



System Cart

Assembly Instructions



ASCB2 Basic Cart
cryoICE BOX, ACM Accessories & Cart Kit Installation
ORLab Equipment and Cart Kit Installation

P000879.G

AtriCure System Cart – Assembly Instructions


P000879.G

NOTE: This manual applies to installing AtriCure system equipment on 450mm Wide Carts with specific casters (ref. Section 4, Page 11). Carts that are not configured with these specific casters do not meet IEC-60601 Mechanical Safety requirements for supporting two gas bottles for Cryo Systems. Contact customer service if you have any questions.

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 **CAUTION:** Federal (U.S.A.) law restricts this device to sale by or on the order of a physician.



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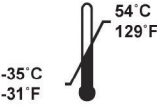





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1. ASSEMBLY MANUAL

1.1. How to Use this Manual

- 1.1.1.** This manual is designed for assembling the AtriCure System Cart. Illustrations complement the text to explain how to assemble the cart kits, components, and accessories.
- 1.1.2.** The following information is essential for safe, easy, and efficient operation of the AtriCure System Cart.

1.2. Table of symbols used in this manual

	Symbol	Description
1		Consult operating instructions.
2		Follow local governing ordinances and recycling plans regarding disposal or recycling of device components or packaging.
3		Manufactured by.
4		Alternating Current.
5		Temperature Storage Range
6		Humidity Storage Range
7		Voltage.
8		Caution
9		Non-Sterile
10		Waste Electrical and Electronic Equipment (WEEE)

1.3. Tool Kit



Figure 1: Tool Kit

The Tool Kit contains the following items: (1) User and Assembly Manual; (2) Velcro; (3) Flat Washers; (4) Lock Washers; (5) Socket Head Cap Screw for VESA Mount; (6) Socket Head Cap Screw for Tank Holder(s); (7) 10 mm Combination Wrench; (8) 3 mm Hex Key; (9) 5 mm Hex Key; (10) 10 mm Hex Key; (11) Straight Blade Screwdriver; and (12) Loctite brand Threadlocker.

2. BASIC CART

Components and Accessories

2.1. Features: Basic Cart

2.1.1. No assembly required; ready to add components and accessories

2.1.2. 450 mm Cart

2.1.3. Isolation Transformer

2.1.4. 125 mm (5") Casters

Pre-wired for ASU, ASB, cryoICE BOX, and ORLab – Figure 4



Figure 2:

(1) PC and Stimulus Connection Box Shelf; (2) Left Cart Column; (3) ASU, ASB and cryoICE BOX Shelf; (4) Printer Shelf; (5) Stimulus Generator Shelf; (6) Isolation Transformer; (7) Cable Winders and (8) Mains Power Cord (Isolation Transformer to Wall).

2.2. Unpacking: Basic Cart

2.2.1. The Basic Cart is shipped in one Shipping Carton – Figure 5.

2.2.2. Relocate the Shipping Carton to an open area that will provide sufficient space to assemble the unit.

2.2.3. **NOTE:** Do not throw away any tools or manuals.

2.2.4. **NOTE:** Unpacking the Basic Cart requires two people.



Figure 3: Basic Cart Shipping Carton (Height approximately 1524 mm (60")).

2.3. Assembly: Basic Cart

- 2.3.1.** No assembly required; ready to add components and accessories.
- 2.3.2.** Proceed to Checklist and perform checklist for the Basic Cart.

3. ASU AND ASB

Components and Accessories

3.1. Unpacking: ASU and ASB

- 3.1.1. There are two Shipping Cartons required to assemble this cart configuration. The Shipping Cartons are pictured below.
- 3.1.2. Relocate the Shipping Cartons to an open area that will provide sufficient space to assemble the unit.
- 3.1.3. Unpack the Shipping Cartons and make sure that you have the components pictured –Figures 4 and 5
- 3.1.4. **NOTE:** Do not throw away any tools or manuals.



Figure 4: Shipping Carton and ASU.



Figure 5: Shipping Carton and ASB.

3.2. Assembly: ASU and ASB

- 3.2.1. Place ASB on second shelf.
- 3.2.2. The feet of the ASB should be inserted into holes on the shelf – Figure 8.
- 3.2.3. Position the handle against the top of the ASB – Figure 6.
- 3.2.4. Place ASU on top of the ASB – Figure 9.
- 3.2.5. Be sure to nest the feet of the ASU into the holder cups on top of the ASB – Figure 9.
- 3.2.6. Position the handle against the top of the ASU – Figure 7.

3.2.7. NOTE: For some cart configurations, the cryoICE BOX may already reside on the second shelf. In this case, the ASB should be placed on top of the cryoICE BOX. Again, the feet of the ASB should be nested into holder cups on top of the cryoICE BOX.

3.2.8. NOTE: Start with Section 5: cryoICE BOX if installation includes the cryoICE BOX and the ASU / ASB.



Figure 6: ASU, ASB and cryoICE BOX Shelf with holes for feet indicated by red circles.



Figure 7: ASU stacked on top of the ASB. NOTE: Position of the handles.

3.2.9. Attach the Power Cables to the rear of the ASU and ASB – Figure 8.

3.2.10. NOTE: If cryoICE BOX is present, it will be necessary to locate the Power Cables stowed in the Left Power Column.

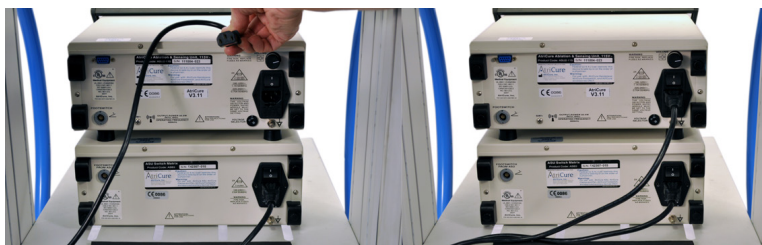


Figure 8: Power Cable attachment to the rear of the ASU and ASB.

3.2.11. Install Footswitch Jumper Cable between the ASU and ASB on the rear – Figure 9.



Figure 9: Installation of Footswitch Jumper cable between the ASU and ASB.

3.2.12. Install the Hand Piece Jumper Cable between the ASU and ASB – Figure 10.



Figure 10: Installation of the Hand Piece Jumper Cable between the ASU and ASB.

3.2.13. Connect the Footswitch Cable to FOOTSWITCH Connector on the ASB – Figure 11.



Figure 11: Connect the Footswitch Cable to FOOTSWITCH connector on the ASB.

