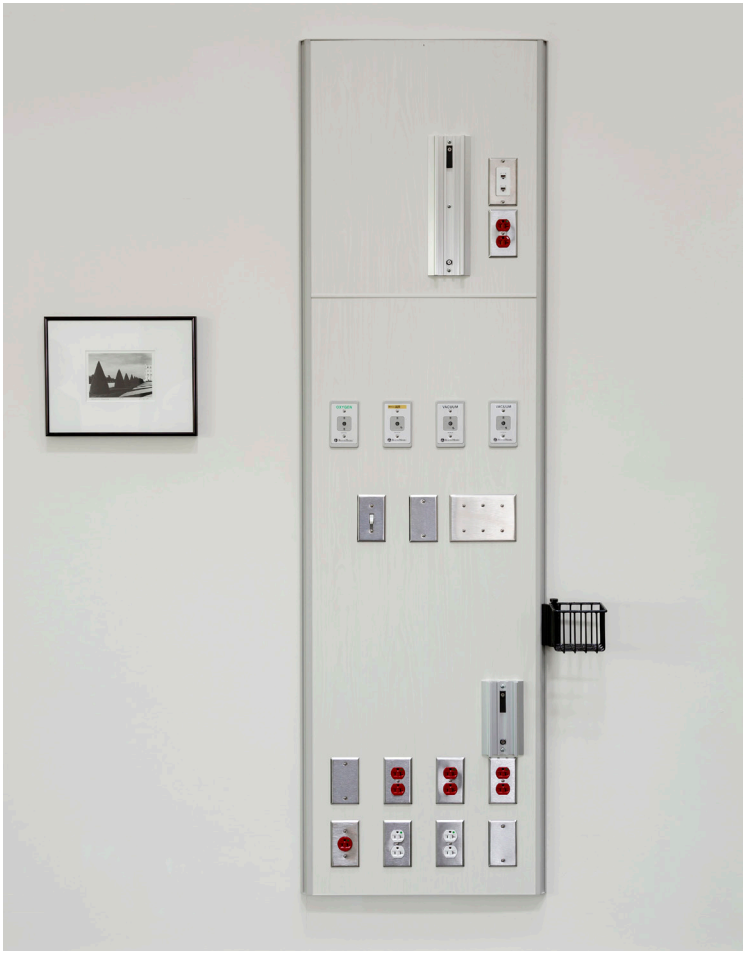
MODULAR
SERVICES COMPANY

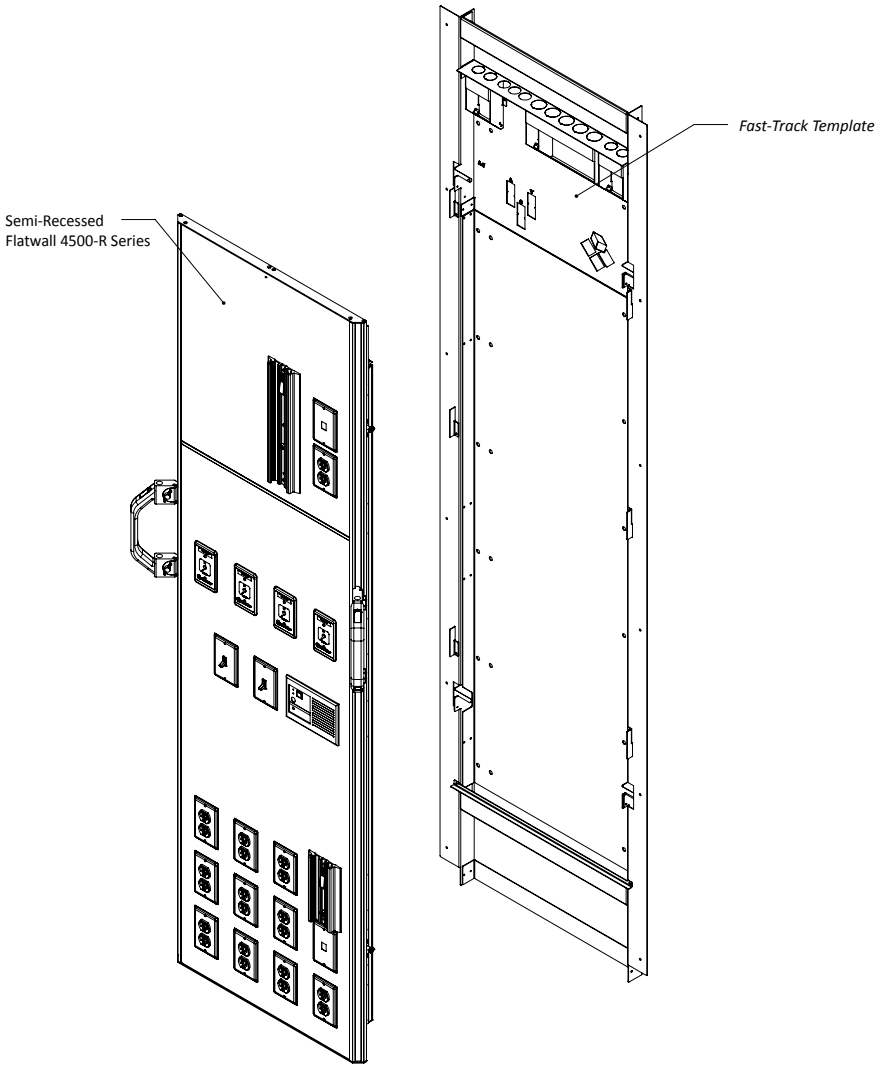
INSTALLATION MANUAL

FLATWALL

SEMI-RECESSED HEADWALL

Model # Series 4500-R





OVERVIEW

The Flatwall 4500-R Series headwall is a semi-recessed, UL-listed, configurable medical gas and electric service assembly employing multiple service rows to conveniently locate medical gas, electrical, and communications provisions. Additionally, this product comes standard with Modular's exclusive NeoTrack® accessory management system, which provides mounting points that direct the accessories out and away from the headwall to maintain easy access to the services provided within the assembly.

The Flatwall 4500-R Series headwall is a quick, two-phase process, beginning with the installation of the *Fast-Track Template*. The *Fast-Track Template* was designed to help shorten the critical path and alleviate delay in project completion. The template is installed into the partition wall and secured to the face of the studs (provided by others), which have a clear space equal to the width of the specific unit ordered (23.5", 28.5" or 33.5"). The top of the *Fast-Track Template* provides connections for normal, emergency and low-voltage power, as well as provisions to locate med-gas piping. This allows conduit, wiring and med-gas piping to be installed directly into the template. Drywall installation is made easy, as it stops flush against the outside of the provided drywall stops installed into the template. Once the Flatwall 4500-R Series *Fast-Track Template* has been installed, all other trades can move forward without the headwalls being on site.

The second phase of installation is the Flatwall 4500-R Series headwall unit, which comes pre-wired and plumbed with med-gas piping, allowing for a minimum of connections once installed into the *Fast-Track Template*.

Due to variations of interior and exterior wall construction in medical facilities, specific fasteners and actual methods of installation are not specified. Therefore, the following installation instructions are general guidelines only. Read all instructions before beginning installation and highlight the sections which apply to the equipment purchased.

