



MODULAR
SERVICES COMPANY

INSTALLATION MANUAL

NEONATAL INTENSIVE CARE UNIT (NICU)



OVERVIEW

The Neonatal Intensive Care Unit is a UL-listed assembly and includes a center section, drawer module, open storage module, base, countertop, and service chase (if applicable). Services provided include electrical, medical gas, storage, horizontal work surface and an accessory equipment management system.

The component chase accepts standard-depth components such as medical gas services, normal and emergency electrical services, and communications devices. The vertical accessory tracks are integral parts of the unit, accepting adapters throughout their length to conveniently locate accessories.

The frame is constructed of heavy-gauge anodized aluminum with internal metal bracing. Drawers consist of Zargen® metal box construction. Body, door and drawer components have a high-pressure laminate finish on both sides, including drawer sides and bottom. Door, drawer and cabinet facings are finished with a resilient high-density polyethylene edge to match or complement laminate color. Access panels are made with decorative high-pressure laminate over a fire-retardant, high-density particle board core with a high-pressure laminate backer.

PREPARATION

1. Upon receipt of units 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 unit is to be installed.
3. Locate the carton for the component 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)

INSTALLATION

Center Units

1. Find the highest point of the floor. The high point of floor will be used as a reference for installing the cabinets. All other cabinets will be adjusted to that height.
2. From the highest point of the floor, mark a level line at 4" above finished floor.
3. Refer to project drawings for cabinet numbers and layout of cabinets.
4. On multi-unit runs, ensure correct spacing between units for open storage module.
5. Using the adjustable feet found in the base, adjust the back of the units to the level line (Figure 1).
6. Level front of bases from back to front.

7. Attach to wall or back of island cabinet with #12 x 2 sheet metal screws (Figure 2).

Drawer Module

1. Adjust drawer module using the adjustable feet in the same manner as center unit to ensure top is flush with center unit.
2. Attach drawer module to center unit with #8 x 1-1/2" flathead screws 3" from front, back, top and bottom in a four-hole pattern (Figure 3).
3. Attach back of drawer module to wall or back of island cabinet with same screw pattern and screws.

Figure 1.

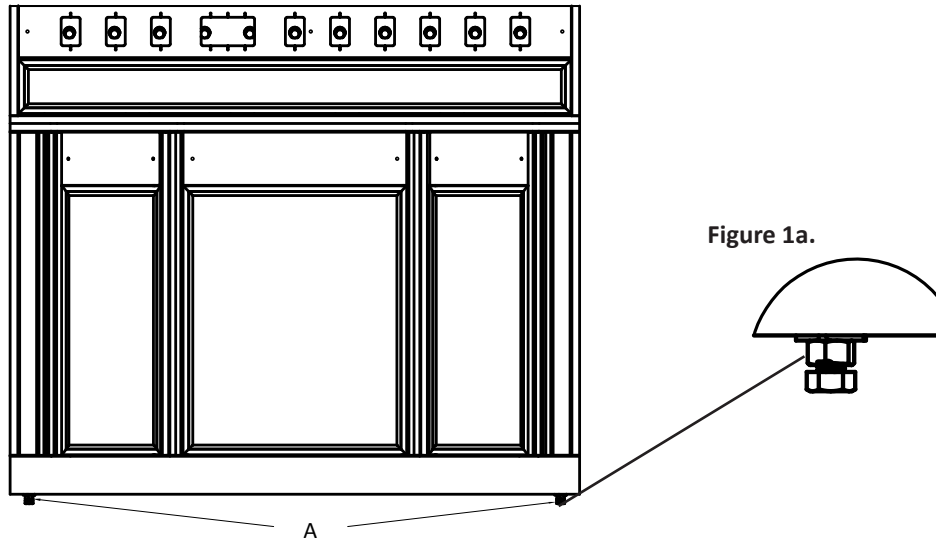


Figure 2.

