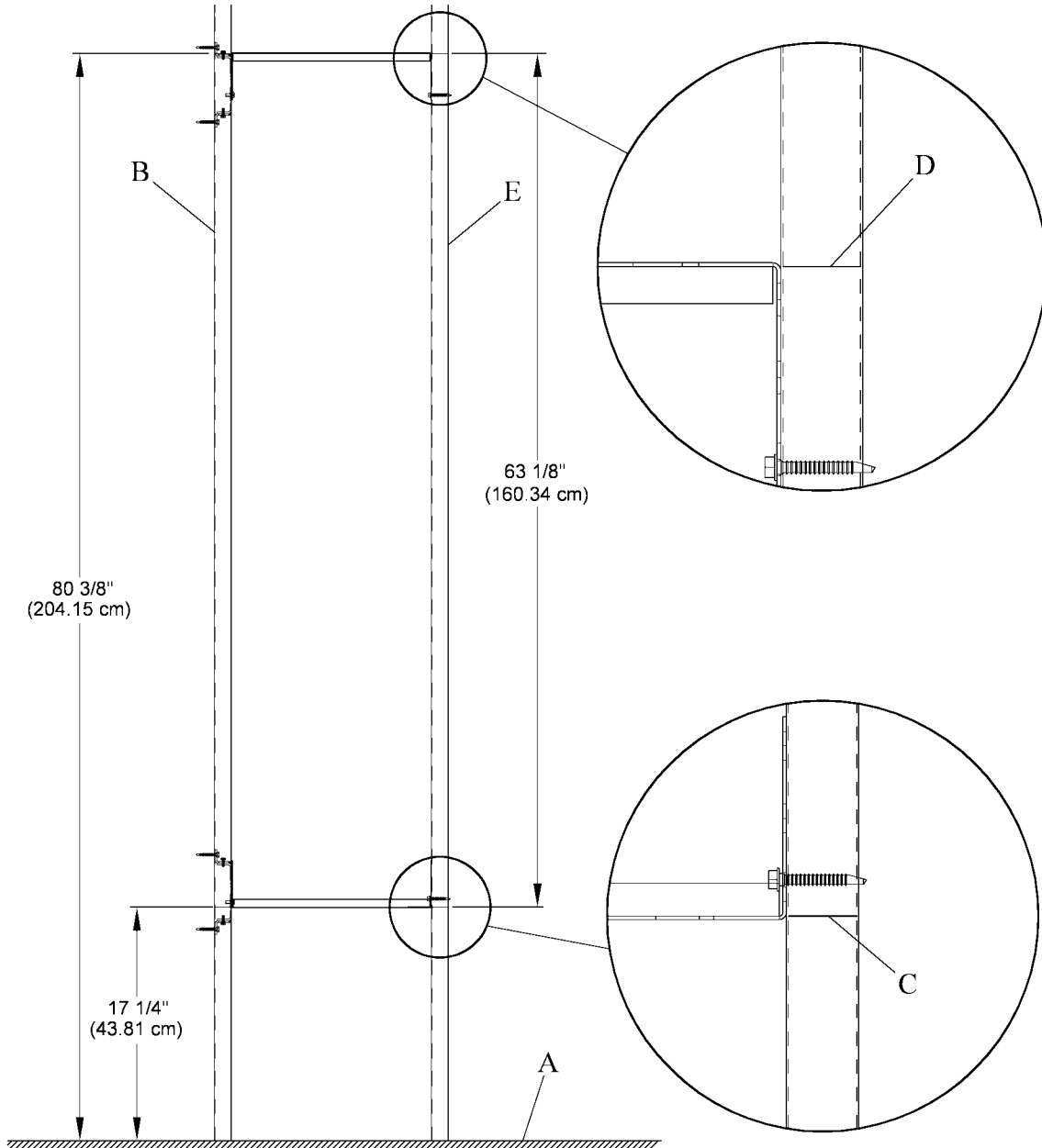
NOTE:

The cut area of the stud wall top plate is the area where the Contour® Headwall System will be installed.

