



# Operations and Installation Manual

## Vitalinq™ Communication System

### Model 94A-07 BT



**Vis-A-Vis, Inc.**  
(800) 319-6014  
[www.vitalinq.com](http://www.vitalinq.com)  
[support@vitalinq.com](mailto:support@vitalinq.com)



## Symbols and Conventions

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This icon identifies cautions: information that should be read before use for safety and to prevent damage to the Vitalinq<sup>™</sup> system.

## Trademark and Other Information

iPhone, iPod, iPod classic, iPod nano, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries.

## Vitalinq<sup>™</sup> System Specifications

**Input Ratings:** 100-220V~  
50-60Hz  
1.6A MAX

**Operating Temperature:** 25°C (77°F)

## Stereo Power Amplifier Specifications



















**Output:** Speaker outputs

**Speaker impedance:** Only use with provided 8 ohm speakers

**Maximum power output:** 8W × 4 (with Vis-A-Vis provided 8 ohm speakers)

## For Your Safety

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1.  Read these instructions.
2.  Keep these instructions.
3.  Heed all warnings.
4.  Follow all instructions.
5.  Do not use this apparatus near water.
6.  Clean only with dry cloth.
7.  Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8.  Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9.  Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10.  Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11.  Protective earthing (grounding) of the equipment to the building installation is by means of a power cord connected to a socket outlet with earthing (ground) connection.
12.  Only use attachments/accessories specified by the manufacturer.
13.  If a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
14.  Unplug this apparatus during lightning storms or when unused for long periods of time.
15.  Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
16.  To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
17.  Warning! Excessive sound pressure from earphones and headphones can cause hearing loss.
18.  This equipment is not suitable for use in locations where children are likely to be present.

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Thank you for purchasing a Vitalinq Communication System. Please read this manual thoroughly before installing the system. Following the instructions in this manual will enable you to obtain optimum performance and help you realize all the benefits of your combination intercom and music system.

Please retain this manual for future reference.

We would love to hear from you and we are committed to helping you solve any problems or answer any questions you may have.

If you need assistance with the installation or operation of your Vitalinq system, please contact customer support by calling 800-319-6014, emailing [support@vitalinq.com](mailto:support@vitalinq.com) or visiting our website at [www.vitalinq.com](http://www.vitalinq.com). Please note, Vitalinq ends with a Q.

An electronic version of this manual can be obtained at our web site.



# 1. VITALINQ™ INTRODUCTION

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The Vitalinq™ is designed to meet the unique communication needs which arise during diagnostic and interventional procedures. It allows physicians to have a continuous two-way conversation with control room personnel throughout procedures. Capable of picking up conversations in a normal tone of voice, the Vitalinq™ allows control room personnel to respond immediately to requests and provide up-to-the-moment communication on the patient's condition.

The Vitalinq™ communication system includes speakers and microphones for the procedure room (LAB) and control room (TEK). Personnel in the control room have the option of communicating through a headset or listening through an overhead speaker and speaking through a desk microphone. Personnel in the procedure room do not need to wear any type of device as their speech is picked up by a microphone attached to the video monitor (or monitor cluster) opposite the physician and they hear through an overhead speaker. There is no need for talk-listen switching, eliminating the risks posed by breaks in the conversation. Physicians and control room technicians may converse without interruption.

Integrated into the console, but operationally separate from the communication system is a music system. Music can be played from any Bluetooth-enabled device such as a mobile phone, or by connecting a cable to the line-out from a device with a standard 3.5 mm headphone plug, such as a satellite radio receiver.

We strive to provide the most flexible system available. To learn more about Vitalinq's advanced capabilities, please contact us at 1-800-319-6014 or by email at [info@vitalinq.com](mailto:info@vitalinq.com).

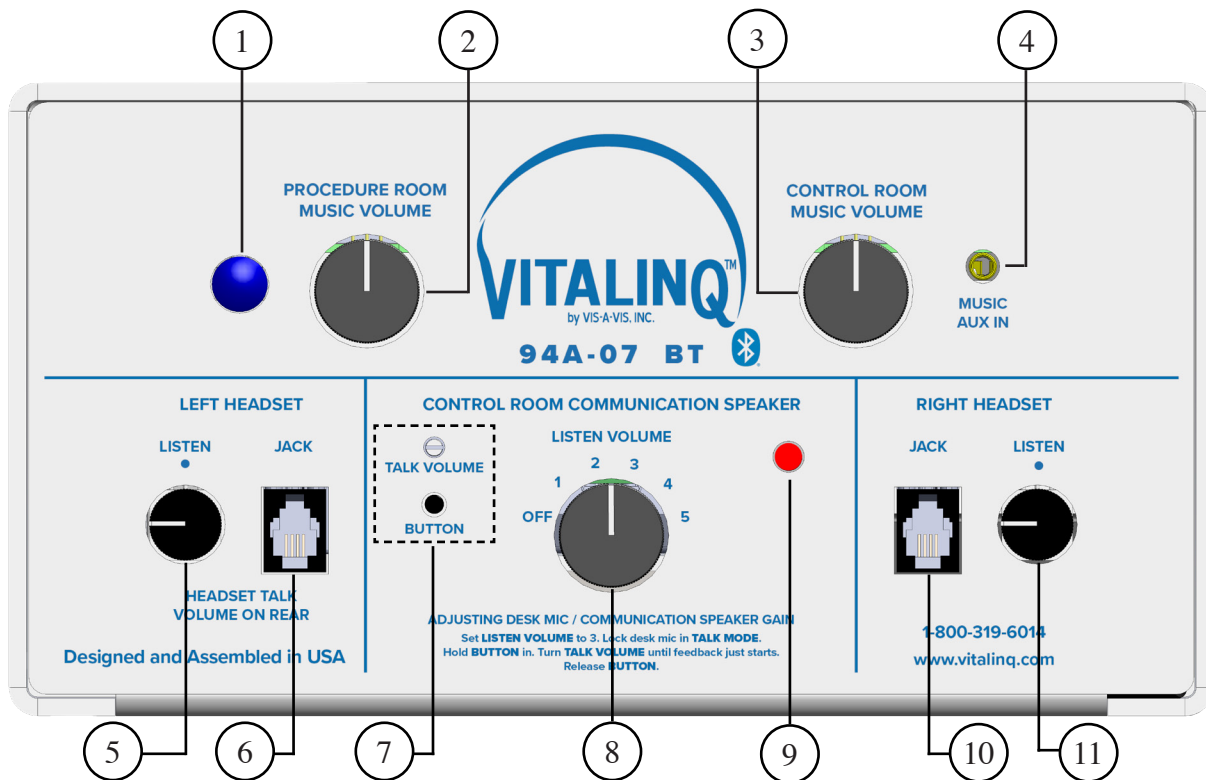
Advanced capabilities and options include:

- Wireless headset to replace the corded headset
- Wireless headsets for scrub or circulator nurses to provide discreet communication with each other and with the control room technician
- Remote connections for headsets and desk microphones
- Support for multiple headsets/desk microphones

Contact us for details.