IMPORTANT: Wainscoting should not be installed behind the Flatwall 4500-R Series unit. Ideally, partial wall coverings should be applied after the unit is installed. If the coverings are to be applied before installation of the unit, a section equal to the width of the unit should remain uncovered.

PREPARATION

1. Upon receipt of Flatwall 4500-R Series headwalls and prior to unpacking, inspect shipping containers for damage. Document any damage found and notify the carrier and Modular Services Company.
2. Clear a large work area near the location where the Flatwall 4500-R Series headwall is to be installed.
3. Locate the carton for the unit you wish to install. Labels at each end of the carton identify the unit type and general description of contents, as well as the room number or area of installation (if applicable).
4. Place the appropriate cartons face down on the floor.
5. Carefully open each carton. Dispose of all excess packaging material, leaving cardboard under the unit to protect the face during installation.
6. Inspect units for defects in materials or workmanship prior to installation. It is the responsibility of the customer to report any damage or deficiencies to Modular Services immediately upon discovery.
7. Review the final approved shop drawings and the submittal booklet, which will provide you with technical details specific to your installation, such as:
   - Wiring diagrams
   - Equipment types and quantities
   - Shop drawings of each type unit
   - Room numbers and locations in building (if applicable)

FAST-TRACK TEMPLATE INSTALLATION

Phase one consists of three required steps to install the *Fast-Track Template.*

1. Place the *Fast-Track Template* on the floor between the floor track and secure the mounting flanges to the front of the studs (Figure 1).
2. Run normal, emergency and low-voltage power into the provided raceway boxes and run med-gas through provided cut-outs. Gas terminations should be staggered due to the lines being so close together. Typical med-gas terminations are indicated on supplied gas locator bracket (Figure 2).
3. Hang drywall as normal, stopping flush against the outside of the provided drywall stops. Drywall stops are located on each side of the template, as well as at the top and bottom. Brackets for screws are provided above and below the top and bottom drywall stops (Figure 3).

Figure 1.