NOTE:

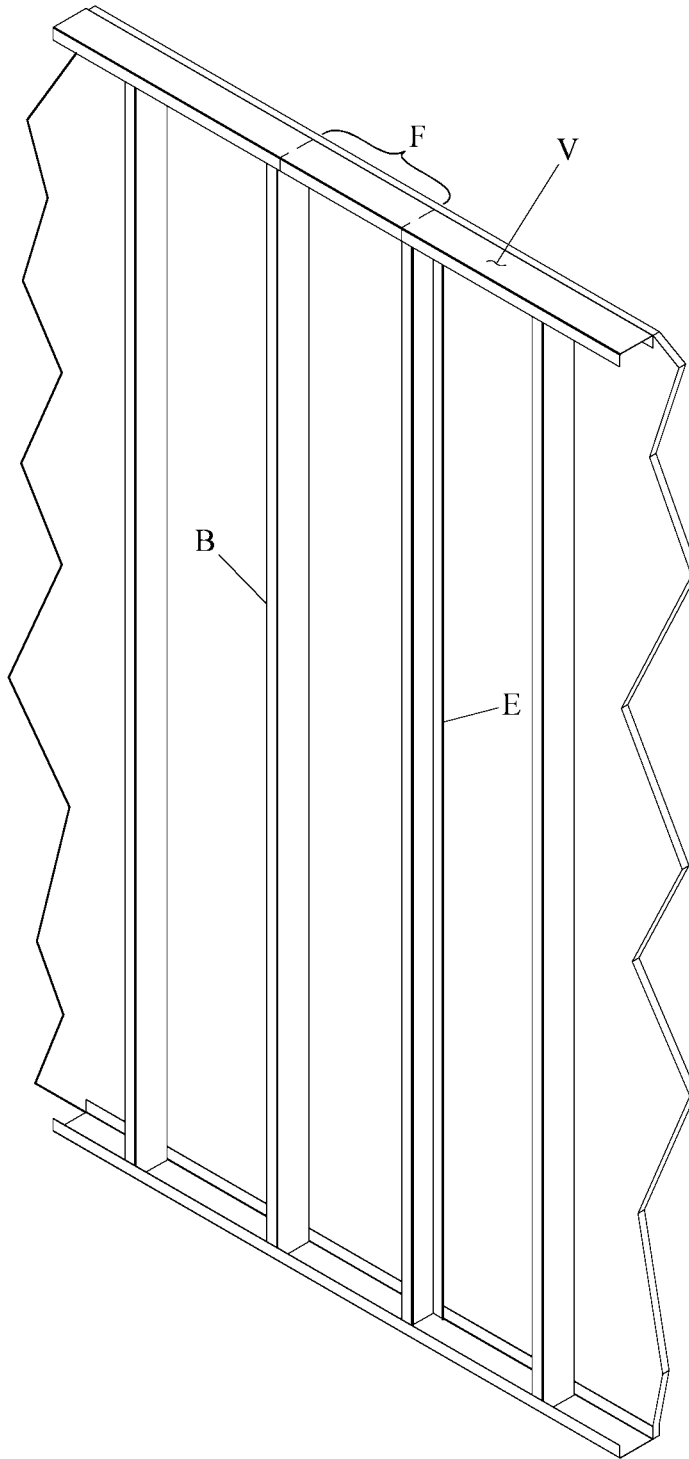
If the ceiling rough-in option must be installed, install it before the dry wall has been hung.

Figure 1. Wall Preparation, Standard Rough-In



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Figure 2. Wall Preparation, Ceiling Rough-In



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Install the Upper Hanger Bracket

Standard Rough-In Unit—Normal Stud Arrangement

1. Align the front edge of the upper hanger bracket (G) with the front face of the support wall stud (E) (see figure 3 on page 7).

NOTE:

The upper hanger bracket is first mounted on the support wall stud with the “flat face” of the support wall stud exposed.

