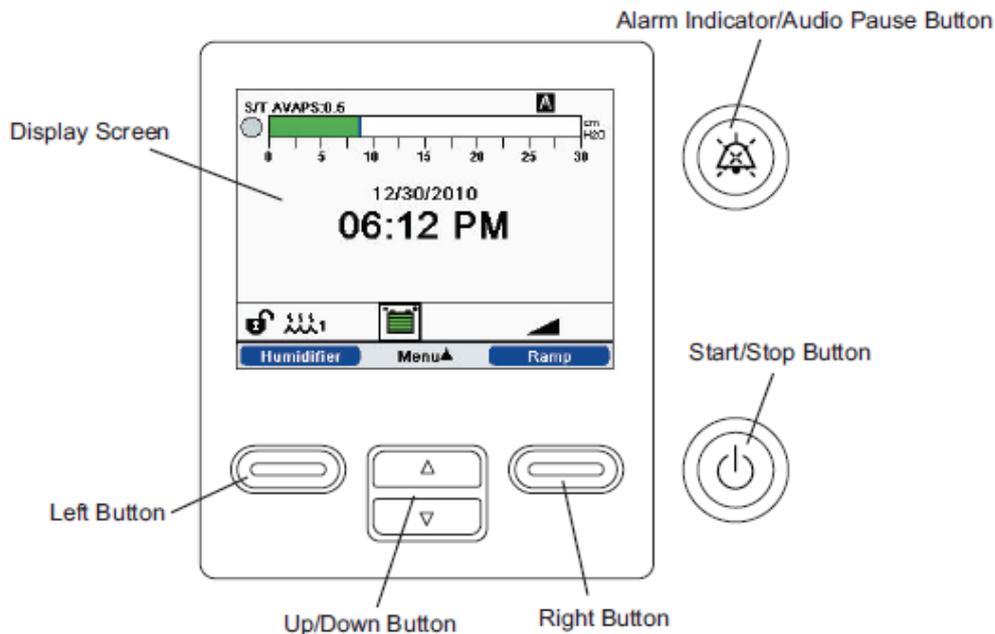


A30 Workbook



Home screen



Display screen

Patient breath- In the top left of the display screen a blue dot will appear when a patient is triggering their own breath. When the ventilator is delivering a mandatory breath this dot will not appear.

Pressure bar- this bar shows the build-up of pressure within the lungs. The bar should only move between the set EPAP and IPAP.

Pressure- Look to the top left screen. You will see the Pressure flicking from IPAP to EPAP. Watch for a few minutes. You will see this reading settle briefly on the lower pressure during expiration. This is the EPAP reading.

LEAK – Look to the top right this measures the air coming out the expiratory port. IT IS IMPERATIVE THAT THE PORT IS CLEAR FOR THE PATIENT TO CLEAR THEIR EXPIRED GASES FROM THE CIRCUIT. You should clear any obstruction and ensure the leak is adequate. Failure to do this over a period of time may lead to the patient re-breathing expired gas and becoming severely unwell.

Minute Ventilation- Look to the bottom left. This tells you how much breath the patient has expired in the last minute.

RR - Look next to the minute ventilation. This is the total RR for that minute. This will include both patient triggered and machine breaths. If this is too high

for the patient then assess the airway and patient, and then rule out water (causing auto trigger) from the circuit.

Vte – this is the volume (in mls) of each breath taken by the patient.

I:E Ratio- Look bottom right. This is the relationship between Inspiratory (I) and Expiratory (E) parts of the breath. As you actively breathe in, your diaphragm and intercostal muscles contract and trigger the inspiration part of a breath. (Alternatively remove) Breathing out is a passive motion, our muscles relax and fall back into the resting state. This movement means that our expiration should be approximately twice as long as inspiration (for every second we breathe in, we breathe out double e.g. 1second breathing in 2 seconds breathing out) this presents as an I:E ratio of 1:2.

 **Ramp**- this is positioned bottom right of the display screen. Ramp is a comfort setting, the patients pressures can be set lower then gradually increased over a period of time until they reach the set pressure.

 **Padlock**- this symbol appears bottom right. This indicates the ventilator is unlocked. Whilst unlocked you can gain access to the provider settings and the patient's ventilator prescription. Patients, parents or carers may inadvertently change the ventilator settings. For this reason please make sure the unlock padlock is not present.

Function Keys

Start/Stop button- switches the machine on/off. When switched ON you must press the THERAPY key to start ventilation.

To switch the ventilator OFF press the on/off button, then the ventilator will ask you POWER OFF? with 'No' and 'Yes' Illuminated on top of the left and right buttons. This safety feature reduces the risk of accidentally switching the ventilator off.

Left, Right and Up/Down keys- these are navigation keys. The centre key allows you to scroll up and through the menus whilst the left and right key enter or leave the menu.

Alarm silence - To silence any alarms press the silence key once alarm is audible.

