

Astral[™]series



Mouthpiece ventilation Quick setup guide

Mouthpiece ventilation

The settings below are suggested for 'open' or 'sip' mouthpiece ventilation where the patient exhales to atmosphere frequently or continuously, eg, for on-demand daytime ventilation via a 15 mm non-vented mouthpiece. Other modes and settings are also available if required.

Mouthpiece circuit settings:

Ventilation Setting	Selection	Detail/explanation	
Patient type	Adult		
Circuit	Mouthpiece circuit (tube	15 mm or 22 mm circuit without intentional leak or expiratory valve	
	only)	Note: Not designed to support continuous exhalation into the circuit.	
Ventilation mode	(A)CV	(A)CV mode allows the patient to stack breaths as a set volume is delivered with each breath.	
Tidal volume	As appropriate	Set based on patient comfort and preference.	
Resp. rate	As appropriate	Resp. Rate shall be set appropriately for patients who may rely on the backup rate. Otherwise, it can be turned Off.	
PEEP	Off	Not available in this configuration.	
Trigger	Touch, High, Medium, Low, Off	The Touch trigger setting will allow a breath to be delivered upon engagement of the mouthpiece or inspiratory effort is detected. High, Medium and Low settings only deliver a breath when inspiratory effort is detected. If the patient experiences false triggering then the trigger sensitivity should be reduced.	



Select Mouthpiece circuit.



Set therapy settings as appropriate.



Select ACV.



Set alarm settings as appropriate.

Single limb/Double limb circuit settings:

Ventilation Setting	Selection	Detail/explanation	
Patient type	Adult		
Circuit	Single limb circuit with valve or Double limb		
Interface	Mouthpiece		
Ventilation mode	(A)CV	(A)CV mode allows the patient to stack breaths as a set volume is delivered with each breath.	
Tidal volume	As appropriate	Set based on patient comfort and preference.	
Resp. rate	As appropriate	Resp. Rate shall be set appropriately for patients who may rely on the backup rate. Otherwise, it can be turned Off.	
PEEP	Off		
Trigger	Very High, High, Medium, Low, Very Low	If the patient experiences false triggering then the trigger sensitivity should be reduced.	

Note: Vented (intentional leak) modes are not recommended for highly discontinuous ventilation such as 'sip' mouthpiece ventilation.

Safety considerations for mouthpiece ventilation

The Disconnect Alarm allows detection of circuit disconnection (for example, when the mouthpiece has fallen out of reach of the patient), and whether the patient is able to reliably trigger ventilation or not.

Regardless of whether the Disconnection Alarm is active or not, other mitigations may need to be put in place to ensure that patient safety is not compromised, such as the Apnea alarm, external monitoring, an SpO₂ alarm, or full-time supervision.

Alarm setting	Selection	Detail/explanation		
Disconnection Alarm	On	Enables Disconnection Alarm.		
Disconnection Tolerance (%)	As appropriate	Sets a higher or lower tolerance to the degree of circuit disconnection required to activate the Disconnection Alarm.		
Alarm Activation Time	As appropriate	The time it takes for the alarm to activate once the disconnection threshold is satisfied. It can be adjusted from 5 seconds to 15 minute for mouthpiece interface, as appropriate for the patient's ventilator dependency.		
Apnoea Response	Off	It may be appropriate to configure Apnoea Response to OFF if the Disconnection Alarm is appropriately configured.		

Low pressure alarms are sometimes used to imply circuit disconnection and are quick to activate. Should this be an annoyance, for example when the patient is receiving a partial breath or missing a breath, or if a false triggered breath occurs, it is at the discretion of the Clinician to turn OFF. Other mitigations may need to be put in place to ensure that patient safety is not compromised. This may include external monitoring, SpO2 alarm, or full-time supervision.

Mouthpiece Ventilation with Astral 100/150 mouthpiece circuit is not intended to support continuous exhalation into the circuit. The non-user adjustable NV Mask/Rebreathing alarm will activate if the device detects continuous exhalation into the circuit. For patients that may prefer continuous exhalation into the circuit, a circuit with an expiratory valve should be considered.

Note: All alarms except for High pressure and Disconnection alarms are defaulted to Off when the Mouthpiece circuit or Mouthpiece interface are selected via Setup Assistant in Adult configuration.



Because quality of life matters

ResMed's mouthpiece ventilation solution has been thoughtfully designed to reflect the needs of patients and their carers and support good quality of life.

The EasySpeak mouthpiece is the ideal daytime solution for patients using Astral. It helps to make eating, breathing and talking more natural and can also help to reduce the risk of infections and complications¹.

The circuit support arm holds the mouthpiece in a comfortable, accessible position. Quick to install, set up and clean, it readily adapts to any care environment, making it a practical choice in hospital, at home and on the move.



Ordering information

	Product name	Code
1	EasySpeak mouthpiece angled with 17cm flexi-tube 22F	21353
2	EasySpeak mouthpiece angled for 15M connection	21351
3	EasySpeak mouthpiece angled for 22M/15F connection	21354
4	MPV Circuit Support Arm	27955

Boitano LJ, Benditt JO. An evaluation of home volume ventilators that support open-circuit mouthpiece ventilation. Respir Care. 2005 Nov; 50(11):1457-61.



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