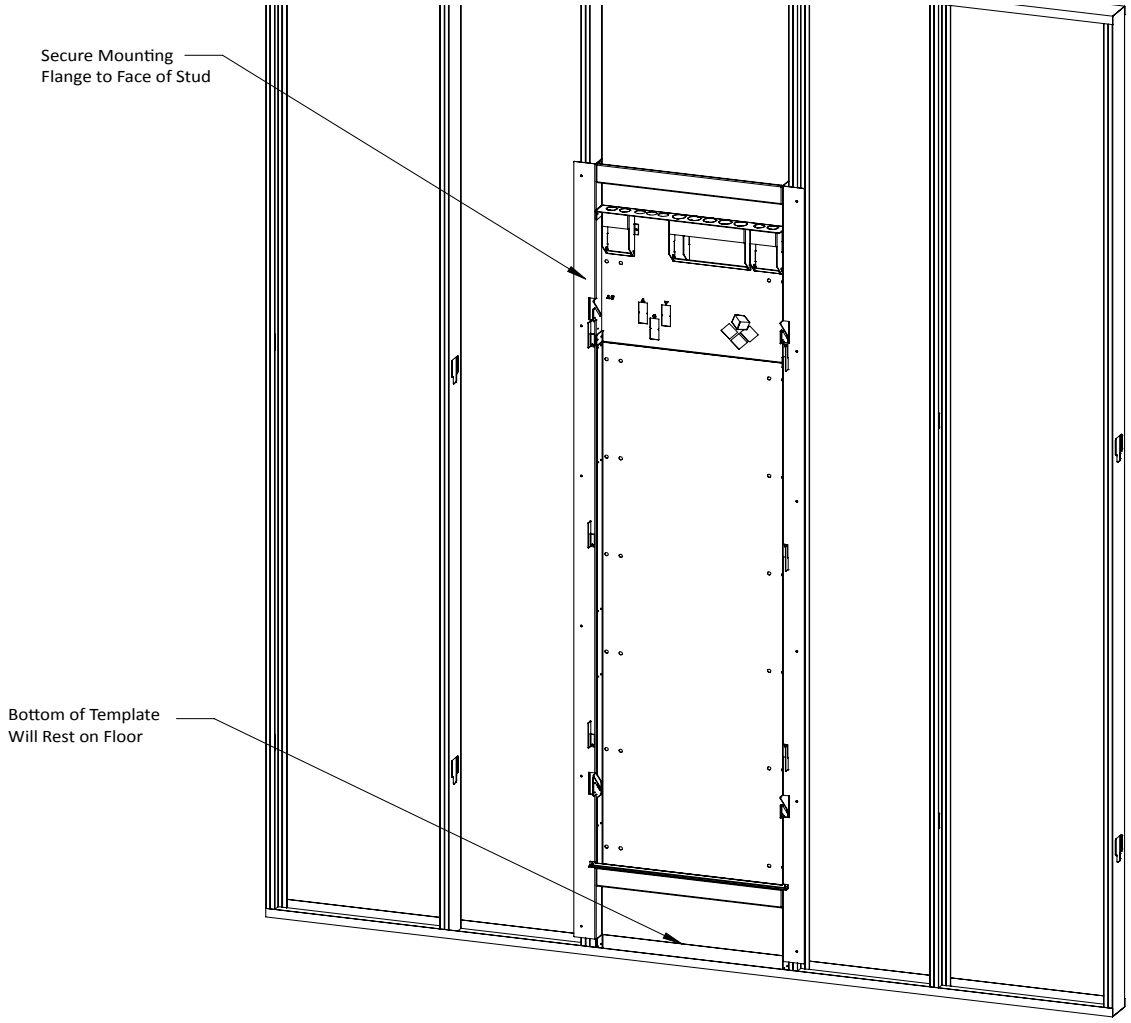


Figure 2.

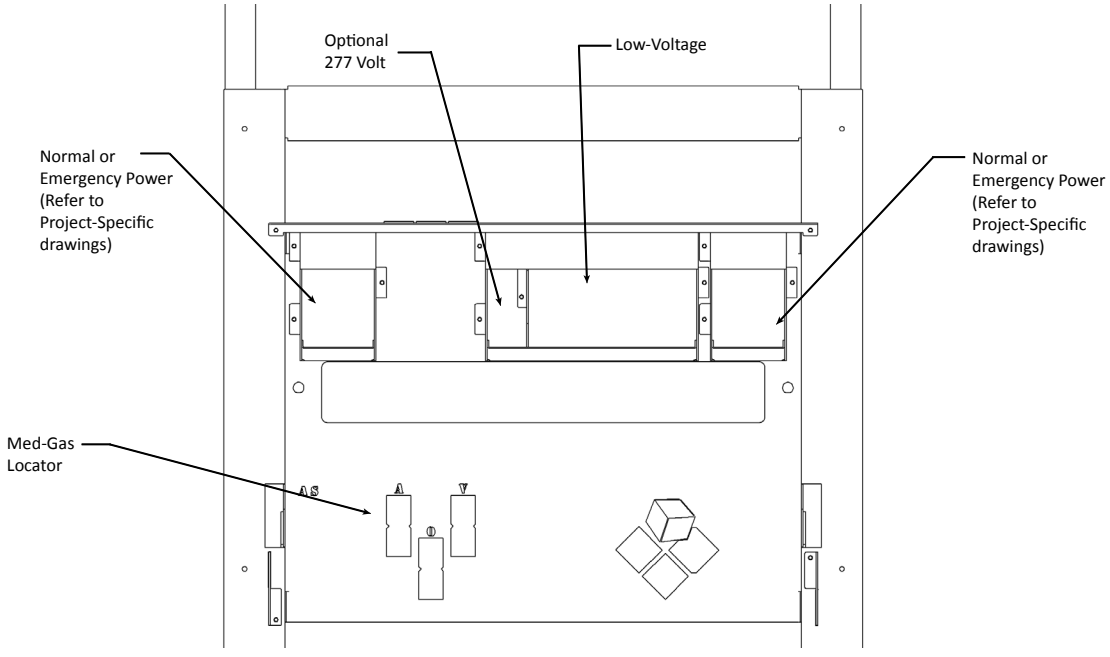
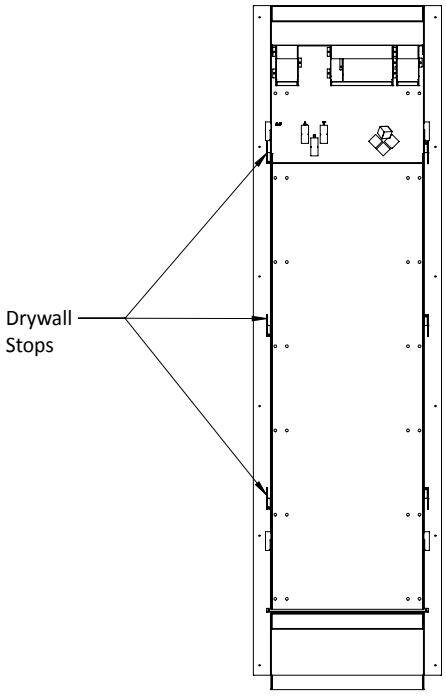


