

Troubleshooting Guide for **AIRVO 3 device**




QR for Airvo3 Setup and Usage and Disinfection

Problem	Solution									
Selecting correct cannula	<p>Select size according to age and weight range – see flowchart and lanyards. Nasal cannula have flow limitations as outlined below with minimum and maximum flow capabilities.</p> <p style="text-align: center;">Optiflow Junior Cannula:</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td>Infant</td> <td>Purple</td> <td>2 - 20 L/min</td> </tr> <tr> <td>Paediatric</td> <td>Green</td> <td>2 – 25 L/min</td> </tr> <tr> <td>Dolphin</td> <td>Grey</td> <td>10 – 50 L/min</td> </tr> </table> <p>Maintain a leak at the nares so as not to fill or fully obstruct the nares. Ensure a clear gap is visible around each nare.</p>	Infant	Purple	2 - 20 L/min	Paediatric	Green	2 – 25 L/min	Dolphin	Grey	10 – 50 L/min
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Orange traffic light Disinfection Status	An Orange traffic light on machine start up means the AIRVO device has not been cleaned and disinfected since last use. Disinfection must occur prior to next use with a green light noting ready for use. Disinfection will take 55 mins.									
How to disinfect AIRVO device	<ul style="list-style-type: none"> Disinfect after each patient use Remove all consumables using PPE from AIRVO and discard appropriately. Clean the outside with a disinfection wipe. Clean the outlet elbow reprocessing port with a sponge stick using warm water and mild detergent. Rotate sponge stick with cleaning and rinse sponge stick and repeat clean again. DO NOT clean the left-hand chamber port with the sponge stick. Attach red disinfection tubing (attached to the AIRVO pole) by lifting the sleeve and then locking down into place. Attach the other end of the tube to the left-hand chamber port and attach the blue disinfection filter to the right-hand port. Connect to the power and switch device on Device will sense disinfection tubing and automatically disinfect for 55 minutes. The display screen will show the time in minutes until completion. Once complete a green 'tick' symbol will be displayed 									
How to set and alter FiO2	<ul style="list-style-type: none"> AIRVO 3 FiO2 is manually increased by using the device buttons. Press the FiO2 button (eg. 0.30 %) on the AIRVO device and using the + and – buttons increase/decrease FiO2 and press confirm. <p>NB: ROOM AIR = 0.21 % FiO2 (Fraction of inspired Oxygen)</p>									
How to set and alter flows (L/min)	<ul style="list-style-type: none"> AIRVO 3 flows are manually commenced and altered by using the device buttons. Press the L/min button (eg 10L/min) on the AIRVO device and using the + and – buttons to increase/decrease L/min and press confirm. 									
Device alarming 'Check for blockages'	<ul style="list-style-type: none"> Check correct position of nasal cannula to ensure no occlusion exists, including secretions and/or positioning at nares. Check there are no kinks in the nasal cannula or the circuit tubing. 									

