



ATLAS ADULT THE ALS SIMULATOR P75/1

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ATLAS ADULT THE ALS SIMULATOR P75/1

> PRODUCT INTRODUCTION

Atlas Adult is the ALS simulator by 3B Scientific used for conducting interdisciplinary and interprofessional emergency training. It offers extensive emergency-specific applications for advanced life support in simulation-based training and further training.

> DELIVERY CONTENT



- | | | |
|-------------------------|---------------------------------|-----------------------|
| 1. Consumable bag | 6. IV cannulation pad – forearm | 10. Quick Start Guide |
| 2. Atlas charging cable | 7. IV cannulation pad - hand | 11. Atlas charger |
| 3. Tape | 8. Humeral IO replacement | 12. Luer lock pipe |
| 4. Lubricant | 9. Humeral IO extra fat | 13. Carry Bag |
| 5. Adapter | | |

HARD LEGS (OPTIONAL)



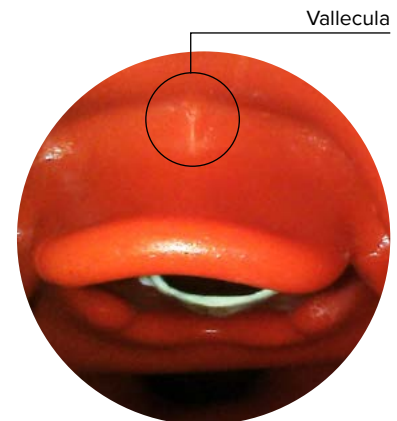
- | | |
|--------------|--------------|
| 1. Hard Legs | 2. Carry Bag |
|--------------|--------------|

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FEATURES

Atlas Adult features:

- Atlas Adult replicates the anatomy of the airways, complete with tongue, epiglottis, vocal cords, trachea, esophagus and vallecula.
- Airway management - head-tilt/chin-lift or the Esmarch maneuver.
- Ability to clear the airway includes simulated aspiration and removing inserted foreign bodies. No fluids.
- The airway of the simulator can accommodate extra-/supra-glottic airway alternatives and oral and nasal intubation.
- Advanced airway, for insertion of oral airways (OPA) and nasal airways (NPA).
- Intraosseous (IO) vascular access via the left proximal humerus.
- Intravenous (IV) vascular access via the right dorsal and antecubital fossa.
- Compatible with mCPR piston-based devices.
- Breaking teeth indication
- Tristate pupils



Atlas Adult features in combination with REALiTi 360:

Atlas Adult works with REALiTi 360 using Wi-Fi connection. By using on the fly or pre-programmed scenarios, the manikin and the virtual defibrillator interact. The following functions can be shown in combination with REALiTi 360 depending on the monitor interface selected:

- CPR dashboard screen for viewing all relevant parameters and values of cardiopulmonary resuscitation according to the AHA & ERC Guidelines.
- Atlas Adult allows observation and recognition of vital sign such as bilateral carotid pulse.
- Automatic simulation control based on pre-programmed scenarios.
- Compression artifact waveform displayed in the ECG and information of the hand position, compression depth and rate displayed when performing chest compressions.
- Synchronous CO₂ graphs during manual ventilation and information on breathing frequency and inspiratory tidal volume.
- Carotid pulse when using a perfusing rhythm (Systolic >50mmHg).
- Dedicated CPR screen for viewing all relevant parameters and values of cardiopulmonary resuscitation including hands-off time during defibrillation.
- Using dynamic vital signs provided by REALiTi 360, Atlas Adult can simulate different emergency scenarios including cardiac arrest that require a wide range of invasive procedures.
- REALiTi 360 extends the therapy options to defibrillation, cardioversion and pacemaker application on the real or generic monitor. The bilateral carotid pulse feature allows to determine the indication and success of applied intervention.
- Atlas Adult includes an integrated speaker that, when connected to the REALiTi 360, allows any scenario audio selected within the app to play directly through the manikin.



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➤ GENERAL HANDLING

Before using Atlas Adult keep in mind these safety instruction



- Wear gloves as required during simulation scenarios.
- Avoid using colored plastic gloves, as they may cause discoloration.



- To maintain Atlas Adult skin, wash hands before use and place Atlas Adult on a clean surface.
- To avoid permanent staining avoid the use of ink pens, felt-tipped markers, acetone, or iodine.
- Avoid placing Atlas Adult on newsprint or colored paper.
- After using Atlas Adult, remove glue residue from Atlas Adult's skin with 70% ethyl alcohol wipes, if necessary.



- Ensure that Atlas Adult is properly secured during transportation to prevent personal injury or damage to the product.
- Always lubricate (silicone oil) the airway device (tracheal tubes, iGel) before inserting it in the airway.



- The device may only be stored and charged in dry rooms.
- Operating temperature: 0°C up to +45°C. Charging is restored when the temperature returns to normal.
- Storage temperature: -10 °C up to +35 °C
- Air humidity: 15% - 80%



- Only use the charger provided by the manufacturer.
- Charger connection specifications:
Input 100-240V, 50/60Hz, 1.5A
Output 5V/3A



- Recommendation: Once the battery is fully charged, take it out of the charger. Getting the manikin overcharged puts more stress on the battery and can shorten the battery life
- Follow the instructions and keep in mind the warnings while using the product.

