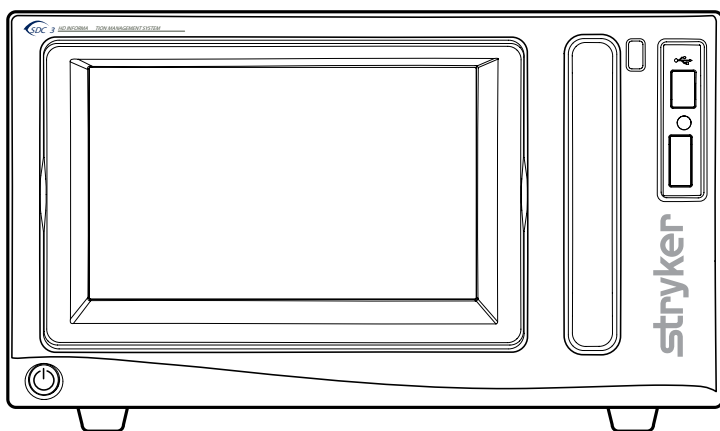


# stryker<sup>®</sup>

## **SDC3** HD Information Management System PowerShare Package





# Table of Contents

<b>Warnings and Cautions .....</b>	<b>1</b>
<b>About Your Product.....</b>	<b>2</b>
SDC3 HD Information Management System .....	2
<i>SDC3 Product Description .....</i>	<i>2</i>
<i>SDC3 Intended Use.....</i>	<i>2</i>
<i>SDC3 Indications.....</i>	<i>2</i>
<i>SDC3 Contraindications.....</i>	<i>3</i>
PowerShare Integration Package (optional) .....	3
<i>PowerShare Package Product Description .....</i>	<i>3</i>
<i>PowerShare Package Intended Use and Indications.....</i>	<i>3</i>
<i>PowerShare Package Contraindications.....</i>	<i>3</i>
Recommended Security Practices .....	4
<b>System Overview .....</b>	<b>6</b>
Front Panel.....	6
Rear Panel .....	7
<b>Setup.....</b>	<b>8</b>
Basic Setup .....	10
<b>Getting Started .....</b>	<b>11</b>
Starting the SDC3 System .....	11
Logging in as an Operator or Administrator .....	11
The Home Screen.....	11
Selecting a Surgeon Profile .....	12
<b>Creating Patient Cases.....</b>	<b>13</b>
Creating a New Patient Case.....	13
Accessing a Current Patient Case .....	13
Loading Patient Information.....	14
<i>Finding ICD10 Codes.....</i>	<i>14</i>
<i>Importing ICD10 Codes.....</i>	<i>15</i>
<i>Loading Patient Data with a Barcode Reader .....</i>	<i>15</i>
<i>Viewing the Patient List.....</i>	<i>16</i>
<b>Surgical Timeout Checklist Screens .....</b>	<b>17</b>
Surgical Timeout Checklist Start Screen .....	17
Surgical Timeout Checklist Verification Screen.....	18
Surgical Timeout Checklist Summary Screen .....	19
<b>Capturing Images and Videos .....</b>	<b>19</b>
Capturing Images and Video from a Single Channel .....	19
<i>To Record Video.....</i>	<i>19</i>

<i>To Stream Live Video</i> .....	20
<i>To Capture Images</i> .....	20
<i>To Print Captured Images</i> .....	20
<i>Additional Functions</i> .....	20
Recording Picture-in-Picture Images and Video.....	21
Synchronized Video Recording of Dual Channels.....	22
Independent Video Recording of Dual Channels.....	23
The Flip Screen.....	24
Editing Patient Information.....	24
Applying Device Presets.....	25
<b>Device Presets Settings</b> .....	<b>27</b>
<b>Video Settings</b> .....	<b>28</b>
Video Settings: Channel 1 .....	28
Video Settings: Channel 2 .....	29
Video Settings: Picture-in-Picture .....	30
Video Settings: Picture-By-Picture .....	31
Video Settings: On-Screen Display .....	31
<b>Printer Settings</b> .....	<b>32</b>
Printer Settings: Page Layout.....	32
Printer Settings: Advanced.....	33
<b>Saving Images and Videos</b> .....	<b>34</b>
Selecting the Save Location .....	35
<i>Connecting the iPad® to the SDC3</i> .....	35
<i>To save to disc (CD or DVD)</i> .....	36
<i>To save to a USB drive or iPad</i> .....	36
<i>To save to a Network location</i> .....	37
<i>Other functions</i> .....	37
<i>Saving to a Network</i> .....	37
<i>Saving to an EMR Server</i> .....	38
<i>Saving Case Information to PowerShare</i> .....	38
Save Settings.....	39
Advanced Save Settings .....	40
<b>Playback of Images and Videos</b> .....	<b>41</b>
Playback of Recorded Images.....	42
<i>Adding Image Annotations</i> .....	43
Playback of Recorded Videos.....	44
<b>Viewing Archived Information</b> .....	<b>45</b>
Viewing Information Archived on the Hard Disk.....	46
Viewing Information Archived on a USB Drive.....	47
Viewing Information Archived on a Disc .....	47

Viewing Information Archived on the Studio3 Media Server .....	48
Viewing Information Archived on the PowerShare Cloud Server .....	48
<b>SDC3 Settings.....</b>	<b>49</b>
General Settings .....	49
<i>General Application Settings</i> .....	49
<i>General Miscellaneous Settings</i> .....	51
<i>Setting Up Access Control</i> .....	52
Setting Up the Surgical Timeout Checklist .....	53
<i>General Audio Settings</i> .....	54
Printer Settings .....	55
Network Settings.....	56
<i>Network FTP Settings</i> .....	56
<i>SDC3 Networking Setup</i> .....	56
<i>Network Adapter Settings</i> .....	58
<i>WiFi Network Connection</i> .....	59
<i>Authentication</i> .....	60
<i>Wireless IP Settings</i> .....	61
<i>Manage Networks</i> .....	61
<i>Network Streaming Settings</i> .....	62
<i>Network Share Settings</i> .....	63
Profiles Settings .....	64
<i>Creating a New Surgeon Account</i> .....	65
<i>Modifying a Selected Profile</i> .....	66
System Settings .....	71
<i>Date and Time Settings</i> .....	71
<i>System Log Settings</i> .....	72
<i>System Language Settings</i> .....	73
<i>System Data Protection Settings</i> .....	74
<b>Server Settings.....</b>	<b>75</b>
Studio3 Server Settings .....	75
<i>Selecting Fields for Cases Saved on the Studio3 Server</i> .....	76
<i>Studio3 Networking Setup</i> .....	76
DICOM Server Settings.....	77
Stryker Link Server Settings .....	78
Cloud Settings.....	78
PowerShare Integration.....	78
Save Settings for PowerShare .....	79
EMR Integration Settings .....	81
<b>Troubleshooting .....</b>	<b>82</b>
<b>Electromagnetic Compatibility.....</b>	<b>84</b>
<b>Cleaning and Maintenance.....</b>	<b>87</b>

<b>Symbols .....</b>	<b>88</b>
<b>Technical Specifications .....</b>	<b>89</b>

# Warnings and Cautions

Please read this manual and follow its instructions carefully. The words warning, caution, and note carry special meanings and should be carefully reviewed:

- **Warning:** Indicates measures to avoid potential serious injury to the user and the patient and/or damage to this device.
- **Caution:** Indicates risks to the equipment. Failure to follow cautions may result in product damage.
- **Note:** Provides special information to clarify instructions or present additional useful information.

1. Caution: Federal law (United States of America) restricts this device to use by, or on order of, a physician.
2. Read this operating manual thoroughly and be familiar with its contents prior to setting up or using this equipment.
3. Carefully unpack the unit and check for any damage that may have occurred during shipment. If damage is detected, contact your Stryker representative.
4. Use of this device is restricted to qualified health care professionals who have a complete knowledge of the use of this equipment and the devices to which it can be connected.
5. Test this equipment prior to using it in a surgical procedure. This unit was fully tested at the factory before shipment; however, it must be tested for proper function in the environment and setup configuration in which it will be used.
6. To avoid risk of electric shock, use only a hospital-grade power cord furnished with the unit. Disconnect the unit from the power supply to make connections or to inspect the equipment.
7. To avoid the risk of electric shock, this equipment must only be connected to a supply mains with protective earth.
8. Do not position the console so that it is difficult to disconnect the power cord from the supply mains.
9. Install this device in an operating room that complies with all applicable IEC, CEC, and NEC requirements for safety of electrical devices. Any installation or connection with other devices shall be evaluated for electrical safety according to the IEC 60601-1 standard.
10. Use only clean, dry, undamaged Stryker brand media. The use of damaged, wet, or incompatible media will void the warranty and may result in the malfunctioning of this equipment.
11. Make sure that all equipment connected to the SDC3 is properly grounded (and isolated, if required).
12. To avoid risk of fire, do not use this device in the presence of flammable anesthetics.
13. Avoid direct exposure to the laser beam of the DVD/CD drive as it may harm the eyes.
14. Pay close attention to the care and cleaning instructions in this manual. Failure to follow these instructions may result in product damage.
15. Do not modify this equipment without authorization of the manufacturer.

16. Attempt no internal repairs or adjustments not specifically detailed in this operating manual. Refer any adjustments, modifications, and/or repairs to Stryker Endoscopy or its authorized representatives.
17. This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body.

The Stryker Standard Warranty and Return Policy (1000401175) is void if any of these warnings or cautions are disregarded.

## About Your Product

This manual covers the functionality of the SDC3 HD Information Management System (0240060100), and the optional PowerShare Integration Packages (0240060555, 0240060556, 0240060557).

### SDC3 HD Information Management System

#### SDC3 Product Description

The SDC3 is a computer-based unit that records, manages, and archives digital images and videos of surgical procedures. The SDC3 simplifies file management by recording surgical photos and videos to compact digital media, such as CDs, DVDs, Compact Flash Cards, USB Hard Drive, or USB storage devices, which can then be viewed from a personal computer, a DVD player, or from the SDC3 itself. The SDC3 records images and videos on a built-in hard drive, where they can be easily accessed after the surgical procedure. The media stored on the hard drive can be tagged with patient-specific information and burned to digital media using a touchscreen control panel located on the front of the unit. This media can also be sent at the push of a button to the Studio3 Media Server for long-term storage and browser-based accessibility.

#### SDC3 Intended Use

The SDC3 is intended to electronically capture, transfer, store and display medical device data independently of the functions or parameters of any connected medical device. It is also intended to convert medical device data from one format to another in accordance with preset specifications. The SDC3 is intended for use as a secondary display for regulated medical devices and is not intended to calculate or modify any received data or provide primary diagnosis or treatment decisions. It is not intended for use for active patient monitoring.

The SDC3 is a non-sterile reusable device not intended for use in the sterile field. The SDC3 is intended for use by qualified physicians and qualified operating room personnel who have complete knowledge of surgical procedures.

#### SDC3 Indications

The SDC3 is indicated for use with compatible endoscopic and general surgery devices. The SDC3 can be used in general laparoscopy, nasopharyngoscopy, ear endoscopy, sinuscopy, and plastic



surgery wherever a laparoscope/endoscope/arthroscope is indicated for use.

A few examples of the more common endoscopic surgeries are laparoscopic cholecystectomy, laparoscopic hernia repair, laparoscopic appendectomy, laparoscopic pelvic lymph node dissection, laparoscopically assisted hysterectomy, laparoscopic and thoracoscopic anterior spinal fusion, anterior cruciate ligament reconstruction, knee arthroscopy, shoulder arthroscopy, small joint arthroscopy, decompression fixation, wedge resection, lung biopsy, pleural biopsy, dorsal sympathectomy, pleurodesis, internal mammary artery dissection for coronary artery bypass, coronary artery bypass grafting where endoscopic visualization is indicated, and examination of the evacuated cardiac chamber during performance of valve replacement.

SDC3 users are general surgeons, gynecologists, cardiac surgeons, thoracic surgeons, plastic surgeons, orthopedic surgeons, ENT surgeons, and urologists.

### **SDC3 Contraindications**

There are no known contraindications.

## **PowerShare Integration Package (optional)**

### **PowerShare Package Product Description**

The SDC3 PowerShare Package (0240060555, 0240060556, 0240060557) is an accessory to the SDC3 HD Information Management System (0240060100). The PowerShare Package enables the SDC3 to save case images to a facility's PowerShare Network.

The SDC3 PowerShare Package is available in 3 tiers:

- Basic: (0240060555)
- Intermediate (0240060556)
- Enterprise (0240060557)

### **PowerShare Package Intended Use and Indications**

The SDC3 Powershare package is intended to be used as an optional software accessory package to the SDC3 HD Information Management System (SDC3). The SDC3 PowerShare package allows surgeons/medical personnel to save case images from SDC3 to the facility's PowerShare Network.

### **PowerShare Package Contraindications**

There are no known contraindications.

## Recommended Security Practices

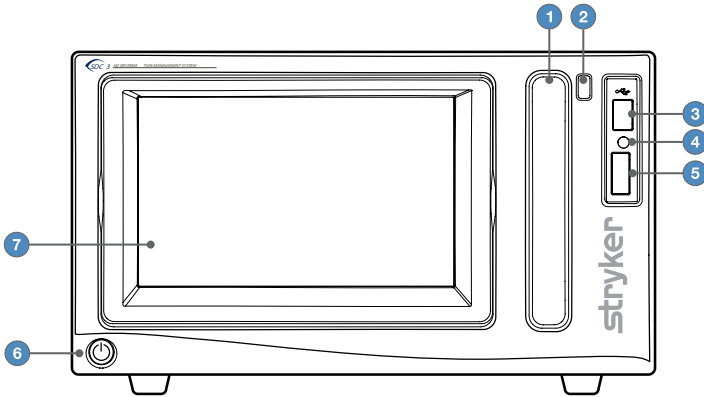
The following security practices protect patient health information (PHI) archived on the device from data security threats. Stryker strongly recommends that all customers enable the following security practices.

Access Control	<p>Enable account access controls through the “Active Directory Authentication” feature; assign passwords for both Administrators and Operators (see the Setting Up Access Control section).</p> <p>If “Active Directory Authentication” is not enabled, assign passwords for both Administrator and Operator user levels.</p> <p>Limit device access to authorized users per hospital policy (e.g. limit access to the protected health information (PHI) archived on the device by abiding the account’s physical, technical and administrative safeguards).</p>
Authentication and Encryption (when connecting to the hospital’s network)	<p>Connect the device through a secure hospital network, preferably WPA2 AES (PEAP-MSCHAP v2 authentication), using AES encryption. Note: this section is also repeated under Technical Specification.</p>
External storage devices	<p>Limit transfer of data from the device as well as the use of external storage devices per the account’s data privacy policy. (e.g. limit data transfer from the device to external storage devices provided by the account with encryption and password protection levels approved by account).</p> <p>Follow the account’s policy regarding custody and control of external storage devices (i.e. limit controls of external transfer devices to a designated group within the account; do not allow employees to leave the account with external storage devices containing PHI.)</p>
Data Security and Encryption options (at rest)	<p>Disable the “Patient Data Export” option when transferring archived cases from the device to external media. Go to the Save Settings screen and uncheck “External Media Options. (see the Save Settings section).</p> <p>If “Patient Data Export” capability is activated, enable the “Encryption” option when transferring and storing archived data to external media. (see the Save Settings section).</p>

Data Security During Repair	<p>When returning the device to Stryker for repair, remove all PHI, per Stryker policy. See contract for terms of agreement. Contact a Stryker sales representative to request a Stryker factory restore.</p> <p>If transferring the device with archived PHI, anonymize the data before transit. Go to Settings &gt;System &gt; Data Protection (see the System Data Protection Settings).</p>
Saving files to the Network	Always select secure transmission of data to the network. (see the Saving to Network section).
Log Out	Always log out manually from the device once the procedure is complete. Warning: the device does not contain an automatic log off feature.
Software Updates	Install software updates provided by Stryker as they are released.

# System Overview

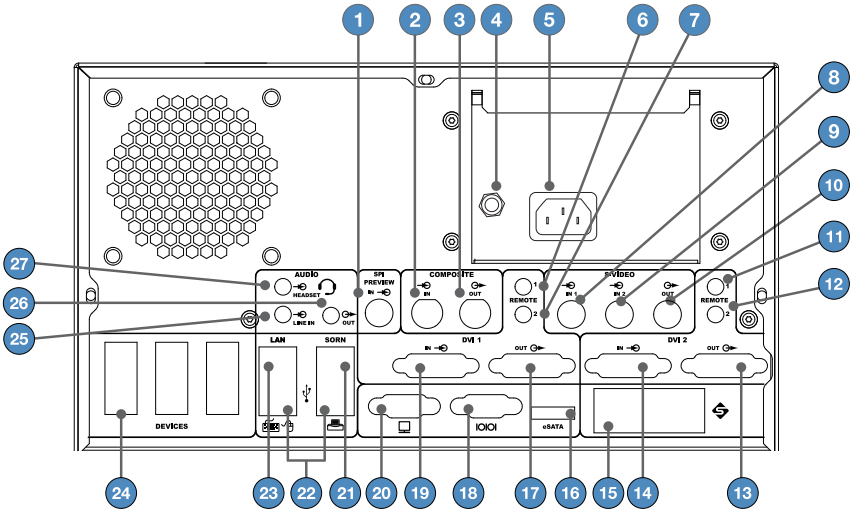
## Front Panel



1. CD/DVD Drive
2. Eject button for CD/DVD Drive
3. USB Port
4. Token LED (for use with WiSe Receiver)
5. Token Slot (for use with WiSe Receiver)
6. Power Button
7. LCD Touchscreen

**Note:** SDC3 files are not readable on the SDC Ultra, but SDC Ultra files can be read on SDC3.

# Rear Panel



1. SPI Preview – SPI Input (For future use)
2. Comp In – Composite Video Input
3. Comp Out – Composite Video Output
4. Equipotential Ground Plug – For connection to an external protective earthing system as described in the IEC 60601-1 Electrical Safety standard
5. AC Power Inlet
6. Primary R1 – Remote connection for capture control on the primary channel
7. Primary R2 – Remote connection for recording control on the primary channel
8. S-Video IN1 – S-Video Input 1
9. S-Video IN2 – S-Video Input 2
10. S-Video Out – S-Video Output
11. Secondary R1 – Remote connection for capture control for secondary channel
12. Secondary R2 – Remote connection for recording control for secondary channel
13. DVI 2 Out – Secondary Channel DVI Output
14. DVI 2 In – Secondary Channel DVI Input
15. SFB Connector Ports – Enables Firewire connection with Stryker Firewire devices
16. eSATA – Compatible eSATA Cable Port (For future use)
17. DVI 1 Out – Primary Channel Output
18. Serial Port
19. DVI 1 In – Primary Channel Input
20. VGA
21. SORN – RJ45 SORN Port
22. USB Ports for mouse, keyboard, printer
23. RJ45 Port – Network Port
24. Devices – Stryker Devices Port
25. Line-In – Audio Input
26. Line-Out – Audio Output
27. Headset – Audio In/Headset Out

# Setup

Stryker Endoscopy considers instructional training an integral part of the SDC3 system. Your Stryker Endoscopy sales representative will perform at least one in-service at your convenience to help you set up your equipment and instruct you and your staff on its operation and maintenance. Please contact your local Stryker Endoscopy representative to schedule an in-service after your equipment has arrived.

1. Choose a location for the SDC3
  - Place the SDC3 on a Stryker cart or other sturdy platform.
  - Provide a minimum of 4 to 6 inches of space around the sides and top of the SDC3. This allows for sufficient ventilation and access to the power cord.

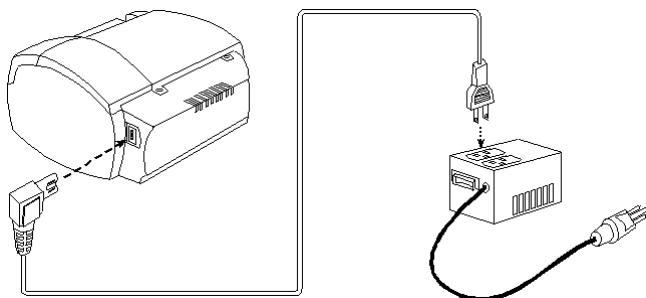
## **Warning**

RF and other mobile communications equipment may affect the normal function of the SDC3. When placing the SDC3, follow the instructions located in the “Electromagnetic Compatibility” section of this manual.

