
PHILIPS

DreamStation 2

CPAP

Auto CPAP

Service manual



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Revision History

| Revision | Location Updated | DESCRIPTION OF CHANGES | Author |
|----------|-------------------------|--|-----------|
| 08 | Chapter 1 Section 1.5 | <ul style="list-style-type: none"> Added SRC.BOSS@philips.com | A. Wright |
| | Chapter 6 Section 6.4.7 | <ul style="list-style-type: none"> Step 3 – Changed contact information from “Product Support” to SRC.BOSS@philips.com | |
| | Chapter 7 Section 7.1 | <ul style="list-style-type: none"> Added 1149569B as an alternative to 1149569 | |
| | Chapter 7 Section 7.2 | <ul style="list-style-type: none"> Corrected references to “section 0” to indicate the appropriate section number. Added 1149569B as an alternative to 1149569 | |
| | Chapter 7 Section 7.2.9 | <ul style="list-style-type: none"> Added guidance for DS2 devices with any other listing of FCC ID Added optional step for visually identifying PCA modules | |
| | Chapter 7 Section 7.4 | <ul style="list-style-type: none"> Added guidance for DS2 devices with any other listing of FCC ID | |
| | Chapter 8 Section 8.4 | <ul style="list-style-type: none"> Step 10 a-b – added guidance on reset first time use error | |

Chapter 1: Introduction

Caution

U.S. federal law restricts this device to sale by or on the order of a physician.

1.1. System Overview

| DEVICE DESCRIPTION | MODEL NUMBER SERIES |
|---|---------------------|
| DreamStation 2 CPAP w/ Humidifier and Standard Tube | yyX410HzzC |
| DreamStation 2 CPAP w/ Humidifier and Heated Tube | yyX410TzzC |
| DreamStation 2 Advanced CPAP w/ Humidifier and Standard Tube | yyX420HzzC |
| DreamStation 2 Advanced CPAP w/ Humidifier and Heated Tube | yyX420TzzC |
| DreamStation 2 Auto CPAP w/ Humidifier and Standard Tube | yyX510HzzC |
| DreamStation 2 Auto CPAP w/ Humidifier and Heated Tube | yyX510TzzC |
| DreamStation 2 Advanced Auto CPAP w/ Humidifier and Standard Tube | yyX520HzzC |
| DreamStation 2 Advanced Auto CPAP w/ Humidifier and Heated Tube | yyX520TzzC |

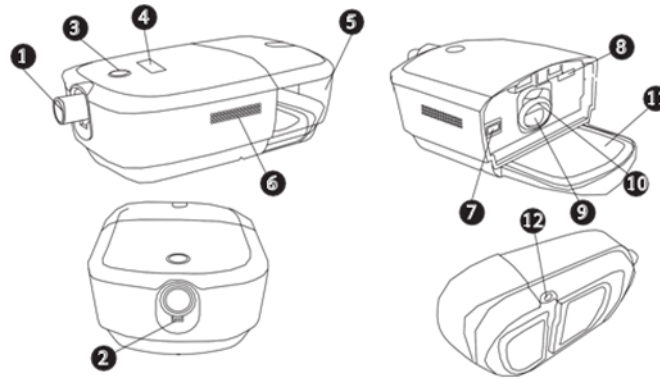
Note: yy and zz are variables that represent regional configurations, i.e., DOM or INTL models. X is fixed and represents the DreamStation 2 platform. The third number in the model number series may also vary based on regional configuration.

C signifies that the device contains a cellular modem.

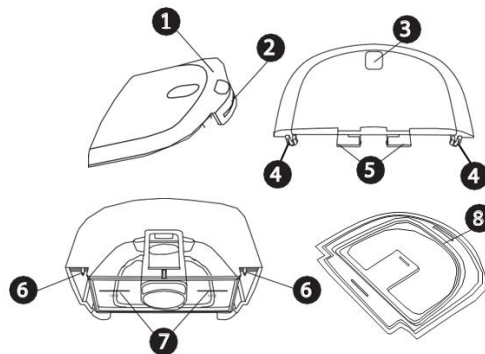
The DreamStation 2 CPAP/DreamStation 2 Auto CPAP is a Continuous Positive Airway Pressure therapy device designed for the treatment of Obstructive Sleep Apnea (OSA) in spontaneously breathing patients weighing over 30kg (66lbs). It is for use in the home or institutional environment.

The integrated humidifier and optional heated tubing are designed to deliver humidification to provide added comfort during therapy. This humidification level is controlled through the output of the heated humidifier as well as the temperature of the optional heated tubing. Use of the integrated humidifier with the heated tubing allows for a comfortable level of humidity to be maintained at the mask.

Several accessories are also available for use with your device. Contact your home care provider to purchase any accessories not included with your system.



| # | Feature | Description |
|----|----------------------------------|--|
| 1 | Air outlet port | Connect the flexible tubing here |
| 2 | Heated tubing pin connector | Line up and connect the heated tubing connector here |
| 3 | Therapy on/off button | Starts and stops the airflow for therapy. |
| 4 | Display screen | This is the User Interface for the therapy device. |
| 5 | Humidifier water tank | Removable water tank that holds the water for humidification (shown installed) |
| 6 | Air inlet | Delivers air to the device |
| 7 | Filter access | Access the filter here. |
| 8 | SD card access | Access the SD card here. |
| 9 | Air inlet for the humidifier | Connects to the humidifier water tank |
| 10 | Humidifier air inlet/outlet seal | Provides a seal between the device and the humidifier water tank. |
| 11 | Heater plate | Warms the water in the water tank |
| 12 | Power inlet | Connect the power cord here |



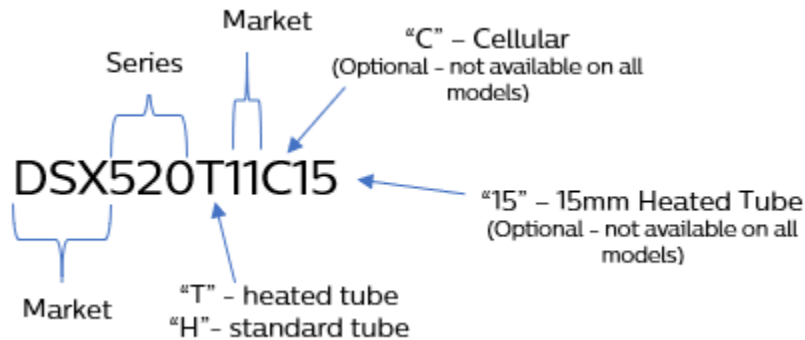
| # | Feature | Description |
|---|---------------------------|--|
| 1 | Lid | Removable to fill the water tank. |
| 2 | Lid front tab | Remove lid from here |
| 3 | Water tank release indent | Unlatches water tank from the device when pressed |
| 4 | Lid hooks | Connect over water tank base tabs |
| 5 | Water tank latch | Latches the water tank to the device |
| 6 | Water tank base tabs | Connect water tank lid hooks here to attach the water tank lid |
| 7 | Maximum fill lines | Indicate the maximum water level for safe operation. The fill lines also appear on the sides of the water tank base. |
| 8 | Water tank seal | Provides a seal between the water tank lid and base. Removable for ease of cleaning. |
| 9 | Grip indent (not shown) | Grip indent, located on the bottom of the water tank base, for tank removal |

1.2. Model Types

DreamStation 2 devices are divided into two levels: Base and Advanced. Advanced is identified as “Plus” in RP Kit descriptions. The Base and Advanced models have different UI menus, bottom enclosure colors, SN/MN label colors, warning label colors, etc. Reference the chart below to correctly identify model and repair parts before servicing a device.

| Criteria | Model | |
|-------------------------------|-----------------------------|------------------------|
| | Base | Advanced |
| Bottom enclosure Color | Blue/Green | Black |
| SN/MN and Warning Label Color | Blue/Green with Black print | Black with white print |
| SN/MN device description | Does NOT state, “Adv” | Includes “Adv” |
| Series on SN/MN Label | 410, 510 | 420, 520 |

DreamStation 2 devices part numbers are configured as follows.



| Market Identification from Device P/N | | |
|---------------------------------------|-----------------------------|--|
| Abbreviation within Device P/N | Numerical Market Identifier | Market |
| APX | 15 | Asia-Pacific |
| BLX | 15 | Benelux (Belgium, Netherlands, Luxembourg) |
| CAX | 12 | Canada |
| DEX | 13 | Germany, Austria |
| DSX | 11 | Domestic (US) |

| | | |
|-----|----|---|
| EEX | 15 | Eastern Europe (Bulgaria, Czechia/Czech Republic, Estonia, Croatia, Bosnia, Hungary, Lithuania, Serbia, Latvia, Macedonia, Poland, Romania, Slovakia, Slovenia) |
| ESX | 15 | Iberia |
| EUX | 15 | European Union |
| FRX | 14 | France |
| GBX | 15 | Great Britain |
| ITX | 15 | Italy |
| NDX | 15 | Nordics |
| VAX | 21 | Veterans Affairs (US) |

1.3. Intended audience and usage of this manual

This manual is intended as a guide for Philips service centers and authorized service agents when conducting servicing.

Before attempting servicing activities, complete the following.

1. Ensure personnel conducting servicing have a prior working knowledge and understanding of the operation and repair of electro-mechanical medical devices.
2. Familiarize yourself with the service and technical reference manual, and the user, provider, or clinical manuals as relevant to this device.
3. Prepare the work area to meet proper antistatic electrostatic discharge requirements. An ESD-dissipative surface is necessary during repair of this device.


1.4. Service training


Current training offerings are available on My Philips for Professionals (www.my.philips.com/s/). Search for field communication 16-700-392.

Training is designed for service personnel with working knowledge and understanding of the operation and repair of electro-mechanical medical devices. Detailed course descriptions are included in field communication 16-700-392.

Training is intended to supplement the service and technical reference manual. Training is not intended to substitute or replace the service and technical reference manual, user/provider/clinical manual, or instructions for use.

1.5. Contacts for ordering and technical service support

| | |
|--|--|
|  <p>Customer service via email</p> <p>Topics:</p> <p>Return authorization</p> | <p>United States and Canada:</p> <p>respironics.repair@philips.com</p> <p>Outside of US and Canada:</p> <p>Respironics.Global.CustomerService@philips.com</p> |
|  <p>Customer service via email</p> <p>Topics:</p> <p>Parts ordering</p> | <p>United States:</p> <p>Orders.Homecare.Philips@process.esker.net</p> <p>Canada:</p> <p>Orders.Canada.Philips@process.esker.net</p> <p>Outside of US and Canada -</p> <p>Respironics.Global.CustomerService@philips.com</p> |
|  <p>Technical support via email</p> <p>Topics:</p> <p>Troubleshooting</p> <p>Test station support</p> <p>Servicing and repair support</p> | <p>General:</p> <p>respironics.service@philips.com</p> <p>Manual PCA Replacement:</p> <p>SRC.BOSS@philips.com</p> |
|  <p>Customer service and product support via phone. Follow voice prompts.</p> | <p>1-800-345-6443 (North America)</p> <p>+1-724-387-4000 (outside NA)</p> |
|  <p>Voluntary Recall Information</p> | <div style="background-color: #e0f2f7; padding: 10px;"> <p>Questions? Call</p> <p>877-907-7508</p> <p> Toll-free in the USA</p> <p>Outside the USA call</p> <p>(0044) 20 8089 3822</p> </div> |

| | |
|--|---|
| <p>For further information or support concerning this recall/issue contact the support hotline or visit the website.</p> | <p>www.philips.com/src-update</p> |
| <p> Service operations support via email</p> <p>Topics:</p> <p>Portal access</p> <p>Training inquiries</p> | <p>respironics.service.operations@philips.com</p> |

Chapter 2: Warnings, cautions, and notes

Warnings, cautions, and notes are used throughout this manual to identify possible safety hazards, conditions that may result in equipment or property damage, and important information that must be considered when performing service and testing procedures on the device.

Warning

Warnings indicate the possibility of injury to people.

Caution

Cautions indicate the possibility of damage to equipment

Note

Notes are used to emphasize a characteristic or important consideration.

Refer to the devices' User Manuals for warnings, cautions, and notes.

| DESCRIPTION | PART NUMBER | DESCRIPTION | PART NUMBER |
|--|-------------|--|-------------|
| DreamStation 2, User Manual, EN-DOM | 1143533 | DreamStation 2 Advanced, User Manual, EN-DOM | 1143581 |
| DreamStation 2, User Manual, EN-INTL | 1143534 | DreamStation 2 Advanced, User Manual, EN-INTL | 1143583 |
| DreamStation 2, User Manual, FR-France | 1143588 | DreamStation 2 Advanced, User Manual, FR-France | 1143598 |
| DreamStation 2, User Manual, EN, FR-CA | 1145944 | DreamStation 2 Advanced, User Manual, EN, FR-CA | 1145945 |
| DreamStation 2, User Manual, PL | 1150433 | DreamStation 2 Advanced, User Manual, PL | 1150434 |
| DreamStation 2, User Manual,FR, DE, NL | 1143587 | DreamStation2 Advanced,User Man,FR,DE,NL | 1143597 |
| DreamStation 2, User Manual, ES | 1151621 | DreamStation 2, Advanced User Manual, ES | 1151627 |
| DreamStation 2, User Manual, IT | 1151622 | DreamStation 2, Advanced User Manual, IT | 1151638 |
| DreamStation 2, User Manual, PT | 1151623 | DreamStation 2, Advanced User Manual, PT | 1151639 |
| DreamStation 2, User Manual, EN, FR-CA | 1150794 | DreamStation 2 Advanced, User Manual, DA, FI, SV, NO | 1150451 |
| DreamStation 2 Advanced, User Manual, FR, IT, DE | 1150455 | DreamStation 2 Advanced, User Manual, DE-DE | 1150218 |

Chapter 3: Specifications and classifications

Refer to the devices' User and Provider Manuals for specifications and classifications. Refer to Chapter 2 for user manual table.

Provider manuals:

| DESCRIPTION | PART NUMBER | DESCRIPTION | PART NUMBER |
|--|-------------|--|-------------|
| DreamStation 2, Provider Manual, EN-DOM | 1143578 | DS 2 Advanced,Provider Manual ,EN-DOM | 1143584 |
| DreamStation 2, Provider Manual, ES-DOM | 1143579 | DS 2 Advanced,Provider Manual ,ES-DOM | 1143585 |
| DreamStation 2, Provider Manual,EN,FR-CA | 1150793 | DS 2 Advanced,Provider Manual, EN, FR-CA | 1145942 |
| DreamStation 2, Provider Manual, EN-INTL | 1143580 | DS 2 Advanced,Provider Manual ,EN-INTL | 1143586 |
| DreamStation 2, Provider Manual,FR,DE,NL | 1143590 | DS 2 Advanced,Provider Manual ,FR, DE,NL | 1143593 |
| DreamStation 2, Provider Manual, PL | 1150431 | DS 2 Advanced, Provider Manual, PL | 1150432 |
| DreamStation 2, Provider Manual, ES | 1151643 | DS2, Advanced, Provider Manual, ES | 1151649 |
| DreamStation 2, Provider Manual, IT | 1151644 | DS2, Advanced, Provider Manual, IT | 1151650 |
| DreamStation 2, Provider Manual, PT | 1151645 | DS2, Advanced, Provider Manual, PT | 1151651 |
| DreamStation 2, Provider Manual, AR | 1151951 | DS2, Advanced, Provider Manual, AR | 1152018 |
| DreamStation 2, Provider Manual, HE | 1151953 | DS2, Advanced, Provider Manual, HE | 1152020 |
| DreamStation 2, Provider Manual, EL | 1151954 | DS2, Advanced, Provider Manual, EL | 1152021 |
| DS2, Advanced, Provider Manual, HR | 1152013 | DS 2 Advanced,Provider Manual ,FR-France | 1143595 |
| DS2, Advanced, Provider Manual, LT | 1152015 | DS 2 Advanced, Provider Manual, DE | 1150444 |
| DS2, Advanced, Provider Manual, MK | 1152016 | DS 2 Advanced,ProviderManual,DA,FI,SV,NO | 1150450 |
| DS2, Advanced, Provider Manual, SR | 1152017 | DS2 Advanced, Provider Manual, FR,IT,DE | 1150453 |

Chapter 4: Cleaning and disinfecting

4.1. Requirements

Refer to the appropriate provider manuals in Chapter 3 and user manuals in Chapter 2 for cleaning and disinfection instructions.

Caution

Only the cleaning and disinfection procedures listed in the user and provider manuals are recommended by Philips Respironics. Use of other cleaning and disinfecting processes, not specified by Respironics, may affect the performance of the product.

4.2. Air pathway replacement

Air Pathway Components for Replacement

| Air Pathway Components for Replacement | |
|--|------------------------------|
| CPAP Device | Blower |
| | Blower Isolator |
| | Blower Outlet Seal |
| | Blower Box Kit |
| | ISO Port |
| | Center Enclosure |
| | Reusable Pollen Filter |
| | Disposable Ultra-Fine Filter |

Refer to Chapter 7 in this manual for component part numbers and replacement procedures.

Chapter 5: Setup

This chapter provides an overview of the system setup including introductory information on the User and Provider modes and menus. Please refer to the device's User Manual for further information.

WARNING

- Inspect the power cord often for any signs of damage. Replace a damaged power cord immediately.
- Be sure to route the power cord to the outlet in a way that will prevent the cord from being tripped over or interfered with by chairs or other furniture.
- This device is activated when the power cord is connected.

CAUTION

- If the device has been exposed to either very hot or very cold temperatures, allow it to adjust to room temperature (approximately two hours) before beginning setup.
- Do not use extension cords with this device.

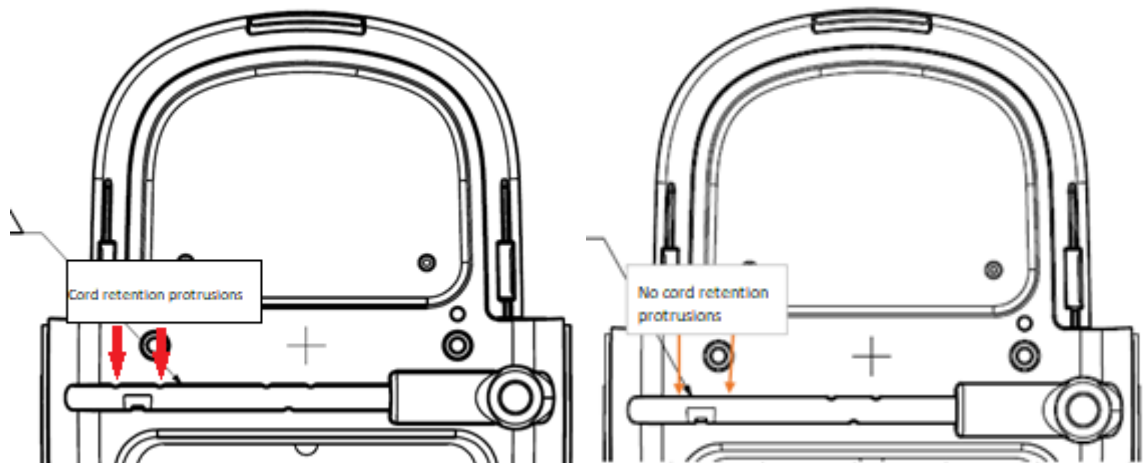
NOTE

Refer to the Clinical Manual for additional information.

5.1. Supplying AC power to the device

Complete the following steps to operate the device using AC power and refer to the following images for guidance:

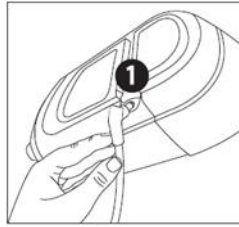
1. Ensure that the humidifier tank is empty.
2. Determine required power supply by turning the device upside down and comparing the bottom enclosure to the images below. Delta Power Supply PN 1144266 must be used on devices with cord retention protrusions. Devices without cord retention protrusions can use either the Delta Power Supply PN 1144266 or AcBel Power Supply PN 1150969.



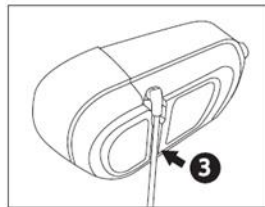
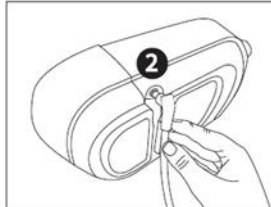
Bottom Enclosure **WITH**
protrusions:
Use Delta Power Supply PN
1144266

Bottom Enclosure **WITHOUT**
protrusions:
Use either the Delta Power
Supply PN 1144266 or AcBel
Power Supply PN 1150969.

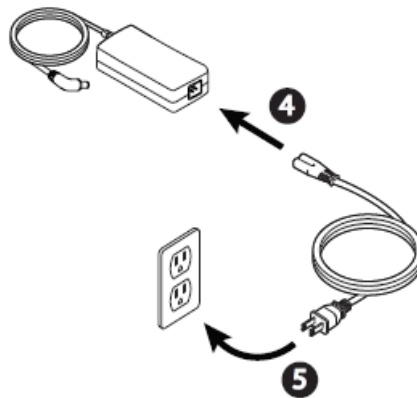
3. Plug the power supply cord's connector into the power inlet on the bottom of the device **❶** or **❷**. For convenience, the power connection allows for the cord to connect and route in the direction that works best for your setup. An inset area on the bottom of the device allows the cord to be routed under the device **❸**.



OR



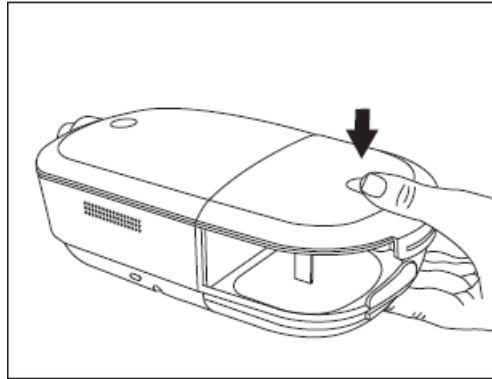
4. Plug the socket end of the AC power cord into the power supply ④.
5. Plug the pronged end of the AC power cord into an electrical outlet that is not controlled by a wall switch ⑤.
6. Verify that the connections on the bottom of the device, at the power supply, and at the electrical outlet are fully inserted. This will help to ensure that a secure, reliable electrical connection has been made.



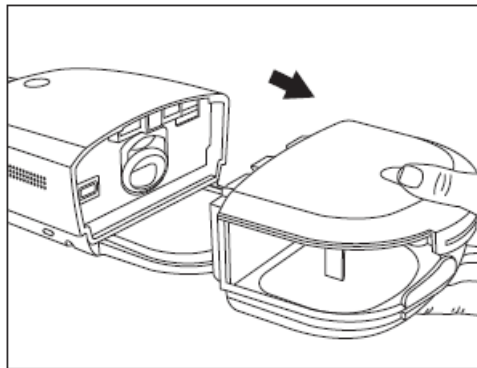
5.2. Removing the humidifier water tank

Complete the following steps to remove the humidifier water tank:

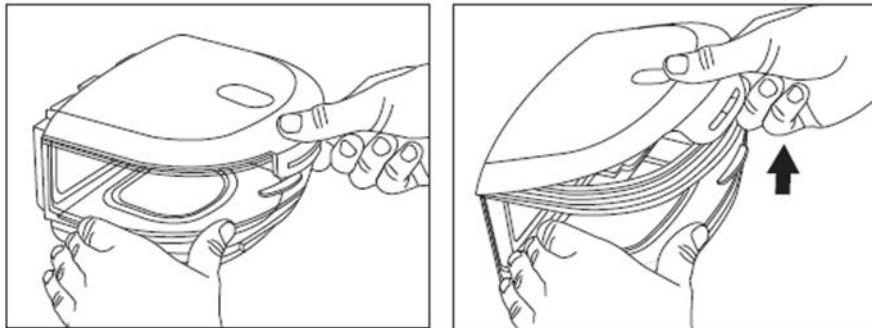
1. Gently press down on the indented area on the top of the humidifier water tank to unlatch the tank from the device.



2. Grip the top and bottom of the humidifier water tank and slide it out away from the device.



3. Remove the lid by pulling up on the lid tab while holding the water tank base.

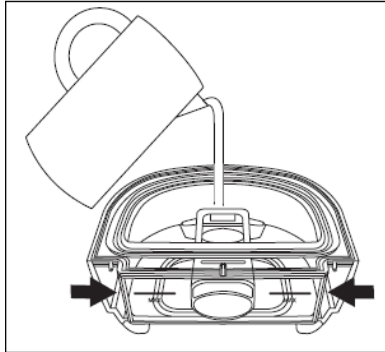


4. Pour out any remaining water and rinse the water tank base.

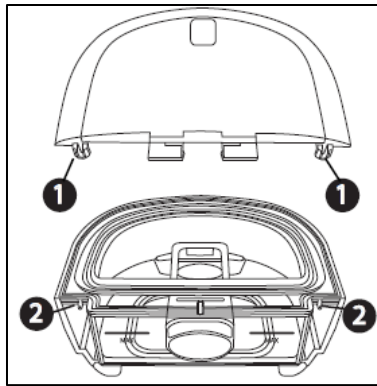
5.3. Filling and connecting the water tank

Complete the following steps to fill and connect the humidifier water tank:

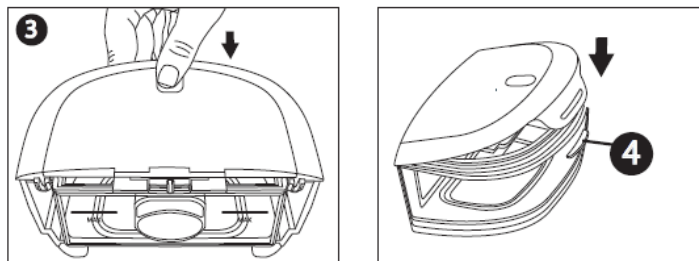
1. Place the water tank base on a firm, flat surface. Fill the water tank with distilled water no higher than the maximum fill lines **MAX**, which are located on the back and sides of the water tank base.