➤ SAFETY INSTRUCTIONS

To ensure optimum performance and durability of Atlas Adult, read and follow the user information and warnings:

- ⚠ **DO NOT** perform mouth-to-mouth or mouth-to-nose rescue breathing on Atlas Adult.
- ⚠ **DO NOT** introduce fluids into Atlas Adult with the exception of IV/IO systems built into the arms.
- ⚠ **DO NOT** use electrotherapy or a live defibrillator or AED.
- ⚠ **DO NOT** use sharp objects in the airways.
- ⚠ **DO NOT** create a surgical airway.
- ⚠ **DO NOT** perform a relief puncture or inserting thoracic drains.
- ⚠ **DO NOT** use if there are signs of electrical malfunction, or unusual smell of smoke.
- ⚠ **DO NOT** use oxygen.
- ⚠ **DO NOT** use damaged chargers.
- ⚠ **DO NOT** take the battery apart. Never try to take the battery out of the device.
- ⚠ **DO NOT** try to repair the device yourself.
- ⚠ **DO NOT** use live defibrillators.
- ⚠ **DO NOT** use live cardiac pacing.

➤ INSTALLATION

Atlas Adult is 1.70 m tall, weighs 16 kg and comes in two different skin tones. It has a battery life of 8 to 10 hours. The charge status is color-coded and shown on the on/off button. Battery status indicator on the power button: white light (100%-75%), green light (74%-15%), red light (14%-5%), red blinking (less than 5%) . Atlas Adult is charged via the adapter provided and can be used wirelessly during training sessions.



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> AIRWAY

Atlas Adult replicates the anatomy of the airways, complete with tongue, epiglottis, vocal cords, trachea and esophagus. Use Atlas Adult to practice positioning of the head, manual maneuvers to open the airway and apply compatible aids for realistic airway management.

The airway can be opened by tilting back the head or by using the Esmarch maneuver. Other methods to clear the airway include simulated dry aspiration, removing inserted foreign bodies and inserting Guedel tubes (OPA) or Wendl tubes (NPA).

When single-assistant or dual assistant bag mask ventilation (BVM) is performed correctly on Atlas Adult, there is a visible expansion of the thorax.

Nasal or oral intubation can be performed using a size 7.5 endotracheal tube (ET). For optimal intubation, use the improved Jackson position and the BURP maneuver. To intubate use a classic laryngoscopy, or video laryngoscopy.

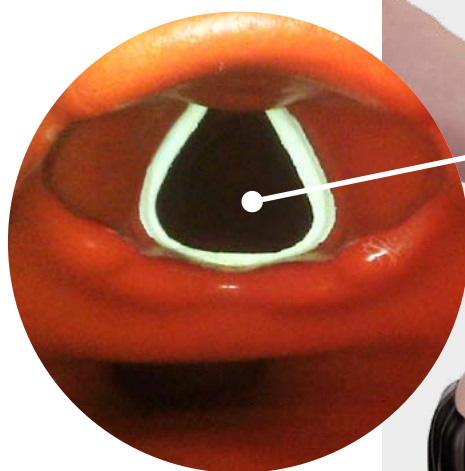


Recommended tube sizes:

- Orotracheal tube 7.5
- Nasotracheal tube 6.5 – 7
- iGel 4
- Laryngeal mask 4
- Laryngeal tube 4

Teeth Indication

If excessive force is applied to the upper teeth during laryngoscope use, the simulator emits a mechanical clicking sound to simulate tooth breakage. This immediate feedback helps you identify when too much pressure is being used and adjust your technique to minimize the risk of dental injury.



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By using auscultation and checking for an excursion in the thoracic region, you can determine whether bag-mask ventilation was performed correctly and if the airway was properly cleared. Likewise incorrect right stem intubations can be confirmed when there is chest excursion and lung sound in the right side. Use auscultation to check for an excursion in the abdomen to determine esophageal intubation.

Supra-glottic airway alternatives like, iGel, Laryngeal Masks (LMA) and Laryngeal Tubes (LT) can be used in accordance with manufacturers' instructions. Moreover a gastric probe can be inserted. Second generation airway option make it possible to insert a gastric probe.

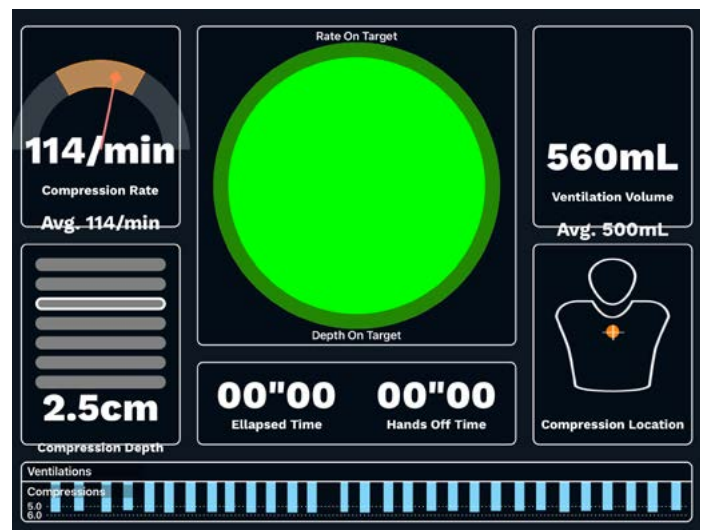


Note:

Prior to using airway adjuncts, apply a small amount of silicone airway lubricant to the equipment.