2. Connect peripheral devices according to the interconnection diagram on the following pages.

## **Warnings**

- Connect only devices that have been specified as part of, or compatible with, the SDC3 system.
- When the SDC3 is interconnected with other electrical devices, leakage currents may be additive, resulting in electromagnetic emissions that can interfere with the normal function of electronic medical equipment. To properly control electromagnetic emissions and avoid potential harm to the patient or user, ensure all electrical devices are installed and interconnected according to the requirements of IEC 60601-1 and IEC 60601-1-1.
- When installed inside the patient environment, represented by an area 1.5 meters from the patient in all directions, the printer must be connected to an isolation transformer prior to use. Recent Stryker carts include isolation transformers and printers can be installed without the use of an additional transformer. Please contact your Stryker Endoscopy sales representative to determine if your cart includes this feature.



3. Connect the AC power.

- Connect the provided hospital power cord to the AC inlet on the rear console panel.
- Connect the other end to a hospital-grade power outlet.
- Use a hospital power cord, part number 0105033001 or part number 0105150027.

**Warning**

- Check the power cord assembly periodically for damaged insulation or connectors.
- To avoid risk of electric shock, this equipment must only be connected to a supply mains with protective earth.

4. (Optional) Connect the equipotential ground probe to an equipotential bus bar (if available). The ground probe is provided to make sure all devices installed on the cart are connected to the same ground potential. Make sure all connections are made according to the requirements of IEC 60601-1.

5. (Optional) Connect the SDC3 to the WiSe Receiver.

- Insert the LED token provided with the WiSe receiver into the token slot on the front of the SDC3 console according to the sequence of steps described in the WiSe receiver user guide.
- When the LED light is off, no link is active, and the token can be inserted to begin synchronization.
- When the LED light is green, the link is active, and it is okay to remove the token.
- When the LED light is amber, the system is busy and the token should not be inserted or removed.

**Note: The SDC3 can only be linked to one WiSe Receiver.**

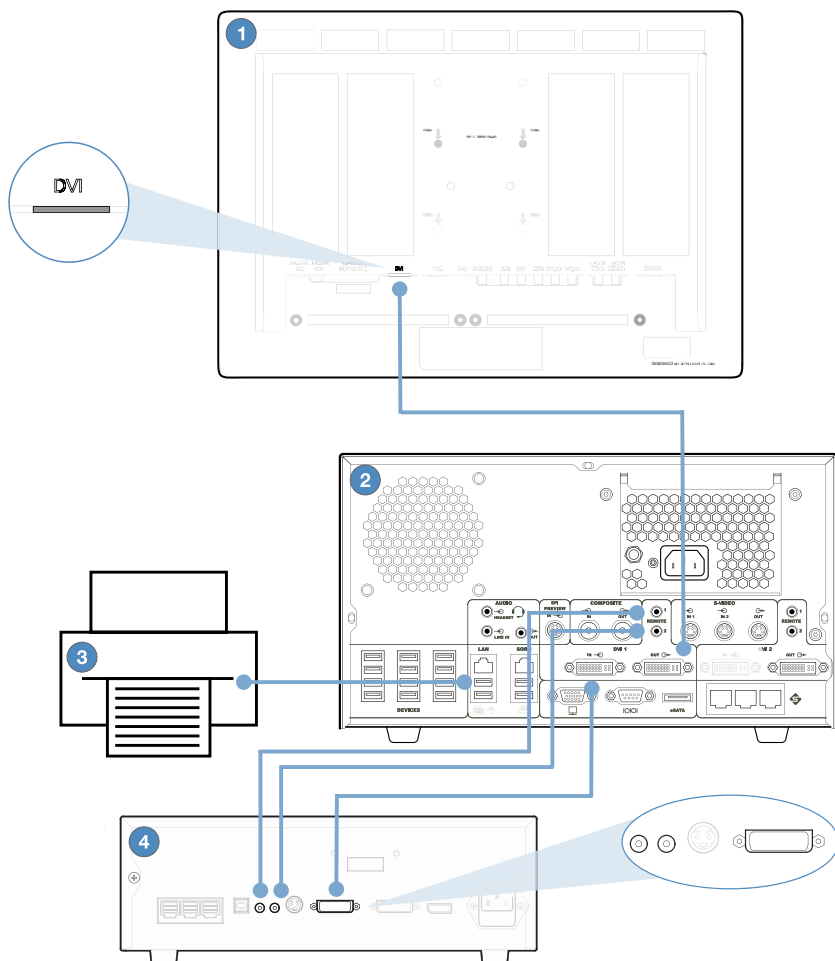
6. (Optional) Connect the SDC3 to the SYNK Transmitter.

- Connect a SIDNE cable to the RS232 port at the back of the SYNK transmitter.
- Connect the other end of the SIDNE cable to one of the Devices USB ports at the back of the SDC3.
- From the Current Case > Controls screen, go to the Transmitter tab.
- Press the Link button to link the SYNK transmitter and the SDC3. All controls for the transmitter are now available through the SDC3 touchscreen.

## Warning

In the event of power loss, all DVI output signals routed from the SDC3 to the surgical display will be lost. Analog signals (RGBHV, S-Video, Composite) will not be affected by power loss, and can therefore be used as backup video signals if they have been connected prior to power loss.

## Basic Setup



- 1. Monitor
- 2. SDC3
- 3. Printer
- 4. Camera Control Unit




# Getting Started

## Starting the SDC3 System

1. Press the power button located at the bottom left corner of the front panel to set the power to **ON**.
2. As the system starts up, the SDC3 shows the welcome screen.
3. The version of the SDC3 software shows under the SDC3 logo.
4. Loading progress shows at the bottom of the screen.
5. To shut down the system, press the power button again.

## Logging in as an Operator or Administrator








If the SDC3 has Access Control enabled, you must log in when the SDC3 starts up.



1. If you have Administrator permission, check the Administrator box.
2. Enter your name in the Operator Name field.
3. Enter the password in password field.
4. Press the **LOGIN**  button. After successful log in, the system shows the Home screen.

## The Home Screen

After the SDC3 starts up, the Home Screen displays. The Home Screen has links to the primary functions of the SDC3. From the Home Screen, you can:

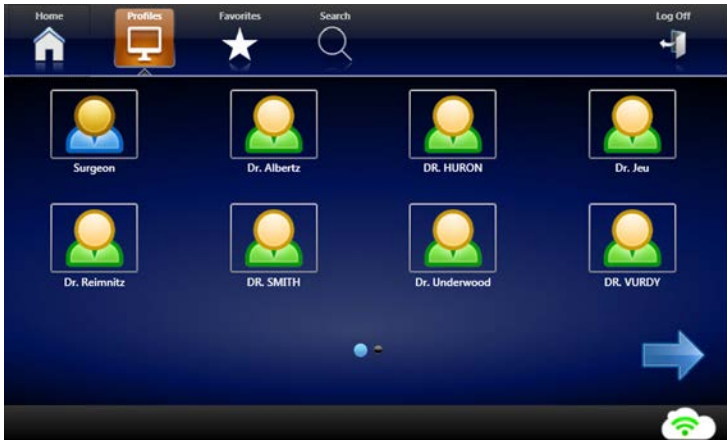
- Start a new patient case
- Access current patient cases
- Access archived patient information
- Load patient information into the system
- Adjust system settings
- Change surgeon profiles
- Change operators (if Access Control is enabled)


1. Press the **SETTINGS**  button to go to the SDC3 Settings screens.
2. Press the **NEW CASE**  button to start a new patient case.
  - If a patient case has already been started, but there is no data saved to that case, the system asks, "Do you wish to discard the current case?"
  - If a patient case has already been started, and there is data saved to that case, the system asks, "Do you wish to create a new case?"
  - Press **EXIT**  to go back to the Home screen. Press **OK**  to go to the New Case screen.
3. Press the **CURRENT CASE**  button to go to the Current Case screen.
4. Press the **ARCHIVE**  button to go to the Archived Cases screen, which shows cases that have been saved to the SDC3, a USB storage device, a disc, or the Studio3 media server.
5. Press the **LOAD PATIENT INFO**  button to go to the Patient Info screen and preload patient information before surgery.

6. Press the **LOG OFF**  button to change operators (if Access Control is enabled).
7. Press the **CHANGE PROFILE**  button to choose a different profile. The Profile screen shows the available profiles.

## Selecting a Surgeon Profile

From the Profiles screen, you can change the current surgeon profile and search profiles.





1. To select a surgeon profile, touch the corresponding icon.”
2. Markers at the bottom of the screen show the current screen and total number of screens.
3. To see additional surgeon account screens, touch the **RIGHT ARROW**  button.


# Creating Patient Cases

The SDC3 organizes all the data associated with a patient into a patient “case.” Patient cases include information about the patient, the procedure, and any pictures or video captured during the procedure. Patient cases can be created, accessed, modified, and saved to the SDC3 hard disk or to external media, such as USB drives, CD/DVD, or network servers.

## Creating a New Patient Case

To create a new patient case:


1. On the Home screen, press the **NEW CASE**  button.
2. From the confirmation screen, press **OK**  to confirm the new case. The Surgeon Profile screen shows.

**Note:** If a patient case has already been started and you have not saved any information to the case, the SDC3 asks if you want to discard that case (the “current case”) before creating a new case. If you do not want to discard the current case, you can access it through the **CURRENT CASE**  button from the Home screen.

3. Choose a Profile for the case to go to the Capture screen.

## Accessing a Current Patient Case

To access a current patient case (one for which patient data, pictures, or video has already been saved to the SDC3):







1. On the Home screen, press the **CURRENT CASE**  button. The Capture Screen appears.
2. On the Capture Screen, select the correct patient case from the **CURRENT CASE (PATIENT ID)** dropdown list.

# Loading Patient Information

You can enter patient information (name, ID, procedure, etc.) into the system ahead of time so that it is available when creating new patient cases. The patient information entered and saved in the Load Patient Info screen becomes available as a Current Case in the dropdown menu on the Capture screen.


The screenshot shows the 'Load Patient Info' screen. A blue circle with the number '2' points to the 'Patient ID' field. On the right side, a vertical column of buttons is shown, each with a blue circle and a number: '3' for 'View Patient List', '4' for 'Search Patient', '5' for 'Search Work List', '6' for 'Barcode Search', and '7' for 'Add Patient'.


To load patient information into the SDC3:

1. On the Home Screen, press the **LOAD PATIENT INFO**  button. The Load Patient Info screen appears.
2. Fill in the data fields you need.
  - Touch each field to open a keyboard for typing in data, or
  - Select a value from the dropdown list.
  - At a minimum, the Patient ID field should be filled in. All other fields are optional.
3. To view patients currently loaded into the system, press the **VIEW PATIENT LIST**  button.
4. To load patient data from an EMR system, press the **SEARCH PATIENT EMR**  button (available with the optional EMR Integration Package installed).
5. If you have an ICD10 code, enter it in the ICD10 Code field, or press the **LOOKUP**  button.
6. If you have a barcode reader connected, press the **BARCODE SEARCH**  button to choose the source from which to load data.
7. Press the **ADD PATIENT**  button to save the patient information and add the patient to the current case list.

## Finding ICD10 Codes

To look up the correct ICD10 code:

1. Press the **LOOKUP**  button.
2. Choose the correct Section, Body Section, and Operation.
3. Choose the correct Body Part, Approach, Device, and Qualifier.

4. Press the **EXIT**  button.
5. The ICD10 code shows on the Load Patient Info screen.

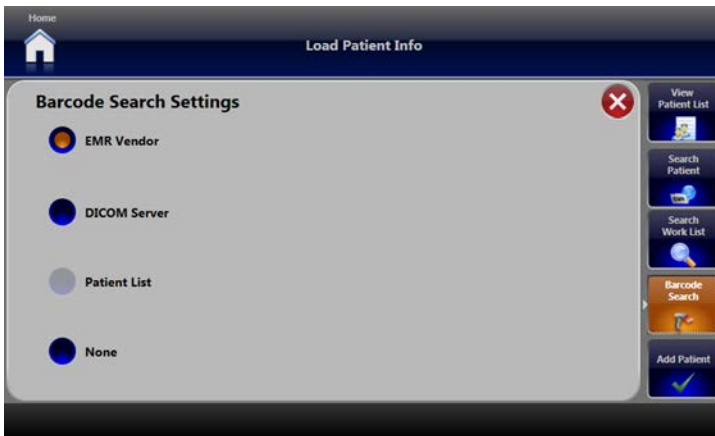
## Importing ICD10 Codes



To import updated ICD10 codes:

1. Make sure the ICD10 code filename is in this format: **icd10pcs\_tabular\_yyyy.xml**, where “yyyy” is the year that the ICD10 code was formulated.
2. Insert a USB drive with updated ICD10 code information.
3. Press the **IMPORT** button. The updated codes load.

## Loading Patient Data with a Barcode Reader

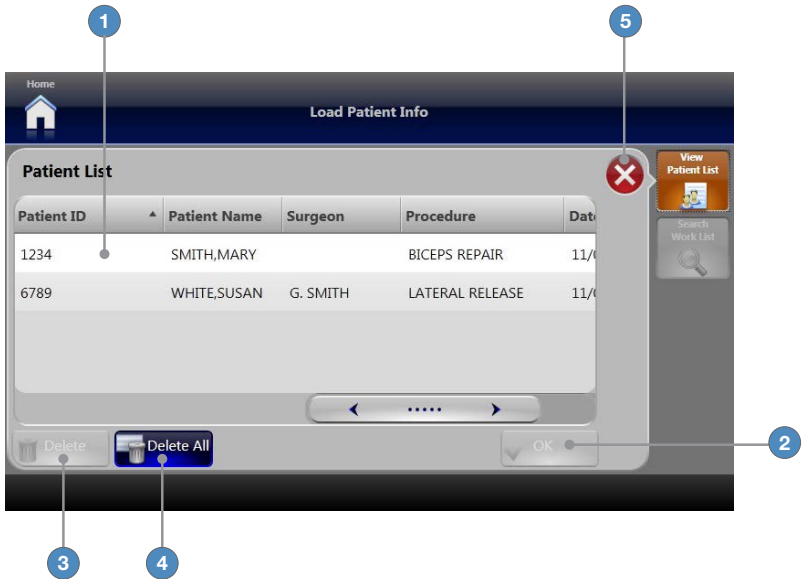
You can use any USB Barcode Scanner to load patient data onto the SDC3. From the Load Patient Info screen:



1. Connect the barcode scanner's USB adapter to one of the SDC3 USB ports.
2. Press the **BARCODE SEARCH**  button.
3. Choose the source you want to search with the barcode data. Close the Barcode Search Settings window.
4. Make sure the Patient ID text box is selected, and scan the barcode.
5. Press the **LOOKUP**  button.
6. The patient data loads.

## Viewing the Patient List

The Patient List screen shows patient cases that have already been loaded into the system.



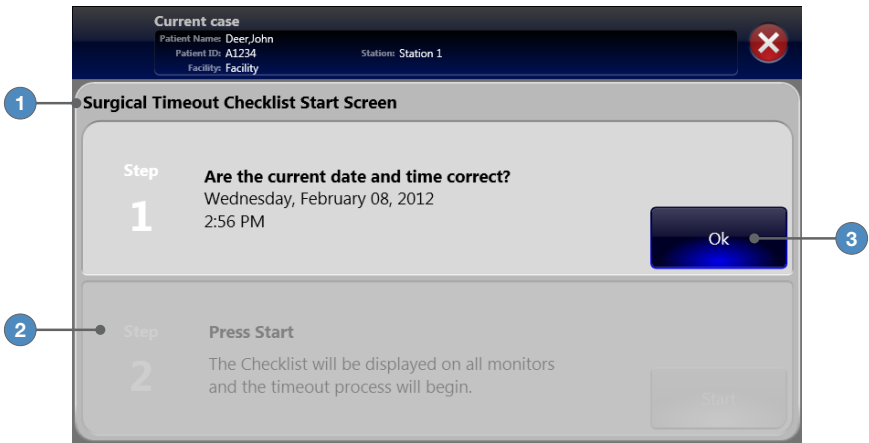
1. To select a case for editing or deletion, touch the corresponding row.
2. To view or edit the selected case, press the **OK** ✓ button.
3. To delete the selected case, press **DELETE** 🗑 button.
4. To delete all cases, press the **DELETE ALL** 🗑 button.
5. To return to the Load Patient Info screen, press the **EXIT** ✖ button.

# Surgical Timeout Checklist Screens

To set up or activate the surgical timeout checklist, go to Settings > General > Misc. To launch the Surgical Timeout Checklist, go to either Current Case or New Case, then go to the Edit Patient tab.

## Surgical Timeout Checklist Start Screen

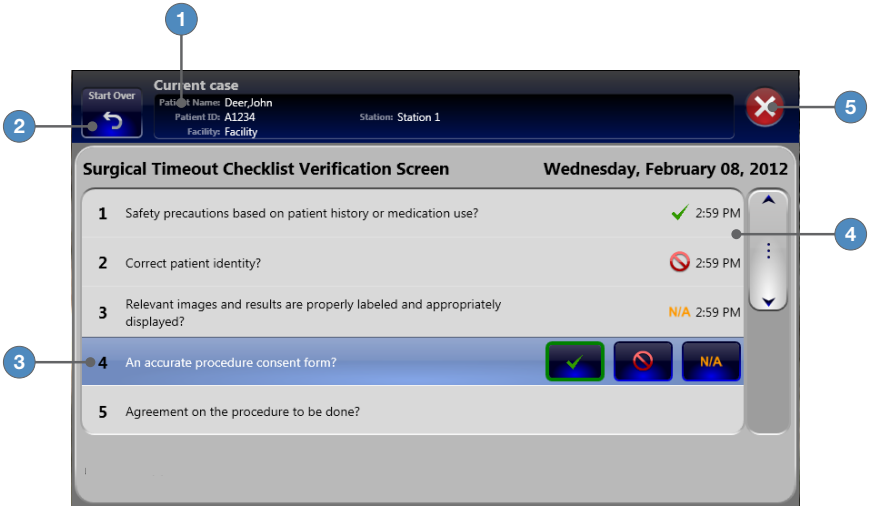
**Note:** Before the Surgical Timeout Checklist launches, you are asked to confirm the current date and time.



1. The Surgical Timeout Launch Screen is activated through the Edit Patient Tab. The default value is ON.
2. User is asked to verify correct date and time for Step 1.
3. Press OK once the correct date and time are verified and Step 2 will be activated.
4. Press the **START** button to start the verification process.

# Surgical Timeout Checklist Verification Screen

When the Surgical Timeout Checklist begins, the SDC3 will present a series of questions about the patient and the procedure that can be answered as yes, no, or not applicable.





1. The Surgical Timeout Checklist Verification Screen shows the patient name, the patient ID, the facility name, and the station name on the screen.
2. Press the **START OVER** button to restart the verification process at any time during the process.
3. An answer is required for each question on the checklist. Options are yes, no, and N/A. Answers can be changed, but no question can be skipped.
4. The date and time of the last update is recorded at the end of each question.
5. Press the **EXIT** button to exit the verification process.





## Surgical Timeout Checklist Summary Screen

The Summary screen shows after all checklist questions are answered. You have the option to view and print the checklist from archived cases.


1. Press the **PRINT**  button to print the summary screen.
2. Press the **DONE**  button to exit the summary screen.

## Capturing Images and Videos

Within a patient case, image and video files can be captured to document a surgical procedure.

To open the Capture screen for a patient case, select a **NEW CASE**  or **CURRENT CASE**  from the Home screen.



### Capturing Images and Video from a Single Channel

The Capture screen  shows the live image from the camera. The live image can be recorded as video or captured as a still image.