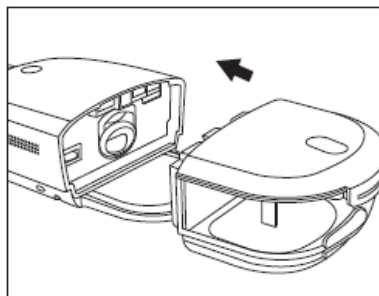
2. Reattach the lid. Place the hooks on the lid **1** over the small tabs on the water tank base **2**.



3. Press down **3** until the lid snaps securely over the lid front tab **4** on the front of the water tank base.
4. Slide the humidifier water tank back into the device, using the tracks on the bottom of the water



tank base for proper alignment and connection. Ensure that it is latched into place before proceeding.



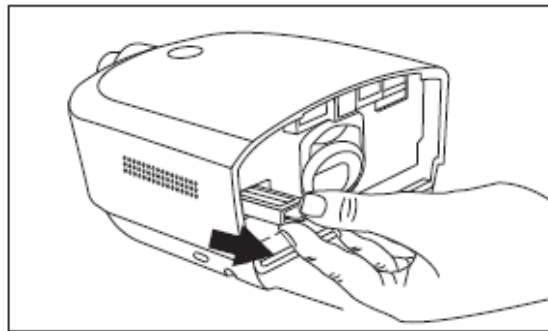
5.4. Installing/replacing the air filters

The device uses a grey reusable pollen filter that can be rinsed and a blue disposable ultra-fine filter. The reusable filter screens out normal household dust and pollens, while the ultra-fine filter provides more complete filtration of very fine particles. The reusable filter must be in place at all times when the device is operating. The ultra-fine filter is recommended for people who are sensitive to tobacco smoke or other small particles.

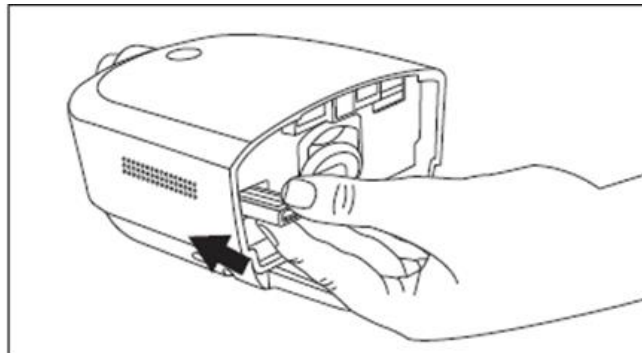
The grey reusable filter is supplied with the device. A disposable blue ultra-fine filter may also be included. If a filter is not installed when you receive your device, you must at least install the reusable filter before using the device.

Complete the following steps to replace the air filters:

1. Remove the humidifier water tank from the device.
2. To remove an existing filter, pull the white tab on the end of the filter and pull the filter out of the device.



3. If applicable, place a dry, grey reusable pollen filter on top of a new, optional disposable blue ultra-fine filter, align the arrows on both filters, and firmly snap them together.
4. Place the filter into the therapy device.

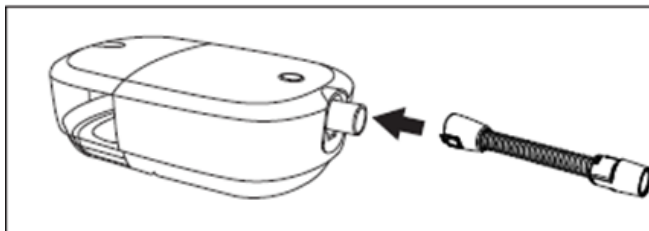


5. Reinstall the humidifier water tank.

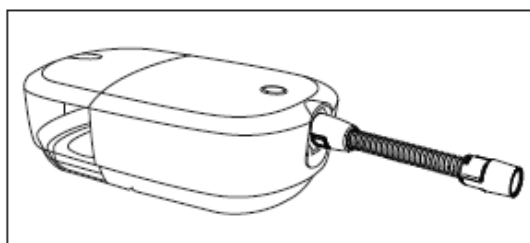
5.5. Connecting the breathing circuit

To connect your breathing circuit to the device, complete the following steps:

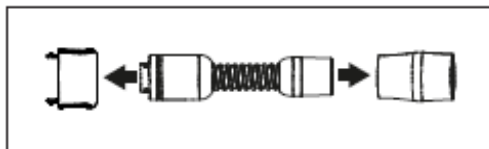
1. Connect the flexible tubing to the air outlet on the therapy device. To connect heated tubing (shown), line up the pin connectors on the heated tube with the bottom of the air outlet port on the device. The clips at the end of the tubing should be aligned to the sides of the port.



2. Press the heated tubing into place over the air outlet port until the tabs on the side of the tube click into place in the slots on the sides of the outlet port. When using standard tubing (not shown), simply slide the tubing over the air outlet port on the device.



3. When using the optional 12 mm heated tubing or 12 mm performance tubing, connect the provided mask adapter to the mask connection end of the tubing. The 12mm performance tubing also requires a device adapter. When connecting the adapter to the CPAP, the clips should be aligned to the sides with the slight bump facing straight down.



4. Connect the tubing to the mask. For proper placement and positioning, refer to the instructions that came with your mask.

5.6.Starting the device

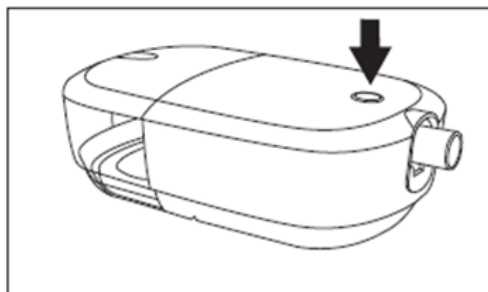
To start the device, follow the ensuing steps.

1. Ensure power is supplied to the device as indicated by a white ring around the therapy button. The first screen to display is the Philips logo, followed by the device model screen. For the Dream Station 2 Advanced devices, a screen that contains a summary of your therapy will follow once the device is powered on. For the DreamStation 2 devices, once fully powered on, a screen displays “To begin therapy click below”.

Note: The device may prompt you to set the language and time.

2. Press the Therapy button on top of the device to turn on airflow and begin therapy. The Therapy button ring will illuminate blue.

Note: If your home care provider has enabled the Automatic On feature, the device will automatically turn the airflow on when you put on your mask and breathe.



3. Press the Therapy button again to turn off the therapy. The Therapy button ring will illuminate white. Note: If your home care provider has enabled the Automatic Off feature, the device will automatically turn the airflow off when you take off your mask and the device recognize inactivity.

5.7. Performance check

To initiate a performance check, unplug the device and plug it back in. An error will appear on the screen if a performance issue is detected.

5.8. Bluetooth wireless technology

Bluetooth wireless technology is one method by which you can transfer your therapy device's data to DreamMapper. DreamMapper is a mobile system designed to help Obstructive Sleep Apnea (OSA) patients enhance their sleep therapy experience

5.9. Pairing your therapy device to your Bluetooth-enabled mobile device

NOTE

The blower must be off to allow Bluetooth pairing.

You can only pair your therapy device to one mobile device at any given time.

Pairing works best when your therapy device and mobile device are in the same room.

The current version of DreamMapper will guide you through these instructions.

After initiating pairing in DreamMapper, you will have 30 seconds to complete the setup. After this time, it will be cancelled automatically.

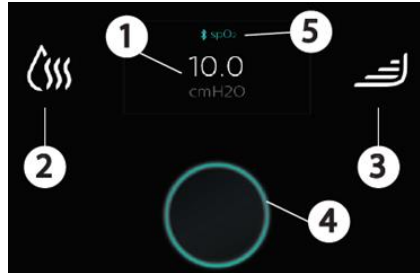
Follow the steps below to manually pair to your mobile phone or tablet:



1. With your therapy device powered up, initiate Bluetooth Setup from the DreamMapper mobile app.
Note: From DreamMapper you may need to select from a list of available Bluetooth devices. The therapy device will appear as “PR BT XXXX” (XXXX will be the last four digits of the serial number listed on your therapy device).
2. The pairing code will display on the device.
3. In DreamMapper, confirm the 6-digit pairing code displayed on the therapy device.
Note: When pairing from certain mobile devices you may need to enter the 6-digit pairing code in DreamMapper. Once entered, pairing will automatically begin.
4. Click the Therapy button to complete pairing. The therapy device displays “Pairing to Device” and then “Success Device Paired”.






5.10. Therapy on display

5.10.1. DreamStation 2 base display

While the device is delivering therapy, the prescription pressure or RAMP PLUS pressure is displayed. You can also view and adjust your humidification and RAMP PLUS settings.



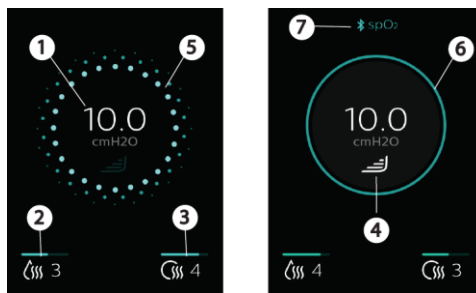
| # | Symbol | Feature | Description |
|---|---|--|---|
| 1 | cmH2O | Therapy pressure | Displays the prescribed pressure setting. If RAMP PLUS is running, the current delivered pressure is displayed. |
| 2 |  | Adjustable humidifier setting (if enabled) | <p>Tap the humidification symbol to view the current humidifier setting. To change the setting, tap the humidification icon again until the desired setting is displayed. Each tap will display a different setting. After approximately 3 seconds the display returns to the therapy screen and the setting is saved.</p> <p>The available settings are: Off, Low, Medium, and High.</p> <p>Note: If you adjust the humidifier setting during therapy, the new setting will automatically be active for current therapy, and it will be used the next time you turn therapy on.</p> |
| 3 |  | RAMP PLUS (Ramp+) | <p>The device is equipped with a RAMP PLUS feature that allows you to adjust your starting pressure for a set period of time (default of 30 minutes) for added comfort when you are trying to fall asleep. During the set time, the air pressure will remain at your set starting pressure unless the device detects an event and identifies the need to increase your pressure. When RAMP PLUS has concluded, your prescribed therapy pressure will resume.</p> <p>To activate RAMP PLUS, tap the RAMP PLUS symbol. The first time RAMP PLUS is activated, the setting will default to Low. To change the setting, continue to tap the RAMP PLUS symbol until the desired setting is displayed. After approximately 3 seconds the display returns to the therapy screen and the setting is saved. Every therapy session thereafter will automatically start RAMP PLUS with the start of therapy.</p> <p>The available settings are: Off, Low (4 cmH2O), Medium (6 cmH2O), High (8 cmH2O), and Max (10 cmH2O).</p> <p>Note: There is no need to tap the RAMP PLUS symbol again unless you want to make a change to the RAMP PLUS pressure or restart RAMP PLUS.</p> <p>Note: The device screen goes dark after 60 seconds of inactivity. To wake up the screen, tap the RAMP PLUS icon or the humidification icon. This will simultaneously reactivate your RAMP PLUS pressure (if set), or it will take you to your prescribed minimum pressure level and continue to automatically adjust your delivered pressure as needed (if in Auto CPAP mode). Once the display appears, you can continue to adjust settings as desired.</p> |

| # | Symbol | Feature | Description |
|-----------|---|----------------------------|--|
| 4 |  | Therapy button ring | The therapy button ring illuminates blue to indicate therapy is turned on. The ring does not illuminate when therapy is on and the screen has gone dark. The ring illuminates white when the device is plugged in and therapy is off. |
| 5 |  | Oximetry | The therapy device can pair to a pulse oximeter through a Bluetooth connection. When the therapy device successfully pairs to the pulse oximeter, the Bluetooth symbol and “SpO2” will display on the therapy screen. |
| Not Shown |  | Cell modem signal strength | Displays signal strength of cellular modem on devices that have the cellular modem available except when in Airplane Mode. |
| Not Shown |  | Bluetooth | Displays when the device has Bluetooth available. When the symbol is grey, it indicates that Bluetooth is available. If the device is connected to a Bluetooth client (phone, tablet, etc.) it will appear white. This symbol does not appear when Airplane Mode is enabled. |
| Not Shown |  | Airplane mode | Displays when Airplane Mode is enabled. It will replace the Cell and/or Bluetooth symbols when active. |


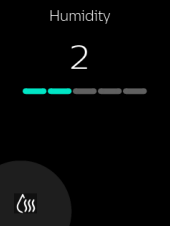


5.10.2. DreamStation 2 Advanced display



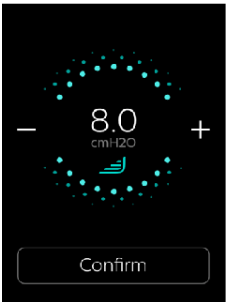





The UI on this device allows you to adjust the device settings and view information about your therapy. The UI consists of the display screen with touch capability.

While the device is delivering therapy, the pressure setting is displayed. You can also view and adjust humidification, heated tube temperature, and RAMP PLUS settings.



| # | Symbol | Feature | Description |
|---|--------|------------------|---|
| 1 | cmH2O | Therapy pressure | Displays the prescribed pressure setting. If RAMP PLUS is running, the current delivered pressure is displayed. |

| # | Symbol | Feature | Description |
|---|---|--|---|
| 2 |  | Adjustable humidifier setting (if enabled) | <p>The icon only displays when humidification is enabled by your home care provider. To change the setting, tap the humidification icon. A settings screen displays your current setting.</p> <p>Continue to tap the humidification icon until the desired setting is displayed. The available settings are Off or 1-5, with 1 as the lowest humidity and 5 as the highest humidity. Once humidification is set, the device will return to the therapy screen after a few seconds and automatically activate the new setting for current and future therapy settings.</p>  |
| 3 |  | Heated tube temperature (if available) | <p>The icon only displays if enabled by your home care provider when a heated tube is being used. To change the setting, tap the heated tube icon. A settings screen displays your current setting.</p>  <p>Continue to tap the heated tube icon until the desired setting is displayed. The available settings are Off or 1-5, with 1 as the lowest temperature and 5 as the highest temperature. Once a temperature is set, the device will return to the therapy screen after a few seconds and automatically activate the new setting for current and future therapy settings.</p> |

| # | Symbol | Feature | Description |
|-----------|---|----------------------------|---|
| 4 |  | RAMP PLUS (Ramp+) | <p>The device is equipped with a RAMP PLUS feature that allows you to adjust your starting pressure for a set period of time (default of 30 minutes) for added comfort when you are trying to fall asleep. During that set time, the air pressure will remain at your set starting pressure unless the device detects an event and identifies the need to increase your pressure. When RAMP PLUS has concluded, your prescribed therapy pressure will resume.</p> <p>To activate the RAMP PLUS setting, tap . Tapping will also simultaneously allow you to adjust the settings.</p> <p>The first time RAMP PLUS is activated, the setting will default to 4. To change the setting, tap the - or + icons until the desired starting pressure is displayed. For faster scrolling, hold the - or + icon instead of tapping.</p> <p>The RAMP PLUS pressures range from 4 cmH2O to 10 cmH2O in 1 cmH2O increments. Tap</p>  <p>confirm or wait 3 seconds to save your setting. The display will then return to the therapy screen. Every therapy session thereafter will automatically start RAMP PLUS with the start of therapy.</p> <p>Note: There is no need to tap the RAMP PLUS symbol again unless you want to make a change to the RAMP PLUS pressure or restart RAMP PLUS.</p> <p>Note: RAMP PLUS pressure and time can also be adjusted in the Settings Menu on your main screen if enabled by your home care provider.</p> <p>Note: The device goes dark after 60 seconds of inactivity. To wake up the device, tap anywhere on the display. This will simultaneously reactivate your RAMP PLUS pressure (if set), or it will take you to your prescribed minimum pressure level and continue to automatically adjust your delivered pressure as needed (if in Auto CPAP mode). Once the display appears, you can continue to adjust settings as desired.</p> |
| 5&6 | N/A | Ramp Indicator | The therapy on display indicates when ramp is active. The circle around the therapy display is dotted blue (5) when ramp is active and solid blue (6) when ramp is not active, or therapy pressure is achieved. |
| 7 |  | Oximetry connection | This symbol displays during therapy when a pulse oximeter is connected to the therapy device. |
| Not Shown |  | Therapy button ring | The therapy button ring illuminates blue to indicate therapy is turned on. The ring does not illuminate when therapy is on and the screen has gone dark. The ring illuminates white when the device is plugged in and therapy is off. |
| Not Shown |  | Cell modem signal strength | Displays signal strength of cellular modem on devices that have the cellular modem available except when in Airplane Mode. |
| Not Shown |  | Bluetooth | Displays when the device has Bluetooth available. When the symbol is grey, it indicates that Bluetooth is available. If the device is connected to a Bluetooth client (phone, tablet, etc.) it will appear white. This symbol does not appear when Airplane Mode is enabled. |
| Not Shown |  | Airplane mode | Displays when Airplane Mode is enabled. It will replace the Cell and/or Bluetooth symbols when active. |

5.11. Therapy off display

5.11.1. DreamStation 2 display

After Therapy is turned off a series of screens that display a summary of your therapy may appear. A description of each screen is below. Each screen displays three times and then the screen displays:

To begin therapy

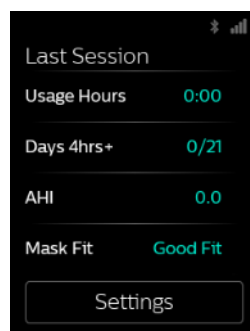
click below

Note: Restart therapy at any time by pressing the therapy button.

| Display text | Description |
|-----------------------|---|
| Last Session Duration | This screen displays the amount of time you received therapy on the device for the most recent one day time frame. |
| Last Session AHI | This screen displays the nightly Apnea/Hypopnea index (AHI) value for the most recent one day time frame. |
| Last Session Mask fit | This screen displays how your mask fit during the most recent one-day time frame. A display of “Good fit” indicates that the leak found allows for optimal performance of the device. A display of “Adjust fit” indicates that the leak may affect device performance, however, the device will remain functional and deliver therapy. If “Adjust fit” displays, adjust your mask to reduce the leak before starting therapy again. |
| Days 4hrs+ | This screen displays the total number of 4+ hour nights that you have slept in the last 30 days. It provides a goal of sleeping at least 4 hours per night for 70% of the last 30 nights, therefore the goal is 21 “good nights” of use. You will also receive a pop-up that says compliance was achieved. Click to dismiss this message. |

5.11.2. DreamStation 2 Advanced display

A summary of your therapy displays on the UI when therapy is turned off. You can view additional details about your therapy or perform a mask fit check. From here you can tap “Settings” to adjust Comfort and Device settings if enabled by your provider.



The following therapy results may appear on the Last Session screen. Tapping on the data displayed in blue text will give more history and detail for each item.

| Display text | Description |
|--------------|---|
| Usage hours | Displays an overview of your last day/night of usage in hours and minutes. Tapping the hours displayed in blue text shows your nightly usage for the last 3 sleep sessions. |
| Days 4hrs+ | Displays the total number of 4+ hour nights that you have slept in the last 30 days. It provides a goal of sleeping at least 4 hours per night for 70% of the last 30 nights. Therefore, the goal is 21 “good nights” of use. By tapping this section, you will see a screen that tracks your progress. An indication of reaching your goal will be displayed through a pop-up screen congratulating you. Additionally, a display of “Complete” will appear on the Last Session screen. |
| AHI | If enabled by your provider, this feature displays the nightly Apnea/Hypopnea index (AHI) value for the most recent one day time frame. |
| Mask fit | <p>This screen displays how your mask fit during the most recent one day time frame.</p> <p>A display of “Good fit” indicates that the leak found allows for optimal performance of the device. A display of “Adjust fit” indicates that the leak may affect device performance, however, the device will remain functional and deliver therapy. If “Adjust fit” displays, adjust your mask to reduce the leak before starting therapy again. By tapping on “Adjust fit” or “Good fit”, you can choose to initiate a mask fit check.</p> <p>To run a mask fit check, put on your mask assembly and tap “Start” to begin a mask fit check.</p> |





5.11.2.1. Navigating the setting screens

To adjust a setting:

1. Tap “Settings” from the Last Session screen.
2. Swipe up or down on the screen until you find the setting you want to adjust. The settings that can be changed appear in blue.
Note: If you see a series of dots on a setting, it indicates that there is more than one screen for that setting.
3. Tap the setting you want to view or change.
4. Tap the screen to change or select the setting. The display returns to the previous menu screen and the setting is saved.
Note: If you do not change a setting, tap “Back” on the top-left of the screen to exit back to the Last Session screen.

5.11.2.2. Setting screens

When you tap “Settings”, you will be able to view the following Comfort and Device settings. These screens will only display if they are available and enabled on your device through your provider. Tap “Back” to exit to the Last Session screen.

| Symbol | Meaning | Description |
|---|-------------------------|--|
|  | RAMP PLUS (Ramp+) | <p>RAMP PLUS allows you to adjust your starting pressure and time for added comfort when you are trying to fall asleep. In this setting you can set the time to 15, 30, or 45 minutes. You can also set the pressure to Off or from 4 cmH2O to 10 cmH2O in 1 cmH2O increments.</p> <p>During the set time, the air pressure will remain at your set starting pressure unless the device detects an event and identifies the need to increase your pressure. When RAMP PLUS has concluded, your prescribed therapy pressure will resume.</p> <p>Note: RAMP PLUS pressure can also be adjusted on the display screen during therapy.</p> |
|  | Humidity | You can change the humidification level setting from 0 to 5. This symbol only displays when humidification is enabled. |
|  | Heated tube temperature | You can change this setting from 0 to 5. This symbol only displays when optional heated tube is connected. |
|  | FLEX | This allows you to adjust the level of air pressure relief that you feel when you exhale during therapy. Your home care provider can enable or disable this feature. When your provider enables Flex, a level will already be set for you on the device. You change the setting between Off, 1, 2, and 3. The setting of “1” provides a small amount of pressure relief, with “2” and “3” providing additional relief. |

5.12. Device settings (language, time, airplane mode, Bluetooth reset)

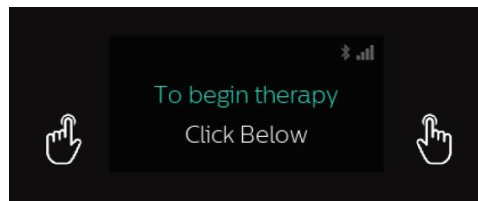
5.12.1. DreamStation 2 settings

The device settings screens allow you to reset the device language and time and Bluetooth connections. You also can turn Airplane Mode on and off.

Follow the steps below to navigate through the device settings screens. For each setting, press and hold the Therapy button to complete the action, or click the Therapy button to cancel the action.

Note: To reset Bluetooth connections and change Airplane Mode you must follow the steps below to first pass through the language and time screens.

1. With therapy off, press and hold to the left and right of the display screen simultaneously until the display shows the language and time reset screen.



2. After approximately 3 seconds, the screen displays:
 - Settings reset
 - Hold to start
 - Click to cancel
3. Press and hold the Therapy button to start the language and time reset or click the Therapy button to cancel reset. The device displays the reset or cancelling screens and then displays the Bluetooth setting.

Note: If you reset language and time, the device will prompt you to set the language and time before the Bluetooth selection screen displays.
4. Press and hold the Therapy button to reset the Bluetooth connections, or click the Therapy button to cancel reset. The device displays the reset or cancelling screens and then displays the Airplane Mode setting.
5. Press and hold the Therapy button to turn Airplane Mode on or off. The device displays the reset or cancelling screens and then exits back to the Therapy off screen.

Note: Airplane mode will automatically turn off after three days.

5.12.2. DreamStation 2 Advanced Settings

| Text | Description |
|---------------|--|
| Airplane Mode | This setting allows you to turn airplane mode on and off. Note: Airplane mode will automatically turn off after three days. |
| Bluetooth | This setting allows you to view or delete the Bluetooth connections on your device. |
| Time | This setting allows you to choose the time to display in a 12-hour or 24-hour format and set the current time. |
| Language | This setting allows you to choose which language to display on the UI. |
| Serial | Displays the serial number of the device. |
| Software | Displays the software version of the device. |
| Modem call | Displays the date of the last modem call and a status code. See the Modem Call section later in this manual for a description of the codes. |
| View reports | If enabled by your provider, tapping “View Reports” will allow you to view the past 1, 7, 30, 90, 180, or 365 days of therapy data. The remaining items in this table are accessed through “View Reports”. |
| Report range | Select the desired time period for the report (1, 7, 30, 90, 180, or 365 days). |
| Days used | The number of days the device was used since the start of therapy or during the selected period. |
| Days 4hrs+ | The number of days the device was used for 4 hours or more since the start of therapy or during the selected period. |
| Avg Usage | The average amount of time the device was used since the start of therapy or during the selected period. |
| Total Usage | The total number of hours the device was used during the selected period. |

5.13. Provider Mode Screens

5.13.1. Accessing provider mode screens

Accessing Provider mode unlocks settings that cannot be modified by the user. To access Provider mode, the device must be plugged in. Once plugged in, then follow the steps below.