3.2.14. Store the Footswitch in the Footswitch Holster – Figure 12.



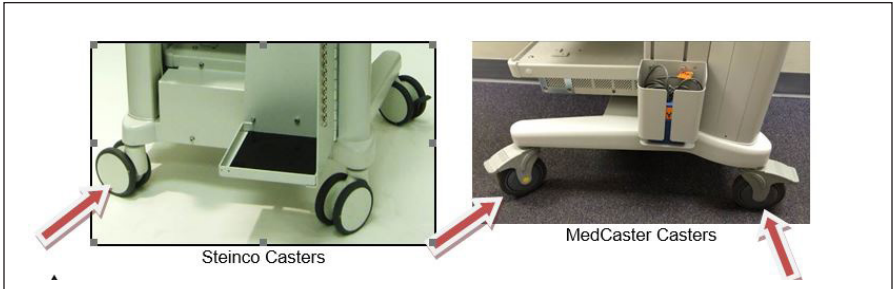
Figure 12: Footswitch Holster.

4. CRYO CART KIT

Components and Accessories

NOTE: Verify the casters on the cart to assure the cart is capable supporting two gas bottles.

⚠ CAUTION: Carts with Steinco Casters are NOT qualified to support two gas bottles. MedCaster Casters are qualified for two gas bottle Cryo System carts. This manual is intended to set-up carts with two gas bottle capacity. Please contact customer service for any questions.



⚠ CAUTION: Carts with Steinco Casters are **NOT** qualified to support two gas bottles. MedCaster Casters are qualified for two gas bottle Cryo System carts. This manual is intended to set-up carts with two gas bottle capacity. Please contact customer service for any questions.

4.1. Unpacking: Cryo Cart Kit

- 4.1.1. There is one Shipping Carton required to assemble this cart configuration – Figure 13 for the ASCC2 kit.
- 4.1.2. Relocate the Shipping Carton to an open area that will provide sufficient space to assemble the unit. Unpack the Shipping Carton and make sure that you have the components pictured.
- 4.1.3. **NOTE:** Do not throw away any tools or manuals.



Figure 13: ASCC2 (A000843) Kit

Left Tank Holder, Right Tank Holder, 4x Shorter Cable Covers 4x Tap Strips, Hose Hanger Bracket, User's Manual, Assembly Manual, Tool Kit and 2x Chains

4.2. Assembly: Cryo Cart Kit

4.2.1. Remove the Power Column Caps and Covers on the right and left sides – Figure 14.



Figure 14: Remove the Power Column Caps and Covers on the right side.

4.2.2. Use the 5 mm Hex Key to remove the Cable Guard – Figure 15.

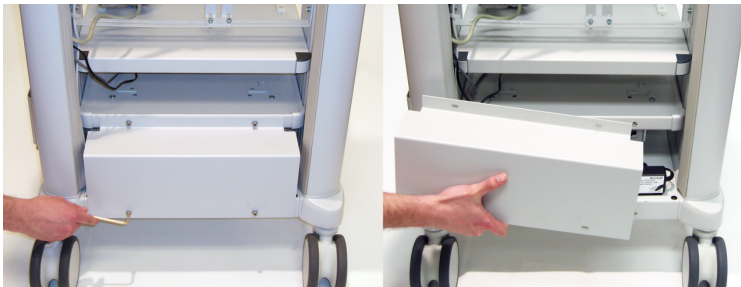


Figure 15: Use the 5 mm Hex Key to remove the Cable Guard.

4.2.3. Install two Tap Strips into the right column and two Tap Strips into the left column. – Figure 16.

4.2.4. NOTE: Ensure that the embossed features (bumps) on the tap strips are oriented toward the outside of the cart – Figure 17.

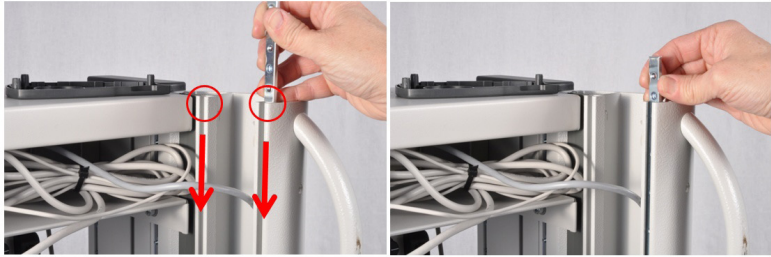


Figure 16: Install two tap strips in the Right power column.



Figure 17: Orient the bumps on the Tap Strip toward the outside of the cart.

4.2.5. Place the Hinge Leaf of the Right Tank Holder against the Right Power Column.

4.2.6. NOTE: Ensure that it is resting at the bottom of the Power Column. Use the supplied foam block to support the Tank Holder while assembling.

4.2.7. NOTE: The bolt assemblies consist of a Socket Head Cap Screw, Lock Washer and Flat Washer – Figure 18.

4.2.8. Use the 5 mm Hex Key to secure the hinge to the tap strips in the cart's columns.

4.2.9. NOTE: Do not install bolt assembly to top-inside hole of hinge (See Figure 19). This hole will be used later to secure the brace to the column.

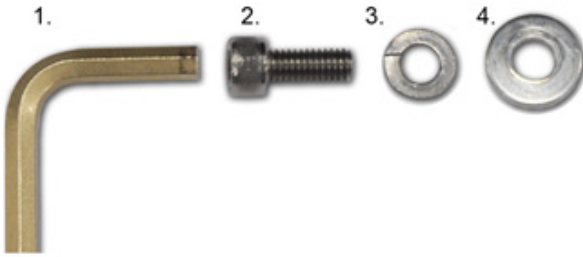


Figure 18: (1) 5 mm Hex Key; (2) Socket Head Cap Screw (3) Flat Washer and (4) Lock Washer



Right Tank Holder



Left Tank Holder

Figure 19: Assembling Tank holders to Cart Columns

4.2.10. Replace the cable guard – Figure 24.

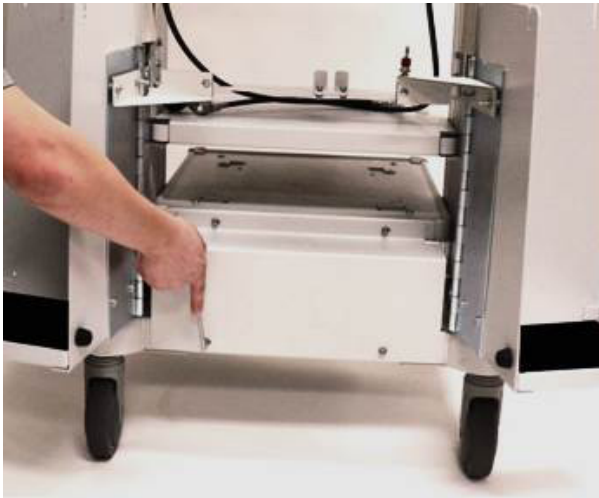


Figure 20: Replace the cable guard.

