

STRYKER SWITCHPOINT INFINITY 3 OPERATION AND MAINTENANCE MANUAL



stryker®

SwitchPoint Infinity® 3 and SwitchPoint Infinity 3-Lite Router and Control System Operations and Maintenance Manual

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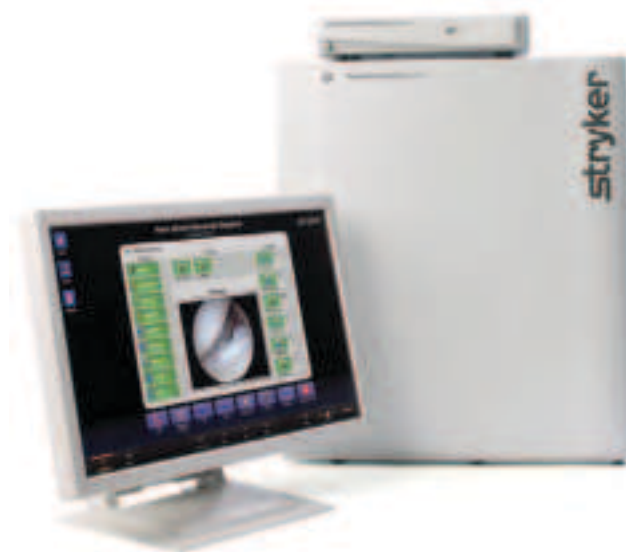


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1

Indications for Use

1.1 Intended Use

Stryker SwitchPoint Infinity® 3 (SPI3) Control System is intended to be a central point of control and integration of ancillary compatible equipment, audio, video, and data routing, as well as teleconferencing for medical personnel.

1.2 Indications

General surgical population.

1.3 Contraindications

None.

1.4 Wireless Microphone

The wireless microphone is available and serves as another audio input to the SwitchPoint Infinity 3 Control System audio subsystem. The microphone uses Ultra High Frequency (UHF) to transmit to the receiver. UHF is a common frequency range which television stations use to broadcast their signal. The wireless microphone has been tested to meet medical EMC and safety standards. The Instructions for Use contains language informing the users of these radio frequencies. The theoretical maximum range of the microphone transmitter is 91.5m (300'). This range is greatly limited inside of a hospital operating room, due to the general construction of hospitals. The users are instructed to test all equipment with the wireless microphone system to ensure that no interference exists prior to the use of Stryker SwitchPoint Infinity 3 Control System.

2

Warnings and Cautions

In this manual, the terms and definitions below apply.

- **Warning:** Possible injury to the patient or user.
- **Caution:** Possible damage to the equipment.
- **Note:** More information to clarify the instructions.

2.1 Warnings

To prevent possible injury to the user and the patient, the user must follow these requirements:

1. Read this manual fully before you use this equipment.
2. Before you use this equipment you must be trained medical personnel, with complete knowledge on how to use this equipment.
3. Do a test of this equipment before surgical procedures. This equipment was fully tested at the factory before it was shipped.
4. To prevent electrocution, do not remove product covers.
5. Do not repair or adjust the equipment, unless you are instructed to do so in this manual.
6. Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
7. To prevent a fire, keep instruments away from flammable materials (such as gauze or surgical drapes).
8. To prevent a fire, allow adequate air circulation to prevent internal heat buildup.
9. Do not touch the front panel input or output circuitry and a patient at the same time, as there is a risk of electrical shock.
10. The electrical installation of the operating room must be in compliance with the applicable IEC, CEC, and NEC requirements.
11. To avoid risk of electric shock, this equipment must only be connected to a supply mains with protective earth.
12. Disconnect the unit from the electrical outlet before you examine the system components.
13. The wireless microphone functionality included in this device contains a radio transmitter and receiver. Hospitals and health care facilities may be using equipment that is sensitive to radio frequencies (RF).
Prior to using this device in a surgical procedure, perform the following steps to ensure electromagnetic compatibility among operating room devices:
 - a. Identify any medical devices located within the SwitchPoint Infinity 3 Control System's communication range (Theoretical maximum of 91.5m [300']).
 - b. Test each device for compatibility with the SwitchPoint Infinity 3 Control System: Power on the medical devices.

Perform a variety of functions with the SwitchPoint Infinity 3 Control System, such as speaking through the microphone and powering on and off the microphones.

- c. Reposition devices as necessary to maintain electromagnetic compatibility, or disable the wireless microphone.

This device complies with Part 15 of the FCC Rules. Operation is subject to the conditions that this device does not cause harmful interference.

CLASS 1 LASER PRODUCT
This product complies with
21 CFR 1040.10 and 1040.11
except for deviations pursuant to
Notice N.O. 50, dated July 26, 2001

2.2 Cautions

1. Carefully unpack this device and check for damage. Refer to the standard warranty if the device is damaged.
2. To prevent damage, follow all sterilization and disinfection instructions in this manual. A deviation may cause damage. **DO NOT STERILIZE OR DISINFECT THE CONTROL UNIT OR THE TOUCH PANEL DISPLAY.**
3. Only Stryker approved personnel can adjust, modify, and repair this equipment.
4. Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration, or shock.
5. The leakage current could increase when connected to other equipment.
6. Do not position the unit such that it is difficult to disconnect the power cord.
7. Caution: Federal law (United States of America) restricts this device to use by, or on order of, a physician.

2.3 Notes

1. Stryker Communications has verified that the SwitchPoint Infinity 3 Control System complies with the electromagnetic compatibility requirements for medical devices as specified in IEC 60601-1-2. RF communication equipment such as the wireless microphone in the SwitchPoint Infinity 3 Control System, however, can still affect other medical electrical equipment in the operating room.
2. The screen captures in this manual may differ slightly from each individual SwitchPoint Infinity 3 setup, depending on configuration.
3. The terms “SwitchPoint Infinity” and “SPI” are used interchangeably throughout the manual.
4. Operate the unit on 100 VAC 50/60 Hz in Japan, 120 VAC 50/60 Hz in North America, and 100-240 VAC 50/60 Hz in other locations.
5. The nameplate indicating operating voltage, power consumption, and other information is located next to the power entry module on the front of the SPI3 and on the back of the SPI3-Lite.
6. This equipment uses only RoHS approved/complaint lead-free solder.

3

Product Symbol Definition

The following symbols may be found on the SwitchPoint Infinity equipment:

	Follow instructions for use.
	The book symbol is intended to refer the user to important safety operating and maintenance (service) instructions in the literature accompanying the product.
	An exclamation mark within a triangle is intended to alert the user to the presence of important operating and maintenance (service) instructions in the literature accompanying the product.
	A lightning bolt indicates the presence of hazardous voltage. Refer all service to authorized personnel.
	Temperature limits
	Denotes humidity limits.
	Denotes pressure limits.
	Denotes compliance to European Community Directive 93/42/EEC.
	Denotes compliance to CSA Standard C22.2, 60601-1 - M90, AS 3200, IEC 60601-1, UL 60601-1, EN 60601-1
	Denotes the date the equipment was manufactured.
	Denotes the manufacturer of the device.
	Denotes product/part number.
	Denotes product/serial number.
	Denotes lot or batch number.
	Denotes European Representative.

	For U.S. audience only - Caution: Federal Law (USA) restricts this device to sale by or on the order of a physician.
	Denotes quantity.
	Accessories
	Repair Kit
	Video Router
	Denotes Class 1 Class 1 Equipment: equipment in which the protection against electric shock does not rely on Basic Insulation only, but includes an additional safety precaution in such a way that means are provided for the connection of Accessible Conductive Parts to Protective (ground) Conductor in the fixed wiring of the installation in such a way that Accessible Conductive Parts cannot become Live in the event of a failure of the Basic Insulation.
	In accordance with European Community Directive 2002/96/EC on Waste Electrical and Electronic Equipment, this symbol indicates that the product must not be disposed of as unsorted municipal waste but should be collected separately. Note: The device does not contain any hazardous materials. Legal regulations may include specifications regarding the disposal of this product. We request that you contact Stryker when you plan to withdraw this device from service for discard.
	Denotes the device contains more than .002% cadmium.
	Denotes the device contains more than .0005% mercury.
	Denotes the device contains more than .004% lead.

3.1 EMC Precautions

This device is considered medical electrical equipment and requires special precautions regarding EMC and needs to be installed and put into service according to the information provided.

Portable and mobile RF communications equipment can affect this device's performance and must be used in accordance with the following information.

 Warning:

- The use of accessories, transducers, or cables other than those specified, with the exception of those sold by Stryker, may result in increased electromagnetic emissions or decreased immunity of the equipment or system.
- The equipment should not be used adjacent to or stacked with other equipment. If stacking or adjacent placement is necessary, the equipment should be observed to verify normal operation in the configuration in which it will be used.

4

System Overview

This manual describes the user interface and functionality for the SwitchPoint Infinity 3 Control System and Router (SPI3) and the SwitchPoint Infinity 3-Lite Control System and Router (SPI3-Lite). Throughout this manual, unless otherwise specified, “SwitchPoint Infinity” refers to both SPI3 and SPI3-Lite.

SwitchPoint Infinity 3 was designed to work with Stryker devices as well as other devices. Contact Stryker to determine if a device is compatible with SwitchPoint Infinity 3.

4.1 An Integrated Voice, Video, and Data Router and Conferencing Interface

The SwitchPoint Infinity 3 Control System is built with high quality video and audio components. It is designed to operate and communicate with a broad range of equipment such as cameras, monitors, and surgical equipment, including the insufflator and light source.

The Touch Panel Interface provides a convenient, easy method to control every function of the SwitchPoint Infinity 3 Control System.

5

Equipment Connections

5.1 Connectors Used by the SwitchPoint Infinity 3 Control System

The SwitchPoint Infinity 3 Control System uses various commercial-grade video and audio cables to interconnect equipment.

The primary types of cables are used in wiring video systems: Composite cables, which have a BNC connector; RGB-HV cables, which have an HD-15 connector; S-Video cables, which have a 4-pin mini-DIN connector; and DVI cables. BNC connectors are push and turn type connectors; HD-15 connectors are push and screw type connectors; and DIN connectors are push only type connectors. On some monitors, S-Video inputs may be labeled Y/C or S-VHS, and RGB-HV inputs may be labeled PC, Computer, or VGA.

The room speaker connection on the SwitchPoint Infinity 3 Control System uses a Phoenix connector.

5.2 Connections Overview

5.2.1 Video Inputs

The number of video inputs is dependent upon each SwitchPoint Infinity Router. Source inputs are available to receive video directly from Endoscopic and Room Cameras, Printer, Digital Capture Device, Voice Control Device, and other video device outputs. All of the connections are located on the front panel. For video input wiring, connect each device output to an available video input on the SwitchPoint Infinity 3 Control System connection panel.

5.2.2 Video Outputs

 **Warning:** Do not touch the internal pin of the BNC video out jacks and the patient simultaneously. Doing so may cause the patient to receive an electric shock.

The number of outputs is dependent upon each SwitchPoint Infinity Router. Outputs are available to send video directly to flat panel displays, monitors, projectors, and other video device inputs. All of the connections are located on the front panel. For video output wiring, connect each device input to an available video output on the SwitchPoint Infinity 3 Control System connection panel. When connected to a “loop-thru” video device, the SwitchPoint Infinity 3 Control System will route the source to the device input and receive the output signal from the device for further routing to a monitor (if selected).

5.2.3 Audio Inputs

There are 10 audio inputs available on the front panel of the SwitchPoint Infinity 3 Router:

- Two mic level inputs
- Eight line level inputs

There are four audio inputs available on the front panel of the SwitchPoint Infinity 3-Lite Router:

- One mic level input
- Three line level inputs

Any audio input may be used for connecting audio devices, as there are no reserved audio inputs for specific devices. For example, the wireless microphone receiver can be connected to any of the microphone inputs, as can the Sidne. Phantom power is available for mic inputs. Make sure that phantom power is not enabled for microphones that do not require it.

5.2.4 Audio Outputs

There are eight line level outputs and two speaker outputs available on the front panel of the SwitchPoint Infinity 3 Router. Two of the line level outputs are designated for connection to an external amplifier (applies only to SPI3). There are two line level outputs and two speaker outputs available on the front panel of the SwitchPoint Infinity 3-Lite Router. The Video Network Hub™ and room speakers are some of the devices that are connected to the audio outputs on the SwitchPoint Infinity 3 Control System.

5.2.5 RS-232 Connectivity

The SwitchPoint Infinity 3 Router has 16 RS-232 ports that can be used to connect devices that use serial communications, such as PTZ Cameras and Flat Panel monitors. SPI3-Lite can be configured with either four or eight RS-232 ports.

5.2.6 KVM

There are three USB connections available for PC KVM control allowing for keyboard and mouse emulation on up to three PCs.

5.2.7 Video Network Hub™

This device will facilitate room-to-room connectivity for video conferencing. If your system is equipped with a Hub Codec, the Codec will be housed in the Video Network Hub and will allow offsite connectivity. The Video Network Hub is connected to the SwitchPoint Infinity 3 Control System using the Audio In and Out connectors, the Ethernet connection, and the video input and output connectors. Details of the connection and operation of the Video Network Hub are contained in the Operations and Maintenance manual for that equipment.

5.2.8 SuiteLink® and SuiteView®

SuiteLink is an IP-based Video Hub that coordinates Stryker endpoints with Campus Codec functionality through an Ethernet connection. It also supports the broadcast of video from these endpoints to IP-based desktop users in conjunction with the SuiteView

product. Users can view available video sources from these endpoints, and with proper setup and permissions, they have the ability to change video sources and manipulate the camera views from their desktop computer.

Only one SuiteLink or Video Network Hub can be configured per facility. SuiteLink supports up to two hub Codecs for video conferencing calls.

5.2.9 Sidne® Voice Activation System or SDC3 Voice Package

The SwitchPoint Infinity 3 Control System can be configured to communicate with the Sidne Voice Activation System or SDC3 Voice Package with an optional upgrade to the Sidne or SDC3 system. The SwitchPoint Infinity 3 Control System and Sidne are connected via Ethernet through an Ethernet switch.

5.2.10 Local Codec

A local Codec supports a dedicated video conferencing Codec for one endpoint only.

Note:

- **The actual cable connections to the SwitchPoint Infinity 3 Control System must be synchronized with the software. This configuration is maintained in the Advanced Setup area of the user interface. Changing cable connections without changing the software configuration will result in system malfunction. Contact technical support for assistance.**
- **SPI3 and SPI3-Lite cannot be connected to a Local Codec and a Campus Codec at the same time.**

5.2.11 Campus Codec

The Campus Codec feature applies only to facilities with SuiteLink for IP Videoconferencing.

Stryker endpoints can be configured with a Campus Codec to enable IP videoconferencing to other Stryker endpoints with Campus Codec functionality and to enable IP broadcasting of video from that endpoint. A Campus Codec works with SuiteLink and supports campus status, remote video source control, and remote PTZ control.

Note: SPI3 and SPI3-Lite cannot be connected to a Local Codec and a Campus Codec at the same time.

6

Touch Panel Interface

 **Warning:** The SwitchPoint Infinity 3 Control System interface can be displayed on up to two Touch Panels. The Touch Panels are not sterile devices.

Note:

- **Most styluses cannot be used on the SwitchPoint Infinity 3 Control System's Touch Panel interface. For best results, use your finger or a gloved hand on the Touch Panel interface.**
- **To exit out of any screen other than the Home screen, press the red X in the top right corner of the respective page, or press the Home button.**
- **Avoid getting moisture on the surface of the screen, and be careful not to scratch the surface with instruments or finger nails.**
- **For information on changing the institution and room names, as well as changing the system language, refer to the Installation Manual.**

The Touch Panel Interface controls every function of the SwitchPoint Infinity 3 Control System. It offers a menu of options dependent on the equipment that is installed in that particular room. To use the Touch Panel, touch the displayed "button" with the soft surface of your finger. When a button is selected in the program, it will turn orange. Depending on the function it may stay orange, or return to blue after a few seconds.

The SwitchPoint Infinity 3 Control System Touch Panel interface is composed of four sections: the Control Section (Item 3), the Quick Button Bar (Item 4), the Global Taskbar (Item 5), and the Menu Buttons (Item 2).



Figure 1. Home Page

1	Title Bar	4	Quick Button Bar
2	Menu Buttons	5	Global Taskbar
3	Control Section		

6.1 Control Section

The Control Section is the main area of the screen. From here, the user can navigate the system. By default, the Simple Routing screen is displayed as the Home Page in the Control Section.

6.2 Quick Button Bar

The Quick Button Bar is displayed below the Control Section. It provides quick access to the functions most often used, such as the Calls, Advanced Routing, Picture-in-Picture view, QUAD view, Audio, Display, Room Cam, and Surgical Timeout screens. Pressing a button in the Quick Button Bar opens the respective display in the Main Area.

Note: QUAD view is not available for SPI3-Lite

6.3 Global Taskbar

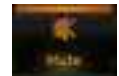
The Global Taskbar is located along the bottom of the screen and provides quick access to system functions, including system Volume, Mute, Setup, Save Preset, Support, Help, Suite Power, and Private. It also displays the current time, when configured properly.

6.3.1 Volume Control

To adjust the volume, press down on and slide the volume slider either to the right or left to turn up or down the volume, respectively. The volume can also be adjusted by pressing the “+” button to increase or the “-” button to decrease.

To mute the sound, press the **Mute** button. The **Mute** button will remain highlighted when it is active.

To unmute the sound, press the **Mute** button again.



6.3.2 Setup

The Setup button allows access to the Software Configuration screens of the SwitchPoint Infinity 3 Control System and the Video Network Hub, if present.

If the Sidne Voice Activation System or SDC3 Voice Package is configured to work with the SwitchPoint Infinity 3 Control System, its configuration screen will be accessible when the Setup button is pressed.

If the Setup button is selected, the “About Infinity” screen will appear. This screen displays the Stryker Technical Support contact information, current Software Version, Serial Numbers, Part Numbers, and the institution contact information provided for this router. These screens should only be accessed by a Stryker representative or authorized personnel. You will be prompted to enter a username and password for security purposes. Note that the Setup screens can only be accessed from the local Touch Panel interface of the SwitchPoint Infinity 3 Control System.



Figure 2. About Infinity Screen

6.3.3 Save Preset

The Save Present function allows you to quickly save a room setup as a preset that will appear in the Presets menu ([see 9.2 Saving a Preset, page 34](#)).

6.3.4 SORN Support

The SORN button allows you to go to the Technical Support Notification page where you can send a complaint or help message directly to Stryker Enterprise Tech Support ([see 22 SORN Support, page 72](#)).



Figure 3. SORN Support Page

Note: To use this feature, the Switch Point Infinity must be registered to SORN, and a service contract must be purchased.

6.3.5 Help

The Help screen offers tutorials that explain how to operate the system. To access the Help section, press the **Help** button on the taskbar.

The Help screen uses multimedia to instruct you on how to operate different functions of the system, such as how to route video, make a call, or control room cameras. The Stryker Communications Technical Support contact information can be found on the bottom of the page.



Figure 4. Help Screen

6.3.6 Suite Power

When pressed, this button will turn on or off all of the display monitors controlled by the SwitchPoint Infinity 3 Control System.

Note: In the case of Stryker Vision 2 monitors only, the Suite Power button acts as a toggle. If the monitors are already off, pressing this button will turn them on and vice versa.

If the Suite Power button is highlighted it indicates the suite monitors are on, unless they have been manually switched off, in which case, they will need to be manually switched back on. If it is not highlighted, the suite monitors are off. Powering on or off individual displays will not affect the state of the Suite Power.

6.3.7 Private

The Private button provides control over the ability to view or remotely monitor the room where the SwitchPoint Infinity 3 Control System is located. The Private button toggles on and off and stays highlighted in orange when Private is On.

If Private is On, the system restricts all inbound communications without user authorization. If the SwitchPoint Infinity 3 Control system is currently connected to another room within the hospital campus or offsite location, activating the Private feature will immediately disconnect the room.



Figure 5. Private Buttons On/Off

6.4 Home and Presets Buttons

6.4.1 Home Button

Pressing the **Home** button returns the Control Section to it's home state, showing the Simple Routing screen.

6.4.2 Presets Button

Pressing the **Presets** button opens the Presets menu.



Figure 6. Presets Menu

To use a preset from the menu, press the desired **Preset** button. The preset will automatically load ([see 9 Presets, page 34](#)).