Device alarm → 'Cannot reach target flow'	<ul style="list-style-type: none"> • If 'flow obstruction' or 'cannot reach target flow' displays, press alarm silence and remove nasal cannula from nares and reposition. Clear any visible secretions. Check tubing for any kinks. Then recheck the AIRVO screen is displaying the correct flow.
Humidifier water level below max. level (line allocated on chamber)	<ul style="list-style-type: none"> • Water is only required to cover the plate and does not have to reach the maximum line level allocated on the chamber. • There is a sensor floating ball in the chamber that prevents the humidifier from going dry (so long as there is a water bag attached with water in it).
Dual Oxygen system use with transfers	<ul style="list-style-type: none"> • Ensure the correct Oxygen source is on for the patient when transferring between departments. Change dual High-Pressure Oxygen (HPO) setup to have Oxygen flowing via cylinder rather than wall outlet when transferring. Remember to change HPO Oxygen flow back to the wall outlet post transfer and switch off the cylinder.
AIRVO 3 Battery status	<ul style="list-style-type: none"> • AIRVO3 has a built-in battery which has 300 cycles of running from 0-100%. As the device is generally always plugged into a power outlet, then the life of the battery is lengthened and can be up to 800 cycles per device. It is at this time it requires a service. • Battery (without power source) will last approx. 40 mins • Device will show orange at <50% battery • Battery warning alarm occurs at <35% and <20% remaining • When battery very low the device automatically switches off humidification, however flows will be maintained.
Rain out	<ul style="list-style-type: none"> • If there is rain out occurring this may be due to the cannula not being warmed. Check connections or even the possibility that the air conditioning is too low/cold or a fan is on the child. This can affect the warmth factor and potential rain out.
Placement of nasal cannula straps	<ul style="list-style-type: none"> • The straps are best placed at the front or back/top of head. When the child is lying on their side, they should not be lying on the straps to reduce risk of occlusion and pressure areas.
Locking and unlocking screen	<ul style="list-style-type: none"> • The AIRVO3 is set to autolock after 3 minutes. If you wish to lock earlier, press the three bars on the device and click 'lock screen'. • To unlock screen, touch screen face and hold the button on device screen for 3 seconds – this will unlock the screen.
No oxygen source = room air only FiO² = 0.21%	<ul style="list-style-type: none"> • If you have no oxygen source or do not connect to oxygen the AIRVO3 will still run on power or battery with the flows dialled up delivered to the patient. This is room air (FiO₂= 0.21%). If your patient has an oxygen requirement, then the oxygen cable needs to be attached to an oxygen outlet, either the wall outlet or a cylinder.

AIRVO 2 device differences if you have these devices in your hospital

<p>Cannula size's and AIRVO 2 mode settings</p>	<p>Two modes exist on the Airvo2 with each mode having differing flow capabilities as outlined below.</p> <p style="text-align: center;"> 2 - 25 L/min Junior (bird and butterfly) 10 – 60L/min Adult/Default mode (tick on screen) </p> <p>Nasal cannula have flow limitations due to resistance factors within the cannula. Minimum and maximum flow capabilities exist – see below.</p> <p style="text-align: center;">Optiflow Junior Cannula:</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td>Infant</td> <td style="color: purple;">Purple</td> <td>2 - 20 L/min</td> </tr> <tr> <td>Paediatric</td> <td style="color: green;">Green</td> <td>2 – 25 L/min</td> </tr> <tr> <td>Dolphin</td> <td style="color: grey;">Grey</td> <td>10 – 50 L/min</td> </tr> </table> <p>Always consider the cannula and mode when using the AIRVO2 device.</p> <ul style="list-style-type: none"> • Any flows > 25L/min will only be able to use the Dolphin (grey) cannula or adult cannula's in Adult/Default mode on the Airvo2. • Children with flows < 25L/min can use the Optiflow Junior range up to the green size and in Junior mode (Bird and Butterfly) on the Airvo2. 	Infant	Purple	2 - 20 L/min	Paediatric	Green	2 – 25 L/min	Dolphin	Grey	10 – 50 L/min
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<p>Changing AIRVO2 device flows (L/min)</p>	<ul style="list-style-type: none"> • Press the 'MODE' button  twice (the first press will give you the humidification temperature and the second press will give you L/minute). • Press and hold the up and down arrows together simultaneously for 5 seconds to release the lock. • Once current L/min is flashing, increase or decrease the L/minute displayed using the up and down arrows. • Once correct L/minute is displayed, press 'MODE' button again to lock. 									
<p>Device alarm → 'Cannot reach target flow' for AIRVO2</p>	<ul style="list-style-type: none"> • If 'flow obstruction' or 'cannot reach target flow' displays on AIRVO2 screen – do NOT press the Mode button as this resets the flow to a lesser value. Press alarm silence and remove nasal cannula from nares and reposition. Clear any visible secretions. Check Airvo2 tubing from wall to device and then to patient for kinks. Then recheck the Airvo2 screen is displaying the correct flow for your patient and not a reduced flow. 									
<p>Disinfection additional for AIRVO2</p>	<ul style="list-style-type: none"> • In addition to the AIRVO3 disinfection previous helpful tools, ALWAYS remember to switch the AIRVO2 device off at on/off button prior to unplugging from wall. Otherwise, it will alarm on the AIRVO2 device specifically. 									