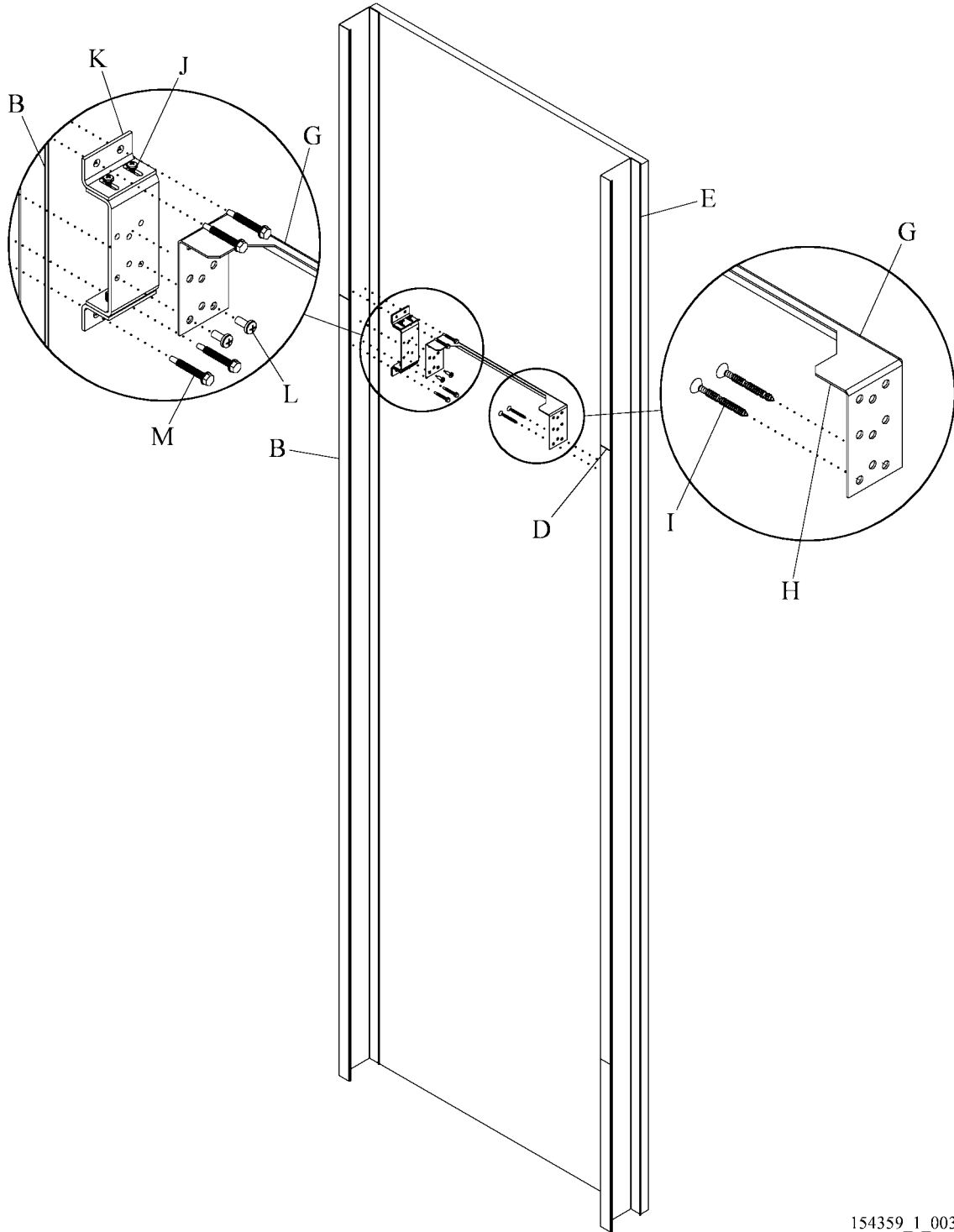
2. Align the top surface (H) of the upper hanger bracket (G) with the highest mark (D) on the support wall stud (E).
3. Make sure the “flat face” of the support wall stud (E) is exposed and attach the upper hanger bracket (G) to the support wall stud (E) with the two self-drilling screws (I).
4. Loosen the four screws (J) on the stud filler (K) until it adjusts easily.

NOTE:

The mount holes in the stud filler bracket for the upper hanger bracket are offset from the center. Make sure these holes are offset towards the stud face when you install it.

5. Set the stud filler (K) between the upper hanger bracket (G) and the “offset face” of the second support wall stud (B).
6. Adjust the stud filler (K) until it touches the upper hanger bracket (G) and the support wall stud (B); then tighten the four screws (J) to keep the adjustment.
7. Align the screw holes in the stud filler (K) with the clearance holes in the upper hanger bracket (G).
8. Attach the stud filler (K) to the upper hanger bracket (G) with the two self-drilling screws (L).
9. Make sure the stud filler (K) and upper hanger bracket (G) are level; then attach the stud filler (K) to the support wall stud (B) with the four self-drilling screws (M).