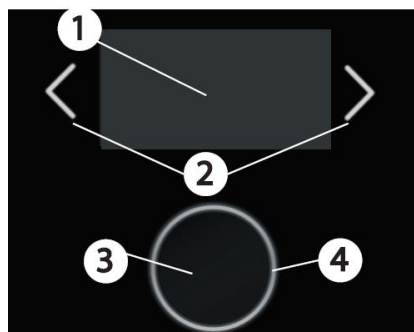
1. Press and hold the Therapy On/Off button on the device for at least 3 seconds.
2. When the Therapy button ring flashes, continue to hold the Therapy On/Off button and press and hold the area to the immediate right of the display screen or, for the Advanced model, swipe down on the device screen.
3. The display screen indicates that it is entering Provider mode. You can begin to setup the device.

Notes

- You may also setup an optional 4-digit PIN to enter Provider mode for additional security. Once setup, if the wrong PIN is entered too many times, you will have the option to reset the device or wait 15 minutes and try again.
- Provider mode times out and returns to Patient mode after 3 minutes of inactivity.

5.13.2. DreamStation 2 navigating provider mode screens

The User Interface (UI) on this device allows you to adjust therapy and device settings and view information about the patient’s therapy. The UI consists of the display screen, navigation arrows, and the Therapy On/Off button






| Number | Feature | Description |
|--------|-----------------------------------|--|
| 1 | Display screen | Display area for viewing the menus and settings. |
| 2 | Navigation arrows | The > arrow appears when additional menus are available. Tap the > arrow to display the next setting or menu option. The < arrow appears when navigation to a previous menu is available. Tap the < arrow to display the previous setting or menu option. Note: Hold down the left or right arrow to quickly scroll through the time, pressure, and language setting selections. |
| 3 | Therapy On/Off (selection) button | The Therapy On/Off button functions as a selection button for the UI while the device is in Provider mode. Press the Therapy On/Off button to access sub-menu screens or to select and save therapy or device settings. Pressing the Therapy On/Off button when a “Back” screen displays exits back to the main menu. |
| 4 | Therapy button ring | The Therapy button ring illuminates white when therapy is off. The ring illuminates blue when therapy is turned on. |

5.13.3. DreamStation 2 Advanced navigating provider mode screen

The User Interface (UI) on this device is a touch display screen that allows you to adjust settings and view information about the patient's therapy.

To adjust a setting or view information:

1. Tap the icon for the menu you want to view. The icons appear on the bottom of the screen
 -  Therapy
 -  Data
 -  Device
2. Swipe up or down on the screen until you find the setting you want to adjust.
Note: The dots located on right of screen indicate the number of screens available for viewing. The highlighted dot indicates the screen that is currently displayed.
3. Tap the setting you want to view or change.
4. Tap the screen to change or select the setting. If prompted, tap "Confirm" to save the setting. The display returns to the previous menu screen and the setting is saved.

5.13.4. DreamStation 2 provider mode screen descriptions

The following sections will describe the menus available in Provider mode - Therapy, Mask Fit Check, and Info.

5.13.4.1. Therapy menu

This screen takes you to sub-menu settings where you can adjust the device therapy mode, pressure settings, and tube type. See the table below for a description of the Therapy menu screens. Once you have completed the Therapy setup, press the > button to advance to Mask Fit Check or Info screens. Press the < button to go to the Exit to Patient Mode screen.



| Setting Screen | Setting Options |
|----------------|---|
| Mode | This screen displays the therapy mode setting. You can select CPAP mode or Auto mode. |
| Pressure | <p>CPAP mode - This screen allows you to adjust the CPAP pressure. You can adjust this setting from 4 to 20 cmH2O.</p> <p>Auto CPAP mode</p> <p>Minimum Pressure - This screen allows you to modify the Minimum Pressure setting. You may adjust the setting from 4 cmH2O up to 20 cmH2O.</p> <p>Maximum Pressure - This screen allows you to modify the Maximum Pressure setting. You may adjust the setting from 20 cmH2O down to the Minimum Pressure value.</p> |
| Tube Type | This setting allows you to select the correct size diameter tubing that you are using with the device. You can choose from the following Philips Respironics tubing: 12mm, 15mm, 22mm. If heated tubing is connected to the device during setup, the device will automatically recognize the appropriate tube type. |

5.13.4.2. Mask fit check menu

This feature allows you to check the fit of the patient's mask prior to starting therapy. This is done by measuring the amount of leak. Make sure the mask assembly is on the patient and press the Therapy button to start mask fit check. The check runs for approximately 40 seconds. During the check, the screen will display "Good fit" or "Adjust fit". "Good fit" indicates that the mask is fitting appropriately with an acceptable leak that allows for optimal performance of the device. "Adjust fit" indicates that the leak may affect device performance, however, the device will remain functional and deliver therapy. If "Adjust fit" displays, adjust the mask to reduce the leak.



5.13.4.3. Info menu

This screen will take you to a sub-menu where you can view patient and device information and change the language and time settings.



| Screen text | Setting description/options |
|---------------------------|--|
| Patient AHI | The device accumulates individual Apnea/Hypopnea indices (AHI) for each session the patient used the device. This screen displays the average of these individual nightly AHI values over a 30-day time frame. |
| Machine hours | This screen displays the number of hours that therapy has been active over the life of the device. |
| Reset to Factory Settings | Use the Reset function to clear patient and Bluetooth data from the therapy device, as well as an SD card and modem (if installed). It will then restore the device to initial factory default settings. To execute the reset press and hold the Therapy On/Off button. If you do not want to complete the reset, press (click) the Therapy On/Off button to cancel the reset. |
| Time | This screen allows you to choose the time to display in a 12-hour or 24-hour format and set the current time (hold arrows to scroll quickly). |
| Language | This screen allows you to choose which language to display on the UI. Press Therapy button to change the language. Use the navigation arrows to select from available languages (hold arrows to scroll quickly). Press Therapy button to select and save the desired language. |
| Serial Number | This screen displays the device serial number. |
| Software Version | This screen displays the device software version. |
| PIN | Allows you to set or reset the provider PIN |

5.13.5. DreamStation 2 Advanced provider mode screen descriptions

5.13.5.1. Therapy menu

This menu allows you to adjust the device therapy modes and other therapy settings/features. Swipe up on the screen to view the Options, Patient Visible, and Auto Trial settings described below.

5.13.5.1.1. Settings screen

| Screen Text | Setting description/options |
|--------------------|---|
| Mode | This screen displays the therapy mode setting. You can select CPAP or AUTO. |
| Pressure | <p>CPAP mode - This screen allows you to adjust the CPAP pressure. You can adjust this setting from 4 to 20 cmH₂O.</p> <p>Auto CPAP mode</p> <p>Minimum Pressure - This screen allows you to modify the Minimum Pressure setting. You may adjust the setting from 4 cmH₂O to 20 cmH₂O.</p> <p>Maximum Pressure - This screen allows you to modify the Maximum Pressure setting. You may adjust the setting from 20 cmH₂O down to the Minimum Pressure value.</p> |
| FLEX | You can modify the Flex setting on this screen. The setting of 1 provides a small amount of pressure relief, with 2 and 3 providing additional relief. You can select Off, 1, 2, or 3. |
| Tube | This setting allows you to select the correct size diameter tubing that you are using with the device. You can choose from the following Philips Respironics performance tubing: 12mm, 15mm, 22mm. If heated tubing is connected to the device during setup, the device will automatically recognize the appropriate heated tube type. |
| RAMP PLUS (Ramp +) | <p>The device is equipped with a RAMP PLUS feature that allows a patient to adjust the starting pressure (between 4-10 cmH₂O) for a set period of time for added comfort when trying to fall asleep. During RAMP PLUS time, the air pressure will remain at the set starting pressure unless the device detects an event and identifies the need to increase pressure. When RAMP PLUS has concluded, the prescribed therapy pressure will resume.</p> <p>The RAMP PLUS period will terminate when the set time expires. If the RAMP PLUS pressure does not reach the minimum pressure of the therapy mode selected by the end of the RAMP PLUS time, then pressure is increased at a rate of approximately 1 cmH₂O per minute. Once the pressure reaches the minimum pressure of the therapy mode selected, the device will continue to deliver therapy for that mode.</p> <p>The available RAMP PLUS pressures are Off or 4-10 cmH₂O with 1 cmH₂O increments.</p> <p>The available RAMP PLUS times that can be set are: 15, 30, or 45 minutes.</p> |

5.13.5.1.2. Patient access screen

This setting allows you to make the following “Patient Controls” or “Patient Data” screens or features visible or not visible to the patient. If turned On, the screens and features will be visible in Patient mode. If turned Off, the screens and features will not display or be available when the device is in Patient mode.

| | |
|----------------------------|---|
| Patient Controls On/Off | <ul style="list-style-type: none"> • Flex • Ramp Time • Ramp Pressure • Humidification • Heated Tube Temperature • Time <p>Note: Patient will always have access to RAMP PLUS pressure, humidification level, and heated tube temperature (if using heated tube) while therapy is on and running.</p> |
| Patient Data On/Off | <ul style="list-style-type: none"> • AHI • View Reports |

5.13.5.1.3. Options screen

| Screen Text | Setting description/options |
|-------------|--|
| Mask Type | This setting allows you to select the appropriate Mask Type resistance setting for your Philips Respironics mask. This feature allows the device to adjust the level of pressure compensation to match your mask. Refer to the packaging of your mask to identify the resistance setting for your mask. |
| CPAP Check | CPAP Check mode (C Check) delivers CPAP therapy while automatically adjusting the pressure level to meet patient needs over the long term. Every 30 hours of therapy use, the therapy device evaluates patient obstructive respiratory disturbance index (ORDI) and increments pressure ± 1 cmH ₂ O if needed, to a maximum of ± 3 cmH ₂ O. This feature can be set to On or Off. |
| EZ-Start | This feature reduces the therapy pressure setting for the first few days of operation and gradually increases this setting until the prescription therapy pressure is reached. For fixed CPAP mode, the initial pressure will be reduced to half of the prescription CPAP pressure setting, but no lower than 5 cmH ₂ O. For Auto CPAP mode, EZ-Start reduces the maximum Auto pressure to 1 cmH ₂ O above the minimum Auto pressure setting. For either mode, after each day of successful use (the therapy session was greater than 4 hours), the therapy pressure will increase by 1 cmH ₂ O until the prescription pressure is reached. From that point forward, the therapy device would operate in normal CPAP, CPAP-Check, or Auto CPAP mode. If the patient has not reached their prescription pressure after 30 days of EZ-Start, then the therapy pressure will increase by 1 cmH ₂ O per day until the prescription pressure is reached. You can enable or disable EZ-Start only if CPAP, CPAP-Check, or Auto CPAP mode is enabled. |

5.13.5.1.4. Auto-Trial screen

This Auto-Trial feature will enable the device to deliver Auto-CPAP therapy for a selectable number of days of patient use. You can set this feature to On or Off. This setting only displays when CPAP mode is enabled.

| Screen Text | Setting description/options |
|--------------|---|
| Duration | <p>This screen allows you to adjust the duration of the Auto-Trial feature in number of days. You can set this to Off or 3, 7, 14, 21, or 30 days. It will also display a countdown of total days available on the device.</p> <p>This setting only displays if Auto-Trial mode is available and enabled.</p> |
| Min Pressure | <p>This screen allows you to modify the Auto minimum pressure setting. You can adjust this setting from 4 cmH₂O to the Auto maximum pressure setting. Adjustment to this setting is only available when Auto-Trial is enabled and has a number of days assigned.</p> |
| Max Pressure | <p>This screen allows you to modify the Auto maximum pressure setting. You can adjust this setting from the Auto minimum pressure setting to 20 cmH₂O. Adjustment to this setting is only available when Auto-Trial is enabled and has a number of days assigned.</p> |

5.13.5.2. Data menu

Tap the Data icon to view the patient therapy information described below.

| Screen Text | Setting description/options |
|--------------|---|
| Avg usage | The device is capable of recognizing the difference between the time the patient is actually receiving therapy and the time when the blower is simply running. This screen displays the average amount of time the patient is actually receiving therapy on the device for the most recent 30-day time frame (provided the device has at least 30 days of data). |
| Days 4hrs+ | Displays the total number of 4+ hour nights that the patient has slept in the last 30 days. It provides a goal of sleeping at least 4 hours per night for 70% of the last 30 nights. Therefore, the goal is 21 “good nights” of use. |
| Avg AHI | The device accumulates individual Apnea/Hypopnea indices (AHI) for each session the patient used the device. This screen displays the average of these individual nightly AHI values over a 30-day time frame. |
| Avg mask fit | Displays the average mask fit percentage value for the last 30 days. The mask fit percentage is the percentage of time that the mask leak was low enough for the device to identify respiratory events with statistical accuracy. |
| 90% pressure | This screen displays average of the individual nightly values of 90% Pressure over a 30-day time frame. Available on the Auto model. |
| View reports | Allows you to view more detailed data over a selectable period of the last 1, 7, 30, 90, 180, or 365 days. It will provide information on number of days used, Days 4hrs+, Average Usage, Total Usage, Average Mask Fit, Average AHI, and 90% pressure over the period of the selectable date range. The remaining definitions in this table are for items that appear while using “View reports”. |
| Report range | Select the desired time period for the report (1, 7, 30, 90, 180, or 365 days). |
| Days used | The number of days the device was used since the start of therapy or during the selected period |
| Days 4hrs+ | The number of days the device was used 4 hours or more since the start of therapy or during the selected period |
| Avg usage | The average amount of time the device was used since the start of therapy or during the selected period |
| Total usage | The total hours the device was used during the selected period. |
| Avg mask fit | The average percentage of time there was a Good Mask Fit during the selected period. |
| Avg AHI | The average AHI for the days the device was used during the selected period. |
| 90% pressure | The average 90% pressure for the days the device was used during the selected period |

5.13.5.3. Device menu

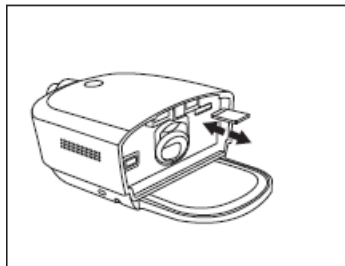
| Screen Text | Setting description/options |
|------------------|--|
| Device Reset | Use the Reset function to clear patient data and Bluetooth pairings from the therapy device, as well as an SD card and modem (if installed). After you tap “Device Reset” to execute the reset, the device will display a sub-menu to confirm the reset. Tap “Reset Now”. If you do not want to complete the reset, tap “Back” to return to the Device menu. Note: Device Reset resets Therapy Hours that are visible to the patient, but it does not reset Machine Hours in the Provider Menu. |
| Language | This feature allows you to choose which language to display on the interface. |
| Time | This feature allows you to choose the time to display in a 12-hour or 24-hour format. You also can set the time. |
| Machine hours | This screen displays the number of hours that therapy has been active over the life of the device. |
| Serial Number | This screen displays the device serial number. |
| Software Version | This screen displays the device software version. |
| PIN | Allows you to set or reset the provider PIN |

5.14. Accessories

There are several optional accessories available for your DreamStation 2 device. For a full list of accessories that can be used with this device, see the DreamStation 2 accessory list at www.philips.com/IFU. Contact your home care service provider for additional information on the available accessories. When using optional accessories, always follow the instructions enclosed with the accessories.

5.14.1. SD Card

The device may come with an SD card inserted in the SD card slot behind the water tank. The SD card stores information for the home care provider. Your home care provider may ask you to periodically remove the SD card and send it to them for evaluation.



5.14.2. Updating software DreamStation 2 CPAP or Auto CPAP

You can update the device software using an SD card. The software update must be done when the therapy is off.

1. Connect the device to power.
2. Insert a SD card with new software version into the device. After approximately 15 to 20 seconds, a pop-up screen appears displaying:

*Device Update
Hold to Confirm
Click to Cancel*

3. Press and hold the Therapy button for at least 3 seconds to continue with the software upgrade. To cancel the software upgrade, click the Therapy button.
4. When the update begins, the screen displays “Software Update Active” and the therapy button ring flashes. The screen will then appear black or may display a progress bar until the update is complete.
5. The device User Interface (UI) will restart when the upgrade is complete. Remove the SD card.

5.14.3. Updating software on a DreamStation 2 CPAP Advanced or Auto CPAP Advanced

1. Insert SD card into DreamStation 2 device.
2. After approximately 15 to 20 seconds, a pop-up screen appears displaying:

*A new software version is
available. Update now?
Update
Cancel*

3. Tap Update to continue with the software upgrade.
4. When the update begins, the screen displays “Software Update Active” and the therapy button ring flashes. The screen will then appear black or may display a progress bar until the update is complete.
5. The device will restart when the upgrade is complete. Remove the SD card.

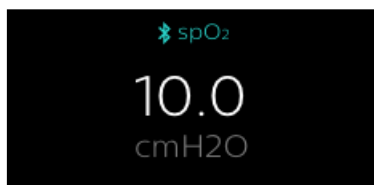
5.14.4. Oximeter

The DreamStation 2 device can pair to a Nonin BT Pulse Oximeter, using Bluetooth, for measuring %SpO₂ and pulse rate.

To use a pulse oximeter with your therapy device, follow these steps:

1. Follow the setup instructions provided with your pulse oximeter and finger sensor.
2. Attach the finger sensor to your forefinger.
3. Press the Therapy button on your device to begin therapy.
4. Once the device detects a good connection with the pulse oximeter, both the Bluetooth symbol and “SpO₂” will display on the top of the display screen.

Note: It may take up to 30 seconds for the device to recognize the pulse oximeter.



When you have achieved at least 4 hours of therapy and oximetry use, a “SpO₂ Successful” pop-up message will display. If you do not reach the minimum therapy hours, a “SpO₂ Unsuccessful” message will display.

5.14.5. USB Module

For Service or in a laboratory setting, The USB module allows remote control of the DreamStation 2 Sleep Therapy Device by a personal computer.

To connect the USB Module, follow the steps below:

1. Connect the USB Enable Dongle DC plug to the device DC receptacle.
2. Connect the 80-Watt power supply DC plug to the DC receptacle input of the USB Enable Dongle.
3. The USB port on the device should now be enabled
4. If the software does not recognize the device, power cycle the USB module by temporarily unplugging it from the power supply.

Chapter 6: Evaluation and troubleshooting

6.1. Introduction

This section provides an overview of device troubleshooting, along with corrective actions to take based on the outcome. You will also find bench checkout procedures, along with tables that include error codes and descriptions. In addition, you will find troubleshooting guidance based on issues unrelated to error codes.

6.2. Bench Checkout

When the PAP device was returned, perform these steps with and without the Humidifier if necessary.

1. Visually inspect the outside of the device for physical damage and broken/missing parts. Damaged components should be replaced.
2. Verify all components are aligned/seated properly, and not damaged.
3. Uninstall or disconnect accessories (SD card, tubing, etc.) prior to applying power to the device.
4. Apply power to the device and verify the buttons are functioning properly and are properly backlit, and the LCD is working.
5. Adjust heater plate setting and let the device run for at least 15 seconds.
6. If the device was returned with a power cord and power supply, verify that they function properly with/without the device.
7. Install or connect each accessory individually, as applicable, to verify successful detection of the accessory with the device.
8. Turn on the device by activating therapy and verify proper operation of the unit.
9. Verify the device pressure by using a manometer.
10. Listen to the device for noisy operation or loose components.
11. Refer to section 6.4 to retrieve the device Error Log and refer to the chart for troubleshooting guidance based on the Error.
12. Check all other components for physical damage.
13. Perform repairs to the device as necessary.

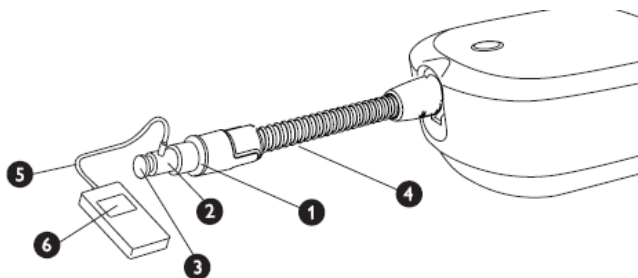
6.3. Verifying pressure

WARNING

If the device fails to perform within the stated specifications, have the system serviced by a qualified Philips Respironics-approved service facility.

When part of your patient setup procedure is to verify actual pressure with a manometer, please use the following instructions to ensure that the device is functioning properly. You will need the following equipment to verify the pressure:

- Philips Respironics Pressure Calibration Kit
 - Kit Includes:
 - Philips Respironics Whisper Swivel II (1)
 - Philips Respironics O2 Enrichment Final Assembly (2)
 - Closed end cap (3)
- Philips Respironics flexible tubing (4)
- Pressure tubing (5)
- Philips Respironics Digital Manometer (6) or equivalent
 - Minimum Specifications:
 - 0 - 25 cmH₂O (or better)
 - ±0.3 cmH₂O accuracy
 - ±0.1 cmH₂O resolution
- Reusable Pollen filter (not shown)



To verify the pressure, complete the following steps:

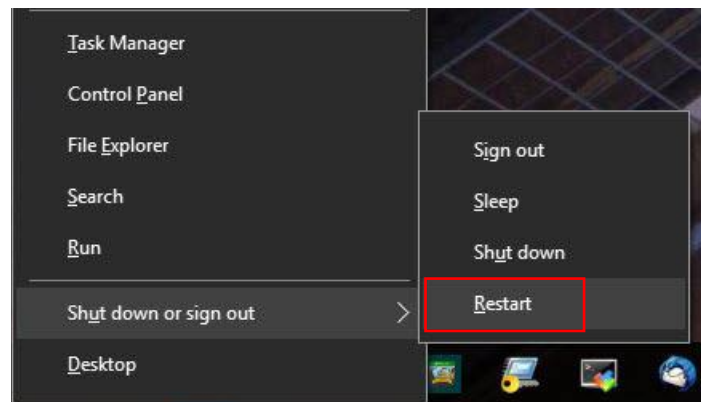
1. Install the reusable pollen filter into the device.
2. With the device unplugged, connect the system as illustrated in the diagram.
3. Turn the manometer on. If it does not display a reading of zero, adjust the manometer to calibrate it. If the manometer has variable settings for devices, set it to cmH₂O.
4. Supply power to the device then place the device in Provider mode.
5. Set the therapy parameters according to the patient specific data.
6. Set the device to the specific pressure value for the patient.
7. Enter Demonstration mode or exit Provider mode and turn Therapy on.
8. Verify that the pressure setting matches the pressure displayed on the manometer. If the pressure setting does not match the measured value for the device, contact Philips Respironics or an authorized service center to have the device serviced.
9. Enter Provider mode to set up the remaining parameters. Exit to Patient mode. The unit is ready for patient use.

6.4. Service Diagnostic & Test Tool Installation and Device Connection Process

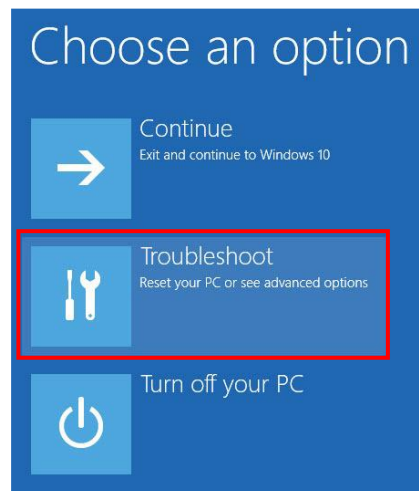
6.4.1. Installation of Service Diagnostic & Test Tool and Device Drivers

The DreamStation 2 Service and Diagnostic Tool will provide you the necessary tools to view the device's error/event log, along with additional functions necessary to service the device. To download the software, you must log onto My Philips for Professionals (my.philips.com/s/). If you do not have an account, Access MyP4P SRC My Respironics registration page. Refer to Field Communication 16-700-492 for instructions on obtaining account access, product searches, and file and software downloads.

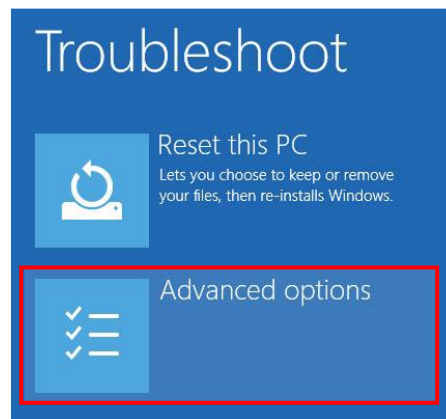
1. Download the DreamStation 2 Serv Diagnostic Test Tool by following Field Communication 16-700-492.
2. Install the Service Diagnostic & Test Tool installer to your PC by following the installer wizard after launching the download.
3. Download the DreamStation 2 device driver package by following Field Communication 16-700-492.
4. Reboot the Windows 10 PC into Advanced Boot Menu by pressing "**Win + X**", navigate to the Shutdown menu, and then press "**Shift + Left Click**" on the **Restart** option.



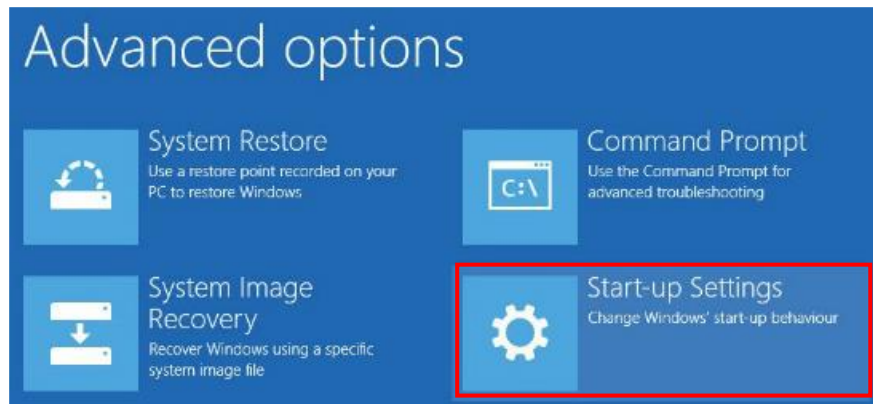
5. Once rebooted, select **Troubleshoot**.