**Note:** At least one video source (channel) must be connected to the SDC3 to enable video recording and image capture.




### To Record Video


1. Press **RECORD**  to initiate recording.  
Press **PAUSE**  to pause recording. Video recording duration, video source signal, and video size are shown above the preview screen.

2. Press **STOP**  to stop recording.




### To Stream Live Video

3. Make sure the **STREAM 1** checkbox is checked. (Streaming must be enabled/configured in the **NETWORK STREAM** tab in System Settings. See the “Network Streaming Settings” section of this manual for details.)
4. Press the **STREAM**  button to toggle between start and stop.



### To Capture Images

5. Press the **IMAGE CAPTURE**  button.
6. The total number of captured images is shown next to the review screen and again at the base of the Capture screen.

### To Print Captured Images

7. Press the **PRINT**  button.
8. The **PAGE LAYOUT**  indicator shows how many images will print on each page, and the orientation (P=portrait, L=landscape).
9. The **COPIES**  indicator shows how many copies of each page will print.

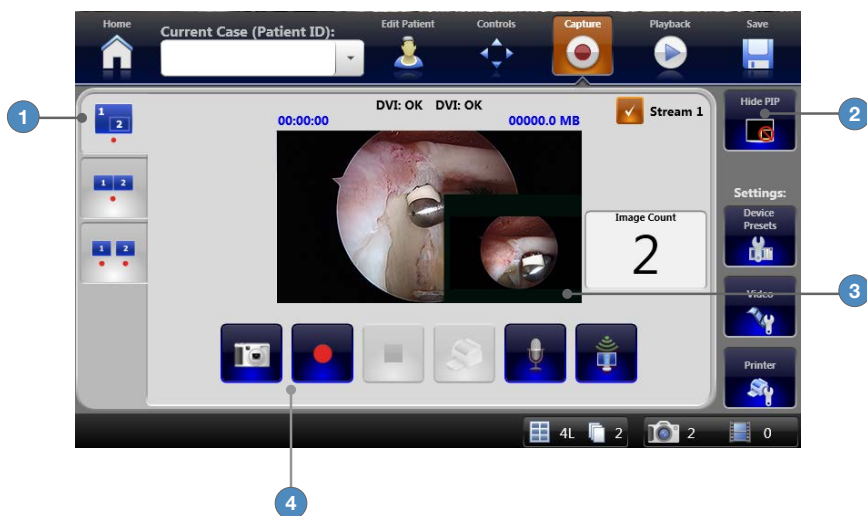
### Additional Functions

10. If a microphone is connected to the SDC3, press the **MICROPHONE**  button while recording to switch between muted and unmuted audio input.
11. The **SINGLE CHANNEL/PIP**  tab accesses the Single Channel capture screen. (Additional tabs appear when a second video source is connected to the SDC3).

## Recording Picture-in-Picture Images and Video

When 2 video sources are connected to the SDC3, the system can show Picture-in-Picture (PIP) video. In PIP mode, video from Channel 2 appears in the lower corner of the Channel 1 screen. The SDC3 records images and videos from both sources as one file.

**Note:** Choose Dual Channel mode in the General Application settings to enable this function.



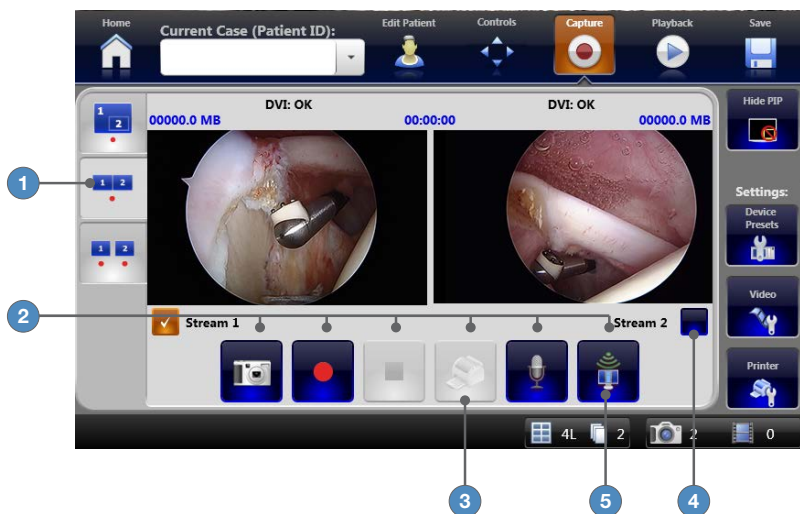
**To record PIP video or capture PIP images:**

1. Select the **PIP 1 2** tab.
2. Press the **HIDE/UNHIDE PIP** button.
3. The picture from Channel 2 appears as a picture in the corner of the Channel 1 screen.
4. Use the **RECORD** (red circle), **PAUSE** (two vertical bars), **STOP** (square), and **IMAGE CAPTURE** (camera icon) buttons to record video or capture images.






## Synchronized Video Recording of Dual Channels

When 2 video sources are connected to the SDC3, the system can record synchronized video from both video sources. In Synchronized Capture mode, images and video are captured simultaneously from both channels, but saved as separate files.


**Note:** Dual Channel mode must be selected in the General Application settings screen to enable this function.



### To record synchronized video from dual channels:

1. Select the **SYNCHRONIZED CAPTURE**  tab.
2. Press the **CAPTURE** , **RECORD** , and **STOP**  buttons under the preview pane to perform the corresponding function.
3. Press the **PRINT**  button to print images. When printing from the Synchronized Capture screen images from Channel 1 print first by default and images from Channel 2 print second.

### To stream Dual Channel video:

4. Select the Stream 1 checkbox to stream Channel 1 video, or the Stream 2 checkbox for Channel 2.
5. Press the **STREAM**  button to start/stop streaming.





## Independent Video Recording of Dual Channels

When 2 video sources are connected to the SDC3, the system can record independent video from both video sources. In Dual Capture mode, images or video can be captured from Channel 1 and Channel 2 independently of each other and saved as separate files.


**Note:** Dual Channel mode must be selected in the General Application settings to enable this function.



### To record video or capture images from dual channels:

1. Select the **DUAL CAPTURE**  tab to show images from both channels with independent capture controls.
2. Press the **CAPTURE** , **RECORD** , and **STOP**  buttons under the respective preview pane to perform that function for the corresponding channel.

### To stream dual channel video:

3. Select the Stream 1 checkbox to stream Channel 1 video, or the Stream 2 checkbox for Channel 2.
4. Press the **STREAM**  button to start/stop streaming.

# The Flip Screen

When images are captured, the SDC3 shows the most recent captured images in a “flip” screen. The images appear on the SDC3 screen and the surgical display for several seconds before the SDC3 “flips” back to the capture screen.

**Note:** To change “flip screen” settings, go to Settings>General.



# Editing Patient Information

To edit patient information for the current case, go to the Edit Patient menu.



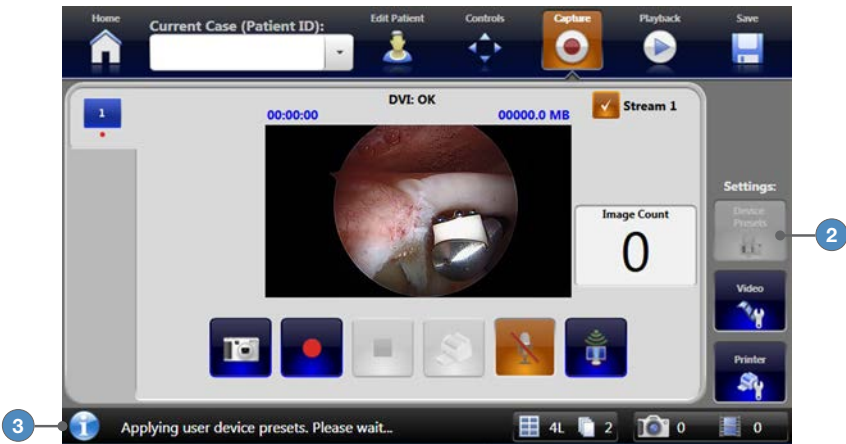
1. Enter patient information, or use EMR, Work List, or Barcode search to look up information.
2. You can also use the **LOOKUP** button to look up ICD10 codes for the case.

# Applying Device Presets

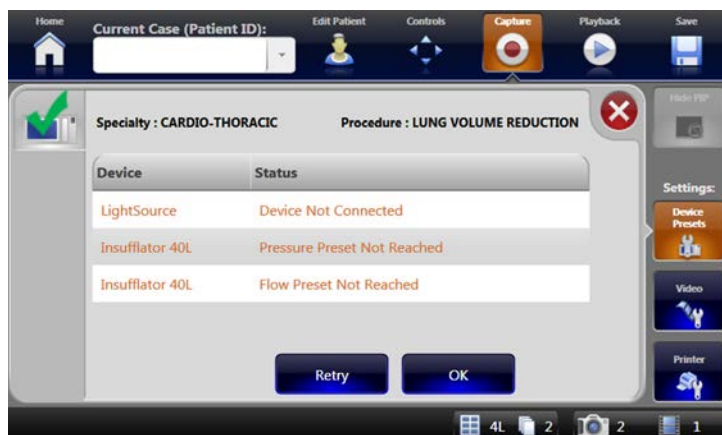
After you have selected a Specialty or Procedure with saved Device Presets on the Edit Patient screen, you can apply the Device Presets from the Capture screen.



1. Press the green **APPLY DEVICE PRESETS** button to apply the presets.



2. The **DEVICE PRESETS** button is greyed out while the SDC3 applies the presets.
3. The SDC3 shows a status message: "Applying user device presets. Please wait..."
4. If there are any errors in applying the presets, the **DEVICE PRESETS** button will show an alert icon.
5. Press the **DEVICE PRESETS** button.



6. The SDC3 shows a screen explaining the error. Once you acknowledge the error, the alert icon is cleared.


Possible error messages:

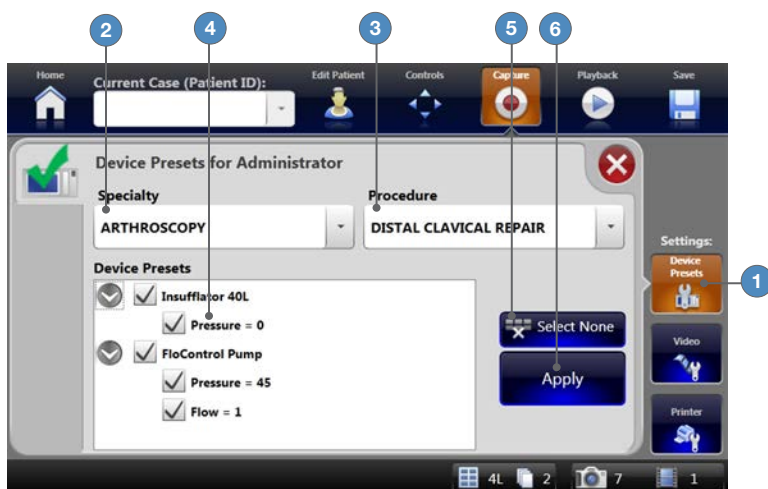
Status	Solution
Device Not Connected	Make sure the device is connected to the SDC3 and that the device is turned on. Press the <b>RETRY</b> button.
...Preset Not Reached	The value for the preset setting was not reached on the device. Press the <b>RETRY</b> button.




7. Press the **EXIT**  or **OK** button to close the error screen.



# Device Presets Settings

Access the Device Presets settings for the current surgeon from the **DEVICE PRESETS**  screen. Only the saved presets for the current Specialty or Procedure are displayed from this screen. To set up Device Presets, go to Settings > Profiles, and press the **SPECIALTY/PROCEDURE** button. Refer to the Profiles Settings section of this manual for more detailed instructions.



1. Select the **DEVICE PRESETS**  button to go to the Device Presets Settings screen.
2. From the Specialty menu, choose the correct Specialty.
3. From the Procedure menu, choose the correct Procedure.
4. The saved presets are shown in the Device Presets box.
5. Press the **SELECT NONE**  button to deselect all of the devices and settings in the Device Presets box. Press the **SELECT ALL**  button to select all of the devices and settings. You can also press the individual checkboxes to select or deselect a device or a setting.
6. Press the **APPLY** button to apply the selected Device Presets. The Device Presets Settings screen automatically closes.

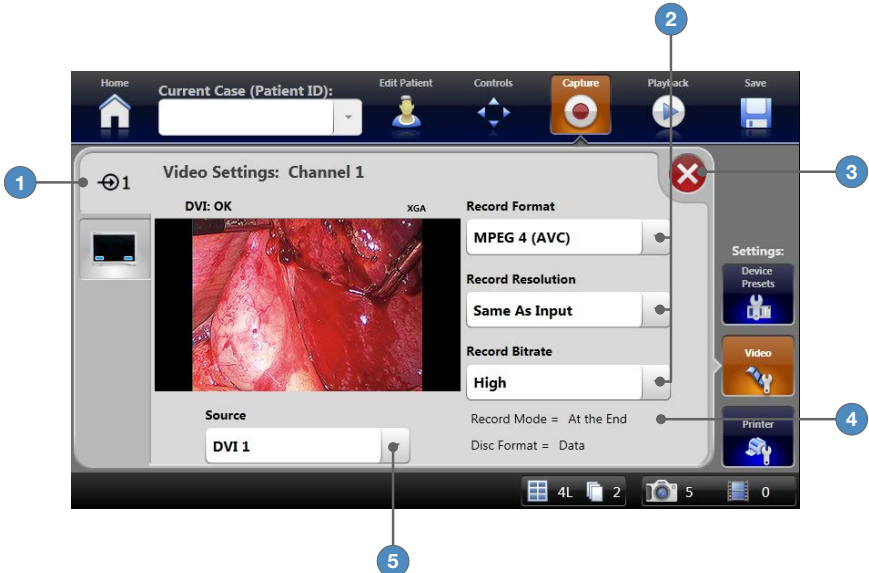
# Video Settings



From the Capture screen, you can adjust the video settings according to your preference.

**Note:** To save video to the iPad, you must record videos in the MPEG4 format.


## Video Settings: Channel 1

Channel 1 video settings are accessible from the **VIDEO SETTINGS**  tab.





1. Press the **CHANNEL 1**  tab to show the "Video Settings: Channel 1" screen.
2. The drop-down menus show selections for Recording Format, Record Resolution, and Record Bitrate.
3. Press the **EXIT**  button closes the settings screen and returns to the Capture screen.
4. Recording mode and disc format settings for Channel 1 are shown here. Choose these settings in the General Settings screen, accessible from the Home Screen.
5. The drop-down menu shows available selections for video sources, based on what is connected to the SDC3.

## Video Settings: Channel 2

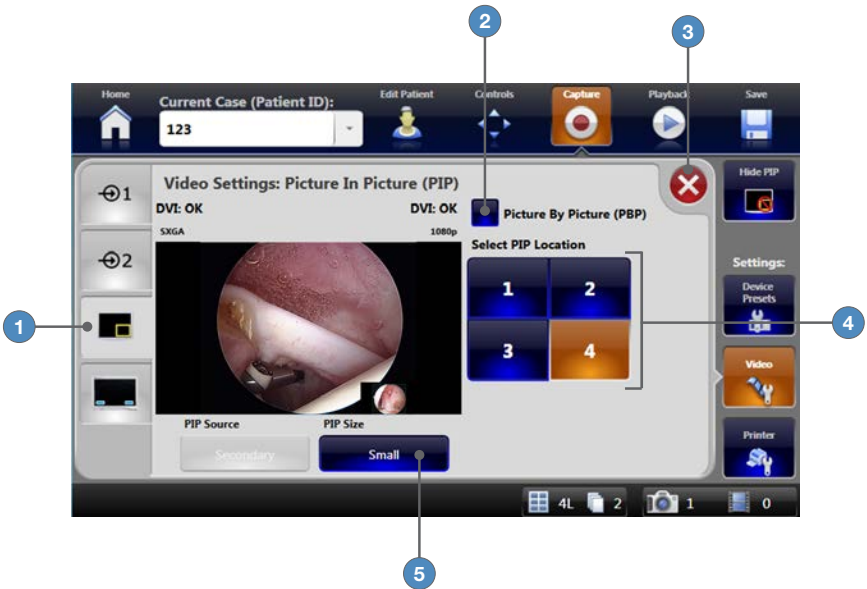
Channel 2 video settings are accessible from the **VIDEO SETTINGS**  tab.





1. Press the **CHANNEL 2**  to go to the "Video Settings: Channel 2" screen. By default, Channel 2 recording mode is ATE, and disc format is the same as selected for Channel 1.
2. The drop-down menus show selections for Recording Format, Record Resolution, and Record Bitrate.
3. Press the **EXIT**  button to close the settings screen and return to the Capture screen.
4. The drop-down menu shows available selections for video sources, based on what is connected to the SDC3.

# Video Settings: Picture-in-Picture

Picture-in-Picture settings are accessible from the **VIDEO SETTINGS**  tab.



1. Press the **PIP**  tab to go to the “Video Settings: Picture in Picture (PIP)” screen.
2. Choose the Picture by Picture (PBP) checkbox to view video inputs adjacent to each other in the main preview screen. The PIP Size, and Select PIP Location options are disabled if PBP is selected.
3. Press the **EXIT**  button to close the settings screen and return to the Capture screen.
4. Press one of the numbers to choose the quadrant of the main picture in which the PIP appears.
5. Press the **PIP SIZE** button to toggle between Small, Medium and Large.

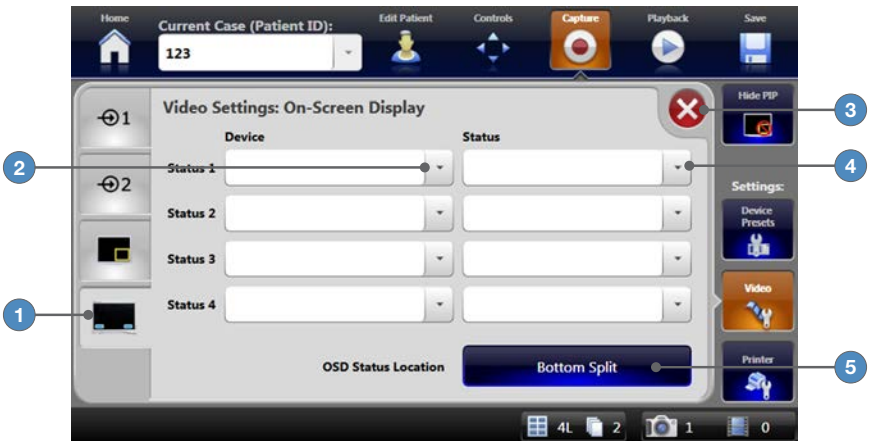
# Video Settings: Picture-By-Picture



1. When the Picture by Picture checkbox is selected, video inputs appear next to each other in the main preview screen. The PIP Size, and Select PIP Location options are disabled.

# Video Settings: On-Screen Display

On-Screen Display settings are accessible from the **VIDEO SETTINGS** tab.