## 2. VITALINQ™ INTERFACE

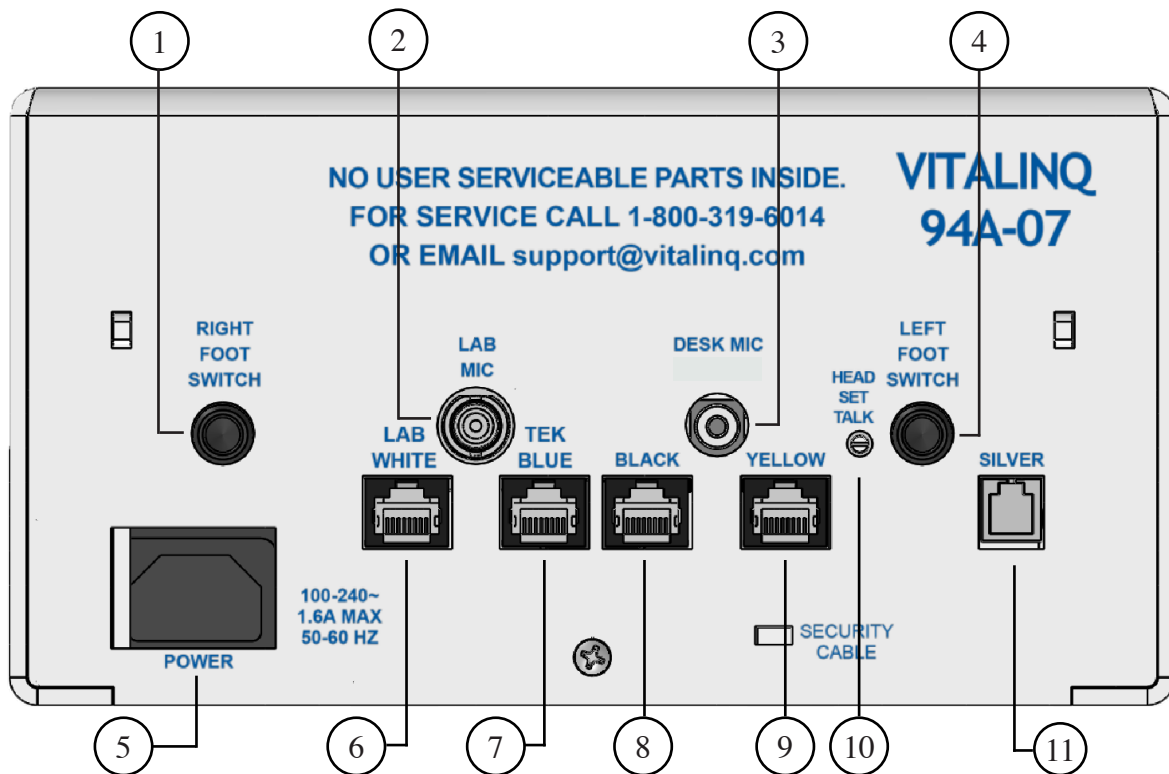


Front of Console

For detailed information, see the pages in parentheses.

- |  |  |
|--|--|
| <p>① <b>Blue LED (6)</b><br/>Indicates the status of the Bluetooth module; paired, streaming, and not paired. Can be used to restart the Bluetooth module.</p> | <p>⑦ <b>Talk Volume and Button (5)</b><br/>Used together to optimize the volume levels of the intercom overhead speakers. Typically only necessary to adjust during initial setup.</p> |
| <p>② <b>Procedure Room Music Volume (6)</b><br/>Used to adjust the music volume inside the procedure room.</p>   | <p>⑧ <b>Control Room Loudspeaker Volume (5)</b><br/>Controls the volume of the overhead speaker in the control room. Can be set to off.</p>  |
| <p>③ <b>Control Room Music Volume (6)</b><br/>Used to adjust the music volume inside the control room.</p>   | <p>⑨ <b>Red power LED</b><br/>Indicates the Vitalinq console is powered on.</p>  |
| <p>④ <b>AUX-In (7)</b><br/>3.5mm auxiliary input jack used to connect music devices using a cable with a standard headphone plug at each end.</p>              | <p>⑩ <b>Right Headset Jack (5)</b><br/>Used to connect a headset to the intercom system.</p>   |
| <p>⑤ <b>Left Headset Listen Volume (5)</b><br/>Adjusts the listen (earpiece) volume of the intercom headset that is plugged into the location.</p>             | <p>⑪ <b>Right Headset Listen Volume (5)</b><br/>Adjusts the listen (earpiece) volume of the intercom headset that is plugged into the location.</p>                                    |
| <p>⑥ <b>Left Headset Jack (5)</b><br/>Used to connect a headset to the intercom system.</p>  |  |





## Rear of Console

- |   |  |
|---|--|
| <p>1 <b>Right Foot Switch (14)</b><br/>See Section 6 of manual.</p> <p>2 <b>Lab Mic BNC Connector (12)</b><br/>Used to connect the Lab / Procedure room microphone to the console.</p> <p>3 <b>Desk Mic Jack (5, 9)</b><br/>1/4" phone jack used for connecting the desktop microphone.</p> <p>4 <b>Left Foot Switch (14)</b><br/>See Section 6 of manual.</p> <p>5 <b>Power Connection (4)</b><br/>Used for plugging the console into the AC power source.</p> <p>6 <b>LAB White Jack (11, 14)</b><br/>RJ45 jack used to connect the white Ethernet cable going to the procedure room speakers.</p> <p>7 <b>TEK Blue Jack (11, 14)</b><br/>RJ45 jack used to connect the blue Ethernet cable going to the control room speakers.</p> | <p>8 <b>Black Jack (14, 16)</b><br/>RJ45 jack used to connect an optional Mini-Console (remote Console).</p> <p>9 <b>Yellow Jack (14, 17)</b><br/>RJ45 jack used to connect optional wireless headsets.</p> <p>10 <b>Headset Talk Volume (4)</b><br/>Used to adjust the sensitivity of the headsets plugged into the left and right headset jacks.</p> <p>11 <b>Silver Jack (14, 15)</b><br/>RJ11 jack used to connect an optional wireless headset.</p> |
|---|--|

## 3 OPERATING THE VITALINQ™ SYSTEM

### 3.1 Description of the VITALINQ™ system

**Refer to Section 6 “INSTALLATION” for installation instructions.**

The Vitalinq™ is very easy to use and versatile. The standard system is composed of a pair of music speakers and a communication speaker in both the procedure and control rooms. The speakers are mounted overhead in the ceiling. The procedure room also has a microphone mounted to the monitor (or monitor array) opposite the physician. The control room is where the console is located and is where all devices are ultimately connected. Also in the control room and plugged into the console, are a desk microphone and/or a headset. One desk microphone and one headset are included with each system.

On the front of the console are controls for the music system and controls for talking and listening to the procedure room. At the rear of the console are several jacks and a thumbnail adjustable control for the headset talk volume. Words in BLUE throughout this document refer to labels on the console.

The **LISTEN** control and **HEADSET** jack on each side of the front of the console work together. There is an in-line mute switch provided with each headset to mute the headset microphone when desired. It is a “rocker” type switch located between the headset cord and coil cord. If preferred, a foot switch can be used instead of the in-line mute switch. Contact customer support if you would prefer to use a foot switch.

The volume of the headset earpiece is adjusted using the **LISTEN** volume control located adjacent to the **HEADSET** jack. The volume for the procedure room communication speaker (used to transmit speech from the control room) is controlled by the **HEADSET TALK VOLUME** control located on the rear of the console.

The **CONTROL ROOM LOUDSPEAKER** region at the center on the front of the console is for control of the desk microphone and ceiling speaker volume levels. The overhead **LISTEN VOLUME** control is for controlling the volume of the control room communication speaker. The **BUTTON** and **TALK VOLUME** in this area are only used during setup.

Before continuing, Make sure the power cord is connected to the **POWER** connector on the rear of the console and plugged into a 120 volt AC outlet. The LED on the front of console will illuminate as soon as power is available.



## 3.2 Headset settings and operation

Place the **LISTEN VOLUME** control into the **OFF position**. (This turns off the overhead speaker in the control room.)

Plug the corded headset with mute switch and coil cord into either the left or right headset jack. Turn the headset **LISTEN** control for the jack you selected to the middle of its rotation. Put the headset on. The headband slides in and out of the ear-cup. The headset microphone tube telescopes. Adjust the headset for comfort and move the microphone tube tip so that it is near the corner of your mouth. Listen to someone in the procedure room.

You will hear the people in the procedure room whether the in-line mute switch is in the mute position or not. Adjust the headset **LISTEN** volume for a comfortable level by means of the volume control labeled **LISTEN**. The left headset **LISTEN** volume control is for a headset plugged into the left jack and the right one controls the right jack. The white slotted shaft on the rear of the console by the left foot switch jack labeled **HEADSET TALK** controls the talk volume for both the left and right headsets. **If you are experiencing feedback in your headset (squealing), you need to turn down the HEADSET TALK volume on the rear of the console by rotating the white slotted shaft counterclockwise.**

## 3.3 Adjusting desk microphone and speaker sensitivity

The following steps are not required if only a headset is to be used and the desk microphone and overhead communication speaker are not being used. This is often the case in shared control rooms.

Temporarily unplug the headset and plug the desk microphone cable into the 1/4" jack on the rear of the console labeled **DESK MIC**.



The **CONTROL ROOM LOUDSPEAKER** controls are at the lower front of the console between the **HEADSET** jacks. Turn the **LISTEN VOLUME** switch to 3 and listen to the procedure room. You should be able to hear background noise. Press the **PUSH-TO-LOCK** switch on the microphone to lock the microphone on. Turn the **TALK VOLUME** control clockwise while pressing the **BUTTON** located below it until you just barely hear feedback (a squeal). Release the **BUTTON**. The **TALK** volume level is now set. As you switch the **LISTEN VOLUME** louder or softer, the volume level in the lab varies by an inverse amount to the volume in the control room in order to prevent feedback. When finished, unlock the microphone by pressing the **PUSH-TO-LOCK** switch. You can now, plug the headset back into the console.