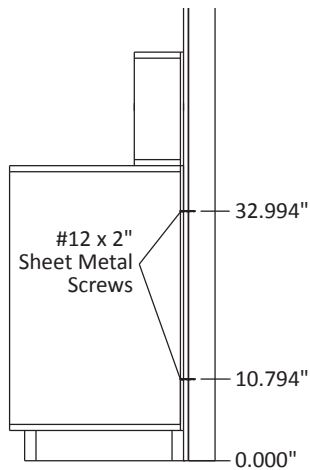
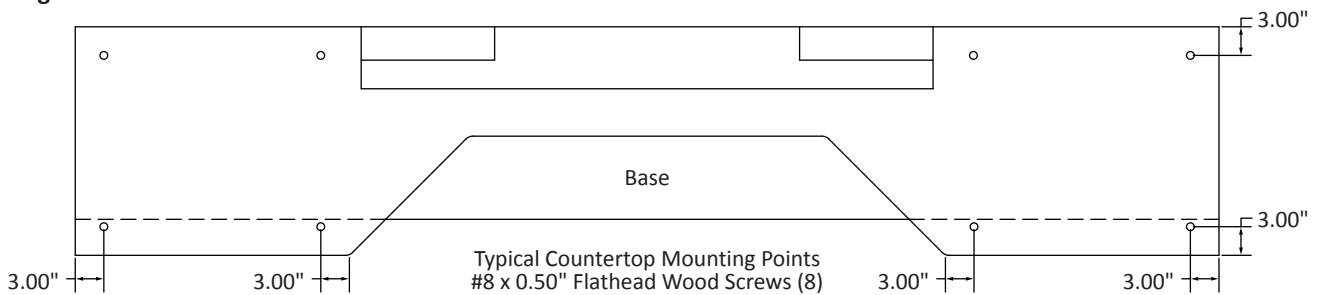


Figure 3.



Open Storage Module

1. Remove shipping skid plates from bottom of storage module.
2. Place cabinet next to center unit and adjust feet to flush top of cabinet with center unit.
3. Be sure module is level and plumb.
4. Attach to center unit and wall (or back of island cabinet) with same screw pattern and screws as the drawer module.

Countertop

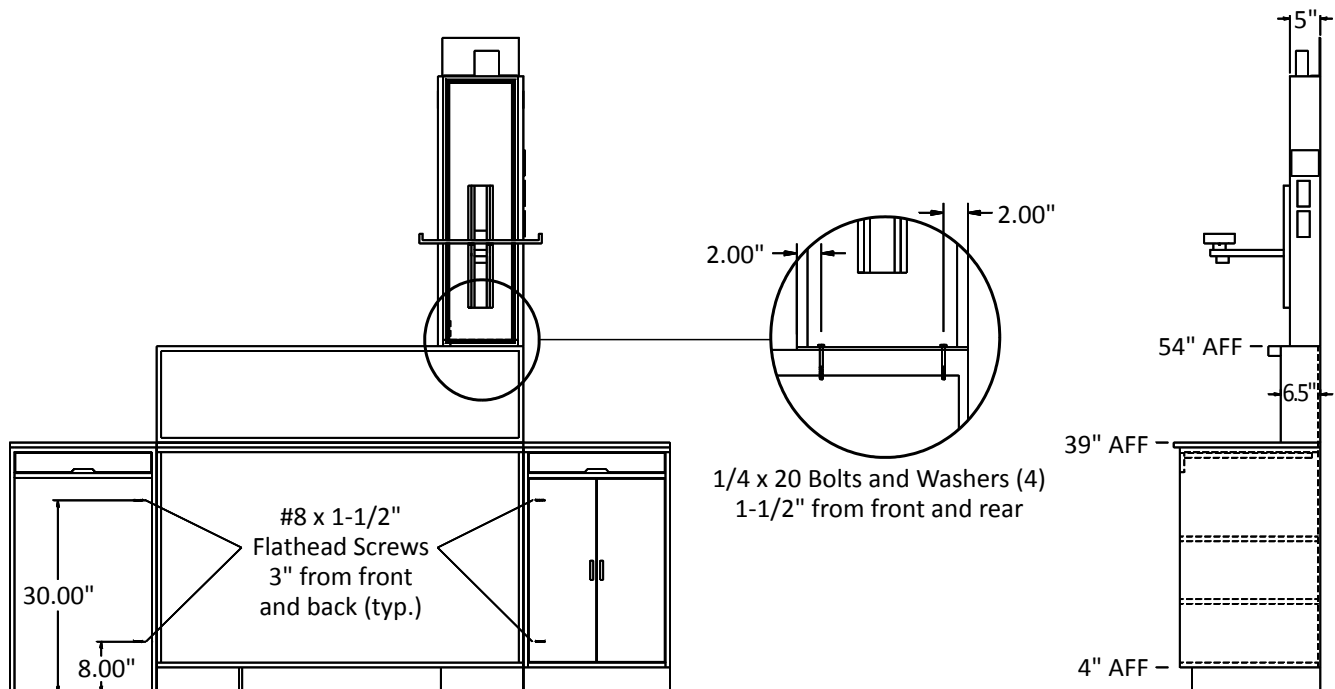
Countertops are job-specific, and depending on the layout of cabinets, the tops are sometimes split to expose the fewest amount of seams. Some tops have finished ends, while others are intended to be scribed to walls. Check project drawings before installation.

1. Slide countertop between top and bottom sections of center unit, flush with ends and back.
2. From underside of cabinets, screw countertop down using #8 x 0.50" flathead screws.

Service Chase

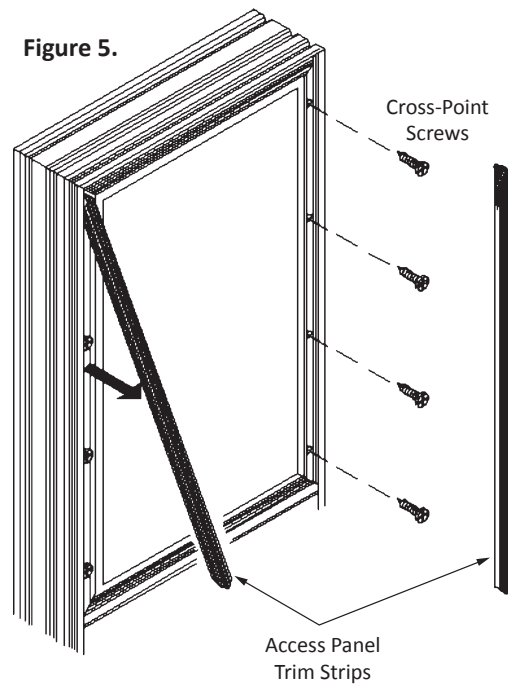
1. Remove access panel from service chase and place chase onto top of center unit, lining up the mounting holes.
2. Attach service chase to center unit with bolts supplied (Figure 4).
3. Attach chase to back wall with #12 x 2" sheet metal screws. On island units, support must be provided for attachment to ceiling.

Figure 4.



Access Panel Removal

1. Mark the original orientation of the two vertical access panel trim strips, as they are not interchangeable.
2. Carefully insert the blade of a small utility knife into the lower miter joint and pry the strip out (Figure 5). Repeat the procedure for the remaining strip. It is not necessary to remove the horizontal trim strips.
3. Remove the cross-point screws located under the access panel trim strips. Remove the access panel.
4. The access panel trim strips are easily replaced by hand or with a soft rubber hammer.



MEDICAL GAS SERVICE CONNECTIONS

Use extreme care in making medical gas service connections. Each single-point 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.

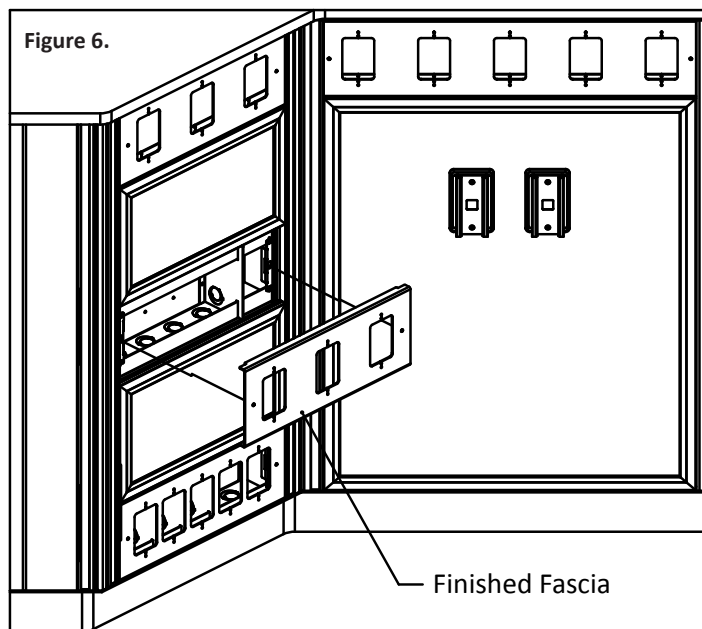
ELECTRICAL SERVICE CONNECTIONS

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.

LOW-VOLTAGE PROVISIONS

Provisions have been made for the installation of such items as nurse call, code blue, telephone outlets, television outlets, heart monitor outputs, etc. The provisions have been made according to the submittal or the project drawings. These devices are to be mounted directly to the component console boxes behind the removable console finish fascia (Figure 6).

1. Remove the console finish fascia
2. Install each device in accordance with the manufacturer's installation instructions.
3. Reinstall the finish fascia and check for alignment.



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 customer 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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