In order to see the inspiratory tidal volume, use the quality CPR Dashboard and generic defibrillator screen from REALiTi 360.



Lung Specification

- Max tidal volume: 1300 mL
- Max airway pressure: 100 cm H₂O

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➤ CARDIOPULMONARY RESUSCITATION (CPR)

Atlas Adult replicates the anatomy of a rib cage and enables thoracic compressions to be carried out in accordance with the resuscitation guidelines.

Thoracic compressions can be performed intermittently or continuously with bag-mask ventilation providing a realistic resistance of the chest during CPR.

Atlas Adult is compatible with mechanical resuscitation aids. Practice applying the mechanical resuscitation aid while carrying out manual thoracic compressions and continuing resuscitation measures.

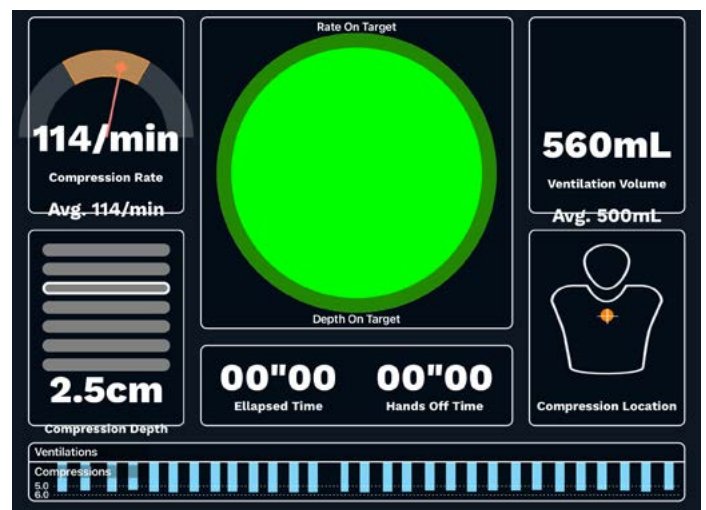
The CPR dashboard screen and Generic Defibrillator gives you feedback on the hand position.



With the use of REALTi 360 resuscitation artifact displays on the ECG tracing, in addition to the compression rate and depth being displayed on the monitor.

The CPR Dashboard screen and Generic Defibrillator allows:

- ✓ Compressions that generate ECG artifacts
- ✓ Realistic compression depth and resistance
- ✓ Detection of depth, release, and frequency of compressions
- ✓ Real-time view of Quality of CPR on the CPR Dashboard
- ✓ Use of mCPR piston-based devices
- ✓ Detection of hand position
- ✓ Compliant with ILCOR resuscitation



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> CIRCULATION

Atlas Adult has two IV pads on the forearm and dorsal side of the hand back of the right hand. We recommend 18G cannulas or smaller for ideal usage times. Atlas Adult has one IO insert at the top of the Atlas Adult's left arm. We recommend the use of drilling systems for this procedure.

When performing administration of medication via the IV pad and /or IO access site, use a drain bag which should be connected to the Luer lock adapter. Atlas Adult has one IO drain at the top of the Atlas Adult's left arm and two IV drains at the top of the right arm.



Recommended puncture sizes

- IV: ≤18G
- IO: 25mm or 45mm Needle Set

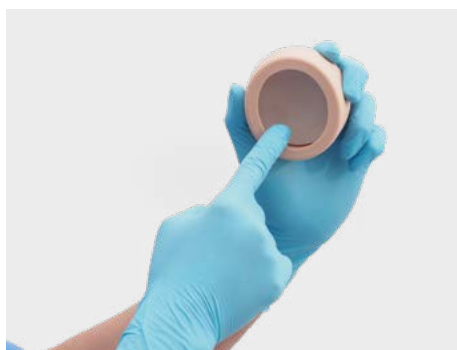
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To change the IV pads and the IO insert, remove them from their original position and disconnect them from the drainage system if applicable. Then connect the replacement insert to the drainage system and place the new training pad in the slot. At the end of the training session, we recommend drying, removing the cannulas, and taking the drainage system apart.

When the day's sessions are done, flush the IV and IO sites with air to remove any fluid/liquid in the system. Connect a syringe filled with air to the IV/IO catheter and flush the IV pads/IO insert with air until only air exits the overflow tube.



Replacement of IV sites



Replacement of IO site

> NEUROLOGICAL

Atlas Adult features a versatile pupillary assembly, offering three distinct eye states: normal, constricted, and dilated. Easily adjust the eyes by gently rolling open or closing the eyelids.

> AUDIO

Atlas Adult features a speaker integrated into the manikin. This speaker can be connected using the iSimulate iPad to access a variety of sounds from the REALiTi sound library.



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➤ HARD LEGS (OPTIONAL)

The Hard Legs (1026176 – Light Skin / 1026177 – Dark Skin) for the Atlas Advanced Life Support (ALS) Simulator are an optional add-on designed to enhance the functionality of the Atlas simulator. The legs feature IO and IM sites for realistic training and skill practice.