Figure 3.



UNIT INSTALLATION

Phase two consists of four required steps to install the Flatwall 4500-R Series headwall unit.

1. Unpack the Flatwall 4500-R Series headwall and place face up on the floor.
2. Rack the headwall into the slots of the template using the provided MSC installation handles (Figure 4a), and install #12 x 1” self-tapping screw through provided hole (Figure 4b).

Figure 4a.

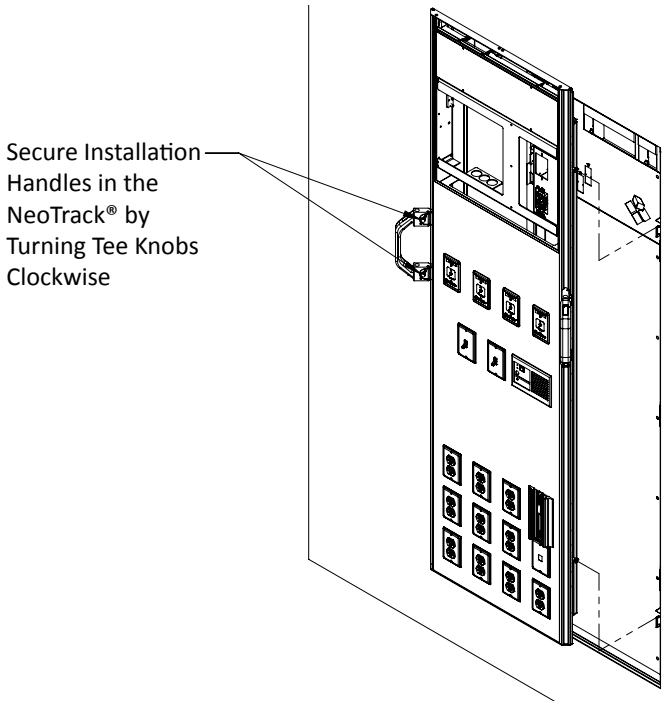
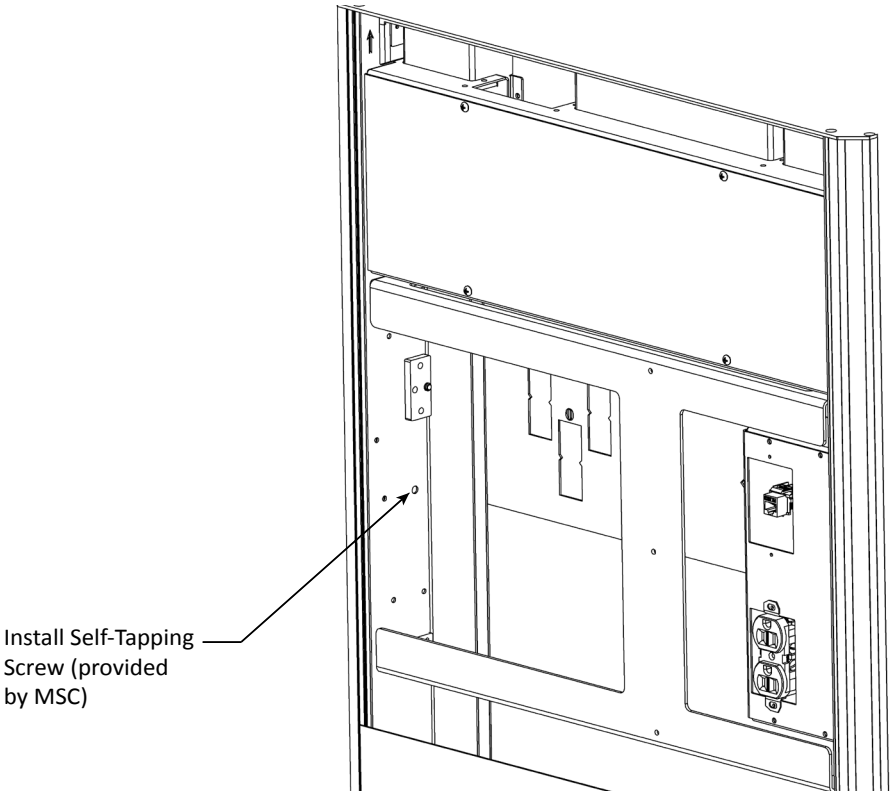


Figure 4b.