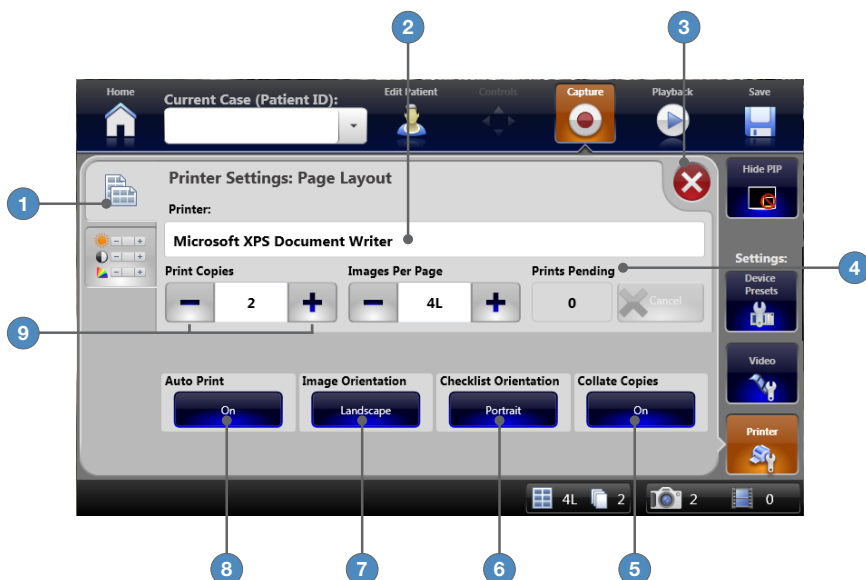
1. Select the **ON-SCREEN DISPLAY** tab from the Video Settings Screen to show the "Video Settings: On-Screen Display" screen.
2. The Device drop-down menus show which devices' status appears on the surgical display.
3. Press the **EXIT** button to close the settings screen and go back to the Capture screen.
4. The Status drop-down menus show status and command selections for the chosen devices.  
**Note:** When viewing the status of shaver handpieces, only the status of the first connected handpiece appears on the surgical display.
5. Press the **OSD STATUS LOCATION** button to choose where device status messages appear on the surgical display.



# Printer Settings

From the Capture screen, you can adjust the printer settings according to your preference.


## Printer Settings: Page Layout

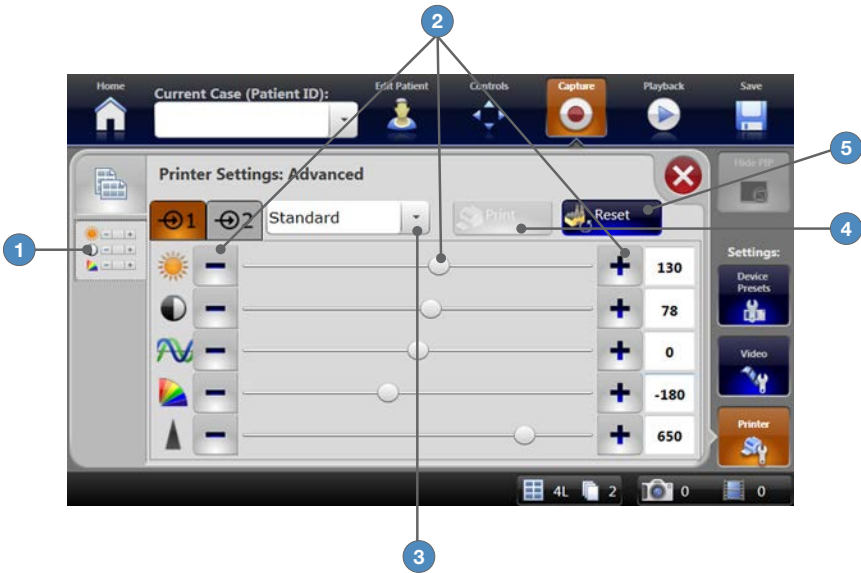
Page Layout settings are accessible from the **PRINTER SETTINGS**  tab.






1. Select the  **PAGE LAYOUT** tab to show the “Printer Settings: Page Layout” screen.
2. The name of the connected printer appears here.
3. Press the **EXIT**  button to close the settings screen and return to the Capture screen.
4. The Prints Pending window shows the number of images ready to be printed. Press the **CANCEL** button to cancel a pending print job.
5. Press the **COLLATE COPIES** button to toggle between On and Off.
6. Press the **CHECKLIST ORIENTATION** button to choose between Portrait and Landscape layout for the Surgical Timeout Checklist.
7. Press the **IMAGE ORIENTATION** to choose between Portrait and Landscape for image printouts.
8. Press the **AUTO PRINT** button to toggle between On and Off. When Auto Print is On, the print job starts as soon as the required number of images is captured.
9. The +/- buttons change the number of copies printed, and how many images print per page.

# Printer Settings: Advanced

Advanced printer settings are accessible from the **PRINTER SETTINGS**  tab.



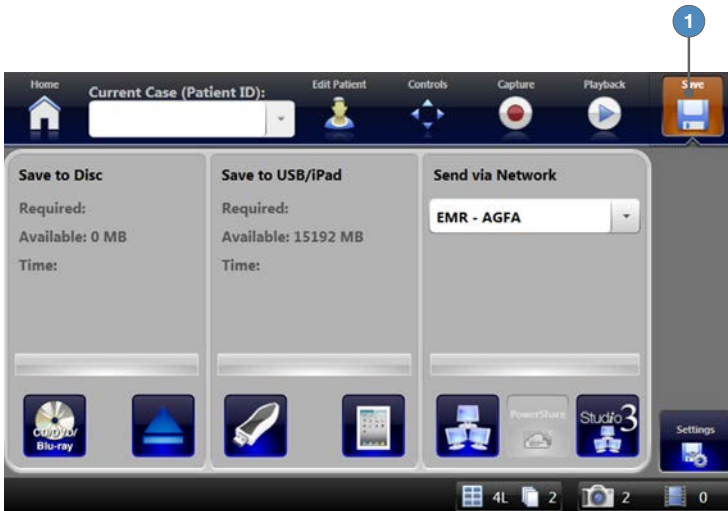
1. Select the **ADVANCED SETTINGS**  tab to go to the "Printer Settings: Advanced" screen.
2. Use the +/– buttons or the sliders to adjust the following settings for Channel 1 and Channel 2: Brightness, Contrast, Phase, Chroma, Sharpness.
3. The dropdown menu lists specialty selections, which calibrate printer settings for images from specific surgical specialties.
4. Press the **PRINT**  button to print the selected images from the current case.
5. Press the **RESET**  button to restore default settings.

# Saving Images and Videos

Save images, video and reports to:

- SDC3 built-in hard disk
- Disc (CD, DVD or Blu-ray)
- USB drive
- iPad (with the My SDC3 iPad app, or the Studio3+ iPad app)
- PowerShare cloud server (with the optional PowerShare package)
- Network locations
- EMR server (with the optional EMR Integration Package)

1. To go to the Save screen, press the **SAVE** button at the top of the SDC3 display.
2. All images and video are saved automatically to the SDC3 built-in hard disk.
3. To save them to external media or server, choose the appropriate destination from the Save screen.





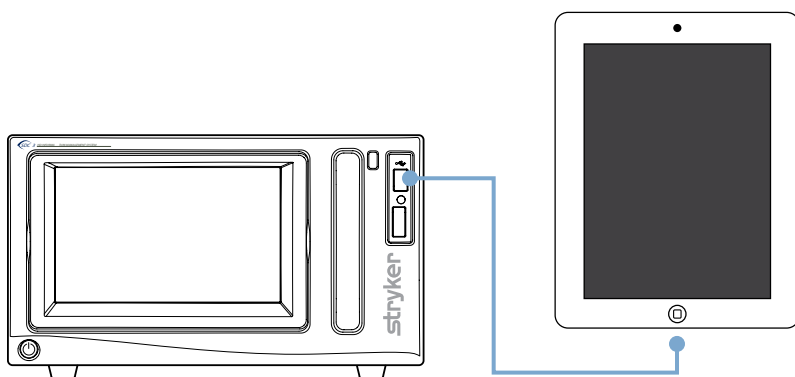
## Selecting the Save Location

The Save screen is divided into three columns for saving images and video to external media:

- Save to Disc
- Save to USB/iPad
- Send via Network

Images and video can be saved to different media simultaneously.

## Connecting the iPad® to the SDC3



To connect an iPad to the SDC3, proceed as follows:



### Notes:

- iPad is a trademark of Apple Inc., registered in the U.S. and other countries.
  - iPad devices with iOS versions 7.0 - 8.2 are compatible with the SDC3.
1. Set the SDC3 power to on.
  2. Make sure that the iPad power is on and the iPad is unlocked, and that the My SDC3 or Studio3+ app is installed.
  3. Connect the iPad to the USB port on the front of the SDC3 with a standard Apple Dock to USB cable.

**Note: If the SDC3 does not recognize the iPad, unplug the USB adapter from the SDC3 and plug it back in.**

4. Refer to the “Saving Images and Videos” section of this manual for instructions on transferring images and videos to the iPad.

## To save to disc (CD or DVD)



1. The Save to Disc column shows the space required to save a selected image or video, the space available on the CD or DVD, and the time elapsed in the save process.
2. Press the **CD/DVD**  button to save the images or video to a writable disc.
3. Press the **EJECT**  button to eject the disc when the save is complete.
4. The progress bar shows the status of the write process.

## To save to a USB drive or iPad

### Notes:

- Video does not save to a USB drive or an iPad unless “USB/iPad” is checked on the Save Settings screen <sup>13</sup>. See the “Save Settings” section of this manual for details.
- To save video to the iPad, you must record videos in the MPEG4 format.
- To save PDFs of surgical images and surgical timeout checklists, select “Write PDF” and “Auto Create PDF” on the Save Settings screen.




5. The Save to USB/iPad column shows the space required to save a selected image or video, the space available on the USB storage device or the iPad, and the time elapsed in the save process.
6. Press the **USB**  button to save the images or video to a USB drive.
7. Press the **iPad**  button to save the images or video to an iPad.
8. The progress bar shows the status of the write process.

## To save to a Network location


**Note:** Video does not save to a Network location unless “Network” is checked on the Save Settings screen <sup>13</sup>. See the “Save Settings” section of this manual for details.

9. The Send via Network drop-down menu provides names of available network addresses.

**Note:** In the Save Settings screen <sup>13</sup>, “FTP” or “PACS” must be selected. If “FTP” is selected, the drop-down menu is populated with IP addresses. If “PACS” is selected, it is populated with connection names.

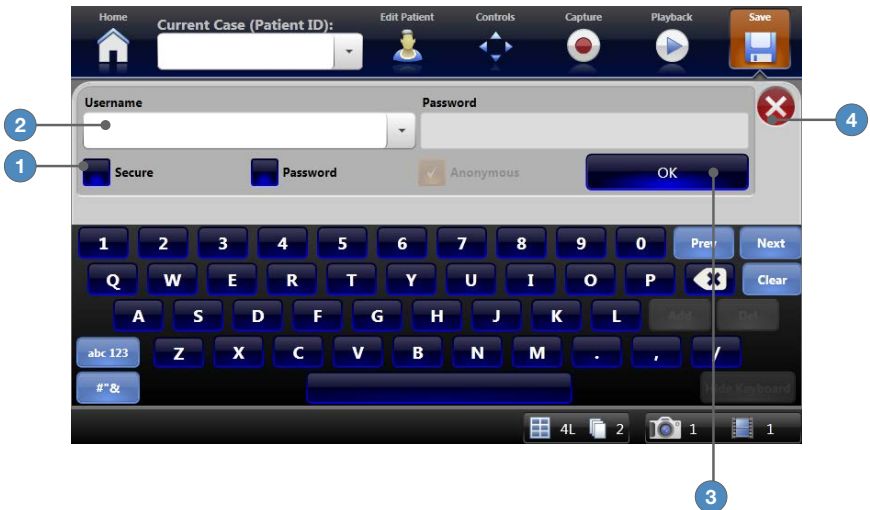
10. If “PACS” is selected in Save Settings, the AE Title and IP address of the selected connection is shown.
11. Press the **NETWORK SAVE**  button to save to the selected network. Cases can be saved to another network after the previous save action is completed.
12. The progress bar shows the status of the write process.


## Other functions

13. Select the **SETTINGS**  tab to open the “Save Settings” screen.

## Saving to a Network

When you save data to a network location, you are first required to log in.



1. Select the type of network transmission:
  - Secure—for secure transmission of data to the network. Data is encrypted. A username and password is required.
  - Password—for password-protected access to the network. A username and password is required.
  - Anonymous—for open access to the network. Username and password are not required.
2. If required (per type of network selected), enter the username and password.
3. Press **OK**.
4. Press the **EXIT**  button to close the login screen.

## Saving to an EMR Server

To save to an EMR Server, the optional EMR Integration Package must be installed. Contact your Stryker Representative for more information.

## Saving Case Information to PowerShare

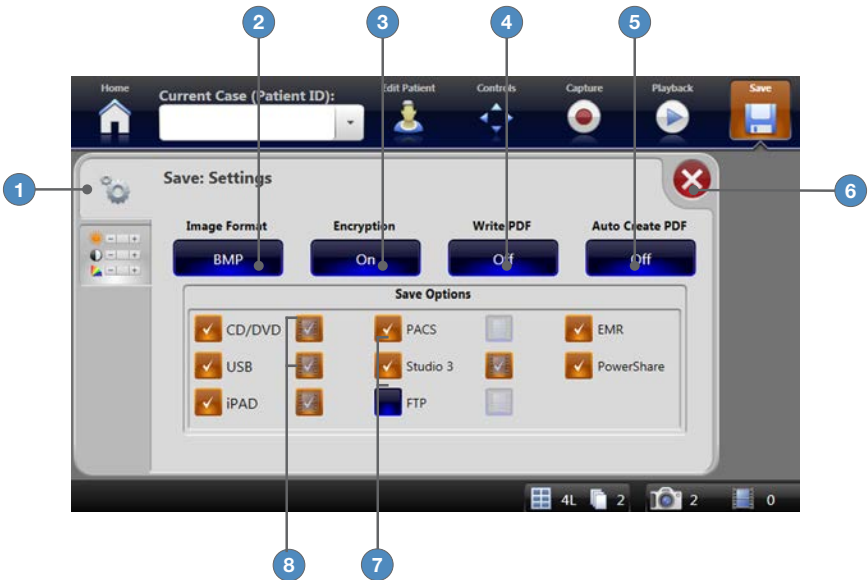
**Note:** Make sure that you enter the first name and last name of the patient, and the Patient ID before you save the case images.





1. Go to Current Case > Save.
2. Press the PowerShare button. The SDC3 sends the case data to PowerShare.

# Save Settings


Save settings are accessible through the **SETTINGS**  tab on the Save screen.

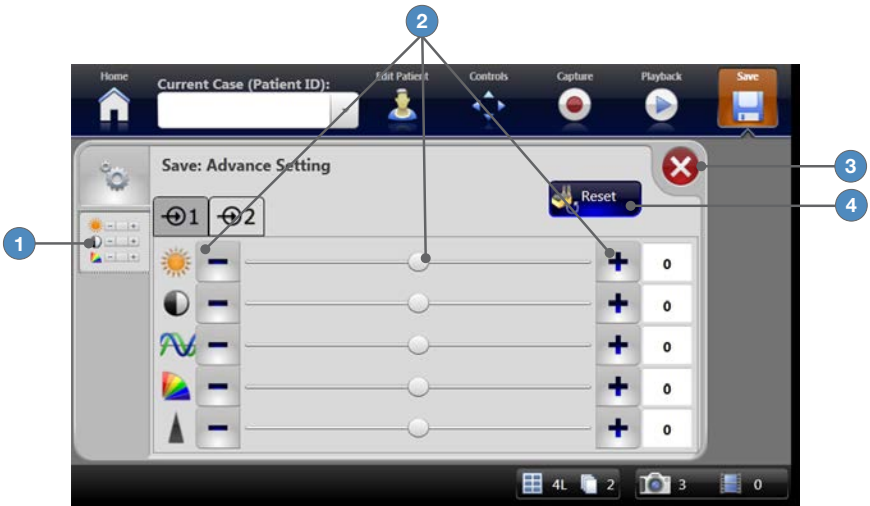





1. Select the **SETTINGS**  tab to open the "Save: Settings" screen.
2. Press the **IMAGE FORMAT** button to set the format in which to save pictures. The available image formats are BMP, TGA, TIFF, PNG, JPG, JPEG, and JPEG2000.
3. Press the **ENCRYPTION** button to enable encryption of patient information when you save to external media. Choose between ON and OFF.
4. Press the **WRITE PDF** button to create a PDF document of selected images whenever you press "Save." Images print to PDF according to settings selected in "Printer Settings." Choose between ON and OFF.
5. Press the **AUTO CREATE PDF** button to automatically create a PDF document of images each time the required number of "Auto Print" images is captured (as defined in the "Printer Settings: Page Layout" screen). Choose between ON and OFF.
6. Press the **EXIT**  button to close the settings screen and return to the Save screen.
7. Select the checkboxes in the Save Options window to enable data to be saved to:
  - CD/DVD      • PACS      • EMR
  - USB      • Studio 3      • PowerShare
  - iPad      • FTP
8. Select the video icons next to each option to enable you to save videos to each of these options.

**Note:** You cannot save videos to EMR or PowerShare.

# Advanced Save Settings

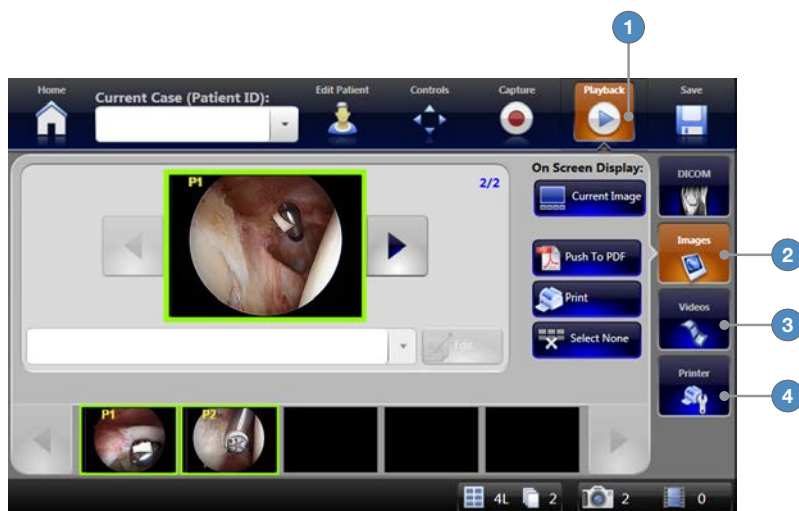
Advanced save settings are accessible through the **SETTINGS**  tab on the Save screen.







1. Select the **ADVANCED SETTINGS** tab  to go to the "Save: Advanced Setting" screen.
2. Use the +/- buttons or the sliders to adjust brightness, contrast, phase, chroma and sharpness for images captured on Channel 1 and Channel 2.
3. Press the **EXIT**  button to go back to the Save Settings Screen.
4. Press the **RESET**  button to restore default settings.


# Playback of Images and Videos

Captured images and videos can be viewed, played back, annotated, and printed using the Playback screens.



1. To go to the Playback screens, press the **PLAYBACK**  tab at the top of the SDC3 display.
2. View image playback from the **IMAGES**  tab.
3. View video playback from the **VIDEOS**  tab.
4. View printer settings from the **PRINTER SETTINGS**  tab. (You can also go to the **PRINTER SETTINGS** tab from the Capture screen.)

## Playback of Recorded Images


Within the Playback screen, the **IMAGES**  tab on the right side of the screen allows review, annotation, and printing of previously captured images.




### To browse images:

1. Press the arrows on either side of the center preview screen to scroll through captured images one at a time.
2. Press the arrows on either side of the bottom row of images to scroll through the album five images at a time.
3. Tap an image on the bottom panel of images 2 times to see it on the center preview screen. Primary channel images are identified with a "P" and Secondary channel images are identified with an "S."

### To see images on the surgical display, there are 2 options:



4. Press the **CURRENT IMAGE**  button to see the image from the center preview screen on the surgical display.
5. Tap the image on the center preview screen 2 times to see the image on the surgical display.

### To select images:


6. Press an image to select it. Selected images are identified by a green border. Press the image again to deselect it.
7. Press the **SELECT NONE**  button to switch between Select All and Select None and select or deselect all images in the album.