Adjust the **LISTEN VOLUME** control (large knob in center) to a comfortable level for people in the control room. The desk microphone has two switches; a **PUSH-TO-TALK** and a **PUSH-TO-LOCK** switch.

To use the **PUSH-TO-TALK** switch (blue), press and **hold** the switch while speaking. The microphone will transmit while the switch is held down. Release the switch when you are finished speaking.

Use the **PUSH-TO-LOCK** switch (red) to lock the microphone on. The microphone will remain on (keyed) until the switch is pressed again.

**If you hear a hum or squeal, the TALK VOLUME control may be turned too far clockwise; turn it down using your thumbnail or small screwdriver, as described above.** There are also instructions printed on the front of the console for making this adjustment.

## 4 OPERATING THE MUSIC

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### 4.1 Connecting a music source

1. On the device you plan to use for playing music, open the Bluetooth menu.
2. Verify that Bluetooth is turned on.
3. Typically, there are two sections displayed. One that shows devices you have previously paired with and another area that shows devices that are available to pair with. Look for a device named BT5.0 and select it. You should now be paired with the Vitalinq Music Module via Bluetooth.
4. You can now enjoy listening to music from your favorite streaming service or from your personal music library.

NOTE: The module will always look to automatically pair with last paired device if it's available and in range. If no previous device is available, it will look to pair with a different device.

### 4.2 Adjusting the volume

1. Turn the Procedure Room and Control Room volume controls on the Vitalinq Music Module halfway up (12 o'clock position).
2. Set the volume on your music device all the way down.
3. Begin streaming music.
4. Now slowly adjust the volume on your music source to an appropriate level.

From this point, use the volume controls on the Vitalinq Music Module for fine adjustments in each room.

### 4.3 Blue LED light

The blue LED light on the Vitalinq Music Module provides feedback on Bluetooth pairing.

- Steady light — a device is paired
- Flashing Slow — a device is streaming
- Flashing Fast — nothing is paired

### 4.4 Disconnecting a device

Only one device can be paired at any given time to the Vitalinq Music Module. **To pair a new device, the currently connected device will either need to be disconnected manually or it will need to go out of range. Therefore, it is recommended that a device be disconnected when it is no longer being used for streaming music.**

To disconnect a device, go to the Bluetooth settings menu, select BT5.0 and select disconnect. On an iPhone, this feature is available by selecting the “I” (information) icon next to the paired device and then selecting “Disconnect”.

## 4.5 Receiving or making a cellular phone call

If you are using a cellular phone to stream music, and it is used to either make or receive a call, the music will temporarily stop playing. It WILL NOT signal or communicate through the speakers. Music will resume when the call has ended.

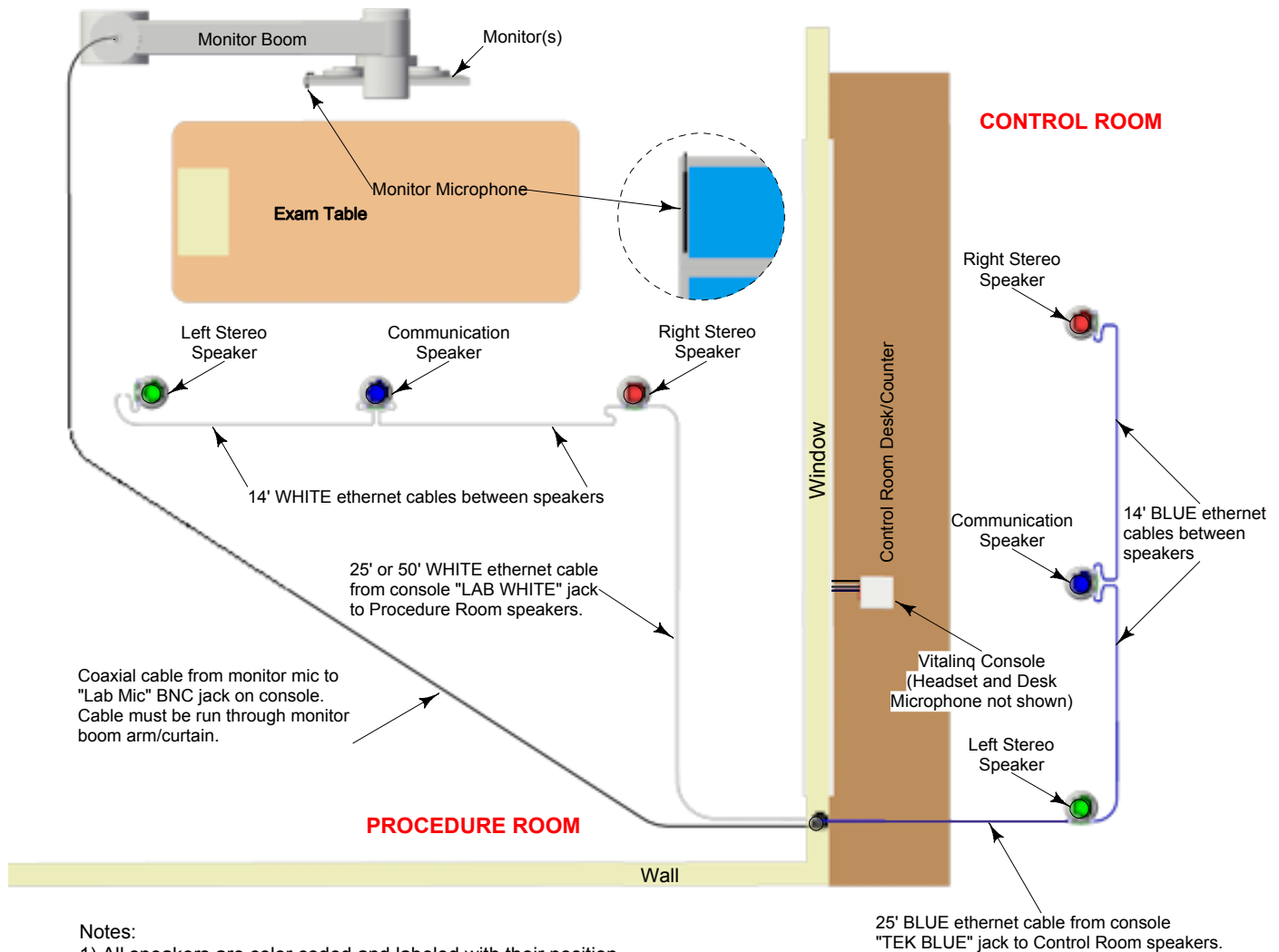
## 4.6 Connecting to the AUX-In

Use a high quality 3.5mm cable to connect to the Vitalinq Music Module via the AUX IN jack on the front of the console.

If a device is plugged into the 3.5mm jack, any device using the Bluetooth feature will automatically be disconnected regardless of the status of the LED light.

## 5 INSTALLATION

### 5.1 Typical physical layout



#### Notes:

- 1) All speakers are color coded and labeled with their position.
- 2) Speakers connect together in series (daisy chain) using supplied color coded ethernet cables. White for procedure room and blue for control room. Color coding of cables enables easy troubleshooting. Order of connection not critical. If conduit is used it should be 1". Junction boxes are not necessary at conduit ends.
- 3) Ethernet cables provided are CAT5. CAT6 can be used.
- 4) Monitor microphone (MM) mounts to face of monitor with the long axis oriented in the vertical position.
- 5) Monitor Microphone is connected directly to console BNC jack labeled "Lab Mic" using supplied coaxial cable. When cable is installed, ensure sufficient length is available at monitor to reach BNC jack on Monitor Microphone.  
Other connection options are possible. See **"Monitor Microphone Cable Connection" section of installation Manual for details.**
- 6) Console plugs into standard 110VAC, 60Hz outlet (US).



Typical connection of ethernet cables to speaker



Connection of ethernet, coaxial and power cables to console



Vis-A-Vis, Inc.  
800-319-6014  
www.vitalinq.com



## 5.2 Planning the Vitalinq™ installation

The Vitalinq™ has been designed for ease of installation. Please feel free to contact Vis-A-Vis customer support at 800-319-6014 at anytime for support over the telephone with an installation.