4.2.11. Swing Tank Holders and secure to their respective Power Columns.

4.2.12. Using the 5 mm Hex Key, Socket Head Cap Screw, and Flat Washer; attach and snug down one bolt to secure brace to hinge and tap-strip in cart's columns – Figure 21.

4.2.13. NOTE: Right Tank Holder Brace Bracket and Left Tank Holder Brace Bracket have opposite orientation for ease of installation.



Securing Right Tank Holder



Securing Left Tank Holder

Figure 21: Securing the tank holders to the power columns.

4.2.14. Install the shorter Power Column Covers provided with the Cryo Cart Kit – Figure 22.

4.2.15. Reinstall the Power Column Caps – Figure 22.



Figure 22: Install the shortened Power Column Covers and Power Column Caps.

4.2.16. Tank Holder assembly should look like this – Figure 23.



Figure 23: 450mm ASCB2 cart with ASCC2 kit installed.

(ACM Tank Hose Assembly Shown, but not required at this phase of Cart Set-Up)

⚠ CAUTION: Secure gas bottle(s) with supplied chains.

⚠ CAUTION: ONLY use N2O gas bottles ≤ 20 cm (8") in diameter that weigh ≤ 29.5 kg (65 pounds).

4.2.17. Install the cryoICE BOX Exhaust Hose Hanger.

4.2.18. Obtain the Cryo Exhaust Hose Hanger bracket from the kit.

4.2.19. Remove the plastic cap from the top of the cart's vertical column.
(Note: the bracket can be mounted on either the left or right side of the cart. Either side is acceptable per customer preference.)

4.2.20. Squeeze the spring on the back of the nut, so it fits into the track
reference Figure 24

4.2.21. Slide the bracket down the track to the approximate position shown.
Figure 25 (**NOTE:** Position height is not critical. Bracket needs to be high enough to prevent the cryoICE BOX exhaust hose from reaching the floor.)

4.2.22. Using the supplied Allen Wrench, tighten the bolt and assure the bracket is secure. Figure 26.



Figure 24: Exhaust Hose Hanger & Spring Fastener



Figure 25: Hanger Positioning



Figure 26: Secure Exhaust Hose Hanger

5. CRYOICE BOX

Components and Accessories

5.1. Unpacking: cryoICE BOX

5.1.1. There are 2 Shipping Cartons required for the cryoICE BOX – Figures 27 and 28.

5.1.2. Ensure that you have the components pictured.

NOTE: Do not throw away any tools or manuals.

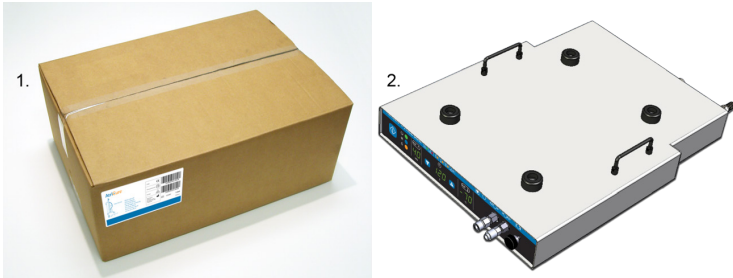


Figure 27: (1) cryoICE BOX Shipping Carton; and (2) cryoICE BOX.



Figure 28: (1) cryoICE BOX Accessories Shipping Carton; and (2) cryoICE BOX Footswitch; (3) Heater Band; (4) Exhaust Hose; and (5) cryoICE BOX N2O Tank Hose Assembly.

5.2. Assembly: cryoICE BOX

5.2.1. **NOTE:** If the ASU, ASB and cryoICE BOX Shelf (second shelf) does not look like Figure 30, please refer to Section 8 Instructions for Adding cryoICE and Cryo Cart Kit to the cart.

5.2.2. Carefully place the cryoICE BOX on its top to access the rubber feet.

5.2.3. Using the 3 mm Hex Key provided in your Tool Kit; unfasten and remove the two rear rubber feet in Position 1 and replace them in Position 2 – Figure 29.

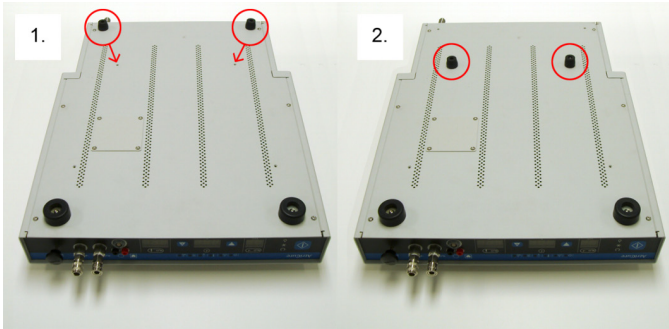


Figure 29: Unfasten and remove the two rear rubber feet in Position 1 and replace them in Position 2.

5.2.4. Place cryoICE BOX on second shelf.

5.2.5. Insert the feet of the cryoICE BOX into holes on the shelf – Figure 30.

5.2.6. Cart is prewired with approved hospital grade power cord for the cryoICE BOX.

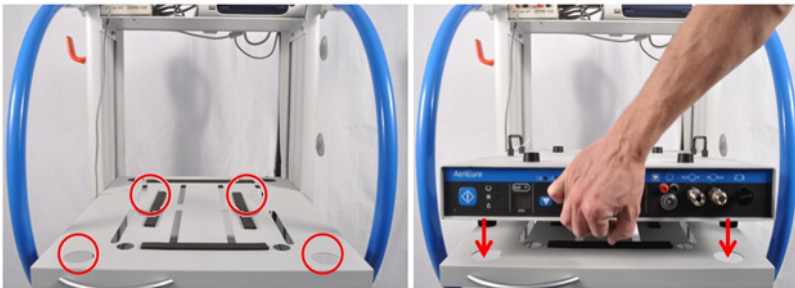


Figure 30: Place cryoICE BOX on second shelf with the feet inserted into the holes on shelf.

5.2.7. Insert the power cord into the power entry module of the cryoICE BOX – Figure 31.



Figure 31: Insert the power cord into the power entry module of the cryoICE BOX.

5.2.8. With the connector alignment arrow in the 12 o'clock position, push the Footswitch Connector into the Footswitch Receptacle on the rear panel of

the cryolCE BOX – Figure 32.