### To print images:

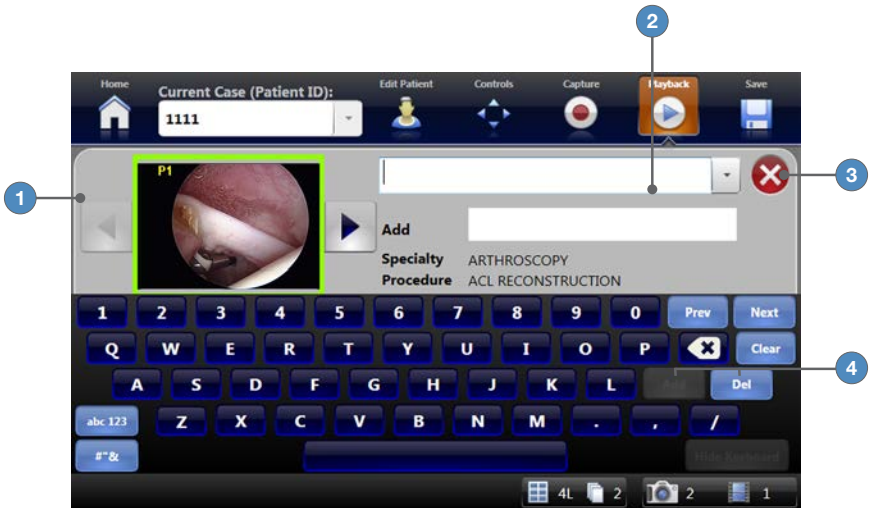
- Press the **PUSH TO PDF**  button to make a PDF of the selected images. An information message box shows while the PDF is processing.
- Press the **PRINT**  button to print the selected images. If no printer is connected, a warning message shows in the status bar at the bottom of the screen.



### To annotate images:

- The dropdown menu lists annotation selections. Press the **EDIT**  button to show the Edit Annotation screen.

## Adding Image Annotations

Add or delete annotations for images selected in the Playback screen.



- The Edit Annotations screen shows when the **EDIT**  button is selected in the Images Playback screen.
- The drop-down menu shows selections for Annotations.
- Press the **EXIT**  button to close the Edit Annotations screen and return to the Images Playback screen.
- Press the **ADD** or **DEL** button on the keyboard to add or delete entries. The **ADD** and **DEL** buttons are disabled when no specialties, procedures, or annotations have been selected. A confirmation message shows before any entries are deleted.

## Playback of Recorded Videos

Within the Playback screen, the **VIDEOS** tab on the right side of the screen allows review and annotation of previously captured videos.



### To browse videos:

1. Press the **PRIMARY** button to choose Primary or Secondary and browse videos recorded on Channel 1 (primary) or Channel 2 (secondary).
2. Press the arrows on either side of the center preview screen to scroll through captured videos one at a time. Each video is identified in the top left corner by the channel and order in which it was captured. Primary channel videos are identified with a "P" and Secondary channel videos are identified with an "S."
3. Press the arrows on either side of the bottom panel of videos to scroll through the album five videos at a time.
4. Tap an image 2 times from the bottom panel of images to see the corresponding video on the center preview screen.

### To playback videos:


5. Press the **PLAY** and **STOP** buttons to control the video in the center preview pane.

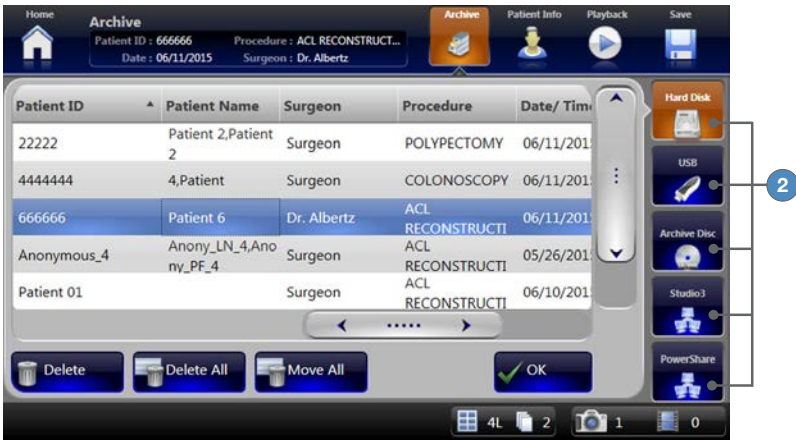
### To select videos:

6. Press any video to choose it. Selected videos are identified by a green border. Deselect a video by pressing it again.
7. Press the **SELECT NONE** button to switch between Select All and Select None to select or deselect all images in the album.

# Viewing Archived Information

Patient cases are automatically saved to the SDC3 hard disk, and can be archived for future reference or access.

1. Archived cases are accessible through the **ARCHIVE**  button on the Home screen.
2. Within the Archive screen, cases can be accessed from or moved to external media such as USB, Discs, Network locations, and the PowerShare cloud server (with optional PowerShare package installed).



Note: If Anonymize Data is selected in the Data Protection settings, the Patient ID and Patient Name are anonymous.

# Viewing Information Archived on the Hard Disk

All patient cases archived on the hard disk appear in a list on the Archive screen.



## To browse patient cases:

1. Press the **HARD DISK** tab to see all cases saved to the SDC3 hard disk.
2. The patient list shows up to five cases at a time. Use the scrollbars to scroll through the list.
3. The Navigation Bar shows categories of patient information. Choose a column in the Navigation Bar to sort the patient list by that category.

## To view patient cases:

4. Press anywhere on a row to select the patient case.
5. Press the **OK** button to see patient cases in read-only mode.
6. When a case is selected, press the **PLAYBACK** button to see images and videos within that case.
7. Press the **PATIENT INFO** button to go to the Archived Patient List.

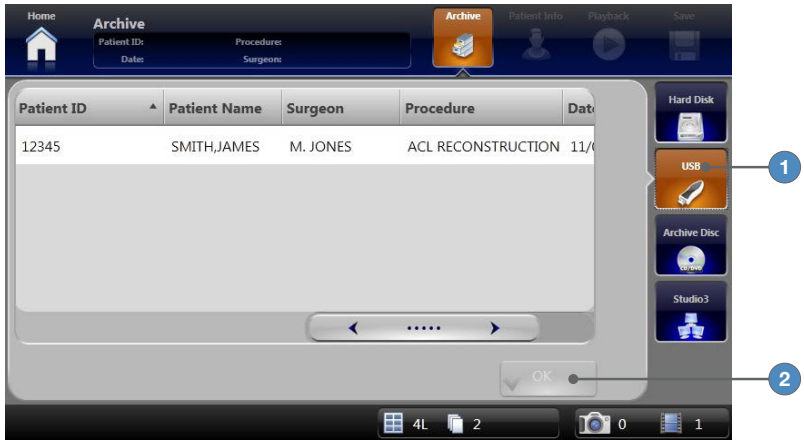
## To move patient cases to a different location:




8. Press the **MOVE ALL** button to move all patient cases to any of the available Save locations. A popup message asks for confirmation of the move. Press the **YES** button to move the cases.
9. When a case is selected, press the **SAVE** button to open the Save screen, where you can choose to save the case to a different location.

## To delete patient cases from the hard disk:




10. Press the **DELETE** button to delete a selected patient case.
11. Press the **DELETE ALL** button to delete all archived patient cases.

## Viewing Information Archived on a USB Drive









1. Press the **USB**  tab to see patient cases stored on a USB drive connected to the SDC3. Patient cases show in read-only mode and the **SAVE**  button is disabled.
2. Press anywhere on a patient case to select it. Press the **OK**  button to see selected archived information in un-editable mode.







## Viewing Information Archived on a Disc

1. Press the **ARCHIVE DISC**  tab to see patient cases stored on a CD or DVD loaded into the SDC3. Patient cases are shown in read-only mode and the **SAVE**  button is disabled.
2. Press anywhere on a patient case to select it. Press the **OK**  button to see selected archived information in un-editable mode.


## Viewing Information Archived on the Studio3 Media Server

1. Press the **STUDIO3**  tab to see patient cases stored on the Studio3 server.
2. The Archive Patient List shows the number of images, videos or PDFs saved with a particular case on the Studio3 server.
3. The **SAVE**  and **PLAYBACK**  buttons are disabled in the **STUDIO3** tab.
4. Press the **PENDING**  button to toggle between the list of Pending and Completed cases. Pending patient cases are shown by default.
5. Press the **DELETE ALL**  button to delete all cases in the window.
6. Press the **DELETE**  button to delete a selected case. A confirmation window shows to confirm the deletion.


## Viewing Information Archived on the PowerShare Cloud Server

1. Press the **POWERSHARE**  tab to see patient cases stored on the PowerShare cloud server.
2. The Archive Patient List shows the number of images, videos or PDFs saved with a particular case on the PowerShare server.
3. The **SAVE**  and **PLAYBACK**  buttons are disabled in the **POWERSHARE** tab.
4. Press the **PENDING**  button to toggle between the list of Pending and Completed cases. Pending patient cases are shown by default.
5. Press the **DELETE ALL**  button to delete all cases in the window.
6. Press the **DELETE**  button to delete a selected case. A confirmation window shows to confirm the deletion.

# SDC3 Settings

Change system settings for the SDC3 from the **SETTINGS**  button at the top left of the Home screen. From the Settings screens, you can adjust system settings including: General, Printer, Network, Profiles, Server, and System.



## General Settings

General system settings are available from the **GENERAL**  tab in the Settings menu. They include application, miscellaneous, audio, and video settings, each accessible by selecting the respective tab to the right of the screen.

### General Application Settings

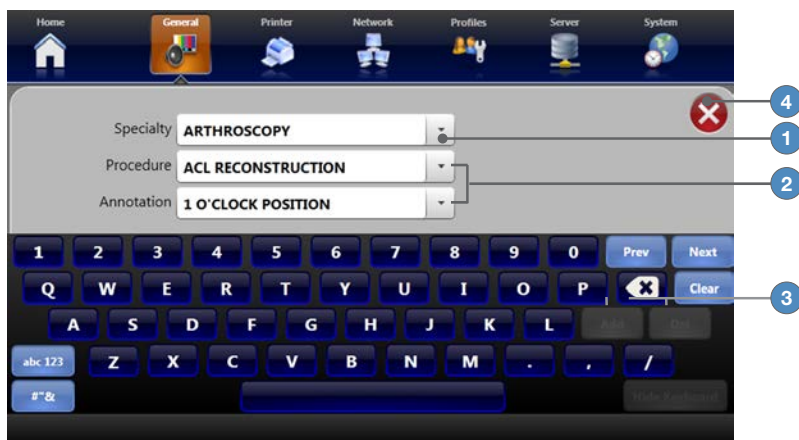
Descriptions of general application settings are provided below.




1. The General Application Settings screen opens automatically when the **SETTINGS**  button is selected from the Home screen, or when the **GENERAL**  tab is selected from the right of any settings screen.
2. The **AUTO CUT OFF** button determines when video recording automatically stops. Press the **AUTO CUT OFF** button to switch between timed options.
3. The **AUTO START RECORDING** button determines if video recording automatically starts at the beginning of a case. Select between On and Off.
4. The **DISC FORMAT** button selects how to save data to a disc. Select between Data and DVD Video. (The DVD Video option is available only when Record Mode is set to "At the End.")
5. The **REMOTE 2 CONTROL** button assigns the Remote 2 function from the camera head as either Stop or Pause.

6. The **IMAGE COUNT FONT SIZE** button adjusts the size of the font used for the image count in the capture screen.
7. The **CHANNEL MODE** button selects between Single- or Dual-channel mode.
8. The **FLIP SCREEN** button selects if and where images show on the surgical display when they are captured. Select between None (no display), One (entire display), or Side (side of display).
9. The **REC DISPLAY** button causes the words “Rec” and “Rec Stopped” to appear on the surgical display when recording is started or stopped. Select between On and Off.
10. The **DEVICE PRESET** button turns Device Presets On or Off.
11. The **VOICE ANNOTATION** button activates the voice annotation screen after every image capture. (This feature is only available for systems equipped with the SDC3 Voice Package or SDC3 Device Control Package.) Select between On and Off.
12. The **EDIT ANNOTATION** button opens a screen to edit global annotations. These annotations are then available during patient cases. (See the “Editing Global Annotations” section immediately following this section.)
13. The **LIVE VIDEO TIMEOUT** button sets the time that an image selected on the Playback screen replaces the live video feed on the On Screen Display. Choose between 3 seconds, 10 seconds, and None (when set to None, the image playback will remain on the OSD until you manually change it back to Live Video).
14. The **LIVE PREVIEW** button determines what displays in the preview window of the Capture screen. Select On for live camera image, or Off for the last captured image.
15. The **GUI MONITOR** button allows the touchscreen interface to appear on an external touchscreen monitor (the monitor must be connected via VGA and Serial connection to the SDC3 console). Select Internal for the interface to appear on the SDC3 screen, or External for the interface to appear on the external monitor.
16. The **CALIBRATE** button starts calibration of the LCD screen. Use this button if touch controls are not accurate.
17. Press the **RECORD MODE** button to move between “Real Time” and “At the End.”

## Editing Global Annotations






1. Select a specialty from the dropdown menu, or use the keyboard to enter text.
2. Select a procedure and/or annotation from the dropdown menus, or use the keyboard to enter text. (Procedure and annotation options change according to the specialty selected.)
3. Press the **ADD** or **DEL** button on the keyboard to add or delete entries.
4. Press the **EXIT**  button to close the Edit Annotations screen and return to the General Application Settings screen.

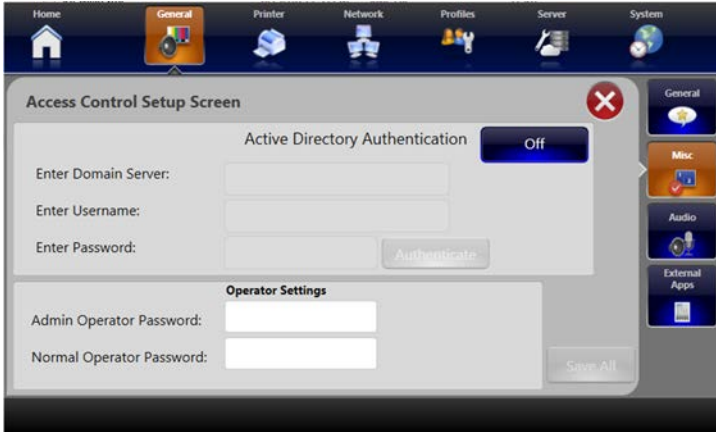
## General Miscellaneous Settings



1. Press the **MISC**  tab to show general miscellaneous settings.
2. The +/- buttons adjust the position of images projected onto the surgical display. Use the appropriate Standard Definition or High Definition settings for your video source. The **RESET** buttons restore factory default values.
3. The **SURGICAL TIMEOUT CHECKLIST** buttons enable or disable the surgical timeout checklist. The **SETUP** button launches the Surgical Timeout Checklist Setup screen.
4. The **ACCESS CONTROL** buttons enable or disable access control for SDC3 operators. The **SETUP** button launches the Access Control Setup screen.

## Setting Up Access Control

From the Access Control Setup Screen, you can turn on Active Directory Authentication, set passwords, or both, for logging in to the SDC3.



### Active Directory Setup

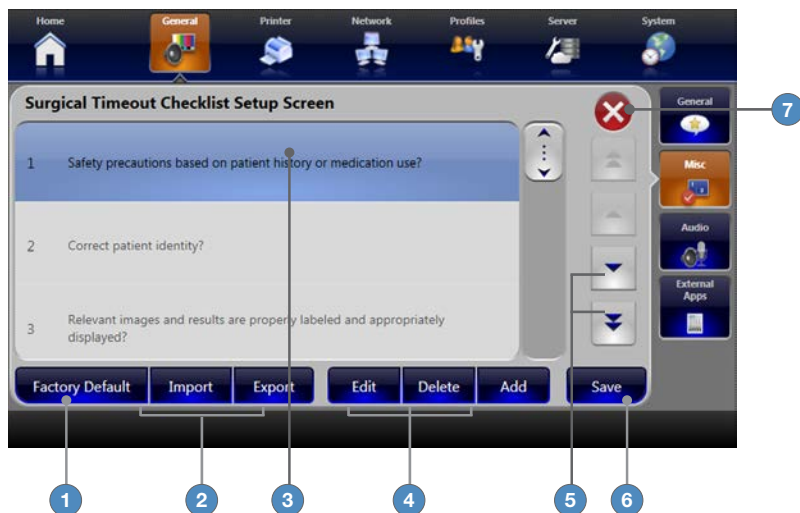
1. Enter the Domain Server name, and the username and password to access the active directory.
2. Press **AUTHENTICATE** to make sure that the server connection is successful, and the credentials are valid.

### Operator Password Setup

3. Enter an Administrator password in the Admin Operator Password field. The Administrator has permission to create and edit surgeon profiles, and configure server settings.
4. Enter a Normal Operator password in the Normal Operator Password field. The Normal Operator cannot access settings for profiles or servers.

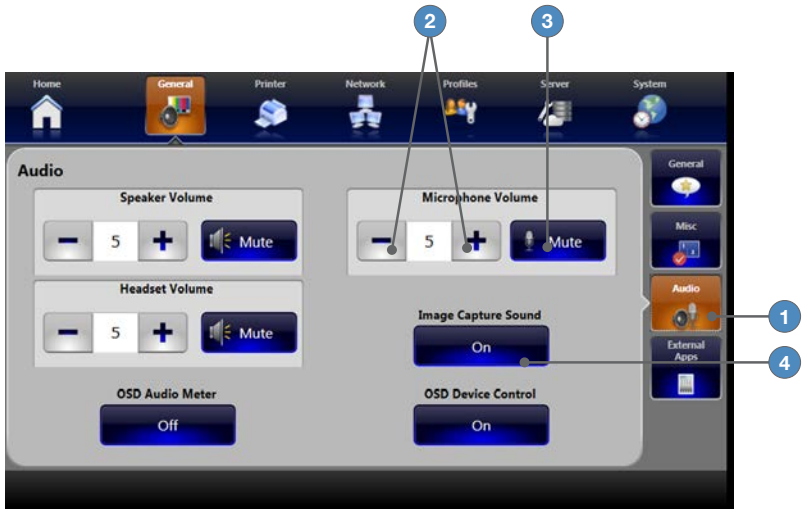
## Setting Up the Surgical Timeout Checklist



The Surgical Timeout Checklist Setup screen shows when the **SETUP** button is selected in the General Miscellaneous Settings screen.



1. Press the **FACTORY DEFAULT** button to restore the factory default checklist.
2. Press the **IMPORT** and **EXPORT** buttons to import a checklist from a USB storage device or export a checklist to a USB storage device.
3. Press anywhere on a question or line to select it.
4. Press the **ADD**, **EDIT**, or **DELETE** buttons to make changes to the selected question or line.
5. Press the arrow buttons to move the selected line up or down in the checklist.
6. Press the **SAVE** button to save changes to the checklist.
7. Press the **EXIT** button to go back to the General Miscellaneous Settings screen.


## General Audio Settings





1. Press the **AUDIO**  tab to see the General Audio settings screen.
2. The **+/-** buttons adjust volumes for the Headset, Speaker, and Microphone.
3. The **MUTE**  buttons mute the Headset, Speaker, or Microphone.
4. Press the **OSD AUDIO METER** button to show the strength of the audio input on the surgical display.
5. Press the **OSD DEVICE CONTROL** button to show or hide the Device Control menu on the surgical display.

**Note:** The OSD Audio Meter and OSD Device Control buttons are only enabled when the option Voice Control Package is installed.


## Printer Settings

1. Select the **PRINTER**  tab to go to the Page Settings screen.



2. Select a checkbox to show that data on the printed page.
3. Press the **IMPORT LOGO**  button to import a logo file (.bmp file type) from a USB storage device. This places the imported logo on the printed page when "Logo" is checked.  
**Note: For surgeon profiles stored in the cloud, the logo stored in the cloud downloads to the SDC3.**
4. Press the **RESET**  button to restore the default settings.
5. The logo preview field shows the logo that will appear on the printed page when "Logo" is checked.
6. The print quality is shown in the Print Quality display window. Print quality is set to "Auto" by default and cannot be changed.
7. The paper type is shown in the Paper Type display window. Paper type is set to "Letter" by default. If the SDP1000 printer is connected to the SDC3, the **PAPER TYPE** button changes between "Letter" and "A4."