There are microphones and speakers for the procedure room and for the control room. The control room uses a desk microphone or a headset (both are provided). The procedure room microphone is what we refer to as a monitor microphone. It gets attached to the face of the monitor (or one of the monitors in an array) opposite the physician. Orienting the monitor microphone with its long axis vertical and on the face of the monitor display is critical to its performance. All cables are pre-terminated and may be run free or in conduit, subject to local regulations.

Referring to the layout on the previous page, and the instructions in 5.3 and 5.4, select locations for the speakers and monitor microphone. Always check for adequate space in the ceiling above the locations selected for the speakers. **Follow state and local code requirements regarding securing ceiling devices, such as speakers, to the building structure.**

**The monitor microphone is a directional microphone and must be mounted with its long axis vertical.**

### 5.2.1 Procedure room (LAB)

In the procedure room, the monitor microphone should be located on the video monitor directly across from where the physician will typically stand and attached to the face of the monitor in the bezel area with it's long axis oriented vertically. See “5.4.2 Monitor microphone placement”. For the physician to hear best, the communication speaker should be near the physician but more than six feet away from the monitor microphone and the door to the control room. The music speakers should be placed about four feet on either side of the physician, usually at the ends of the patient table.

**Follow state and local code requirements regarding securing ceiling devices, such as speakers, to the building structure.**

### 5.2.2 Control room (TEK)

In the control room, the technician's desk microphone should be placed in a position convenient for the technician. For best operation, the communication speaker should be located in the ceiling more than six feet away from the desk microphone and the door to the procedure room. The music speakers should be placed in the ceiling, three to four feet on either side of the technician.

**Follow state and local code requirements regarding securing ceiling devices, such as speakers, to the building structure.**

### 5.2.3 Control room console

Cabling from the procedure room speakers, control room speakers, and monitor microphone connect to the rear of the Vitalinq console. See typical layout on previous page. If you are installing before the walls are sheet-rocked, use a junction box near the console and one in the ceiling. Connect them with a 1” conduit if required. Cables can be pulled through by staggering the connectors.

The communication system has volume controls for the headsets and speakers.

**Follow state and local code requirements regarding securing ceiling devices, such as speakers, to the building structure.**

## 5.3 Installing Vitalinq™ speakers

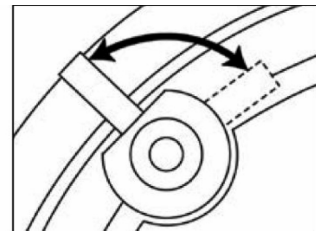
### 5.3.1 Installing speakers in ceiling

Each speaker has a circuit board and the circuit board has two RJ45 jacks. These circuit boards have jumpers preset to configure the speaker to be either a right music, left music, or communication speaker. Speakers come labeled to show how they are configured. **There is only ONE communication speaker for each room. Music speakers do not transmit speech - only music.** Speaker are connected to each other in each room and to the control room console using Ethernet cables. The cables can be connected to the speakers in any convenient sequence. The speakers mount in the ceiling.

1. Determine placement of speakers. In the procedure room, a communication (COMM) speaker should be located in the ceiling near the physician but more than six feet away from the monitor microphone and the door to the control room (ideally above and just behind the physician). A right music speaker should be located to the right the comm speaker, and a left music speaker to the left of the physician (generally speaking, about four feet to either side of the physician.)
2. In the control room, the communication speaker should be located in the ceiling near the technician, but more than six feet away from the desk microphone and the door to the procedure room. Music speakers should be located left and right of where the technician is typically seated.
3. Remove the ceiling tiles (if present) in the locations you have determined for the ceiling devices.
4. In the box the speakers shipped in, the communication speakers are packed individually and are marked COMM. The two (2) pairs of music speakers are packed individually, two left and two right and are marked MUSIC. A speaker support plate is provided for each speaker.

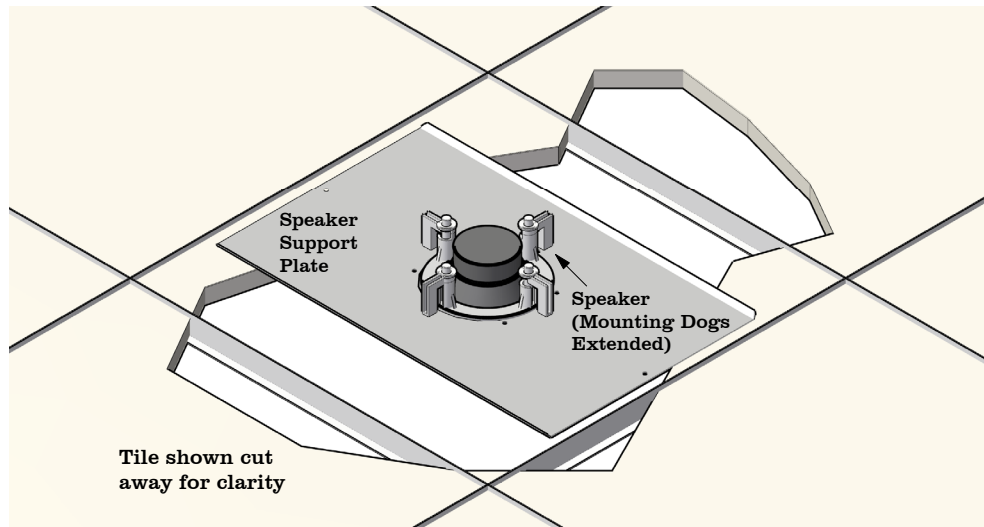
 **\* Be careful when handling the support plate as the edges can be sharp!!**

5. On the ceiling tiles (if present) you removed in step 2, draw a straight line on the backside from corner to corner. Place the support plate over the lines you drew on the tile and line up the template with the lines to center the template. The plate must not extend past the edges of the tile. Mark the circle and cut it out with a knife or drywall saw. The hole should be 6-5/8" diameter. Remove the grille of the speaker by rotating the securing legs on the back of the speaker and gently pushing them down towards the speaker grille. Replace the legs after grille removal to their original position. Put the speaker in the hole from the front side of the tile. Position the support plate over the speaker on the rear of the tile. Rotate out the legs on the back and screw down the four Phillips head screws on the front to pull the legs against the support plate. **Be careful not to over tighten the screws.** If needed after installation, the grill may be removed with a bent paperclip.
6. Install all speakers into selected locations.
7. In the procedure room (LAB), connect the COMM, LEFT MUSIC and RIGHT MUSIC speakers together using short **white** Ethernet cables. They can be connected in any order. Connect the speaker nearest the control room to the console **LAB WHITE** jack using a longer white Ethernet cable.
8. In the control room, connect the COMM, LEFT MUSIC and RIGHT MUSIC speakers with short **blue** cables. They can be connected in any order. Connect the control room speaker nearest the console to the jack on the console labeled **TEK BLUE**, with a longer blue cable.



**It is important to use the provided color coded cables as instructed (white for procedure room and blue for control room). This will aid Vis-A-Vis customer support if they are contacted to assist with troubleshooting.**





**NOTE:** It is the responsibility of the installer to know and comply with state and local code requirements pertaining to securing ceiling devices, such as speakers, to the building structure.

## 5.4 Monitor Microphone Installation

### 5.4.1 Monitor microphone description

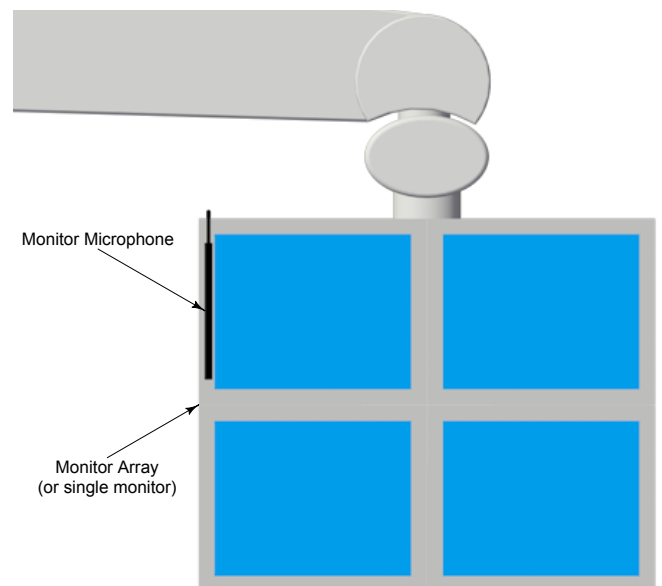
The monitor microphone is the microphone (mic) which gets installed in the procedure room to pick-up and transmit the physicians speech back to the control room technician.

