

## Problem Solving your Child's Home Ventilator (Astral)



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You're already a good problem solver. It's something you do every day with all sorts of things. Trouble shooting the Astral will get easier with experience but here are some general points:

1. **Your child comes first.** If you are having problems with equipment, always check your child is okay first. If they are okay then you have time to sort the problem. If they are not, then you may need to support them with your backup equipment (bag or second ventilator) until the problem is resolved.
2. **Your child comes second too.** Occasionally what seems like a technical problem is due to a change in your child. Are they okay?
3. **Be prepared:** If you are having technical problems, check you have everything you need in case the problem gets worse and/or you need to take your child to hospital.
4. **Safe learning:** With experience you will recognise most problems and know how to fix them. Your health team will help you safely learn.
5. **Be systematic:** Some problems require you to carefully check things in a systematic way. Starting with your child, the circuit, accessories and other parts of the setup, and then the ventilator. Then do a learn circuit. Does this resolve the problem? If you keep a diary or observation chart, write down details of problems and how you resolved them.
6. **Get help:** Contact your health team or technical support. The more information you can give them, the better they can help. If there were alarms or error messages, write down the exact words (or take a photo with your smartphone). Try to describe exactly what was happening. Sometimes describing what else was going on at the time and any recent changes in setup can be vital clues.

# Problem Solving your Childs Ventilator

## General Problem Solving:

- a. Check the circuit setup – this is the most common cause of problems. Drain any water out of the circuit. If you use a double-limb circuit, check the circuit adaptor too.
- b. Do a 'learn circuit' (see section in booklet on how to do this). A learn circuit helps identify problems and re-calibrates. It also does internal checks. This may resolve the problem.
- c. Check you are doing things the right way – check your guides and/or with someone else.
- d. Try swapping to your alternative ventilator. If the problem is resolved, this suggests the other ventilator had an issue. If it persists, the problem may be elsewhere.

## Specific Astral Problem Solving

Fault/issue	Suggestions
<b>Condensation in breathing circuit</b>	See 'Troubleshooting the Humidifier'
<b>Learn circuit failed</b>	<p>Check the circuit is the right type and set up correctly.            Check the circuit for leaks.            Repeat the 'learn circuit' (try with circuit straight)            If double-limb circuit, check the expiratory adaptor and the module beneath it – check the blue membrane and sensor are pushed down flush with the enclosure.</p>
<b>Learn circuit caution</b>	<p>This may indicate the circuit being used is higher resistance than the Astral expects. This is still safe to use but discuss with your health team.</p>
<b>Circuit fault</b>	<p>Check the circuit for water, leaks or faults.            Perform a learn circuit.            If alarm persists, replace circuit + do another learn circuit.            Consider alternative ventilator/circuit.            Contact your health team.</p>
<b>Touch screen damaged or unresponsive</b>	<p>Check on your child.            Switch to alternative respiratory support.            Try powering on/off the device.            If you can't do this normally then disconnect the mains power, press and hold both the green on/off button and the alarm mute button for at least 10 seconds. After 10 seconds the alarm button will flash. Release the buttons. It will power down and can then be restarted as usual.            If this doesn't resolve the problem, contact your health team.</p>

For further information see pages 65-72 of your Resmed Astral User Guide.

## Specific Astral Problem Solving

Fault/issue	Suggestions
<b>Battery fault messages</b>	<p>Check battery connections. If fault persists, contact your health team.</p>
<b>Critical fault</b>	<p>Check on your child and transfer them to alternative ventilator or manual bag. Contact your health team.</p>
<b>Safety reset complete</b>	<p>The device detected a fault and was reset. Check your child is okay. If the alarm persists, switch to a back-up ventilator and return the device for service. Contact your health team.</p>
<b>System fault</b>	<p>Check your child is okay. If the alarm persists, switch to a back-up ventilator and return the device for service. Contact your health team.</p>
<b>Safety reset complete</b>	<p>The device detected a fault and was reset. Check your child is okay. If the alarm persists, switch to a back-up ventilator and return the device for service. Contact your health team.</p>
<b>Error code XXX</b>	<p>Check on your child. Consider switching to alternative respiratory support. Contact your health team with the specific code.</p>

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# Problem Solving Overview