## Network Settings

Network settings are located on the **NETWORK**  tab in the Settings menu. They include FTP, Network Adapter, WiFi, and Video Streaming settings. You can access these settings from the tabs on the right side of the screen.

### Network FTP Settings

Network FTP settings are used to set up connection to an FTP site.



1. Select the **FTP**  tab to show the FTP Settings screen.
2. Enter the Username, FTP Address, and Password (if password protected) in the text boxes. The drop-down menus list saved options for username and FTP address.
3. Press the **ANONYMOUS**, **SECURE**, or **PASSWORD** button to select the correct type of FTP login.
4. Press the **PING** button to test connection to the FTP site.

## SDC3 Networking Setup

### Setup Requirements

- Protocol Used: FTP (File Transfer Protocol)
- A TCP/IP network.
- A secure FTP (FTP over SSH) server may be installed and configured, if needed. SDC3 does not support FTP over SSL.

### Instructions

1. Enter the IP address of the FTP server (and not the SDC3) into the **SDC3** tab in the "Config" menu.

2. Create a folder named SDC in the default path of the FTP Server. In this folder, create a folder for the Username. For example, if you have an anonymous FTP service running on a server with an IP address of 10.2.101.26, and you have a folder called JOHND in the SDC folder in the default path of the anonymous login, then you should enter 10.2.101.26 in the **NETWORK** tab as the 'FTP Address' and JOHND as the 'Username.'
3. Press the **ADD** button so that SDC3 remembers the username and the FTP Address in the list. SDC3 can remember up to 500 usernames and FTP addresses.
4. Select the Write Videos checkbox on the **NETWORK** tab to write videos to the network.
5. Press the **SAVE TO NETWORK** button from the Save menu to save images and videos. On the confirmation screen, check the Anonymous Login checkbox.

The SDC3 checks the server for a response. If it gets a valid response, it performs an anonymous FTP login. It then changes directory to the directory corresponding to the current Username (JOHND, in current example). It does not create a new directory based on the Username. This avoids creation of multiple directories if someone accidentally enters a wrong/invalid Username. Therefore, you have to enter a Username for the FTP to work.

### For Login with Username and Password

**Note:** The FTP server should be setup for the users who have access. Passwords should be all caps.

1. Create a folder under the root folder of the FTP server folder.
2. Create another folder under the SDC folder with the same name as the username.

Follow steps 3 - 5 above, except in step 5, uncheck the Anonymous Login checkbox and enter the password.


### Directory Structure

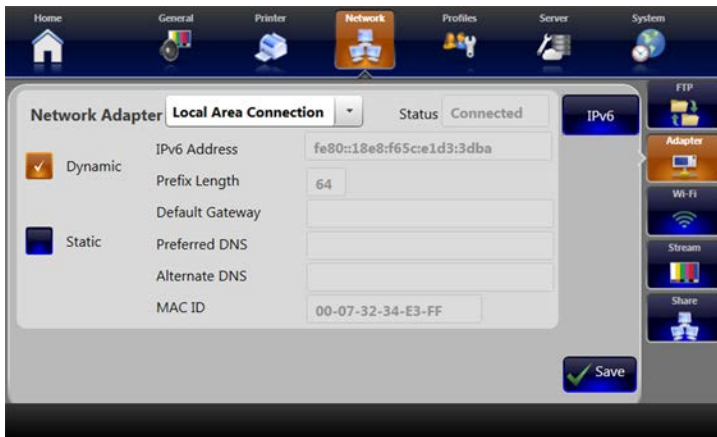
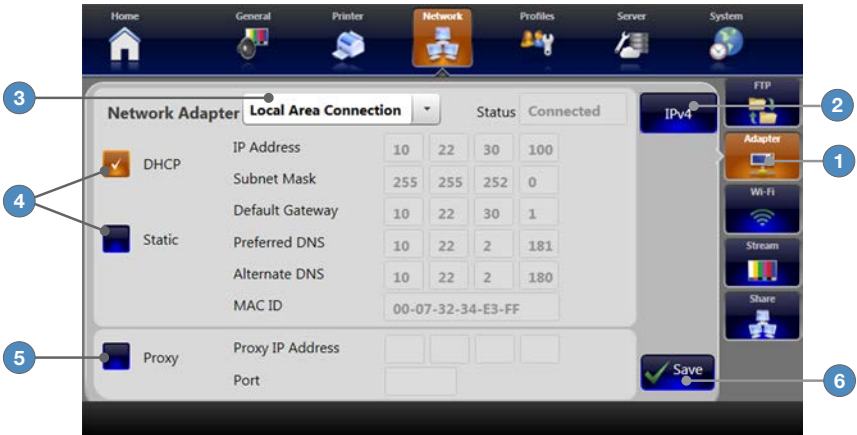
- <Default FTP path>\SDC\Username\?????MMDDYYYY\_HHMMSS where, ?????: First 13 characters of the Patient's Name / ID entered
- Username: Doctor's Username which can be the same as his/her Notematic ID MMDDYYYY\_HHMMSS: Date/Time stamp to guarantee uniqueness


**Note:** If there are any problems writing the data:

- Check to make sure the read/write permissions of the FTP server are set.
- Make sure that the firewall settings on the server do not block the FTP port.

## Network Adapter Settings

1. Select the **ADAPTER**  tab to show the Network Adapter Settings screen.
2. There are two options: IPV4 or IPV6. Toggle this button to set the correct network type.

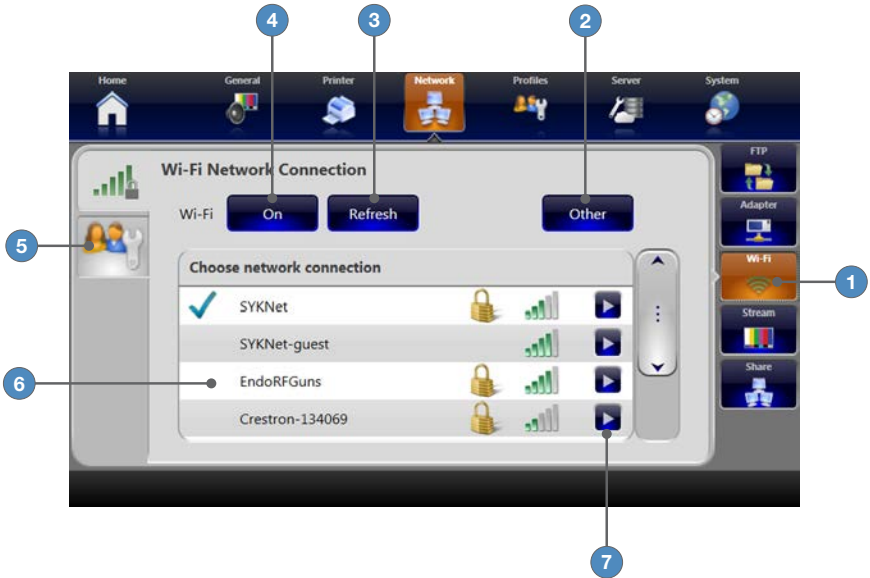


3. Select the Network Adapter from the dropdown menu.
4. Check DHCP/Dynamic or Static to choose the type of IP address.
5. Select Proxy if applicable (IPV4 only), then enter proxy settings.
6. Press the **SAVE**  button to save entered settings.



## WiFi Network Connection

The WiFi Network Connection screen shows a list of available wireless networks, their signal strengths, and security status. Select a network from this screen to open an authentication screen and log in to that network.

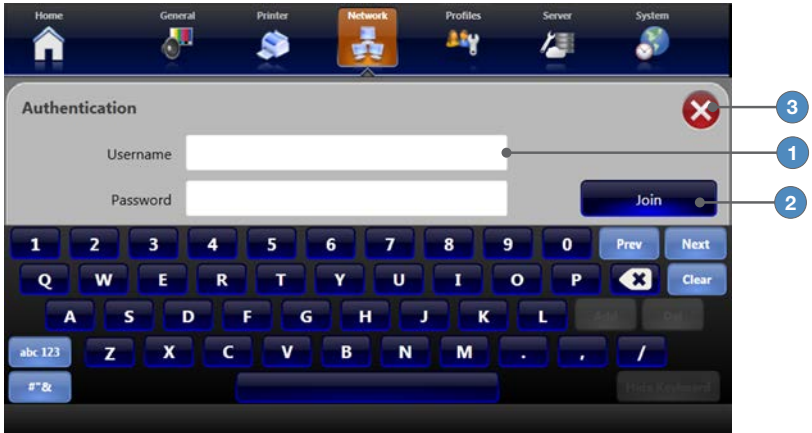



1. Press the **WIFI** tab to show the WiFi Network Connection screen.
2. Press the **OTHER** button to enter a WiFi network that is not listed.
3. Press the **REFRESH** button to refresh the list of available WiFi connections.
4. Press the **WIFI ON/OFF** button to enable or disable WiFi. WiFi is OFF by default.
5. Press the **MANAGE NETWORKS** button to open the Manage Networks screen.
6. Available wireless networks are shown by name, signal strength, and secure/unsecure status.
7. Press the arrow button to open the login screen for the applicable wireless network.

## Authentication

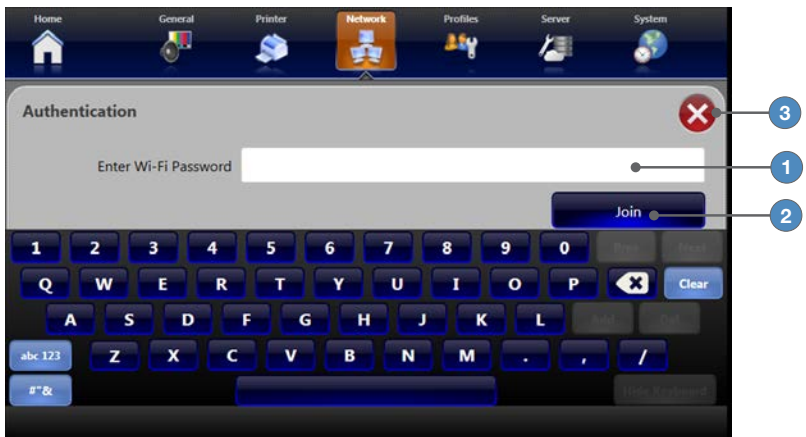
Depending on the type of wireless network selected, the SDC3 asks for a username and password, or for a WiFi password.


### Username and Password




1. Enter the Username and Password in the corresponding fields.
2. Press the **JOIN** button to allow users to join the network.
3. Press the **EXIT**  button to return to the WiFi Network Connection screen.

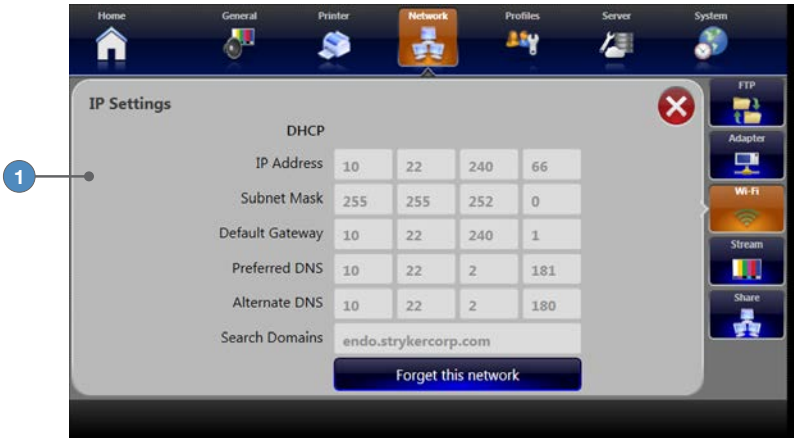
### WiFi Password



1. Enter the WiFi password. (The WiFi Setting Authentication screen asks for the WiFi password when a secured WiFi connection is selected for the first time.)
2. Press the **JOIN** button to allow users to join the network.
3. Press the **EXIT**  button to return to the WiFi Network Connection screen.

# Wireless IP Settings

1. The WiFi Setting screens show the IP settings of the connected WiFi network .
2. Press the **EXIT**  button to return to the WiFi Network Connection screen.



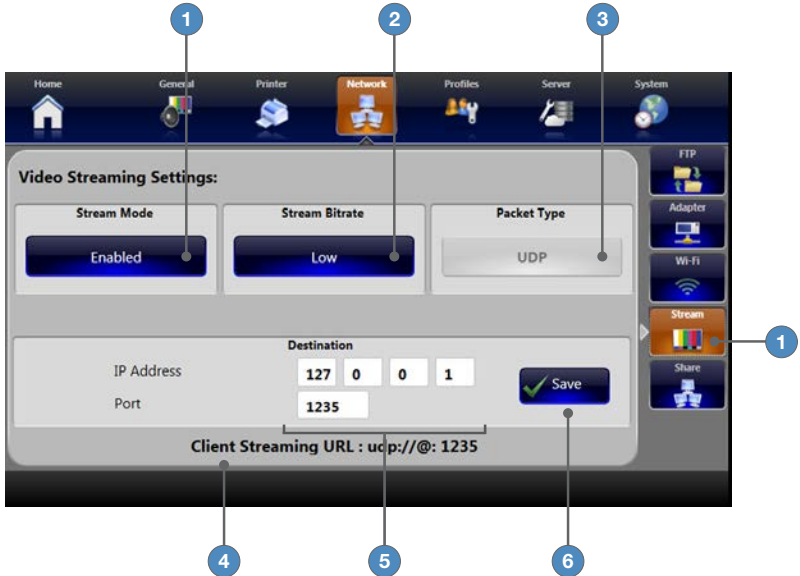
# Manage Networks



From the Manage Networks screen, you can view the security type and profile name of each network, and move the networks up or down in order of preference.



## Network Streaming Settings

The Network Streaming Settings lets you set up a destination for streaming video from the SDC3. Start and stop video streaming from the Capture screen.



1. Press the **STREAM**  tab to see the Video Streaming Settings screen.  
**Note:** Streaming details cannot be modified while streaming is in progress.
2. Press the **STREAM MODE** button to enable or disable streaming.
3. Press the **STREAM BITRATE** button to choose between Low, Medium, and High.
4. The **PACKET TYPE** button shows UDP as the only available option, and is disabled.
5. The destination of the (Client) URL, where videos will stream.
6. The destination IP address and Port number can be entered in the Destination box.
7. Press the **SAVE**  button to save video streaming settings.

## Network Share Settings


The Network Share Settings screen lets you set up a saved network connection that you can use to access external network resources, or to save data from the SDC3.

1. Enter a display name for the network connection.
2. Enter the network path, username and password for the network.
3. Press the **SAVE** ✓ button to save the shared network. The SDC3 tries to connect to the network. The status message at the bottom of the screen indicates if the connection is successful.

## Profiles Settings

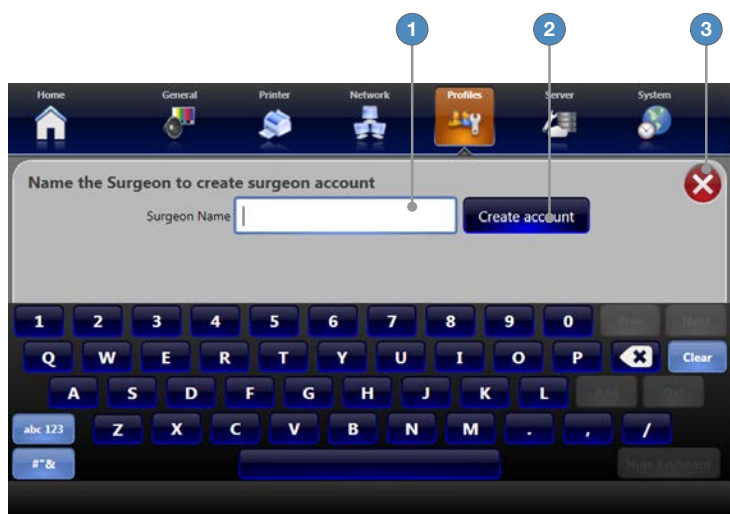
In the Profiles Settings screens, you can create, modify, or delete surgeon profiles.




1. Select the **PROFILES**  tab to open the Profiles screen. All available surgeon profiles are listed.
2. Select any surgeon profile to open the Account Modification screen.
3. Press the **CREATE NEW ACCOUNT** button to open the Surgeon Account screen.
4. Press the **IMPORT USER** button to import a single surgeon profile from a USB drive.
5. Press the **IMPORT ALL USERS** button to import all surgeon profiles stored on a USB drive.
6. Press the **EXPORT ALL USERS** button to export all surgeon profiles to a USB drive.
7. The **FAVORITES** button is for use by Stryker Representatives only.

## Creating a New Surgeon Account

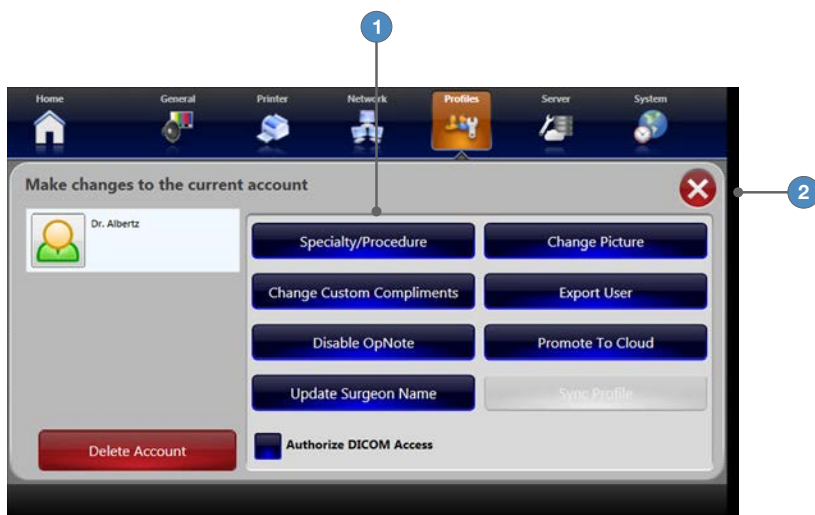
New surgeon accounts can be created by an Administrator only.




1. Enter the new surgeon name."
2. Press the **CREATE ACCOUNT** button to save the new account. The status bar confirms that a new account has been entered successfully.
3. Press the **EXIT**  button to return to the Surgeon Accounts screen.

## Modifying a Selected Profile

Surgeon profiles can be modified to change Device Presets, compliments, and account picture.

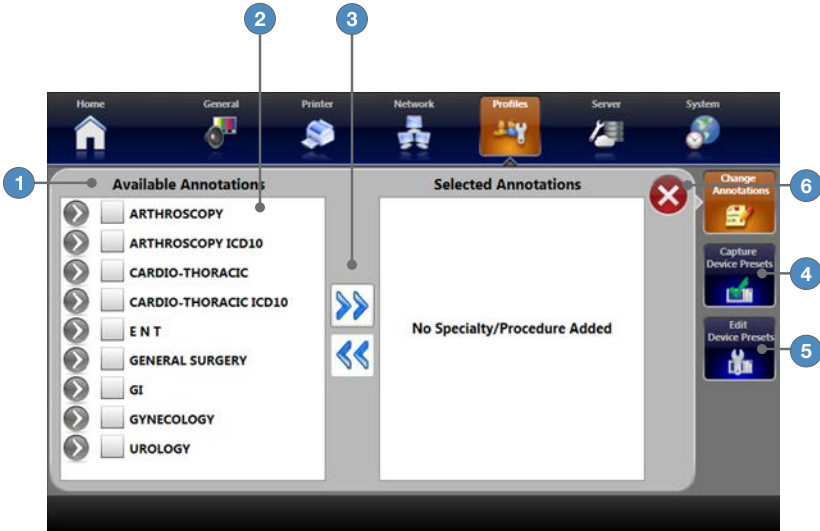



1. Press Specialty/Procedure, Change Custom Compliments, or Change Picture to do those tasks for the selected surgeon account.
2. Press **EXPORT USER** to save the surgeon profile to a USB drive.
3. **DISABLE OPNOTE** and **PROMOTE TO CLOUD** are for Stryker Representatives only.
4. Press **UPDATE SURGEON NAME** to change the stored name.
5. Press **SYNC PROFILE** to save changes made to the profile on the SDC3 to the cloud.
6. Press the **EXIT**  button to go back to the Surgeon Accounts screen.



