Troubleshooting guide
When a patient calls with potential therapy issues, such as a leaky mask or rain-out, it’s often tough to troubleshoot problems over the phone. This go-to guide walks you through the most common device issues, and shows you, step-by-step, how to solve them.

Open the patient’s record in AirView™ and click the Remote Assist tab. Ensure that the mask and tube reported in Remote Assist are what is physically attached to the patient’s device. Next, view the bar at the top of the screen to see if the patient’s device is functioning correctly.

If the customer’s device is functioning incorrectly, there are several things you can try first before contacting ResMed Tech Support.

If the customer’s device is functioning correctly, but the customer is complaining about leaks, pressure and other issues, you can make numerous adjustments, many remotely, to instantly solve problems.

Device
Displays device type and serial number including the settings:
SmartStart [On, Off]
Total used hours [hrs]

Humidifier
Displays humidifier type and connection status including the settings:
Humidity level [Off, 1 to 8]
Climate control [Manual, Auto]
Ambient humidity [Dry, Medium, Humid]

Air tubing
Displays the air tubing type and connection status including:
Tube temperature

Recent usage and leak/mask
Displays the recent usage and leak (last five days) as shown in AirView’s Wireless patients screen.

Displays the mask type as:
Mask (online) as set in AirView
Mask (device) as reported in the device

Device status. A green bar indicates the device is functioning properly. A red bar indicates an issue and provides details on steps to take to resolve it.

Ambient humidity. Quickly view the patient’s room humidity level and recommend changes to make therapy more comfortable.
FUNCTIONING INCORRECTLY

If a fault is displayed, try these steps to resolve:

- Restart the device
- If it is a ClimateLineAir™ Fault, detach and reattach the tube. Get a new tube if it still is an issue.
- Call ResMed Tech Support for assistance as the fault may be resolvable.

Last 5 days of usage/leak data.
Get a snapshot of compliance, leak and AHI data for the previous 5 days.

Mask type. Troubleshoot comfort issues or recommend a different mask type based on patient feedback.
2 Mask optimization

Does your patient complain of...

...mask leaks?

1. Yes

   Is it linked to body position?

   - No
     - Check headgear, mask and cushion size
     - Clean cushion with mild soap in lukewarm water
     - Re-adjust mask as necessary

   - Yes

...skin irritation?

2. Yes

   - Clean cushion with mild soap in lukewarm water
   - Clean face before fitting mask every night
   - Check headgear tension

...forehead redness or pain?

3. Yes

   - Check mask fit, headgear tension and headgear size
   - Redness or pain persists?

...claustrophobia?

4. Yes

   - Consider switching to AirFit™ P10 nasal pillows mask (limited contact with face)

...nasal bridge pain and/or redness?

5. Yes

   - Check mask fit, headgear tension and cushion and headgear size
   - Redness or pain persists?
Advise your patient to get a CPAP pillow

Leak persists?

Yes

Consider switching to an AirFit mask

No

Consider replacing cushion or mask as necessary

Intolerance persists?

Yes

Consider switching to an AirFit mask (no forehead support)

No

Is mask over-tightened?

Yes

Yes

Consider replacing cushion or mask as necessary

Yes

Consider switching to an AirFit mask

AirFit range
- Dual-wall technology
- No forehead support

Yes

Consider
- Adding a Gecko™ Nasal Pad
- Or switching to AirFit P10 nasal pillows mask
Does your patient complain of...

...noise?

1. Does the noise problem come from the device?
   - Yes
     - Check that the filter is not clogged
     - Check for cracks in the humidifier tub
     - Re-insert the tub to make sure it is seated properly
     - Check to see if the patient is using a ResMed tube
     - AirView Remote Assist – Air tubing column
   - No

2. Make sure the patient has optimized humidity, if mouth leak then consider switching to the AirFit F10 full face mask
   - Yes
     - AirView Remote Assist – Recent usage and leak column
   - No

...nose/mouth dryness?
Consider switching to AirFit F10 full face mask

Are there high unintentional leaks? (possible noise source)
- Yes
  - Consider switching to AirFit F10 full face mask
  - Get an order for a new mask from the patient’s physician if needed
- No
  - Re-adjust mask to remove unintentional leaks (See chapter 1 section 1)

Are there any mouth leaks?
- Yes
  - Consider switching to AirFit F10 full face mask
- No
  - Noise complaint persists?

Prescription tab in AirView – Climate control mode

Consider increasing the humidity settings
- Yes
  - Dryness persists?
  - No
    - Is the humidity setting low?
      - No
        - Is ambient humidity dry?
          - Yes
            - • Turn off air conditioning
              • Switch to ClimateLine™ tubing
          - No
            - AirView Remote Assist – Humidifier column
  - Yes
    - AirView Remote Assist – Humidifier column
Does your patient complain of...