3. Remove the junction box cover and make the electrical and gas connections from the *Fast-Track Template* (Figures 5a and 5b).

Figure 5a.

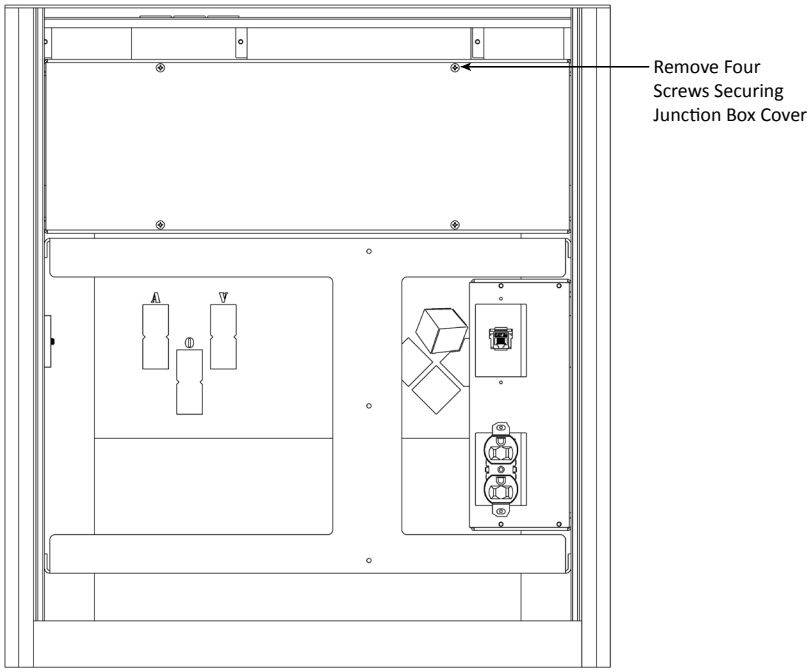
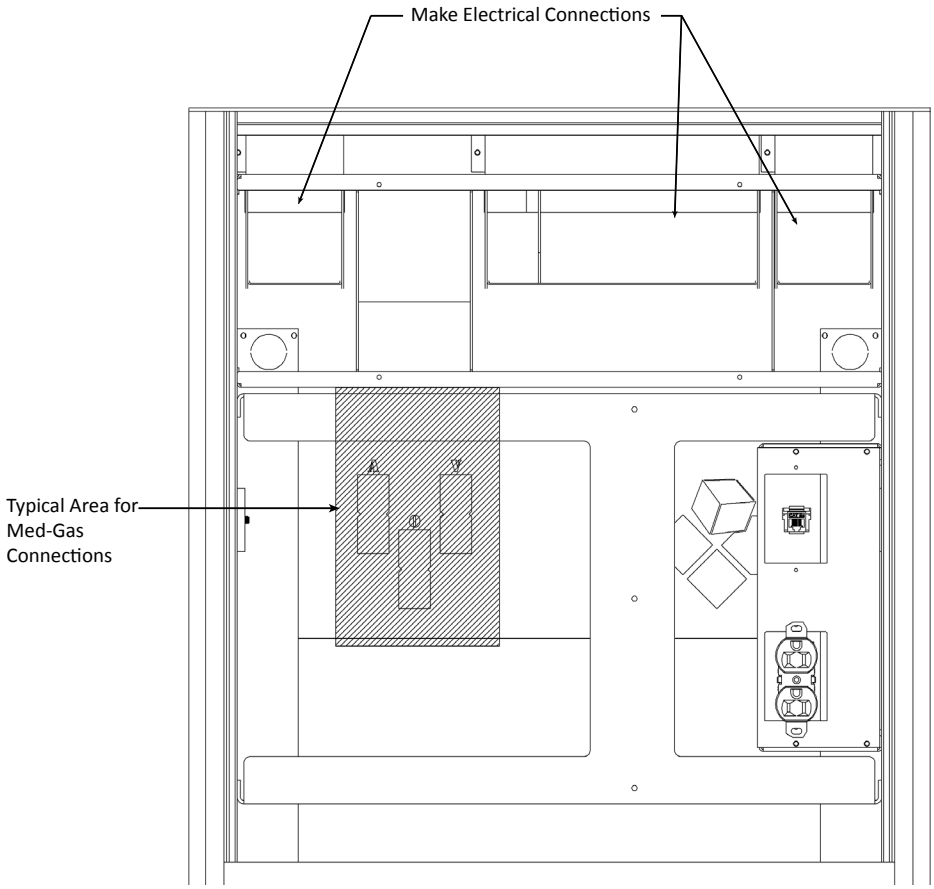
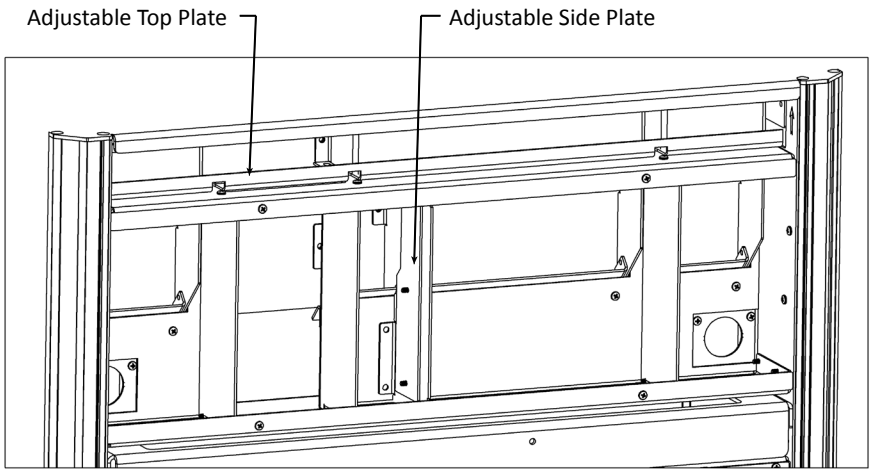