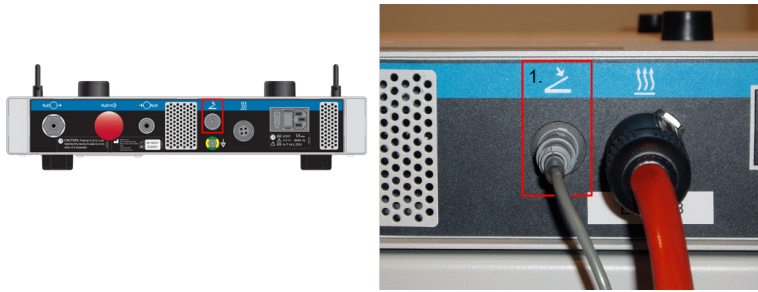


Figure 32: (1) Footswitch Cable installation.

5.2.9. Place the Foot Switch in the holster on the side of the cart – Figure 33.



Figure 33: Footswitch Holster.

5.3. Cylinder Heater Band Installation

- 5.3.1.** Inspect Cylinder Heater Band for any signs of physical damage to the cable and connector.
- 5.3.2.** Contact AtriCure for replacement if physical damage is found or the Cylinder Heater Band does not perform within specification.
- 5.3.3.** Place the Cylinder Heater Band around the N2O cylinder.
- 5.3.4.** Secure all 6 tensioning spring retainers – Figure 34.
- 5.3.5. NOTE:** It is easiest to start with the top and bottom spring retainers first, and then buckle then middle retainers last.
- 5.3.6. NOTE:** Position Cylinder Heater Band 50 mm (2") from the bottom for optimal performance.

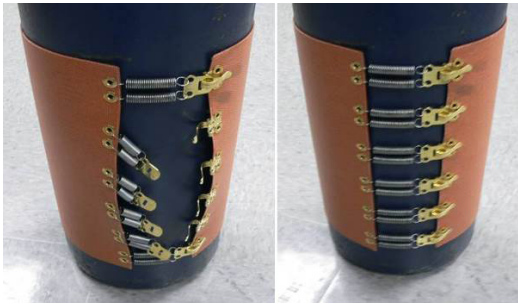


Figure 34: Secure all 6 tensioning spring retainers.

5.4. Cylinder Heater Band Connection

5.4.1. Insert the Cylinder Heater Band Connector into the Cylinder Heater Band Receptacle on the rear panel of the cryoICE BOX – Figure 35.

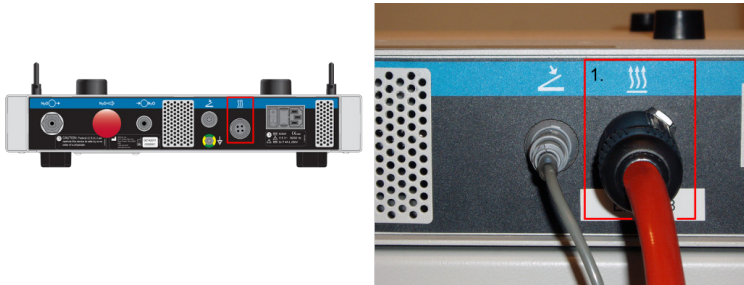


Figure 35: Cylinder Heater Band connection.

5.5. Installing N₂O Gas Line Hose

- 5.5.1.** Inspect the N₂O Gas Line Hose and pneumatic connectors for any signs of physical damage.
- 5.5.2.** Contact AtriCure for replacement if physical damage is found or the N₂O Gas Line Hose does not perform within specification.
- 5.5.3.** Connect the N₂O Gas Line Hose to the cryoICE BOX.
- 5.5.4.** Align the quick-connect gas connector with the cryoICE BOX N₂O inlet port.
- 5.5.5.** Insert and push in the connector until you hear it “click”. Ensure the connection is fully seated and secure – Figure 36.



Figure 36: Align the quick-connect gas connector with the cryoICE BOX N2O inlet port. Insert and push in the connector until you hear it “click”.

5.5.6. Install N2O Exhaust Hose.

5.5.7. Align the end of Exhaust Hose with the N2O Exhaust port of the cryoICE BOX and push in place – Figure 37.

5.5.8. Coil the exhaust hose and hang on hose hanger bracket.

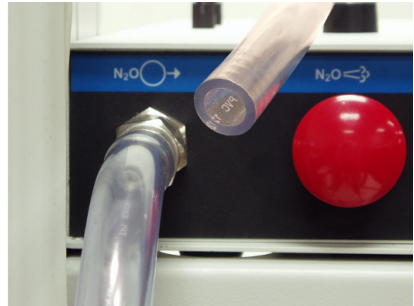
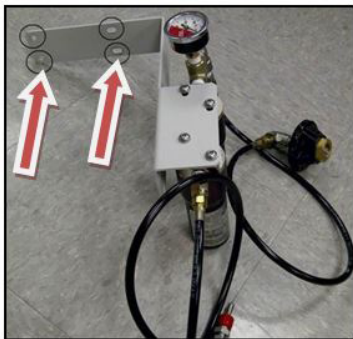


Figure 37: Align the end of 50 ft Exhaust Hose with the N2O Exhaust port of the cryoICE BOX and push in place.

5.6. Tank Hose Subassembly Cart Attachment



Holes for Mounting Bracket



5mm Hex Wrench and Mounting Hardware



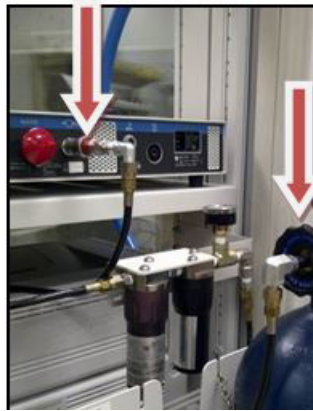
Step 1: Mounting Location for Hose Assembly Bracket



Step 2: Assemble Bracket to Cart



Mounted Tank Hose Assembly



Step 3: Hose Hook-Ups

6. ORLAB CART KIT

Components and Accessories

6.1. Unpacking: ORLab Cart Kit

- 6.1.1. There is one Shipping Carton required to assemble the ORLab Cart Kit – Figure 39.
- 6.1.2. Relocate the Shipping Carton to an open area that will provide sufficient space to assemble the unit.
- 6.1.3. Unpack the Shipping Carton and make sure that you have the components pictured – Figure 39.
- 6.1.4. Do not throw away any tools or manuals.

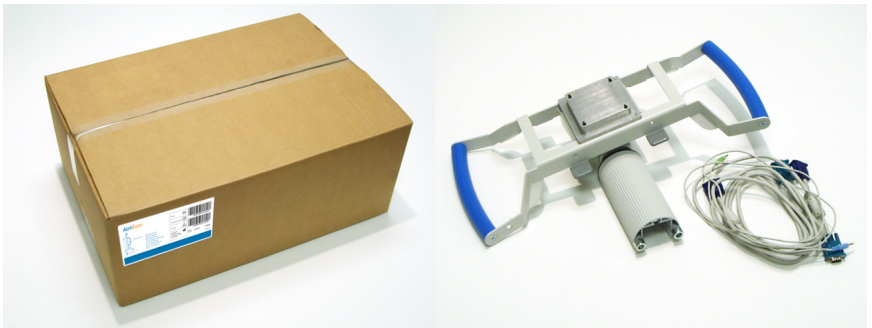


Figure 39: ORLab Cart Kit components and Shipping Carton.