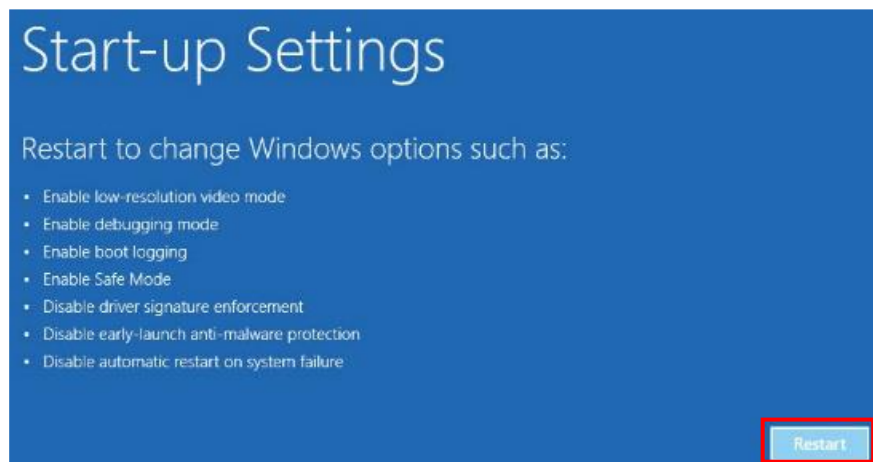
- In the Troubleshoot screen, select **Advanced options**.



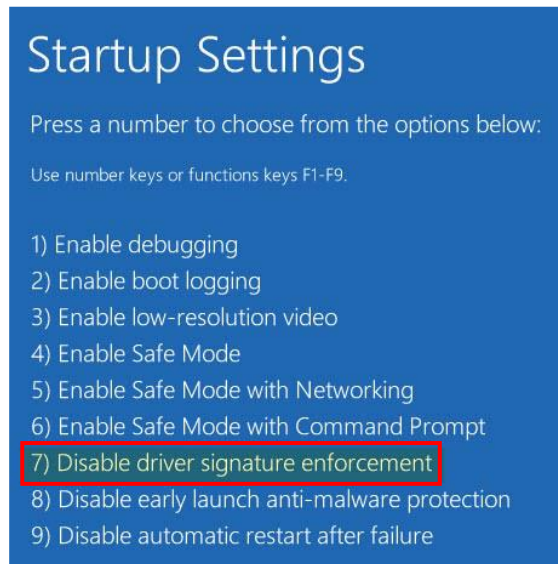
- In the Advanced options screen, select **Start-up Settings**.
Note: It may be necessary to select **See More Recovery Options** to find the Start-up Settings option.



- In the Startup Settings screen, select **Restart**.

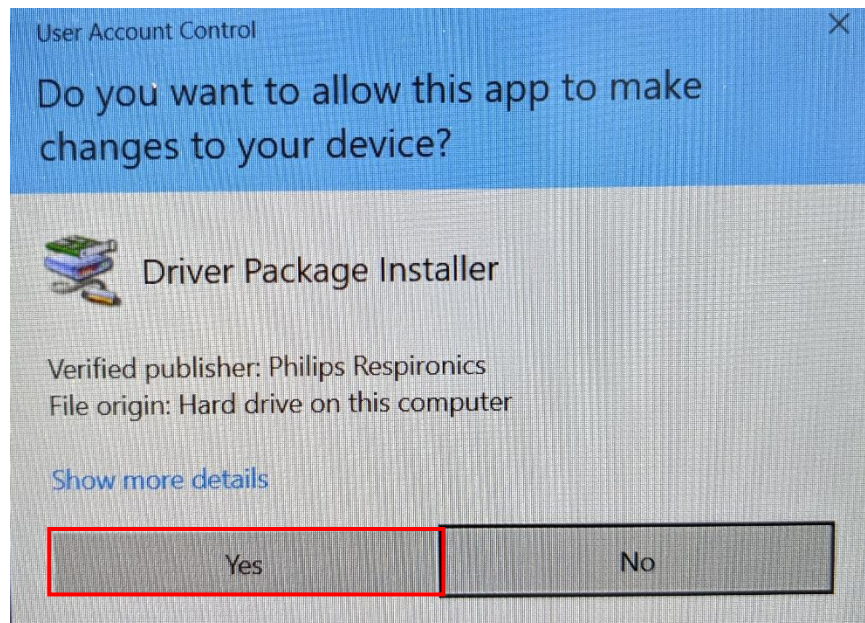


9. Press F7 on your keyboard to select the seventh option **Disable driver signature enforcement**.

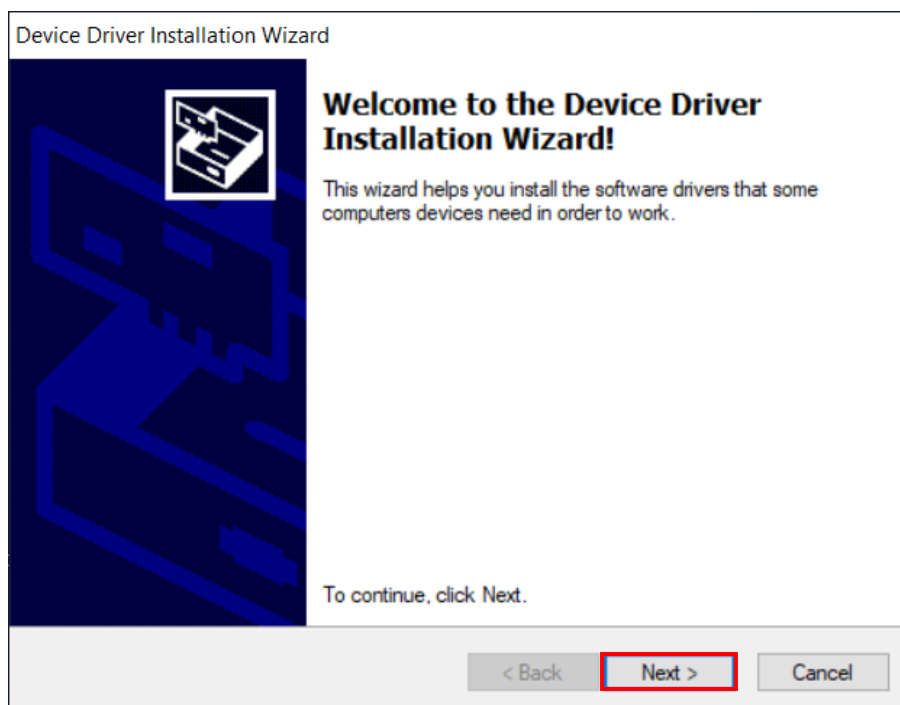


10. Run the **DreamStation2 Device Driver Installer.exe** file on the system where the drivers are to be installed.

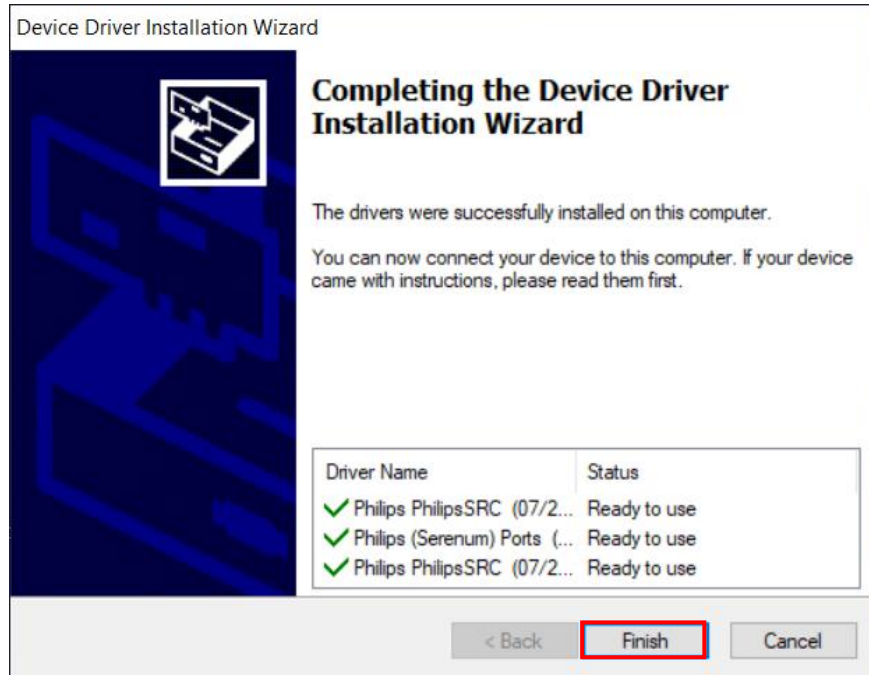
11. When asked “Do you want to allow this app to make changes to your device?” Select **Yes**



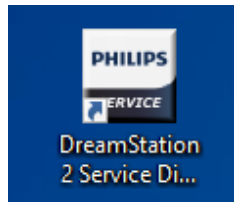
12. Once the Device Driver Installation Wizard window pops up, select **Next**.



- Once installation is complete, select **Finish**.

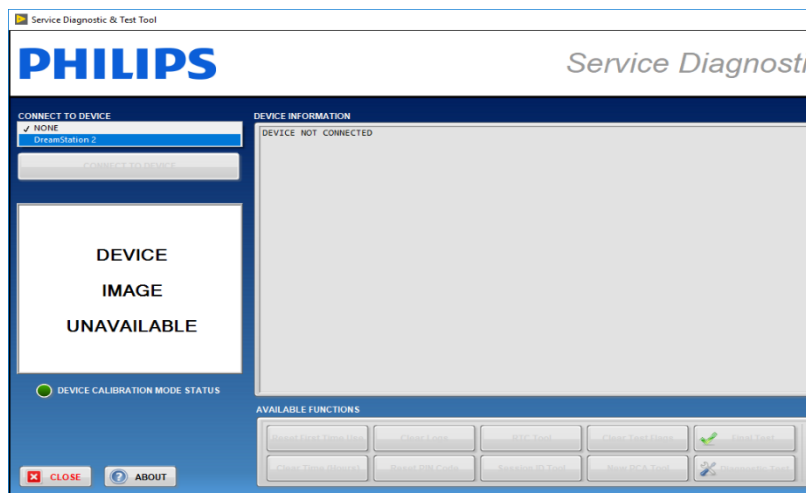


- To use the Service Diagnostic & Test Tool, launch the software from the desktop by double



clicking on the icon.

- Connect the USB module to the power supply. Refer to USB module section in accessory section.
- Connect power via the USB module to the device.
- Connect USB cable between the device and the computer.
- Select "DreamStation2" from the dropdown list to connect the device to the Service Diagnostic & Test Tool.



19. Select a function to execute. Refer to the table below for functions that are available for DreamStation 2 devices.

| Function | Description |
|-------------------------|---|
| Final Test | <i>This function allows you to perform the Final test after the device has been serviced.</i> |
| RTC Tool | <i>This function allows you to set and verify the real time clock on the device.</i> |
| Session ID Tool | <i>This function allows you get or set the Session ID: Get Session ID retrieves the session ID on the device. The session ID is a unique number that interfaces with Encore. Set Session ID allows you to set the session ID on the device. This function is relevant when the therapy PCA is replaced on a device.</i> |
| Diagnostic Tool | <i>This function allows you to perform the bench check out procedure to identify any issues with the device.</i> |
| Read Time Meters | <i>This function allows you to read the therapy and blower hours on the device.</i> |
| Clear Time | <i>This function allows you the retrieve certain data from the device, including device error codes (if any are logged). Within this function, you can also choose to clear the error log, device log, therapy hours and blower hours. You can also reset the provider PIN code and load the serialnumber (SN) and model number (MN) to the device. This function will also prompt you if the returned power cord and power supply are functional, with the options of “Yes”, “No”, or “Not Returned”. See Figure 6-4 below for an example of data retrieved from the device.</i> |

6.4.2. Clearing the error and device logs

- The device is to contain no errors after repairs are made. If any errors are logged on the device that do not affect device functionality, the error(s) must be cleared. Refer to section 6.5 for a list of error codes, descriptions, and corrective actions.
- The device log cannot be read; however, the device log must be cleared on the device as part of routine servicing.

6.4.3. Clearing therapy and blower hours

- If the PCA is NOT replaced during device servicing, the therapy hours are only be cleared if the device is going to a different patient. Otherwise, the therapy hours will remain on the device.
- If the PCA is NOT replaced during device servicing, the blower hours are only cleared if the Blower is replaced. Otherwise, the blower hours will remain on the device.

6.4.4. Resetting pin code

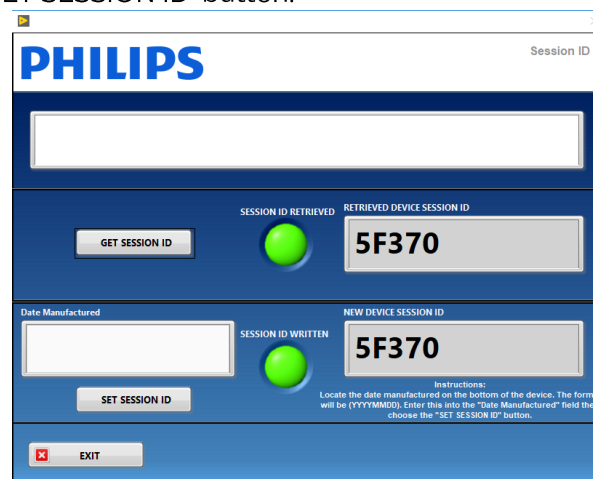
- To access the Provider Menu, a PIN code may be set on devices. If access to the Provider Menu is necessary, use the Reset PIN Code function to reset the PIN code if it was not provided at the time of service.

6.4.5. Setting the session ID

NOTE

The Session ID is to be set on the device when the Therapy PCA is replaced. If the Therapy PCA is not replaced on the device, the Session ID will not be set.

1. Connect the device to a PC and launch the Service Diagnostic & Test Tool.
2. Select Session ID Tool.
3. Enter the date manufactured of the PAP device into the DATE MANUFACTURED box, then select the 'SET SESSION ID' button.



NOTE

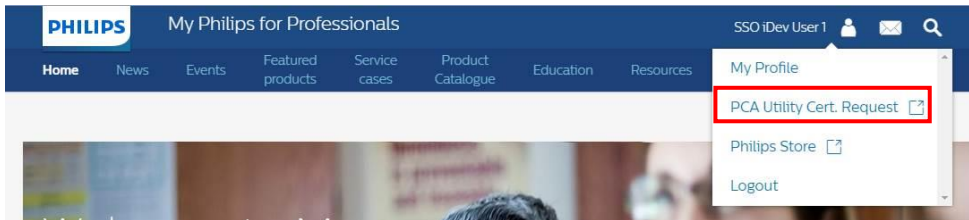
The Manufactured Date is located on the device's serial/model number label in format YYYY-MM-DD. When entering the date into the software application, do not include the dashes (-).

6.4.6. Replacing the PCA

6.4.6.1 Service Diagnostic and Test Tool Utility Certification

To obtain the required utility certification:

1. Log onto My Philips for Professionals (my.philips.com/s/).
2. Under the profile button, click the “PCA Utility Cert. Request” link



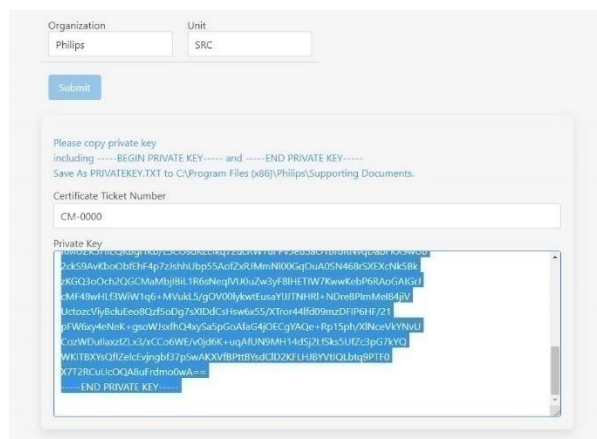
3. Complete the Utility Certification Request Form and click submit. An email will be sent to the email provided with the required utility certificate within 2 business days.

The screenshot shows the 'Utility Certification Request Form'. Fields include:

- Email: partner.prajakatsasame@philips.com
- First name: SSO
- Last name: iDev User 1
- Country: US
- State / Province: Pennsylvania
- City / Locality: Pittsburgh
- Organization: Philips
- Unit: SRC

 A 'Submit' button is visible below the form. Below the form, there is a section for 'Please copy private key' with instructions and a 'Certificate Ticket Number' field containing 'CM-0000'. The private key text is partially visible and highlighted in blue in the next screenshot.

4. Copy the private key as described in the vendor setup form and paste into Notepad.



Note: Be sure to include the ***** BEGIN PRIVATE KEY ***** and ***** END PRIVATE KEY ***** in the selection.

- Save as a text file with the name “PRIVATEKEY” to C:\Program Files (x86)\Philips\Dreamstation 2 Service\Supporting Documents.

| OSDisk (C:) > Program Files (x86) > Philips > Dreamstation 2 Service > Supporting Documents | | |
|---|-------------------|---------------|
| Name | Date modified | Type |
| PRIVATEKEY | 8/9/2021 12:22 PM | Text Document |

- When you receive the certificate in the email provided in the Utility certification request form, save the certificate as a text file with the name “CERTIFICATE” to C:\Program Files (x86)\Philips\Dreamstation 2 Service\Supporting Documents.

| OSDisk (C:) > Program Files (x86) > Philips > Dreamstation 2 Service > Supporting Documents | | |
|---|-------------------|---------------|
| Name | Date modified | Type |
| CERTIFICATE | 8/9/2021 12:22 PM | Text Document |
| PRIVATEKEY | 8/9/2021 12:22 PM | Text Document |

6.4.7. PCA Replacement

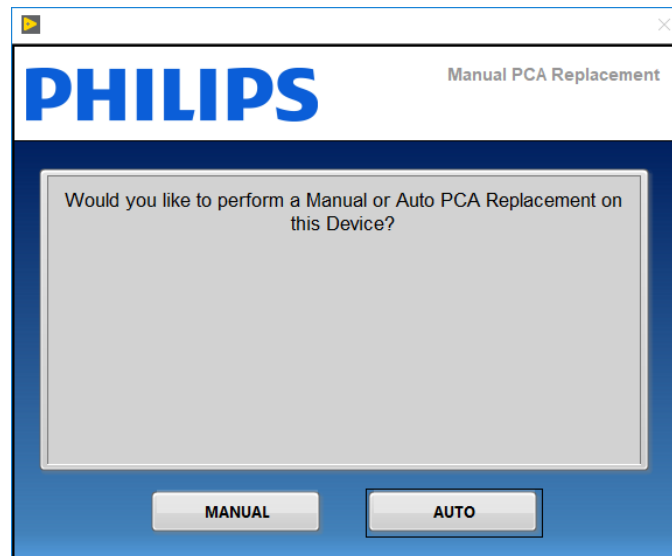
To replace the device PCA:

- Connect the device to the Service Diagnostic & Test Tool before replacing the current PCA.
- From the home screen, click on the New PCA Tool button.

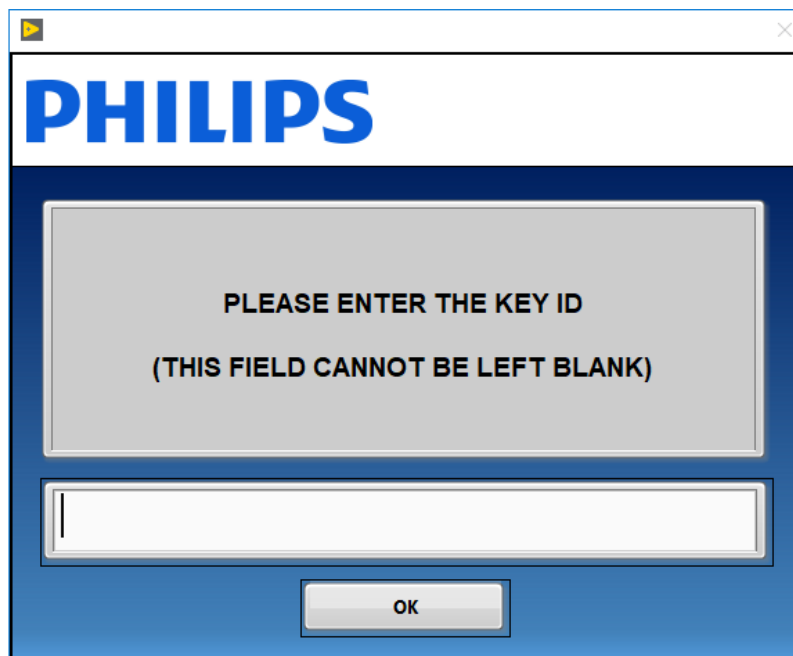
The screenshot shows the Philips Service Diagnostic & Test Tool interface. The main window displays device information and available functions. The 'AVAILABLE FUNCTIONS' section at the bottom contains several buttons, with 'New PCA Tool' highlighted in red.

| CONNECT TO DEVICE | | DEVICE INFORMATION | |
|----------------------------------|----------------|---|---------------------|
| Dreamstation 2 | | PINNACLE BASE AUTO | |
| DISCONNECT FROM DEVICE | | RETURNED POWER CORD FUNCTIONAL? YES | |
| [Image of Dreamstation 2 device] | | RETURNED POWER SUPPLY FUNCTIONAL? YES | |
| DEVICE CALIBRATION MODE STATUS | | MODEL NUMBER: 510X110C | |
| | | SERIAL NUMBER: D0VTE00010B3F | |
| | | DEVICE TYPE: PINNACLE BASE AUTO(0X8A) | |
| | | THERAPY FIRMWARE VERSION: V1.0.0.3212 | |
| | | UI SOFTWARE VERSION: V2 | |
| | | MODEM SW VERSION: L0.0.00.00.05.08 [APR 17 2019 19:34:02] | |
| | | PCA PART NUMBER: 1141624 | |
| | | PCA REVISION NUMBER: 08 | |
| | | PCA SERIAL NUMBER: KK66V008Y1 | |
| | | THERAPY MODE: AUTO-CPAP 2 | |
| | | THERAPY HOURS: 0.0 | |
| | | BLOWER HOURS: 0.0 | |
| | | MACHINE HOURS: 0.0 | |
| | | SET PRESSURE: 10.000 | |
| | | ERROR LOGS: EMPTY | |
| AVAILABLE FUNCTIONS | | | |
| Reset First Time Use | Clear Logs | RTC Tool | Clear Test Flags |
| Clear Time (Hours) | Reset PIN Code | Session ID Tool | New PCA Tool |
| | | | Final Test |
| | | | Diagnostic Test |
| | | | Refresh Information |
| | | | Save |

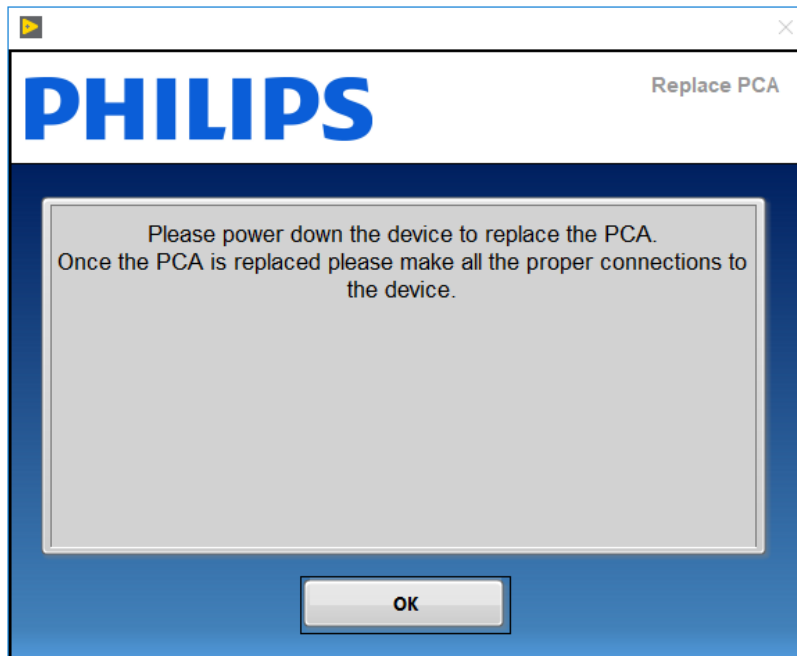
- Next, select the appropriate method for replacing the PCA ID. Auto should be used when the device powers on. If the device does not power on, contact SRC.BOSS@philips.com to obtain the device's current PCA ID and select manual.



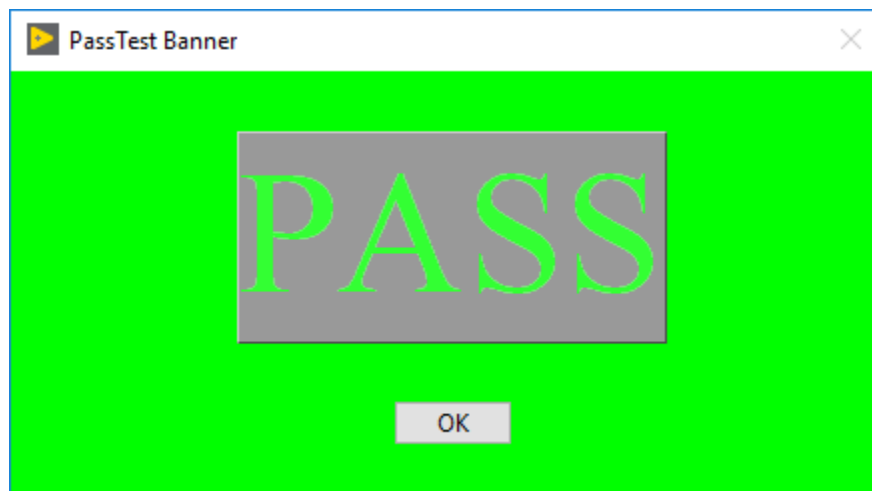
- When using the manual PCA replacement, enter the current PCA ID and select OK.