Figure 3. Standard Rough-In Unit—Normal Stud Arrangement

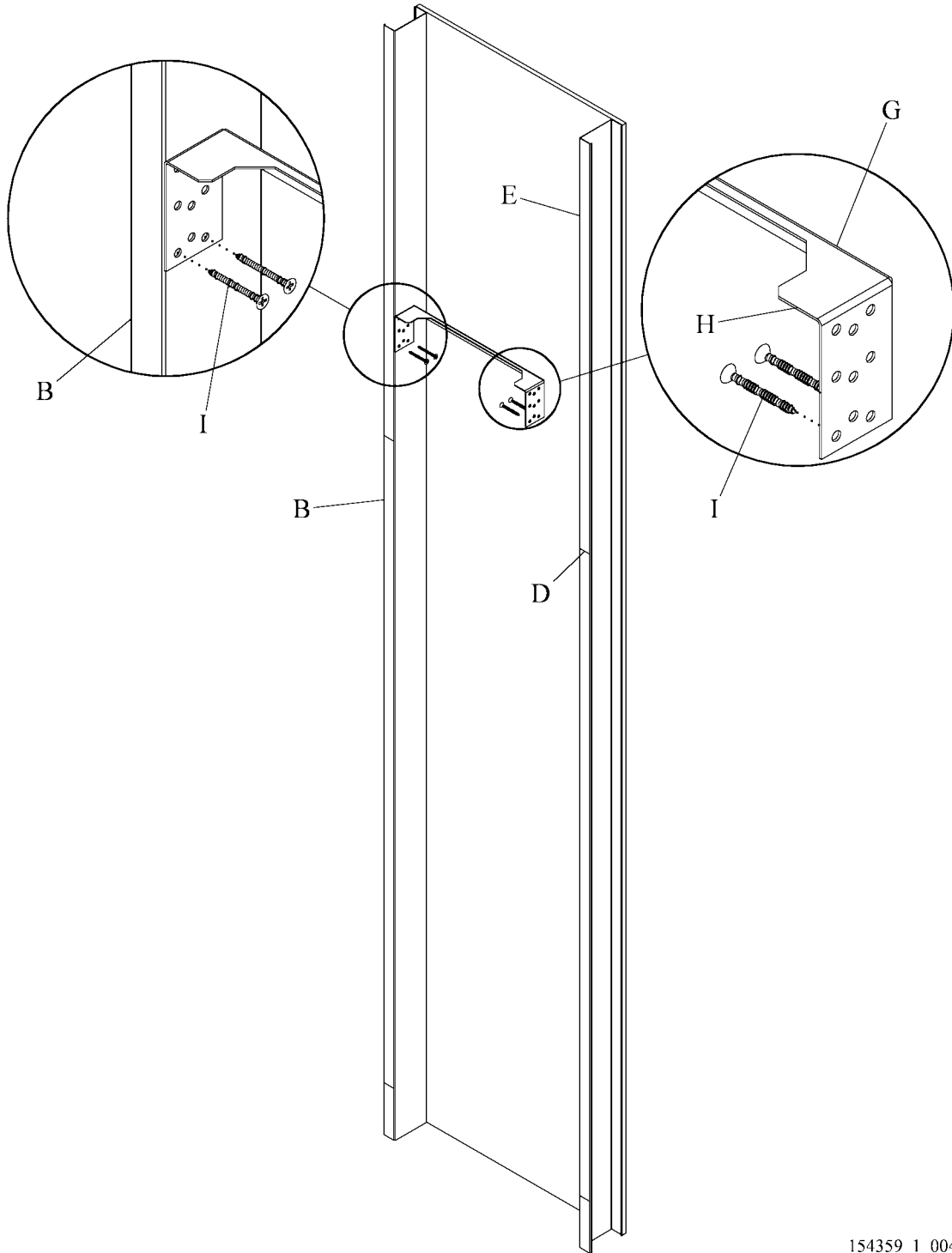


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Standard Rough-In Unit—Revised Stud Arrangement (Stud Rotated)

1. Align the front edge on the upper hanger bracket (G) with the front face of the support wall stud (E) (see figure 4 on page 9).
2. Align the top surface (H) of the upper hanger bracket (G) with the highest mark (D) on the support wall stud (E).
3. With the upper hanger bracket (G) aligned for depth and height, install the two self-drilling screws (I) to attach the upper hanger bracket (G) to the support wall stud (E).
4. Make sure the upper hanger bracket (G) is level; then attach the upper hanger bracket (G) to the support wall stud (B) with the two self-drilling screws (I).

Figure 4. Standard Rough-In Unit—Revised Stud Arrangement (Stud Rotated)



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Install the Lower Hanger Bracket

Standard Rough-In Unit—Normal Stud Arrangement

1. Align the front edge on the lower hanger bracket (U) with the front face of the support wall stud (E) (see figure 5 on page 11).

NOTE:

The upper hanger bracket and the lower hanger bracket are installed on the same support wall stud.

2. Align the surface (N) of the lower hanger bracket (U) with the lowest mark (C) on the support wall stud (E).

NOTE:

The lower hanger bracket for the headwall is 17 1/4" (43.82 cm) from the finished floor. The upper hanger bracket is 80 3/8" (204.15 cm) from the finished floor. There should be 63 1/8" (160.34 cm) distance between the surfaces on the lower hanger brackets.