## Changing a Surgeon Annotation List

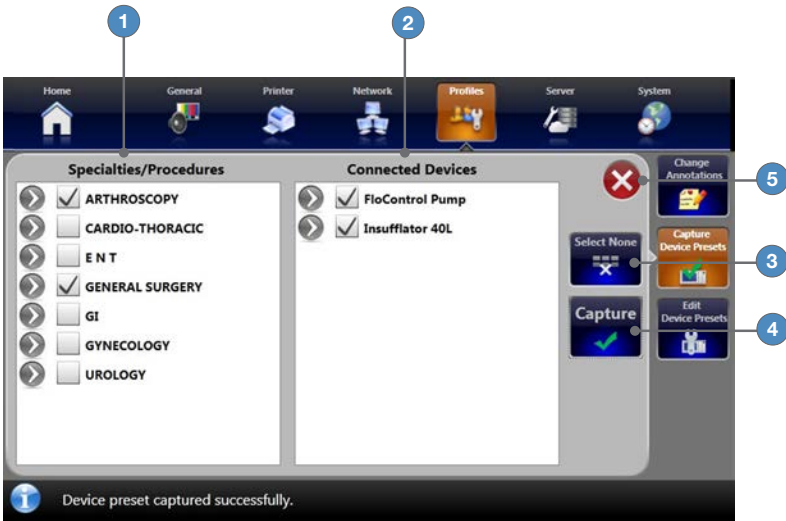
From the Select Annotation screen, you can select previously saved image and video annotations for a surgeon account.



1. Select the **SPECIALTY/PROCEDURE** button in the Account Modification screen to go to the Select Annotation screen.
2. Select a specialty checkbox in the Available Annotations window to see pre-defined procedure names and annotations. Press the applicable checkbox to select the correct procedure and annotation.
3. Press the **RIGHT** or **LEFT** arrow button to move selected annotations in or out of the Selected Annotations window.
4. Press the **CAPTURE DEVICE PRESETS** button to save settings for connected devices.
5. Press the **EDIT DEVICE PRESETS** button to edit, remove or create device settings.
6. Press the **EXIT**  button to go back to the Account Modification screen.

## Capturing Device Presets

From the Capture Device Presets screen, you can save settings for connected devices.



1. The Specialties/Procedures list shows the specialties and procedures saved in the surgeon profile. You can apply presets to multiple specialties and procedures.
2. The Connected Devices list shows the devices connected to the SDC3.
3. To select all devices and their settings, press **SELECT ALL**. To deselect all devices and their settings, press **SELECT NONE**. You can also individually select or deselect devices and settings.
4. Press **CAPTURE** to save the checked device s and settings as presets.
5. Press the **EXIT** button to go back to the Account Modification screen.

## Editing Device Presets

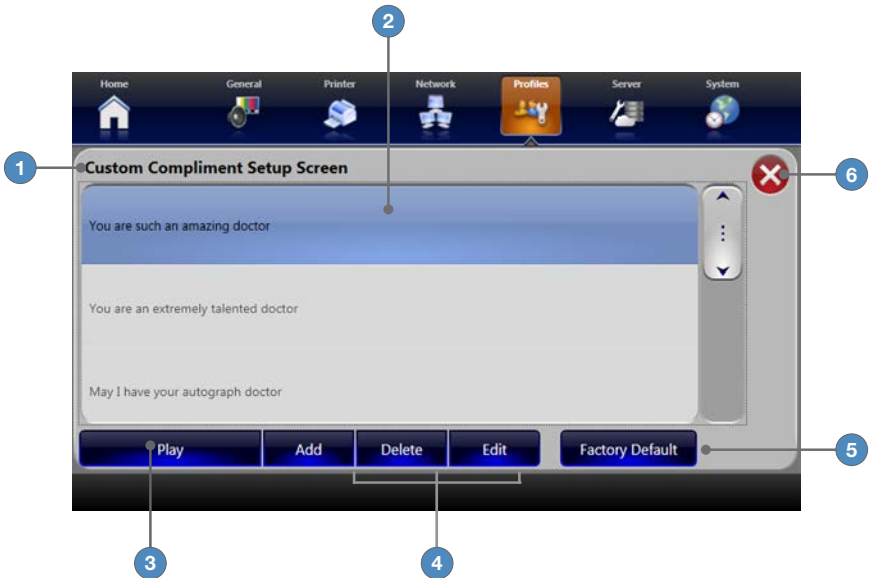
From the Editing Device Presets screen, you can edit device settings that are saved in the surgeon's profile.



1. From the Specialties/Procedures list, select the procedure and the device you want to edit.
2. Press **REMOVE PRESET** to delete the saved settings.
3. Change the Specialty, Procedure, Device, Setting, and Value from the drop-down lists shown on the right side of the screen.
4. Press **UPDATE PRESET** to update the settings.
5. Press the **EXIT** button to go back to the Account Modification screen.


## Setting Up Custom Compliments

The SDC3 gives the doctor a compliment when prompted. Select compliments from a pre-defined list, or enter a custom compliment. Compliments are stored in each surgeon profile.

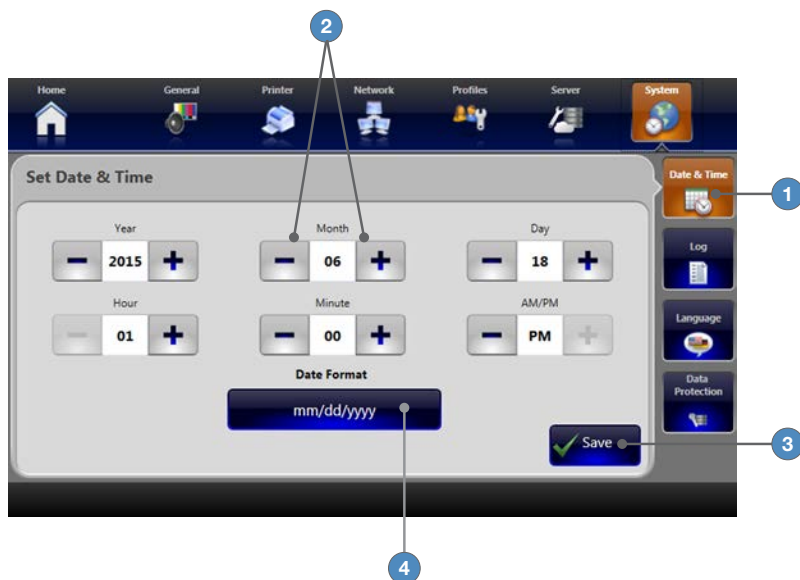




1. Press the **CHANGE CUSTOM COMPLIMENTS** button in the Account Modification screen to go to the Custom Compliment Setup screen.
2. Press anywhere on a compliment line to select it.
3. Press the **PLAY** button to play a selected compliment.
4. Press **ADD** to add a new compliment. Press **EDIT** or **DELETE** to modify a selected compliment. Press **SAVE** ✓ button to save edited text. Press the **CANCEL** ✗ button to cancel changes.
5. Press the **FACTORY DEFAULT** button to reset the custom compliments list to the factory default. A confirmation screen appears.
6. Press the **EXIT** ✗ button to go back to the Account Modification screen.

## System Settings

Within the **SYSTEM SETTINGS**  tab, you can adjust the system date and time, view the system log, select the system language, and set data protection.

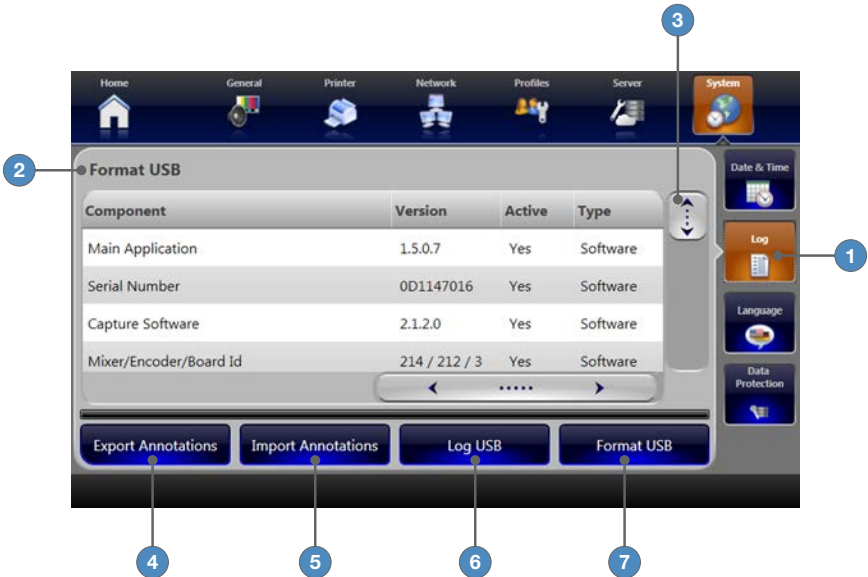
### Date and Time Settings




1. Select the **DATE & TIME**  tab from the System screen to go to the Set Date & Time Screen.
2. Use the +/- buttons to change the date and time values.
3. Press the **SAVE**  button to save changes.
4. Press the **DATE FORMAT** button to switch between available date formats.

## System Log Settings

Settings for the System Log are adjusted in the “System Log Settings” screen. Here, information about system drivers, connected devices, and system events are stored, as well as global annotation entries. Information from this screen can be exported to a USB drive for off-site diagnostics.




1. Select the **LOG**  tab from the System screen to open the Log screen.
2. The Log screen lists each SDC3 component, along with its version, active status and type.
3. The scroll bar moves to show components not included in the initial view.
4. Press the **FORMAT USB** button to format a USB storage device with the NTFS format.
5. Press the **LOG USB** button to transfer the system log file to a USB storage device.
6. Press the **IMPORT ANNOTATION** button to import annotations from a USB storage device to the system.
7. Press the **EXPORT ANNOTATION** button to export a master list of annotations from all surgeon accounts on the system to a USB storage device.

## System Language Settings

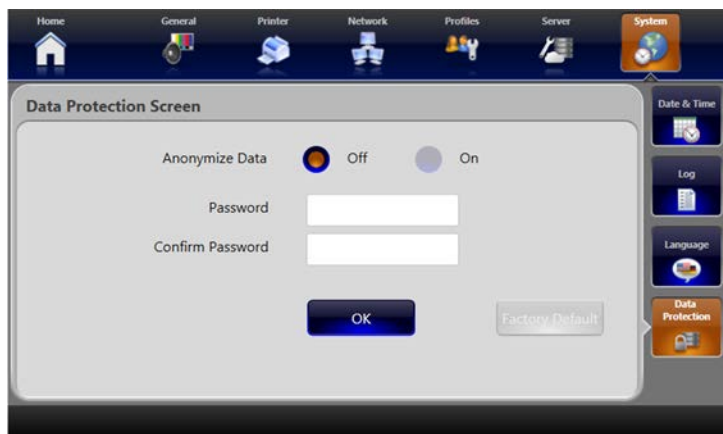
Change the System Language on the **SYSTEM LANGUAGE SETTING**  screen.



1. Select the **LANGUAGE**  tab in the System screen to open the “Language Setting” screen.
2. Press any button to select the corresponding language. The system reboots before the language change takes effect. Previously entered text fields remain in the language in which they were entered.

## System Data Protection Settings

The SDC3 Data Protection Settings screen lets you anonymize the patient data stored on the system. Always anonymize data before returning the unit to Stryker for repair.



### Turning on Data Protection


1. Make sure you are using the default Surgeon Profile, and are logged in as an Administrator if Access Control is on.
1. Select the Data Protection tab from the System screen to open the Data Protection Screen.
2. Enter a password and re-enter it to confirm.  
**Note: Keep the password in a safe location. This password is not stored in the system, and cannot be recovered if it is lost.**
3. Press the **FACTORY DEFAULT** button to change all system settings to the factory defaults.
4. Press **OK**.
5. The patient data stored on the system is made anonymous, and the system restarts.

### Turning off Data Protection

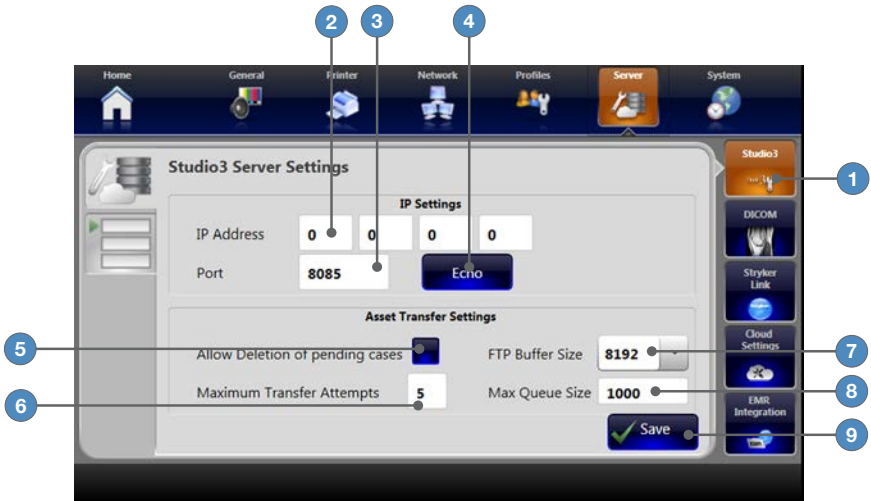
1. Make sure you are using the default Surgeon Profile.
2. Go to Settings > System > Data Protection, or press the Archive button from the Home screen.
3. On the Data Protection screen, re-enter the password and press **OK**. The system restarts.




# Server Settings

Settings for how the SDC3 interacts with the Studio3 Server, the DICOM server, Stryker Link and Cloud Integration are accessible from the **SERVER**  tab.

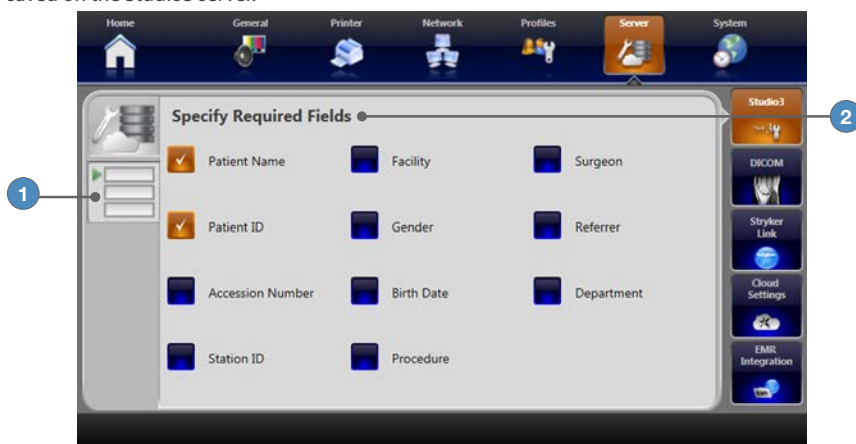
## Studio3 Server Settings




1. Go to the Server tab, then select the **STUDIO3** tab to go to the Studio3 Server Settings screen.
2. Enter the Studio3 server IP address in the IP Address field.
3. Enter the Studio3 server Port number in the Port field.
4. Press the **ECHO** button to test the Studio3 server connection. Valid server credentials are confirmed by an "Echo Successful" message shown in the status bar.
5. Select the Allow Deletion of Pending Cases checkbox to allow deletion of pending cases from the Studio3 archive list.
6. Set the amount of times the SDC3 attempts to transfer data to the Studio3 server in the Maximum Transfer Attempts field. The default value is five attempts.
7. The dropdown menu lists available FTP Buffer Sizes.
8. The default Max Queue Size is 1000. Alternate values can be entered in this field.
9. Press the **SAVE**  button to save settings.

## Selecting Fields for Cases Saved on the Studio3 Server

From the Specify Required Fields screen, you can select the patient information required for cases saved on the Studio3 server.



1. Select the **FIELDS**  tab to go to the Studio3 Fields screen.
2. Fields selected in the Specify Required Fields screen appear in the saved case on the Studio3 server. Patient ID and Patient Name fields are required by default and cannot be unchecked.

## Studio3 Networking Setup

### Setup Requirements

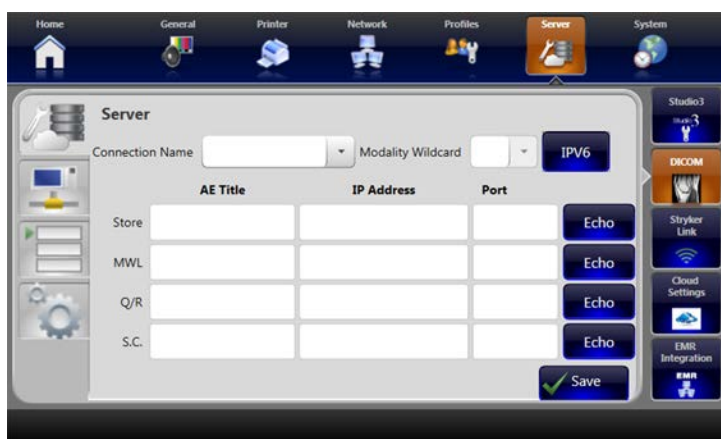
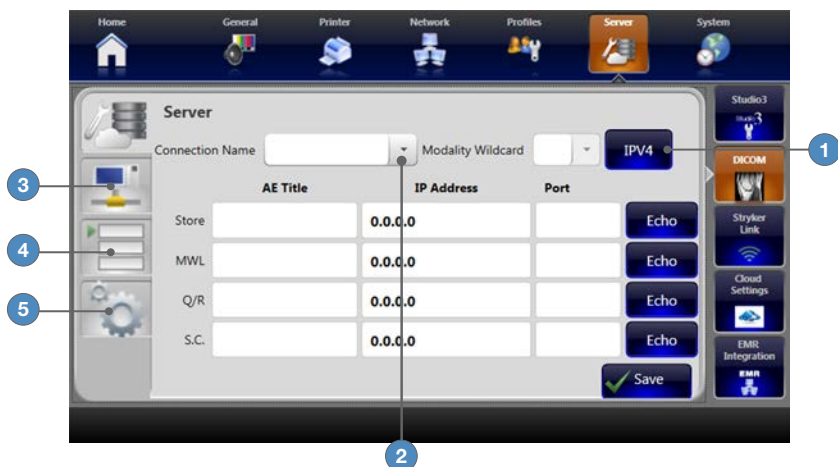
- A TCP/IP network.
- A Stryker Studio3 Media Server installed and configured.

### Instructions

1. Enter the IP address of the Studio3 Media Server into the **STUDIO3** tab in the Studio3 Server Settings screen.
2. Select the Studio3 checkbox in the Save Settings screen to enable the **STUDIO3** button.
3. To save the images and videos, press the **STUDIO3** button from the Save menu. A confirmation message shows to indicate that the case has been added to the Studio3 transfer queue.
4. To view the pending/completed transfer queue, press the **STUDIO3** tab in the Archive menu.

## DICOM Server Settings

To configure DICOM server settings, go to Current Case > Server, and confirm that the DICOM menu is active.




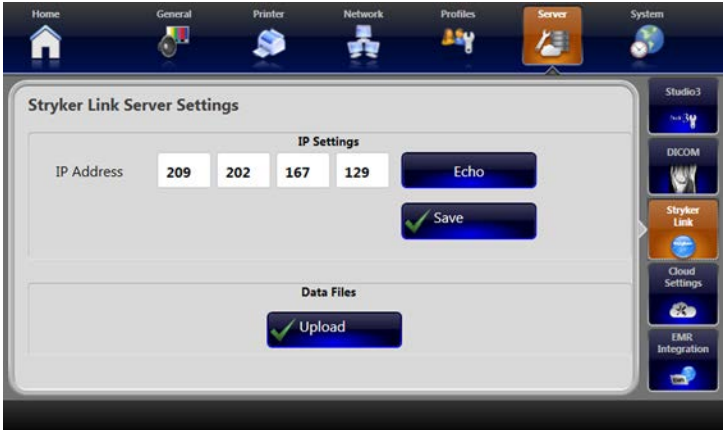
From the DICOM menu, you can:

1. Toggle the IPV4/IPV6 button to select the connection type.
2. Select a connection name, or create a new connection.
3. Define the Store, Q/R, and Storage Commit (SC).
4. Configure the required fields for cases saved to DICOM
5. Configure the DICOM settings.