6.5 Screensaver

After 2 hours of non-use, the SwitchPoint Infinity Touch Panel screensaver will activate.

⚠ Caution: Use caution when reactivating the Touch Panel from screensaver mode, as touching anywhere on the Touch Panel may inadvertently execute a function.

Note: There is no screen saver option for All-In-One systems.

7

Routing Video

The options on the Simple Routing screen allow you to route images from various cameras or video input devices in the iSuite® OR to devices or monitors connected to the SwitchPoint Infinity 3 Control System. This screen can be used to select which video source to direct to a remote room or offsite location using the Video Network Hub or SuiteLink. This screen is the default page for the Home screen.

The SwitchPoint Infinity 3 Control System manages video routing as a chain of events. Once a video source is selected, it can be routed to a number of devices or displays in a row. This simplifies the process and allows the same input source to be viewed and recorded in multiple ways.

The SwitchPoint Infinity 3 Control System gives special distinction to devices such as the Stryker Digital Capture (SDC) and Sidne. These devices are capable of receiving video signals, but their output can be re-routed to a display so that the surgeon can view what is currently being recorded on a given documentation device.

There are three ways in which video can be routed, each of which are described in the sections that follow.

7.1 Simple Routing

The Simple Routing screen appears similar to the one shown in the figure below, and is also known as the “Simple Routing” page. This screen contains four main components: the sources are listed on the left side of the screen; the devices through which the sources can be routed are listed at the top of the screen; the displays on which the video signal can be displayed are located on the right side of the screen; and the video stream being routed will be displayed in the video preview pane in the center of the screen.



Figure 7. Simple Routing Main Screen

1	Sources	3	Displays
2	Devices	4	Preview

Note: The touch panel is not listed as a source in Simple Routing for All-In-One systems.

7.1.1 Viewing a Source on a Display

To view a source on a display, perform the following steps:

1. Select a source (Item 1), such as the Endo Cam, from the Sources area located on the left side of the screen. The button will turn orange, indicating it has been selected.
2. Select a display (Item 3), such as Monitor 2, from the Displays area located on the right side of the screen. The button will turn orange for a few seconds, indicating it has been selected, and the route has been completed. The icon for the video source being routed to the display will appear on the display button.



Figure 8. Viewing a Source on a Display

Routing Two SuiteStreams

If two SuiteStreams are configured, these can be used to route two independent channels of video during a Room Call. The two SuiteStream devices will appear in both the Sources and Displays menu. To route a local video source to the far side of the Room Call, local video sources are routed to these SuiteStream displays in the same way as when routing to other displays. To route a video source from the far side of the Room Call, these SuiteStream sources are routed to local displays in the same way as when routing from other sources.

Note: A SuiteView Desktop viewer will only be able to view a video source that has been routed to the first SuiteStream.

7.1.2 Viewing and Recording a Source on a Display

To select a source to view and record on a display, perform the following steps:

1. Select a source, such as the Endo Cam, from the Video Sources area located on the left side of the screen.
2. Select a recording device through which to route the source, such as the SDC, from the Devices area at the top of the screen. The icon for the video source being routed through the device will be displayed on the device button.
3. Select a display, such as Monitor 2, from the Displays area located on the right side of the screen. The icon for the video source being routed through the display will appear on the display button.
4. The route has been completed.



Figure 9. Viewing and Recording a Source on a Display

7.1.3 Using Sidne or SDC3 along with Viewing and Recording a Source on a Display

To route a source through a device to a display and use Sidne or SDC3, perform the following steps:

1. Select a source, such as the Endo Cam, from the Video Sources area located on the left side of the screen.
2. Select the Sidne or SDC3 destination from the Devices area. The icon for the video source being routed through Sidne or SDC3 will be displayed on the device button.
3. For Sidne only, select a device through which to route the source, such as the SDC, from the Devices area at the top of the screen. The icon for the video source being routed through the device will be displayed on the device button.
4. Select a display, such as Monitor 2, from the Displays area located on the right side of the screen. The icon for the video source being routed through the display will appear on the display button, and the route has been completed.

Note:

- The Device Control Package on the SDC3 must be installed before SPI will show SIDNE devices.
- When a source video is being routed on SDC HD and Sidne , the chain route will always place the Sidne ahead of the SDC HD. In the previous example, the Endo Cam video will always be routed through the Sidne (which adds the Sidne icon overlay on the video), then through SDC HD to be recorded, and then it will be displayed on Monitor 2.
- The order in which the SDC HD/Ultra or Monitor 2 are selected does not affect the order in which the video route or chain is created. In the previous example, if Monitor 2 is selected before selecting the SDC HD/Ultra, the video from the Endo Cam will still be passed through the SDC HD/Ultra before being routed to Monitor 2.
- A user has the option of recording a video on an SDC HD/Ultra. The user also has the option of using the voice control feature from Sidne . The rest of the actions, namely selecting a source (e.g., Endo Cam) and a display (e.g., Monitor 2), are required in order to view a source on a display.

7.2 Visual Routing

To create a video route using the Visual Routing option, press the **Advanced Routing** button located on the Quick Button Bar (Item 2).

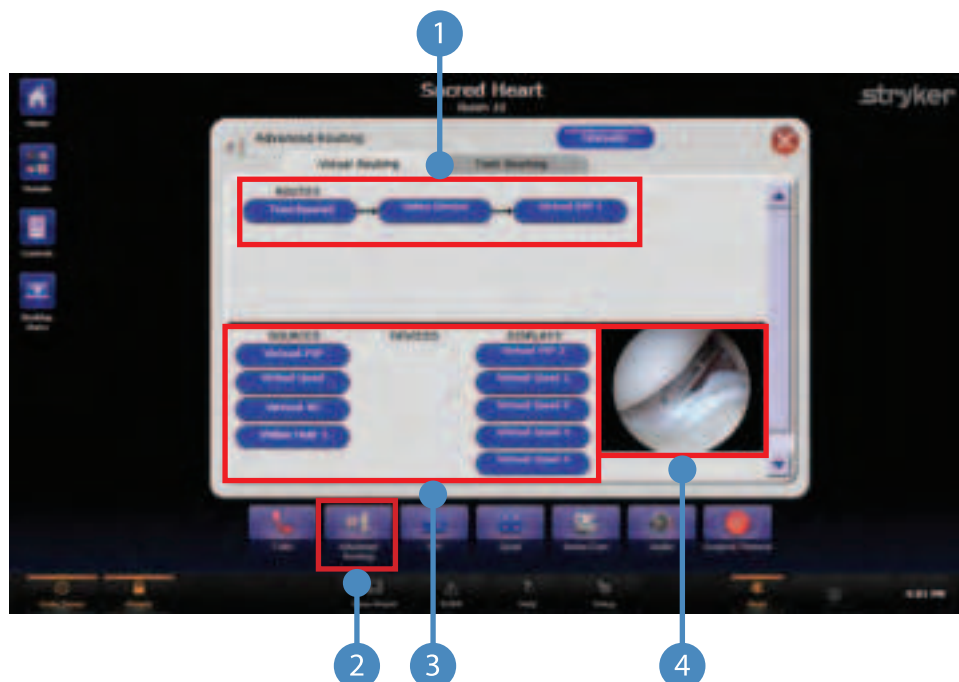


Figure 10. Visual Routing

You will be taken to the Advanced Routing page, which contains two tabs: Visual Routing and Text Routing. The Visual Routing tab is the default tab. This tab contains three main

sections: the top section shows the current route in progress (Item 1); the lower left section shows a list of all available sources, devices, and displays (Item 3); the lower right corner displays the video preview pane (Item 4).

7.2.1 Creating a Visual Route

To create a video route using the Visual Routing option, perform the following steps:

1. Select a source, such as the Endo Cam, from the Sources list on the left side of the screen (Item 3). The source will be moved from the Sources area up into the Routes area (Item 1), indicating it is the source you have selected.
2. If you only want to view the source on a display, select one, such as Monitor 1, from the Displays list (Item 3).

Note: When routing a source to a device or display, ensure that the video types for each component are compatible, otherwise the route will not be successful.

3. If you wish to route the video through a device, such as Sidne or SDC3, select it from the Devices list, and then select a display.
4. To route a source through two devices, select the source, select each device, and then select a display.

Each component in the route will appear in the Routes section at the top of the screen upon selection.

7.2.2 Unrouting a Selection

To unroute an item, select it from the route and press the **Unroute** button located at the top right corner of the Advanced Routing page. The selected item will be removed from the current route. Repeat the procedure to unroute other items.

7.2.3 Saving a Visual Route as a Preset

To save a current route as a preset, press the **Save Preset** button located in the Global Taskbar. For detailed information on saving a route as a preset, [see 9.2 Saving a Preset, page 34](#).

7.3 Text Routing

7.3.1 Creating a Text Route

To create a video route using the Text Routing option, press the Text Routing tab on the Advanced Routing page. From this screen you will use drop down menus to select a source, device, and display to complete the route.



Figure 11. Text Routing

To begin a new route using the Text Routing option, perform the following steps:

1. Select a source corresponding to the video input you want to record or view from the “Sources” drop down menu. A white button-like box listing the name of the source that you selected will appear in the Route in Progress area at the bottom of the window. The current video image from the selected source will be displayed in the video preview pane located at the top right corner of the Text Routing window.
2. If desired, select a device to record to or redirect the video image using the “Devices” drop down menu. The video source will be routed to the selected device, and the output of that device will be available to route to another device or display.
3. Select a display to view the source or device from the “Displays” drop down menu. The output from the source will immediately be visible on that display. You can continue to choose other displays to route the video image to, or select another source or device and begin the process all over again.

7.3.2 Creating a New Text Route

To create a new text route, press the **New Route** button located in the middle of the Text Routing tab on the Advanced Routing page. The current route will be cleared, and the screen will be ready for the new route.

7.3.3 Saving a Text Route as a Preset

To save a current route as a preset, press the **Save Preset** button located in the Global Taskbar.

8

PIP and Quad View Generator Functionality

8.1 PIP

The Picture-in-Picture (PIP)/Picture-by-Picture (PBP) Generator is intended to be used with the SwitchPoint Infinity 3 Control System, but can be used as a stand alone PIP in the OR. This feature enables the user to view two images simultaneously on one monitor. Using this option the user can view one picture in the corner of another, or view two pictures side-by-side.

To access the PIP/PBP feature, press the **PIP** button located on the Quick Button Bar. The Picture-in-Picture screen will open.



Figure 12. Picture-in-Picture View Screen

The **On** and **Off** buttons at the top of the PIP screen are used to turn the PIP/PBP option on or off.

8.1.1 Selecting Images

The “Select Image” drop down menus are used to select which images will appear in positions 1 and 2 of the screen layouts.

8.1.2 Screen Layout

The six buttons located in the Screen Layout box are used to select which layout will be displayed.

8.1.3 Swap Images

The **Swap Images** button swaps the position of the images on the screen. Pressing this button cycles the image in position 1 to position 2 and vice versa.

Select Destinations

The “Select Destination” drop down menu allows the user to select where to route the PIP/PBP image. A preview of the display will appear in the box in the upper right hand corner of the screen.

8.1.4 PIP Small / PIP Large

The two buttons located in the Inset Size box is used to choose between displaying the PIP as a large or small image. The large inset will fill up approximately 1/4 of the screen, and the small inset will fill up approximately 1/9 of the screen.

This option only applies to the PIP feature.

8.2 Quad View

Note: QUAD view is not available for SPI3-Lite.

The Quad View Generator enables the ability to simultaneously view four images on one monitor. Using this option three images can be displayed down one side of the monitor with one larger image on the opposite side, or view all four images in equal.



Figure 13. Quad View Screen

The **On** and **Off** buttons at the top of the Quad screen are used to turn the option on or off.

8.2.1 Selecting Images

The “Select Image” drop down menus are used to select which images will appear in the screen layout.

8.2.2 Screen Layout

The three buttons located in the Screen Layout section are used to select the image orientation.

8.2.3 Select Destinations

The “Select Destination” drop down menu is used to select a display to route the image to. A preview of the display will appear in the box in the upper right hand corner of the screen.

Note: If it becomes necessary to adjust the output resolution for this feature, reference the Installation Manual.

9

Presets

SwitchPoint Infinity 3 provides the ability to save preferred audio, camera, lighting, and video settings into Presets. They are a time-saving function for remembering frequently used room configurations. Presets may be sorted into six user-defined groups or left in a single undefined grouping. The figure below shows one group of presets. To access the Presets menu, press the **Presets** button on the top left side of the screen.

The SwitchPoint Infinity 3 Control System supports up to 48 presets in each of the six potential preset groups. If more than seven presets have been configured, a scroll bar will appear on the right side of the window. The current page number and the number of pages will appear between the up and down scroll buttons.



Figure 14. Presets Menu

9.1 Recalling Presets

To recall a stored preset, press the desired preset button. A message will appear stating, “Executing Preset. Please Wait.” The preset will then be loaded.

9.2 Saving a Preset

Before storing a new preset, begin by setting up all of the video routing choices, lighting, camera positions, and audio mixes for the SwitchPoint Infinity 3 Control System.

1. Press the **Save Preset** button located on the Global Taskbar at the bottom of the screen. The Save Preset screen will open.

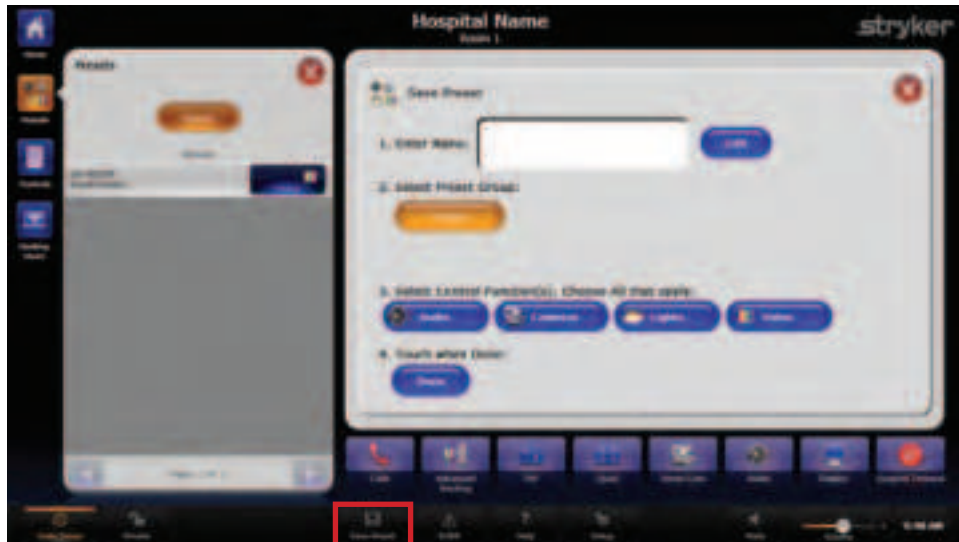


Figure 15. Save Presets Screen

2. Select the white text field or the **Edit** button next to the “Enter Name” field. A keyboard screen will appear.



Figure 16. Keyboard Screen

3. Enter the preset name using the on-screen keyboard that appears, or the attached keyboard. The preset name can be no longer than 41 characters, including spaces.
4. Press **Done** when finished. The “Enter Name” field will display the new preset name.
5. Select the preset group where you want to save your new preset. If only one preset group has been configured, it will be selected by default.
6. Select the function(s) that the new preset will control. For example, if this is a video preset, press the **Video** button. To save a preset that has video, audio, and camera settings, select all three buttons.
7. Press the **Done** button to save your new preset. To cancel the preset, press the red **X** button at the top right-hand corner of the screen. You will be returned to the Presets screen.

9.3 Previewing Presets

The **Preview** button, located on the right side of any given preset, allows you to preview the options associated with the particular preset before selecting it for use.

To view a preset, press the **Preview** button. A Preset Preview screen will open and display all of the features associated with the specific route.

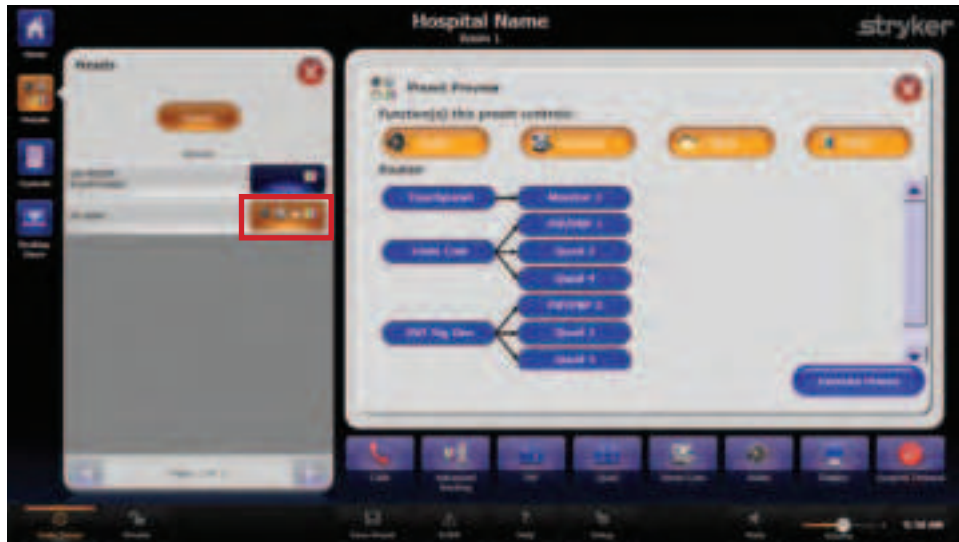


Figure 17. Preset Preview Screen

Note: The Preview button displays icons for all of the functions that are controlled in the respective preset.

To apply the preset, press the **Execute Preset** button at the bottom right corner of the screen. To close out of the preview without applying the preset, press the red **X** button at the top right corner of the screen.

9.4 Unrouting Presets

To unroute all presets and functions, press the **Unroute Everything** button in the Preset Menu. All connections will be broken.

10

Calls

The SwitchPoint Infinity 3 Control System allows room-to-room connectivity for video conferencing. All connections within the Operating Room Information Systems (ORIS) are transmitted using broadcast quality audio and video. Offsite connections are accomplished via the use of a Codec Device.

The SwitchPoint Infinity 3 Control System equipped with ConnectSuite allows room-to-room connectivity for IP video conferencing using Stryker SuiteLink and a Campus Codec. In addition, IP broadcasting to the desktop is supported using Stryker SuiteView.

The SwitchPoint Infinity 3 Control System with a Video Network Hub supports manual dialing of Room-to-Room, Broadcast, and View Only calls along with as IP, ISDN, and Gateway calls using either the Stryker Video Network Hub or a locally connected Codec.

The SwitchPoint Infinity 3 Control System also can “wait” for an incoming Codec call from any available Codec, meaning that when a call comes from a specified Codec, the call will be automatically connected, whereas all other calls will need to be accepted before a connection is complete.

Note: If your system is not equipped with a SuiteLink, Video Network Hub, or locally connected Codec, the Calls menu and Private buttons will be grayed out and not accessible.

In addition to manual dialing, the Calls feature supports one-touch calling of any connected endpoint from the Campus Status tab, one-touch dialing of the Last 10 Dialed, and up to 200 presets in the Call Groups tab.

Calls can be made from the Manual Dial, Campus Status, Last 10 Dialed, or Call Groups interfaces. To access the interface, press the **Calls** button on the Global Taskbar.



Figure 18. Calls Screen

Before making a video call to another Stryker endpoint, prepare an image to send out of the room. This is the image you initially want the far end to see. This image could be a Room Camera view of the presenter or a wide view of the Operating Room. One video source can be routed out of the iSuite OR and one video signal can be simultaneously received from a remote room, via the SuiteLink and the Campus Codec or Video Network Hub.

The “What you send” and “Where you see it” drop down menus are a convenient way to route video to and from SuiteLink or to and from the Campus Codec when making a call. The “What you send” drop down menu contains a list of all configured sources and devices capable of being routed out of the room. When a source or device is selected from the “What you send” list, it is previewed in the video preview frame above the drop down menus. The “Where you see it” drop down menu lists all devices or displays on which incoming video can be displayed.

When in an active call, the “What you see” drop down menu will be available, and will list all of the available incoming video endpoints.