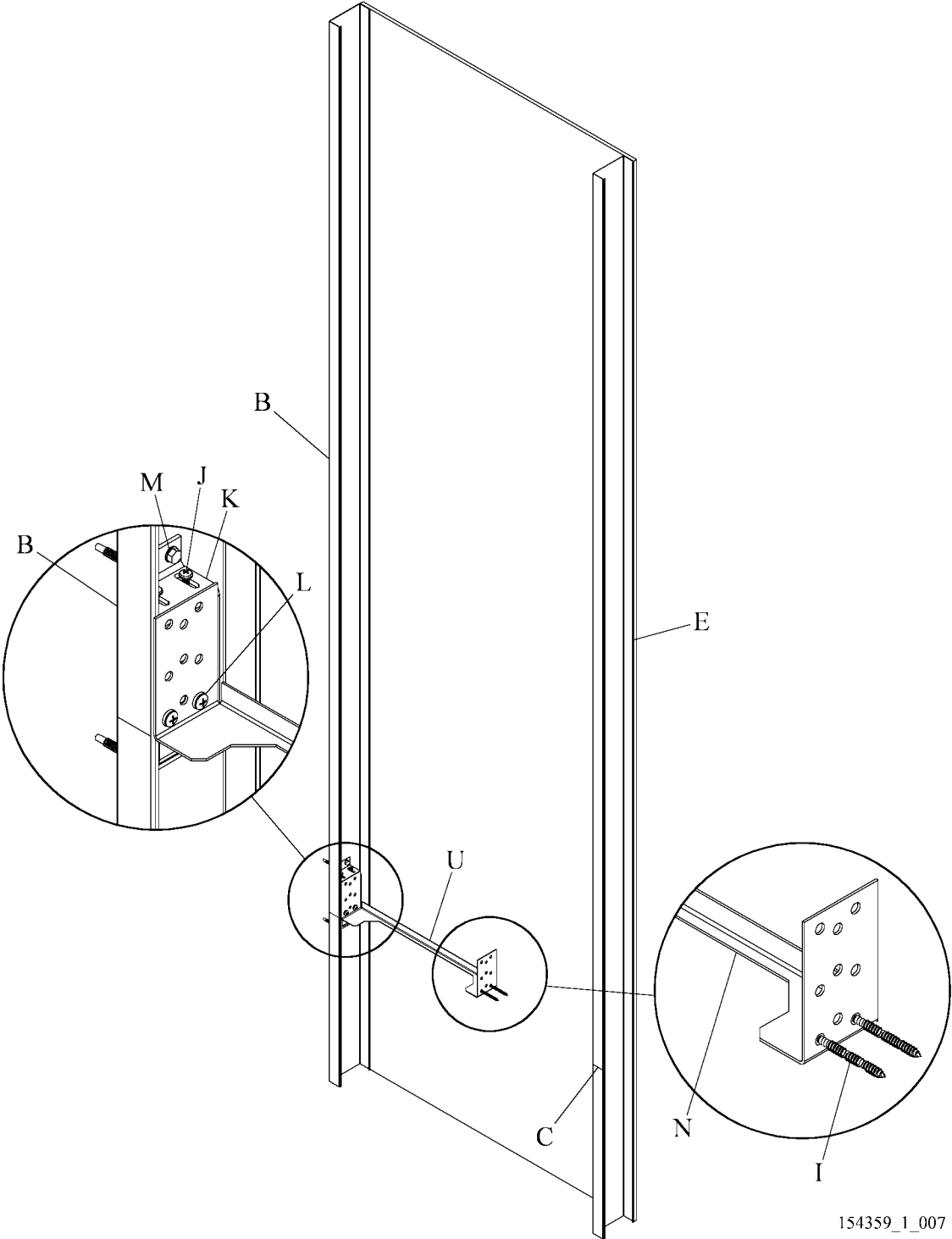
3. Make sure the lower hanger bracket (U) is aligned for depth and height and the “flat face” of the support wall stud (E) is exposed; then attach the lower hanger bracket (U) to the support wall stud (E) with the two self-drilling screws (I).
4. Loosen the four screws (J) on the stud filler (K) until it adjusts easily.

NOTE:

The mount holes in the stud filler bracket for the lower hanger bracket are offset from center. Make sure these holes are offset towards the stud face when you install it.

