



Paediatric Acute Respiratory Intervention Studies (PARIS II)



Troubleshooting guide with AIRVO2

Problem	Solution
Selecting correct cannula/circuit	<p>Optiflow Junior: max flow of 25L/min Paediatric Green</p> <p>Optiflow+ Adult Small Orange Medium Blue</p> <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>
Orange traffic light Disinfection Status	An Orange traffic light on machine start up means the AIRVO 2 has not been cleaned and disinfected since last use. You must disinfect the machine prior to use. A green light means it is safe to use. Disinfection will take 55 mins.
How to disinfect AIRVO2	<p>Do this after each patient use:</p> <ul style="list-style-type: none"> Remove all consumables using PPE from AIRVO2 and discard appropriately. Attach red disinfection tubing (attached to the AIRVO2 pole) to machine. Switch machine on Machine will sense disinfection tubing and automatically disinfect for 55 minutes. The display screen will show the time in minutes until completion. Once complete a 'tick' symbol will be displayed MUST switch machine off at on/off button prior to unplugging from wall. Otherwise it will alarm.
Selecting correct mode Junior/Adult	<p>To change between junior and adult setting hold the 'MODE' button  for 5 secs</p> <p>Junior mode: (a bird and butterfly are displayed) delivers flows of 2-25 L/min.</p> <p>Adult Mode: delivers flows of 10-60L/min</p>
How to set L/min	<ul style="list-style-type: none"> Refer to lanyard cards to work out correct L/minute for specific patient weight (eg. 20kg child = 35L/min) 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 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.



Problem	Solution
Unable to increase FiO2	<ul style="list-style-type: none"> • Check correct position of nasal cannula to ensure no occlusion exists, which includes secretions and/or positioning at nares. • FiO2 is manually increased using Oxygen flow meter on the wall • Actual Oxygen being delivered to the patient is shown on the display screen (eg. FiO2 of 30 % may be 2 L/minute of flow-see over page). • It's important to observe the AIRVO2 display screen FiO2 when increasing the Oxygen on the flow meter to achieve the FiO2 required to maintain SpO2. <p>NOTE: If FiO2 is not increasing and you have 15L of wall O2 being delivered, consider changing to a 0-70L flow meter.</p>
Unable to decrease Oxygen	<ul style="list-style-type: none"> • Check correct position of nasal cannula to ensure no occlusion exists, which includes secretions and/or positioning at nares. • Decrease Oxygen at wall flow meter whilst observing the FiO2 displayed on screen. With each small decrease, you will see the FiO2 decrease on the AIRVO2 display screen. • ROOM AIR = 21 % FiO2 (Fraction of inspired Oxygen)
Machine alarming 'Check for blockages'	<ul style="list-style-type: none"> • Check correct size and placement of nasal cannula • Check there are no kinks in the nasal cannula or the circuit tubing. • Clear nasal cannula of secretions • Check that the display screen is in the correct mode for weight and flow required for the patient (refer to lanyard card)
Machine alarm – 'Cannot reach target flow'	<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 machine and then to patient for kinks. Then recheck the Airvo2 screen is displaying the correct flow for your patient and not a reduced flow.

Higher FiO2 requirements

The standard High Flow therapy set up for AIRVO 2™ has two wall flow meters (0-15 and 0-70 Litres/min maximal flow). Dependent on the required FiO₂ and the flow rate specific for the patient, the wall flow meter that allows for greater flow rates up to 70 Litres/min must be used to achieve the desired FiO₂. See table below:

Flow rate child receives is:	Flow meter required to achieve 50% FiO2		Flow meter required to achieve 51-60% FiO2	
	0-15 L/min flow meter	0-70 L/min flow meter	0-15 L/min flow meter	0-70 L/min flow meter
≤30L/min	✓			✓
35L/min	✓			✓
40L/min	✓			✓
50L/min		✓		✓