Figure 5b.



4. If drywall thickness is over 0.625”, then adjustment of the J-Box barriers may be required. The adjustable top and side plate can be moved back to cover gaps larger than 0.125” (Figure 5C).

Figure 5c.



5. Replace junction box cover and install top panel (Figures 6a and 6b).

Figure 6a.

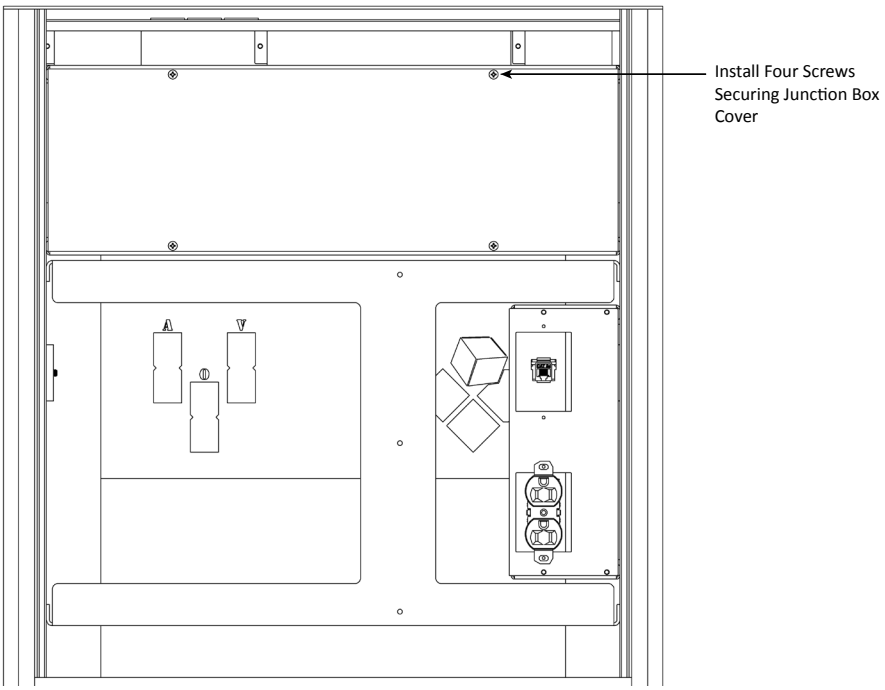
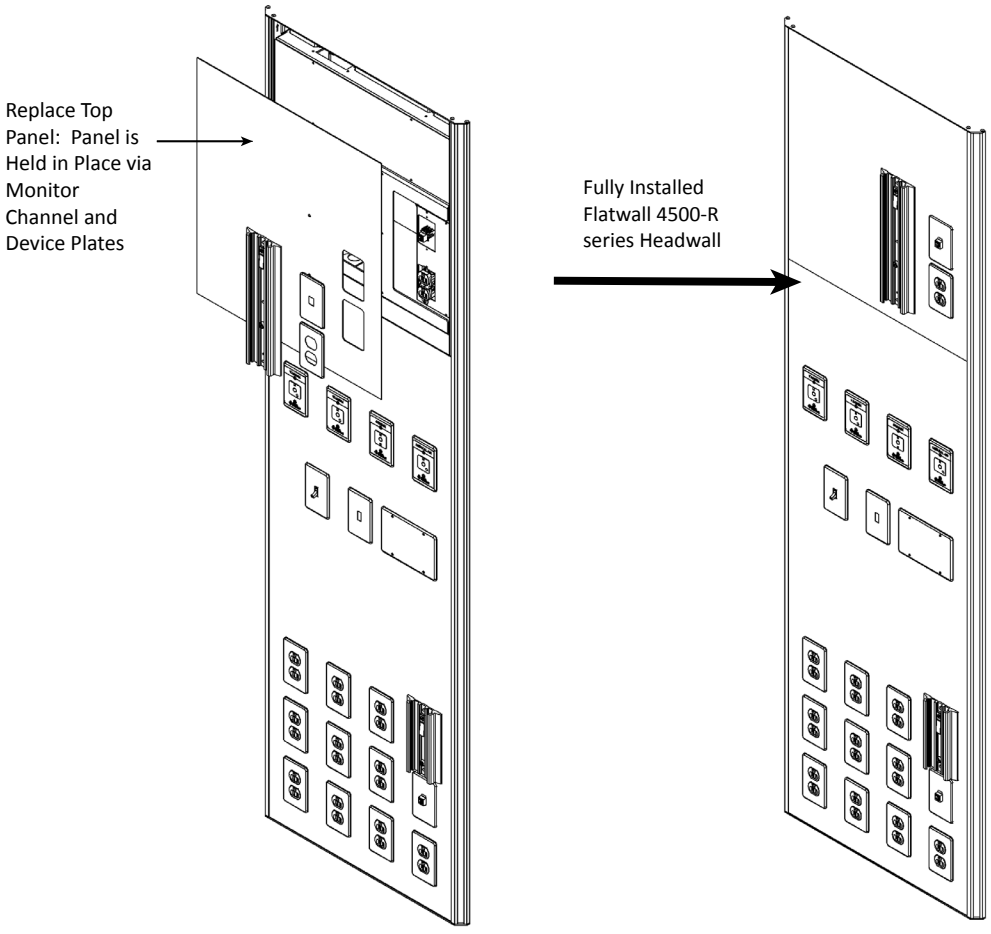