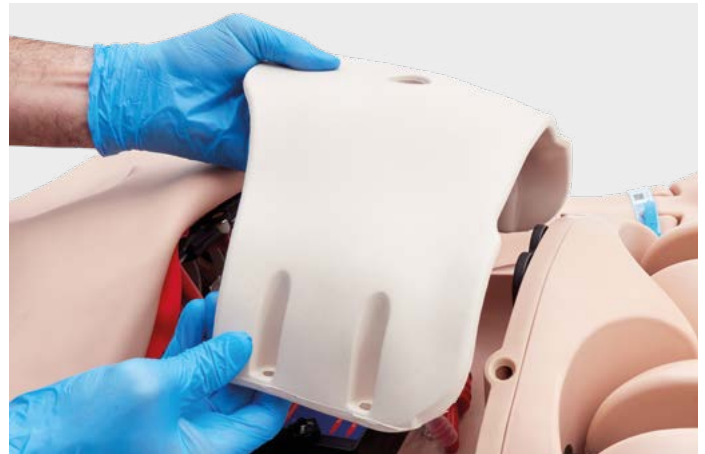


➤ HOW TO INSTALL?

1. Remove the stomach bag by detaching it from the connector.



2. Remove the abdominal cover by pulling it upward.



3. Pull the black pin that connects the abdomen and legs upward to release the legs from the body. Once the connector is released, carefully pull the foam legs away from the torso.



4. Position the hard legs so the connectors line up with the openings in the torso. Push the legs against the abdomen until they click into place.



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5. Push the black connector pin back down to its original place until it locks, securing the legs to the body.



6. Place the abdominal cover back into position and reattach the stomach bag to the connector.



Replacement of IM Site



Replacement of IO Site

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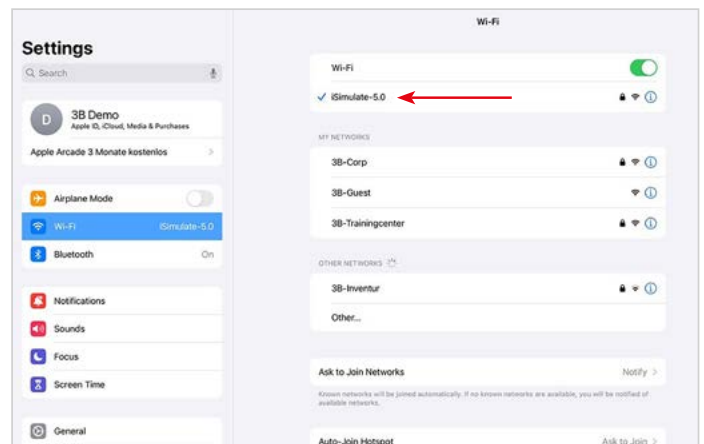
➤ NETWORK/ROUTER SETTINGS

➤ HOW TO CONNECT ATLAS ADULT WITH REALITI 360?

Scenario 1: Your existing Wi-Fi router is called iSimulate-5.0

1. **Power Up:** Start by turning on your iSimulate-5.0 router.
2. **Wi-Fi Connection:** Ensure both the REALITI Monitor iPad and the Control iPad are connected to the iSimulate-5.0 network.

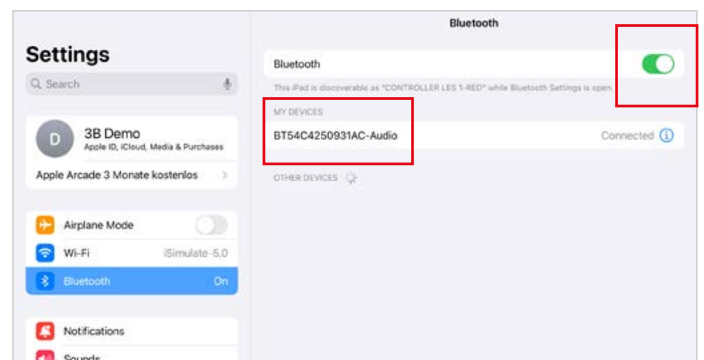
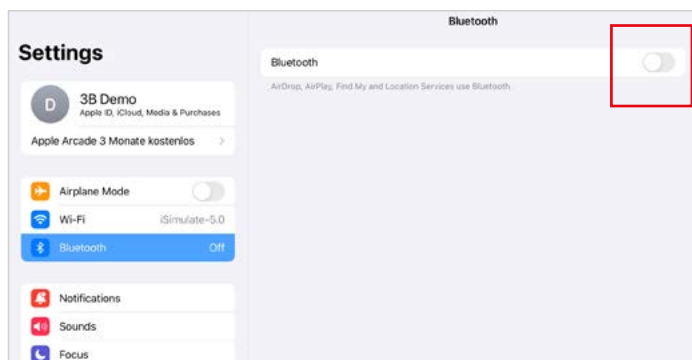
WiFi Name: iSimulate-5.0
Password: iSimulate2012



3. **Turn On Atlas Adult:** Locate and press the power button on the right side of the manikin, which will automatically join the iSimulate-5.0 network.

