BITS®

Bioness | Integrated | Therapy | System

BITS Supplemental Guide

Bedside & Mobile Configurations

Bedside Table Configuration

Mobile Cart Configuration

Bioness®

Supplemental Guide - Bedside & Mobile Configurations

Introduction

The Bioness Integrated Therapy System (BITS) is a hardware and software platform using touchscreen technology that allows for patient interaction with different software programs. BITS is intended to challenge and assess the abilities of individuals, including those with deficits resulting from traumatic injuries and movement disorders as well as competitive athletes.

The BITS Bedside Configuration consists of a Bedside Stand and an all-in-one Touchscreen PC with the BITS software applications.

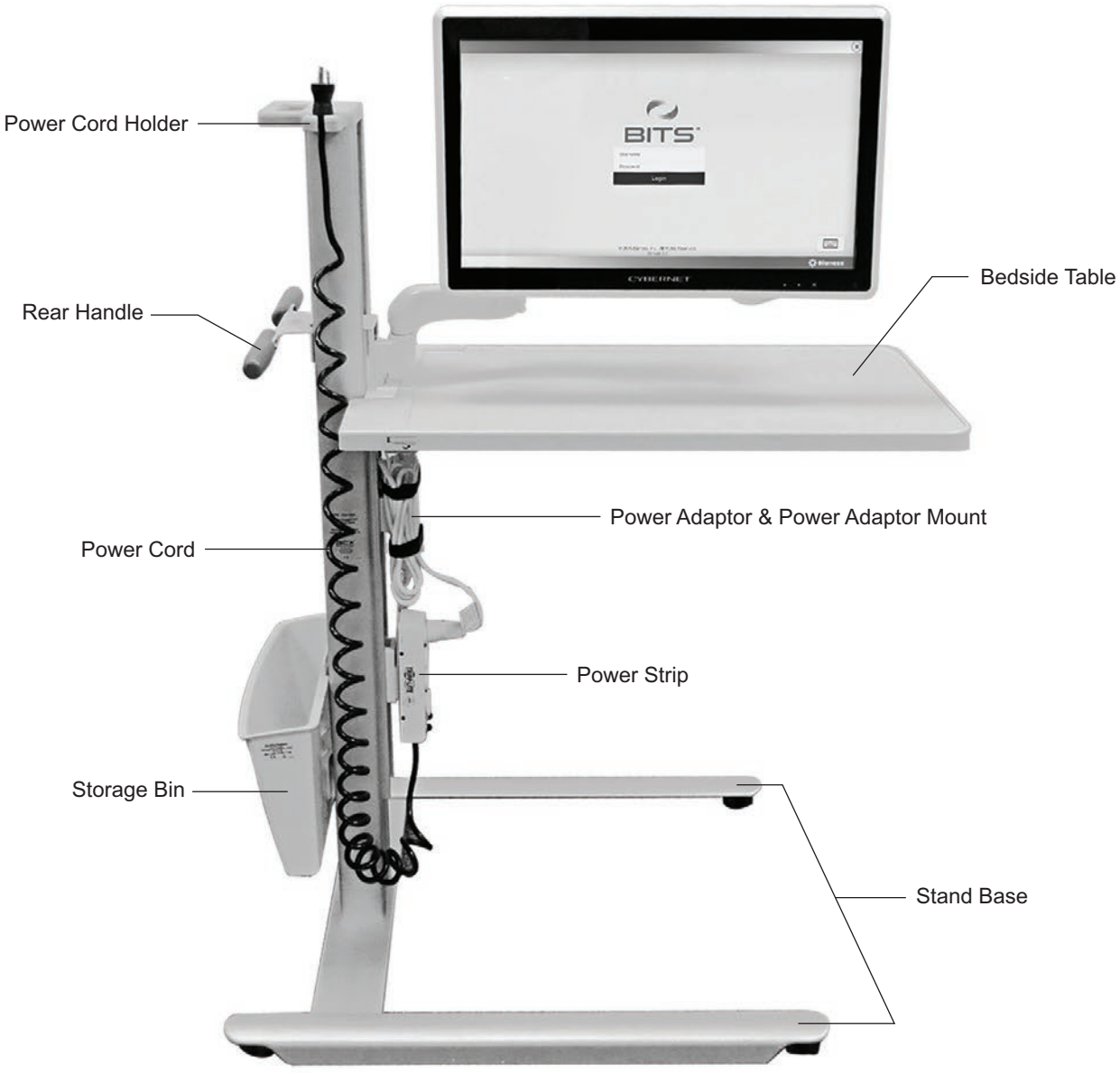


Figure 1: Bedside Configuration

The BITS Mobile Configuration consists of a Mobile Stand with locking casters and an all-in-one Touchscreen PC with the BITS software applications.