5. Set the stud filler (K) between the lower hanger bracket (U) and the “offset face” of the second support wall stud (B).
6. Adjust the stud filler (K) until it touches both the lower hanger bracket (U) and the support wall stud (B).
7. Tighten the four screws (J) to keep the adjustment.
8. Align the screw holes in the stud filler (K) with the clearance holes in the lower hanger bracket (U).
9. Attach the stud filler (K) to the lower hanger bracket (U) with the two self-drilling screws (L).
10. Make sure the stud filler (K) and lower hanger bracket (U) are level; then attach the stud filler (K) to the support wall stud (B) with the four self-drilling screws (M).

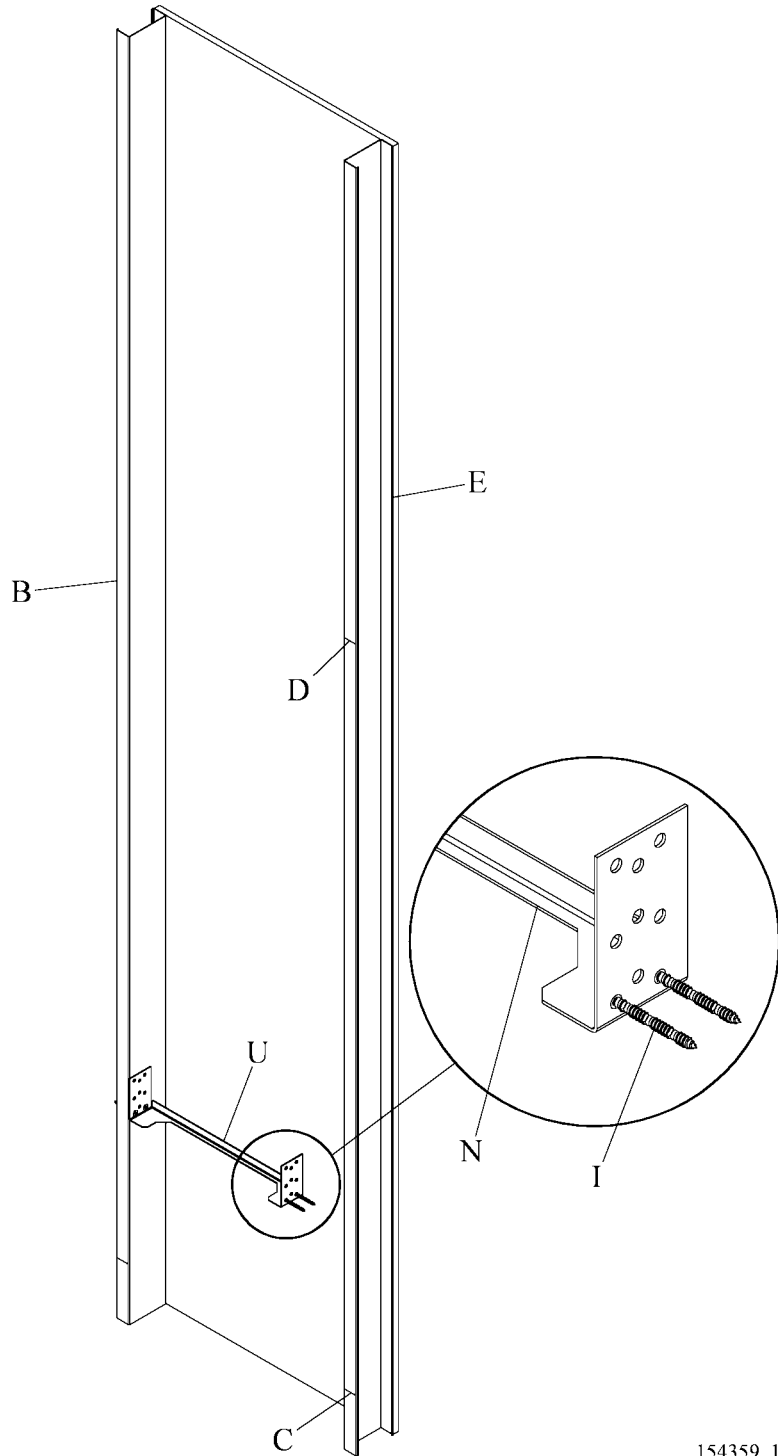
Figure 5. Standard Rough-In Unit—Normal Stud Arrangement (Lower Bracket)



Standard Rough-In Unit—Revised Stud Arrangement (Stud Rotated)

1. Align the front edge on the lower hanger bracket (U) with the front face of the support wall stud (E) (see figure 6 on page 13).
2. Align the bottom surface (N) of the lower hanger bracket (U) with the lowest mark (C) on the support wall stud (E).
3. Make sure the lower hanger bracket (U) is aligned for depth and height; then attach the lower hanger bracket (U) to the support wall stud (E) with the two self-drilling screws (I).
4. Make sure the lower hanger bracket (U) is level.
5. Attach the lower hanger bracket (U) to the support wall stud (B) with the two self-drilling screws (I).