...rain-out?

3

Yes

AirView Remote Assist – Air tubing column

Does the patient have ClimateLine tubing?

Yes

Turn on Climate Control Auto mode

Prescription tab in AirView – Climate control mode

No

...difficulty falling asleep?

4

Yes

• Consider using the AutoRamp™ feature for automatic sleep onset detection
• Try using your therapy for a bit each day while watching TV to get more comfortable with it
• Register for myAir™ at myAir.ResMed.com to receive tips on adjusting to therapy

No
Suggest switching to ClimateLine tubing

AutoRamp
AutoRamp technology makes therapy comfortable right from the start by delivering a low pressure to help patients fall asleep more easily. Once the device detects your patient is asleep, it comfortably increases the pressure to ensure the prescribed level is delivered the moment they need it.
Tailored therapy

Does your patient complain of...

1. **...difficulty exhaling against the pressure?**

   - Yes
     - Assuming EPR is off, consider activating expiratory comfort feature on ramp only
     - **Complaint persists?**
       - Yes
         - Turn on EPR
       - **Complaint persists?**
     - **Go to Prescription tab in AirView to adjust from full time to ramp only**
     - **Go to Prescription tab in AirView to adjust EPR to full time**

   **EPR™ (Expiratory Pressure Relief) – comfortable exhalation**
   With the Easy-Breathe waveform, EPR decreases pressure at exhalation to ensure soft and comfortable breathing.
Contact the patient’s physician to change their device type if switching to a bilevel is the right option for the patient.

Consider switching to AirCurve™ 10 VAuto

The VAuto algorithm provides innovative auto-adjusting bilevel pressure to challenging patients who require more respiratory comfort. Delivering pressure support in a natural waveform, it provides even more comfort by matching your patient’s breathing.
...pressure discomfort?

2

Yes

AirView Remote Assist – Recent usage and leak column

Check for mask leaks

Complaint persists?

Yes

Turn on EPR

Yes

Complaint persists?

Is the device on AutoSet™ mode?

No
Turn on the AutoSet algorithm

Prescription tab in AirView, device mode. Receive permission from patient’s physician.

The AutoSet algorithm responds to flow limitations, snoring and obstructive sleep apneas to automatically adjust through the night and deliver ideal pressure and optimal therapy to the patient.

Turn on the Response feature

Under the Prescription tab in AirView

The AutoSet Response feature responds to the same events as the standard AutoSet mode, but with gentler pressure increases. This option is designed to help patients with high pressure intolerance.

Receive permission from physician

Consider switching to AirCurve 10 VAuto

Yes

Complaint persists?

Yes

The VAuto algorithm provides innovative auto-adjusting bilevel pressure to challenging patients who require more respiratory comfort. Delivering pressure support in a natural waveform, it provides even more comfort by matching your patient’s breathing.
Does your patient complain of...

...feeling bloated?

3

Yes

Turn on EPR

Go to Prescription tab in AirView to adjust EPR

EPR (Expiratory Pressure Relief) – comfortable exhalation

With the Easy-Breathe waveform, EPR decreases pressure at exhalation to ensure soft and comfortable breathing.

Complaint persists?
Tailored Therapy continued

- Elevate head with pillows

  - Complaint persists?
    - Yes
      - Switch to the Airfit F10 full face mask
      - Get an order for a new mask from the patient’s physician if needed

  - Consider switching to AirCurve 10 VAuto

*The VAuto algorithm* provides innovative auto-adjusting bilevel pressure to challenging patients who require more respiratory comfort. Delivering pressure support in a natural waveform, it provides even more comfort by matching your patient’s breathing.
Does your patient’s device keep stopping?

Yes

Is mask leakage high or low?

AirView Remote Assist – Recent usage and leak column

High

High leak is anything > a 95% pressure of 24 liters/min or more

Low

Is your patient refusing/ quitting PAP therapy?

Yes

Contact the patient’s physician to change their device type if switching to a bilevel is the right option for the patient.

Consider switching to AirCurve 10 VAuto

The VAuto algorithm provides innovative auto-adjusting bilevel pressure to challenging patients who require more respiratory comfort. Delivering pressure support in a natural waveform, it provides even more comfort by matching your patient’s breathing.
Tailored Therapy continued

- Confirm that the mask is seated properly into the frame and that the patient's cushion, mask and tubing are not torn, cracked or discolored. Additionally, if there is a mouth leak, switch the patient to a full face mask.

- Get an order for a new mask from the patient's physician if needed

- Is SmartStart™ on or off?
  - On: Turn SmartStart off
  - Off: Call ResMed Tech Support. They will be able to help solve the problem.