5. When instructed to replace the PCA, follow the instructions in chapter 7 to replace the PCA. Once the PCA is replaced, connect the device back to the tool and select OK.



6. A "Pass" pop up will be displayed when the PCA ID is successfully updated to the new PCA ID.



6.5. Device error codes

The following table lists the error level and descriptions for the DreamStation 2 devices.

| ERROR LEVEL | DESCRIPTION |
|-------------|---|
| STOP | <i>The error information is recorded in NVRAM and the unit is placed into Safe State. The only functionality available to the user is serial communication, turning off the audible alarm via a key press and removing power.</i> |
| REBOOT | <i>The error information is recorded in NVRAM and the unit is rebooted. The fifth occurrence of a REBOOT level error within a 24-hour period (while power is maintained), will be promoted by the system to a STOP level error.</i> |
| ABORT | <i>The error information is recorded in NVRAM. The fifth occurrence of an ABORT level error within a 24-hour period (while power is maintained), will be promoted by the system to a STOP level error. This error is similar to a Reboot-Level Error with the exception that the system is unable to handle the error prior to the reset, e.g., watchdog timeout.</i> |
| CONTINUE | <i>The error information is recorded in NVRAM and the unit continues to operate without noticeable alteration.</i> |

The following table should be used to aid in troubleshooting device error codes for the DreamStation 2 devices.

| CODE | ERROR NAME | ERROR LEVEL | FAILED COMPONENT | ACTIONS |
|------|-------------------|-------------|------------------|--|
| 0 | ERR_NONE | STOP | N/A | N/A |
| 3 | ERR_INT_RAM | REBOOT | CPU | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 4 | ERR_NULL_PTR | REBOOT | CPU | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 6 | ERR_STATE_MACHINE | REBOOT | CPU | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |

| CODE | ERROR NAME | ERROR LEVEL | FAILED COMPONENT | ACTIONS |
|------|---------------------------|-------------|--|---|
| 7 | ERR_SOFTWARE | REBOOT | CPU | <ol style="list-style-type: none"> 1. Erase all compliance logs. 2. Load latest software version if not up to date. 3. Clear error log and test. |
| 10 | ERR_WDOG_TEST_RAM | REBOOT | CPU | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 11 | ERR_WDOG_TEST | REBOOT | CPU | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 15 | ERR_CYCLE_HANDLER_OVERRUN | REBOOT | CPU | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 19 | ERR_WDOG_TIMEOUT | ABORT | CPU | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 20 | ERR_MOTOR_SPINUP_FLUX_LOW | REBOOT | <ol style="list-style-type: none"> 1. Motor connection 2. Blower Box 3. PCA | <ol style="list-style-type: none"> 1. Reseat motor connector and test. 2. If retest fails, replace blower and retest. 3. If retest fails, replace PCA. |
| 21 | ERR_MOTOR_VBUS_HIGH | STOP | PCA | <ol style="list-style-type: none"> 1. Replace PCA and test. |
| 22 | ERR_MOTOR_FLUX_MAGNITUDE | REBOOT | <ol style="list-style-type: none"> 1. Motor connection 2. Blower Box 3. PCA | <ol style="list-style-type: none"> 1. Reseat motor connector and test. 2. If retest fails, replace blower and retest. 3. If retest fails, replace PCA. |
| 23 | ERR_MOTOR_OVERSPEED | REBOOT | PCA | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 24 | ERR_MOTOR_SPEED_REVERSE | REBOOT | PCA | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 27 | ERR_MOTOR_RL_NOCONVERGE | STOP | <ol style="list-style-type: none"> 1. Motor connection 2. Blower Box 3. PCA | <ol style="list-style-type: none"> 1. Reseat motor connector and test. 2. If retest fails, replace blower and retest. 3. If retest fails, replace PCA. |

| CODE | ERROR NAME | ERROR LEVEL | FAILED COMPONENT | ACTIONS |
|------|--|-------------|--|---|
| 28 | ERR_NEGATIVE_QUADRATURE_VOLTAGE_VECTOR | REBOOT | 1. Motor connection 2. Blower Box 3. PCA | 1. Reseat motor connector and test. 2. If retest fails, replace blower and retest. 3. If retest fails, replace PCA. |
| 29 | ERR_VBUS_GAIN_ZERO | REBOOT | PCA | Replace PCA and test. |
| 30 | ERR_MOTOR_SPINUP_FLUX_HIGH | REBOOT | 1. Motor connection 2. Blower Box 3. PCA | 1. Reseat motor connector and test. 2. If retest fails, replace blower and retest. 3. If retest fails, replace PCA. |
| 34 | ERR_MOTOR_TYPE_UNKNOWN | STOP | PCA | 1. Replace PCA and test. |
| 35 | ERR_MOTOR_BLOCKED_INLET | CONTINUE | RDT only. 1. Check air path. 2. PCA 3. Blower Box | 1. Clear test configuration bits, RASP 00C92e. 2. Load latest software version if not up to date. 3. Clear air path including filter and test. 4. If test fails, replace PCA and retest. 5. If retest fails, replace blower box and retest. |
| 36 | ERR_MOTOR_BLOCKED_OUTLET | CONTINUE | RDT only. 1. Check air path. 2. PCA 3. Blower Box | 1. Clear test configuration bits, RASP 00C92e. 2. Load latest software version if not up to date. 3. Clear air path including filter and test. 4. If test fails, replace PCA and retest. 5. If retest fails, replace blower box and retest. |
| 40 | ERR_NVRAM | STOP | PCA | 1. Replace PCA and test. |
| 41 | ERR_STORAGE_UNIT_RAM | REBOOT | PCA | 1. Erase all compliance logs. 2. Load latest software version if not up to date. 3. Clear error log and test. |
| 42 | ERR_EEPROM_UNABLE_TO_OBTAIN_BUS | REBOOT | PCA | 1. Replace PCA and test. |
| 48 | ERR_NVRAM_MAX_RETRIES_EXCEEDED | REBOOT | PCA | 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 50 | ERR_DAILY_VALUES_CORRUPT | CONTINUE | N/A | 1. Load latest software version if not up to date. 2. Clear error log and test. |

| CODE | ERROR NAME | ERROR LEVEL | FAILED COMPONENT | ACTIONS |
|------|---------------------------------|-------------|------------------|---|
| 51 | ERR_CORRUPT_COMPLIANCE_LOG | CONTINUE | N/A | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Clear error log and test. |
| 53 | ERR_COMP_LOG_SEM_TIMEOUT | CONTINUE | PCA | <ol style="list-style-type: none"> 1. <ol style="list-style-type: none"> a. Load latest software version if not up to date. b. Clear error log and test. 2. If there are multiple E53s in the error log, replace PCA and test. |
| 55 | ERR_THERAPY_QUEUE_FULL | CONTINUE | N/A | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Clear error log and test. |
| 56 | ERR_COMPLOG_PACKET_STATUS | REBOOT | N/A | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 71 | ERR_PSENS_STATUS_BITS_ERROR | REBOOT | PCA | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 72 | ERR_PSENS_UNABLE_TO_OBTAIN_BUS | REBOOT | PCA | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 73 | ERR_SENSOR_PRESS_OFFSET_STOP | STOP | PCA | <ol style="list-style-type: none"> 1. Replace PCA and test. |
| 74 | ERR_PSENS_NO_CALLBACK | REBOOT | PCA | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 82 | ERR_FLOW_SENSOR_OFFSET | CONTINUE | PCA | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Clear error log and test. 3. If the test fails or the error reoccurs, replace the PCA and retest. |
| 83 | ERR_FSSENS_UNABLE_TO_OBTAIN_BUS | REBOOT | PCA | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 84 | ERR_FLOW_SENSOR_STOP | STOP | PCA | <ol style="list-style-type: none"> 1. Replace PCA and test. |

| CODE | ERROR NAME | ERROR LEVEL | FAILED COMPONENT | ACTIONS |
|------|---------------------------|-------------|------------------|---|
| 85 | ERR_FLOW_SENSOR_OCCLUDED | CONTINUE | PCA | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Clear error log and test. 3. If the test fails or the error reoccurs, replace the PCA and retest. |
| 86 | ERR_FLOW_SENSOR_ABSENT | N/A | N/A | N/A |
| 87 | ERR_FLOW_SENSOR_BUS | CONTINUE | PCA | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Clear error log and test. 3. If the test fails or the error reoccurs, replace the PCA and retest. |
| 93 | ERR_RTC_VALUE | CONTINUE | N/A | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Clear error log and test. 3. If the test fails or the error reoccurs, replace the PCA and retest. |
| 94 | ERR_RTC_STOPPED | CONTINUE | PCA | <ol style="list-style-type: none"> 1. Replace PCA and test. |
| 100 | ERR_HUMID_NO_HEAT | CONTINUE | Heater Plate | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Clear error log and test. 3. Test humidifier separately. |
| 101 | ERR_HUMID_MAX_TEMP | CONTINUE | Heater Plate | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Clear error log and test. 3. Test humidifier separately. |
| 105 | ERR_HUMID_AMBIENT_COMM | CONTINUE | PCA | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Clear error log and test. 3. If the test fails or the error reoccurs, replace the PCA and retest. |
| 106 | ERR_HEATED_TUBE_MAX_TEMP | CONTINUE | Heated Tube | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Clear error log and test. 3. Test humidifier separately. |
| 107 | ERR_HEATEDTUBE_DISCONNECT | CONTINUE | RDT only | <ol style="list-style-type: none"> 1. Clear test configuration bits, RASP 00C92e. 2. Load latest software version if not up to date. |
| 108 | ERR_HUMIDIFIER_DISCONNECT | CONTINUE | RDT only | <ol style="list-style-type: none"> 1. Clear test configuration bits, RASP 00C92e. 2. Load latest software version if not up to date. |

| CODE | ERROR NAME | ERROR LEVEL | FAILED COMPONENT | ACTIONS |
|------|-----------------------------|-------------|------------------|---|
| 130 | ERR_TASK_WDOG_TIMEOUT | REBOOT | PCA | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 131 | ERR_WIN_WDOG_TIMEOUT | ABORT | PCA | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 132 | ERR_WIN_WDOG_TEST | REBOOT | PCA | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 133 | ERR_WIN_WDOG_TEST_RAM | REBOOT | PCA | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 150 | ERR_CPU_NMI | ABORT | PCA | <ol style="list-style-type: none"> 1. Replace PCA and test. |
| 151 | ERR_CPU_HARD_FAULT | ABORT | PCA | <ol style="list-style-type: none"> 1. Replace PCA and test. |
| 152 | ERR_CPU_MEM_MANAGE_FAULT | ABORT | PCA | <ol style="list-style-type: none"> 1. Replace PCA and test. |
| 153 | ERR_CPU_BUS_FAULT | ABORT | PCA | <ol style="list-style-type: none"> 1. Replace PCA and test. |
| 154 | ERR_CPU_USAGE_FAULT | ABORT | PCA | <ol style="list-style-type: none"> 1. Replace PCA and test. |
| 155 | ERR_CPU_UNHANDLED_EXCEPTION | ABORT | PCA | <ol style="list-style-type: none"> 1. Replace PCA and test. |
| 170 | ERR_BT_RESET_TX | CONTINUE | Bluetooth Module | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Clear error log and test. 3. If the test fails or the error reoccurs, replace the PCA and retest. |
| 176 | ERR_BT_RADIO_BIST_FAIL | CONTINUE | Bluetooth Module | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Clear error log and test. 3. If the test fails or the error reoccurs, replace the PCA and retest. |
| 178 | ERR_BT_APP_RESET | CONTINUE | N/A | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Clear error log and test. |
| 179 | ERR_BT_FW_DOWNLOAD_FAIL | CONTINUE | N/A | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Clear error log and test. |

| CODE | ERROR NAME | ERROR LEVEL | FAILED COMPONENT | ACTIONS |
|------|------------------------------------|-------------|------------------|--|
| 180 | ERR_NVRAM_REMINDER_LOG | CONTINUE | N/A | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Clear error log and test. |
| 181 | ERR_NVRAM_MUTEX_NOT_AVAILABLE | REBOOT | PCA | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 182 | ERR_NVRAM_WRITE_FAILED | REBOOT | PCA | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 183 | ERR_NVRAM_WRITE_SU_FAILED | REBOOT | PCA | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 200 | ERR_RTOS_ABORT_ERROR | ABORT | PCA | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Clear error log and test. |
| 201 | ERR_RTOS_TIMEOUT | REBOOT | PCA | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 202 | ERR_RTOS_ONE_SHOT_TASK_NOT_STOPPED | REBOOT | PCA | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 203 | ERR_RTOS_NO_MESSAGE_AVAILABLE | REBOOT | PCA | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 210 | ERR_PERF_CHECK_MSG_TO | STOP | PCA | <ol style="list-style-type: none"> 1. Replace PCA and test. |
| 211 | ERR_PERF_CHECK_POST_FAIL | STOP | PCA | <ol style="list-style-type: none"> 1. Replace PCA and test. |
| 220 | ERR_MOTOR_ID_TIMEOUT | REBOOT | PCA | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |
| 221 | ERR_MOTOR_SHUNT_SAFETY_TIMEOUT | REBOOT | PCA | <ol style="list-style-type: none"> 1. If error was NOT Last Stop Error, clear error log and test. 2. If error was Last Stop Error, replace PCA and test. |

| CODE | ERROR NAME | ERROR LEVEL | FAILED COMPONENT | ACTIONS |
|------|--------------------------------|-------------|------------------|---|
| 222 | ERR_MOTOR_DIV_ZERO | CONTINUE | N/A | 1. Load latest software version if not up to date. 2. Clear error log and test. |
| 230 | ERR_HUMID_PLATE_CYCLE_OVERRUN | REBOOT | Humidifier PCA | 1. Clear error log and test. 2. Test humidifier separately. |
| 231 | ERR_HUMID_PLATE_NO_MEASUREMENT | REBOOT | Heater Plate PCA | 1. Clear error log and test. 2. Test humidifier separately. |
| 240 | ERR_PACKET_CREATION | CONTINUE | N/A | 1. Load latest software version if not up to date. 2. Clear error log and test. |
| 241 | ERR_INVALID_COMPLIANCE_SIZE | CONTINUE | | |
| 243 | ERR_INVALID_NVLOG_SIZE | CONTINUE | N/A | 1. Load latest software version if not up to date. 2. Clear error log and test. |
| 250 | ERR_BAROMETRIC_COMM | CONTINUE | PCA | 1. Load latest software version if not up to date. 2. Clear error log and test. 3. If the test fails or the error reoccurs, replace the PCA and retest. |
| 270 | ERR_SDC_UPG_FAILED | CONTINUE | N/A | 1. Load latest software version if not up to date. 2. Clear error log and test. |
| 303 | ERR_TOUCH_SENSOR_COMS | CONTINUE | N/A | 1. Load latest software version if not up to date. 2. Clear error log and test. |
| 310 | ERR_FAIL_DRV_COMM | REBOOT | N/A | 1. Load latest software version if not up to date. 2. Clear error log and test. |
| 311 | ERR_FAIL_DRV_VERIFY | CONTINUE | N/A | 1. Load latest software version if not up to date. 2. Clear error log and test. |
| 312 | ERR_DRV_CONFIG_TIMEOUT | REBOOT | N/A | 1. Load latest software version if not up to date. 2. Clear error log and test. |
| 321 | ERR_EFT_BAD_ARGUM | CONTINUE | N/A | 1. Load latest software version if not up to date. 2. Clear error log and test. |
| 322 | ERR_EFT_FAIL_WRITE | CONTINUE | N/A | 1. Load latest software version if not up to date. 2. Clear error log and test. |

| CODE | ERROR NAME | ERROR LEVEL | FAILED COMPONENT | ACTIONS |
|-------|------------------------|-------------|------------------|--|
| 340 | ERR_MODEM_COMMS | CONTINUE | N/A | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Clear error log and test. |
| 350 | ERR_UI_MISC | CONTINUE | N/A | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Clear error log and test. |
| 361 | ERR_GCM_ENCRYPT | CONTINUE | N/A | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Run through Post-Test Station. 3. Replace PCA and test. |
| 363 | ERR_GCM_CO_KEY_INVALID | CONTINUE | N/A | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Run through Post-Test Station. 3. Replace PCA and test. |
| 370 | ERR_FR_ERROR_MISC | CONTINUE | N/A | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Run through Post-Test Station. 3. Replace PCA and test. |
| 400 | ERR_MESSAGE_CRC_FAILED | CONTINUE | N/A | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Run through Post-Test Station. 3. Replace PCA and test. |
| 401 | ERR_RX_OVERFLOW | CONTINUE | N/A | <ol style="list-style-type: none"> 1. Load latest software version if not up to date. 2. Run through Post-Test Station. 3. Replace PCA and test. |
| 32767 | ERR_INVALID | REBOOT | PCA | <ol style="list-style-type: none"> 1. Log this error as the maximum code allowed by SAP, i.e. 9999. 2. If error was NOT Last Stop Error, clear error log and test. 3. If error was Last Stop Error, replace PCA and test. |

6.6. Device Alerts

6.6.1. Pop-up messages

Device pop-up messages may appear on your screen to alert you of a required action, device status update, or reminder. When the pop-up message appears, follow any required actions. See table below or the “Failure Mode Troubleshooting” section for additional solutions to problems you may be experiencing. Tap “Dismiss” to close the pop-up message.

| Message Type | Message | Possible Cause/additional action |
|--------------|---|---|
| Alert | Blocked air inlet Remove any obstructions from the inlet or filter(s). Clean or replace filter(s) as needed. | Blockage at device inlet Check device air inlet is not obstructed. Check air filter(s) are installed properly; replace if needed. |
| Alert | Low leak Ensure mask and tube are connected properly without any obstruction. | Blockage at tube or mask Check tube is not crushed or folded such that air flow is restricted. |
| Alert | Humidifier Error | There may be a problem with your humidifier. Therapy will run without humidification. Turn off device and disconnect from power. Visually check that electrical contacts are clear, then reconnect power cord. If alert continues, contact your provider. |
| Alert | Tube Error (only when heated tube is present) | Heated tube may be overheated or damaged. Turn off device. Detach heated tube from device, make sure that tube is not covered or obstructed, and then reattach to device. If alert continues, contact your provider. |
| Alert | Humidifier Off | Use of battery pack for power. Disconnect the battery pack and use a compatible power supply or use the device without humidification. |
| Alert | Contact support There may be a problem with your heated tube. Therapy will run without heating the tube. | Heated tube may be overheated or damaged. Turn off device. Detach heated tube from humidifier, make sure that tube is not covered or obstructed, and then reattach to humidifier. If alert continues, contact your provider. |
| Alert | Contact Support There may be a problem with your humidifier. Therapy will run without humidification. | Turn off device and disconnect from power. Visually check that electrical contacts are clear, then reconnect power cord. If alert continues, contact your provider. |
| Alert | SD Card There was a problem reading your SD card. Please remove and reinsert. | Device cannot read the SD card. A problem may exist with the SD card, it was removed during a writing activity, or it was inserted incorrectly. Remove and reinsert the SD card. If alert continues, contact your provider. |
| Alert | SD Card Your SD card is full. Please refer to manual or contact your provider. | Remove SD card and replace with a new card or contact your provider for a new SD card. |
| Safe State | Service Required Please contact support. (therapy button ring blinks continuously} | Indicates an error which enters device into "Safe State." This allows power to remain on, but airflow is disabled. Disconnect device from power. Reattach power cord to restore power. If the alert continues to occur, contact your home care provider. |

| Message Type | Message | Possible Cause/additional action |
|---|--|---|
| Notification | Notification The attached power supply is operating from a battery and does not support humidification. | Disconnect the battery pack and use a compatible power supply or use the device without humidification. |
| Check Power (light blinks continuously) | Indicates an incompatible power supply is attached. | Switch to a Philips-provided power supply that is capable of supporting therapy. An 80W power supply is required to support humidification. |
| Low Voltage (light blinks continuously) | Low voltage | Confirm a compatible Philips Respironics power supply is attached. Switch to compatible power supply if needed. If battery is being used, ensure battery is adequately charged. |
| Notification | SD Card Your SD card has been removed. Please reinsert to record therapy data. | Indicates SD card has been removed from therapy device and not reinserted before the start of the current therapy session. Reinsert the SD card to record therapy data. |
| Notification | Notification Your Auto Trial period has concluded. Therapy pressure has been updated. | No additional action required. |
| Notification | Device Update A new software version is available. Update now? | Tap “Update” to begin the software upgrade. Or Tap “Cancel” to cancel the update. |
| Notification | Notification You will begin the next level of EZ Start Pressure. | Displays when EZ-Start mode is enabled, and device is increasing therapy pressure setting for the next session. |

6.6.2. Status pop-up messages

The following pop-up messages require actions or tap “Dismiss” to clear the message.

| Screen text | Description |
|---|---|
| Bluetooth | See the “Connectivity” section later in this manual for Bluetooth information. |
| SD Card Activity Do not remove SD card. | SD card read/write underway. |
| Update Your prescription has been updated. | A prescription update was successful. |
| Update A prescription or setting update was unsuccessful. | A prescription or setting update was unsuccessful. Contact your home care provider. |
| SD Removed Reinsert | Indicates SD card has been removed from therapy device and not reinserted before the start of the current therapy session. Reinsert the SD card to record therapy data. |
| Auto Off Your device has automatically turned off due to inactivity. | This message appears when therapy ends due to automatic off function. |
| Pulse Oximetry | You have achieved at least 4 hours of therapy and oximetry use. |

| | |
|--|--|
| Your pulse oximetry recording was successful. | |
| Pulse Oximetry Minimum therapy hours not met. Your pulse oximetry recording was unsuccessful. | Minimum therapy hours not met. Your pulse oximetry recording was unsuccessful. |

6.7. Failure mode trouble shooting

The following table can be used as a guide to aid in troubleshooting the device based on the potential problem. All issues may not be presented here.

| PROBLEM/FAILURE MODE | POSSIBLE CAUSE | STEPS TO TAKE |
|---|--|---|
| Nothing happens when you apply power to the device. | There's no power at the outlet or the device is unplugged. | <p>If you are using AC power, check the outlet and verify that the device is properly plugged in. Make sure there is power available at the outlet. Make sure the AC power cord is connected correctly to the power supply and the power supply cord is securely connected to the device's power inlet. If the problem continues to occur, contact your home care provider. Return both the device and power supply to your provider, so they can determine if the problem is with the device or power supply.</p> <p>If you are using DC power, make sure your DC power cord and battery adapter cable connections are secure. Check your battery. It may need recharged or replaced. If the problem persists, check the DC cord's fuse following the instructions supplied with your DC cord. The fuse may need to be replaced. If the problem still occurs, contact your home care provider.</p> |
| The airflow does not turn on. | There may be a problem with the blower. | <p>Make sure the device is powered correctly. Press the Therapy button on top of the device to start airflow.</p> <p>If the airflow does not turn on, there may be a problem with your device. Contact your home care provider for assistance.</p> |

| PROBLEM/FAILURE MODE | POSSIBLE CAUSE | STEPS TO TAKE |
|--|---|--|
| The device's display is erratic. | The device has been dropped or mishandled, or the device is in an area with high Electromagnetic Interference (EMI) emissions. | Unplug the device. Reapply power to the device. If the problem continues, relocate the device to an area with lower EMI emissions (away from electronic equipment such as cellular phones, cordless phones, computers, TVs, electronic games, hair dryers, etc.). If the problem still occurs, contact your home care provider for assistance. |
| The airflow is much warmer than usual. | The air filters may be dirty. The device may be operating in direct sunlight or near a heater. | Rinse or replace the reusable pollen filter or replace the disposable ultra-fine filter. The temperature of the air may vary somewhat based on your room temperature. Make sure that the device is properly ventilated. Keep the device away from bedding or curtains that could block the flow of air around the device. Make sure the device is away from direct sunlight and heating equipment. If the problem continues, contact your home care provider. |
| The water in the humidifier water tank runs out before morning. | Humidifier water tank was not full at start of session. Mask leak is excessively high. The ambient conditions are very dry/cool. | A typical sleep session is 8 hours. Under most conditions, a full humidifier water tank should last for a typical sleep session if the humidifier tank is filled to the maximum fill line at the beginning of the sleep session. However, many factors impact water consumption, including: your humidifier or heated tube settings, the level of mask leak, and the duration of your sleep session. Make sure that the humidifier water tank is filled to the maximum fill line at the start of your sleep session. Check that your mask is fitted properly and adjust as needed to reduce mask leak to normal levels. |
| I hear a leak or whistling sound coming from my therapy device (not related to mask leak). | The therapy device air inlet may be obstructed. The tube is not fully connected. The humidifier seals are not fully seated or are missing. | Check therapy device air inlet is not obstructed, and filter(s) are free of debris and properly inserted. Confirm that the device, humidifier water tank, and tube are connected properly and not leaking. Confirm that the water tank lid seal is present and properly seated. |

Chapter 7: Repair and replacement

This Chapter illustrates the names and locations of the replaceable components in the DreamStation 2 devices. Prior to executing the repair and replacement procedures, the troubleshooting procedures must first be executed. Refer to Chapter 6 for troubleshooting procedures.

In addition, if repair or replacement procedures are performed, the device must be tested to verify its proper operation. Refer to Chapter 9 for testing procedures.

WARNING

To prevent electrical shock, disconnect the electrical supply before attempting to make any repairs to these devices.