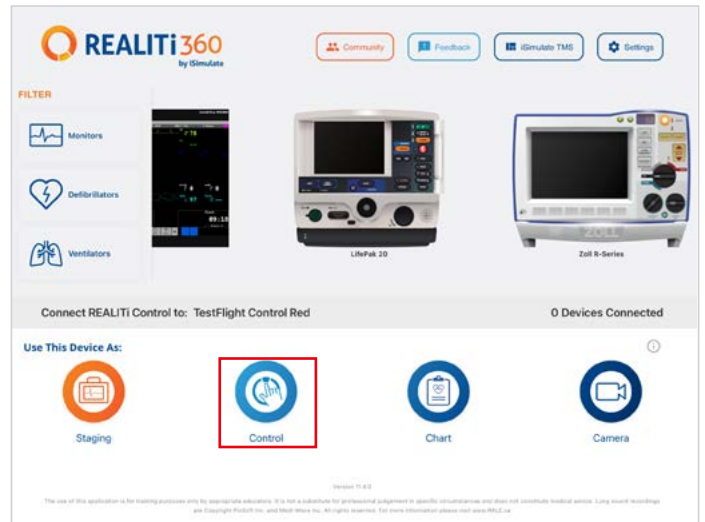
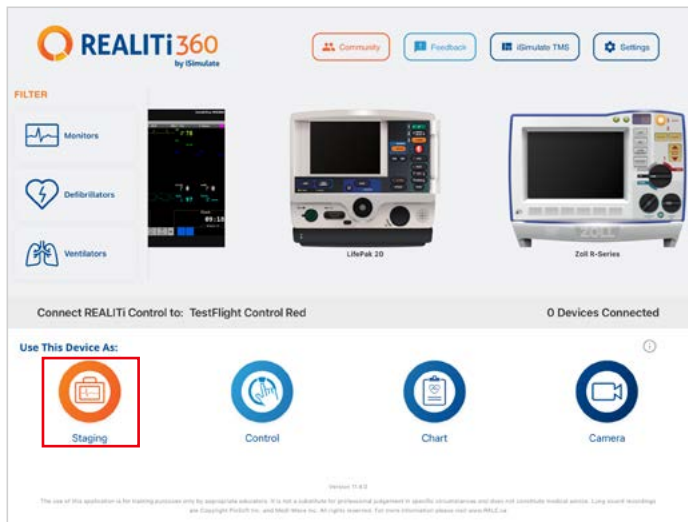


4. **Bluetooth Settings:** Disable Bluetooth on the Monitor iPad, but enable it on the Control iPad to pair with Atlas Adult's Bluetooth.



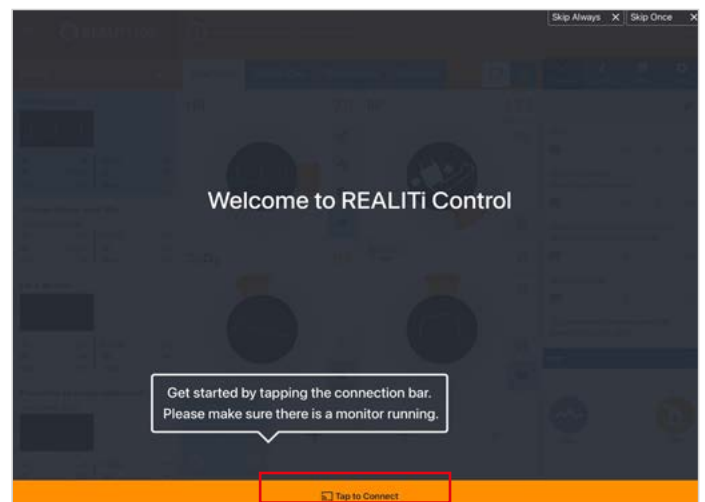
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5. **Launch REALTi App:** Open the REALTi app on both iPads, selecting 'Staging' on the Monitor and 'Control' on the Control iPad.

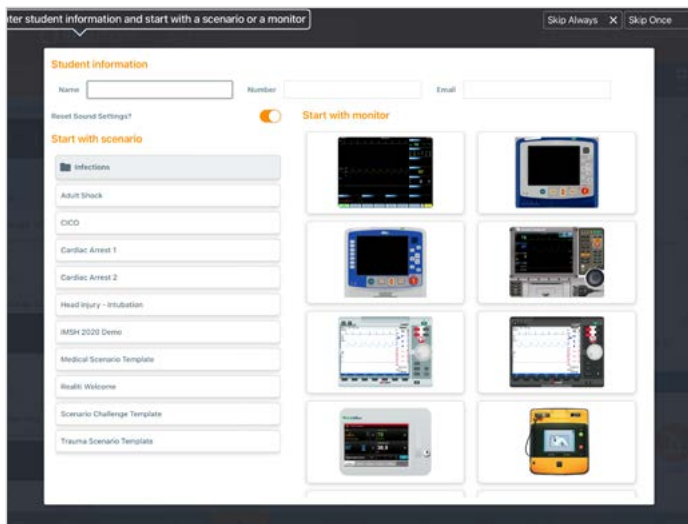


6. **Connect iPads:** Use the 'Tap to Connect' feature on the Control iPad to link both devices.