BUT BEWARE, the alarm will be suspended for 1 minute and once pressed it cannot be cancelled unless another alarm is triggered. WE THEREFORE ADVISE YOU DO NOT USE THE PRE SILENCE FUNCTION.

If pressed accidentally you will have to cause an alarm i.e. briefly disconnect the patient to be able to reset and activate the alarm systems again. Alternatively you must watch the patient and ventilator closely until it times out.

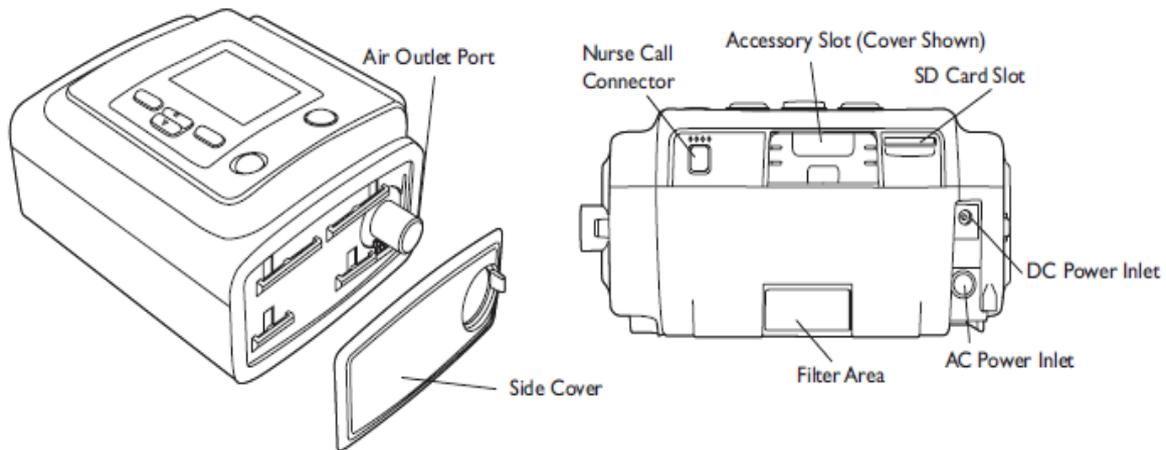
YOU SHOULD NEVER LEAVE THE PATIENT WITHOUT DIRECT SUPERVISION WHEN THE ALARM IS SUSPENDED.

Alarms

-  **Patient Disconnect** - The patient is disconnected or the mask has moved/come off.
-  **Apnoea** – the patient has not triggered any of their own breaths. This lack of spontaneous breathing could be due to the ventilator becoming disconnected or could be due to your patient relying solely on the ventilator.
- **High respiratory rate** - this alarm will trigger once your patients breath rate exceeds that set on the ventilator.
- **Low Minute Ventilation** - The patient has not reached the target volume set for expired air during the last minute. This is an indication that the patient has been under ventilating for a longer period of time. Check the airway for secretions, blockages and leak. Check the patients rise and fall of the chest, colour and SpO₂. Deal with airway issues and hand ventilate if problems are encountered. If continuous or problematic contact Alder Hey.
- **Low VTE** could also alarm for disconnection. – relates to NIV.
- **LOW BATTERY**- Battery is low, seek power source or change immediately.
- **Running on Battery**- the A30 does not have an internal battery but can be used with an external battery. This alarm will be triggered when the ventilator senses no AC power supply, and has to use the battery. This happens with no intervention required. The ventilator is informing you of this power supply change.
- **AC Power Disconnected Alarm**- This is a medium priority alarm. It occurs when the AC power source was lost, and the device has switched to DC (battery) power. The device continues to operate. The alarm terminates when the ventilator begins operating from AC power again.

NOTE IF THE VENTILATOR HAS NO EXTERNAL BATTERY ATTACHED AND THE AC POWER SUPPLY FAILS, THE A30 WILL SHUT DOWN IMMEDIATELY!

Inlets and outlets



Air outlet: this is where the ventilator circuit is attached to. The ventilator pushes the air out into the circuit and to your patient.

Side cover: the removable cover to protect the side of the ventilator. This is can be removed to attach a humidifier unit to the ventilator.

Nurse Call Connector: An Ethernet cable can be attached here, allowing the nursing staff to care for the patient at distance via a monitor. This is not routinely used in Alder Hey.

Accessory Slot: a pulse oximere can be attached her and used in conjunction with the ventilator during overnight oxygen saturations studies. This enables the person reviewing the data on a single document.

 **SD card slot:** the SD card on the ventilator is like any SD in your phone or camera. Information stored on the ventilator can be downloaded via the SD. If you have to remove the SD card from the ventilator, please do so while the machine is OFF or do safely using the option in menu.

DC Power Inlet: attach external battery here.

AC Power Inlet: attach power cable here.

Filter Area: here is where the air is drawn into the ventilator. There are two filters located inside. The black filter removes dust and pollen from the entrained air; and the white filter removes smaller particles such as cigarette smoke.