10.1 Manual Dial Tab

The Manual Dial tab allows you to make up to four different types of calls, depending on your system setup, such as Room-to-Room, local Codec, Hub Codec, and Campus Codec.

For a SuiteLink setup, the Manual Dial tab allows you to initiate a Campus Codec call or a SuiteLink Hub Codec call if an offsite package is configured.

To access the Manual Dial tab, press the **Calls** button on the Quick Button Bar and then press the Manual Dial tab on the Calls screen.

10.2 Campus Status

The Campus Status screen allows you to view the status of all registered Stryker endpoints, and provides the ability to call any available endpoint using one-touch dialing. Available endpoints are shown as “Idle.” Endpoints that are set to Private status are shown as “Private.” Endpoints that are not currently connected or are powered off appear grayed-out with an “Offline” status message.



Figure 19. Campus Status Screen

To access the Campus Status screen, press the **Calls** button on the Quick Button Bar and press the Campus Status sub tab.

Selecting any room from the Campus Status interface will automatically initiate a call with that room. If the call is successful, you will be taken to the Active Call screen.

Note: Accessing the offsite Codec is not available from the “Campus Status” interface.

10.3 Campus Codec Call

Note: This section is only applicable to systems with SuiteLink and SuiteView.

Campus Codec calls allow video to be streamed and made accessible to other authorized SuiteView users. Campus Codec calls must be initiated from the SPI3 or SPI3-Lite user interface.

If the default connection speed (medium) is acceptable, it is preferable to use the Campus Status option (see below) for video conferencing to other Stryker endpoints. Campus Status allows you to view the current status of all registered endpoints and make calls with one-touch dialing.

For a SuiteLink setup, the Manual Dial tab allows the ability to override the default connection speed for Campus Codec calls only.

To make a Campus Codec Call:

1. Select Campus Codec from the “Connection Type” drop down menu.



Figure 20. Making a Room-to-Room Call

2. Select the video resolution from the “Connection Speed” drop down menu.
Note: If high speed video resolution is selected, then IP broadcasting to the desktop from this room will be disabled.
3. Select which room to connect to from the “Room Name” drop down menu.
4. Press the green **Call** button under the number pad to make the call.

If the call is successful, you will be taken to the Active Call screen, and the Call Status bubble will indicate “In Call.”

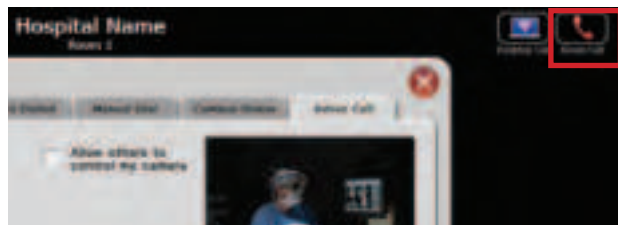


Figure 21. Campus Codec In Call Bubble

10.4 Room-to-Room Call

Note: This section is only applicable to system with a Video Network Hub.

To make a video call to another room within the campus:

1. Select Room Call from the “Connection Type” drop down menu.



Figure 22. Making a Room-to-Room Call

Note:

- For in-depth information on local and Video Network Hub Codec call, [see 10.10 Offsite \(Codec\) Calls, page 47](#).
- For in-depth information on Broadcast, View Only, and Meeting Room call types, [see 10.13 Advanced Call Types, page 50](#).

2. Select the connection method from the “Connection Method” drop down menu.
3. Select which room to connect to from the “Room Name” drop down menu.
4. Press the green **Call** button under the number pad to make the call.

You will see a brief “Connecting Call” message in the green Call Status bubble in the upper right-hand corner of the screen. If the call is successful, you will be taken to the Active Call screen.

Note: If the SwitchPoint Infinity 3 Control Interface is unable to connect to the remote room, an error message will appear in the Call Status bubble.

10.5 Active Call

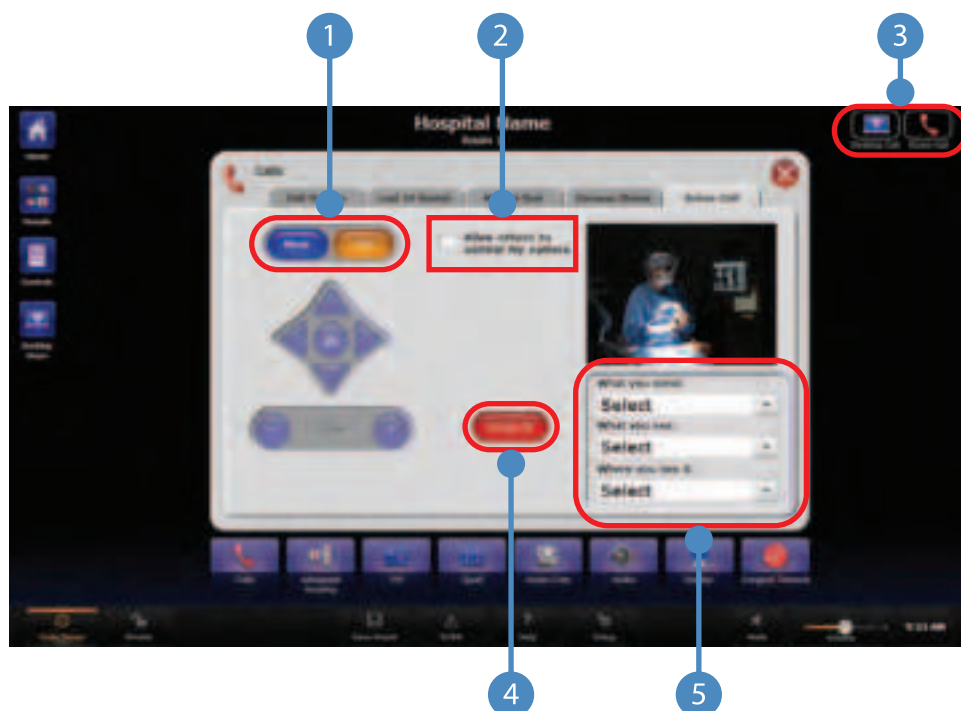


Figure 23. Active Call Screen

1	Near and Far Buttons	4	Hang Up Button
2	Camera Control	5	Image Selection Drop Down Menus
3	Call Status Bubble		

The Active Call page is displayed automatically after a call is connected. The Call Status bubble will indicate whether the room is in a call, either with a Desktop User or with a room. If the room is not in a call with either a Desktop User or another room, no bubble will appear.

The **Near** and **Far** buttons on the Active Call screen are used to select which camera to control during a call. The camera controls work in the same manner as the Room Camera controls on the Room Camera interface.

The “What you send” and “Where you see it” drop down menus are convenient ways to route video to and from the remote connection. The “What you send” option on the Active Call screen displays a preview of the image being sent to the remote room’s local display. When the far video is selected, the video preview pane will display the remote image.

The “What you send” drop down menu contains a list of all configured sources and devices for routing to the remote connection.

The “What you see” drop down menu lists all video sources from the remote room.

The “Where you see it” drop down menu contains a list of all devices and displays on which incoming video can be displayed.

Touch the preview screen to expand the preview window to a larger size. Press the red **X** in the top right corner of the preview window to return to the normal user interface.

To allow the user on the other end to control the camera, select the “Allow others to control my camera” box. This will enable the user to pan, tilt, and zoom the camera.

To disconnect a call, press the red **Hang Up** button on the Active Call page. When a call is disconnected, the screen will return to the interface from which the call was initiated.

10.5.1 Active Call Status

Note: This section is only applicable to systems with a Video Network Hub.

To view the participants and status of the current call, press the **Call Status** button located in the lower middle portion of the screen. The Active Call Status screen will open.



Figure 24. Active Call Status Screen

Depending on the type of call you are involved in, call information will be displayed in one of the three sections of the Active Call Screen.

- **In Call With** - Shows all of the participants on a call other than one where you are the recipient or on a conference call, with a maximum of three connections.
- **Viewing From** - Shows the other participant on a View Only call.
- **Broadcasting To** - Shows all of the participants on a broadcast call.

Note: When ending a call, you must press the **Hang Up** button for each participant. Hanging up on the call from the Active Call screen, as opposed to the Active Call Status screen, will only disconnect you from the call. It will not disconnect all parties.

10.6 Private

Caution:

- Selecting the Private feature automatically disconnects any room connection.
- In order to comply with the privacy provisions of the Health Insurance Portability and Accountability Act of 1996 (HIPAA), “Private” must be turned ON when not actively engaged in a teleconference with another room within the OR or with offsite locations.

If your room is not set to “Private” and somebody attempts to call you, the connection will be made automatically.

The **Private** button, located in the bottom left corner of the Global Taskbar, provides control over who can view or remotely monitor the room where the SwitchPoint Infinity 3 Control System is located. The **Private** button toggles on and off and stays highlighted in orange when Private is On. If Private is On, the system restricts all inbound communications. If the SwitchPoint Infinity 3 Control system is currently connected to another room within the hospital campus or offsite location, activating the Private feature will immediately disconnect the room.

When Private is On, you can still make outgoing calls to other rooms. The Private “On” state is restored after the call.

If you attempt to connect to a room that is “In Private” the call must be accepted by the callee. If nobody accepts the call, the **Calls Status** button on the top right corner of the screen will display the text “Call Failed. Touch to Cancel.” or “Remote Room is Private.”

If your room is “In Private” and somebody attempts to call, the Calls Status button will appear on the top right corner of the screen displaying the text , “Touch to Accept” or “Incoming Call. Press to Accept” accompanied by an audible alert.

10.7 Last 10 Dialed

Note: Before selecting an entry on the Last 10 Dialed screen, prepare the outgoing video signal with the “What you send” and “Where you see it” drop down menus.

The Last 10 Dialed call screen displays the last 10 room or offsite calls made from that endpoint.

To access the Last 10 Dialed screen, press the **Calls** button on the Quick Button Bar, and then press the Last 10 Dialed sub tab.



Figure 25. Last 10 Dialed Calls Screen

Any endpoint or remote site displayed on the Last 10 Dialed screen can be dialed with one-touch dialing by pressing the entry. The SwitchPoint Infinity 3 Control System will automatically attempt to connect to the destination. If the call is successful, you will be taken to the Active Call screen.

10.8 Call Groups

The Call Groups tab provides call-specific presets for call types available from the SwitchPoint Infinity 3 Control Interface. Once a Preset is stored in the Call Groups section, the call can be placed using one-touch dialing from the Call Groups tab.



Figure 26. Call Groups Screen

Note: Before storing a new Preset in the Call Groups section, enter the connection type, dialing number, and any other necessary calling information in the Manual Dial interface and press the Store Number button.

10.9 Storing a Speed Dial Call Setting

To store a Speed Dial Call setting:

1. Select all of the applicable settings necessary to make a call from the Manual Dial tab.
2. Press the **Store Number** button located at the bottom left corner of the screen. The Store Number screen will open.



Figure 27. Store Number Screen

3. Select the white text field or the **Edit** button next to the Enter Name field.
 - Enter the preset name using the on-screen or attached keyboard. The preset name can be no longer than 13 characters, including spaces.
 - Press **Done** when finished. The Enter Name field will display the new preset name.
 - The interface will return to the Store Number screen.
4. Select the Calls Group in which to store the speed dial call setting.
5. Press **Done**.

The SwitchPoint Infinity 3 Control System supports up to 50 speed dial call settings in each of the four call groups. If more than four speed dial call settings have been configured, a scroll bar will appear on the right side of the screen. The current page number and the number of pages will appear between the up and down scroll buttons.

Select any speed dial call setting to one-touch dial the stored location. After selecting a speed dial call setting, the interface will automatically navigate to the Active Call screen.

10.10 Offsite (Codec) Calls

Offsite or Codec calls can be initiated from the Manual Dial screen as well as the Last 10 Dialed and Call Groups interfaces.



Figure 28. Making a Codec Call

Up to six different types of offsite calls are available, depending on the options available on the Codec and whether there is a local Codec or one or more Video Network Hub Codec(s) available.

10.11 Making a Codec IP Call

To dial a Hub Codec IP or Local Codec IP call:

1. From the Manual Dial tab, select the call type from the “Connection Type” drop down menu.
2. Select the connection method from the “Connection Method” drop down menu.
3. Select the call “speed” or bandwidth from the “Connection Speed” drop down menu.
4. Select the Codec to be used from the “Codec Name” drop down menu.
5. Enter the IP address using the on-screen keypad.
6. Press the green **Call** button located below the number pad to initiate the call.

Note: Press the Store Number button to store the call information to Call Groups presets.

10.11.1 Making a Codec ISDN Call

Note: This section is only applicable to systems with a Video Network Hub.

To dial a Hub Codec ISDN or Local Codec ISDN call:

1. From the Manual Dial tab, select the call type from the “Connection Type” drop down menu.
2. Select the Codec to be used from the “Codec Name” drop down menu.

3. Select the call “speed” or bandwidth from the “Connection Speed” drop down menu.
4. Enter the ISDN phone number using the on-screen keypad (no dashes required).
5. Press the green **Call** button to initiate the call.

Note: Press the **Store Number** button to store the call information to **Call Groups** presets.

10.11.2 Making a Codec Gateway Call

Note:

- This section is only applicable to systems with a **Video Network Hub**.
- A gateway call is only used if the environment contains a specialized H.320/H.323 gateway device. Check with your local IT department for information on using this device, as it may require custom configuration and dialing strings.

To dial a Hub Codec Gateway or Local Codec Gateway call:

1. From the Manual Dial tab, select the call type from the “Connection Type” drop down menu.
2. Select the Codec to be used from the “Codec Name” drop down menu.
3. Select the call “speed” or bandwidth from the “Connection Speed” drop down menu.
4. Enter the gateway prefix (if required) and phone number using the on-screen keypad (no dashes required).
5. Press the green **Call** button to initiate the call.

Note: Press the **Store Number** button to store the call information to **Call Groups** presets.

10.11.3 Waiting for an Offsite Call

The SwitchPoint Infinity 3 Control System can wait for an incoming Codec call from a specific Codec connected to the system.

To wait for a specific incoming Codec call:

1. Press the Manual Dial tab.
2. Select **Wait for Offsite Call** from the “Connection Method” drop down menu.

After the Codec is selected, the Control System places you in the Active Call interface with focus on the selected Codec. When the incoming call is connected by the Codec, the call will be complete. Use the **Hang Up** button to cancel Wait for an Offsite Call or to end a completed call.

Note: A **Wait for an Offsite Call** will time out after 30 minutes if a call has not been received.

10.12 Managing SuiteView Functionality

The SwitchPoint Infinity 3 Control System allows room-to-room connectivity for IP video conferencing using Stryker SuiteLink and a Campus Codec. In addition, IP broadcasting to the desktop is supported using Stryker SuiteView.

Note: If your system is not equipped with a SuiteLink Server the Calls menu and Private buttons will be grayed out and not accessible.

10.12.1 Desktop User Access

Clicking on the Desktop Users button opens the Desktop Users menu that shows what users are viewing your endpoint.

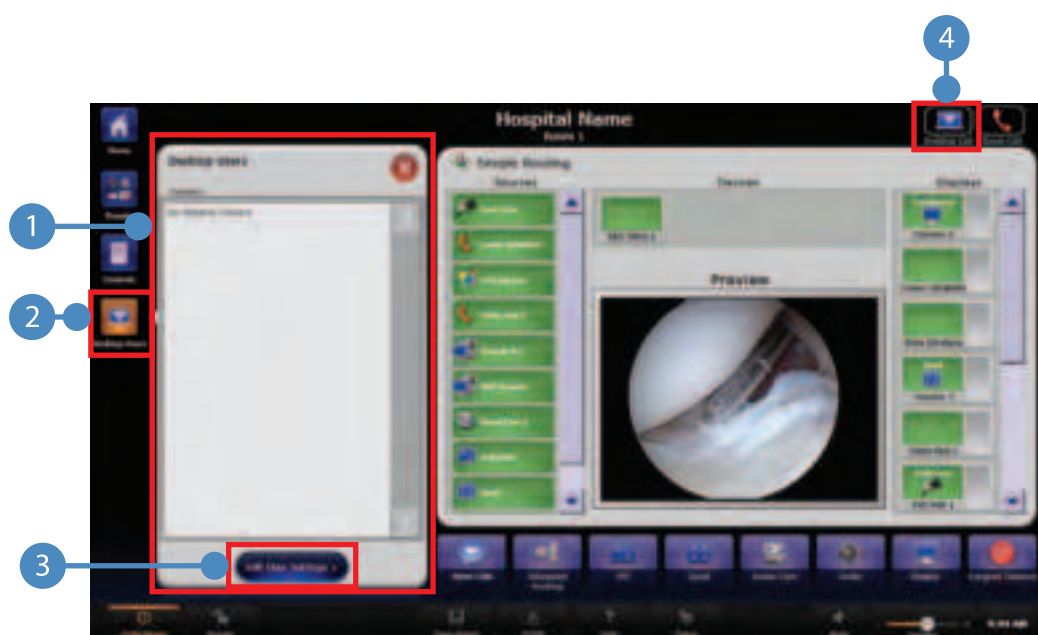


Figure 29. Desktop Users Menu

1	Desktop Viewers	3	Edit Caller Setting Button
2	Desktop Users Button	4	Call Status Bubble

The top of the Desktop Users panel displays a list of all users who are actively viewing the feed.

If the call is being viewed by a desktop user, this will be indicated by the Desktop Call bubble in the upper right corner of the screen.

10.12.2 Managing Call Settings

To manage Viewer settings, click the **Edit User Settings** button at the bottom of the Desktop Users menu.



Figure 30. View Settings Menu

To allow users to control the camera, click in the respective box. An orange, checked box indicates this setting is active.

To allow users to control the video sources they view, click in the respective box. An orange, checked box indicates this setting is active.

To choose the video source to route to users, select it from the “What you Send” drop down menu.

To return to the main Desktop Users menu, click the **Back to Users** button.

10.13 Advanced Call Types

Note: This section is only applicable to systems with a Video Network Hub.

Broadcast and View call types allow a single direction video and audio call. The broadcasting endpoint initiates a broadcast call and can select multiple endpoints to broadcast to. Endpoints can also choose to participate in a broadcast call already in progress by using the View call feature. Every endpoint connected to the Stryker hub can view a Broadcast call.

10.13.1 Broadcast

A Broadcast call is initiated from the Manual Dial interface or can be stored as a preset and initiated from the Call Groups interface. To create a Broadcast call do the following:

1. Navigate to the Manual Dial interface and select Room Call from the “Connection Type” drop down menu.
2. Select Broadcast from the “Connection Method” drop down menu.
3. Select an endpoint from the “Room Name” drop down menu.
4. Press the green **Call** button to initiate the call.

To select another endpoint(s) to broadcast to, repeat the above procedure for each endpoint, selecting that endpoint name from the “Room Name” drop down menu.

To disconnect a Broadcast call, press the red **Hang Up** button on the Active Call interface.

10.13.2 View Only

A View Only call is initiated from the Manual Dial interface or can be stored as a preset and initiated from the Call Groups interface.

To create a View Only call:

1. Navigate to the Manual Dial interface and select Room Call from the “Connection Type” drop down menu.
2. Select View Only from the “Connection Method” drop down menu.
3. Select the endpoint that is broadcasting from the “Room Name” drop down menu.
4. Press the green **Call** button to initiate the View Only call.

An endpoint can only view one broadcast call at a time.

To disconnect from a View Only call, press the red **Hang Up** button on the Active Call interface.

10.13.3 Meeting Room

The Meeting Room call feature is only available on an ORIS equipped with a Video Network Hub that has the Meeting Room option installed. If these features are available within the ORIS, the SwitchPoint Infinity 3 Control System is automatically capable of using them, and no additional configuration is necessary.

A Meeting Room call is any call that consists of more than two endpoints exchanging two-way audio and video. The Meeting Room call feature supports a maximum of four endpoints. It is capable of using the Codec within the Video Network Hub as one endpoint, allowing up to three local and one remote endpoint to participate in a Meeting Room call.

A Meeting Room call is initiated from the Manual Dial interface or can be stored as a preset and initiated from the Call Groups interface.

To create a Meeting Room call:

1. Navigate to the Manual Dial interface and select Room Call from the “Connection Type” drop down menu.
2. Select Broadcast from the “Connection Method” drop down menu.
3. Select the first endpoint that is participating in the Meeting Room call from the “Room Name” drop down menu.
4. Press the green **Call** button to initiate the call.
5. Navigate to the Manual Dial interface and repeat the above steps until all desired endpoints are connected to the Meeting Room call.