Figure 6b.



MEDICAL GAS SERVICE CONNECTIONS

Use extreme care in making medical gas service connections. Each single-point service connection has been provided with a color-coded medical gas label.

Medical gas systems provided by Modular Services have been cleaned, purged, brazed, blown down, labeled, and tested for cross connections and leaks in accordance with the most recent edition of NFPA 99. They are certified to be compliant to all of these requirements and to be leak free. The medical gas system installer is responsible for connecting this manufactured assembly to the pipeline in compliance with all applicable sections of the latest edition of NFPA 99.

During the process of connection to the pipeline there are multiple potential sources of contamination or damage to seals which could result in leaks. First, although Modular Services takes care to protect the ends of our piping system and the openings of station inlets/outlets to avoid contamination, it is at this point that these contamination prevention measures must be removed which exposes the system to the construction environment. Secondly, instrumentation must be inserted into the station inlets/outlets to properly purge the system while it is being brazed in accordance with the requirements of NFPA 99. Lastly, station inlet/outlet front body assemblies (if product is shipped with them installed), which are only rated to a maximum of 100 PSI, must be removed to conduct the initial pressure test which is required to be conducted at a minimum of 150 PSI. After this test is complete the front bodies must be reinstalled to conduct the standing pressure test.

In accordance with NFPA 99 section 5.1.12.2, the installer is required to test the distribution piping in its entirety, which includes the medical gas manifolds provided by Modular even though they have been pretested at the factory. Because of the multiple potential sources of contamination or damage to seals listed above, the installer is to be held responsible for repairing or replacing any seals which have been contaminated or damaged as a result of the process of connecting to the pipeline. The installer shall also be responsible for protecting the station inlets/outlets against contamination after the factory protection has been removed.

Modular Services warrants all defects in piping materials, brazed joints, and workmanship but cannot warrant leaking seals once the factory provided contamination prevention materials are removed from either the end of the piping or the station inlet/outlet.

ELECTRICAL SERVICE CONNECTIONS

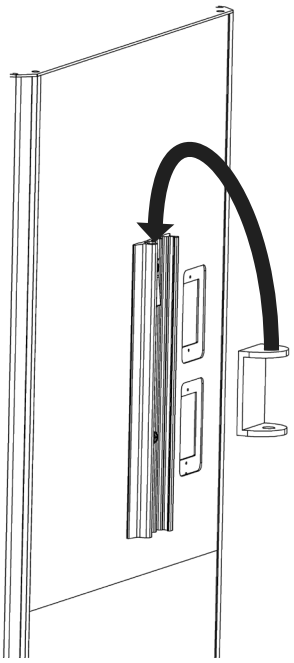
1. Ensure all electrical power circuits are locked off prior to hook-up.
2. Review wiring diagram or shop drawing.
3. Connect electrical service according to wiring diagram, being careful to observe labeling at service connection junction boxes.
4. **IMPORTANT:** Service connections are to be made in accordance with applicable National Electrical Codes, in addition to state and local codes.
5. Replace Upper Panel.

INSTALLING ADDITIONAL COMPONENTS

Patient Monitoring Bracket

1. Slide the monitor bracket into the preinstalled channel (Figure 7).
2. **IMPORTANT:** This bracket is designed to hold monitors weighing 80 pounds or less. Be sure to securely fasten the monitor to the patient monitoring bracket.

Figure 7.