The monitor mic is a 12 inch long black aluminum bar with a 1/2" square cross section and a female BNC connector. One side of the microphone has two strips of Dual-Lock™ (Velcro) which is used to adhere the mic to the bezel area of the monitor, or monitor array across from the physician. See illustrations.

### 5.4.2 Monitor microphone placement

The monitor mic picks up sound in a pattern which is approximately 180° in the horizontal plane and about 20° in the vertical plane and therefore the **mic must be oriented with its long axis vertical and on the face of the monitor in the bezel area**. See image below.

1. Determine the best location for adhering the mic in a vertical orientation along the bezel of the monitor (edge of monitor face) across from the physician.
2. Clean the bezel area of the monitor and remove the adhesive backings from the Dual-Lock™ and attach firmly to the selected area of the monitor. Apply light pressure to the mic for approximately 30 seconds.



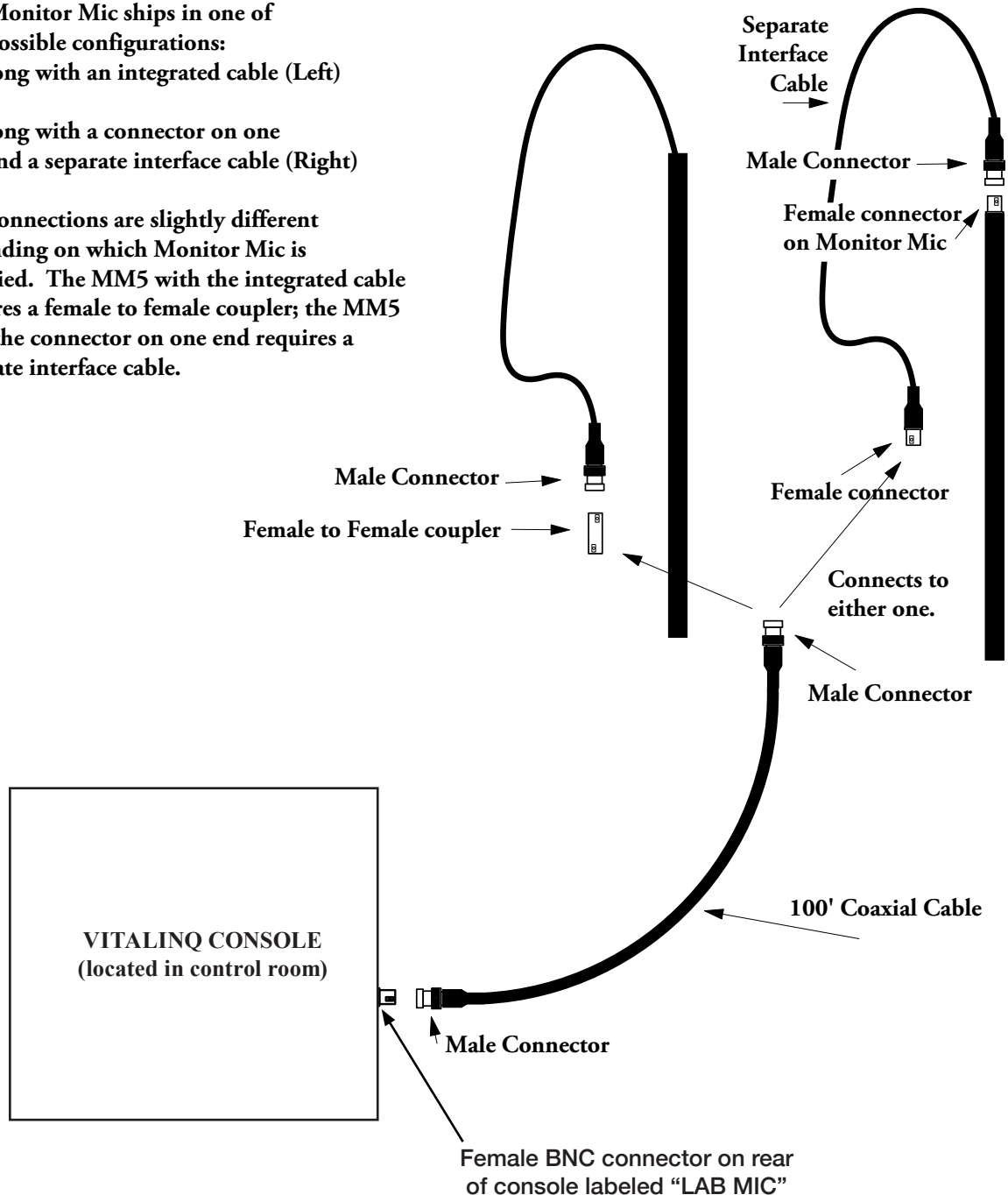
Array of four monitors shown with mic positioned along left bezel of upper left monitor. Similar positioning if single monitor.

### 5.4.3 Monitor microphone cable connection

The monitor microphone is connected to the console using a 100 foot coaxial cable that is supplied with the system. This cable, which has male BNC connectors on either end, is routed through the monitor boom/drape so that one end is available at the rear of the display monitor across from the doctor in the procedure room and the other end is available where the console is located in the control room. When installing the coaxial cable, be sure to allow ample cable at the monitor microphone end for attachment to the male BNC connector located on the monitor microphone. A female-female BNC coupler is provided to connect the cable to the monitor microphone.

The Monitor Mic ships in one of two possible configurations:  
13" long with an integrated cable (Left)  
or  
12" long with a connector on one end and a separate interface cable (Right)

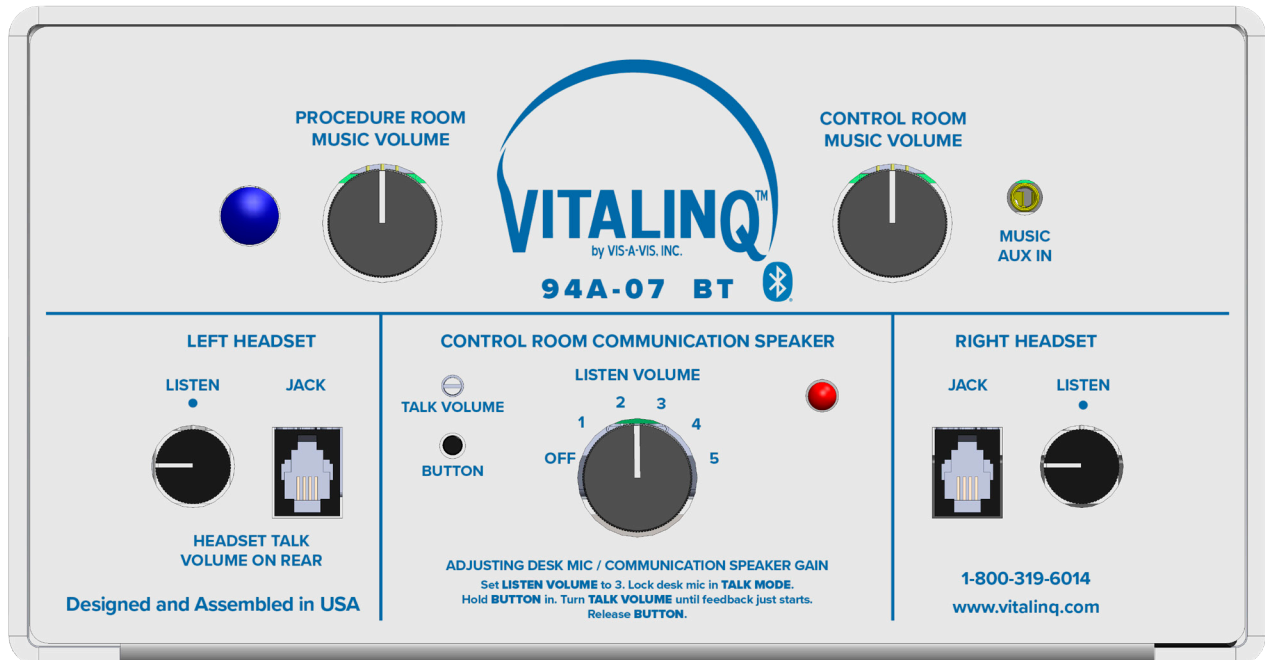
The connections are slightly different depending on which Monitor Mic is supplied. The MM5 with the integrated cable requires a female to female coupler; the MM5 with the connector on one end requires a separate interface cable.



## 5.5 Installing the Vitalinq™ console

### 5.5.1 Front of Console

Plug the headset into a headset jack on the front of the console closest to the technician's normal working location.