A Codec can be added to the Meeting Room call by selecting a Codec Call type from the “Connection Type” drop down menu and dialing a Codec call. For information on dialing Codec calls, [see 10.10 Offsite \(Codec\) Calls, page 47](#).

A Meeting Room call can be disconnected by pressing the red **Hang Up** button from the Active Call interface.

Note: All endpoints must disconnect from a Meeting Room call individually. Disconnecting only the call originator does not end the call.

11

Surgical Timeout

Surgical Timeout provides the opportunity for all members of the operating room team to review the case of the patient before a surgical procedure begins. The timeout checklist assists in identifying any inconsistencies and helps prevent errors in the operating room. Additionally, it improves overall communication between members of the team. The purpose of the SwitchPoint Infinity Surgical Timeout functionality is to assist with the implementation of the Joint Commission Universal Protocol for the Prevention of Wrong Site, Wrong Procedure, and Wrong Person Surgery.

The checklist is customizable and can be modified to include practice-specific components, as well as eliminate components that are deemed unnecessary.

No alarms or other warnings are associated with this checklist.

11.1 Surgical Timeout Procedure

Note: It is recommended that a new patient case is created and the patient information is added on the SDC before performing a Surgical Timeout and printing the Surgical Timeout Checklist. This will ensure that the patient information is on the printed document.

To begin the Surgical Timeout, do the following:

1. Press the **Timeout** button on the Quick Button Bar.

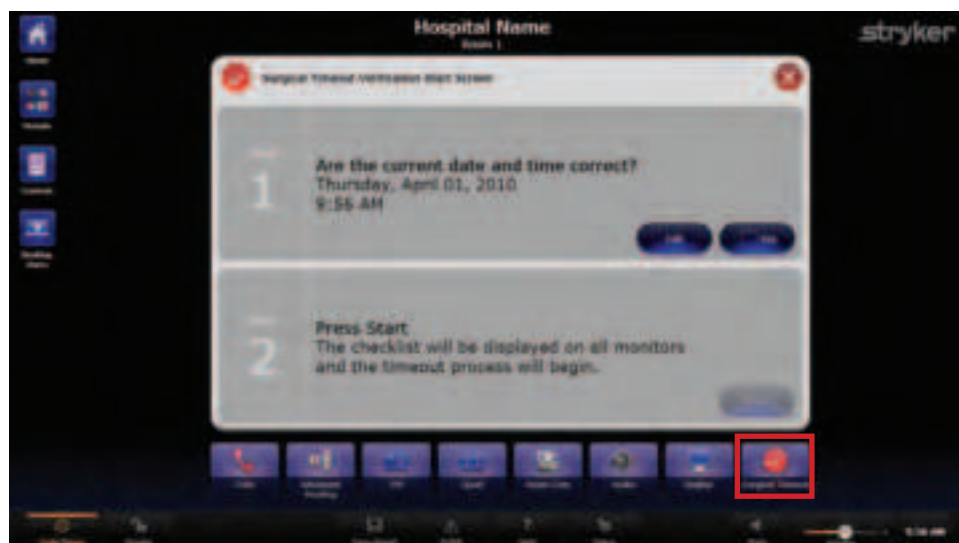


Figure 31. Surgical Timeout Beginning Screen

2. Verify that the date and time are correct. If they are, press the **Yes** button. If they are not, press the **Edit** button in the top right corner of the screen and correct the time ([see 21 Setting the Date and Time, page 71](#)).

3. Once the **Yes** button has been pressed, the **Start** button in Step 2 will become active. Press it to commence the timeout. All of the active displays in the OR will display the count down screen, which will count down from three before displaying the Verification Screen. The room will automatically be set to “Private” during the timeout.



Figure 32. Surgical Timeout Count Down

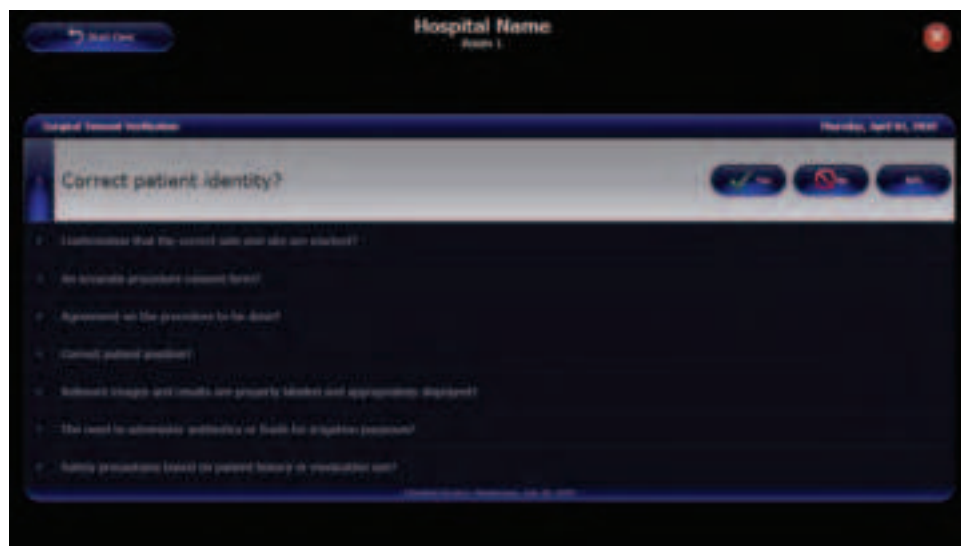


Figure 33. Surgical Timeout Verification Screen

4. The Surgical Timeout Verification screen will run the user through the OR's specific checklist before being able to begin any surgical procedure. For each step, select either the **Yes**, **No**, or **N/A** button to proceed to the next question. Once a response has been selected, it will be marked with a timestamp.

Note:

- It is not possible to leave an answer blank. Each question must be answered to proceed to the next.
 - It is not possible to go back and modify answers. To change an answer, you must restart the verification by pressing the **Start Over** button in the upper left corner of the screen.
5. Once all of the questions have been answered, a Surgical Timeout Verification Summary will appear that can then be printed out and placed with the patient's chart. To print out the summary, press the **Print from SDC** button at the bottom right corner of the screen.

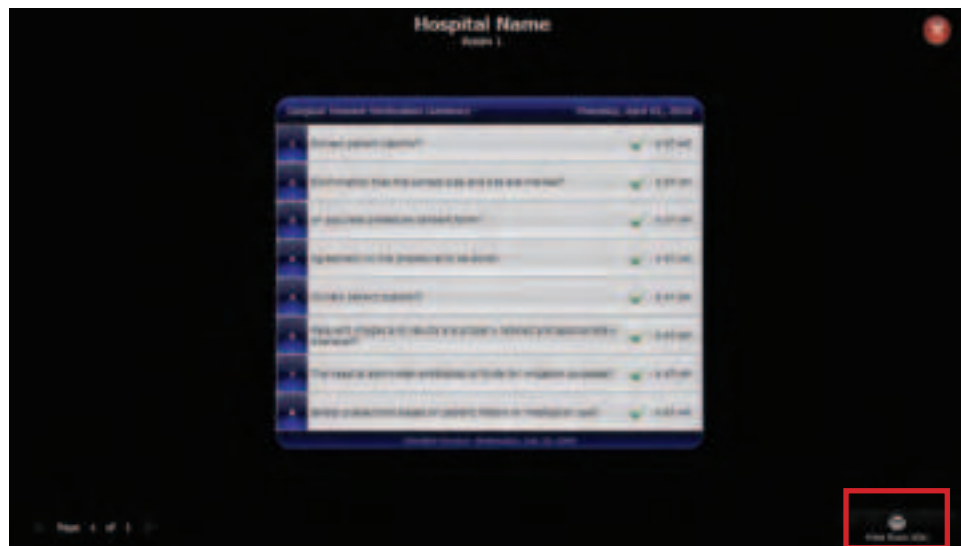


Figure 34. Surgical Timeout Verification Summary

6. A print-friendly version of the checklist will appear if there is a second touch panel connected (this feature is not available for SPI 3.5). It will contain fields at the bottom of the checklist for signatures and notes that can be filled in on the printed form.

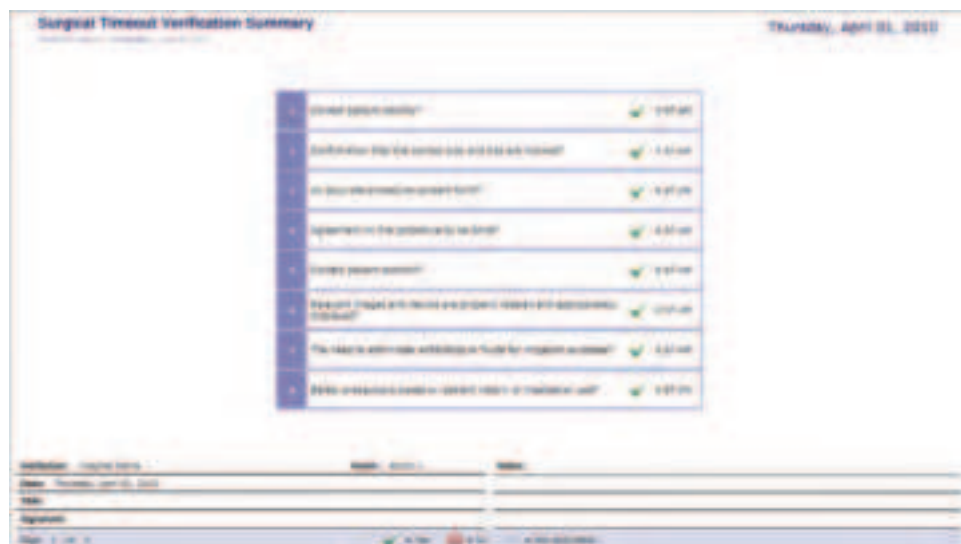


Figure 35. Surgical Timeout Print-Friendly Verification Summary

-
- The screenshot shows a software interface for surgical timeouts. A modal dialog box is open, asking for confirmation to exit the session. The dialog has a title bar 'Exit Surgical Timeout?' and a main text area stating 'Setting will clear all timeouts for this Surgical Timeout session. Do you want to exit?'. At the bottom of the dialog are two buttons: 'Yes' and 'No'. The background interface includes a header with 'Hospital Name' and a 'Start Over' button. Below the header is a table of surgical timeout items, each with a checkbox and a status indicator (e.g., 'Completed', 'In Progress').

- Note:** For information on editing the Surgical Timeout, refer to the Installation Manual.

12

Control Panel

The Control Panel displays all PC Controls, Device Controls, and Advanced Controls devices that are connected to the SwitchPoint Infinity 3 Control System. For example, the **Advanced Routing** button controls all of the routing functions within the room while the **Room Camera** button sets up and operates the pan/tilt/zoom cameras located within the room. To access the main Control Panel screen, press the **Controls** button on the Quick Button Bar.



Figure 37. Control Panel

The Device Controls section shows buttons for surgical devices such as the Endoscopic Camera, Insufflator, Light Source, Shaver, and Arthroscopy Pump that are controlled by the optional SDC3 or Sidne Voice Activation System Voice Package. This section will not display any device buttons if your system is not equipped or configured with an SDC3 or Sidne. If there is an SDC3 or Sidne configured but it is turned off or the network is down, the text “Sidne Not Connected” will be displayed in the Device Controls section. If there is an SDC3 or Sidne configured and it is turned on but is not communicating with the SwitchPoint Infinity 3 software, the surgical devices will not be able to be controlled through the Touch Panel, but can still be controlled via the SDC3 or Sidne voice control, if available.

The Advanced Controls section features buttons for Advanced Routing, Audio Levels, Display, PIP/PBP, Quad View, Room Camera, and the Surgical Timeout functions.

13

PC Device Control

The PC Device Control feature enables the SwitchPoint Infinity 3 Control System to act as a Keyboard, Video, Mouse (KVM) switch, allowing up to three PCs to share the SwitchPoint Infinity 3 keyboard, mouse, and monitor.

The SwitchPoint Infinity 3 Control System interface can be configured with one-touch buttons for a Picture Archiving and Communication System (PACS) PC, a Navigation (NAV) PC, and an Auxiliary (AUX) PC. Press the button on the SwitchPoint Infinity 3 Control System Home screen for the target PC to be controlled.

The monitor will now display the output of the target PC, and the keyboard and mouse will control the target PC. Control is returned to the SwitchPoint Infinity 3 Control System by pressing the red **X** in the upper right corner of the screen. The mouse will have no effect on the red **X**.

Note: The Touch Panel functionality does not control target PCs.

14

Audio Controls

14.1 Speaker Controls

The Speaker Controls tab on the Audio Levels screen provides the ability to control the speaker volume as well as change the bass, balance, and treble levels of the SwitchPoint Infinity 3 Control System Audio Amplifier/Mixer. To access the Speaker Controls screen, press the **Audio** button from the Quick Button Bar.

The Speaker Control tab has a volume level indicator bar to show the current speaker volume setting. To adjust the volume, press the “-” or “+” buttons to decrease or increase the speaker volume, respectively. The **Mute** button in the center of the level indicator bar will turn off the audio source for the speaker. The **Mute** button toggles on and off and stays highlighted in orange when muted.



Figure 38. Speaker Controls Screen

14.2 Input Levels

The Input Levels tab on the Audio Level screen provides the ability to change the audio input levels, such as the surgeon's wireless microphone. The SwitchPoint Infinity 3 Control System router supports up to 10 audio inputs, and the SPI3-Lite router supports up to four inputs. To access the Input Levels tab, press the **Audio** button from the Quick Button Bar, and press the Input Levels sub tab.

Each audio input level has a volume level indicator bar to show its current settings. To adjust the volume, press the “-” or “+” buttons to decrease or increase the audio input volume, respectively. The **Mute** button in the center of each level indicator bar will turn

off the audio source for the specific audio input. The **Mute** button toggles on and off and stays highlighted in orange when muted.

Up to four audio input buttons can be displayed on the Input Levels tab. If more than four audio inputs have been configured, a scroll bar will appear on the right side of the screen. The current page number and the number of pages will appear between the up and down scroll buttons.



Figure 39. Input Levels Screen

14.3 Output Levels

The Output Levels screen provides the ability to change the audio output levels. The SwitchPoint Infinity 3 Control System router supports up to 10 audio outputs and the SPI3-Lite router supports up to four outputs, including two outputs for the speakers. To access the Output Levels screen, press the **Audio Levels** button on the Quick Button Bar and press the Output Levels sub tab.

Each audio output level has a volume level indicator bar to show its current settings. To adjust the volume, press the “-” or “+” buttons to decrease or increase the audio output volume, respectively. The **Mute** button in the center of each level indicator bar will turn off the audio source for the specific audio output. The **Mute** button toggles on and off and stays highlighted in orange when muted.

Up to four audio output buttons can be displayed on the Output Levels tab. If more than four audio outputs have been configured, a scroll bar will appear on the right side of the screen. The current page number and the number of pages will appear between the up and down scroll buttons.



Figure 40. Output Levels Screen

15

Display

The Displays screen shows all of the configured displays in one location. Each tab on the Displays screen represents a display in the OR. From each tab you can turn on or off the display, as well as select the image you want to view on that display.

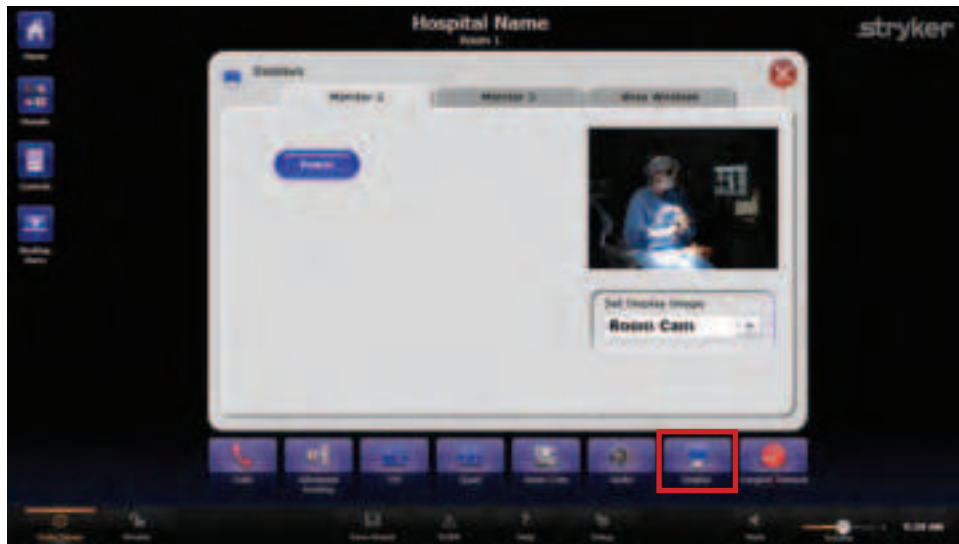


Figure 41. Displays Screen

To turn a display on or off, press the **Power** button. To choose a display image, select one from the “Set Display Image” drop down menu.

16

Room Camera

The Room Camera screen directs the operation of the wall-mounted pan/tilt/zoom cameras in the OR. This screen allows the user to adjust the pan/tilt/zoom functions as well as focus the camera to frame the action. Each camera can be panned left or right, tilted up and down, and zoomed in and out. The Focus can be controlled automatically by selecting the **Auto Focus** button, but can be adjusted manually for unusual lighting conditions or camera angles.

To go to the Room Camera screen, press the **Room Cam** button in the Quick Button Bar.

To access the pan/tilt/zoom camera controls:

1. Select one of the available room cameras from the sub tabs at the top of the screen.
2. Direct the camera by pressing and holding the button that corresponds to the desired direction you want the camera to pan or tilt. For example, press and hold the left arrow button to move the camera head from right to left. The Zoom and Focus controls operate in the same manner.



Figure 42. Room Camera Screen

Once the camera angles and zoom preferences have been established, it can be saved as a preset by pressing and holding down one of the five preset buttons until the message, "Position has been saved" appears just below the preset buttons.

To recall a saved camera position, press the numbered button (i.e., Position 1) that corresponds to the camera preset. The camera will return to that position.

Use the “Set Camera Display” drop down menu to choose a display on which the camera video will appear.

16.1 Advanced

From the Advanced Room Camera screen the exposure of the image viewed on the room camera can be adjusted.



Figure 43. Advanced Room Camera Screen

1. To manually adjust the exposure of the room camera, press the “+” or “-” buttons under the Manual Settings.
2. To have the camera automatically adjust the settings, press the **Auto** button under the Manual settings.
3. To adjust the white balance, press the “+” or “-” buttons under the White Balance settings.
4. Depending on the camera, it may be possible to add a text overlay. To do so, press the **On** button in the Overlay settings box, and press the **Edit** button to enter text. If the camera does not support this feature, it will be disabled.

17

Remote Device Control

17.1 Stryker Digital Capture (SDC)

SwitchPoint Infinity 3 provides the ability to control the SDC, even without the presence of a Sidne device. This feature requires SDC Ultra with software version 5.0 or higher or SDC3. The SDC can still be controlled through the Sidne integration. The SDC3 may be configured with integrated device control.

Note: The SDC touchscreen is still active even when it is being controlled by the Touch Panel even though the SDC touchscreen is black. Touching the SDC touchscreen when it is being controlled by the SwitchPoint Infinity software may cause inadvertent use.

Note: The SPI3 cannot be configured with an SDC3 with integrated device control and a Sidne device.

18

Observation Room

Note: Systems running SPI3.5 do not have the Observation Room option.

The Observation Room screen controls the speaker volume and video routing for displays in the observation room. The Observation Room PC will automatically display this screen when turned on.



Figure 44. Observation Room Screen

To access the Observation Room screen From SwitchPoint Infinity 3, press the **Observation Room** button under the Advanced Controls section of the Control Panel. This screen appears similar to the one on the Observation Room PC with the exception of the **Disable** button.



Figure 45. Observation Room Screen From SwitchPoint Infinity 3

To prevent the Observation Room PC from viewing the OR room cameras, press the **Disable** button.

18.1 Routing Video

To route video, select a source corresponding to the video input to view from the “Set Display Image” drop down menu. The output from the source will immediately be visible on that display.