CAUTION

Components used in this device are subject to damage from static electricity. Repairs made to this device must be performed only in an anti-static, Electro-Static Discharge (ESD) protected environment.

CAUTION

Do not attempt to power on the PCA/device without all connections being made. Otherwise, false errors or failure detections could occur. The device must be fully assembled in order to properly assess any functionality.

7.1. Replacement part (RP) Kits

| Description | RP Kit Number |
|---|----------------------------------|
| Blower box kit | 1149569 or 1149569B ¹ |
| ISO port kit, base | 1149570 |
| ISO port kit, plus | 1149571 |
| Center enclosure kit | 1149572 |
| Top enclosure kit | 1149573 |
| Bottom enclosure, base | 1149574 |
| Bottom enclosure, plus | 1149575 |
| UI button (Qty 10) | 1149576 |
| UI bezel, base | 1149577 |
| UI bezel, plus | 1149560 |
| Blower outlet seal/isolator kit | 1149561 |
| Heater plate kit | 1149562 |
| Blower | 1149563 |
| Heated tube cable | 1149564 |
| USB cover | 1149565 |
| DS2 Reusable Pollen Filter – 1-Pack | 1142687 |
| DS2 Disposable Ultra-Fine Filter–1-Pack | 1142828 |
| DreamStation 2 inlet/outlet seal | 1142836 |
| Screw kit (Qty 10) | 1149566 |

¹ The parts are identical except for batch tracking. Utilize 1149569 until depletion.

| Description | RP Kit Number |
|--|---------------|
| DreamStation 2 water tank w lid | 1142832 |
| DreamStation 2 water tank (no lid) | 1146072 |
| DreamStation 2 humidifier lid | 1146073 |
| PCA, CPAP w Modem, INTL | 1149608 |
| PCA, ADV CPAP w Modem, INTL | 1149609 |
| PCA, CPAP Auto w Modem, DOM | 1149610 |
| PCA, CPAP Auto w Modem, INTL | 1149611 |
| PCA, ADV CPAP Auto w Modem, DOM | 1149612 |
| PCA, ADV CPAP Auto w Modem & Pflex, INTL | 1149613 |
| PCA, CPAP w Modem, DOM | 1151308 |
| PCA, ADV CPAP Auto w Modem, VA/AU/KR | 1151309 |
| Warning Label, ADV AUTO CPAP,DOM 10PK | 1152599 |
| Warning Label,ADV Auto CPAP,CAN, 10PK | 1152601 |
| Warning Label,ADV Auto CPAP,INTL 10PK | 1152600 |
| Warning Label Auto CPAP, INTL 10PK | 1152597 |
| Warning Label Auto CPAP, Canada 10PK | 1152598 |
| Warning Label, ADV AUTO CPAP, DOM 1PK | 1150010 |
| Warning Label, ADV Auto CPAP,CAN, 1PK | 1150012 |
| Warning Label, ADV Auto CPAP,INTL 1PK | 1150014 |
| Warning Label Auto CPAP, Canada 1PK | 1150011 |
| Warning Label Auto CPAP, INTL 1PK | 1150013 |
| DreamStation 2 SN/MN label | 1150078 |
| DreamStation 2 Advanced SN/MN label | 1150079 |
| Large Protective Film | 1150058 |
| DS2 CPAP, INTL PCA | 1152541 |
| DS2 CPAP Auto, INTL PCA | 1152542 |
| DS2 ADV CPAP Auto, INTL PCA | 1152543 |
| DS2 ADV CPAP w Mod cell/BT INTL PCA | 1152737 |
| DS2 ADV CPAP w Modem BT INTL PCA | 1152789 |
| DS2 ADV CPAP Auto Mod P-Flex, FR PCA | 1152788 |
| DS2 Auto CPAP ADV, DE PCA | 1153081 |

7.2. Replacement instructions

Prior to executing repair and replacement procedures, device troubleshooting must be performed. Refer to Chapter 6 for troubleshooting procedures.

7.2.1. Replacing the humidifier tank

| Kit | Tools Required |
|---|----------------|
| DreamStation 2 water tank w lid (PN 1142832) | N/A |
| DreamStation 2 water tank (no lid) (PN 1146072) | |
| DreamStation 2 humidifier lid (PN 1146073) | |

To remove the humidifier tank:

1. Grab the back end of the humidifier. Press the indent on the latch with your thumb.
2. Pull the tank away from the base.

**To install the humidifier tank:**

1. Inspect the humidifier tank and replace any defective components.
2. Place the humidifier in front of the heater plate area and align the tank edges with the bottom enclosure.
3. Slide the humidifier onto the bottom enclosure.
4. Verify humidifier is seated properly and latch to the device.

7.2.2.Replacing the reusable filter

| Kit | Tools Required |
|--|----------------|
| DreamStation 2 reusable pollen filter (PN 1142687) | N/A |

To remove the filter:

1. Remove humidifier as described in the section 7.2.1.
2. Pull the tab away from the device.



To install the filter:

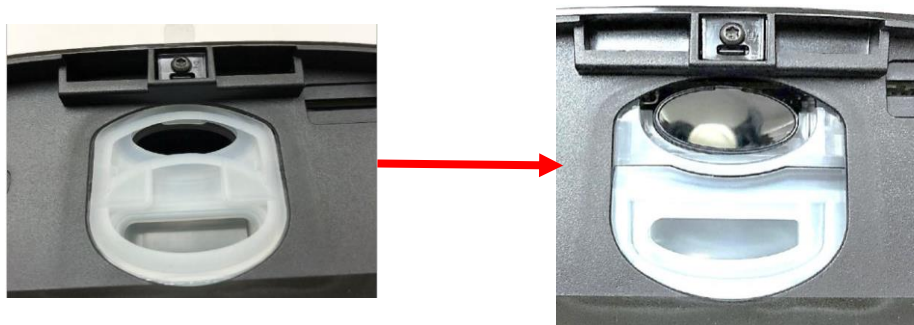
1. Install filter into grooves.
2. Verify filter is fully seated

7.2.3.Replacing the humidifier inlet/outlet seal

| Kit | Tools Required |
|---|----------------|
| DreamStation 2 inlet/outlet seal (PN 1142836) | N/A |

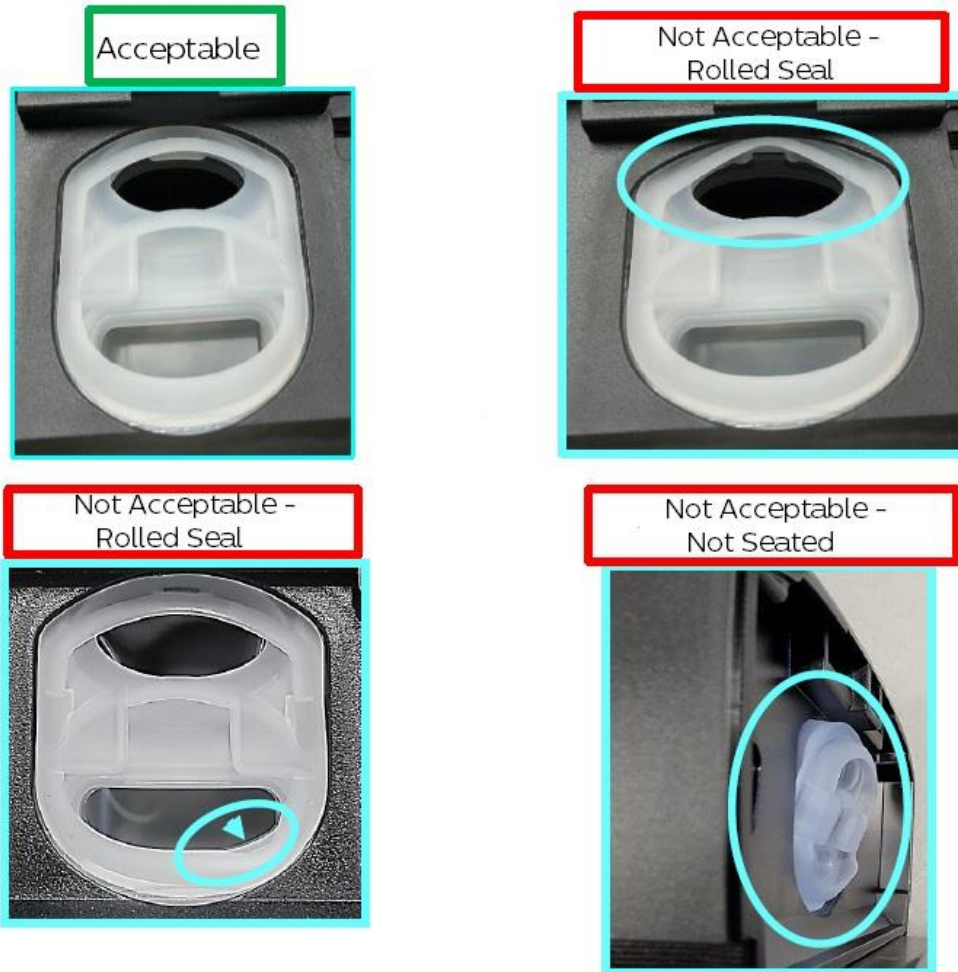
To remove the humidifier inlet/outlet seal:

1. Remove humidifier as described in the section 7.2.1.
2. Pull the Inlet/Outlet seal away from the device.



To install the humidifier inlet/outlet seal:

1. Install Inlet/Outlet seal to blower box and flow path as shown.
2. Verify seal is fully seated in blower box and flow path.
3. Ensure seal is not “rolled”.



7.2.4.Replacing the UI bezel

| Kit | Tools Required |
|--|----------------------|
| UI Bezel, Base (PN 1149577) or UI Bezel, Plus (PN 1149560) | T10 Torx Screwdriver |
| Screw kit (PN 1149566) | |

To remove the UI bezel:

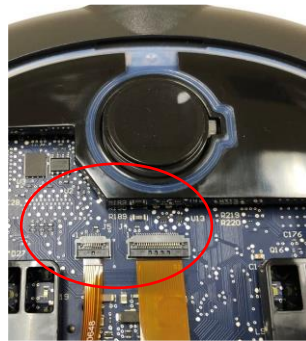
1. Remove the humidifier as described in section 7.2.1.

2. Remove the screw securing the UI Bezel to the top.



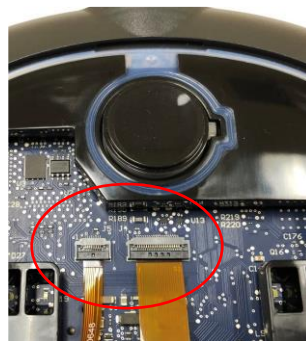
3. Press upward on the sides of the UI Bezel screw tab to release the UI Bezel from the tab.
4. Detach the UI Ribbon cable(s) from the PCA by lifting up on the connector latch and pulling the ribbon away from the connector.

Note: The black DreamStation 2 Advanced device has one ribbon cable while the Blue DreamStation 2 device has two ribbons.



To install the UI bezel:

1. Connect UI Panel ribbon cables to the PCA connectors.
Note: The black DreamStation 2 Advanced device has one ribbon cable while the Blue DreamStation 2 device has two ribbons.
2. Verify the UI Panel ribbon cables are aligned and the connector latch is shut.



3. Install UI Panel to device by inserting the button end tab is aligned in the groove and slide into the top enclosure.

4. Verify UI Panel ribbon cables are routed as shown.



5. Install the remaining 4 UI Panel tabs as shown from A to D.



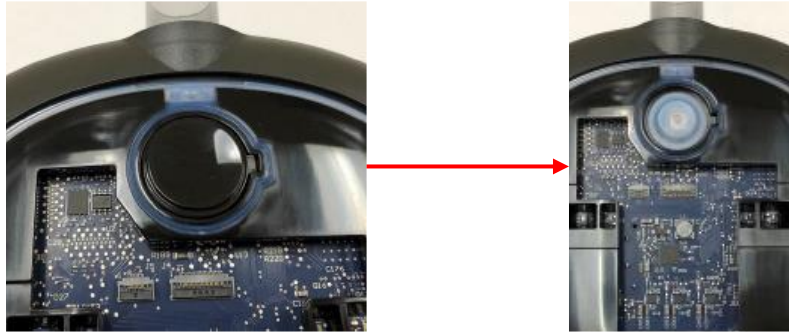
6. Verify UI Panel is fully seated and all tabs are installed.
7. Snap the UI panel tab in place.
8. Replace the screw and torque to 9 inch lbs.

7.2.5.Replacing the therapy button

| Kit | Tools Required |
|---------------------------------|----------------|
| UI button (Qty 10)(PN 1149576) | None |

To remove the therapy button:

1. Remove the components as described in sections 7.2.1 – 7.2.4.
2. Remove the therapy button.



To install the therapy button:

1. Install the therapy button.
2. Verify the therapy button tab is oriented correctly and polished side of button is showing.



7.2.6.Replacing the top enclosure

| Kit | Tools Required |
|--------------------------------|----------------------|
| Top enclosure kit (PN 1149573) | T10 Torx Screwdriver |
| Screw kit (PN 1149566) | |

To remove the top enclosure:

1. Remove the components as described in section 7.2.1 - 7.2.5.
2. Remove the two screws on the bottom enclosure.



3. Remove the two screws securing the top enclosure.



4. Grab the top enclosure near the therapy button and lift upward as the top enclosure is rotated towards the back of the device.

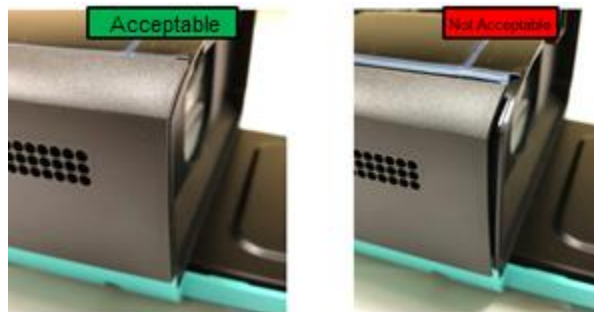


To install the top enclosure:

1. Install Top Enclosure screw bosses to the Bottom Enclosure and rotate into position as shown.



2. Verify Top Enclosure screw bosses align with Blower Box Top Screw bosses.
3. Verify the Top Enclosure edges align with the Center Enclosure edges.



4. Secure top enclosure with two screws and torque to 4 inch lbs.
5. Secure bottom enclosure with two screws and torque to 9 inch lbs.



6. Verify the two screws are fully seated.



7.2.7.Replacing the USB cover

| Kit | Tools Required |
|------------------------|----------------------|
| USB cover (PN 1149565) | T10 Torx screwdriver |

To remove the USB cover:

1. Remove the humidifier from the base.
2. Press the ejector pins inwards and push away from the device using a flat head screwdriver when unable to reach ejector pins with hands.

To install the USB cover:

1. Insert USB cover into the center enclosure of the device



7.2.8.Replacing the center enclosure and ISO port

| Kit | Tools Required |
|--|----------------------|
| Center enclosure kit (PN 1149572) | T10 Torx Screwdriver |
| Screw kit (PN 1149566) | |
| ISO port kit, base (PN 1149570) or ISO port kit, plus (PN 1149571) | |

To remove the center enclosure and ISO port:

1. Remove the components as described in section 7.2.1 - 7.2.7.
2. Remove the Center Enclosure by pushing/pulling away from the device.
Note: Use care when removing the Center Enclosure and ensure the components on the PCA are not damaged during the removal process.
3. Remove the ISO port screw as shown.



4. Remove the ISO Port from the Center Enclosure by pushing the ISO port through the Center Enclosure.

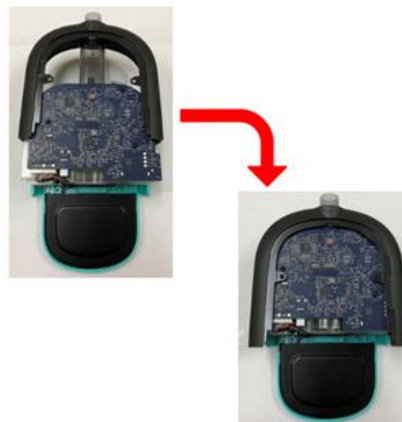


To install the center enclosure and ISO port:

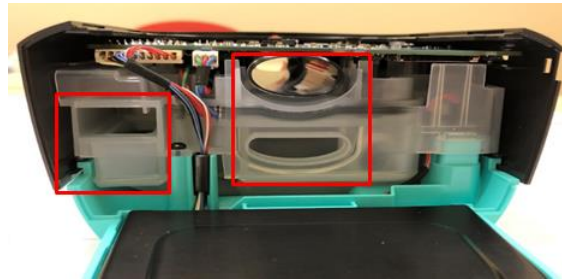
1. Install the appropriate ISO port to the Center Enclosure and snap into place
Note: ISO port kit, base (PN 1149570) is only to be used with blue/green “Base” models.
Note: ISO port kit, plus (PN 1149571) is only to be used with black “Advanced” models
2. Place the ISO port screw and torque to 9 inch lbs.



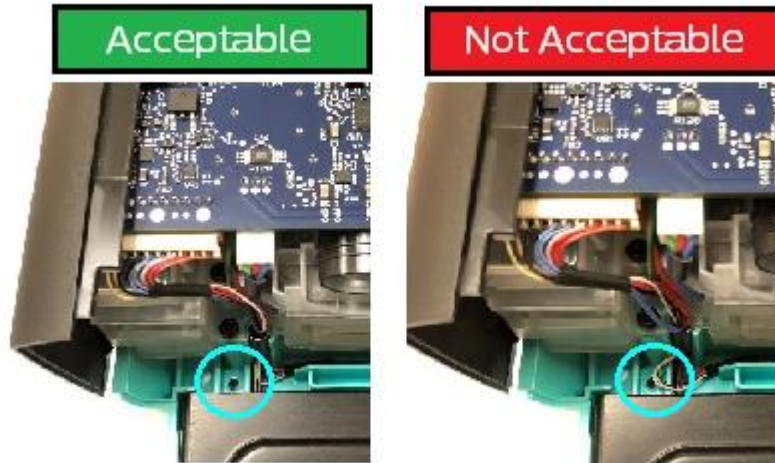
3. Carefully install Center Enclosure to the Bottom Enclosure by aligning the center enclosure with the bottom enclosure groove, then slowly slide the enclosure together, ensuring no excessive resistance is felt. as shown.



4. Verify Heater Plate and Blower wires are not in the area outlined below.



5. Verify the Heater Plate wires are not over the screw holes.



6. Ensure the ISO Port Screw is installed by ensuring ISO Port is secure and does not rotate.

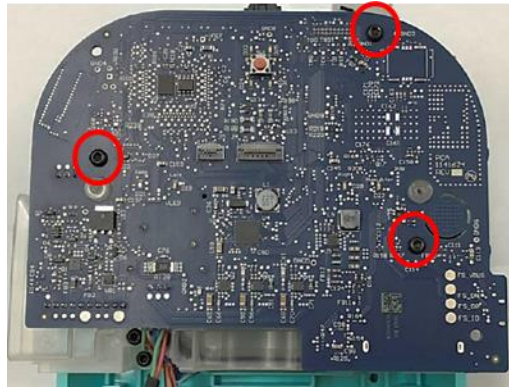
7.2.9.Replacing the PCA

| Kit | Tools Required |
|----------------------------------|----------------------|
| PCA (varies based on CPAP model) | T10 Torx Screwdriver |
| Screw kit (PN 1149566) | |

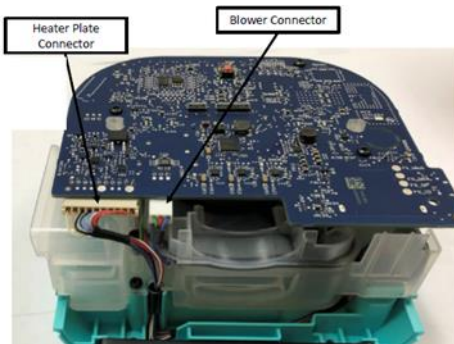
To remove the PCA:



1. Remove the components as described in sections 7.2.1 - 7.2.8.
2. Remove the three screws securing the PCA.



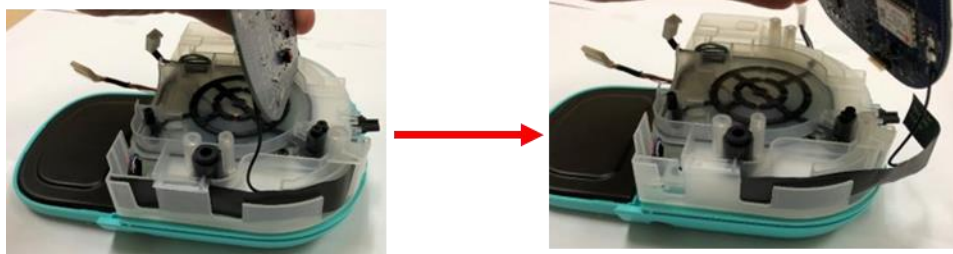
3. Detach the Blower and DC Cables from the PCA.



4. Detach the heated tube cable from the PCA.



5. Remove the PCA from the Blower Box Assembly by lifting up the PCA.
6. Slide the Antenna from the Blower Box by removing the front of the Antenna first followed by the back corner as shown below.



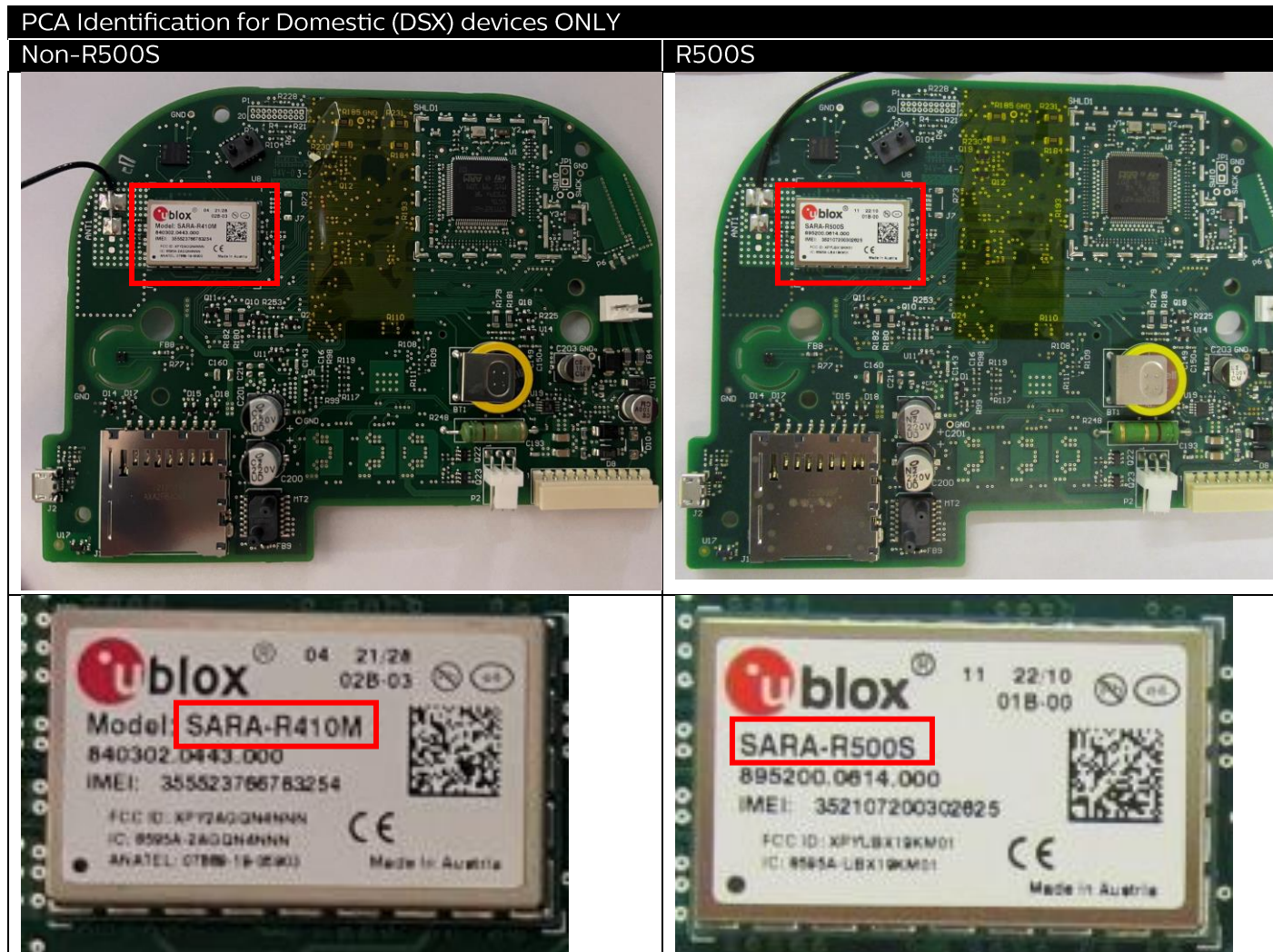
To install the PCA:

Note
Domestic (DSX) devices have been produced with two types of PCA's. The PCA types require different, "Contains FCC ID" statements on the device label based on the raw board's components. Newer boards will include an R500S module and a "Contains FCC ID XPYUBX19KM01" statement on the device label. Newer kits with the R500S module are identifiable with, "R500S" in the RP Kit Description.

1. Locate the model number on the label found on the bottom of the device. The model number will be in the top right corner of the label as shown below. For domestic (DSX) devices, locate the FCC ID number, located in the upper left side of the label.



- a. Optional: verify the PCA type by visual inspection for additional or alternative method of PCA identification. Photos below are for guidance and may not match all PCA's.



- 2. Review the tables below to confirm the correct PCA is used for repair based on the model number and current device label FCC ID statement.