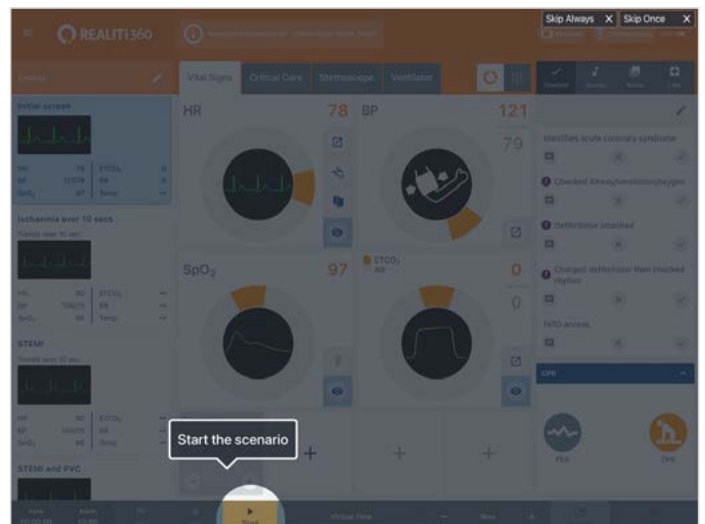
If the Monitor iPad does not appear in the list, check that the Staging iPad and the Monitor iPad are both connected to the Wi-Fi network of your REALTi router: iSimulate-5.0 (both iPads must be on the same Wi-Fi network).



7. **Choose and Start a Scenario:** From the Control iPad, select a scenario or monitor setup to begin.

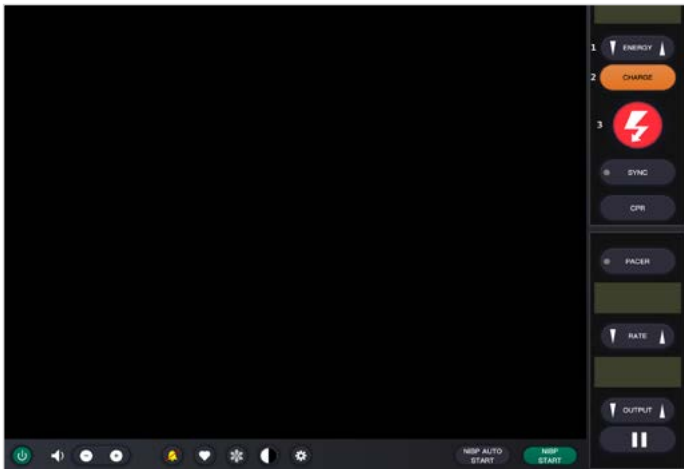


8. **Select a scenario or monitor and tap the 'Start' button.** Launch the Defibrillator from the main menu on the iPad:

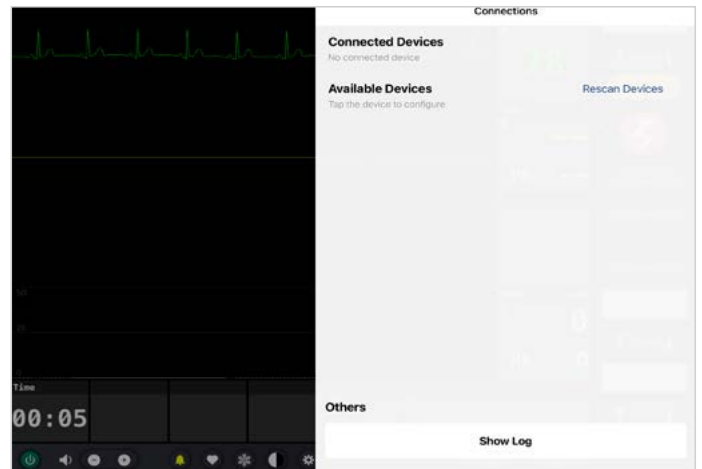


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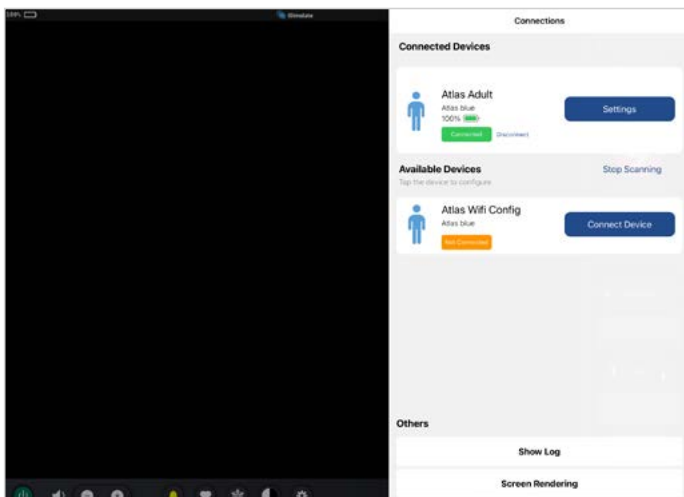
9. On the Monitor iPad, the scenario or monitor selected from step 7 should appear. Start the defibrillator.



10. **Scan for Atlas Adult:** Swipe in from the right screen edge of the Monitor iPad to show the 'Available Devices'.



11. Tap 'Rescan Devices'. From the available devices select 'Atlas Adult' by tapping 'Connect Device'. The connected Atlas Adult will be calibrated automatically. The manikins will simulate a carotid pulse.