18.2 Adjusting the Speaker Volume

To adjust the speaker volume, press the “-” and “+” buttons to decrease or increase the volume, respectively, in the observation room. The **Mute** button in the center will turn off the audio for the speaker. The **Mute** button toggles on and off and stays highlighted in orange when muted.

Note: A second observation room display may or may not be configured for all systems.

18.3 Adjusting the Pan/Tilt/Zoom

For detailed information on using the Pan/Tilt/Zoom features, [see 16 Room Camera, page 63](#).

18.4 Advanced

For detailed information on the Advanced screen, [see 16.1 Advanced, page 64](#).

19

Room Lights

The Room Lights screen directs the operation of the Lutron Lights control. To access this screen press the **Room Lights** button under the Advanced Controls section of the Controls Screen.

The Room Lights screen contains four buttons to trigger the four pre-programmed presets on the Room Lights Controller, as well as one button to turn off all lights. When a button is pressed, the room lights will adjust to the correct level for that preset.



Figure 46. Room Lights Screen

Any of the five presets can be saved in a preset on the Presets page; however, the Room Lights presets themselves are not configurable.

Note: The Room Light Controller Wall Panel should not be used to change room lighting if this option is installed.

20

Calibrating the Touch Panel

Note: Calibration is not required for All-In-One systems. Running calibration for All-In-One systems is for a secondary touch panel only.

It may become necessary to calibrate the Touch Panel at some point, such as when replacing it. Calibration is also necessary when the monitor responds incorrectly to touch.

Note: The calibration screens may look different than the figures in this section.

To calibrate the Touch Panel:

1. Press **CTRL + ALT + C**.
2. A DOS window will appear, and the calibration session will begin.

⚠ Caution: DO NOT close the DOS window, as this will interrupt the calibration process and can cause the calibration to fail. If this occurs, the system will need to be rebooted.

3. Press the center of each target that appears on the screen.



Figure 47. Initial Calibration Screen

4. Once the first calibration screen is complete, the targets will disappear. Touch a few areas on the screen to ensure the cursor accurately follows your finger, and then press the green check mark to complete the calibration. Press the blue arrow to repeat the test.
5. After the first calibration is complete, a second round of calibration targets are presented. If you have a second touch panel connected, perform steps 3 and 4 on that touch panel. If you have only one touch panel, perform the calibration again on that panel.



Figure 48. Final Calibration Screen

21

Setting the Date and Time

To set the date and time for the system:

1. Press the clock icon located in the bottom right corner of the screen.

Note: This screen can also be reached by pressing the Edit button on the Surgical Timeout screen.

1. The Date & Time setup screen will open.



Figure 49. Date & Time Setup Screen

2. Modify the date and time by using the “+” and “-” keys to increase or decrease the numbers, respectively.
3. Use the **12 Hour** and **24 Hour** buttons to select how you would like the time to be displayed.
4. The **Show** and **Hide** buttons determine whether the clock is shown on the Main Screen or not.
5. When you are finished making changes, press the **Done** button.

Note: If the Time button has been hidden and does not appear in the lower left corner of the screen, press the button that appears in its place. This will open the Date & Time screen.

22

SORN Support

SwitchPoint Infinity 3 provides the ability to contact Stryker Communications Technical Support personnel from the Infinity user interface.

Note: The following are required for the SORN Support feature to work:

1. Switch Point Infinity must be connected to the internet.
2. Switch Point Infinity must have a valid IP address configured.
3. Switch Point Infinity must be registered with SORN.
4. The account must have an active service contract with Stryker Communications.

If the SORN button is disabled, it is due to one of the reasons mentioned above. Please contact your IT personnel or Stryker Technical Support at 1-866-841-5663 for the U.S. and 1-972-410-7601 for international (Mon-Fri; 6 am-6 pm CST). Pressing on the disabled SORN button displays the message, "Please ensure that you are connected to DMS and have purchased a Service Contract."

To enter a support issue using SORN Support:

1. Ensure that the Switch Point Infinity device is connected to the network and is registered to Support. If it is, the **SORN** button will be enabled.
2. Press the **SORN** button on the task bar. The message, "Note: Pressing the Done button submits a request for Stryker Technical Global Support to call you at the phone number you entered. Stryker Technical Support will call you within 24 hours," will be displayed on the right side of the screen.



Figure 50. SORN Support Page

3. Enter the following information in the respective fields:
 - **Contact Name** - The name of the person who should be contacted regarding the reason for the support ticket.
 - **Contact Phone Number** - The phone number at which the listed contact can be reached.
 - **Brief Description of the Issue** - A brief explanation of the problem being experienced, for example "There is interference visible on the flat panel display." There is a maximum of 50 characters per line, and a maximum of four lines.
4. Once all of the required information has been entered, press the **Done** button. The following message will be displayed, "Thank you. Stryker Technical Support will contact you shortly." Press the **OK** button to submit the request.

23

Shutting Down the SwitchPoint Infinity 3

To shut down the SwitchPoint Infinity system, do the following:

1. Press the **Setup** button on the task bar.
2. Press the **Shutdown** button that appears in the bottom right corner of the Setup screen. A dialog box will appear asking if you would like to shutdown or restart the system.



Figure 51. Shut Down Screen

3. Press the **Shutdown** button.

The system will then shut down.

Emergency Operation

 **Warning:** The SwitchPoint Infinity 3 is designed with backup video. The purpose of the backup video is to deliver a backup video signal to the display in the event the system is unable to deliver the primary care video to the display.

The default primary and secondary care video source is the Endoscopic Camera. The customer may work with Stryker during installation to have a different source connected as the primary or secondary care video sources.

In the event that the primary care video is lost to the display(s), and manual rerouting or use of preset fails to restore the video, the user should switch the system to backup video mode, using the following steps (in any order):

1. Manually switch the video mode of Monitor 1 to Analog RGB. This is done on Monitor 1.
2. Manually switch the video mode of Monitor 2 to Composite or S-Video. This is done on Monitor 2.

Performing these steps will deliver the primary care video to Monitor 1 and a secondary video (video source may be the same as that of Monitor 1) to Monitor 2.

Promptly contact Stryker Communications for assistance in permanently resolving the issue.

25

Troubleshooting Guide

25.1 Useful Tips

25.1.1 Use Presets

Set up a preset for “Teleconferencing” and other key room configurations. It is recommended that the user make back up copies of Presets by duplicating the most used ones. The SwitchPoint Infinity 3 Control System supports saving up to 1000 presets.

25.1.2 Use Fresh Batteries

Always use fresh batteries in the wireless microphone transmitters for any teleconference or distance learning session. Keep extra 1.5V AA alkaline batteries on hand in an easy-to-find location. Always remember to turn off the wireless microphone when not in use.

25.1.3 Pretest Offsite Connections

When performing an offsite teleconference always connect prior to the conference to test the system. By doing so, any problems can be resolved before all of the participating parties are involved.

25.1.4 Practice In Advance

Practice using the SwitchPoint Infinity 3 Control System to establish different video routing sequences to become proficient with its use.

The SwitchPoint Infinity 3 Control System is a powerful tool for managing video, audio, and data communication within the iSuite Operating Room. With a little patience and forethought the room setup can be changed quickly between cases and even during a case.

Note: If you have any questions, call the Stryker Communications Technical Support Hotline at 1-866- 841-5663 for U.S. and 1-972-410-7601 for international (Mon-Fri: 6am to 6pm CST) or e-mail comm.techservices@stryker.com.

25.1.5 Video Routing Tips

The most important tip for using the SwitchPoint Infinity 3 Control System is to remember that nothing can be broken by routing a signal.

It is best to minimize the number of paths the video takes for signal quality. In the next diagram, you can see the different aspects of how the SwitchPoint Infinity 3 interacts with multiple sources. This allows for customers to view multiple video screens along with 2 way audio and video.



Figure 52. Example Routes

25.2 Troubleshooting the SwitchPoint Infinity 3

25.2.1 Router Drawings

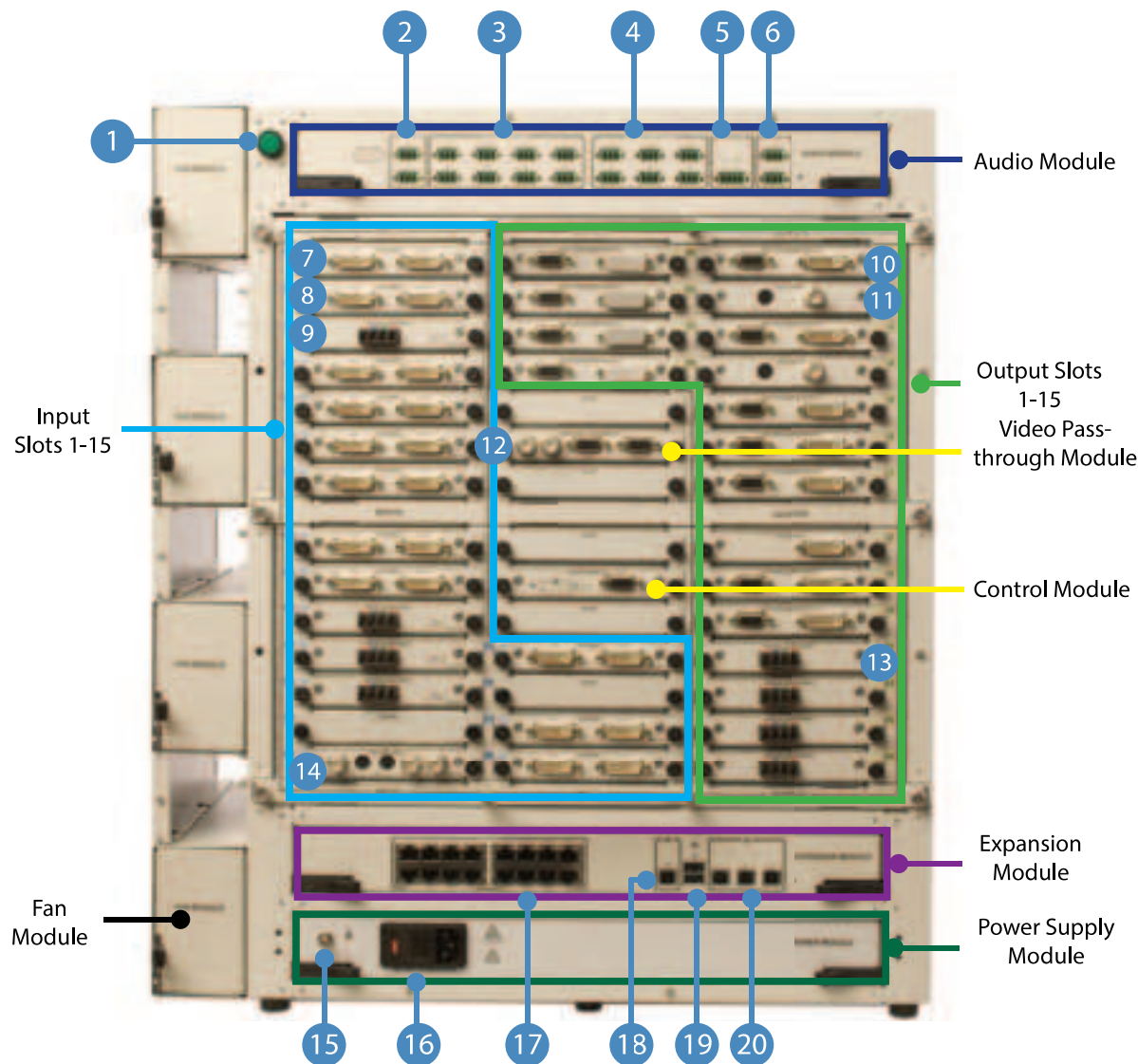


Figure 53. SPI3 Router

1	ON/OFF Button	11	Video Output**
2	Mic Level Inputs	12	Video Pass Thru Module
3	Line Level Inputs	13	Optical DVI-D Output
4	Line Level Outputs	14	SDI Video Input
5	Speaker Outputs	15	Equipotential Ground Plug†

6	External Amp Output	16	Power Supply
7	DVI-D Input*	17	RS232 Port
8	DVI-I Input	18	Control System Port
9	Optical DVI-D Input	19	USB Port
10	Video Processing Module	20	KVM Port

* If the SDC or All-In-One Control System controls the router, this will be a DVI-I input.

** This output will be a VPM card for All-In-One Control Systems.

† Connects to a potential equalization conductor. The resulting medical electrical system shall follow all applicable IEC 60601-1 requirements.

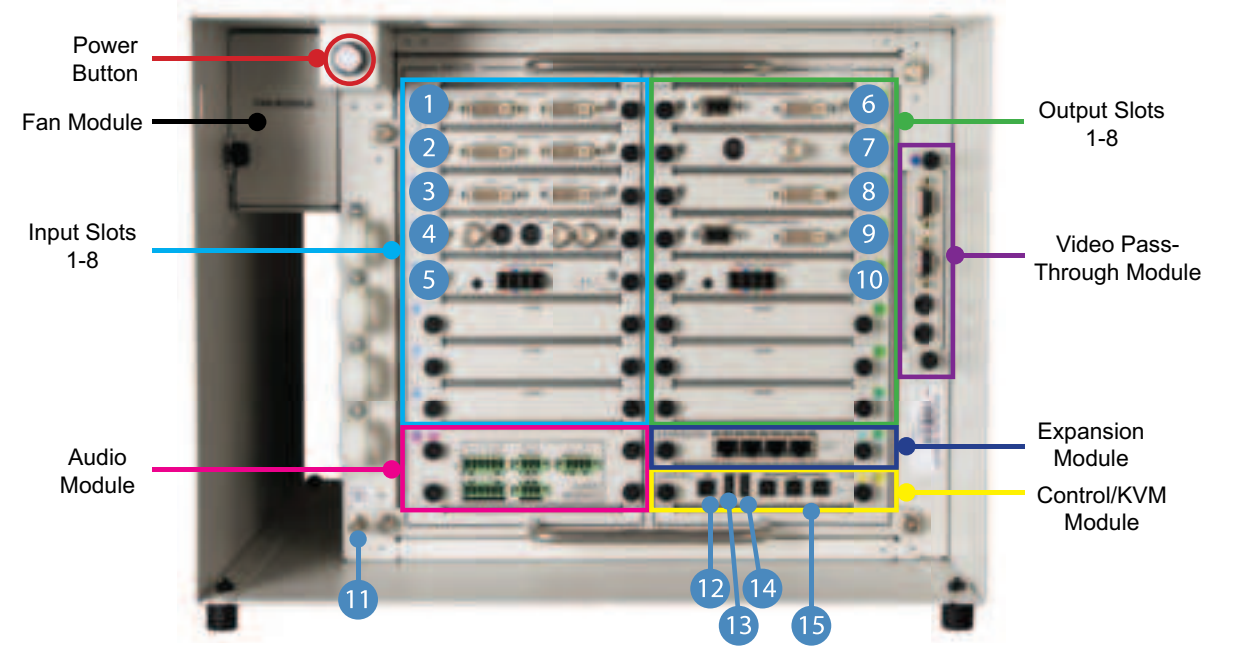


Figure 54. SPI3-Lite Router

1	DVI-D Input*	9	Video Processing Module
2	DVI-D Input	10	Optical DVI-D Output
3	DVI-I Input	11	Equipotential Ground Plug†
4	SDI-Video Input	12	Control System Port
5	Optical DVI-D Input	13	Keyboard

6	Video Processing Module	14	Mouse
7	Video Output**	15	KVM Ports
8	DVI-I Output		

* If the SDC or All-In-One Control System controls the router, this will be a DVI-I input.

** This output will be a VPM card for All-In-One Control Systems.

† Connects to a potential equalization conductor. The resulting medical electrical system shall follow all applicable IEC 60601-1 requirements.



Figure 55. Front of Control System

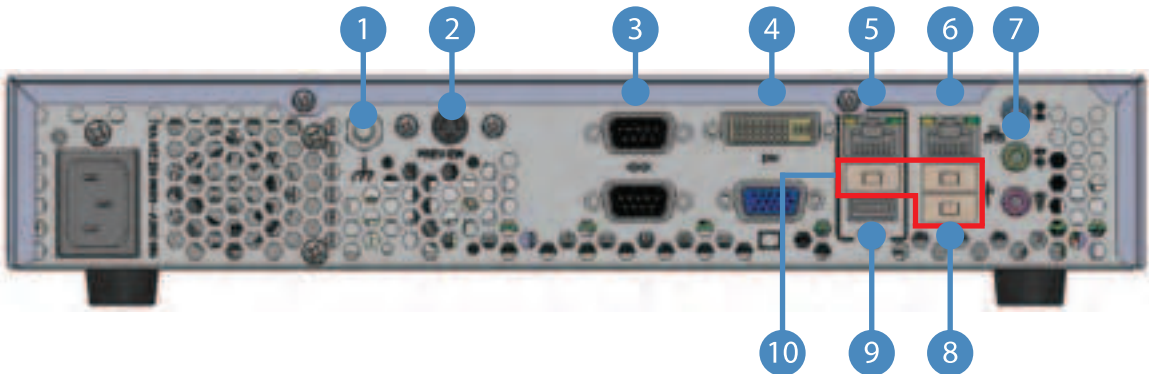


Figure 56. Back of Control System

1	Equipotential Ground Plug*	6	Internet Connection
2	Preview Input	7	Audio Output
3	Control Connection to Main Touch Panel	8	USB Dust Covers
4	Video Output	9	USB Port
5	Ethernet Hub (Sidne) Connection	10	Control Connection to touch panel (if present)**

* Connects to a potential equalization conductor. The resulting medical electrical system shall follow all applicable IEC 60601-1 requirements.

** The 42" touch panel is only compatible with SPI3 software or higher, or SPI3-Lite.



Figure 57. AIO Control System Front

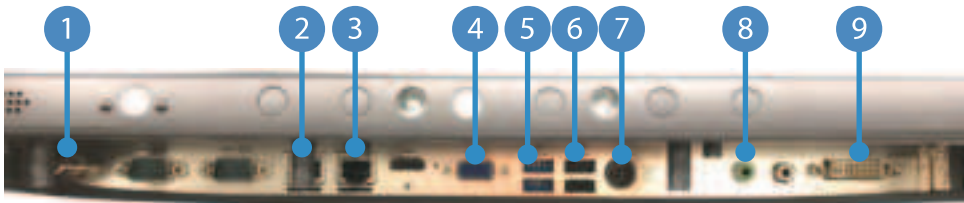


Figure 58. AIO Control System Bottom

1	Equipotential Ground Plug*	6	USB Connection to Expansion Board
2	RJ-45 "SORN" Ethernet Connection	7	DC Power
3	RJ-45 "LAN" Ethernet Connection	8	Audio Output (to router)
4	Video Output (to router)	9	Preview Input
5	USB 3.0 Ports		

* Connects to a potential equalization conductor. The resulting medical electrical system shall follow all applicable IEC 60601-1 requirements.