**Note:**

*The Console is usually placed on the control room counter top near the technician. If this is not possible, it may be placed in another location convenient for operation of music controls and if necessary, an optional remote console (MC-11 Mini Console) can be purchased for the headset (and foot switch if one is used) so they can be located within reach of the control room technician or even in another room. See section titled **OPTIONAL EQUIPMENT** at the end of this document.*

*Contact Vis-A-Vis at 800-319-6014 or email [support@vitalinq.com](mailto:support@vitalinq.com) to learn more about this option.*

## 5.5.2 Rear of console

- If using a desk microphone, plug it into either the jack marked **DESK MIC OR ANT**.
- If not connected already, plug the white procedure room speakers Ethernet cable into the jack marked **LAB WHITE**.
- If not connected already, plug the blue control room speakers Ethernet cable into the jack marked **TEK BLUE**.
- If using an optional foot switch to mute the headset microphone instead of the supplied in-line mute switch, plug it into the foot switch jack on the **SAME** side that you plugged in the headset. For instance, if using the **LEFT HEADSET JACK**, plug the foot switch into the jack labeled **LEFT FOOT SWITCH**.
- Connect the male BNC connector on the coaxial cable from the procedure room monitor microphone to the BNC connector on the console labeled **LAB MIC**.
- The jacks marked **BLACK**, **YELLOW** and **SILVER** are used for optional equipment. Instructions for using these jacks are included with the equipment. See **OPTIONAL EQUIPMENT** section of this document.
- The **DESK MIC** jack is **ONLY** for the connection of Desk Mics. External antennas are no longer supported.
- Plug the three conductor power cable into the **POWER** jack. Don't plug it in to an AC power outlet yet.



**Congratulations! You have completed the installation.**  
**Proceed to Section 3 “Operating the VITALINQ™ system.”**

## 6 OPTIONAL EQUIPMENT

### 6.1 Wireless Headsets

#### Introduction

The 94A-07 uses two separate communication paths. The first is a “public path”. This path transmits the control room technician’s voice over the ceiling speaker in the procedure room. From the control room, this path uses either a headset plugged into one of the two front **HEADSET** jacks on the Vitalinq console or a desk microphone. We refer to it as the “public path” since anyone inside the procedure room will hear the control room technician when he or she speaks. This configuration is typically used in catheterization labs.

The second is a “private path”. This communication path is between all headsets, wired or wireless, that are connected to the Vitalinq 94A console (and Mini Console, if one is being used.) This configuration is often used for interventional procedures or in hybrid environments. We refer to it as private because only the people wearing headsets are involved in the conversation.

Wireless headsets connected to the two **HEADSET** jacks on the front of the console communicate with ALL other headsets (“private path”) but can ALSO communicate with the procedure room over the ceiling speaker (“public path”).

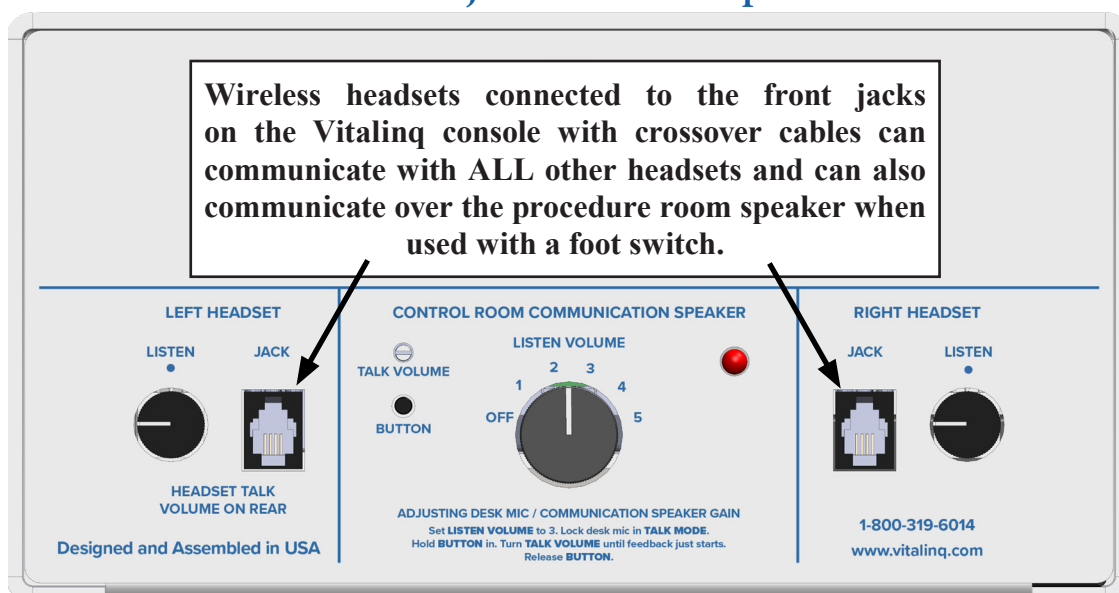
Wireless headsets connected to the **YELLOW** and **SILVER** jacks on the rear of the console can communicate with ALL other headsets but they CANNOT communicate over the procedure room speaker or hear the procedure room. Thus, they are on the “private path” only.

To allow the wireless headsets connected to the front **HEADSET** to communicate discretely with just the rear wireless headsets, a foot switch must be used with each. This prevents the front headset from being heard over the procedure room speaker unless its associated foot switch is pressed. If you want to mute a wireless headset from all communications, the “mute” function on the headset earpiece is used.