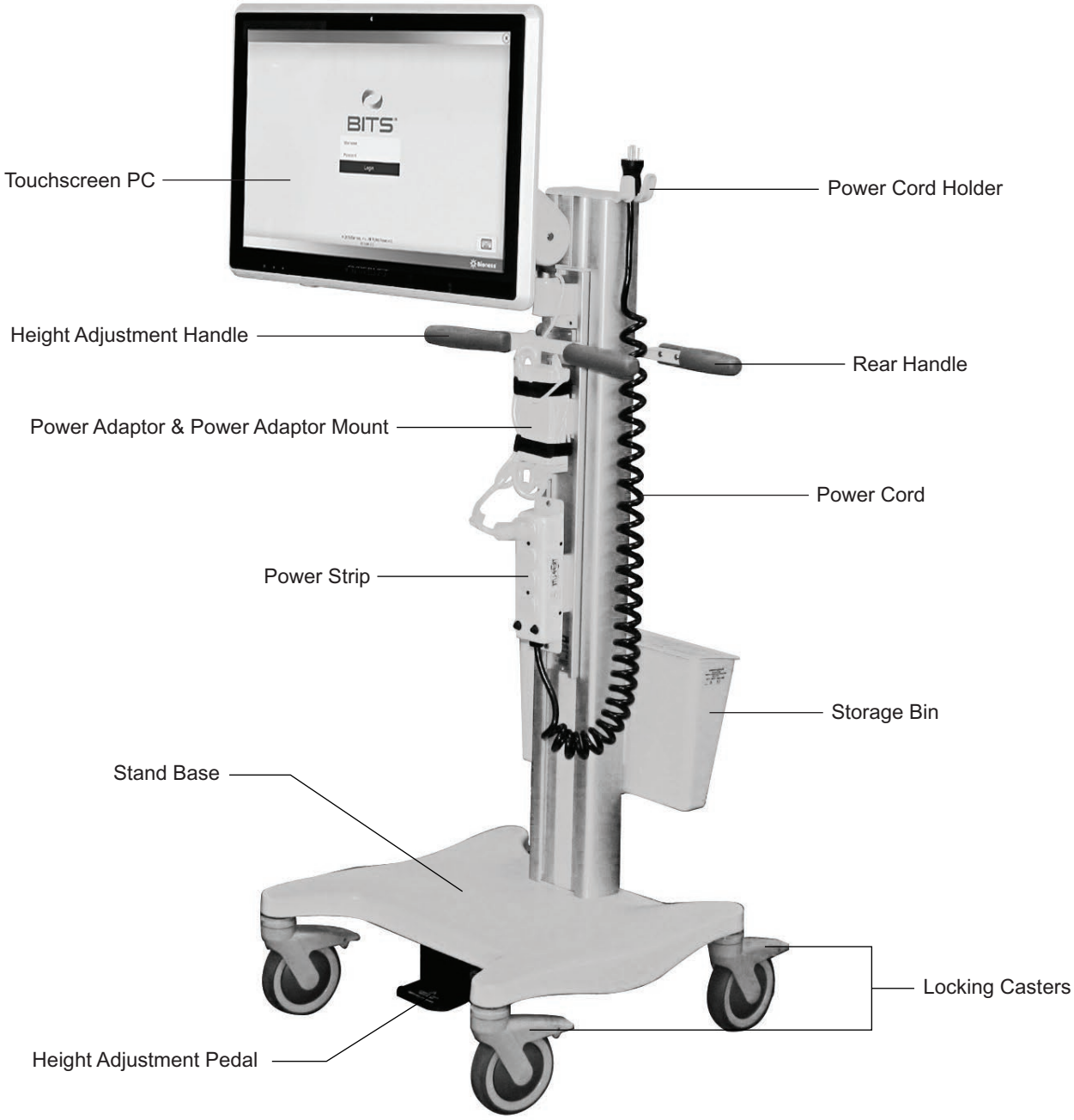


Figure 2: Mobile Configuration

This document outlines the installation process and Instructions For Use for the Bioness Integrated Therapy System (BITS) Bedside & Mobile configurations. This guide also includes a part list, safety information, and installation instructions. Please read this installation guide including all safety information, before starting the installation process. Be sure to review this guide, including all safety information, before using the Bioness Integrated Therapy System. If you have questions or need technical support, contact the Bioness Client Support Department at 800.211.9136, Option 3. You can also visit the Bioness website at: www.bioness.com.

⚠ **Caution:** Do not use the Bioness Integrated Therapy System until you have been properly trained by a Bioness representative.

Indications For Use

The Bioness Integrated Therapy System (BITS) is intended to challenge and assess the physical, visual, auditory, and cognitive abilities of individuals, including those with deficits resulting from traumatic injuries and movement disorders as well as competitive athletes.

Examples of these abilities include:

Visuomotor Coordination

Reaction Time

Visuospatial Perception

Visual & Auditory Processing

Working Memory

Physical & Cognitive Endurance

Precautions

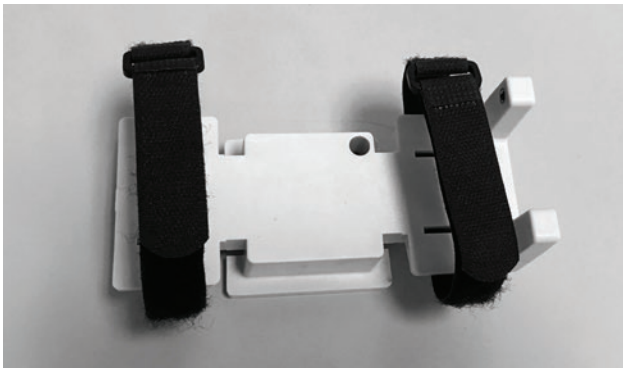
- Parts of the installation process require two people. Do not attempt to assemble the Bioness Integrated Therapy System alone.
- Unauthorized modifications to the Bioness Integrated Therapy System, such as installing or uninstalling software, will void the warranty.
- Accessing the internet or local intranet with the Bioness Integrated Therapy System will void the warranty.
- Do not alter the Windows 8 Operating System settings by adding Windows user accounts or adjusting the screen saver or sleep timer, as this may interfere with the functioning of the software.
- Contact Bioness Client Support Department if any component of the system is malfunctioning. Attempts to modify the hardware will void the warranty.
- Make sure to follow the correct procedures when moving the Bedside and Mobile stands or adjusting the height of the display screen.
- Always lock the casters on the mobile stand when the system is in a stationary position.
- Ensure the wheels on the Mobile stand are in the locked position before starting a therapy session with a client.
- Keep the system plugged in to an electrical outlet during therapy to avoid loss of therapy due to battery loss.
- Supervision should be provided during use of the system.
- Clients should not use an object that may damage, or is unsafe when interacting with the touchscreen.
- Use caution with patients diagnosed with, or suspected to have, epilepsy.
- Avoid physical contact with other users when more than one user is interacting with the system simultaneously.