25.2.2 Troubleshooting Steps

Touch Panel	
Symptom	Action
The Touch Panel does not respond after the system is turned on	• Check that the Touch Panel's Power Switch is ON • Turn off the power and check the Touch Panel's power cord and signal cable for firm connection • Verify the green LED light located on the back underside of the touch panel is lit, indicating the monitor is ON • For AIO systems, make sure that touch isn't disabled; the LED under the touch panel touch icon should be green

Touch Panel	
Characters on the screen are dim	Refer to the ON-Screen Display (OSD) Touch Panel section to adjust the brightness
The Touch Panel screen is blank (see the warning at the end of the Video section of this trouble shooting guide)	• Make sure the Touch Panel is ON • Make sure the SPI3 router is ON • In the event that the Touch Panel is operating in KVM mode, the monitor screen may automatically turn off as a result of a remote computer's Power Saving feature. Press the close button in the upper right corner of the Touch Panel, or press any key on the keyboard to see if the display reappears. Refer to the ON-Screen Display (OSD) Touch Panel section to adjust the brightness • Make sure the power and video cables are firmly connected to the Touch Panel
Screen flashes when the Touch Panel is first turned on	Unplug the power cable of the Touch Panel and then plug it in again
Touch doesn't work	• Ensure the serial or USB cable is securely attached to both Control Section and Touch Panel • Calibrate the Touch Panel by pressing CTRL+ALT+C and follow the on-screen instructions
Touch doesn't work when trying to control the SDC	The SDC may not be properly calibrated; Contact Stryker Technical Support
Picture color is unusual or rolling on the Touch Panel display	Check the tightness of the "in and out" connections of the video cables on the back of the Touch Panel and at Output1 on the Video Router
Cannot calibrate Touch Panel	Ensure the serial or USB cable is securely attached to the Touch Panel and Control System
System is slow to respond	Reboot the system. If rebooting does not solve the problem, contact Stryker Technical Support.
Color bars on Touch Panel	• Ensure Control System is on • Ensure the power and video cables are firmly connected to the back of the Control System
Power	
Symptom	Action
Router will not power up	• Check to see if power cable is firmly connected • Ensure front power switch is ON

Power	
Control System will not power up	• Check to see if power cable is firmly connected • Ensure front power switch is ON
Touch panel will not power up	• Check to see if power cable is firmly connected • Unplug the power cable and plug it in again • Verify the green LED light located on the back underside of the touch panel is lit, indicating the monitor is ON
Audio	
Symptom	Action
No audio in room	Check that Speaker Controls volume is turned up and is not muted
Audio distorted	• Decrease the input level • Turn down the output level of speaker level
No audio from surgeon's microphone	• Make sure microphone is turned ON • Check batteries and replace if necessary (see 27.5.1 Replacing the Wireless Microphone Batteries, page 99)
Audio not leaving room	• Check the wireless microphone batteries if the mic is not heard in other locations. The LED on the top of the wireless mic belt pack should light up momentarily when powered ON and then go out. If it stays on, the battery needs to be replaced (see 27.5.1 Replacing the Wireless Microphone Batteries, page 99) • Check the wireless receiver. The front panel on the wireless receiver should display RF and AF level bars when talking into the microphone • Verify that mic frequency matches the receiver frequency
Video	
Symptom	Action
No image in preview when source is selected	• Ensure S-video cable is connected firmly to the back of the Control Section and Output 2 on the router • Ensure that the video source is turned ON • For AIO systems, make sure that the DVI cable is fully connected to the AIO touch panel and to Output 2 on the router.

Image on monitor does not change when new video is routed	Verify the monitor is set on DVI/Digital RGB
Video distorted or noisy	• Check video cables for secure connections and proper routing • Confirm that the input device is functioning properly
No video on monitor	• Ensure that the monitor power is ON (monitors can be switched on via display tab on Touch Panel or the power switch on the monitor) • Confirm that the main power switch on the Video Router is ON • Verify the monitor is set on DVI/Digital RGB • Ensure that the video is properly routed to the monitor
No Endoscopic Camera Video is displayed on a flat panel monitor	• Ensure that the light source, camera, and monitor are turned ON • Route the Endoscopic camera to a different monitor to ensure it displays an image • Ensure there is a video out from Digital Capture Device. If there is no video out from the Digital Capture Device then the problem is in the Digital Capture Device, Video Control Device, or the camera • Route any other known good source to the Flat Panel monitor to ensure it displays an image 

PIP/Quad	
Symptom	Action
Pip/Quad just shows internal color bars	• On PIP/Quad page, verify a source is routed to PIP/Quad • Ensure all routed sources are ON • Verify the color bars are not being generated by the video source by routing the source to a monitor

PIP/Quad	
PIP/Quad inset does not show up	Ensure the PIP/Quad option is turned ON
Missing images in PIP/Quad view	- Try turning PIP/Quad OFF and then ON - Verify all routed sources are on - On PIP/Quad page, verify a source is routed to all images
Expansion System	
Symptom	Action
Touch panel is not changing over to PC view and vice-versa when selected	- Ensure PC is ON - Ensure the RS-232 (or USB Cable for a 42" touch panel) and video cables are firmly connected to the PC
Mouse and keyboard do not function when in Home screen	- Reboot the router - Ensure that the USB connection on the back of the Control System is securely connected
Mouse and keyboard do not function when in PC screen	- Reboot the router - Ensure that the USB connection on the back of the Control System is securely connected
Communication	
Symptom	Action
When in a call, cannot control remote room Pan/Tilt/Zoom	Verify farside camera control in Calls page is ON
No Room to Room audio	- Verify that Speakers Controls volume is not muted in either room - Ensure Speaker Controls volume level is turned up
Message, "Sidne not connected" or "Device Control not Connected" appears on Control Panel	- Ensure Sidne or SDC3 is powered ON - Ensure Sidne is operating on software version 7.5 or higher or SDC3 - Ensure the power and video cables are firmly connected to Sidne or SDC3
SDC touch not responding	- Ensure SDC is powered up - Ensure SDC is operating on software version 5.0 or higher - Ensure the RS-232 and video cables are firmly connected to Sidne

Communication	
SDC touch screen is black	SDC touch screen will be black when it is configured to work with SwitchPoint Infinity 3 in SDC remote configuration—no action is required.
Observation Room PC is not responding	• Ensure Observation Room PC is powered up • If PC is already powered up, reboot
Room Camera	
Symptom	Action
BRC-z330 camera video works, but control does not	• Press the Reset button on the Room Camera page (see 16 Room Camera, page 63) • Make sure that the RS-22 connection to the camera is secure

Note:

- During system startup, the splash screen shows various system components that are being checked. If a fatal error occurs, a dialog is displayed with the following, “Please contact Stryker Communications Technical Support at 1-866-841-5663 with <Details of the System Failure>.” Press OK to shutdown the system.
- If an attempt is made to create a video route such that two I/O ports related to the same device would be in the route (e.g., routing the Hub Input to the SDC and the SDC to the Hub Output), an error message is displayed stating, “This device is already in the path.”

25.2.3 Connecting External Video Devices

Most SwitchPoint Infinity 3 Control System installations have extra inputs and outputs for video. Some are terminated on the boom for easy access. One of the more common devices connected is the fluoroscope or C-arm. There are two things to be aware of when connecting these:

1. Older model C-arms have a small termination switch next to the BNC connection. If you are not connecting an external device to the C-arm, the switch must be in one position. This position puts a 75 ohm resistor across the output to properly terminate the video. If you are connecting an external device, the switch needs to be turned off. The wrong position will cause the video signal to be attenuated. Try both positions; it will be obvious which is correct.
2. New C-arms have multiple outputs, one of which is scan-doubled. Scan-doubling is an analog version of higher resolution video. This won't display correctly on a standard monitor or the SwitchPoint Infinity 2 Control System. On GE C-arms, the I/O panel has three jacks with small TV icons above the BNC connector. One has twice as many lines in it. This is the scan doubled output. Use one of the other jacks. Try all three to determine which one works the best.

Note: Refer operating difficulties not detailed in this manual to your Stryker Communications sales representative, or Stryker Communications Technical Support Hotline at 1-866- 841-5663 for U.S. and 1-972-410-7601 for international or comm.techservices@stryker.com.

Video Network Hub Conditions	
No Power to Unit	Check power circuit feeding the Hub
Rooms Not Connecting	Ensure Hub network has power Check “link” lights on Ethernet switch for solid illumination
Codec Troubleshooting	Call Stryker Communications Technical Support Hotline at 1-866-841-5663 for U. S. and 1-972-410-7601 for international or comm.techservices@stryker.com
Codec Won’t Connect with offsite Location	Verify the phone or IP number for the offsite location Check dialing speed Call remote to verify that their system is ready

Note: If none of the above solutions resolve the problem, contact Stryker Technical support for instructions, assistance, or information on returning the unit for repair.

26

Physical and Electrical Specifications

26.1 SPI3 Environmental Specifications

Operating Conditions	10° – 40°C (50° to 104°F) 30% – 75% relative humidity 70 kPA – 106 kPA
Storage Conditions	Dry-Bulb Temperature: -20° C to 50° C (-4° to 122°F) Relative Humidity: 10% to 90 % (Non-Condensing) Maximum Elevation: 3050 m (10,006.5 ft)

26.2 SPI3 Electrical and Physical Specifications

Dimensions	609 mm (24") H x 523 mm (20.6") W x 432 mm (17") D
Power Consumption	570 VA
Input Voltage Range	100-240 V ~ 50/60 Hz
Weight	34 kg (75 lbs)*
Total Shipping Weight	52 kg (115 lbs)*
Shipping Dimensions (w x h x d)	914.4 mm (36.0") H x 731.52 mm (28.8") W x 558.8 mm (22.0")D

* Maximum weight depending on options

26.3 SPI3-Lite Environmental Specifications

Operating Conditions	10° – 40°C (50° to 104°F) 30% – 75% relative humidity 3050m Maximum Elevation
Storage Conditions	Dry-Bulb Temperature: -20° C to 50° C (-4° to 122°F) Relative Humidity: 10% to 90% (Non-Condensing) Maximum Elevation: 3050 m (10,006.5 ft)

26.4 SPI3-Lite Electrical and Physical Specifications

Dimensions	389 mm (15.3") H x 417 mm (16.4") W x 442 mm (17.4") D
Power Consumption	345 VA
Input Voltage Range	100-120VAC / 220-240 VAC, 50/60 Hz
Weight (router only)	16.9 kg (37.3 lbs)*
Total Shipping Weight (router & packaging only)	21.1 kg (46.6 lbs)*
Shipping Dimensions (w x h x d) (router & packaging only)	584 mm (23") H x 559 mm (22") W x 533 mm (21") D
Total Shipping Weight (Router, Monitor, Control Section, Accessories & Packaging)	78.8 kg (174 lbs)**
Shipping Dimensions (Router, Monitor, Control Section, Accessories & Packaging)	737 mm (29") H x 1219 mm (48") W x 1016 mm (40") D

* Weight includes video router with full module cage and bezel. Does not include power cord or any cables.

** Weight and dimensions include video router, typical pallet, all packaging, and accessories.

Stryker Communications guarantees that all SwitchPoint Infinity 3 equipment including accessories, packaging material, labels, pouches, or other similar items do not contain latex.

26.5 SPI3 Control System Electrical and Physical Specifications

Dimensions	317.856mm x 64.237mm x 431.8mm (12.514" x 2.529" x 17")
Weight*	3.7 kg (8.1 lbs)
Power Consumption**	225 VA
Input Voltage Range	100-240V 50/60Hz
Total Shipping Weight	5.0 kg 11.2 lbs
Shipping Dimensions (w x h x d)	419.1 x 165.1 x 520.7 (16.5" x 6.5" x 20.5")

* Weight based on maximum configuration, actual weight is configuration dependent.

** Maximum power rating, actual power draw is configuration and process dependent

26.6 All-In-One Control System Electrical and Physical Specifications

Dimensions	550mm x 360mm x 65 mm (21.65" x 14.17" x 2.55")
Dimensions with Stand (w x h x d)	533.4 mm x 425.5-533.4 mm x 190.5 mm (21.0" x 16.75-21.0" x 7.5")
Weight	6.9 kg (15.2 lbs)
Power Consumption	Max 60 W
Input Voltage Range	100–240VAC
Total Shipping Weight	7.9 kg (17.4 lbs)
Shipping Dimensions (w x h x d)	650mm x 180mm x 610mm (25.6" x 7.08" x 24")

26.7 Required Equipment

Using accessories or cables other than those approved by Stryker may cause harm to the user and/or device failure.

Guidance and Manufacturer's Declaration - Electromagnetic Emissions
The SwitchPoint Infinity® 3 Control System is intended for use in the electromagnetic environment specified below. The customer or the user of the SwitchPoint Infinity® 3 Control System should assure that it is used in such an environment.

Emissions Test	Compliance	Electromagnetic Environment - Guidance
RF emissions CISPR 11	Group 1	The SwitchPoint Infinity® 3 Control System uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class A	The SwitchPoint Infinity® 3 Control System is suitable for use in all establishments other than domestic and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Not applicable	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not applicable	

Guidance and Manufacturer's Declaration - Electromagnetic Immunity

The SwitchPoint Infinity® 3 Control System is intended for use in the electromagnetic environment specified below. The customer or the user of the SwitchPoint Infinity® 3 Control System should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	+/- 6 kV contact +/- 8 kV air	+/- 6 kV contact +/- 8 kV air	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/ burst IEC 61000-4-4	+/- 2 kV for power supply lines +/- 1 kV for input/output lines	+/- 2 kV for power supply lines +/- 1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	+/- 1 kV line (s) to line(s) +/- 2 kV line (s) to earth	+/- 1 kV differential mode +/- 2 kV common mode	Mains power quality should be that of a typical commercial or hospital environment.

Voltage dips, short interruptions and voltage variations on power supply input lines. IEC 61000-4-11	<5% UT (>95% dip in UT) for 0,5 cycle 40% UT (60% dip in UT) for 5 cycles 70% UT (30% dip in UT) for 25 cycles <5% UT (>95% dip in UT) for 5 sec	5% UT (95% dip in UT) for 0,5 cycle 40% UT (60% dip in UT) for 5 cycles 70% UT (30% dip in UT) for 25 cycles 5% UT (95% dip in UT) for 5 sec	Mains power quality should be that of a typical commercial or hospital environment. If the user of the SwitchPoint Infinity® 3 Control System requires continued operation during power mains interruptions, it is recommended that the SwitchPoint Infinity® 3 Control System be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

Note: Note UT is the a.c. mains voltage prior to application of the test level.

The SwitchPoint Infinity® 3 Control System is intended for use in the electromagnetic environment specified below. The customer or the user of the SwitchPoint Infinity® 3 Control System should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Conducted RF IEC 61000-4-6 Radiated RF IEC 61000-4-3	3 Vrms 150 kHz to 80 MHz 3 V/m 80 MHz to 2.5 GHz	3 Vrms 3 V/m	Portable and mobile RF communications equipment should be used no closer to any part of the SwitchPoint Infinity® 3 Control System, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $d = 1.2 \cdot \sqrt{P}$ $d = 1.2 \cdot \sqrt{P} \text{ 80 MHz to 800 MHz}$ $d = 2.3 \cdot \sqrt{P} \text{ 800MHz to 2.5GHz}$ Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey^a, should be less than the compliance level in each frequency range.^b Interference may occur in the vicinity of equipment marked with the following symbol: 

Note:

- At 80 MHz and 800 MHz the higher frequency range applies.
- These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

^a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the

electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the SwitchPoint Infinity® 3 Control System is used exceeds the applicable RF compliance level above, the SwitchPoint Infinity® 3 Control System should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the SwitchPoint Infinity® 3 Control System.

^b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

26.8 Separation Distances

Recommended separation distances between portable and mobile RF communications equipment and the SwitchPoint Infinity® 3 Control System			
The SwitchPoint Infinity® 3 Control System is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the SwitchPoint Infinity® 3 Control System can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the SwitchPoint Infinity® 3 Control System as recommended below, according to the maximum output power of the communications equipment.			
Rate maximum output power of transmitter W	Separation distance according to frequency of transmitter		
	150 kHz to 80 MHz $d = 1.2 \cdot \sqrt{P}$	80 MHz to 800 MHz $d = 1.2 \cdot \sqrt{P}$	800 MHz to 2.5 GHz $d = 2.3 \cdot \sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance (d) in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

Note:

- At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.
- These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

^a Field strengths from fixed transmitters, such as base stations for radio (cellular/ cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the SwitchPoint Infinity® 3 Control System is used exceeds the applicable RF compliance level above, the SwitchPoint Infinity® 3 Control System should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the SwitchPoint Infinity® 3 Control System.

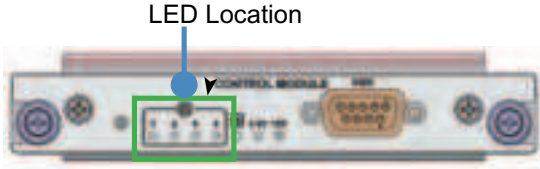
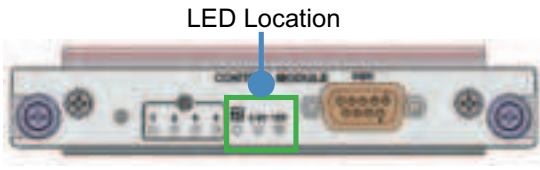
^b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

27

Maintenance

27.1 Periodic Maintenance Schedule

⚠ Warning: To ensure proper operation of the SwitchPoint Infinity 3, maintenance should be performed by the end user periodically.

Maintenance Activity	Instruction	Timeline
Keep surrounding area of SPI3 free of dust	Clean with dry cloth	Always
Restart the SPI3 unit	SPI3 control system requires no preventative or periodic maintenance. Stryker recommends you restart the SPI3 control system weekly for best performance (see 23 Shutting Down the SwitchPoint Infinity 3, page 74).	Weekly
For SPI3 only, ensure LEDs for fans located on the back of the video router are illuminated in green when video router is on. For SPI3-Lite, check the fan status by listening or feeling for airflow, or by checking the Hardware Status page.	 LED Location	Every 6 months
For SPI3 only, ensure LEDs for voltage levels located on the back of the video router are illuminated in green when video router is on.	 LED Location	Every 6 months
Inspect cable connections on the front of the Control System	Push and reconnect any cables that appear to be loose (see 25.2.1 Router Drawings, page 78)	Every 6 months
Calibrate the Touch Panel	Plug a USB compatible keyboard in the expansion module in case keyboard is not connected	As necessary

Maintenance Activity	Instruction	Timeline
	Keyboard USB Port  - Press Ctrl + Alt + C on the physical keyboard. - Follow calibration instructions, see 20 Calibrating the Touch Panel, page 69. Note: Calibration screen will appear twice to calibrate both touch screens in case a second touch screen is configured with the system.	
Clean the Touch Screen	- To clean the touch screen, use window or glass cleaner. Put the cleaner on a clean cloth and wipe the touch screen. Never apply the cleaner directly on the touch screen - To clean the touch monitor housing, use a slightly damp cloth and a mild detergent - Do not use alcohol (methyl, ethyl, or isopropyl) or any strong solvent. Do not use thinner or benzene, abrasive cleaners, or compressed air ⚠ Warning: To avoid risk of electric shock, do not disassemble the Touch Panel. There are no user-serviceable parts inside the Touch Panel. Remember to unplug the Touch Panel from the power outlet before cleaning.	As necessary
Schedule Preventative Maintenance with Stryker	Call Stryker Technical Support (see Section 30 for contact information)	Annually

27.2 Preventative Maintenance Restart

⚠ Caution: A system restart is required every seven days to keep the system running properly and to prevent potential system errors.

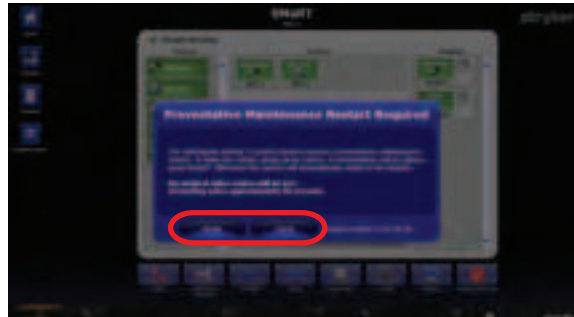


Figure 59. Preventative Maintenance Restart Screen

Every seven days at 2:00 a.m., the system will prompt to be restarted. You can choose to restart the system immediately by pressing the **Restart** button.

If no action is taken, the system will automatically restart 90 minutes after the prompt appears.

To cancel the restart, press the **Cancel** button. You will not be prompted to restart again for another seven days.

27.3 Cleaning Instructions

⚠ Caution: Do not use alcohol (methyl, ethyl, or isopropyl) or any strong solvent. Do not use thinner or benzene, abrasive cleaners, or compressed air of any kind on the Touch Panel display or the preview monitor. Do not allow liquids to enter the case.

1. No periodic cleaning is required.
2. Metal surfaces requiring cleaning should be wiped down using 100% isopropyl alcohol.
3. To clean the Touch Panel display or the preview monitor use a soft cloth.

27.4 Disposition of the Product

The device must be disposed of according to local laws and hospital practices.

Local regulations may include specifications regarding the disposal of this product. We request that you contact Stryker when you plan to withdraw this device from service with the intention of discarding it.

27.5 Removability of Batteries

The SwitchPoint Infinity 3 consists of button cell batteries embedded into various boards in the system. These button cells are not intended to be removed by the user or hospital.

It is recommended that the SwitchPoint Infinity 3 be sent to the waste treatment facility. Refer to the WEEE Passports for the SwitchPoint Infinity 3 and SwitchPoint Infinity 3-Lite for recycling instructions.