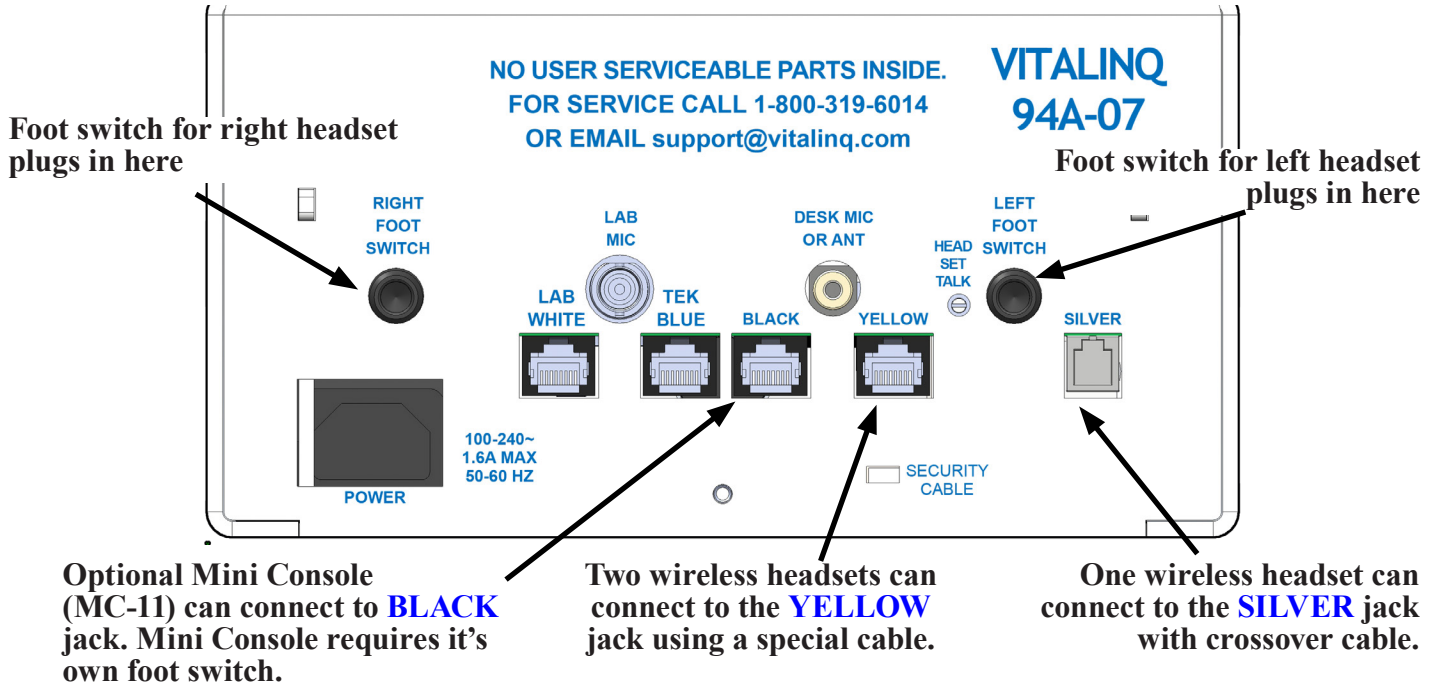


**Wireless headset (typical)**

#### Front HEADSET jacks on Vitalinq 94A Console



## Rear HEADSET and FOOT SWITCH jacks on 94A Console



### 6.1.1 Overview of the Poly Savi Headset

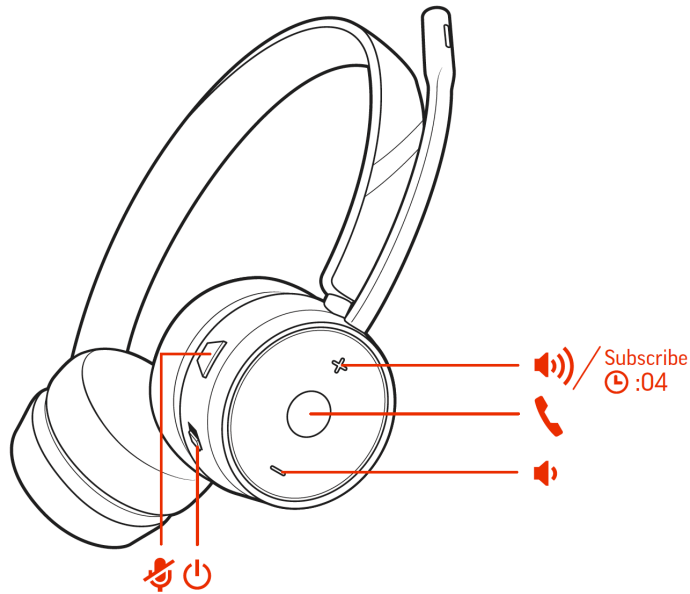
Shown in this manual, is the Poly Savi wireless headset. Prior to October 2023, we provided Sennheiser headsets. If you have Sennheiser headsets, visit our web site at [www.vitalinq.com/documentation](http://www.vitalinq.com/documentation) and look for the manual titled "Vitalinq 94A-07 BT Manual R0".

Refer to images on the following page for a description of the headset and base station.

After removing the Poly Savi 7210 from its packaging, do the following.

1. If not already labeled, place a label on each headset and its base station to identify them as a pair. This could be a number or a color.
2. Adjust the listening volume control [10] on the base to 2.
3. Adjust the talk volume control [11] on the base to 3.
4. Ensure the configuration switch [12] on the base is in the "A" position.
5. Slide the auto answer switch [8] to the right for auto answer. This will cause the headset to link up automatically when removed from the base. If you prefer to link the headset manually, leave this switch to the left and press the call/link button on the side of the earpiece to establish and end a link.
6. Place the power switch on the side of the headset in the "On" position.
7. Connect the power cord from the headset base station to A 110 VAC outlet.
8. **DO NOT CONNECT A CABLE TO [7], THE TELEPHONE INTERFACE JACK, AT THIS TIME.**
9. Place the headset on the base and allow it to charge for at least 20 minutes.
10. Repeat steps 1 through 9 for the remaining headsets.
11. Once charged, when you remove the headset from the base, it will be ready for use.

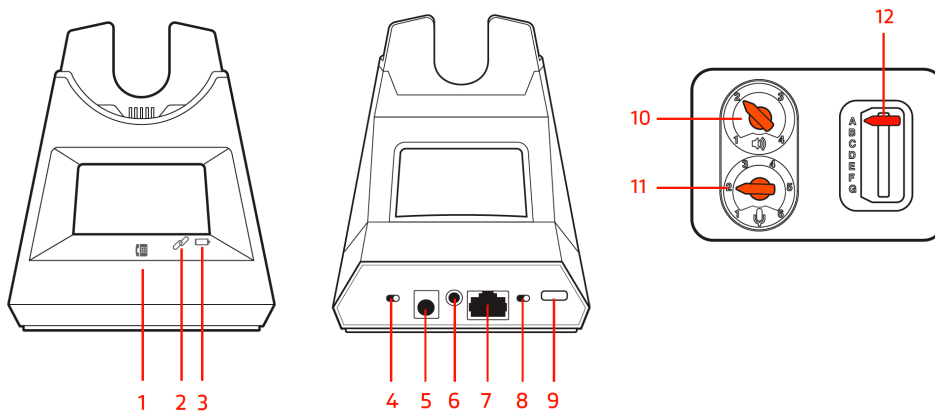
## The wireless headset



**Poly Savi 7210 Headset**

- |    |                |    |             |
|----|----------------|----|-------------|
| 1. | Mute/unmute    | 5. | Volume down |
| 2. | Power          | 6. | Link        |
| 3. | Manual connect |    |             |
| 4. | Volume up      |    |             |

## The base station



- |                                     |   |
|-------------------------------------|---|
| 1. LED                              | 8. Auto answer (auto link - leave on)   |
| 2. Subscribe/link LED               | 9. Subscription/link button             |
| 3. Charging LED                     | 10. Headset base listening volume       |
| 4. Wideband/narrowband audio switch | 11. Headset microphone sensitivity/gain |
| 5. Power jack                       | 12. Configuration switch (leave in "A") |
| 6. Handset lifter jack (not used)   |   |
| 7. Telephone interface cable jack   |   |



## 6.1.2 Option 1 - Using a Wireless Headset with the front Headset Jack(s)

As outlined in section 6.1, wireless headsets connected to the two **HEADSET** jacks on the front of the console communicate with ALL other headsets (“private path”) but can ALSO communicate with the procedure room over the ceiling speaker (“public path”).

If you haven’t already set up your headset, follow the steps in section 6.1.1 and then those below to connect a wireless headset to a front headset jack.

1. Locate the cable labeled “**POLY CROSSOVER**”. This cable is made by Vis-A-Vis (not Poly) and will be included with your wireless headset(s) when purchased from Vis-A-Vis. This crossover cable is the only cable that will work in the Vitalinq 94A front **HEADSET** and rear **SILVER** jacks. This cable has an RJ45 (Ethernet) connector on one end and an RJ9 connector on the other end.
2. Plug the end of the cable with the RJ9 connector into one of the two jacks labeled **HEADSET** on the front of the console. Plug the other end of the cable with the RJ45 connector into the jack on the rear of the Poly wireless headset base station.

Reminder...in a “public path” installation where there are no rear connected wireless headsets, and there is an existing foot switch that has been used with a corded headset, it is no longer necessary and should be disconnected when using a wireless headset plugged into a **HEADSET** jack. **If the system uses both “Public path” and “Private path” communication, A FOOT SWITCH MUST BE CONNECTED.** To mute the wireless headset microphone from the “private path,” use the mute feature on the headset. See instructions in section 6.1.3. To talk to the “public path” (procedure room loudspeaker) press the associated foot switch.

Your wireless headsets should now be functioning and capable of two way communication with the procedure room and any other headset(s) connected to the Vitalinq console (and, if equipped, optional Mini Console).

## 6.1.3 Wireless Headset Operation

To adjust the headset volume, follow the steps below.

1. Remove the headset from it’s base station and it will automatically link if auto answer [8] is on (recommended). If not, you will need to press the link button on the side of the earpiece.
2. Adjust the headset’s volume using the earpiece’s up and down controls. Raw adjustments can be made using the headset listen volume control on the Vitalinq console itself.
3. Mute the headset using the red switch on the side of the earpiece.
4. Place the voice tube about two finger diameters from your mouth for optimal sound quality.
5. You can make adjustments using the talk and listen volume controls on the headset base if

**If using more than one wireless headset, each headset earpiece and base station should be labeled so that the headset is returned to the base station it was removed from. If a headset is returned to a base station that is assigned to another headset, it will knock that headset offline and establish a link to the “new” base station. Colored labels or numbering can be used. Vis-A-Vis typically provides colored labels when providing more than one headset with a 94A system.**

necessary. However, the listen volume is recommended to be left at 2 or less to prevent distortion.



## 6.1.4 Option 2 – The YELLOW and SILVER Jacks (Rear Headset Jacks)

### Private Path ONLY

#### Yellow Jack

Using a special Vitalinq adaptor cable, up to two wireless headsets can be connected to the **YELLOW** jack on the rear of the Vitalinq 94A-07 console. Two-way communication is then possible between the wireless headset(s) plugged into the **YELLOW** jack and any headset (corded or wireless) plugged into one of the two **HEADSET** jacks located on the front of the Vitalinq console or, if used, the **SILVER** jack. Note that headsets plugged into the **YELLOW** and **SILVER** jacks do not provide two-way communication with the procedure room -

**Headsets connected to the **YELLOW** and **SILVER** jacks DO NOT broadcast over the procedure room speaker. They can only communicate with each other and any headsets connected to the front **HEADSET** jacks.**

they only communicate with each other and any headsets connected to the front of the console.