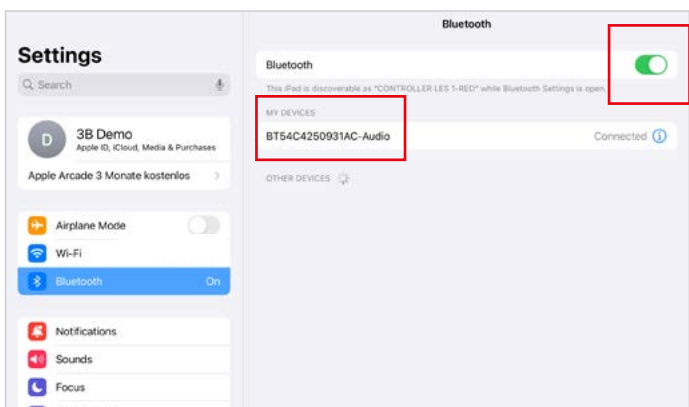


12. **Commence Simulation:** Compress the manikin. You will be able to see the CPR compression in the ECG waveform and the bar graph.



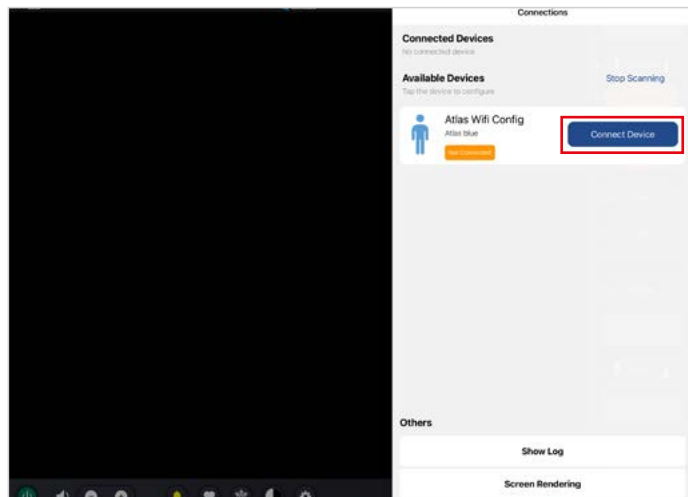
Scenario 2: Your existing Wi-Fi router is not called iSimulate-5.0

1. **Bluetooth Settings:** On the Monitor iPad, switch on the Bluetooth and connect to Atlas Adult.
2. **Launch REALTi App:** On the Monitor iPad start the REALTi app and select the 'Staging' button.

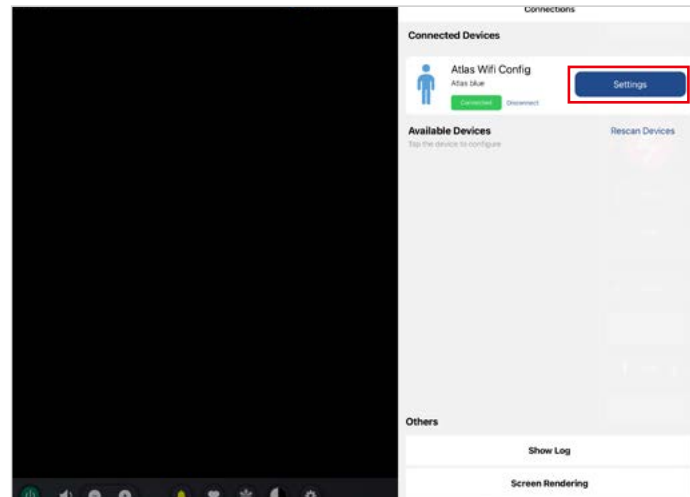


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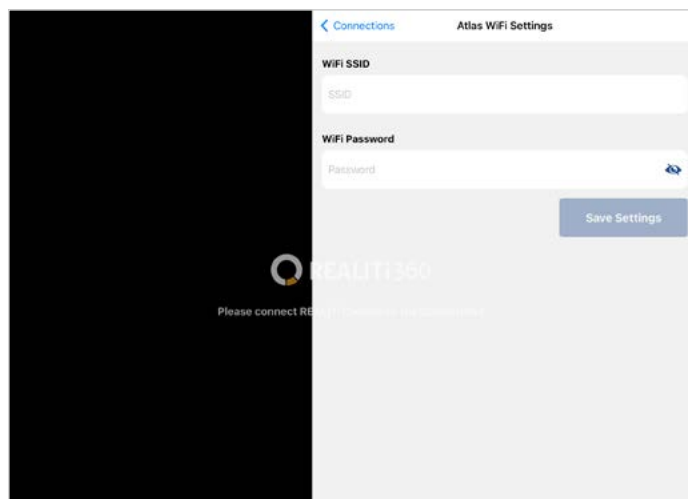
3. **Scan for Atlas Adult:** Swipe in from the right edge of the Monitor iPad's to reveal the 'Available Devices' menu. Select 'Rescan Devices' and choose 'Atlas Wifi Config' from the list by tapping 'Connect Device'.