6.2. Assembly: ORLab Cart Kit

- 6.2.1. Place the Monitor Holder on the Top Shelf.
- 6.2.2. **NOTE:** Use the 10 mm Hex Key to tighten the two socket head cap screws to secure the Monitor Holder to the Top Shelf – Figure 40.
- 6.2.3. **NOTE:** The Monitor Adapter (100 mm / 75 mm VESA mount) faces the front of the cart



Figure 40: Mount the Monitor Holder from the rear of the Basic Cart.

6.2.4. Monitor Holder Cables

6.2.4.1. Feed the cables through the monitor holder assembly.

6.2.4.2. **NOTE:** It is important that the cables are fed through in the correct direction.

6.2.4.3. Feed the “monitor end” through the Monitor Holder post – Figures 41 and 42.



Figure 41: Monitor cables: Monitor end (right hand) and PC end (left hand).

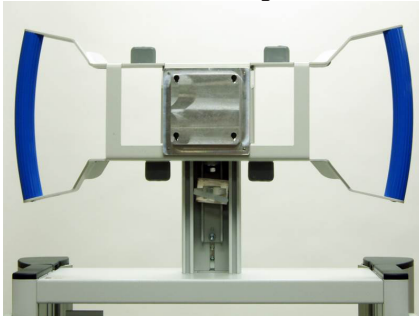


Figure 42: Desired feed direction is from the bottom-up.

6.2.5. **NOTE:** Provide approximately 406 mm (16”) of cable available at the monitor side – Figure 43.

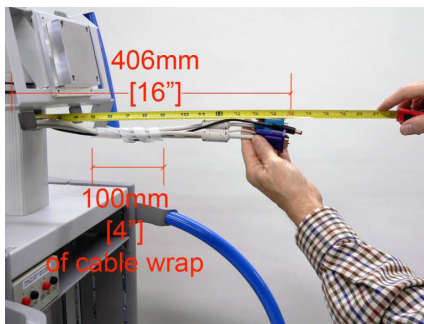


Figure 43: Provide 406 mm (16”) of cable lead on the monitor side.

7. ORLAB

Components and Accessories

7.1. Unpacking: ORLab

- 7.1.1. There are three Shipping Cartons required to assemble this cart configuration.
- 7.1.2. Relocate the Shipping Cartons to an open area that will provide sufficient space to assemble the unit.
- 7.1.3. Unpack the Shipping Cartons and make sure that you have the components pictured – Figures 44, 45, and 46.
- 7.1.4. Do not throw away any tools or manuals.

7.2. LCD Touch Monitor



Figure 44: Shipping Carton and LCD Touch Monitor.

7.3. Cardiac Stimulator Carton

- 7.3.1. Cardiac Stimulator Carton includes: (1) Stimulus Generator Unit; (2) MicroPace User Manual; and (3) Stimulus Connection Box – Figure 45.



Figure 45: Shipping Carton, Cardiac Stimulator and Accessories.

7.4. Laser Printer (U.S.A. Only)

7.4.1. Laser Printer includes Manual and Paper Tray Cover – Figure 46.

NOTE: Power Cord Installed on Cart.

NOTE: If a Lexmark MS310D printer does not fit on printer shelf, contact AtriCure Customer Service for a Printer Bracket Kit (P/N: S000474)



Figure 46: Shipping Carton and Laser Printer.

7.5. Assembly: ORLab

7.5.1. Monitor Installation

7.5.2. Remove the Monitor Pedestal attached to the monitor.

7.5.3. Place monitor face down on flat surface.

7.5.4. Rotate Monitor Pedestal for easy access to screws.

7.5.5. Remove four screws with 3 mm Hex Key supplied in Tool Kit – Figure 47.

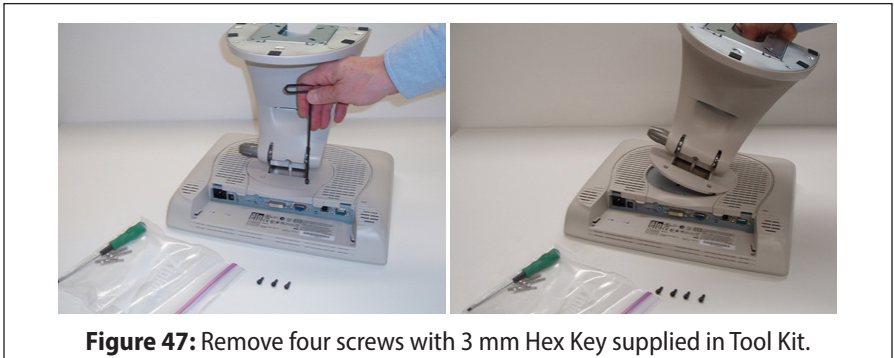


Figure 47: Remove four screws with 3 mm Hex Key supplied in Tool Kit.

7.5.6. Install four M4 x 25 socket cap screws provided in Tool Kit.

7.5.7. The screws should be started, but not screwed in all the way (3 to 5 turns maximum).

7.5.8. Use the 1 o'clock, 5 o'clock, 7 o'clock and 11 o'clock positions as shown in – Figure 48.

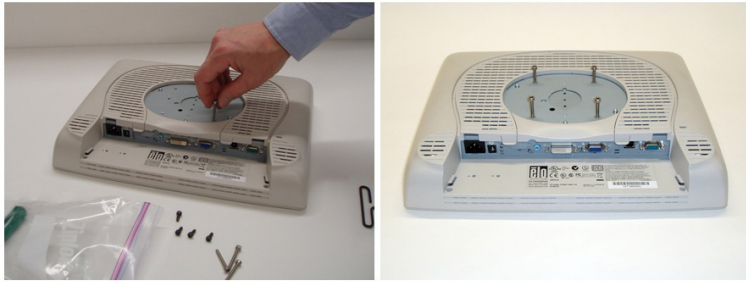


Figure 48: Mount four screws in the 1 o'clock, 5 o'clock, 7 o'clock and 11 o'clock positions as shown in the photo on the right.

7.5.9. Align the four screw heads with the key hole slots on the Monitor Adapter (100 mm / 75 VESA mount) – Figure 49.

7.5.10. Push the monitor against the Monitor Adapter and allow it to slide down about 6 mm (¼") to engage Monitor Adapter (100 mm / 75 mm VESA mount) – Figure 50.