If you haven't already set up your headset, follow the steps in section 6.1.1 and then those below to connect a wireless headset to a **YELLOW** headset jack.

1. Locate the cable labeled "Poly Yellow Jack". This cable, made by Vis-A-Vis, will be included with your wireless headset when purchased from Vis-A-Vis. It is not a Poly cable. It has an Ethernet (RJ45) connector on one end with two cables leading from it to a pair of Ethernet connectors.
2. Plug the Ethernet connector with the two cables attached to it into the jack on the rear of the Vitalinq console labeled **YELLOW**.
3. Plug one of the two Ethernet connectors into the telephone interface jack [7] on the rear of one of the Poly wireless headset base station. Repeat for the other Poly base station. Both base stations are now plugged into the **YELLOW** jack on the Vitalinq console via the "Poly Yellow Jack" cable.
4. Follow the steps in section 6.1.3 to operate the headset.

#### Silver Jack

The **SILVER** jack provides for a fifth wireless headset to connect to the console. Connections for using this jack are the same as the front **HEADSET** jacks discussed in Option 1.

## 6.2 Vitalinq MC-11 Mini Console

### 6.2.1 Overview

The Vitalinq MC-11 (Mini Console) is an optional accessory device designed to be used with the Vitalinq 94A-07 Intercom and Music system. The Mini Console is very compact, measuring only 5 5/8" wide by 1 5/8" high by 4" deep. Its purpose is to reproduce the intercom functionality of the 94A-07 at another physical location. Control of the music system remains at the 94A-07 console. A single black Ethernet cable is used to connect the Mini Console to the 94A-07 console. This cable also provides power to the Mini Console.

The following are examples of situations where the Mini Console would be useful.

#### Example 1 - A crowded desk

The desk/counter at control room technician's workstation is crowded making it difficult to find room for the 94A-07 console. In this case, the 94A-07 console could be located where more space is available, possibly at the end of the workstation or on a shelf, and the smaller Mini Console could be placed in front of the technician or even beneath the counter at the technician's location.

## Example 2 - Secondary location

There is the need for a secondary location in the control room for personnel to have two-way communication with the procedure room and this location is too far from the 94A-07 console for it to be practical to connect a second headset to the 94A-07 console directly. This might be across the room or in a separate room or office. In this case, the Mini Console would duplicate the 94A-07 console's intercom functionality. An additional headset and foot switch and/or desk microphone will be needed. If located in a separate room from the 94A-07 console, and a desk microphone is to be used with the Mini Console, an additional communication speaker will also need to be installed in the room with the Mini Console. An additional communication speaker is not necessary if a headset is used. Please contact Vis-A-Vis at 800-319-6014 or by email at [support@vitalinq.com](mailto:support@vitalinq.com) to discuss your specific requirements.

### 6.2.2 Installation

1. Determine where the Mini Console will be located. Possibilities include but are not limited to on top or underneath a desk surface (see images below). If it is to be located under a counter top, it can be secured using two 2 1/4 inch #8 wood screws through pre-existing holes in the sheet metal enclosure. Before installation, make sure this screw length is not too long. If too long, it may penetrate through the counter top and damage the finish.
2. Run an Ethernet cable between the jack labeled BLACK on the rear of the 94A-07 console and the jack labeled BLACK on the rear of the Mini Console. This is the only cable that needs to be run between the two consoles. In addition to communication, this cable provides power from the 94A-07 console to the Mini Console. A 100' cable is provided.
3. Connect the Headset or Desk Microphone

#### **If using a headset:**

Connect the headset to the jack labeled HEADSET on the front of the Mini Console.

#### **If using a desk microphone:**

Plug the desk microphone cable into the jack labeled MIC-B on the rear of the Mini Console. Note that if using a desk microphone in a room other than the control room where the 94A-07 console and its speakers are located, you will need to install an additional communication speaker. This speaker will daisy chain off the control room communication speaker. Contact Vis-A-Vis at 800-319-6014 or by email at [support@vitalinq.com](mailto:support@vitalinq.com) to discuss your specific requirements.

### Miscellaneous

- Although there is a built-in microphone on the Mini Console (labeled MIC-A), in most environments, using a headset or desk microphone will provide better sound.
- The jack labeled AUX on the front of the Mini Console is used for testing by the manufacturer.
- The RCA jack labeled AUX on the rear of the Mini Console can be used for a heart rate monitor.
- The jack labeled BLACK OUT on the rear of the Mini Console can be used to attach an additional Mini Console. Up to four Mini Consoles can be run in series.
- If you are interested in connecting a heart rate monitor or running Mini Consoles in series, contact Vis-A-Vis at 800-319-6014 or by email at [support@vitalinq.com](mailto:support@vitalinq.com) to discuss your specific requirements.

## 6.2.3 Operation

### Wired Headset

- Adjust the talk volume for the headset using the small rotary pot labeled TALK on the front of the Mini Console.
- Adjust the listen volume for the headset using the large knob labeled LISTEN on the front of the Mini Console.
- Toggle the in-line mute switch located between the headset cord and coil cord to mute the headset microphone.

**If using the Mini Console in a system using “Private path,” the in-line Mute switch must be disconnected and a foot switch must be used instead.**

### Wireless Headset

- Adjust the Microphone volume on the rear of the base station to approx. 6. This can be fine tuned later as needed.
- Set the listen volume for the headset to midway using the large knob labeled LISTEN on the front of the Mini Console.
- If using the Mini Console in a system using “Private path,” a foot switch must be used. Press the foot switch to communicate with the overhead speaker and Monitor Mic (“Public path.”)

### Muting the wireless headset

To mute the headset for “Private Path,” press the Audio button in. The microphone is muted and the LINK LED on the base station flashes red.

To cancel muting, press the Audio button once more. The muting is cancelled and the LINK LED on the base station lights up blue.

### Desk Microphone:

1. The talk volume for the desk microphone can be adjusted using the small rotary pot labeled TALK on the rear of the Mini Console.
2. The listen volume for the communication speaker is adjusted using the knob labeled LISTEN VOLUME on the 94A-07 console.

## 6.3 Combining a Vitalinq 94A-07 System with a Vitalinq 94W-15 For Using More Than 5 Wireless Headsets

**NOTE: Please notify Vis-A-Vis at the time of order that the 94W15 will be used connected to a 94A-07 system so that it can be internally configured correctly!**

### System Setup

The setup information below provides instructions for connecting the 94W-15 to the 94A-07. Setup and operation of the 94W-15 is covered in detail in the Vitalinq 94W-15 Wireless Headset System Operations and Installation Manual which is provided with the wireless system. A copy of the Vitalinq 94W-15 Wireless Headset System Operations and Installation Manual is available via the “Documentation” link on the Vitalinq web site which at [www.vitalinq.com](http://www.vitalinq.com).

1. Plug one end of the RJ9 to RJ9 cable into the jack labeled SILVER on the 94A-07 console and the other end into the jack labeled SILVER on the 94W-15 console.
2. Plug the foot switch into the foot switch jack on 94A-07 console on the SAME side that the headset is plugged into. For instance, if using the LEFT HEADSET JACK on the front of the 94A-07 console, plug the foot switch into the jack labeled LEFT FOOT SWITCH OR AUX IN on the rear of the console (directly behind the headset jack being used). If using the RIGHT HEADSET JACK, plug the foot switch into the jack labeled RIGHT FOOT SWITCH OR AUX IN

When the foot switch is not pressed, all the connected headsets can freely communicate (“Private Mode”). Pressing the foot switch allows the associated headset to also communicate with the Procedure Room overhead speaker and Monitor Mic (“Public Mode.”)

Please contact Vis-A-Vis at 800-319-6014, by email at [orders@vitalinq.com](mailto:orders@vitalinq.com) or through our web site at [www.vitalinq.com](http://www.vitalinq.com) for pricing information

END OF DOCUMENT

**If you have any questions or need help with the setup or operation of your Vitalinq system, please give us a call at 800-319-6014 or email [support@vitalinq.com](mailto:support@vitalinq.com). Also, please feel free to give us your feedback or suggestions.**