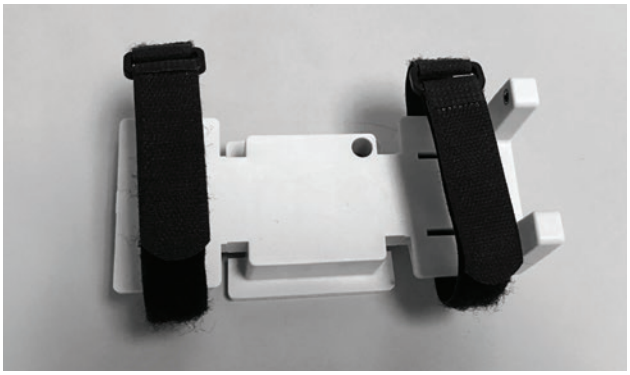
Warnings

- Do not move the Bioness Integrated Therapy System over obstacles on the floor or over uneven or soft surfaces. Doing so could cause the equipment to fall causing damage and/or injury.
- Do not use the Bioness Integrated Therapy System near strong electromagnetic fields (e.g. MRI).
- To avoid the potential of electrical shock do not use the Bioness Integrated Therapy System near water.
- Users of the Bioness Integrated Therapy System should exercise caution to prevent tripping hazards during the course of therapy. Sources of such tripping hazards include power cables and the legs or base of the Bedside and Mobile Stands.
- Do not attach or place objects of excessive weight on the Bedside or Mobile Stands as doing so may cause tipping.
- Stored Energy Hazard: The lift mechanism in the Bedside and Mobile Stands are under tension and may move rapidly when the Touchscreen PC is not attached. Please exercise caution when making height adjustments when the Touchscreen PC is not mounted to the stand.
- The equipment must only be connected to an earthed MAINS socket outlet (i.e. only plug the Bioness Integrated Therapy System into 3 pronged grounded wall outlets). Not doing so may result in an increased risk of electric shock.
- Misuse of the system could cause the unit to fall and result in injury and/or damage.
- Do not climb, sit, or lean on any part of the portable display stand, as doing so could cause the equipment to fall causing damage and/or injury.
- Do not allow the patient to strike or hit the Touchscreen PC with excessive force.
- The Bioness Integrated Therapy System software programs utilize moving and rotating graphics that may cause dizziness, vertigo, or nausea in sensitive patients. Individuals experiencing dizziness, vertigo, or nausea while using BITS should discontinue use immediately.
- Improper shut-down of the BITS software may result in the loss of client data. Please follow proper instructions for the shut down process.
- Do not use unapproved devices/hardware with the Bioness Integrated Therapy System.
- Do not use unapproved accessories with the Bioness Integrated Therapy System.
- Refer to the manufacturer’s instructions provided with the Touchscreen PC for additional warnings and safety information.

BITS Bedside & Mobile Configurations Component List

The components for the BITS product consists of two different kits: The Hardware Kit and the Computer Kit. Do not start the installation process until both kits have been received.

BITS Bedside Configuration Hardware Kit: 117-00207-001		
Description	**Illustration (Reference Only)**	**Quantity**
Bedside Stand with attached articulating arm and VESA mount and accessory bin		1
Power Adapter Mount		1
Power Strip with Coiled Cord		1

BITS Mobile Configuration Hardware Kit: 117-00208-001		
Description	**Illustration (Reference Only)**	**Quantity**
Mobile Stand with attached articulating arm and VESA mount and accessory bin		1
Power Adapter Mount		1
Power Strip with Coiled Cord		1

BITS Bedside & Mobile Configuration Computer Kits: 709-00215-000 & 709-00215-001		
Description	**Illustration (Reference Only)**	**Quantity**
Cybernet All-in-One Touchscreen PC		1
Power Adapter Mount		1
BITS License Key (contained in a box)		1
Encrypted Backup Drive (contained in a box)		1
Zip Ties		2
Mounting Bases		2
Touchscreen Stylus		1
BITS Bedside & Mobile Supplemental Guide 612-00848-001	No Image	1

Note: Verify that all components have been received. Do not start the installation process if any of the listed components are missing. For technical support contact Bioness Client Support Department at 800.211.9136, Option 3 or your Bioness Sales Representative.

Tools Needed for Installation

The list below includes items needed to install the BITS. The tools are not provided with the system.

- 3/4” Socket Wrench
- 1/2” Socket Wrench
- 13 mm Wrench
- 1/8” Allen Wrench
- 5/32” Allen Wrench
- Phillips Screw Driver
- Box Cutter with Safety Guard
- Scissors

Touchscreen PC Installation

1. Carefully remove the Touchscreen PC from the box and remove the foam packaging.
2. Use the foam sleeve to protect the surface of the Touchscreen, and lay the Touchscreen PC face down on a flat surface. See Figure 2.

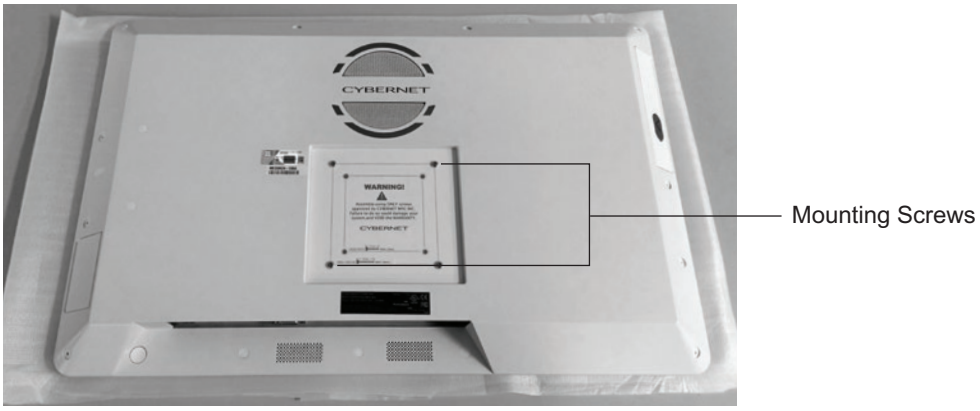


Figure 2: Back Side of the Touchscreen PC

3. Remove the two bottom Mounting Screws, and loosen the two top Mounting Screws on the mounting surface on the back of the Touchscreen PC. See Figure 3.

Figure 3: Location of Mounting Screws

4. Slide the top Mounting Screws into the slots on the top of the VESA Mounting Plate on the Variable Height Arm. See Figure 4.

Figure 4: Top Mounting Screws Inserted into VESA Mounting Plate.

⚠ **Caution:** The Variable Height Arm is designed to dynamically support the weight of the Touchscreen PC. The arm may move down as the weight of the Touchscreen PC is transferred to it. Use caution, and perform Step 4 slowly.

5. Replace the Mounting Screws on bottom of the VESA Mount, and tighten all four screws. See Figure 5.

Figure 5: Installed Touchscreen PC on VESA Mount

Touchscreen Mount Adjustment

1. To adjust the CW and CCW rotational tension, use a 13 mm wrench to adjust the hex nut on the back of the VESA Mount. See Figure 6.