PCA Identification for Domestic (DSX) devices ONLY

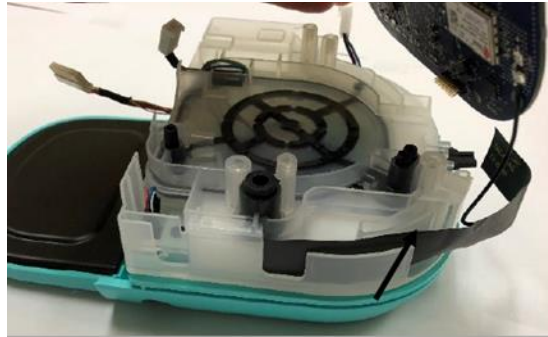
| Current "Contains FCC ID" Statement | Current Board Type | Replacement Board Type | Replace Warning Label? |
|---|--------------------|------------------------|--|
| Contains FCC ID XPYUBX19KM01 | R500S | R500S | Not required for PCA replacement process |
| Contains FCC ID XPY2AGQN4NNN | Non-R500S | Non-R500S or R500S | Required if PCA is replaced with R500S |
| No listing of FCC ID | | | |
| Any other Contains FCC ID statement (excludes XPYUBX19KM01) | | | |

| PCA Table | | | | |
|---|--------------|---|---|--|
| Device Model | Model Number | Model Description | PCA RP Kit Number | RP Kit Description |
| DreamStation2 CPAP (X410) | CAX410H12C | DS2 CPAP w/Humid cell/BT, CA (DS2 Base Fixed CPAP with 15mm std tube, Canada) | 1149608 | PCA, CPAP w Modem, INTL |
| | CAX410T12C | DS2 CPAP w/Humid+HT cell/BT, CA (DS2 Base Fixed CPAP with 15mm heated tube, Canada) | | |
| | BLX410H15C | DS2 CPAP w/Humid cell/BT, BL | | |
| | EEX410H15C | DS2 CPAP w/Humid cell/BT, EE | | |
| | ESX410H15C | DS2 CPAP w/Humid cell/BT, ES | | |
| | EUX410H15C | DS2 CPAP w/Humid cell/BT, EU | | |
| | ITX410H15C | DS2 CPAP w/Humid cell/BT, IT | | |
| | DSX410H11C | DS2 CPAP w/Humid cell/BT (DS2 Base Fixed CPAP with 15mm std tube, DOM) | 1151308 (Contains no FCC ID, FCC ID XPY2AGQN4NNN, or any FCC ID other than XPYUBX19KM01) or [PN to be announced] (Contains FCC ID XPYUBX19KM01) <i>Verify "Contains FCC ID" statement on Serial/Model label as per instructions above.</i> | PCA, CPAP w Modem, DOM or PCA Auto CPAP w Modem, DOM R500S |
| | DSX410T11C | DS2 CPAP w/ Humid+HT cell/BT (DS2 Base Fixed CPAP with 15mm heated tube, DOM) | | |
| | | ESX410H15 | DS2 CPAP w/Humid BT only, ES | 1152541 |
| | EUX410H15 | DS2 CPAP w/Humid BT only, EU | | |
| | ITX410H15 | DS2 CPAP w/Humid BT only, IT | | |
| DreamStation2 CPAP Advanced (X420) | BLX420H15C | DS2 Adv CPAP w/Humid cell/BT, BL | 1149609 | PCA, ADV CPAP w Modem, INTL |
| | EEX420H15C | DS2Adv CPAP w/Humid cell/BT, EE | | |
| | ESX420H15C | DS2Adv CPAP w/Humid cell/BT, ES | | |
| | EUX420H15C | DS2Adv CPAP w/Humid cell/BT, EU | | |
| | GBX420H15C | DS2Adv CPAP w/Humid cell/BT, GB | | |
| | ITX420H15C | DS2Adv CPAP w/Humid cell/BT, IT | | |
| | | DEX420H13C | DS2Adv CPAP w/Humid cell/BT, DE | 1152737 |

| | | | | |
|---|--------------|---|---|--|
| | EUX420H15 | DS2Adv CPAP w/ Humid BT only, EU | 1152789 | PCA ADV CPAP w Modem BT INTL |
| DreamStation2 Auto CPAP (X510) | DSX510H11C | DreamStation 2 Auto CPAP Humidifier/Cell/Bluetooth® | 1149610 | PCA, CPAP Auto w Modem, DOM |
| | DSX510T11C | DS2 Auto CPAP w/Humid+HT cell/BT | | |
| | BLX510H15C | DS2 Auto CPAP w/Humid cell/BT, BL | 1149611 | PCA, CPAP Auto w Modem, INTL |
| | EEX510H15C | DS2 Auto CPAP w/Humid cell/BT, EE | | |
| | EUX510H15C | DS2 Auto CPAP w/Humid cell/BT, EU | | |
| | ITX510H15C | DS2 Auto CPAP w/Humid cell/BT, IT | | |
| | NDX510H15C | DS2 Auto CPAP w/Humid cell/BT, ND | | |
| | EUX510H15 | DS2 Auto CPAP w/Humid BT only, EU | 1152542 | PCA CPAP Auto, INTL |
| | ITX510H15 | DS2 Auto CPAP w/Humid BT only, IT | | |
| DreamStation2 Auto CPAP Advanced (X520) | DSX520H11C | DreamStation 2 Auto CPAP Advanced Humidifier/Cell/Bluetooth® | 1149612 (Contains no FCC ID, FCC ID XPY2AGQN4NNN, or any FCC ID other than XPYUBX19KM01) or [PN to be announced] (Contains FCC ID XPYUBX19KM01) <i>Verify "Contains FCC ID" statement on Serial/Model label as per instructions above.</i> | PCA, ADV CPAP Auto w Modem, DOM or PCA Auto CPAP ADV Modem DOM R500S |
| | DSX520T11C | DS2Adv Auto CPAP w/Humid+HT cell/BT | | |
| | DSX520T11C15 | DS2Adv Auto CPAPw/Humid/HT15 cell/BT,DOM | | |
| | VAX520H21C | DS2Adv Auto CPAP w/Humid cell/BT, VA | 1151309 | PCA, ADV CPAP Auto w Modem, VA |
| | VAX520T21C | DS2Adv Auto CPAP w/Humid+HT cell/BT, VA | | |
| | VAX520T21C15 | DS2Adv Auto CPAP w/Humid/HT15 cell/BT,VA | | |
| | BLX520H15C | DS2 Adv Auto CPAP w/Humid cell/BT, BL | 1149613 | PCA, ADV CPAP Auto w Modem & Pflex, INTL |
| | CAX521H12C | DreamStation 2 Auto CPAP Advanced Humidifier/P-Flex/Cell/Bluetooth®, CA | | |
| | CAX521T12C | DS2Adv Auto CPAP w/H+HT/P-Flx/cell/BT,CA | | |
| | CAX521T12C15 | DS2Adv Auto CPAP w/Humid/HT15 cell/BT,CA | | |
| | DEX520H13C | DS2Adv Auto CPAP w/Humid cell/BT, DE | | |
| | EEX520H15C | DS2Adv Auto CPAP w/Humid cell/BT, EE | | |
| | ESX520H15C | DS2Adv Auto CPAP w/Humid cell/BT, ES | | |

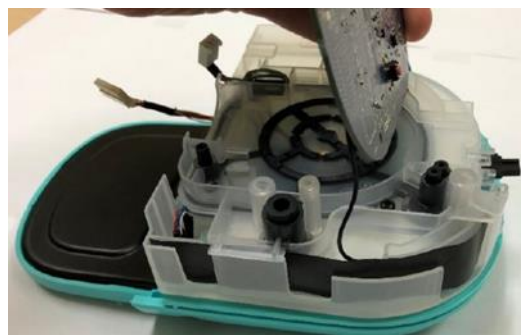
| | | | | |
|--|------------|---|---------|----------------------------------|
| | EUX520H15C | DS2Adv Auto CPAP w/Humid cell/BT, EU | | |
| | GBX520H15C | DS2Adv Auto CPAP w/Humid cell/BT, GB | | |
| | ITX520H15C | DS2Adv Auto CPAP w/Humid cell/BT, IT | | |
| | NDX520H15C | DS2Adv Auto CPAP w/Humid cell/BT, ND | | |
| | NDX520T15C | DS2Adv Auto CPAP w/Humid/HT cell/BT, ND | | |
| | FRX521H14C | DreamStation 2 Auto CPAP Advanced Humidifier/P-Flex/Cell/Bluetooth®, FR | 1152788 | PCA ADV CPAP Auto Mod P-Flex, FR |
| | DEX520H13 | DS2Adv Auto CPAP w/Humid BT only, DE | 1153081 | PCA Auto CPAP ADV, DE |
| | APX520H15 | DS2Adv Auto CPAP w/Humid BT only, HK SG | 1152543 | PCA ADV CPAP Auto, INTL |
| | EUX520H15 | DS2Adv Auto CPAP w/Humid BT only, EU | | |

3. Place the Antenna in the Blower box slot as shown.

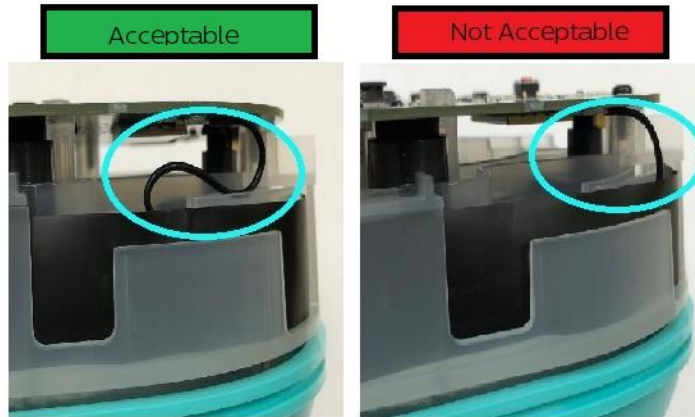


4. Insert from the back corner cut out and slide to front of the blower box.

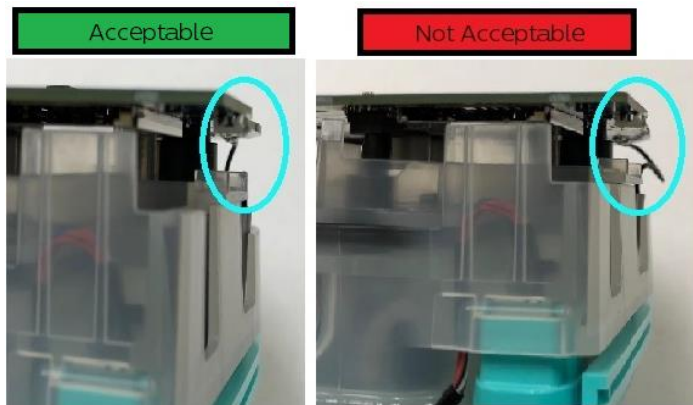
5. Tuck in remaining Antenna in the back of the Blower Box.



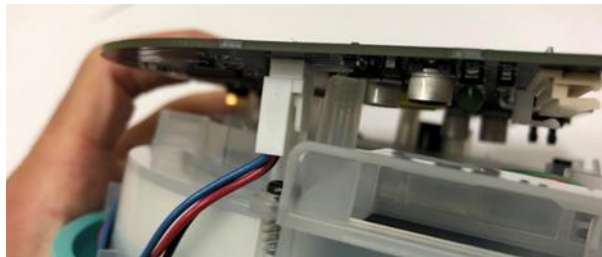
- Verify Antenna solder joint at the top of the Blower Box.



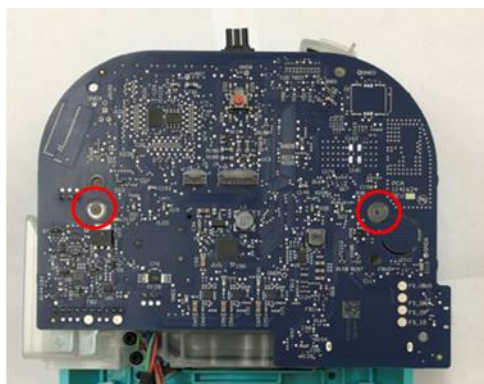
- Verify Antenna wire does not overhang the Blower Box.



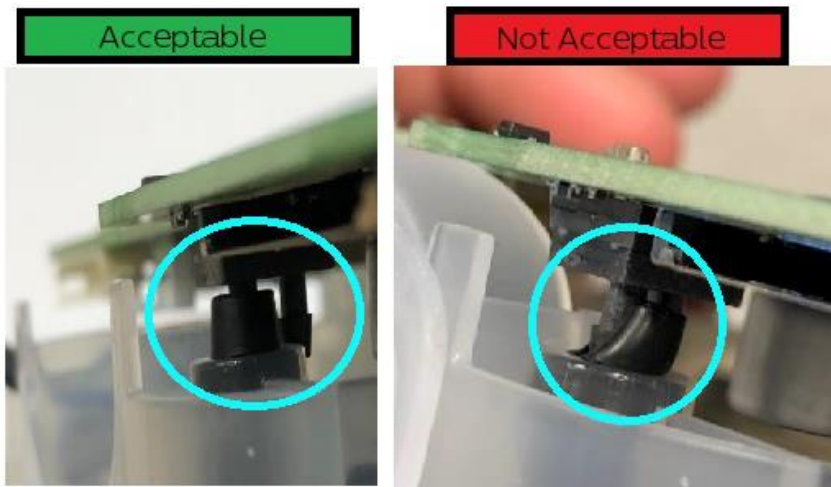
- Insert the Heated Tube Connector to the PCA.
- Verify the Heated Tube Connector is installed in the correct orientation as shown.



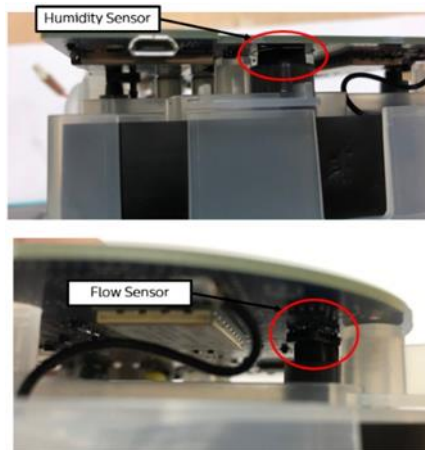
- Install the PCA onto the Blower Box.
- Verify the PCA is seated over the Blower Box posts.



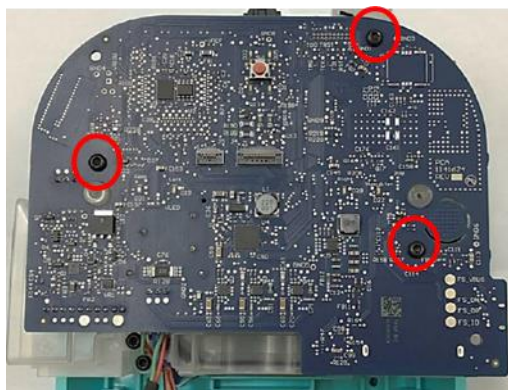
- Verify the PCA pressure sensor is seated on the Blower Box Top and the port is located within the seal.



13. Verify the PCA humidity sensor and flow sensor are seated on Blower Box Top.

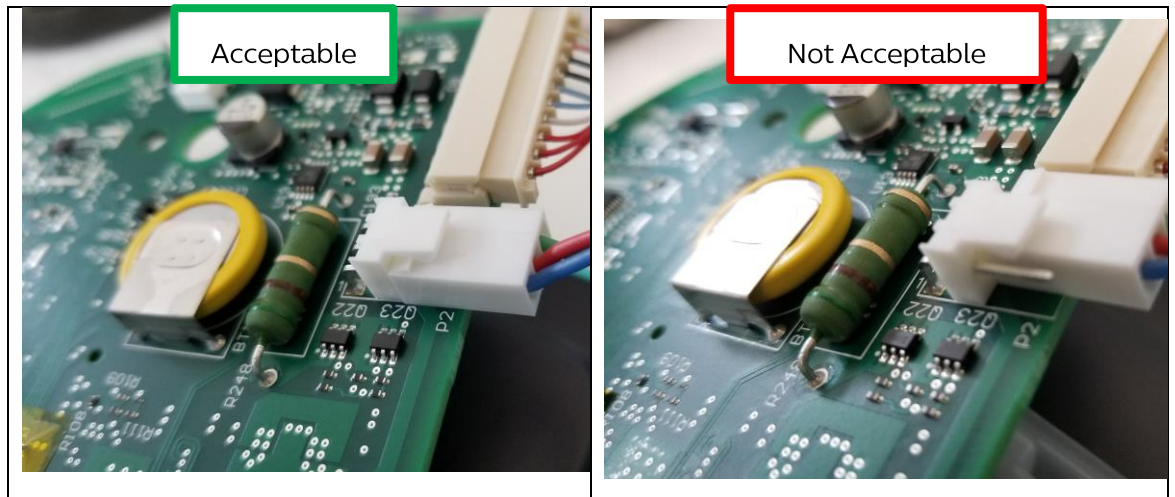
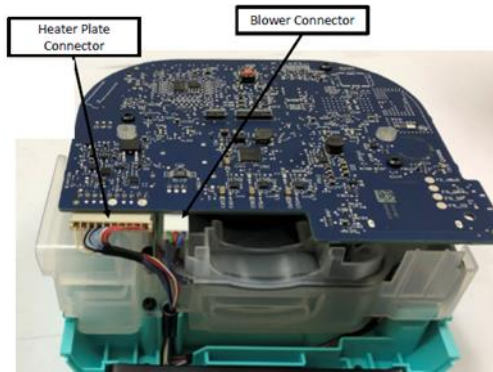


14. Secure the PCA with three screws. Torque 4 inch lbs.



15. Install the Blower Connector and Heater Plate connector.

16. Verify connectors are fully seated on all pins as shown.



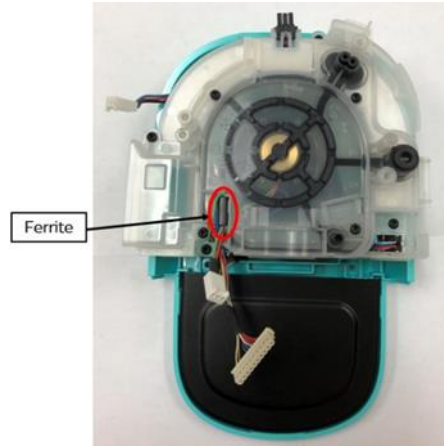
7.2.10. Replacing the blower box top

| Kit | Tools Required |
|---|----------------------|
| Blower box kit (PN 1149569 or 1149569B) | T10 Torx Screwdriver |

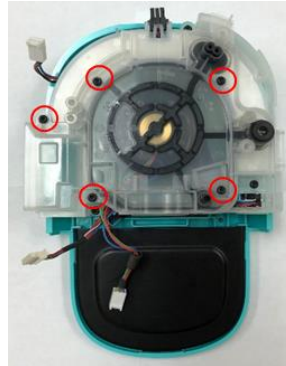
To remove the blower box top:

1. Remove the components as described in sections 7.2.1 - 7.2.9.

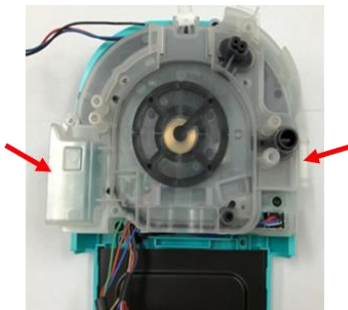
2. Remove the DC Cable ferrite from the Blower Box.



3. Remove the five screws securing the Blower Box Top to the Blower Box Housing.



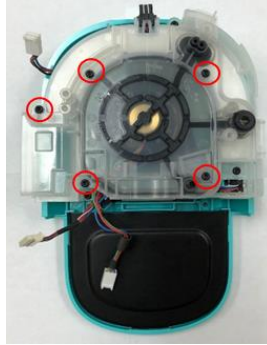
4. Remove the Blower Box Top by lifting up on the lips on either/both sides of the top.



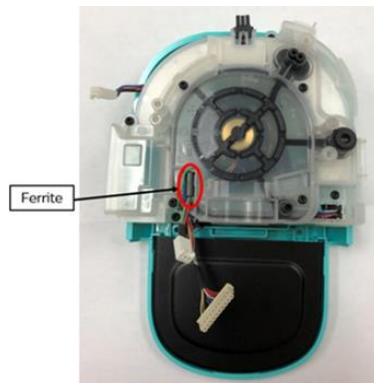
To install the blower box top:

1. Install the Blower Box Top onto the Blower Box
2. Ensure the blower wire length is approximately 3.5 inches.

- Secure the Blower Box top with five screws. Torque 4 inch lbs.



- Route Blower wires and snap Ferrite in place as shown.



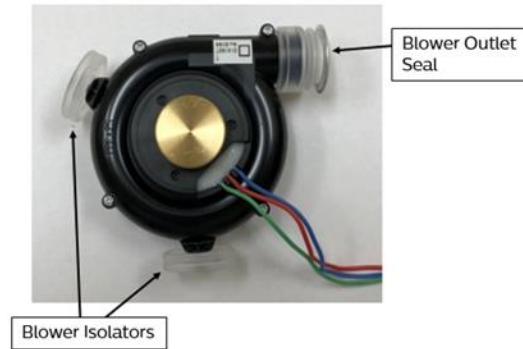
7.2.11. Replacing the blower & blower box

| Kit | Tools Required |
|--|----------------------|
| Blower box kit (PN 1149569 or 1149569B) | T10 Torx Screwdriver |
| Blower (PN 1149563) | |
| Blower outlet seal/isolator kit (PN 1149561) | |
| Heated tube cable (PN 1149564) | |

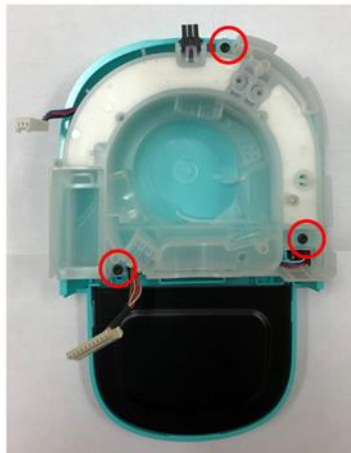
To remove the blower & blower box:

- Remove the components as described in sections 7.2.1 -7.2.10.
- Remove the Blower Assembly from the Blower Box Housing.

3. Remove the Blower Isolators and Blower Outlet Seal from the Blower Assembly.



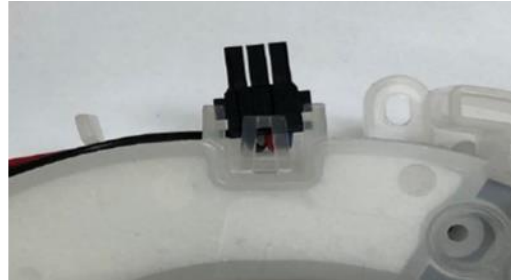
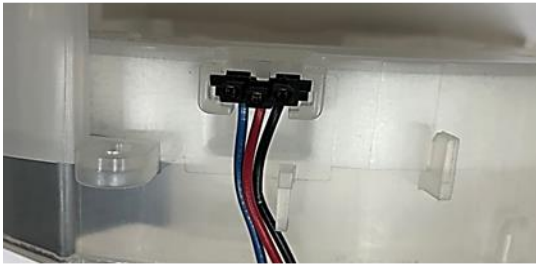
4. Remove the three screws from the Blower Box Housing.



5. Lift the Blower Box Housing from the Bottom Enclosure.
6. Remove the Heated Tube wires from the Blower Box Housing.

To install the blower & blower box:

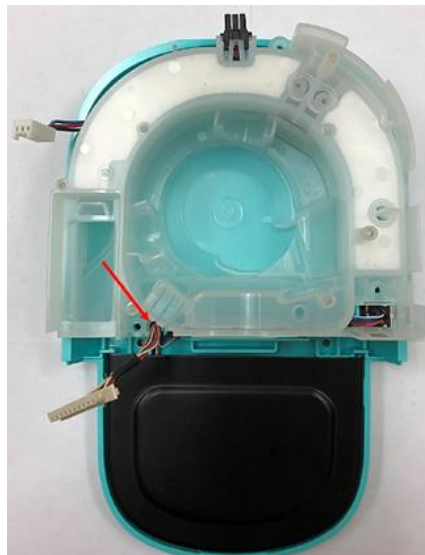
1. Install Heated Tube wires into Blower Box Housing.
2. Verify three prong connector is orientated correctly and fully seated as shown.



3. Route Heated Tube wires.
4. Verify wires are routed correctly.



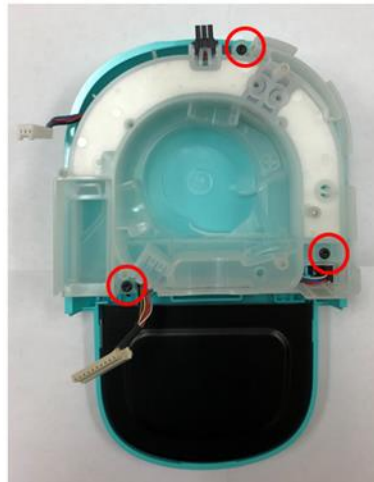
5. Install Blower Box Housing.
6. Ensure 10 pin ferrite is fully seated.