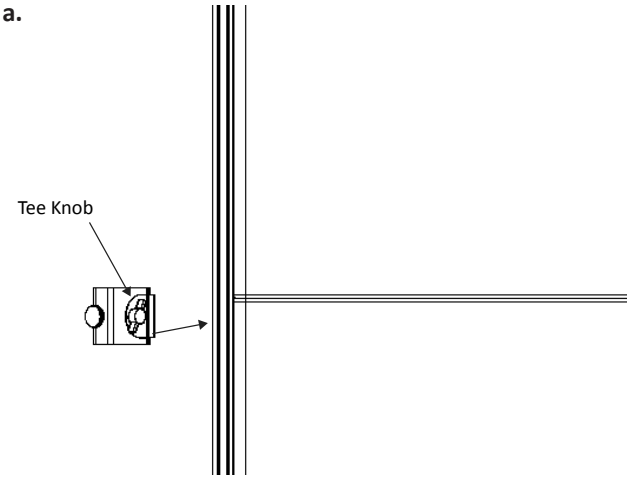


Vertical Track Adaptors to NeoTrack®

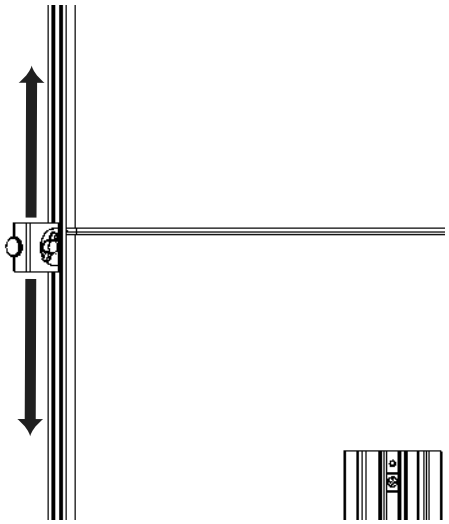
1. Align the Vertical Track Adaptor with the NeoTrack® so that the tee knob is facing towards the center of the unit (Figure 8a).
2. Insert Vertical Track Adaptor into NeoTrack® and slide to desired accessory height (Figure 8b).
3. Turn tee knob clockwise to secure Vertical Track Adaptor in place (Figure 8c).

Figure 8.

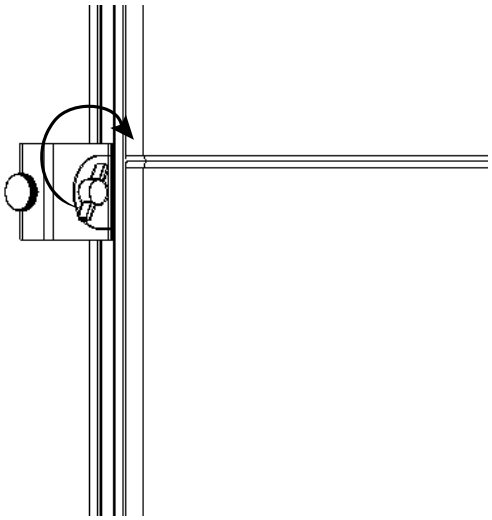
a.



b.



c.



CARE AND MAINTENANCE

1. Clean with mild detergent and warm water. **Do not use lubricants or oils on unit.**
2. Avoid excessive moisture build-up, as it can damage mechanisms in the unit.
3. Disinfect as required with disinfectant approved by the Environmental Protection Agency.
4. To remove difficult spots or stains, use standard household cleansers and a soft-bristled brush.
5. For parts or repairs, contact your sales representative.

INSTALLATION TERMS AND CONDITIONS

Each Modular Services unit, or unit section, shall be completely pre-wired for normal, emergency and low voltage according to the approved submittal. Communication devices and wiring shall be supplied by others. These devices include nurse call, television, code blue, telephone, monitor jacks, etc.

The electrical contractor shall be responsible for all electrical conduits, wiring hook-up of electrical services, and if applicable, interconnect wiring between sections. All hardware light fixtures shall be installed, wired and lamped by contractor. After installation is complete, the customer shall test equipment functions, as well as electrical receptacles and ground, in accordance with the National Electrical Code.

Medical gas contractor shall be responsible for piping and hook-up of all medical gas services. The medical gas contractor shall be responsible for purging, pressure testing, gas identification, and system certification in accordance with NFPA 99.

Modular Services Company shall have no responsibility or liability for delays, however caused. Owner shall hold Modular Services harmless from damages or injury related to any failure or neglect of owner, its employees, agents or licensees. Modular Services shall not be liable for consequential damages; makes no warranties, expressed or implied; and assumes no obligation other than those expressly contained herein.

WARRANTY

Modular Services Company warrants that all equipment assemblies shall be free from defects in material and workmanship for a period of 12 months from date of the owner's acceptance to the installing contractor or the date the equipment is put into service, whichever comes first. Warranty excludes electric lamps and/or any material not furnished by Modular Services. Warranty does not cover damage due to improper installation and/or abuse.

It is the responsibility of the customer to report any noted product deficiencies to Modular Services immediately upon discovery. It is the responsibility of Modular Services to expediently resolve the discrepancy. Any modification made to the product without the written authorization from Modular Services will void this warranty.

Also, in the event product modifications or repairs are made without the written consent of Modular Services, Modular Services shall not be liable for any cost associated with the modification or repair.

There are no warranties of fitness which extend beyond the description on the face hereof.

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