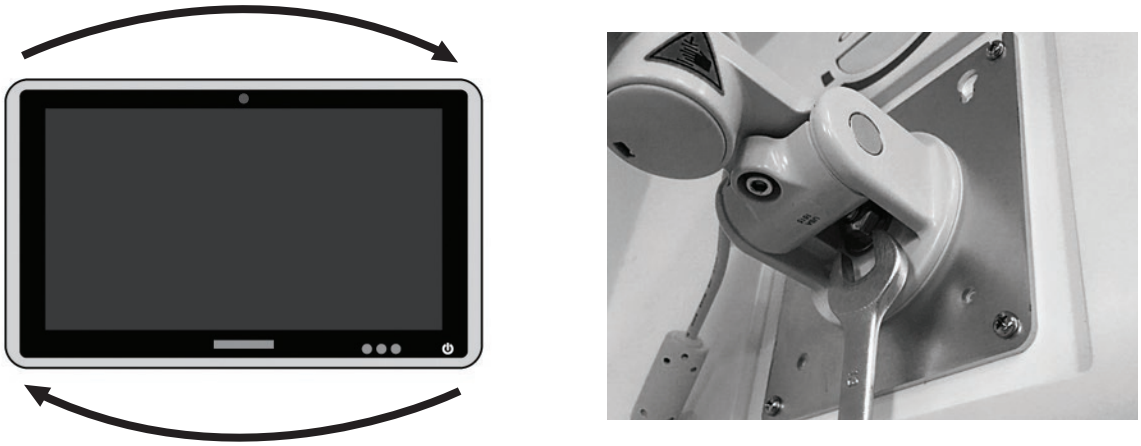


Figure 6: Rotational Tension Adjustment

1. To adjust the forward and backward tilting tension, use a 5/32” allen wrench adjust the bolt on the VESA Mount. See Figure 7.

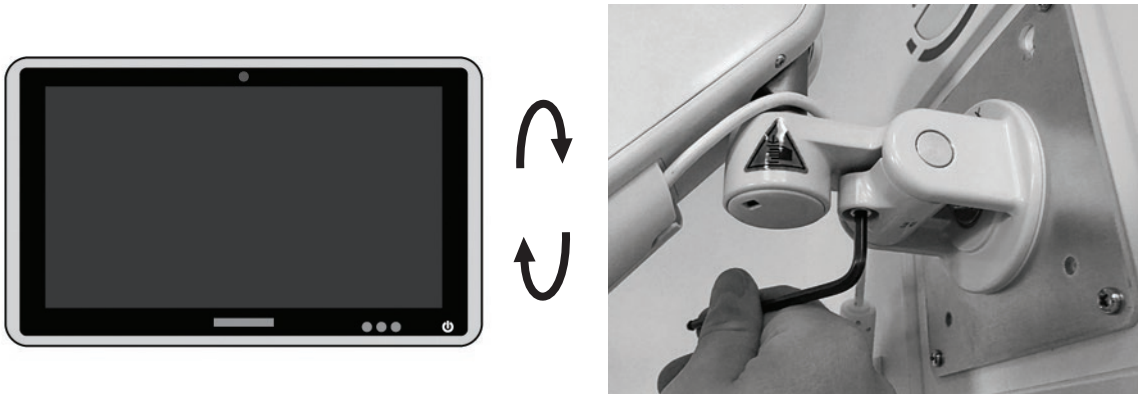


Figure 7: Tilting Tension Adjustment

1. To adjust the left and right rotational tension, remove the cap covering the hex nut on the back of the VESA mount, and use a 1/2” socket wrench to adjust the hex nut. See Figure 8.

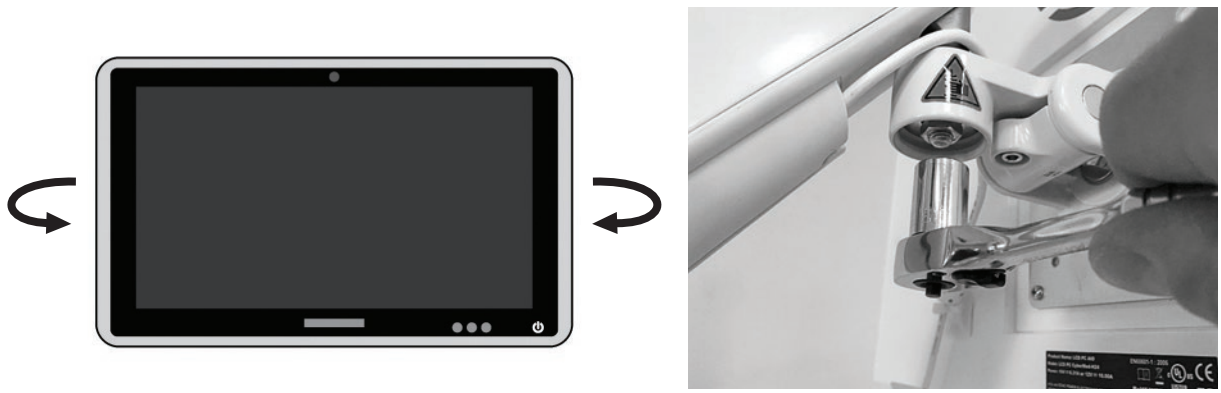


Figure 8: Left/Right Rotational Adjustment

Bedside Configuration Installation Instructions

Cable Management

1. Remove the protective cover below the Horizontal Extension Arm near the Variable Height Column. See Figure 9.

Figure 9: Remove Protective Cover

2. Thread the Power Cord through the space between the Bedside Table and the Variable Height Column. See Figure 10.

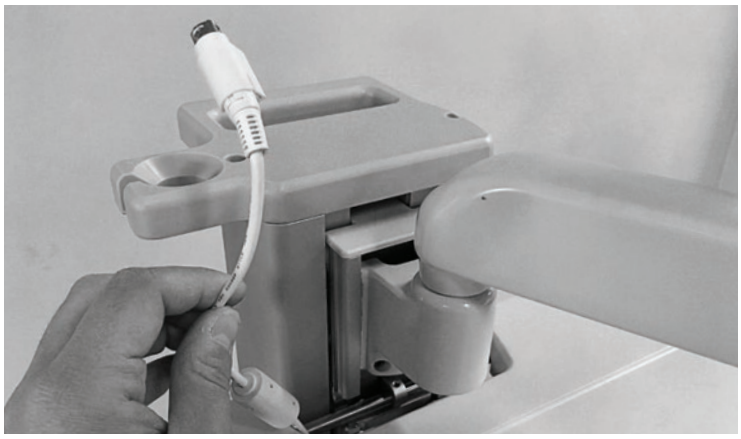


Figure 10: Thread the Power Cord

3. Remove the Cable Management Cover from the bottom of the Horizontal Extension Arm.

4. Thread the Power Cord through the Cable Management Cover, and reattach it to the bottom of the Horizontal Extension Arm. See Figure 11.