The Batteries Directive 2006/66/EC introduces new requirements from September 2008 on removability of batteries from waste equipment in EU Member States. To comply with this Directive, this SwitchPoint Infinity 3 has been designed for safe removal of the batteries at end-of-life by a waste treatment facility. Infected units should be decontaminated before they are sent for recycling.

27.5.1 Replacing the Wireless Microphone Batteries

The SwitchPoint Infinity 3 consists of a Wireless Microphone transmitter, which has 2 AA batteries. These batteries are intended to be removed by the end user. The Batteries Directive 2006/66/EC introduces new requirements from September 2008 on removability of waste batteries from equipment in EU Member States. To comply with this Directive, this device has been designed for safe removal of the batteries by the end user using the instructions provided herein. Infected units and batteries should be decontaminated before they are sent for recycling.

To replace the batteries in the wireless microphone locate the battery hatch on the right side of the unit. Slide down the eject button to open the hatch, and then replace the batteries. Be sure to place the batteries correctly in the unit, and then close the hatch.

27.6 Damage Claims and Service

27.6.1 Damage Claims

Stryker Communications' shipments are F.O.B. Flower Mound, TX. The equipment is carefully packaged to prevent damage in transit.

Once the freight is accepted by the carrier, the carrier assumes all responsibility for the safe handling and transport of the shipment. Claims related to damage that occur during shipment must be filed directly with the carrier. The customer should examine the shipment promptly upon receipt.

If inspection of the packaging material upon arrival reveals damage, immediately check the unit for damage. If there is a malfunction, please return the equipment to Stryker Communications.

To return equipment damaged in shipment:

1. Please file a damage claim with both the carrier and Stryker Communications Customer Service.
2. Prior authorization is required for the return of any Stryker Communications equipment. Contact Stryker Communications at 1-877-789-8106 or 1-972-410-7100.
3. Each item will be assigned a Return Merchandise Authorization (RMA). Shipments without an RMA will be refused.
4. Repack the equipment in its original shipping container and ship prepaid and insured to:

Customer Service Department

571 Silveron Blvd.

Flower Mound, TX 75028

Toll Free: 1-877-789-8106

Telephone: 1-972-410-7100

Fax: 1-972-410-7001

27.6.2 Service

If service is needed either during or after the warranty period:

1. Prior authorization is required for the return of any Stryker Communications equipment. Contact Stryker Communications at 1-877-789-8106 or 1-972-410-7100.
2. Each item will be assigned a Return Merchandise Authorization (RMA). Shipments without an RMA will be refused.

Note: The SwitchPoint Infinity 3 Control System described in this manual is constantly being reviewed and improvements may be made at any time without notice. Replacement parts used on an older unit may not appear the same as the original part, but all parts with the same part number will be completely interchangeable.

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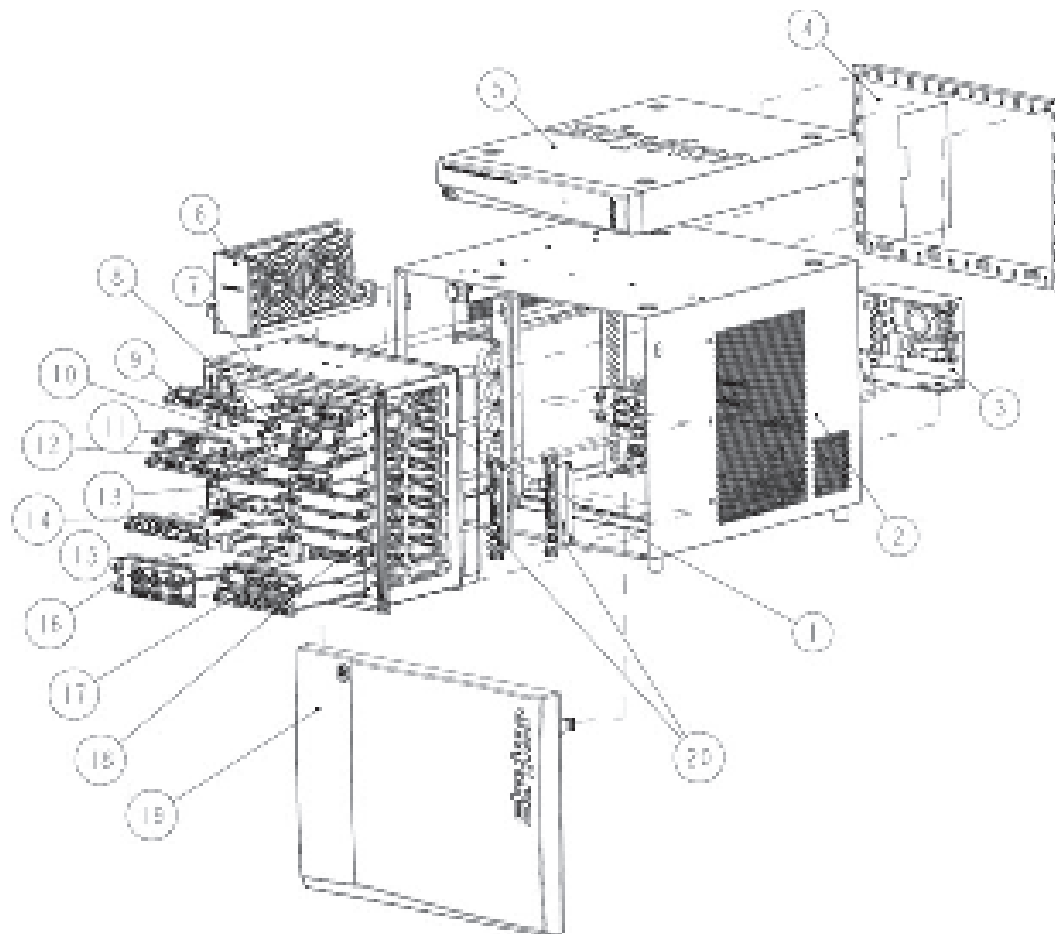
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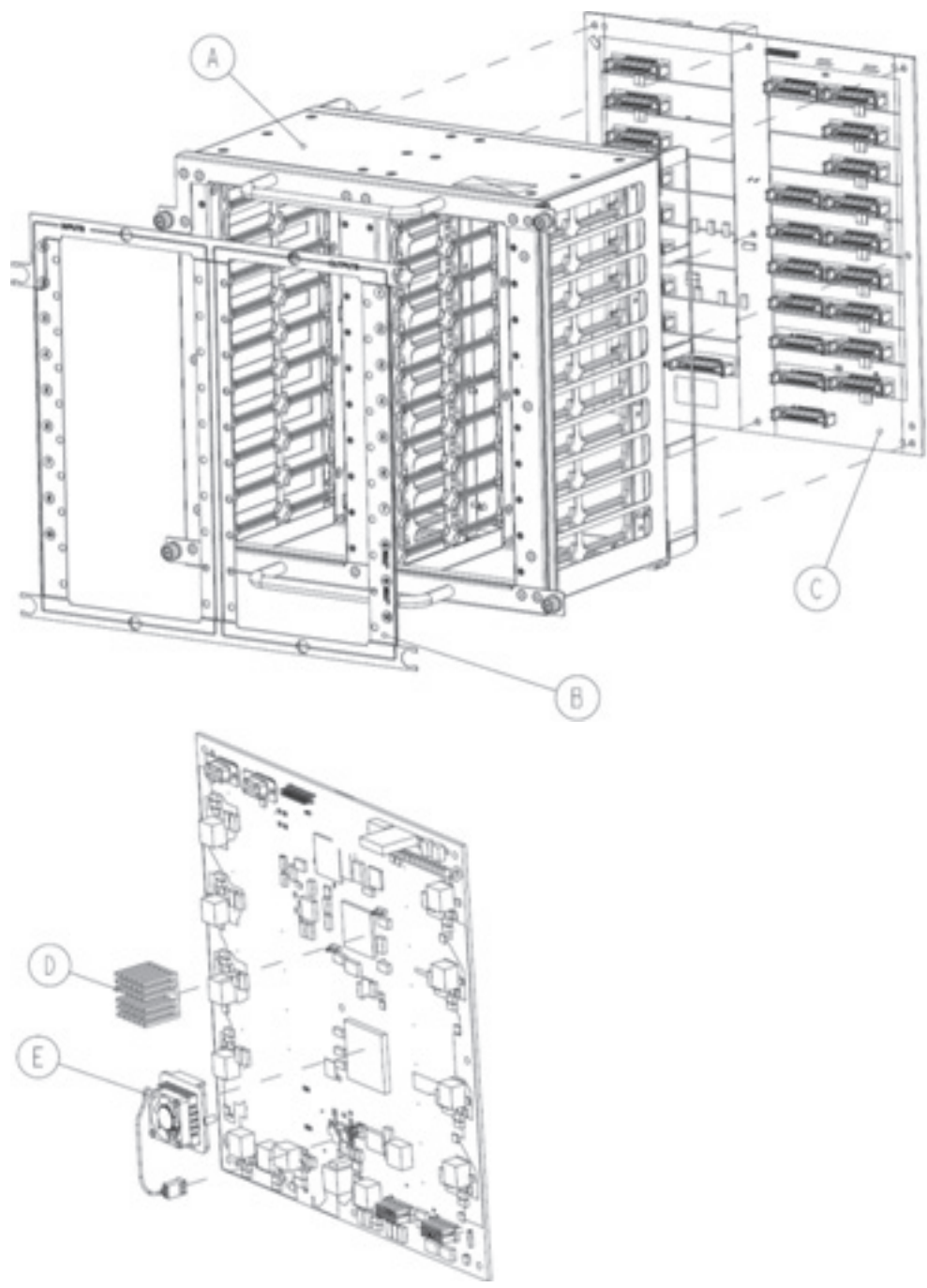
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WEEE Passport, SPI3-Lite

Recycling Guide

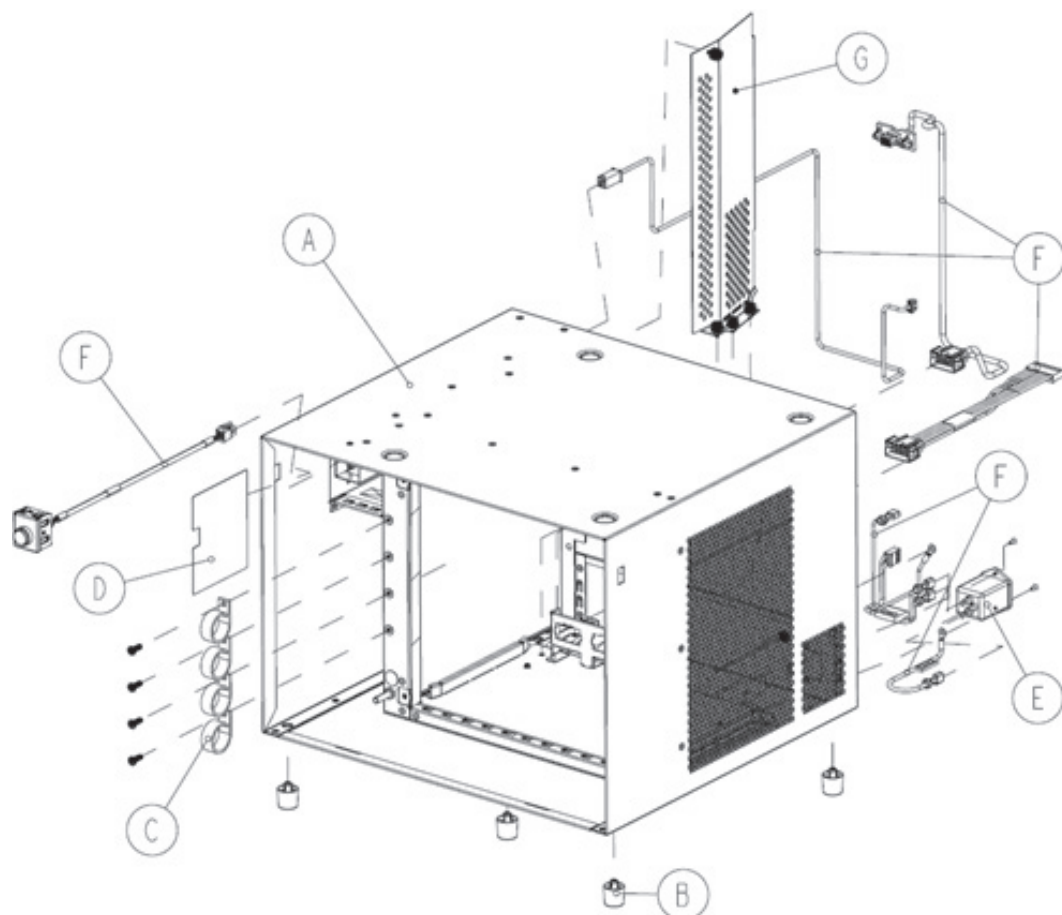


Note: The SPI3-Lite system ships with either a 19-inch or 22-inch touch panel monitor.



Item	Component	Item	Sub-Component	Recycling/Material Code	Qty	Important Information
1	Internal Cage Card	A	Cage	Steel, Zinc Coated	1	Contains decorated polycarbonate decals

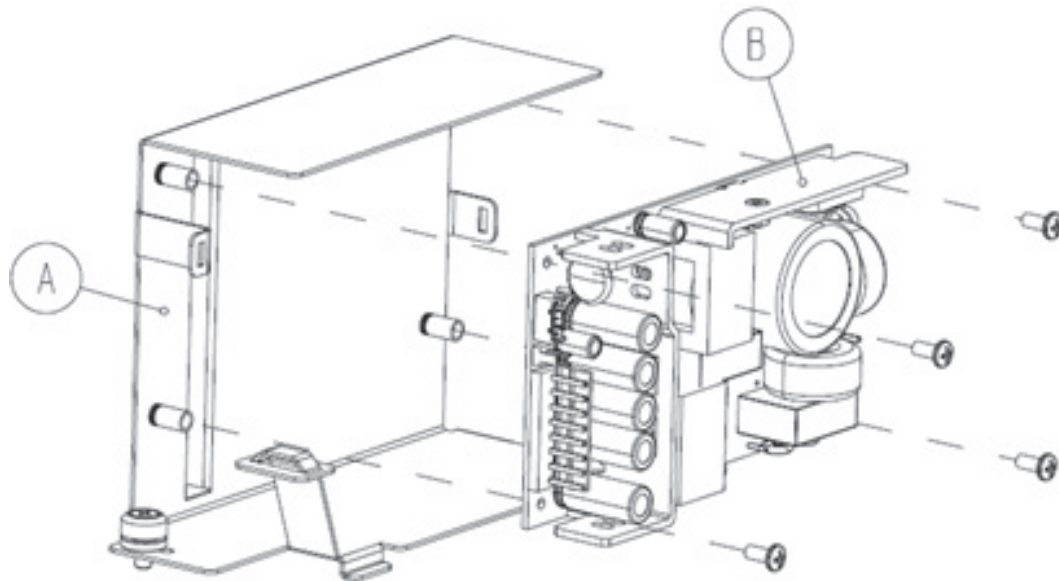
0678-003-000, PKG, SWITCHPOINT INFINITY 3 LITE						
	Detail: PCB					attached with acrylic-based adhesives
		B	Decals	Polycarbonate Film	4	Attached by permanent acrylic adhesive
		C	PCB	PCB	1	(See Items D and E)
		D	Heat Sink	Aluminum and Steel	1	Aluminum heat sink retained by steel spring clip
		E	Heat Sink and Fan Assembly	Aluminum, Plastic, PCB	1	- Plastic clip retention - Fan removes by four (4) screws - Fan disassembly by plastic snap ring under label on hub



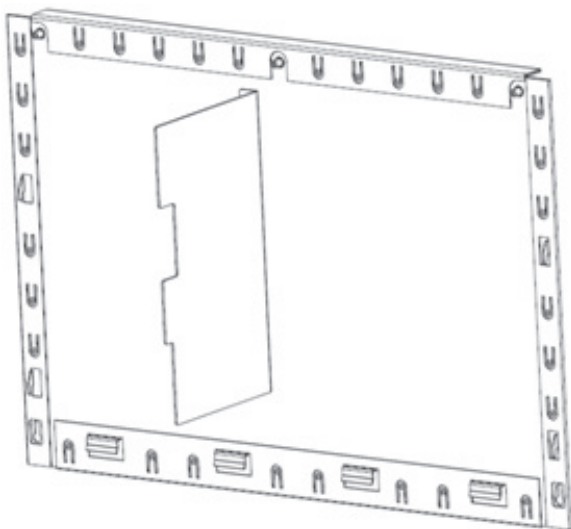
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Item	Component	Item	Sub-Component	Recycling/Material Code	Qty	Important Information
2	Chassis	A	Chassis	Steel, Zinc Coated	1	Painted with polyester powder coating
		B	Plastic feet	Thermoplastic elastomer (sanitroprene) w/ nylon rivet and drive screw	4	Remove by single screw per item
		C	Cable Management	Nylon 6/6	4	Removes by single screw per item.
		D	Decal	Polycarbonate Film	1	Attached by permanent acrylic adhesive
		E	Power Input Module	Sheet metal, thermoplastic, passive electrical devices	1	Removes by two screws
		F	Cable Assemblies	Wire: Tin plated copper Contacts: Brass or phosphor bronze with tin or tin and copper plating Connector Bodies: Nylon Spades: Tin on copper or brass	6	Cable assemblies attached by nylon tie-wraps and terminated on either end by friction-fit or snap-fit connectors
		G	Baffle	Steel, zinc coated	1	Removes by four (4) screws



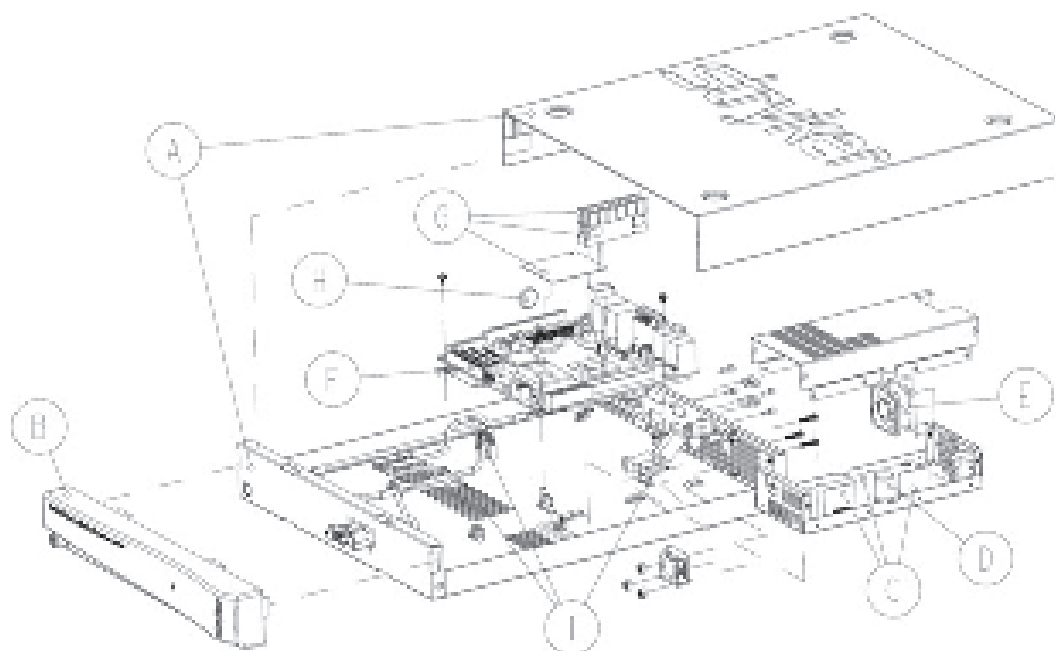
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Item	Component	Item	Sub-Component	Recycling/Material Code	Qty	Important Information
3	Power Supply	A	Bracket	Steel, zinc coated	1	Removes from chassis with two (2) screws
		B	Power Supply	PCB with electrolytic caps	1	• Removes with four (4) screws • Has multiple electrolytic caps



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Item	Component	Item	Sub-Component	Recycling/Material Code	Qty	Important Information
4	Back Panel		Panel	Steel, zinc coated	1	Painted with polyester powder coating