**Note:** For full instructions on configuring the DICOM server, refer to the DICOM surgeon guide (P15650).

# Stryker Link Server Settings

From the **STRYKER LINK**  Server Settings screen, you can send log files to Stryker customer service. Contact your Stryker representative from more informati on.

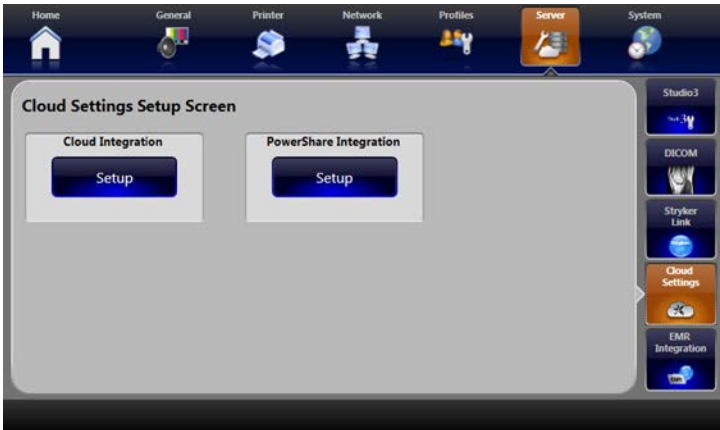


# Cloud Settings

From the **CLOUD INTEGRATION SETTINGS**  screen, you can:

- Link the SDC3 to your customer account in the cloud, and download information from the cloud to your local machine (for Stryker Representatives only).
- Link the facility's PowerShare account to the SDC3 and save case images to the PowerShare Network. This option is available with the optional PowerShare package.

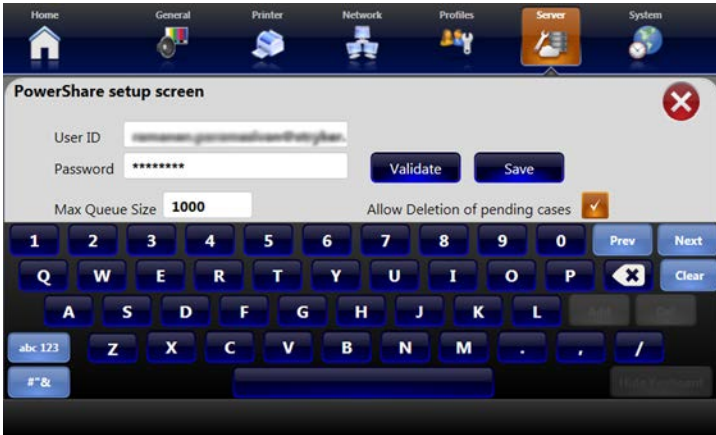
Contact your Stryker Representative for more information about these features.



# PowerShare Integration

The PowerShare Integration Package lets the SDC3 save case images to a facility's PowerShare Network.

To connect the SDC3 to your facility's PowerShare network:



**Note:** Cloud Integration must be ON to connect to the PowerShare Network. To set up Cloud Integration, contact your Stryker representative.

1. Go to Settings > Server > Cloud Settings.
2. Press the **SETUP** button under PowerShare Integration.
3. Enter your PowerShare User ID and Password.
4. To test the connection, press **VALIDATE**. If the connection is successful, the SDC3 shows the message, "Authentication successful."
5. To save the connection, press **SAVE**.

## Save Settings for PowerShare

To enable saving case information to PowerShare:



1. Go to Current Case > Save.

2. Press the **SETTINGS** button.
3. Select PowerShare to make PowerShare a Save option.
4. Press **EXIT** to close the Save Settings screen.

# EMR Integration Settings

From the EMR Integration screen, you can link the SDC3 to an EMR system. The SDC3 links to four EMR systems: AGFA, Allscripts, CERNER, and EPIC. This functionality is only available with the optional EMR Integration Package.

HomeGeneralPrinterNetworkProfilesServerSystem

EMR Integration

EMR VendorAGFA

Transport Type

ORU IP Address0000ORU Port0

Echo

Save

Studio3  
DICOM  
Stryker Link  
Cloud Settings  
EMR Integration

# Troubleshooting

Problem	Solution
Login failure	Make sure that the correct username and password are used to log into the system.
Video limit reached	Begin a new case to capture more videos.
Image limit reached	Begin a new case to capture more images.
List limit reached	The maximum number of cases permitted to be entered has been reached. Delete older entries in the list.
Error printing. No image captured/selected	Capture images and then select them to print.
Error saving settings	To restore previous settings, reboot the system.
FTP connection error	Make sure that the FTP server is up and the network cable is plugged in.
Error: Media unavailable	Please insert/connect a valid media to the SDC3.
USB space insufficient	Make sure that there is free space available on the media.
Error: Disk corrupt. Please try again...	The media is corrupt. Insert a new disc to continue.
Error: Disc drive busy	Make sure that the disc drive is not being currently used. Reboot the machine if the error persists.
Error: locating logo.bmp	Make sure that the USB cable is connected properly. Make sure that the logo file is present on the USB drive and it is called "logo.bmp."
Error: upgrading software	Insert the upgrade dongle in the save screen.
Application has encountered a critical error and is shutting down.	Please reboot the system.
No live video on preview	Make sure that the camera is on and check the cable connections. Make sure that the proper video source is selected.
No live video on the monitor	Check the cable connections Make sure that the camera is powered on. Make sure that the proper video source is selected.
No live video in PIP on preview	Check the cable connections Make sure that the camera is powered on. Make sure that the proper video source is selected. Make sure that you are in PIP mode.
No live video PIP on monitor	Check the cable connections. Make sure that the camera is powered on. Make sure that the proper video source is selected. Make sure that the monitor OSD PIP is enabled via the application.



Print errors	<p>Make sure there aren't any paper jams.</p> <p>Make sure the printer has enough ink.</p> <p>Make sure the printer door is closed.</p> <p>Make sure the printer has paper.</p> <p>Make sure the printer is powered on.</p> <p>Make sure the printer cable is connected..</p>
Error saving more than 4GB files to the USB	Make sure that the USB is formatted as NTFS. FAT 32 will not support any file size bigger than 4GB.
Error reading archived cases from DVD/CD	Reboot the system if you have just written the case. Check the disc on a different system.
No videos written to the USB	Make sure "write videos to USB" in the save settings is selected.
No videos written to the network	Make sure "write videos to Network" in the save settings is selected.
Annotation list is blank	Make sure that a procedure is selected in the Patient information screen in order to enable the annotation list.
Device status overlays do not appear on the surgical display	<p>Make sure proper connections have been made between devices and device ports on the SDC3.</p> <p>Make sure the device is selected/added in the "Video Settings: On-Screen Display" menu.</p>
Touchscreen controls are not working properly	Go to Settings > General. Press the <b>CALIBRATE</b> button to calibrate the touchscreen.
The SDC3 does not recognize the iPad	<p>Unplug the iPad from the USB drive, then plug it back in.</p> <p>Make sure to wait at least 30 seconds for the iPad to connect.</p>
The SDC3 does not recognize an SFB/FireWire device.	<ol style="list-style-type: none"> <li>1. Set the SDC3 power to off.</li> <li>2. Connect the SFB/FireWire cable to both the device and the SDC3.</li> <li>3. Set the SDC3 power to on.</li> </ol>

# Electromagnetic Compatibility

Like other electrical medical equipment, SDC3 requires special precautions to ensure electromagnetic compatibility with other electrical medical devices. To ensure electromagnetic compatibility (EMC), SDC3 must be installed and operated according to the EMC information provided in this manual.

The SDC3 has been designed and tested to comply with IEC 60601-1-2 requirements for EMC with other devices.


Caution: Portable and mobile RF communications equipment may affect the normal function of the SDC3.

Caution: Do not use cables or accessories other than those provided with the SDC3, as this may result in increased electromagnetic emissions or decreased immunity to such emissions.

Caution: If the SDC3 is used adjacent to or stacked with other equipment, observe and verify normal operation of the SDC3 in the configuration in which it will be used prior to using it in a surgical procedure. Consult the tables below for guidance in placing the SDC3

Guidance and Manufacturer's Declaration: Electromagnetic Immunity			
SDC3 is intended for use in the electromagnetic environment specified below. The customer or the user of SDC3 should ensure that it is used in such an environment.			
<p>(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 SDC3 system is used exceeds the applicable RF compliance level above, the SDC3 system should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the SDC3 unit.</p> <p>(b) Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.</p>			
Recommended Separation Distances Between Portable and Mobile RF Communications Equipment and the SDC3 System			
The SDC3 system is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The user of the SDC3 system can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the SDC3 system as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power (W) of transmitter	Separation distance (m) according to frequency of transmitter		
	150 kHz to 80 MHz $d = 1.17\sqrt{P}$	80 kHz to 800 MHz $d = 1.17\sqrt{P}$	800 kHz to 2.5 GHz $d = 1.17\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.37	0.37	0.74
1	1.17	1.17	2.33
10	3.70	3.70	7.37
100	11.70	11.70	23.30
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 1: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.			
NOTE 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.			

Guidance and Manufacturer's Declaration: Electromagnetic Emissions		
SDC3 is intended for use in the electromagnetic environment specified below. The customer or the user of SDC3 should ensure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic Environment - guidance
RF emissions CISPR 11	Group 1	SDC3 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 B	SDC3 is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes, provided the following warning is heeded:  Warning: This system may cause radio interference or may disrupt the operation of nearby equipment. It may be necessary to take mitigating measures such as reorienting or relocating the system or shielding the location.
Harmonic emissions IEC61000-3-2	Class A	
Voltage Fluctuations/ flicker emissions IEC61000-3-3	Complies	

Guidance and Manufacturer's Declaration--Electromagnetic Immunity			
The SDC3 system is intended for use in the electromagnetic environment specified below. The user of the SDC3 system should ensure that it is used in such an environment.			
Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment--Guidance
			Portable and mobile RF communications equipment should be used no closer to any part of the SDC3 system, including its cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 V	Recommended Separation Distance: $d = 1.17/\sqrt{P}$
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	$d = 1.17/\sqrt{P}$ 80 MHz to 800 MHz $d = 2.33/\sqrt{P}$ 800 MHz to 2.5 GHz  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 1: At 80 MHz and 800 MHz, the higher frequency range applies.			
NOTE 2: 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 SDC3 system is used exceeds the applicable RF compliance level above, the SDC3 system should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the SDC3 unit.			
(b) Over the frequency range 150 kHz to 80 Mhz, field strengths should be less than 3 V/m.			

Guidance and Manufacturer's Declaration: Electromagnetic Immunity			
SDC3 is intended for use in the electromagnetic environment specified below. The customer or the user of SDC3 should ensure that it is used in such an environment.			
Immunity Test	IEC 60601 test level	Compliance Level	Electromagnetic Environment - guidance
Electrostatic Discharge (ESD) IEC61000-4-2	±6kV contact ±8kV air	±2,4,6kV contact ±2,4,8kV 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 IEC61000-4-4	±2kV for power supply lines	±2kV for power supply lines	Mains power quality should be that of a typical commercial or hospital environment
	±1kV for input/output lines	±1kV for input/output lines	
Surge IEC61000-4-5	±1kV differential mode	±0.5, 1kV differential mode	Mains power quality should be that of a typical commercial or hospital environment
	±2kV common mode	±0.5, 1, 2kV common mode	
Voltage dips, short interruptions and voltage variations on power supply input lines IEC61000-4-11	<5% Ut (>95% dip in Ut) for 0.5 cycle	<5% Ut (>95% dip in Ut) for 0.5 cycle	Mains power quality should be that of a typical commercial or hospital environment. If the user of SDC3 requires continued operation during power mains interruptions, it is recommended that SDC3 be powered from an uninterruptible power supply or a battery.
	40% Ut (60% dip in Ut) for 5 cycles	40% Ut (60% dip in Ut) for 5 cycles	
	70% Ut (30% dip in Ut) for 25 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 5 sec	
Power frequency (50/60Hz) 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 Ut is the a.c. mains voltage prior to application of the test level.			

# Cleaning and Maintenance

## **Warning**

- To avoid electric shock and potentially fatal injury, unplug the SDC3 from the electrical outlet before cleaning.

## **Caution**

- Do not spray cleaning liquid directly onto the unit as product damage may result. Spray cleaning liquid on the cloth before wiping the unit.
- Do not immerse the console in any liquid as product damage will result.
- Do not use corrosive cleaning solutions to clean the unit as product damage may result.
- Do not sterilize the unit as product damage may result.

## Cleaning

Should the unit need cleaning:

1. Spray cleaning liquid onto a dry, sterile cloth. Avoid excess liquid or drips.
2. Wipe the unit.
3. Take extra care when cleaning the front LCD screen. Excess liquid or drips that enter the bottom of the screen may result in product damage.

## Maintenance

SDC3 requires no preventative or periodic maintenance. However, Stryker recommends you reboot the system daily for best performance.

# Symbols

## Device



Mouse



Speaker



Keyboard



Monitor



Output



Network



USB



Headset



Serial port



Input



Printer

## Packaging/Labeling



Legal manufacturer



Date of manufacture



Consult Instructions for Use



Complies with the requirements of directive 93/42/EEC



Ambient temperature range



Relative humidity range



Serial Number



Product number



Equipotentiality



Protective Earth Ground



Authorized representative in Europe



Made in France



Stryker Firewire



Radiation Emitting



Compliance to Electrical Safety Standards



Complies with Australian regulatory requirements



Warning/Caution: See Instructions for Use



Federal law restricts this device to sale by or on the order of a physician.



This product contains electrical waste or electronic equipment. It must not be disposed of as unsorted municipal waste and must be collected separately.



Complies with Federal Communication Commission Standards



Device recycling code (applicable in China)



China Compulsory Certificate Mark

# Technical Specifications

Equipment Information	
<b>Size</b>	<ul style="list-style-type: none"> <li>• <b>Control Unit:</b> 12.5" W × 16.5" D × 7.25" H</li> <li>• <b>Total Weight:</b> 22.5 lbs (10.2 kg)</li> <li>• <b>Display:</b> 8" TFT LCD, with digital touchscreen</li> </ul>
<b>Power Consumption</b>	100-240VAC ~ 50/60Hz, 4A/2A maximum
<b>Recommended Security - Authentication and Encryption (when connecting to Hospital network)</b>	WPA2-Enterprise (PEAP-MSCHAP v2 authentication) with AES encryption
<b>Wireless Transmission</b>	<ul style="list-style-type: none"> <li>• Type of modulation: OFDM and DSSS</li> <li>• Maximum EIRP level: 7.83 dBm</li> <li>• Operating frequency range: 2403.04 MHz to 2480.54 MHz</li> </ul>
<b>Electrical Safety Classification</b>	<ul style="list-style-type: none"> <li>• Class I Equipment</li> <li>• No Applied Part</li> <li>• Water Ingress Protection, IPX0</li> <li>• Continuous Operation</li> </ul>
<b>Environmental Specifications</b>	<ul style="list-style-type: none"> <li>• <b>Operating Temperature:</b> 10 – 40°C</li> <li>• <b>Operating Humidity:</b> 25 – 75% RH</li> <li>• <b>Transport and Storage Temperature:</b> -18° – 60°C</li> <li>• <b>Transport and Storage Humidity:</b> 15 – 90% RH</li> </ul>
<b>FCC Compliance</b>	<p>Contains FCC ID: RYK-WUBR170GNM</p> <p>This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.</p>
<b>Battery Recycling</b>	<p>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 device 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. In the case that it is not possible to decontaminate the unit for recycling, the hospital should not attempt to remove the batteries from waste equipment. Continued disposal of small amounts of portable batteries to landfill and incineration is allowed under the Batteries Directive 2006/66/EC and Member State regulations.</p>
<b>Image</b>	

<b>Resolution</b>	<ul style="list-style-type: none"> <li>• <b>NTSC:</b> 640 × 480</li> <li>• <b>PAL:</b> 768 × 576</li> <li>• <b>XGA:</b> 1024 × 768</li> <li>• <b>SXGA:</b> 1280 × 1024</li> <li>• <b>High Definition 720:</b> 1280 × 720</li> <li>• <b>High Definition 1080:</b> 1920 × 1080</li> </ul>
<b>Formats</b>	Bitmap (BMP), Joint Photographic Experts Group (JPG, JPEG), JPEG2000, Tagged Image File Format (TIFF), Truevision Targa (TGA) and Portable Network Graphics (PNG)

<b>Audio</b>	
<b>Input/Output</b>	<ul style="list-style-type: none"> <li>• Stereo Line and Headset Input/Output</li> <li>• 1 Speaker Output</li> </ul>

<b>Network</b>	
<b>Type</b>	10/100/1000 Mbps ethernet

<b>Video</b>	
<b>Video Input</b>	<ul style="list-style-type: none"> <li>• <b>(2) S-Video, (1) Composite:</b> (NTSC) 720 × 480, (PAL) 720 × 576</li> <li>• <b>(2) DVI, (2) RGBHV (via DVI-I connectors), (SXGA)</b> 1280 × 1024, (XGA) 1024 × 768, (720p) 1280 × 720, (1080p) 1920 × 1080</li> </ul>
<b>Video Outputs</b>	<ul style="list-style-type: none"> <li>• 1 S-Video, 1 Composite</li> <li>• 2 DVI and 2 RGBHV (via DVI-I connectors)</li> </ul>
<b>Encoding Format/Resolution</b>	<ul style="list-style-type: none"> <li>• MPEG2: 720 × 480, 720 × 576</li> <li>• H.264: (NTSC) 720 × 480, (PAL) 720 × 576, (XGA) 1024 × 768, (SXGA) 1280 × 1024, (720p) 1280 × 720, (1080p) 1920 × 1080</li> </ul>

<b>Printer</b>	
<b>Auto Printing</b>	<ul style="list-style-type: none"> <li>• 1, 2, 4L, 4S, 6, 8, 12, or 18 images per page for portrait orientation</li> <li>• 1, 2, 4L, 4S, 6, 9, 12, or 16 images per page for landscape orientation</li> </ul>
<b>Printers Supported</b>	<ul style="list-style-type: none"> <li>• SDP1000</li> <li>• Kodak ESP 7250</li> </ul>

<b>Storage Devices</b>	
<b>Disc</b>	<ul style="list-style-type: none"> <li>• <b>Capacity:</b> 100 images and 99 video files, with auto cutoff for CD (600MB), DVD (Data - 4.0 GB; Video - 3.6 GB), or none (45 GB, maximum case size permitted)</li> <li>• <b>Time Based Auto Cutoff Options:</b> 15 sec, 30 sec, 1 min, 2 min, 5 min, and 30 min</li> <li>• <b>Recording Formats:</b> CD-R, DVD-R, DVD+R (single session), DVD+RW</li> </ul>
<b>USB</b>	<b>Format:</b> NTFS and FAT32 format supported (read/write), change from FAT32 to NTFS format or NTFS to FAT32 format supported, MAC users will only have read capabilities











Produced for:  
Stryker Endoscopy  
5900 Optical Court  
San Jose, CA 95138 USA  
1-408-754-2000, 1-800-624-4422  
[www.stryker.com](http://www.stryker.com)

Stryker Corporation or its divisions or other corporate affiliated entities own, use or have applied for the following trademarks or service marks: the **Stryker logo**. All other trademarks are trademarks of their respective owners or holders.

P15647 M  
v1  
2016/09  
WCR: NONE