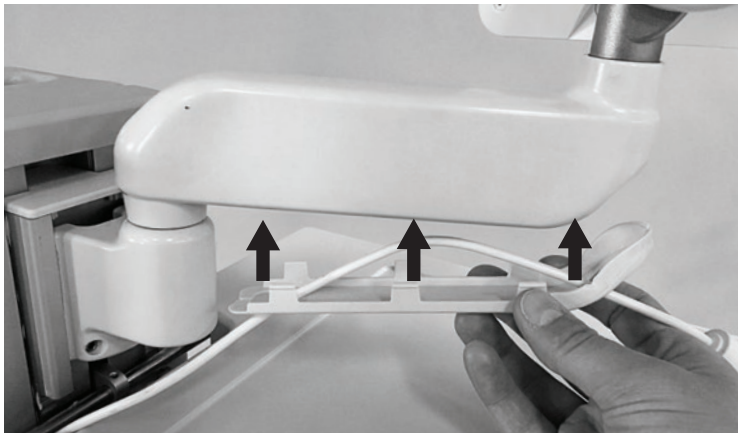


Figure 11: Reattach the Cable Management Cover

5. Insert the Power Cord in the Cable Clip on the bottom of the Variable Height Arm. See Figure 12.

Figure 12: Cable Clip

6. Wrap the Power Cord around the side of the Variable Height Arm where it meets the VESA Mount. See Figure 13.

Figure 13: Wrapping the Power Cord

7. Plug the Power Cord into the power connection on the left side of the Touchscreen PC.
8. Secure the Power Cord to the back of the Touchscreen PC using a Zip Tie and Mounting base provided in the Computer Kit. See Figure 14.

Figure 14: Secure the Power Cord

9. Trim the Zip Tie using a pair of scissors.

⚠ **Caution:** When trimming the Zip Tie, take care to avoid cutting or otherwise damaging the Power Cord.

Power Adapter Installation

1. Position the Power Adapter on the Power Adapter Mount. See Figure 15.

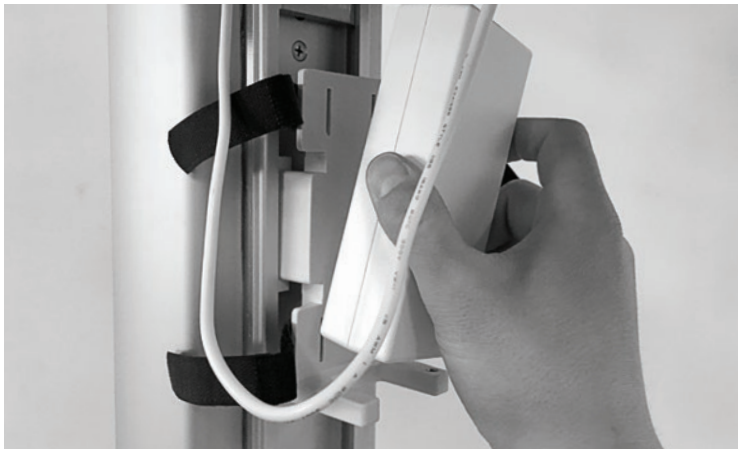


Figure 15: Power Adapter Mount

2. Plug the Power Cable into the Power Adapter.
3. Plug the Power Cord into the Power Strip, and secure the excess cable with the straps on the Power Adapter Mount. See Figure 16.

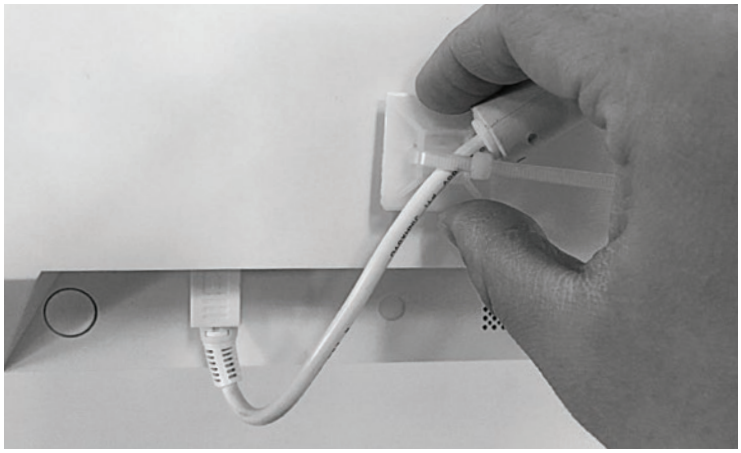


Figure 16: Secure the Power Cord

4. Secure the Coiled Power Cord from the Power Strip on the Power Cord Holder of the Tower. See Figure 17.

Figure 17: Power Cord Holder

Moving the BITS Bedside Stand

⚠ **Caution:** The BITS Computer is equipped with an internal battery. Make sure the system is plugged in while not in use to ensure the battery is sufficiently charged during use.

1. Disconnect the power cord from the wall socket and secure it on the power cord holder.
2. While standing to the rear of the Bedside Stand, lower the Bedside Table by pressing the Release Buttons on the bottom of the table with both hands.
3. Lower the Bedside Table to the lowest position on the tower of the Beside stand.
4. Lower the Touchscreen PC to the surface of the Bedside Table. See Figure 18.