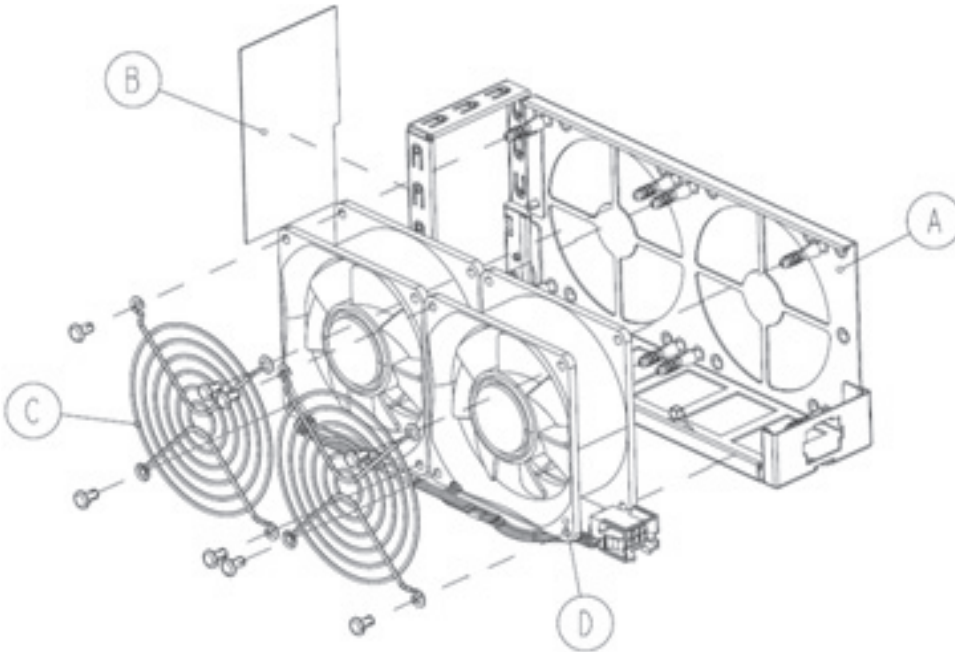


Item	Component	Item	Sub-Component	Recycling/Material Code	Qty	Important Information
5	Controller	A	Chassis	Steel, zinc coated	2	Top cover is painted with polyester powder coating
		B	Front Panel	PC/ABS Plastic	1	Removes by depressing snaps
		C	Power Supply	PCB	3	- Removes from chassis with four (4) screws. - Contains many heat sinks attached by solder. - Contains many wire-wrapped ceramics. 2 smaller PCBs soldered to main

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5	Control- ler	D	Power Supply	Electrolytic Caps	1	Has multiple electrolytic caps
		E		PCB and Plastic	1	- Fan removes with three (3) screws. - Fan disassembles by "C" clip under label on hub.
		F	Mother-board	PCB, AL Heat Sinks, Fan	1	- Removes with four (4) screws. - Contains multiple electrolytic CAPs
		G	Daughter Cards	PCB	3	Removes by depressing clips and rotating out
		H	Battery	Lithium battery	1	- Non-rechargeable, Lithium coin battery: - Mfg: Panasonic (Model CR2032), 3.0V (225 mAh), Contains Manganese Dioxide Lithium.
		I	Cables	Wire: Tin plated copper Contacts: brass or phosphor bronze with Tin or Tin & Copper plating Connector bodies: Nylon	3	Cable assemblies attached by nylon tie-wraps and terminated on either end by friction-fit and / or snap-fit connectors and / or screws.

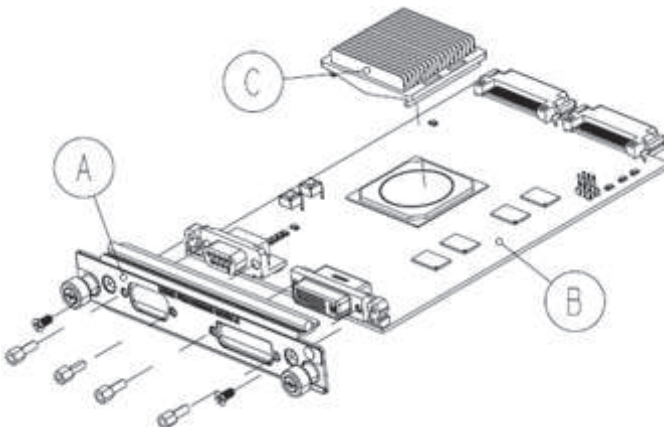


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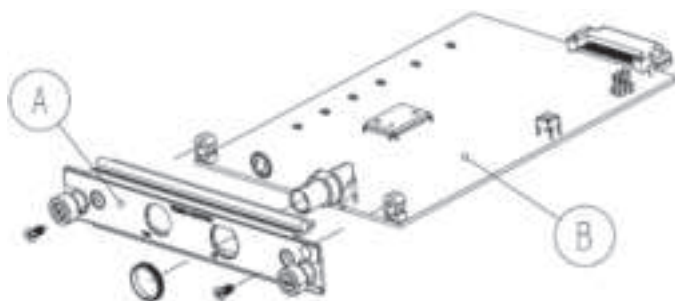


Item	Component	Item	Sub-Component	Recycling/Material Code	Qty	Important Information
6	Fan Tray	A	Chassis	Steel, zinc coated	1	
		B	Decal	Polycarbonate film	1	Attached by permanent acrylic adhesive
		C	Grill	Steel, nickel chrome plating	2	Removes with four (4) plastic friction-fit rivets
		D	Fan	Mineral filled plastic, PCB	2	Fan disassembles by c-clip under label on hub

Available installation in slots 1-7 on RIGHT(output side)



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Item	Component	Item	Sub-Component	Recycling/Material Code	Qty	Important Information
7	Video Processing Module	A	Panel	Steel, zinc coated	1	- Removes with two (2) screws & four (4) jack screws. - Contains a decorative polycarbonate decal attached with acrylic based adhesive.
		B	PCB	PCB	1	
		C	Heat Sink	Aluminum, plastic	1	Removes by flexing plastic clip off of device

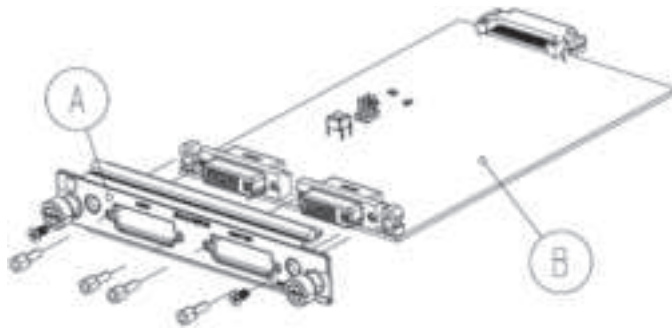


Available installation in slots 2-9 on RIGHT(output side)

Item	Component	Item	Sub-Component	Recycling/Material Code	Qty	Important Information
8	Video Output	A	Panel	Steel, zinc coated	1	- Removes with two (2) screws & one (1) retaining nut. - Contains a decorative polycarbonate decal attached with acrylic based adhesive.
		B	PCB	PCB	1	

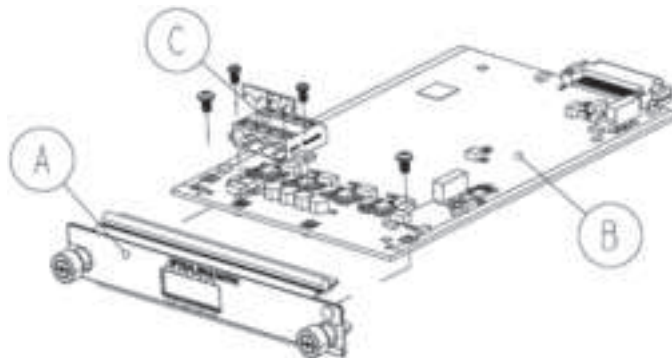


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Available installation in slots 1-9 on LEFT(input side)

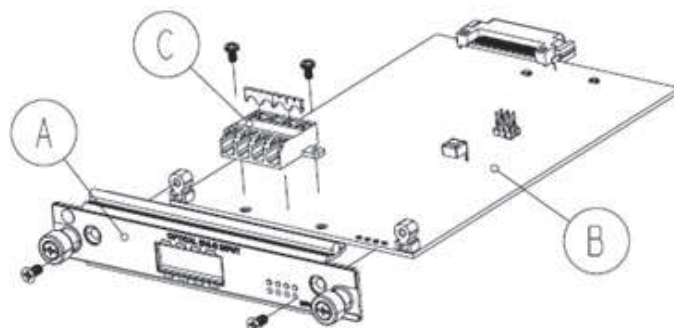
Item	Component	Item	Sub-Component	Recycling/Material Code	Qty	Important Information
9	DVI-D Input	A	Panel	Steel, zinc coated	1	- Removes with two (2) screws & four (4) jack screws. - Contains a decorative polycarbonate decal attached with acrylic based adhesive.
		B	PCB	PCB	1	



Available installation in slots 3-9 on RIGHT(output side)

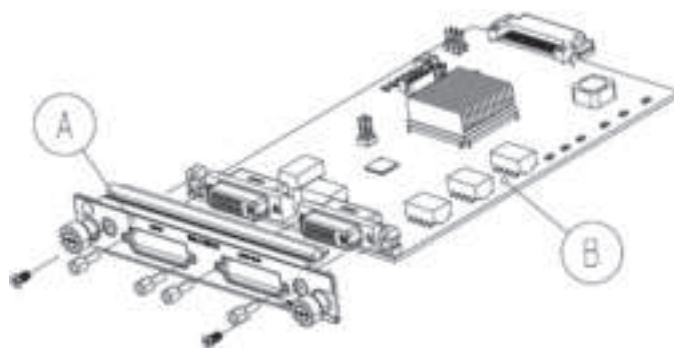
Item	Component	Item	Sub-Component	Recycling/Material Code	Qty	Important Information
10	Optical DVI-D Output	A	Panel	Steel, zinc coated	1	- Removes with two (2) screws. - Contains a decorative polycarbonate decal attached with acrylic based adhesive.
		B	PCB	PCB	1	

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		C	Housing	Plastic	1 Removes by two (2) screws and snap-in clips



Available installation in slots 2-9 on LEFT(input side)

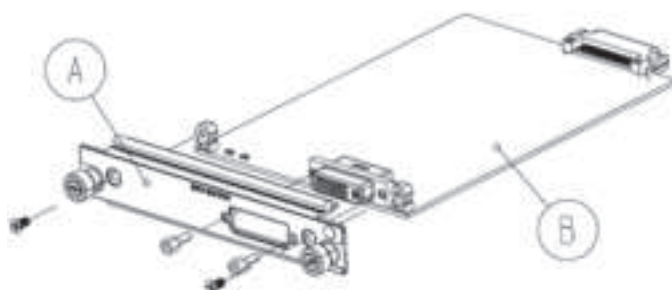
Item	Component	Item	Sub-Component	Recycling/Material Code	Qty	Important Information
11	Optical DVI-D Input	A	Panel	Steel, zinc coated	1	- Removes with two (2) screws. - Contains a decorative polycarbonate decal attached with acrylic based adhesive.
		B	PCB	PCB	1	
		C	Housing	Plastic	1	Removes by two (2) screws and to snap-in clips



Available installation in slots 1-9 on LEFT(input side)

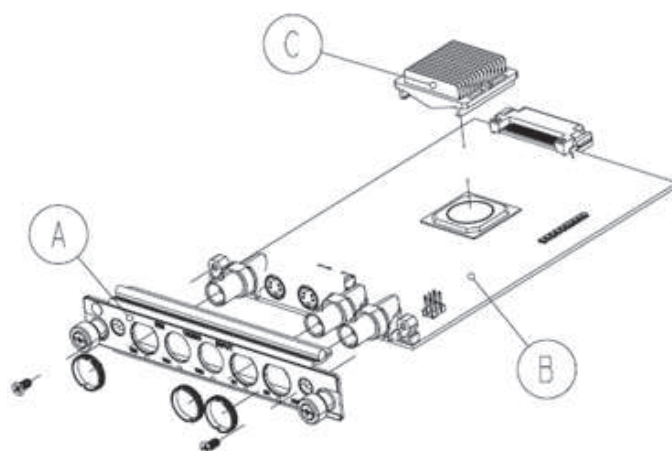
Item	Component	Item	Sub-Component	Recycling/Material Code	Qty	Important Information
12	DVI-Input	A	Panel	Steel, zinc coated	1	- Removes with two (2) screws & four (4) jack screws. - Contains a decorative

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						polycarbonate decal attached with acrylic based adhesive.
		B	PCB	PCB	1	



Available installation in slots 1-9 on RIGHT(output side)

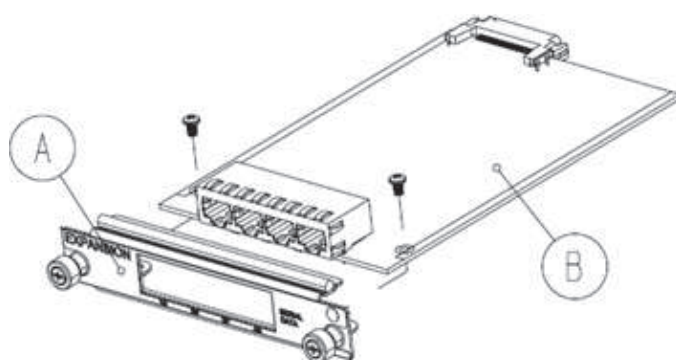
Item	Component	Item	Sub-Component	Recycling/Material Code	Qty	Important Information
13	DVI-Output	A	Panel	Steel, zinc coated	1	- Removes with two (2) screws & two (2) jack screws. - Contains a decorative polycarbonate decal attached with acrylic based adhesive.
		B	PCB	PCB	1	



Available installation in slots 2-9 on LEFT (input side)

Item	Component	Item	Sub-Component	Recycling/Material Code	Qty	Important Information
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14	SDI Video Input	A	Panel	Steel, zinc coated	1	- Removes with two (2) screws & three (3) retaining nuts. - Contains a decorative polycarbonate decal attached with acrylic based adhesive.
		B	PCB	PCB	1	
		C	Heat Sink	Aluminum, plastic	1	Removes by flexing plastic clip off of device

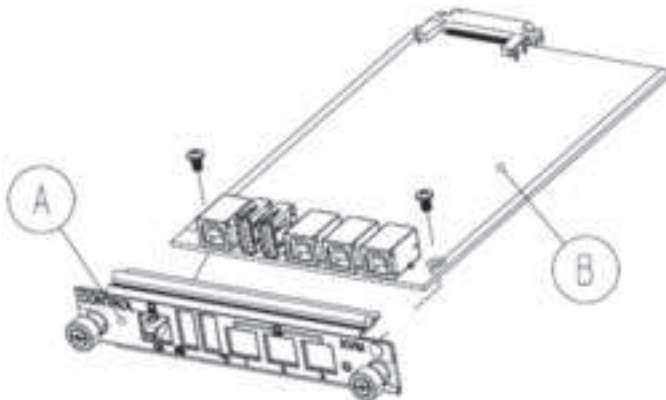


Only in slots 8 and/or 9 on
RIGHT (output side)

Item	Component	Item	Sub-Component	Recycling/Material Code	Qty	Important Information
15	Expansion	A	Panel	Steel, zinc coated	1	- Removes with two (2) screws. - Contains a decorative polycarbonate decal attached with acrylic based adhesive.
		B	PCB	PCB	1	



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Only in slot 9on LEFT (input side)

Item	Component	Item	Sub-Component	Recycling/Material Code	Qty	Important Information
17	Control KVM	A	Panel	Steel, zinc coated	1	- Removes with two (2) screws. - Contains a decorative polycarbonate decal attached with acrylic based adhesive.
		B	PCB	PCB	1	

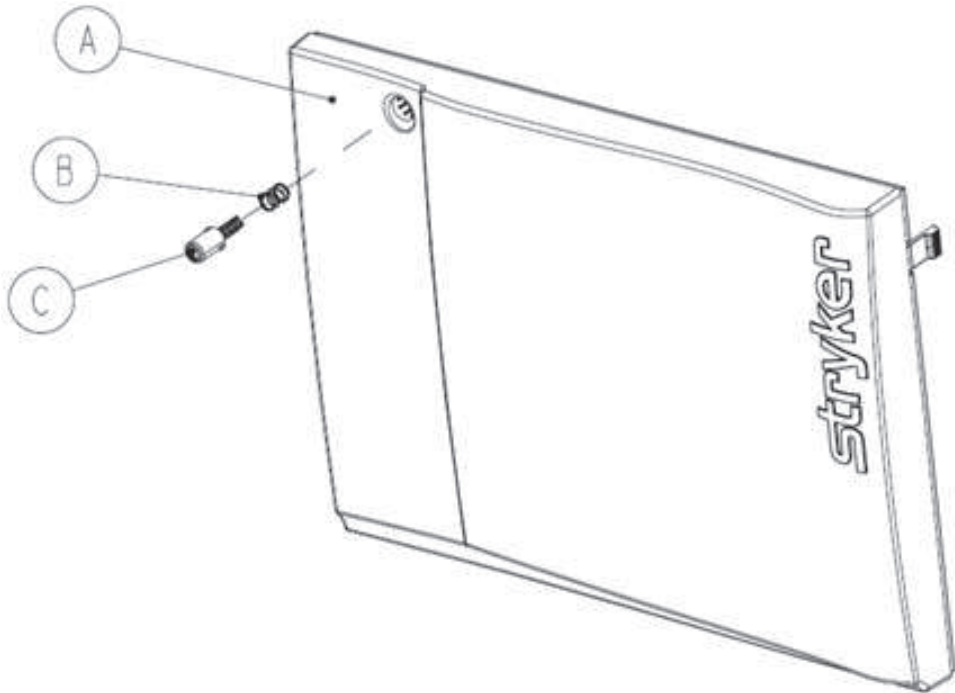
Any slot position



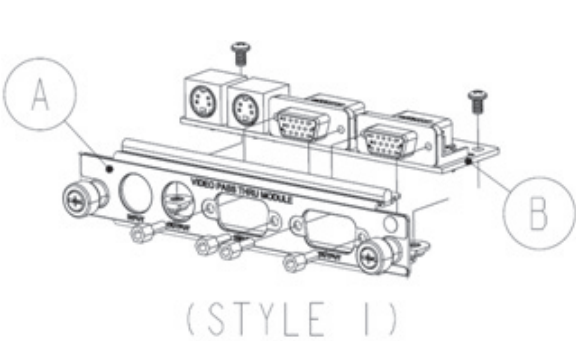
Item	Component	Item	Sub-Component	Recycling/Material Code	Qty	Important Information
18	Blank		Panel	Steel, zinc coated	1	Contains a decorative polycarbonate decal attached with acrylic based adhesive.



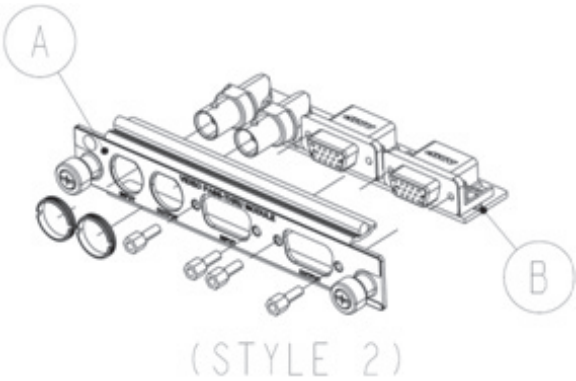
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Item	Component	Item	Sub-Component	Recycling/Material Code	Qty	Important Information
19	Product Cover	A	Cover	PC/ABS plastic	1	Ink pad printed on logo is RoHS and WEEE compliant
		B	Spring	Steel	1	Removes when button removes
		C	Button	PC/ABS Plastic	1	Removes by snaps



(STYLE 1)



(STYLE 2)

Item	Component	Item	Sub-Component	Recycling/Material Code	Qty	Important Information
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20	Video Pass Through Module	A	Panel	Steel, zinc coated	1	• STYLE 1: Removes with two (2) screws and four (4) jack screws. • STYLE 2: Removes with four (4) jack screws and two (2) retention nuts. • Both contain a decorative polycarbonate decal attached with acrylic based adhesive.
		B	PCB	PCB	1	

Contact Information

Contact Stryker Customer Service with questions or concerns.

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