7. Verify Connector wires are seated in between walls of Bottom Enclosure.



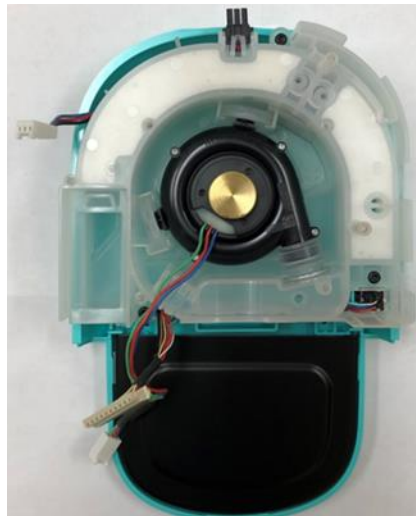
8. Install Blower Box Housing three screws. Torque to 6.7 inch lbs.
9. Verify all screws are seated.



10. Install Isolators and Blower Bellow to Blower.
11. Verify Outlet Seal is fully seated over Blower rib.



12. Install Blower Assembly into Blower Box as shown.

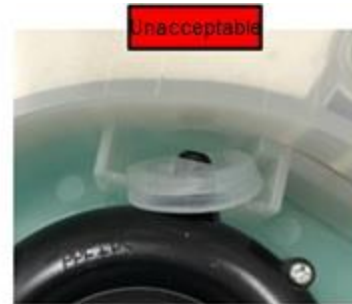


13. Ensure Heated Tube wires are installed.

14. Verify Bellows are in the Blower Box slot and fully seated.



15. Verify Isolators are in the Blower box slots and fully seated.



- 16. Place Blower wires in Blower Box grooves (one wire per groove, color location does not matter). The Blower brass nut should be centered in the top center area.



7.2.12. Replacing the DC power connector and heater plate

| Kit | Tools Required |
|---|----------------|
| Heater plate kit (PN 1149562) | N/A |
| Bottom enclosure, base (PN 1149574) or | |
| Bottom enclosure, plus (1149575) | |

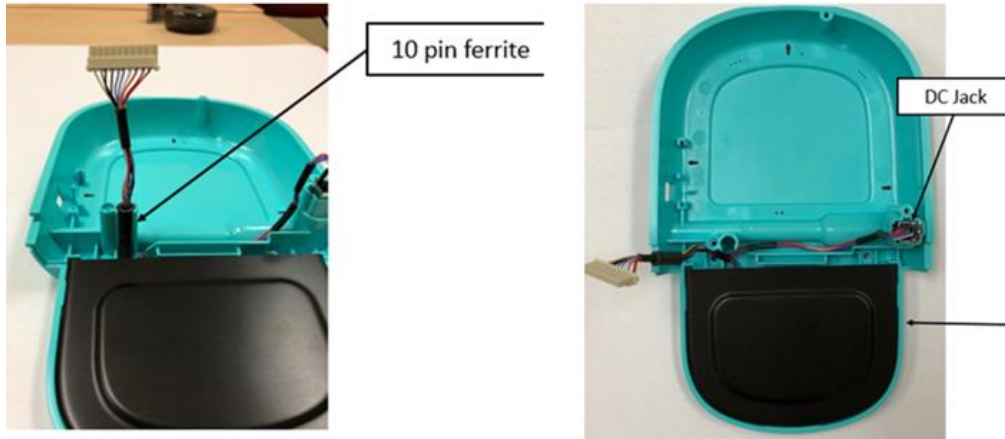
To remove the DC power connector and heater plate:

- 1. Remove the components as described in sections 7.2.1 -7.2.11.
- 2. Remove the DC Power Connector and 10 pin ferrite by pulling them out of their respective slots on the Bottom Enclosure.
- 3. Lift up on the Heater Plate to remove it from the Bottom Enclosure.



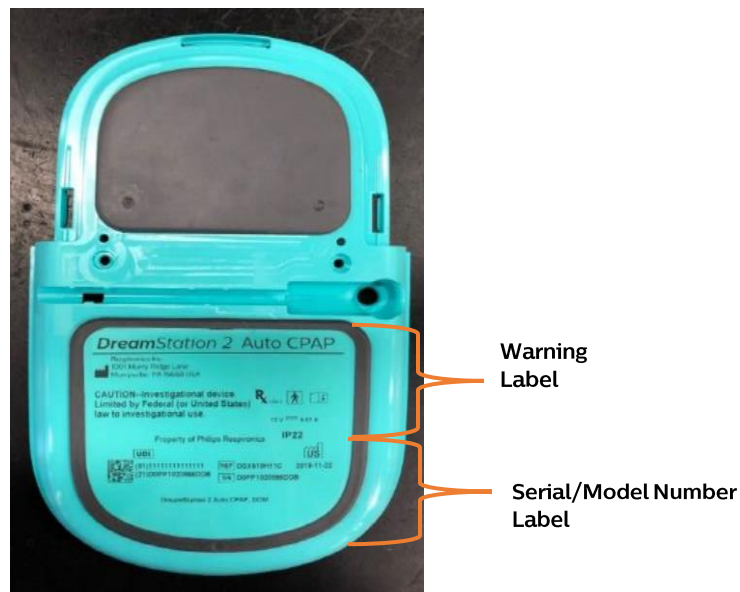
To install the DC power connector and heater plate:

1. Select the appropriate bottom enclosure for the given model.
Note: bottom enclosure, base (PN 1149574) is only used with blue DreamStation 2 models.
Note: bottom enclosure, plus (PN 1149575) is only used with the black DreamStation 2 Advanced models.
2. Install heater plate and press in DC jack.
3. Route DC jack wires are to the left of the Bottom Enclosure Wall.
4. Verify Heater Plate tab is placed in pocket.
5. Install 10 pin ferrite as shown and verify ferrite is fully seated.



7.2.13. Replacing the Bottom Enclosure

1. Place a new Warning label and Serial/Model Number label on the bottom of the Bottom Enclosure
 - a. Refer to Section 7.3 for Serial/Model Number label creation
 - b. Refer to Section 7.4 for selecting the appropriate Warning Label
 - c. Refer to the figure below and Section 7.4 for label placement
2. Assemble the remainder of the device as instructed in the previous sections.



WARNING LABEL AND SERIAL/MODEL NUMBER LABEL PLACEMENT

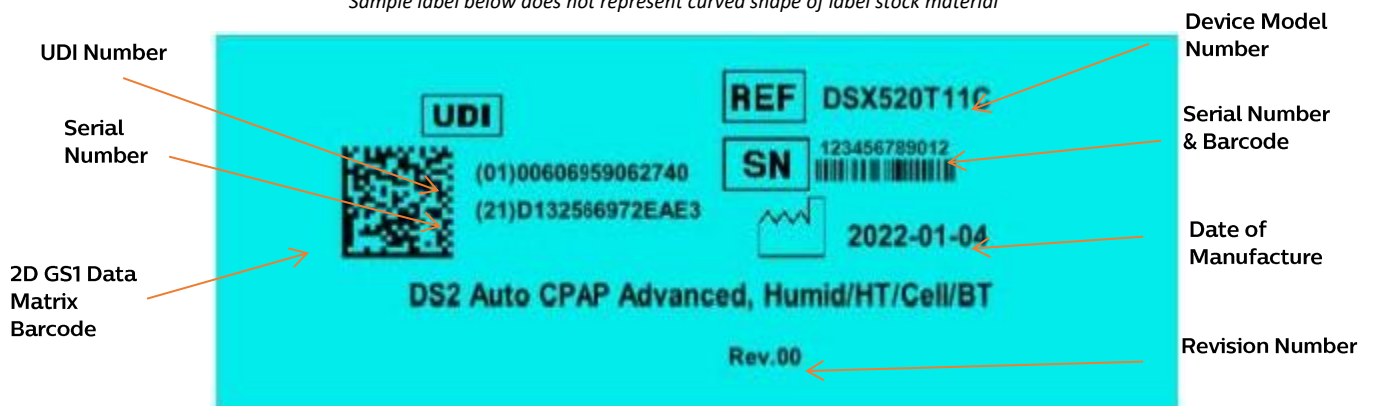
7.3. Creating the Serial/Model Number Label

The Serial/Model Number label is to be replaced in the following scenarios: 1) the Bottom Enclosure of the PAP device is replaced during service, 2) if there is damage to the device labeling, and/or 3) if device labeling needs replaced due to PCA replacement (refer to Section 7.2.9). All information on the serial/model number labels is required to be duplicated in order to maintain proper traceability. Refer below for details on printing serial/model number labels.

NOTE
The new label MUST include the same Model Number, Serial Number, UDI number, and country of origin as contained on the original label.

Sample Label

Sample label below does not represent curved shape of label stock material



7.3.1. Label Stock

| Part number | Description | Where used |
|-------------|--|--------------------------------|
| 1150078 | RP - DreamStation 2 SN/MN label | DreamStation 2 - Base |
| 1150079 | RP - DreamStation 2 Advanced SN/MN label | DreamStation 2 - Advanced/Plus |

7.3.2. Equipment (Printer)

Recommended Equipment:

| Equipment | Specification | Where used |
|-------------------------------------|--|--------------------|
| Zebra ZT410/411 300 DPI, or similar | Label printer <ul style="list-style-type: none"> • Full color • Direct thermal/thermal transfer • Roll (4.09 in) • 300 dpi • up to 14 inch/second | All DreamStation 2 |

| | | |
|----------------------|--|------------------------------|
| | <ul style="list-style-type: none"> • USB • LAN | |
| Print Ribbon 1149902 | <ul style="list-style-type: none"> • Black Resin • Thermal Transfer • Width 4.33" • Core Size 1" • Length 1476' | Base DreamStation 2 |
| Print Ribbon 1147491 | <ul style="list-style-type: none"> • White Resin • Thermal Transfer • Width 4.00" • Core Size 1" • Length 1476' | Advanced/Plus DreamStation 2 |

7.3.3. Software

Recommended Software:

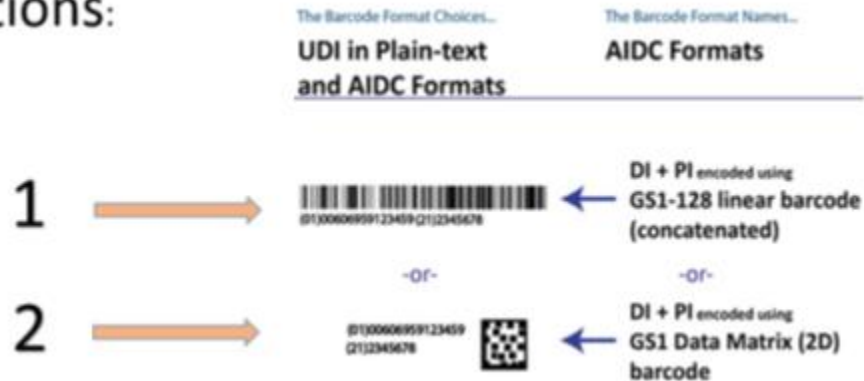
Loftware Software and Print Key (Fees Apply)

- For a full detailed list of Loftware supported printers and fees, please refer to <https://www.loftware.com/support/supported-labeling-printers>
- For software support, visit their website at <https://www.loftware.com/>

7.3.4. Label Printing Options

There are two different options available for reprinting the serial number label. One of these two options must be used. Option 2 is the preferred format. If option 2 cannot be duplicated to match the original label, option 1 may be used in its place if necessary.

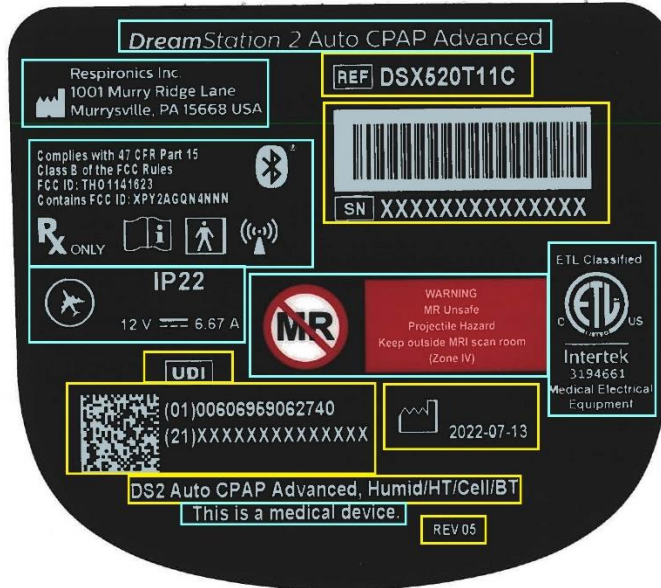
Options:



7.4. Replacing the Warning and Serial/Model Number Labels

Note: Original device labels are one-piece labels. Replacement labels are two labels that fit the indentation on the base of the device: Warning (top portion) and SN/MN (bottom portion)

Manufacturing Device Label Sample:



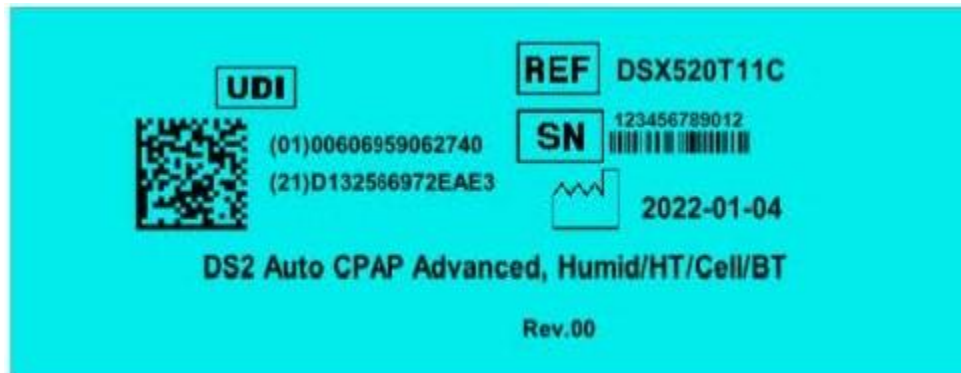
Yellow Box:
Dynamic information which will appear on the Serial Number/Model Number label

Aqua Box:
Static information which will appear on the Warning Label

Warning Label Sample:



SN/MN Label Sample



1. Place the device on a protective work surface top side down to view the device label(s).
2. Using a small flat bladed screwdriver or equivalent tool, start to lift the corner of the label and peel the label from the device.
 - a. The device label(s) can be removed using a heat gun, if necessary.
 - i. To remove the label(s) with a heat gun, warm the label(s) with a heat gun no closer than 3 inches from the surface.
 - ii. Use a continuous circular motion back and forth above the label(s) for no more than 30 seconds.
3. Use a solution of 70% isopropyl alcohol and water applied to a cloth to remove residue adhesive from the bottom enclosure. If a heat gun was used to remove the label(s) this step must be performed only after the surface has cooled.
4. Select the appropriate warning label from the table below.
5. Print the Serial Number/Model Number Label per Section 7.3
6. After the solution has dried, apply the new serial number label to the bottom enclosure, in the lower third of the indented area from where the previous label(s) was removed. Apply the appropriate warning label to the upper two-thirds of the indented area on the bottom enclosure.
7. Verify that there are no voids or creases in the labels. Repeat label creation, removal, and application process if voids or creases are present.

| | |
|--------------|---|
| Note: | There is no requirement for the Warning Label or Serial/Model version to align with the version on the original device label. |
|--------------|---|

| | Model | 1PK Warning Label RP Kits | | 10PK Warning Label RP Kits | |
|---|----------|---------------------------|--|----------------------------|--|
| | | PN | Description | PN | Description |
| Domestic (US) Current SN/MN label states, "Contains FCC ID XPY2AGQN4NNN", no listing of "Contains FCC ID", or other listing of FCC ID (excluding XPYUBX19KM01) | Base | N/A | N/A | N/A | N/A |
| | Advanced | 1150010 | RP-Warning Label, ADV AUTO CPAP, DOM 1PK | 1152599 | RP-Warning Label, ADV AUTO CPAP,DOM 10PK |
| Domestic (US) Current SN/MN label states, "Contains FCC ID XPYUBX19KM01" | Base | [PN to be announced] | [TBA] | [PN to be announced] | [TBA] |
| | Advanced | [PN to be announced] | [TBA] | [PN to be announced] | [TBA] |
| Canada | Base | 1150011 | RP-Warning Label Auto CPAP, Canada 1PK | 1152598 | RP-Warning Label Auto CPAP, Canada 10PK |
| | Advanced | 1150012 | RP-Warning Label, ADV Auto CPAP,CAN, 1PK | 1152601 | RP-Warning Label,ADV Auto CPAP,CAN, 10PK |

| | | | | | |
|-------------------------------------|----------|---------|--|---------|--|
| International (Rest of World) | Base | 1150013 | RP-Warning Label Auto CPAP, INTL 1PK | 1152597 | RP-Warning Label Auto CPAP, INTL 10PK |
| | Advanced | 1150014 | RP-Warning Label, ADV Auto CPAP,INTL 1PK | 1152600 | RP-Warning Label,ADV Auto CPAP,INTL 10PK |

7.5. Preventive maintenance

There is no preventive maintenance required for the device. The device does not require routine service.

Chapter 8: Testing and calibration

Final testing of a device is a mandatory requirement after any repairs are made to the device, or if the device enclosure has been opened for any reason.

Note

Testing **must** occur in a lab equipment environment only.

8.1. Required Equipment

Hardware:

- Digital manometer Qty. 1 ea.
 - Minimum specifications:
 - 0 - 25 cm H₂O (or better)
 - ±0.3 cm H₂O accuracy
 - ±0.1 cm H₂O resolution
- TSI 4040 flowmeter or equivalent, Qty. 1 ea.
 - Range: 0-300 SLPM
 - Accuracy: ±2% (0.05 SLPM)
- Electrical safety analyzer with test leads, Qty. 1 ea.
 - Capable of supplying the standard AC mains voltage/frequency to the device under test for the geographic area where the unit is being tested. (i.e., 120VAC/60Hz USA, 230VAC/50Hz United Kingdom).
- CPAP power supply, 80W, PN 1144267, Qty. 1 ea.
- USB module, PN 1147509, Qty. 1 ea.
- 8mm extra-long tip micro-USB Cable, Qty. 1 ea.
- Computer Cable for Flow Meter, 8pin mini Din-9pin D-sub (Orderable from TSI, SKU 1303583), Qty. 1 ea.
- 15mm heated tube, PN HT15, Qty. 1 ea.
- Hose 22mm-18in., PN 1008198, Qty. 1 ea.
- Leak device (PN 1150241 or ETF 3100962), Qty. 1 ea.
- Reusable Pollen filter, PN 1142687
- Printer
- PC with the following minimum requirements:
 - Windows 7 or Windows 10 32/64 Bit Operating System, Professional (Enterprise can be used for Philips network users only)
 - 3.20 GHz Processor
 - 100 GB Free hard drive space
 - 8 GB RAM
 - 1 Serial port
 - Minimum 4 USB port
 - Keyboard, mouse, monitor
 - Supports 220 VAC ±10% and 50 HZ ±1Hz, or 120 VAC ± 10% and 60 Hz ± 1 Hz power

Software (download and install from My Philips for Professionals):

- Service Diagnostic & Test Tool
- DreamStation 2 Device Driver Package

8.2. Testing prerequisites

Prior to testing any DreamStation 2 device, the following must be ensured:

1. The device error log must be cleared.
2. The device real time clock must be accurate.
3. The DreamStation device must be at room temperature. Refer to section 8.3 for testing environment specifications.
4. The firmware version on the device must align with the version of firmware that the Service Diagnostic & Test Tool is designed to support. Refer to section 5 to upgrade the device firmware.

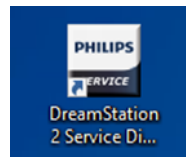
8.3. Testing environment specifications

The DreamStation 2 devices must be tested within the following temperature specifications:

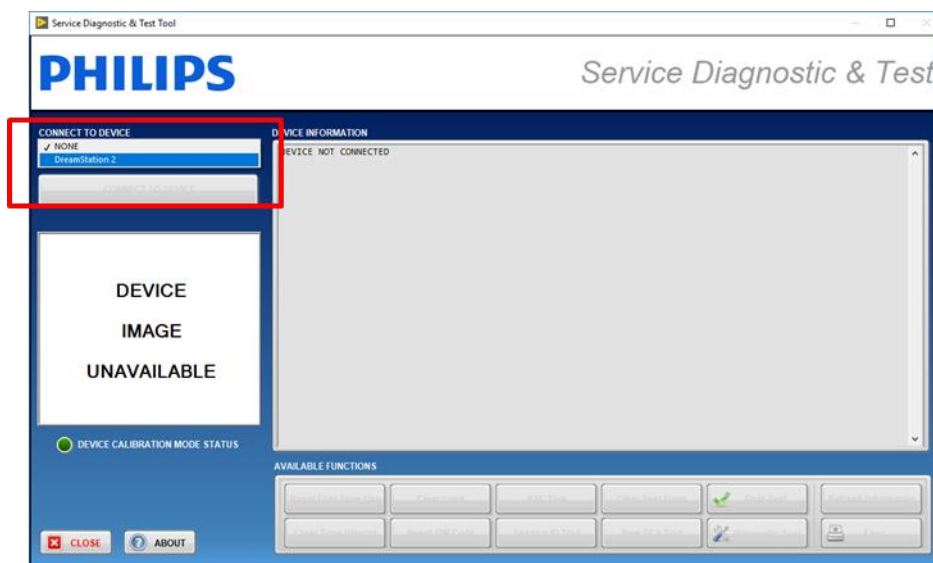
41 ° F to 95 ° F (+5 ° C to 35° C)

8.4. Final testing procedure

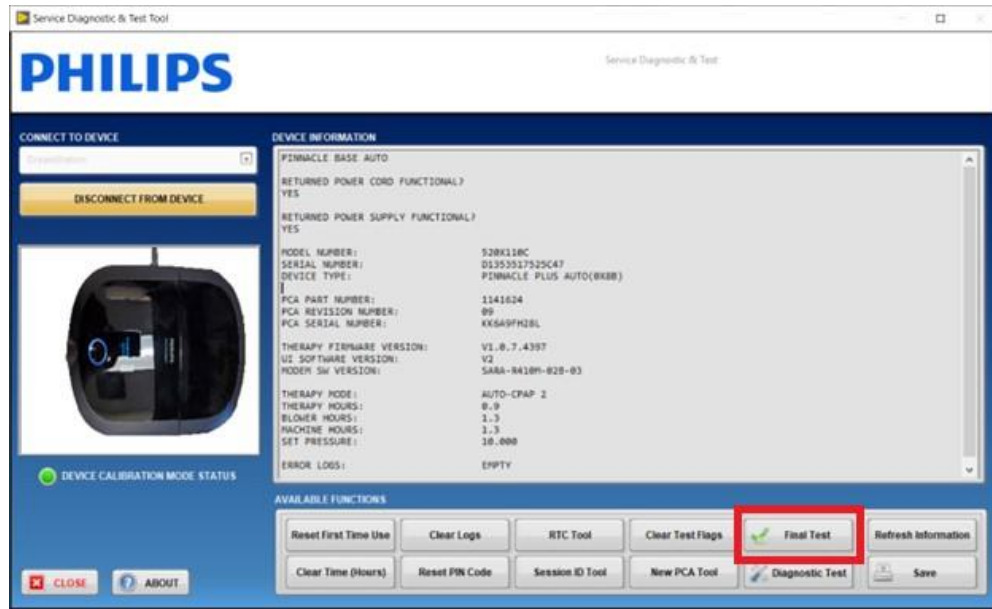
1. Download the DreamStation 2 Device Driver Package from My Philips for Professionals (www.my.philips.com/s/) and install the software by accepting all license agreements and default installation locations.
2. Download the Service Diagnostic & Test Tool from My Philips for Professionals (www.my.philips.com/s/) and install the software by accepting all license agreements and following installation instructions found in Chapter 6 of this Service manual.
3. Launch the Service Diagnostic & Test Tool from the desktop by double-clicking on the icon.



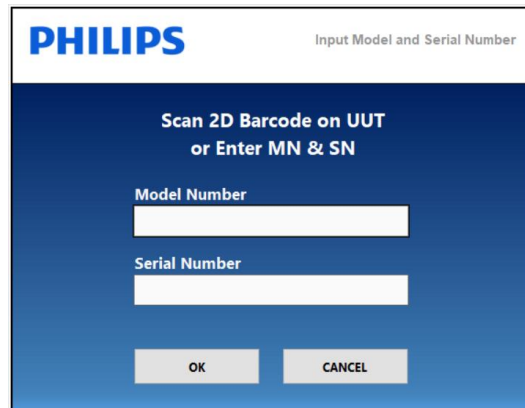
4. Select, "DreamStation 2" from the drop-down list, to connect the device to the Service Diagnostic & Test Tool.



- Click on the “Final Test” Tab on the main screen.



- Follow the prompts and enter in the device identification information (serial/model number, RA number, if present, etc.)



- Continue to follow all prompts.
- The next popup window to appear will provide instructions on the proper setup for the pressure, flow, and flow path calibration section of the test. Connect all equipment.



9. Next, remove the USB cable from the device and set up the safety analyzer for the safety test section.
 - a. Connect the device to the safety analyzer.
 - b. Highlight standard IEC62353, then press F3.



- c. Press the μA (micro-Amps) button.



- d. Position the switches in Normal Polarity and Closed Neutral



- e. Run the test by measuring the leakage current at the metal shroud of the USB A charging port of the DreamStation 2 device.
 - f. Record the maximum leakage current results (cannot exceed 100 μA).
10. If the test fails, evaluate for possible causes and make any necessary adjustments or repairs, and then retest the device.

-
- a. If the test fails due to First Time Use not being reset and the device is NOT being returned to the same patient, perform the following:
 - i. End final test.
 - ii. Select Reset first Use within test software.
 - iii. Repeat final test.
 - b. If the test fails due to First Time Use not being reset and the device is being returned to the same patient, hold the device. An upcoming update to the Service & Diagnostic Test Tool will resolve this issue.
11. Retain a copy of the test report.