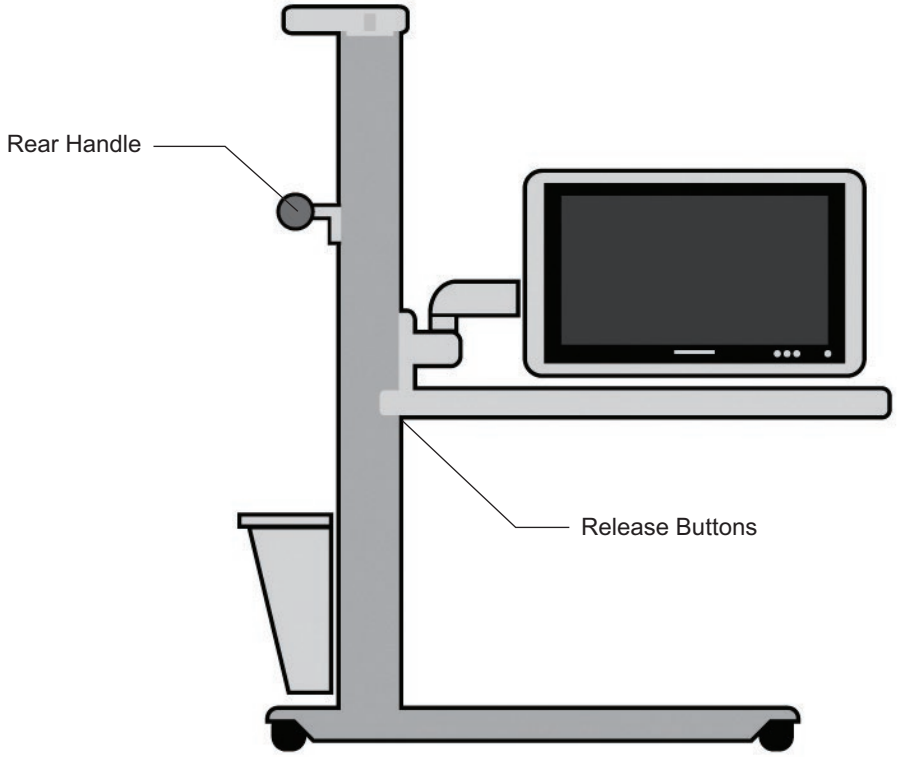


Figure 18: Correct Position for Moving Mobile Stand

5. Grasp the Rear Handle with both hands, and push the Bedside Stand from behind.
6. Move the stand to the new location.
7. Reposition the Touchscreen to the desired height.
8. Reconnect the power cord to the wall socket.

Mobile Configuration Installation Instructions

Power Adapter Installation

1. Position the Power Adapter on the Power Adapter Mount. See Figure 19.

Figure 19: Power Adapter Mount

2. Plug the Power Cable into the Power Adapter.
3. Plug the Power Cord into the Power Strip, and secure the excess cable with the straps on the Power Adapter Mount. See Figure 20.

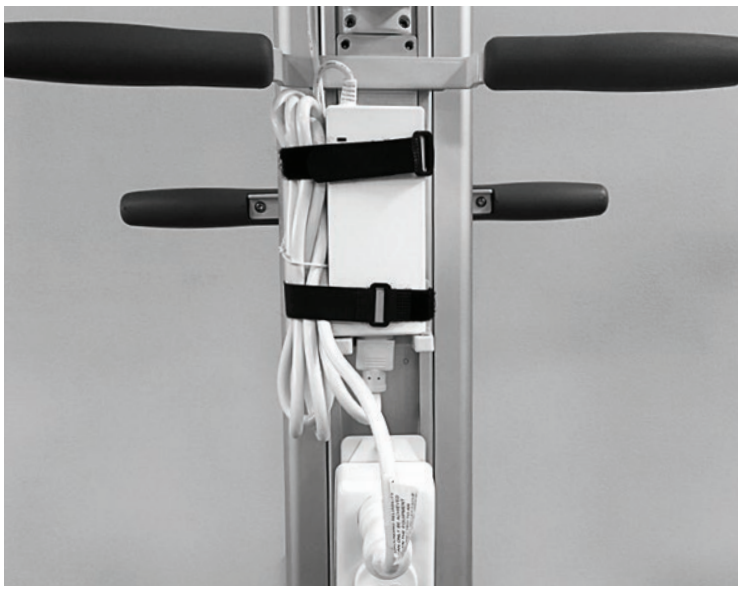


Figure 20: Final Configuration

4. Secure the Coiled Power Cord from the Power Strip on the Power Cord Holder of the Tower. See Figure 21.

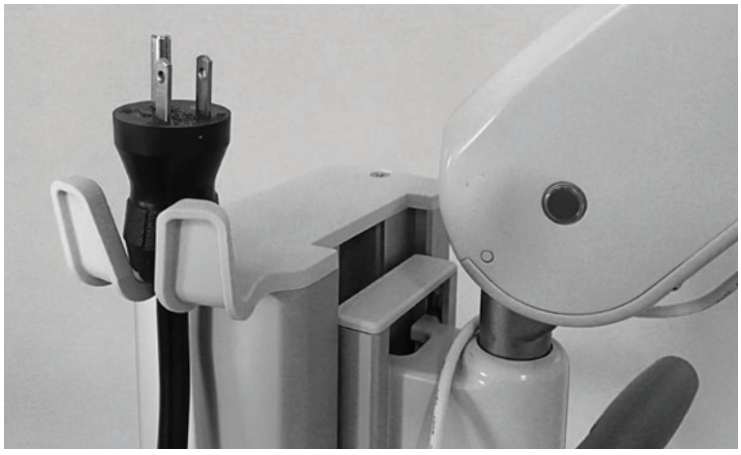


Figure 21: Power Cord Holder

Cable Management

1. Wrap the Power Cord around the Variable Height Arm. See Figure 22.

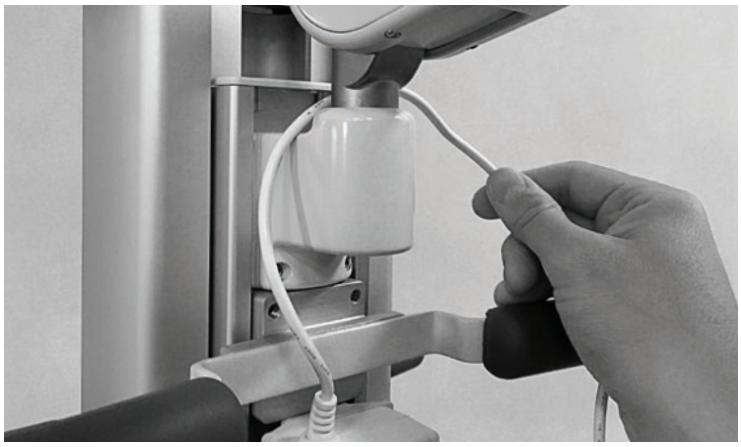


Figure 22: Wrapping the Power Cord

2. Insert the Power Cord in the Cable Clip on the bottom of the Variable Height Arm. See Figure 23.

Figure 23: Cable Clip

3. Wrap the Power Cord around the side of the Variable Height Arm where it meets the VESA Mount. See Figure 24.

Figure 24: Wrapping the Power Cord

4. Plug the Power Cord into the power connection on the left side of the Touchscreen PC.
5. Secure the Power Cord to the back of the Touchscreen PC using a Zip Tie and Mounting base provided in the Computer Kit. See Figure 25.