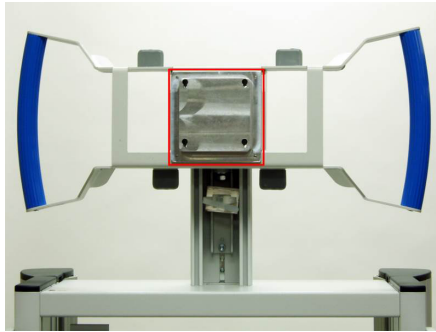


Figure 49: Monitor Adapter (100 mm / 75 mm VESA mount) pictured with four key-hole slots.

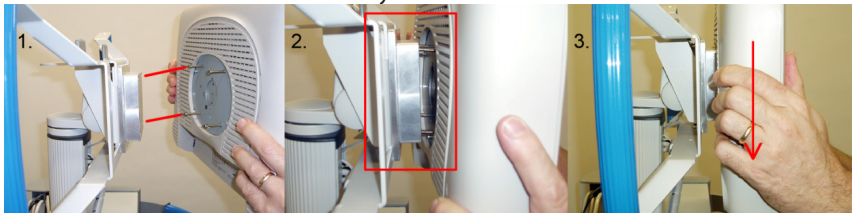


Figure 50: (1) Align Cap Screws into key-hole slots; (2) Insert monitor; (3) Seat the Cap Screws (inward and downward motion) onto the Monitor Adapter (the Monitor will hang on Cap Screws); and (4) Tighten all four Cap Screws (do not over-tighten).

7.5.11. Secure the Monitor to the Monitor Adapter (100 mm / 75 mm VESA mount) by tightening the four screws.

7.5.12. Move to the back side of the cart. Use the 3 mm Hex Key, provided in the Tool Kit, to tighten the 4 mounting screws.

7.5.13. NOTE: The screws are slightly obscured by the Monitor Mount.

7.5.14. NOTE: The location of the four screws is indicated by the red circles – Figure 51.

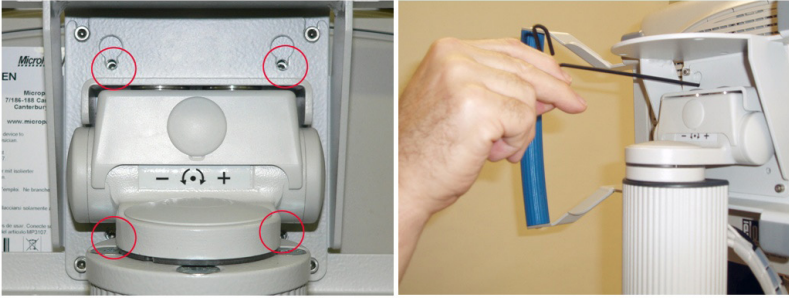


Figure 51: Left photo shows the location of the four screws. Right photo shows the 3 mm Hex Key being used to tighten the screws.

7.5.15. Route the cables through the monitor post for the monitor.

7.5.16. Monitor cable connectors and receptacles are color-coded – Figure 52.

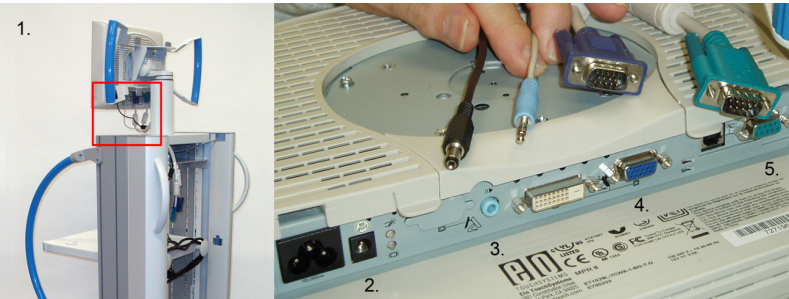


Figure 52: (1) Monitor Cable connections; (2) Monitor Power; (3) Speaker; (4) Video; and (5) Serial.

7.5.17. The monitor power cable has a mounting bracket to prevent it from coming loose. Please attach the mounting bracket – Figure 53.

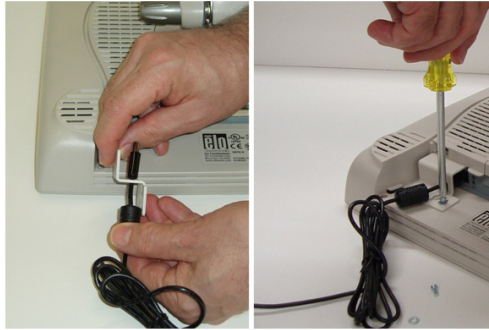


Figure 53: Monitor Power cable must be mounted using the appropriate mounting bracket.

7.5.18. Similarly, the Video and Serial Cables have mounting screws to prevent them from loosening over time – Figure 54.

7.5.19. NOTE: Do not over-tighten.



Figure 54: Mounting screws on the Video and Serial Cables must be tightened using a flat head screw driver.

7.5.20. MicroPace PC Installation

7.5.21. Prepare the MicroPace PC for mounting by applying two Velcro strips from the Tool Kit to the outside edges of PC Housing – Figure 55.



Figure 55: Apply two Velcro strips to the outside edges of PC Housing.

7.5.22. Mount the MicroPace PC on the left side of the top shelf – Figure 56.



Figure 56: Mount the MicroPace PC on the left side of the top shelf.

7.5.23. Apply firm pressure to the top of PC (near the edges) until securely attached – Figure 57.



Figure 57: Apply firm pressure to the top of PC (near the edges) until securely attached.

7.5.24. Connect cables to rear of PC – Figure 58.

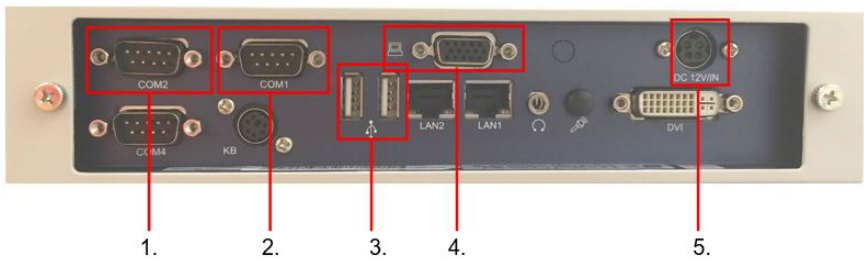


Figure 58: (1) COM2 Monitor Serial; (2) COM1 MicroPace Serial; (3) Printer USB (either can be used) ; (4) Video; and (5) PC power.

7.5.25. Tighten the thumb screws on the Video, COM1, and COM2– Figure 59.



Figure 59: Tightening the thumb screws, required on the Video, COM1, and COM2.