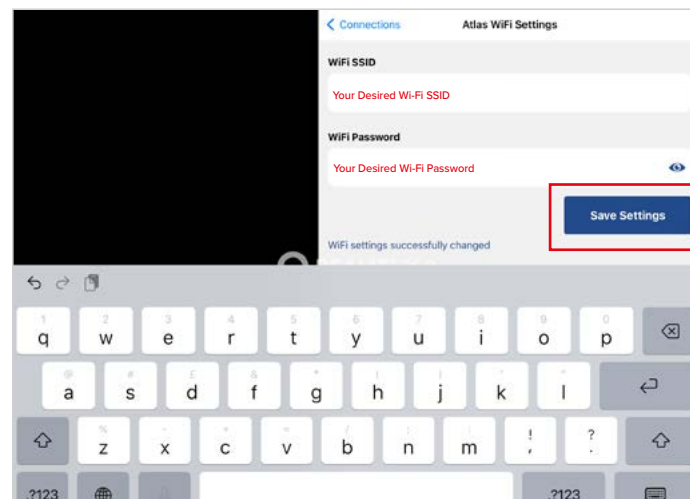
4. Upon successfully connecting to 'Atlas Wifi Config', access the 'Settings'.



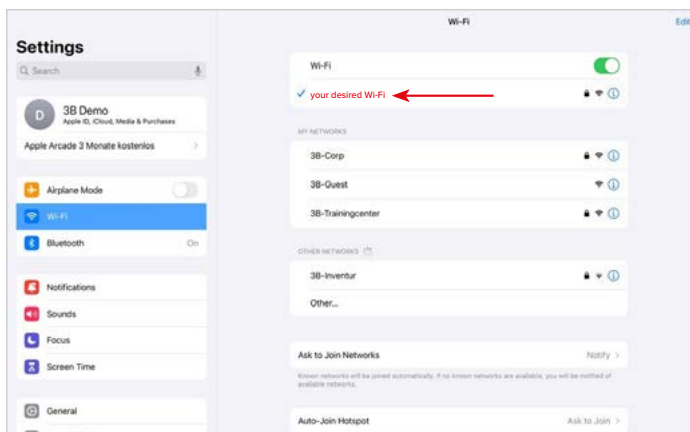
5. **Rename Wi-Fi SSID:** The Atlas Wi-Fi settings will show up, allowing you to customize the Wi-Fi network name to match your router. Ensure that both the Wi-Fi SSID (name) and password align with your Wi-Fi router.



6. After entering the desired Wi-Fi SSID and password, tap 'Save Settings' to apply the changes successfully to the Wi-Fi configuration.



7. Exit the app by double tapping the home button and swipe the app's preview card upward to close.
8. Turn off Atlas Adult.
9. Connect the Monitor iPad and the Staging iPad to the Wi-Fi network of your router. Both iPads must be on the same Wi-Fi network.
10. Follow step 3 to step 12 from scenario 1.



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> FAQ

My Atlas Adult is unable to connect to REALITi?

Cause	Solution
Incorrect Wi-Fi Network selected	Connect to the correct Wi-Fi on both iPads NOTE: Default SSID Wi-Fi "iSimulate-5.0" Default password is "iSimulate2012" If operating more than one Atlas, ensure that each simulator has its own unique SSID name. NOTE: Follow the procedure from the Quick Start Guide (How to connect Atlas Adult with REALITi 360?)
REALITi 360 App is not updated	Go to the App Store on both your iPads and update the REALITi 360 app to the latest version available
Atlas Adult not turned on	Turn Atlas Adult off and on again
Atlas Adult battery low	Charge Atlas Adult
Atlas Adult too far from Wi-Fi	Move your network and REALITi system closer to Atlas Adult

My connection with REALITi and Atlas Adult is lost?

Multiple network connections may interfere with transmissions between REALITi and Atlas Adult.

Forget other networks on both your iPads beside the network required to connect with Atlas Adult. Default network is "iSimulate-5.0".

Atlas Adult airways have become contaminated from mouth-to-mouth resuscitation

DO NOT perform mouth-to-mouth on Atlas Adult. If damage is reported:

- Clean the outside of Atlas Adult with manikin wipes.
- Clean the inside of the oral cavity with manikin wipes.
- Change the lung bag.

No chest rise visible on Atlas Adult

- If chest-rise is unilateral, ETT may be inserted into the right main stem bronchus. Correct the insertion of the ETT.
- Lung bag is leaking or tubing to lung is twisted, kinked, or disconnected for which the lung bag will need to be replaced.
- Seal the airway.
- Check air tubing for leakage.
- Check that all connections are intact.
- Replace tubing if necessary.

Atlas Adult carotid pulse cannot be felt

The following may be the cause:

- The blood pressure is set below 50mmHg Systolic.
- The connection is lost between the REALITi 360 system and Atlas Adult.
- Non-perfusing cardiac rhythm.
- PEA rhythm.

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> CONSUMABLES AND SPARE PARTS

Consumables and Spare Parts	Item No.	
Chest skin spare part	light skin	1026724
	dark skin	1026774
Humeral IO replacement	light skin	1026729
	dark skin	1026777
IV cannulation pad – forearm	light skin	1026730
	dark skin	1026778
IV cannulation pad – hand	light skin	1026731
	dark skin	1026779
Lung bag		1026725
Stomach bag		1026726
Carry bag		1026744
Hard legs	light skin	1026176
	dark skin	1026177

> TECHNICAL DATA

Operating temperature: 0 °C up to +45 °C
Storage temperature: -10 °C up to +35 °C
Air humidity: 15% - 80%

> CONTACT INFORMATION



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