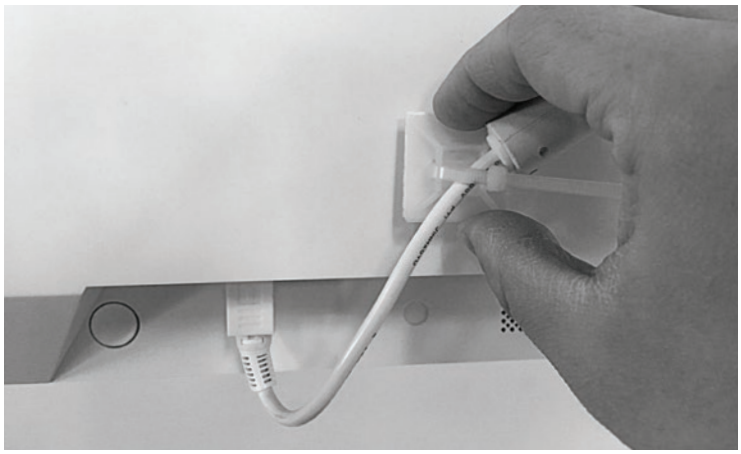


Figure 25: Secure the Power Cord

6. Trim the Zip Tie using a pair of scissors.

⚠ **Caution:** When trimming the Zip Tie, take care to avoid cutting or otherwise damaging the Power Cord.

Moving the BITS Mobile Stand

⚠ **Caution:** The BITS Computer is equipped with an internal battery. Make sure the system is plugged in while not in use to ensure the battery is sufficiently charged during use.

1. Disconnect the power cord from the wall socket and secure it on the Power Cord Holder.
2. While standing to the front of the Mobile Stand, lower the position of the Touchscreen by depressing the Release Pedal on the base of the Mobile Stand with one foot.
3. Grasp the Height Adjustment Handle, and lower the Touchscreen to the lowest point on the Tower.
4. Move the Touchscreen PC to a position closest to the Mobile Stand Tower. See Figure 26.

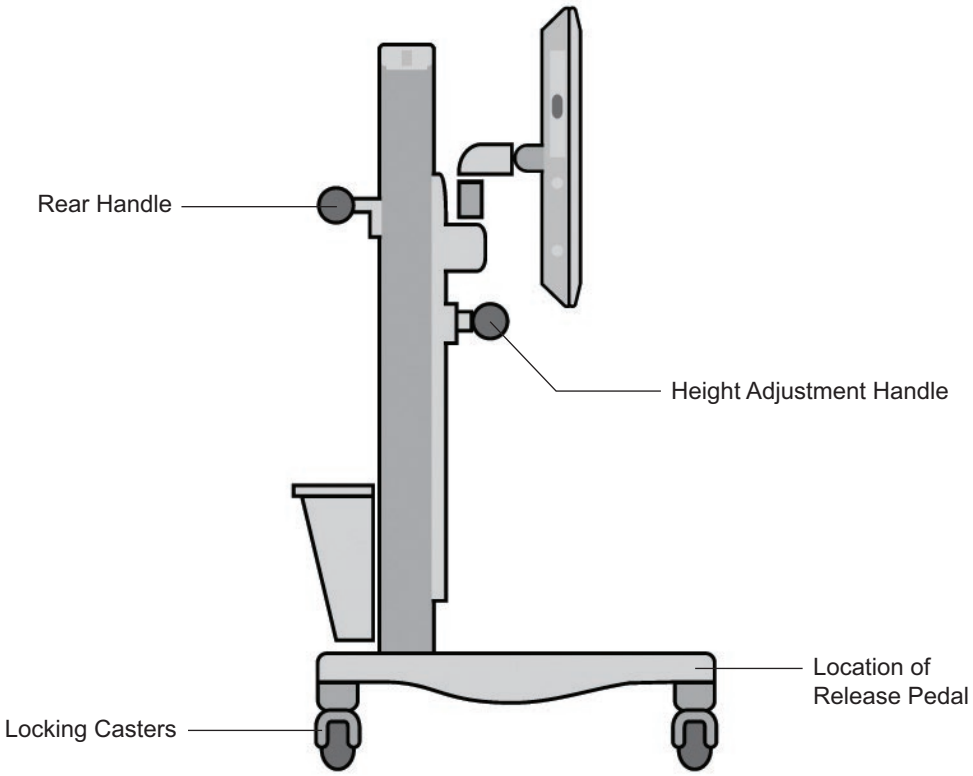


Figure 26: Correct Position for Moving Mobile Stand

5. Unlock the casters and point them in the direction of travel.
6. Grasp the Rear Handle, and push the Bedside Stand from behind.
7. Move the stand to the new location, and lock the casters.
8. Reposition the Touchscreen to the desired height.
9. Reconnect the power cord to the wall socket.

⚠ **Caution:** To avoid loss of balance or tripping while depressing the Release Pedal, keep the heal of the foot firmly planted on the floor, and depress the Release Pedal with the ball of the foot.

BITS Computer Activation

BITS License Key

1. Remove the BITS License Key from the brown box located in the Computer Kit package.
2. Remove the protective cover from the BITS License Key.
3. Plug the BITS License Key into the USB port. See Figure 27.

Encrypted Backup USB

1. Remove the Encrypted Backup USB from the box located in the Software Kit package.
2. Remove the protective cover from the Encrypted Backup USB.
3. Plug the Encrypted Backup USB into the USB port. See Figure 27.