7.5.26. Stimulus Connection Box Installation

7.5.27. Prepare Stimulus Connection Box for mounting by applying one Velcro strip from Tool Kit in the center of the Stimulus Connection Box as shown in – Figure 60.

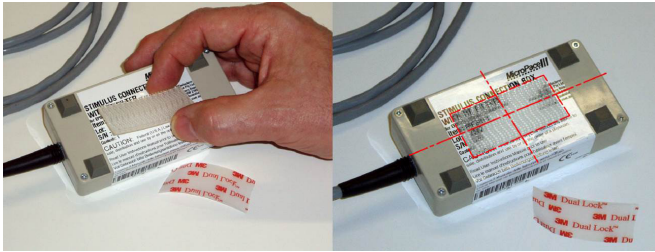


Figure 60: Preparation of the Stimulus Connection Box by mounting Velcro Strip.

7.5.28. Prepare Spacer Block for mounting by applying Velcro strips to the center of the front and rear of the block as shown in – Figure 61.

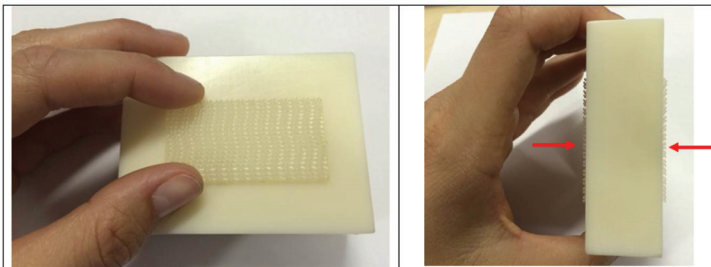


Figure 61: Preparation of the PSS Spacer Block by mounting Velcro Strips on both sides

7.5.29. Secure spacer block to metal tab on top shelf of ORLab System Cart as shown in – Figure 62. (Tab on cart should already have Velcro present, if not, extra Velcro squares are provided.)



Figure 62: Metal tab with Velcro strip- located on the top shelf of the ORLab System cart

7.5.30. Mount Stimulus Connection Box on the left side of the top shelf as shown in – Figure 63.

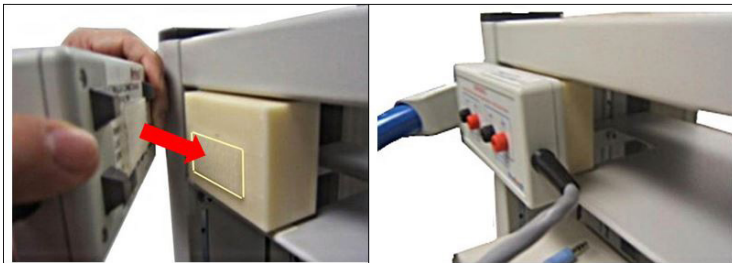


Figure 63: Successive photos showing the mounting of the Stimulus Connection Box.

7.5.31. Route the Stimulus Connection Box cable down the Left power column.

7.5.32. Remove the Power Column Cap and Covers as shown in – Figure 64.



Figure 64: Remove the Power Column Cap and Covers to find the cable ties inside the Power Column.

7.5.33. Then, secure the cable to the inside of the Power Column using the cable ties pre-mounted in the top and bottom of the Power Column.

7.5.34. Place the cable inside the cable tie loop, connect the cable tie loop, and tighten.

7.5.35. Reinstall the Power Column Covers and Cap as shown in – Figure 65.

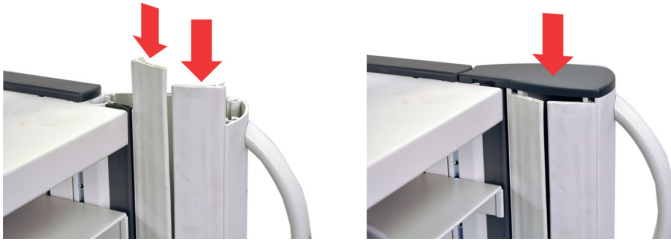


Figure 65: Reinstall the Power Column Covers and Cap.

7.5.36. The two red circles depict cable entrance and exit locations – Figure 66

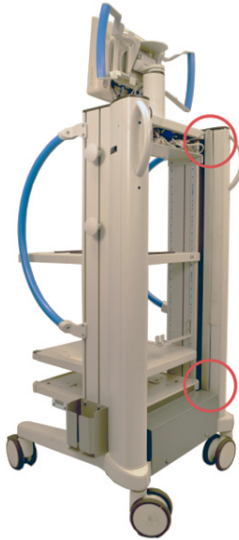


Figure 66: The red circles in this photograph show the entry and exit locations of the Stimulus Connection Box cable.

7.5.37. Reinstall the Cable Cover as shown in – Figure 67.

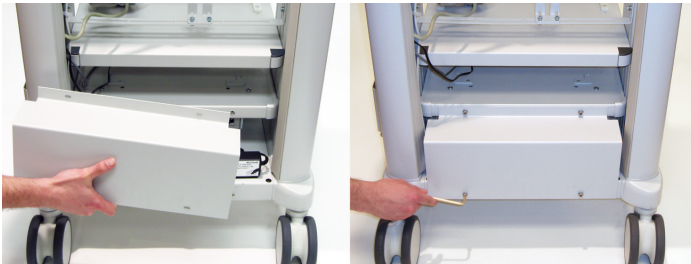


Figure 67: Reinstall the Cable Cover.

7.5.38. Connect Stimulus Connection Box to ASB with 609 mm (24") PSS

Interface Cable – Figure 13.

7.5.39. Push Connectors into Plugs Firmly to ensure proper connection – Figure 68.

7.5.40. NOTE: Connect 'ATRIUM-CH1' to 'PSS 1' – Figure 68.

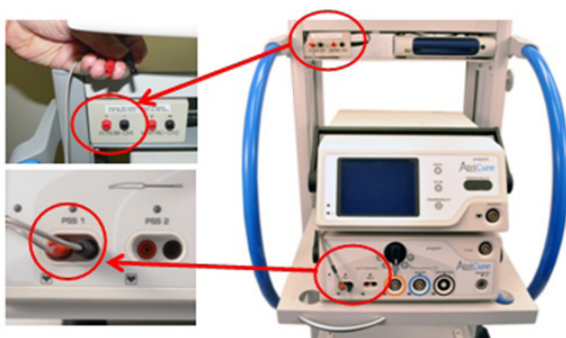


Figure 68: Connect Stimulus Connection Box to ASB with 609 mm (24") PSS Interface Cable.

7.5.41. Laser Printer Installation

7.5.42. Position the printer on top of Printer Shelf. Make sure that the handle recesses line up with the brackets mounted on the top of the Printer Shelf – Figure 69.