- Consider
  - Referring your patient back to their treating physician for possible oral appliance therapy
  - Prescribing Narval CC fitting

- To ensure no obstructive sleep apnea (OSA) patient goes without therapy, ResMed also offers **Narval™ CC**, the next generation custom-made mandibular repositioning device for patients who refuse or abandon CPAP therapy.
**My device makes a whistling noise. How do I stop it?**
First, instruct the patient to check to see if there is a crack in the humidifier tub. If there is, give them a new one. Next, ensure that the intentional leak holes are free of water drops, the tubing is dry and the mask is water-free on the inside. Lastly, find out if the patient’s tubing is from ResMed. If it isn’t, gently suggest that they purchase a ResMed tube as tubes from other companies make noise.

**Why is my humidifier utilizing different quantities of water every night?**
Have the patient check to make sure the tub lid seal is sitting properly in the upper lid of the HumidAir™ tub. Also, water evaporates more quickly if there is a leak, a lot of humidity in the room or plate settings are high.

**It is difficult to pull out the humidifier tub to fill it with water. Am I opening it incorrectly?**
Make sure the patient is holding onto the main part of the device with one hand and pushing down on the tab on the top of the chamber while pulling it horizontally with their other hand.

**I want the top-of-the-line ResMed device, which one is it?**
All of ResMed’s devices are designed to offer the highest quality products. There are different devices and features offered based on patients’ needs and MD prescriptions. Please visit ResMed.com to see all devices available.

**Will my device work in other countries (power)?**
Yes, patients can travel with ResMed devices to other countries. The universal power supplies in our devices allow use all over the world. The patient will only need to purchase a plug adapter for the country they are visiting. Visit ResMed.com/Travel for more information.

**What altitude can the device be used at?**
Air10™ devices will automatically compensate for altitudes below 8,600 feet. For higher altitudes, manual adjustment may be required.
Can the therapy system be used in-flight on a commercial airline?
Some airlines allow passengers and actively assist patients in using therapy devices in-flight, while others do not. Advise the patient to check with the airline before they book their flight. Advise the patient to visit ResMed.com/Travel for more detailed instructions.
Note: Do not use the humidifier on the flight; aircraft turbulence increases the risk of water spillage and damage to the device.
Reminder: Device should be switched to airplane mode while in the air.

Can Air10 devices run from the 400Hz power supply on the aircraft?
Yes. Even though the rating plate on the device specifies 50–60Hz, the switch mode power supply in the device is compatible with the 110V, 400Hz power supply on the aircraft. Remind the patient to book a seat close to a power outlet on the aircraft. The number and availability of these seats varies from one aircraft to another. Another option is to buy a battery to power the device.

Will the X-ray scanners at the airport security affect Air10 devices?
No, X-ray scanners will not harm Air10 devices. The patient will need to remove their device from its carrying case before placing it through the scanner.

Can the therapy system be used when camping?
Yes. A ResMed device can operate from a battery supply (in a truck or recreational vehicle) with the use of a suitable inverter or converter unit. The inverter should be capable of supplying voltage in the 100–300V range and should be of sufficient capacity. ResMed has a DC converter available as an accessory in addition to a RPS II external battery source. Visit ResMed.com/Travel for more tips on traveling with their therapy device and to view our battery guide.

What is an inverter? What do they do and where can they be purchased?
An inverter is a device that turns a low voltage (usually 12V) DC into a mains-level AC voltage – either 110 or 240V – so that domestic appliances can be run from a battery supply. It can be purchased at most consumer electronics stores. Inverters are either a “pure” sine wave or a “modified” sine wave. “Modified” sine wave is the least expensive type and will work with ResMed’s devices (S9™ and Air10).
What are the battery options for the Air10 device?

If a ResMed Air10 series therapy system is run from a battery, and the battery is intended to be used for a single night before recharging, the following equipment is required:

**Option 1:**
- A marine battery or deep-cycle battery rated at 50 amp-hours or higher
- A pure sine wave inverter with a continuous power rating of 300W, or higher or an inverter with a peak/surge rating of 500W or higher (available at electronic stores). Instead of an inverter, the patient can purchase the Air10 DC/DC converter that can be used with the Air10 series.

**Option 2:**
- Buy the ResMed Power Station (RPS) II with your Air10 device. This is an external battery source that does not require an inverter or converter.

How long will my device run on the RPS II external battery source?

Up to 13 hours. However, the device type, accessories and the patient’s prescription can affect battery life. It is imperative that the patient does not deplete the battery to 0% as this will result in therapy being stopped and the device will shut down/turn off. Instead, advise them to charge it when the battery gets low.