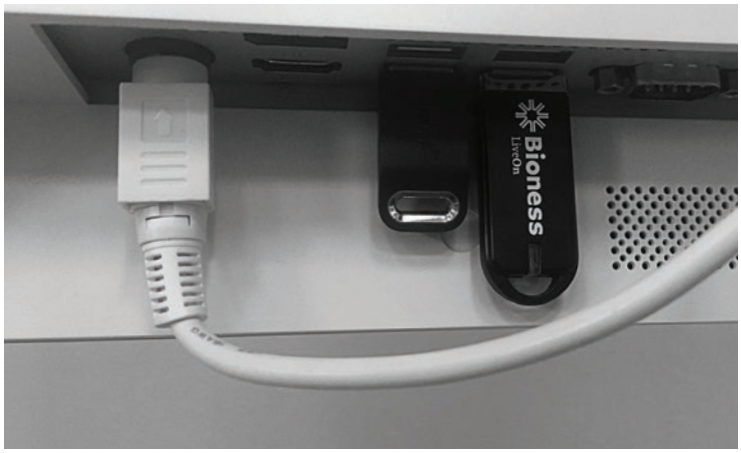


Figure 27: BITS License Key & Encrypted Backup Drive

Turning the System On

1. Locate the Power Button ⏻ on the lower-right corner of the Touchscreen. See Figure 28.

Figure 28: Touchscreen PC Power Button

2. Press and hold the Power Button for 2 seconds, and release it. The Power Button will light up green indicating that the computer is powered on.
3. After Windows has loaded and the Lock Screen appears, follow the instructions on the screen and Swipe Up as directed. See Figure 29.

Figure 29: Windows Lock Screen

4. Click inside the Password Box, and enter the password. See Figure 30.

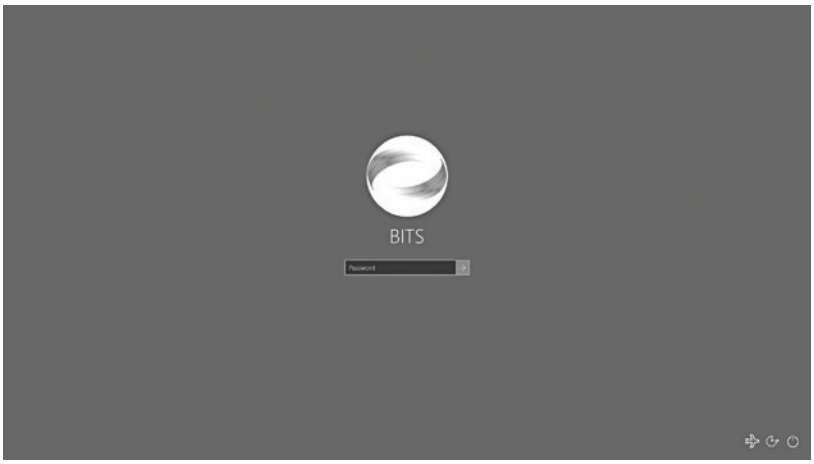


Figure 30: Windows Password Screen

Printer Setup

Only USB connected printers should be connected to the BITS Computer.

1. Follow the setup instructions specific to the printer being attached to the BITS Computer.
2. Connect the USB printer cable to an empty USB port on the back of the PC.
3. Many printers will upload the required printer drivers automatically. Follow the on-screen instructions to install the drivers, or continue to steps 4 & 5.
4. Upload the necessary printer drivers onto a USB memory device.
5. Insert the USB memory device into an available USB port, and install the necessary printer drivers onto the BITS Computer.

Note: Connecting the BITS Computer to the Internet will void the warranty.

Cleaning

It is important to keep the Touchscreen and Stand clean for proper operation and longevity of the product.

To clean the BITS Bedside or Mobile system hardware:

1. Turn the BITS Touchscreen PC off by closing all software programs and shutting down the Windows 10 Operating System.
2. Unplug the device from the wall socket.
3. Follow the protocol for your facility to determine which cleaning solution should be used. The components of the BITS Bedside & Mobile configurations are safe to use with most common hospital cleaning solutions.
4. Unless a pre-moistened wipe is used, apply cleaning solution onto a clean microfiber cloth.
5. Wipe the surface of the touchscreen display monitor. Use circular motions to clean to avoid smudges and streaks.
6. Wipe down all surfaces of the Touchscreen PC and stand.

⚠ **Caution:** Always exercise universal precautions and wear gloves when cleaning the touch screen.

Technical Specifications

Touchscreen Display Monitor Specifications	
Monitor Options	24” Touchscreen All-in-One Computer
Dimensions	15” height, 24” width, 2.5” depth
Weight (approximately)	19 lbs
Resolution	1920 x 1080
Power Supply	120W Medical Grade Power Supply, Input: universal 100 ~ 240V AC, 50-60Hz. Supports Output range: DC18V-19V. 7.5A Adapters for Energy Star 6.0/UL
Environmental Ranges	Operating Temperature Range: 32°F to 104°F Transport and Storage Temperature Range: -4°F to 140°F Relative Humidity range: 10% to 90%

The system consists of mechanical and electronic components. Inadequate handling of those components may cause health hazards. Disposal of the system must comply with local regulations.

List of Symbols

	Caution
	Warning
	Manufacturer
	This Product Must Not Be Disposed of with Other Household Waste
	Not Reading Instructions Can Cause Hazard
REF	Re-Order Number
SN	Serial Number
CE	Complies with the European Union Medical Device Directive
EC REP	European Authorized Representative

Bioness®

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Telephone: 800.211.9136 or 661.362.4850
Website: www.bioness.com

EC REP

European Authorized Representative
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Email: international@nl.bioness.com
Website: www.bioness.com

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Environmental Policy
Service personnel are advised that when changing any part of the BITS System, care should be taken to dispose of those parts in the correct manner; where applicable, parts should be recycled. When the life cycle of the BITS System has been completed, the product should be discarded according to the laws and regulations of the local authority.

For more detailed information regarding these recommended procedures, please contact Bioness Inc. Bioness Inc is committed to continuously seeking and implementing the best possible manufacturing procedures and servicing routines.

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612-00848-001 Rev. B
06/2017