Figure 69: Line up with the brackets mounted on the top of the Printer Shelf with the handle recesses on the bottom of the printer.

7.5.43. Next, attach Printer Cable and Power Cable to rear of printer as shown in – Figure 70.



Figure 70: Attach Printer Cable and Power Cable to rear of printer.

7.5.44. Lastly, install the Printer Cable Bracket on the AC Power cable as shown in – Figure 71.

7.5.45. Installation of the Printer Cable Bracket will require the use of 10 mm Combination Wrench and 10 mm Allen Wrench provide in the Tool Kit.



Figure 71: Install the Printer Cable Bracket on the AC Power cable.

7.5.46. Stimulus Generator Installation

7.5.47. Position the Stimulus Generator on bottom shelf. Ensure the feet on the bottom of the Stimulus Generator fall within brackets mounted on the Stimulus Generator Shelf – Figure 72.



Figure 72: Position the Stimulus Generator on bottom shelf.

7.5.48. Connect Power and Serial Cables to rear of the Stimulus Generator and tighten thumbscrews with Straight Blade Screwdriver supplied in Tool Kit. Do not over tighten the thumbscrews – Figure 73.

7.5.49. Connect the Pace Output Cable to front of Stimulus Generator – Figure 73.

7.5.50. NOTE: Connect the Pace Output Cable to the 'Patient' connector (Green), not the 'EMERGENCY FIXED PACE OUTPUT' connector (Red) – Figure 73.



Figure 73: Connect the Pace Output Cable to the 'Patient' connector on the front of Stimulus Generator.

7.5.51. Connect the Power and Serial cables to the rear of the Stimulus Generator – Figure 74.

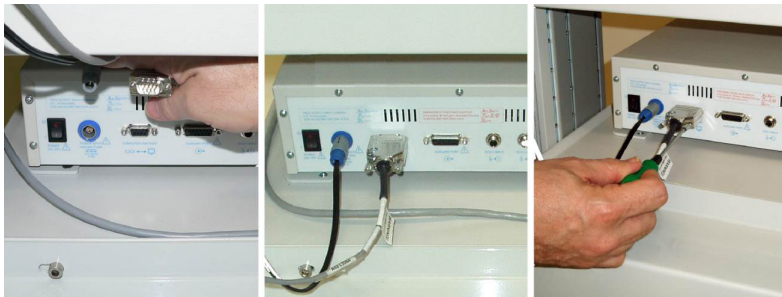


Figure 74: Connect Power and Serial Cables to rear of the Stimulus Generator.

8. INSTALLATION CHECKLIST

8.1. Must Be Performed and Returned

- 8.1.1. NOTE:** The Installation Checklist must be performed, signed, and returned before first 'live' case after installation of the following items: (1) Basic Cart; (2) ASU / ASB Components and Accessories; (3) Cryo Cart Kit; (4) cryoICE BOX Components and Accessories; (5) ORLab Cart Kit; and ORLab Components and Accessories.
- 8.1.2.** All items must pass for installation to verify proper functioning of the ASU, ASB, ORLab, and cryoICE BOX.
- 8.1.3.** Return the Installation Checklist to AtriCure Customer Service by any of the following means: (1) Scan and email: customerservice@atricure.com (preferred); (2) Fax: 513.755.4567; or (3) Mail: AtriCure, Inc., 2952 Crescentville Road, West Chester, OH 45069 USA.

Item	Test Method	Expected	P/F	Observed
Basic Cart				
1. Inspect the Basic Cart for any signs of physical damage.	Visually verify that all Basic Cart components are present and in good working condition.			
ASU / ASB				
1. Inspect the ASU / ASB Components and Accessories for any signs of physical damage.	Visually verify that all ASU / ASB Components and Accessories are present and in good working condition.			
Cryo Cart Kit				
1. Inspect the Cryo Cart Kit for any signs of physical damage.	Visually verify that all Cryo Cart Kit components are present and in good working condition.			
cryoICE BOX				
1. Inspect the cryoICE BOX Components and Accessories for any signs of physical damage.	Visually verify that all cryoICE BOX Components and Accessories are present and in good working condition.			
ORLab Cart Kit				
1. Inspect the ORLab Cart Kit for any signs of physical damage.	Visually verify that all ORLab Cart Kit components are present and in good working condition.			
ORLab				
1. Mains Isolation	Visually verify that all MicroPace ORLab™ Stimulator components – PC, SGU, Laser Printer, and LCD Touch Screen, are connected to the supplied Medical Grade Mains Isolation Transformer, and secured so cord cannot be disconnected from Isolation Transformer without use of a tool.	ORLab All components plugged into Isolation Transformer and cords secured.		
2. SGU POST	Energize the SGU and observe all LED's during Power On Self Test (POST).	All LED's light momentarily (except Emergency Fixed Rate Pace) and no errors appear on SGU display.		

Item	Test Method	Expected	P/F	Observed
3. Software Application Launches OK	Observe launch of ORLab™ Stimulator Software Application without error messages.	The ORLab Current Study screen appears with no error message.		
4. Stimulation path & Polarity OK	Configure Stimulator to stimulate Chan1 at 25 mA 2 ms at 100 ppm. Insert Test LED (MOP3058) INTO Stimulus Connection Box, MP3014, Chan1, red connector to red, black to black. Start pacing and verify yellow LED lights with each pulse. IF red LED lights then polarity is reversed.	Yellow LED flashes with each stimulus.		
5. Emergency Fixed Rate Pacing OK	Connect Test LED to Chan2 output of Stimulus Connection Box; change the connector from the SGU Pace Output (green socket) to the Emergency Fixed Rate Pacing Output (red socket). Observe pacing. Restore stimulus cable to green 'Pave Output socket.	Pacing sound is emitted and yellow test LED lights at $100 \pm 20\%$ ppm. 'Battery OK' indicator lights after 1-4s.		
6. External ECG Visible	Connect ORLab™ SGU's ECG-1 INPUT to your third party ECG Monitor. Use an ECG Stimulator to verify that ORLab displays ECG on its screen.	ECG is seen on Stimulator screen (top channel).		
7. Touch screens active	Verify LCD screen touch function by starting and stopping Emergency pacing and exiting and re-entering Application.	Pacing starts on sustained press of Emergency button and stops with press of Pace On/Off.		
8. Printer functional	Print Test one page from Review screen.	Printer prints Review Screen Page as displayed on the screen.		
9. Biomed Engineering approval	Health facility's Biomedical Engineering Dept. is generally required to test and accept the installed system for electrical safety; ensure that this has been done.	Biomedical Engineering acceptance verified.		

Health Facility Name	
Health Facility Location	
ORLab Stimulus Generator Unit Serial No.	
Installation officer name	
Installation officer signature	
Date	