Figure 6. Standard Rough-In Unit—Revised Stud Arrangement (Stud Rotated)



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Prepare for Medical Gas and Electric Installation Standard Rough-In Unit

Medical Gas Contractor

1. Find the approximate center lines for each medical gas drop: vacuum (O), medical air (P), and oxygen (Q) (see figure 7 on page 15).
2. Run the medical gas drops to stop approximately 80 3/8" (204.15 cm) above the finished floor or to the mark (D).

NOTE:

Do not attach the medical gas drops in position at this time. The drops need to stay flexible until the final brazing to the headwall is complete.

Electrical Contractor

1. Install the conduit to the junction box area (R) (see figure 7 on page 15).
2. Pull the wire for the normal and critical power into the junction box area (R). Make sure to leave enough free length to connect to the headwall.

NOTE:

The junction box is part of the finished assembly.

3. If low-voltage devices are to be installed, pull in the wire for the devices. Make sure to leave enough free length to connect to the low-voltage equipment.

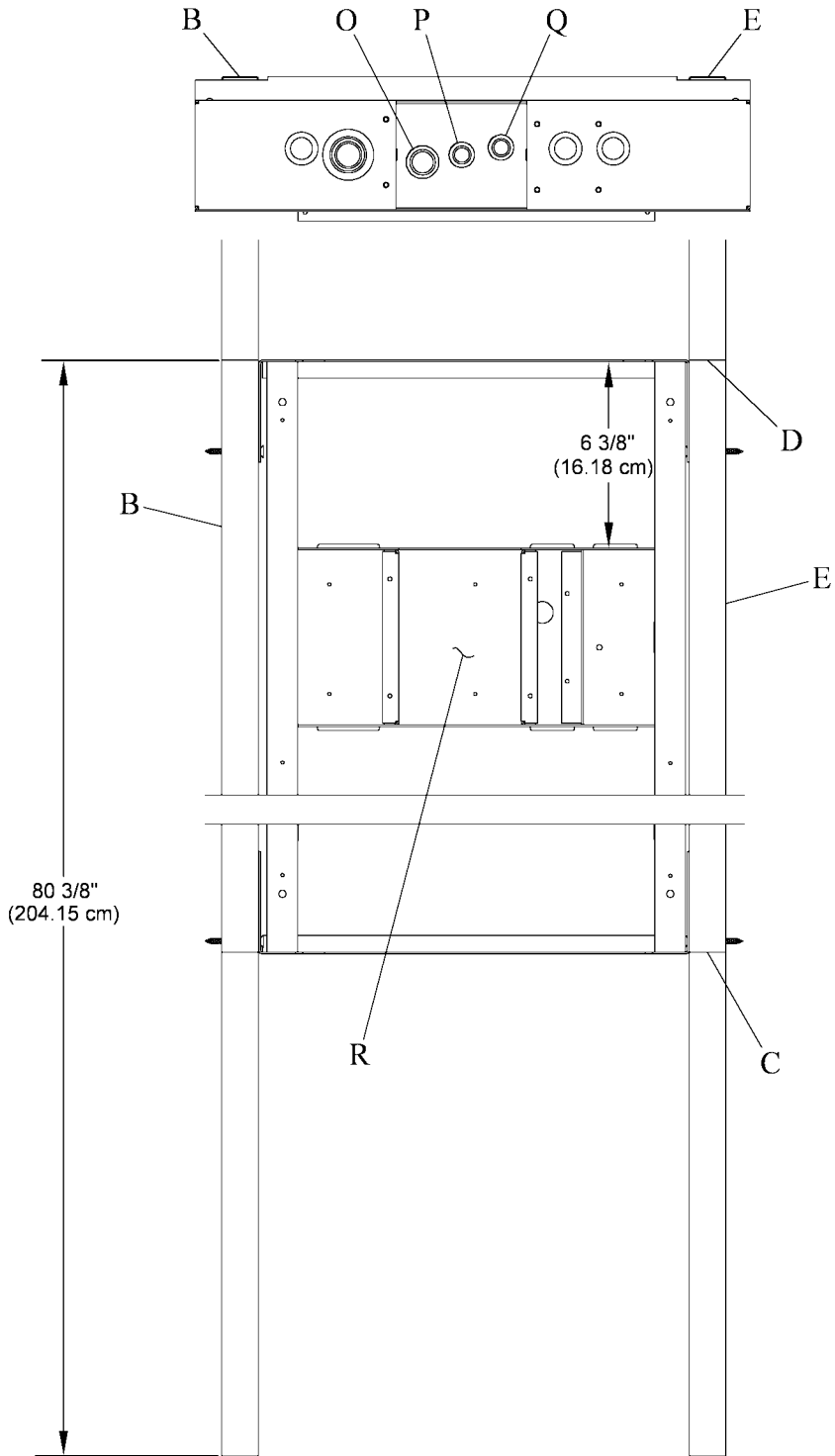
NOTE:

Do not attach the conduits in position at this time. The drops need to stay flexible until the final installation of the headwall is complete.

NOTE:

The location of the low-voltage equipment is shown in the approved shop drawings or architectural plans.

Figure 7. Medial Gas and Electrical Service Locations



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Dry Wall Contractor

1. Install the dry wall so there is an open space between the marks (D) and (C) and the inside edges of the two support wall studs (B) and (E) (see figure 7 on page 15).
2. Apply the necessary finish to the dry wall.

Finish Contractor

Install the Contour® Headwall System (P667B00). Refer to the *Contour® Headwall System (P667B) Installation Instructions* (154360).

Ceiling Rough-In Option Unit

NOTE:

Units with the optional ceiling rough-in will only require the use of the lower hanger bracket.

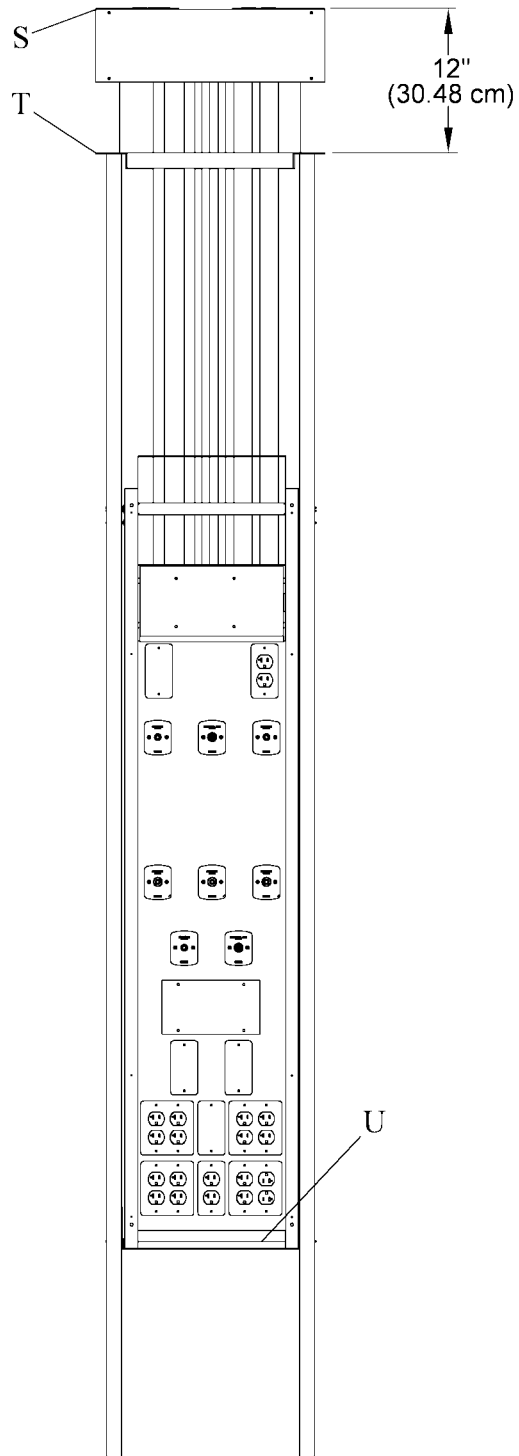
1. Install the lower hanger bracket (U) (see figure 8 on page 17) when you install the headwall system. Refer to the *Contour® Headwall System (P667B) Installation Instructions* (154360).

NOTE:

The ceiling rough-in option requires a minimum of 12" (30 cm) clearance above the stud wall top plate for the junction box.

2. Make sure the clearance between the ceiling (S) and the stud wall top plate (T) is a minimum of 12" (30 cm).

Figure 8. Ceiling Rough-In Option Unit



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NOTES:
