Basis® Headwall System
Design and Planning Guide
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Basis® Headwall System

• The next generation value headwall system offering a wide range of clinical utility, while providing an architectural style for today and the hospital of the future.
• Provides architects with an extensive range of design configurations, materials and finish options that will compliment many design themes.
• Provides nursing clinical functions ergonomically organized around the patient saving steps and motion.
• Supports the essential patient room clinical functions and acuity from ICU to Med-Surg with gas, power, data and the potential for integrated communications.
• Provides a simple, clean, linear look tailored to hospitality designs with commercially available laminates.
• Intended to simplify the time and complexity of designing and installing a patient room headwall by providing a factory tested preplumbed, pre-wired headwall ready to be installed by a general contractor.
The Basis® headwall is the value hospital patient room headwall that provides hospital architects and designers a platform that offers design and styling options to create a less clinical-looking hospital experience.

The Basis headwall offers an extensive selection of finishes and decorative options including high pressure laminates and wood caps (On-Wall horizontal only). Panel reveals are available in black or silver.

The Basis headwall is a versatile panel and framework system. This provides nursing with a complete array of service options and loading that can support any care delivery from ICU to Med-Surg. Clinical services and nursing features are ergonomically designed to reduce reaching, bending and wasted steps. Accessory rails built into the aluminum edge trim support a full range of clinical accessories.

- Superior aesthetics – Integration into hospital designs
- Clean linear design – Faceplate free
- Superior cleanability – Minimal gaps and crevices
- Installation – Quick and simple to install
- Price – Value priced for today’s cost conscious customers

At a Glance
Configuring the Basis® Headwall—Gas, Electric, Data

Recommended configuration of a Basis headwall should be based on the loading of specified services and medical devices that will be connected to the headwall. Medical devices, such as flowmeters and regulators, come in a variety of sizes, that if not spaced properly, can restrict the use of available outlets. In addition, outlets, switches and devices should be placed with an ergonomic reach zone of 18” to 72” off the floor to avoid severe bending or reaching for staff.

- Vertical spacing for Rows of Outlets or Devices – 6” minimum
- Vertical spacing for in-line Gas Outlets – 18” minimum
- Horizontal spacing Gas Outlets – 4.5” minimum
- Horizontal spacing Electrical Devices – 1.812” minimum
Basis® Headwall System Architecture

1. Mounted On-Wall – the headwall is surface mounted to the finished wall serving that respective room. Surface mounted depth is 5" off the finished wall.

2. Mounted In-Wall – the headwall is installed into a framed stud wall opening and sits 0.75" off the finished wall surface. The In-Wall configuration is available with 3.625" frame depth only, but can function properly in both a 3.625" or 6" stud wall.

3. Double-Sided – the headwall has two sides that serve two adjacent rooms and protrudes either 0.75" or 2" off the finished wall surface (depending on wall depth). This configuration is available with a 6" frame and can be configured for a 6" or 3.625" stud wall. Gas and electrical/data services on each side can be configured differently from each other.

WARNING:
Do not install the In-Wall product in positive- or negative-pressure rooms, fire- or smoke-rated walls, and/or load-bearing walls. Failure to do so could cause injury or equipment damage.
# Basis® Headwall Horizontal Units

All sizes are available as On-Wall, In-Wall or Double-Sided Units

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### NOTES:

- Electrical/Data outlets have separate service panels from gas outlets.
- Gas outlets occupy separate rows from electrical/data outlets. They cannot be combined.
- The Basis headwall can support all electrical capacity needs for normal, emergency and low voltage. Consult your WittRock architectural specialist for more information.
- Manifold maximum capacity is 8 oxygen outlets, 8 medical air outlets and 6 vacuum outlets. Refer to spacing requirements on page 5 for maximum number of gas outlets per size.

**WARNING:** MEDICAL GAS OUTLETS SHOULD NOT BE INSTALLED IN CENTER ACCESS PANEL IN HORIZONTAL HEADWALLS. CAUTION: GASES ON HEADWALL SHOULD NOT BE PLACED BEHIND HOSPITAL BED.
**Basis® Headwall Vertical Units**

Most sizes are available as On-Wall, In-Wall, or Double-Sided

**NOTES:**
- In-Wall vertical headwalls do not extend to the ceiling. Leave at least 6" of drywall above unit.
- Gas outlet capacity shown is based upon gas manifold. Refer to spacing requirements on page 5 for maximum number of gas outlets per size.

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8
Single or Double Configuration

Recommended Single and Double Unit Spacing

On-Wall

In-Wall or Double-Sided

*Recommended Bariatric bed space is 66" between double units and 33" between bed centerline and single unit.
On-Wall Ceiling Interface

- On-Wall vertical headwall units terminate at the drop ceiling.
- Gas and electrical services extend through the drop ceiling.
1. Install Hanger brackets per WittRock As-Built Drawings. Hanger brackets should be bolted to backer plate behind drywall.

2. Hang headwall unit onto hanger brackets ensuring proper alignment with rough-in openings. If required, bolt headwall to hanger brackets.

3. Secure unit to bottom brackets through wall into backer plate.

4. Install manifolds. On 16” vertical units, install hoses to manifold first.


6. Complete installation by installing service panel and surrounding gap trim.

NOTE: Reference Basis installation instructions for detailed information.

NOTE: On-Wall headwalls require a 16 gauge backer plate at wall attachment points.
1. Construct headwall openings according to the WittRock As-Built Drawings. Cut out pass through opening in top header for gas pipe and electrical conduit clearance.
2. Insert headwall unit into opening ensuring proper alignment with studs.
3. Secure unit to studs at mounting points shown.
4. Install manifolds. On 16" vertical units, install hoses to manifold first.
6. Complete installation by installing service panel and surrounding gap trim.

**NOTE:** Basis In-Wall units must be installed BEFORE DRYWALL!

**NOTE:** Double-Sided installation is similar to In-Wall installation, however the accessory trim is factory installed. After installation, the additional accessory rail trim needs to be installed on the opposite side. Trim will need to be removed from one side prior to installation and THEN after installation, the additional accessory trim will be installed on the opposite side.
Basis® Vertical In-Wall Rough Opening Dimensions

Finished product will cover opening by $1\frac{3}{4}''$ per side.

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<thead>
<tr>
<th>UNIT LENGTH</th>
<th>DIMENSION “A”</th>
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<tr>
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<td>18 1/2”</td>
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<tr>
<td>25” Vertical</td>
<td>26 1/2”</td>
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<tr>
<td>32” Vertical</td>
<td>34 1/2”</td>
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<table>
<thead>
<tr>
<th>UNIT HEIGHT</th>
<th>DIMENSION “B”</th>
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<tbody>
<tr>
<td>60” Vertical</td>
<td>62 5/8”</td>
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<tr>
<td>72” Vertical</td>
<td>74 3/4”</td>
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<td>84” Vertical</td>
<td>86 3/8”</td>
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<tr>
<td>102” Vertical</td>
<td>104 3/8”</td>
</tr>
<tr>
<td>108” Vertical</td>
<td>110 3/8”</td>
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</tbody>
</table>
Basis® Horizontal In-Wall Rough Opening Dimensions

UNIT LENGTH | DIMENSION “A”  
--- | ---  
60” Horizontal | 62 ⅝”  
72” Horizontal | 74 ⅝”  
84” Horizontal | 86 ⅜”  
96” Horizontal | 98 ⅝”  
108” Horizontal | 110 ⅛”  
120” Horizontal | 122 ⅜”  

UNIT HEIGHT | DIMENSION “B”  
--- | ---  
16” Horizontal unit | 18 ½”  
24” Horizontal unit | 26 ½”  
32” Horizontal unit | 34 ½”

Finished product will cover opening by 1¾” per side
Interface Styles that Support Two Rooms

Double-Sided Unit Installed in a 6" Stud Wall

Double-Sided Unit Installed in a 3.625" Stud Wall

**NOTE:** Double-Sided and In-Wall headwalls are designed to interface with 6" or 3.625" studs with typical 5/8" drywall. Other wall configurations may need to be evaluated for feasibility.
Nurse Call Placement Options

Horizontal Headwalls

A Nurse Call system can be located in the center panel of a horizontal headwall, however, there are certain limitations related to location and backbox size. The diagrams below illustrate the placement options available:

Nurse Call Placement on 16" Tall Headwalls

Nurse Call Placement on 24" Tall Headwalls

Nurse Call Placement on 32" Tall Headwalls

Vertical Headwalls

Except for the 60" tall headwall, the Nurse Call system is generally placed at 63" or 32" AFF.

*Not recommended for GUI based nurse calls.
Equipping Basis® Headwall

The Basis headwall offers a selection of options that can provide enhanced functionality or flexibility to accommodate different building and installation conditions. When considering these options, consult with your WittRock specialist for recommendations or further information.

An Integrated Bed Locator (IBL) provides rugged wall protection and bed locating for any type of hospital bed. It provides a smooth, flush panel that integrates with a horizontal Basis headwall while providing ancillary outlets on both sides of the bed.

Provisions for eight receptacles including:
- Normal power and emergency power
- Low voltage provisions
- Night light
- Bed nurse call connection
Equipping Basis® Headwall

Stand Alone Bed Locator

The Basis headwall offers a selection of options that can provide enhanced functionality or flexibility to accommodate different building and installation conditions. When considering these options, consult with your WittRock specialist for recommendations or further information.

A stand alone Bed Locator is also available and is compatible with all Basis headwall styles and types whether In-Wall, On-Wall, Double-Sided, vertical or horizontal. It can also be mounted onto the Basis Wall panel System. Made with durable metal and plastic construction, this option also offers provisions for eight receptacles including:

- Normal power and emergency power
- Low voltage provisions
- Night light
- Bed nurse call connection

(Min. Recommended)
Equipping Basis® Headwall

Interconnect Between Basis Headwall and WittRock® Lights and Bed Locators

The Basis headwall offers interconnects that provide a raceway for wiring from a Basis On-Wall vertical frame headwall to WittRock patient lights or bed locators. This may be useful in renovations or other conditions where it is not desirable to provide power through in-wall rough-ins.

NOTE: Use of the interconnect with a bed locator reduces the number of available receptacles from eight to six. When interconnect is used with bed locator, electrical devices are not available in bottom row of vertical chase.

Interconnect for 48" 696 IL Light

Interconnect for 36" 696 IL Light

Interconnect for Light

Interconnect for bed locator

Wiring fed from Basis to light and bed locator

Interconnect for 201606 bed locator*

* For isolated power only

Interconnect for 0052b bed locator
Equipping Basis® Headwall

Chase and Transition Sleeve Option for Horizontal Headwalls

For On-Wall applications, Basis offers vertical chase options as well as horizontal transition sleeve options in a variety of sizes to easily retrofit existing facilities and couple multiple headwalls together. This allows the installation of headwalls without opening up the existing facility wall. For environments such as PACU or semi-private Med-Surg units, the transition sleeve allows single point attachment of gas, electrical and data while serving multiple bed spaces (up to 3 beds).

- Chase is available on the left or right between two Basis Headwalls.
- The Chase/Transition Sleeve option allows the use of the Integrated Bed Locator.
- An optional Chase extension creates an improved room aesthetic (see elevation below).

- Transitions are available in two widths: 12.5” and 18.5”
- Transition and Chase are compatible with all 16", 24", and 32" tall horizontal units up to 108” in length.
- Up to 3 headwall units can be connected together with the chase/transition sleeve.
- A Light Rail is available which allows multiple Patient Lights (696 Style) to be chased together (up to 3 lights).
- The Light Rail provides optional provisions for electrical and data outlets.
Equipping Basis® Headwall

The Basis headwall offers a selection of optional accessories that can be attached and repositioned along a horizontal or vertical accessory rail. **Below is a sample of the many accessories we offer.** When planning accessory placement, consider the location of attached components and adjoining gas and electrical outlets to avoid blocking outlets or creating interferences with attached devices.

See Basis headwall accessory catalog for a complete list of available components.

**NOTES:**
- For patient monitors, horizontal headwalls must use a separate monitor track that mounts to the integrated accessory tracks.
- "Over the top" mounted accessories (Integris style) are only compatible with the On-Wall horizontal headwalls.
Basis® Wall Panel System

Wall Panel System for Horizontal Headwalls

The Basis headwall offers a flexible system of decorative wall panels that seamlessly integrates to all the different horizontal sizes and styles available. Whether your preference is In-Wall, On-Wall, or Double-Sided, the Basis Wall Panel System provides methods of seamless integration.

Typical Horizontal Wall Panel Configurations
Basis® Wall Panel System

Wall Panel System for Vertical Headwalls

Typical Vertical Wall Panel Configurations
The Basis headwall offers a number of aesthetic and equipment options to enhance both the appearance and functionality of a Basis system with Wall Panels. These range from lighting options, to equipment management options, to bed protection and electrical options.

- Accessory Track only available horizontally. Accommodates most Basis headwall accessories.
- Aluminum reveals can be horizontal, vertical or both.
- Butt joints can be horizontal, vertical or both.
- Integris® Light available in 36” and 48” versions.
- Bed Bumpers available in horizontal or vertical arrangements.
- Back boxes are available for high and low voltage applications only.
Basis® Wall Panel System

Wall Panel Installation Process for Headwalls with Interconnects between Bed Locators and Lights

When using the interconnects that provide a raceway for wiring from a Basis On-Wall vertical frame headwall to WittRock patient lights and bed locators (see page 14), the installation process is different. Wall panels will need to be installed before the headwall and other hardware is installed.

1. Walls are closed and finished before wall panels are applied
2. Wall Panels are then attached to the walls
3. Headwall, bed locator, lights and interconnects are then mounted onto the wall panel system

Interconnects (Page 14)
Design Options – Laminates and Reveals

Unlimited Laminate Choices

Basis® headwall panels are available with most commercially available HPL finishes. Lead time varies on pattern availability.

Quick Ship Laminates

A standard selection of laminates are available for short lead time orders that include the following:

Trim Color Choices

Black

Silver

Antique White (WilsonArt)
Almond Leather (WilsonArt)
Limber Maple (WilsonArt)
Natural Maple (Formica)
Wild Cherry (WilsonArt)
Latte Walnut (Formica)
Light Neutral (Nevamar)
Honey Maple (Pionite)
English Oak (WilsonArt)
Light Oak (WilsonArt)

Customized style options can be developed based on volume, lead time and material. Materials must comply with building codes and UL requirements. Consult a WittRock sales associate for further information.

Colors for reference only.
Design Options –
On-Wall Wood Caps

The Basis® On-Wall headwall is available with solid wood caps as an alternative option to anodized aluminum top and bottom trim. The caps come with an integrated accessory rail attached to the front. The wood caps are available for On-Wall horizontal headwalls only.

Wood Cap option for Horizontal On-Wall headwalls are available in the following standard stains:

- Light Oak
- Medium Oak
- Wild Cherry
- Montana Walnut
- Natural Maple
- Honey Maple
- Colonial Cherry
- Dark Cherry

Customized style options can be developed based on volume, lead time and material. Materials must comply with building codes and UL requirements. Consult a WittRock sales associate for further information. Wood caps are only available on horizontal On-Wall configurations.

Colors for reference only.
American National Standards Institute (ANSI)/ Underwriters Laboratories, Inc. (UL)
ANSI/UL 723 Standard Test for Surface Burning Characteristics of Building Materials
ANSI/UL 514A Metallic Outlet Boxes

American Society of Mechanical Engineers (ASME)
ASME B16.22 Wrought Copper and Copper Alloy Solder Joint Pressure Fittings

ASTM International
ASTM B819 Standard Specification for Seamless Copper Tube for Medical Gas Systems

Compressed Gas Association (CGA)
CGA-G-4.1 Cleaning Equipment for Oxygen Service
CGA V-5 Diameter Index Safety System (Non-interchangeable Low Pressure Connections for Medical Gas Applications)

National Fire Protection Association (NFPA)
NFPA 70 National Electrical Code (NEC)
NFPA 99 Health Care Facilities

National Electrical Manufacturers Association (NEMA)
Underwriters Laboratories Inc. (UL)
UL 94 Standard for Safety of Flammability of Plastic Materials for Parts in Devices and Appliances testing
UL 1047 Isolated Power Systems Equipment

Approvals
UL listed by Underwriters Laboratory Inc.

Technical Properties
Copper vacuum service tubes are manufactured to ASTM B819 standards
Duplex and simplex sockets are UL-listed, NEMA style, hospital grade
Gas service systems are assembled and tested in accordance with NFPA 99
Gas terminal outlets are UL-listed (VXHT) quick-disconnect or DISS, conforming to CGA V-5

Fire Performance
The Basis Headwall System meets UL fire performance requirements based on power type used and meets all applicable current NFPA 70 and NFPA 99 standards