RESMED

S8™ Series
Data Management Guide

English

The following table shows where data from the S8 Series flow generators can be viewed. Data displayed in ResScan™ can be downloaded via:

- cable directly from the flow generator
- the SmartMedia™ card in the S8 ResLink™
- the ResScan Data Card.

Note: *Please refer to your flow generator clinical guide for further details.*

Viewing Data

Parameter	S8 LCD screens	ResScan	ResControl II™	
			View tab	PSG tab
Type of Data	STORED	STORED	LIVE	LIVE
S8 Escape™				
Usage	✓	✓		
S8 AutoSet Vantage™/S8 Elite™				
AHI/AI	✓	✓		
Events	✓	✓		
Flattening		✓[1]		✓
Flow (L/sec)				✓
Leak (L/sec)	✓	✓	✓	✓
Minute Ventilation (L/min)[1]		✓		
Pressure (cm H_2O)	✓	✓	✓	✓
Pulse Rate (beats/min)[1,2]		✓		
Snore[1]		✓		
SpO_2 (%)[1,2]		✓		
Tidal Volume (mL)				✓
Usage	✓	✓		

1. Only available if an S8 ResLink is attached to the flow generator.
2. Only available if an oximeter is used with the S8 ResLink.

ResScan Downloaded Data

	Via cable	Via S8 ResLink	Via ResScan Data Card
S8 Escape	✓ (180 summary sessions)		✓ (180 summary sessions)
S8 AutoSet Vantage/S8 Elite	✓ (365 summary sessions; 5 detailed sessions)	✓ (365 summary sessions; 30 detailed sessions)	✓ (180 summary sessions; 5 detailed sessions)

Note: *S8 ResLink detailed data is at a higher resolution than data available via cable or ResScan Data Card.*

ResScan Review Screens

	Statistics	Summary Graphs	Detailed Graphs	Oximetry Statistics (via S8 ResLink)
S8 Escape	✓	✓		
S8 AutoSet Vantage/S8 Elite	✓	✓	✓	✓

Glossary of Terms

AHI (Apnea–Hypopnea Index)
The Apnea–Hypopnea Index (AHI) is calculated by adding together the total number of apnea and hypopnea events over a period of time.

For statistics, it is the total number of events divided by total daily usage. For graphs, the AHI count is incremented at the occurrence of every event and reset every hour.

Apnea
An apnea is the temporary absence or cessation of breathing. An apnea is scored when there is reduction in breathing by 75% of the baseline breathing for at least 10 seconds.

Daily Usage
Daily usage is total usage in a single session (a session starts at midday and finishes 24 hours later).

Events
An event is the occurrence of a residual apnea or hypopnea.

Events are recorded as they occur. The maximum number of events stored per session is 500.

Up to 2000 events may be stored if an S8 ResLink is used.

Flattening
Flattening is a measure of partial upper airway obstruction.

This measurement is based on the shape of the inspiratory flow–time curve. A flat shape suggests upper airway obstruction.

Flow
Flow is an estimate of the airflow entering the lungs.

It is derived by taking the total flow and then removing the leak and mask vent flow components.

Hypopnea
A hypopnea is an episode of shallow breathing during treatment. A hypopnea is scored when there is a reduction in breathing by 50% of baseline breathing for 10 seconds or more. The event is scored after 10 seconds of the hypopnea.

Leak
Leak is an estimate of the total rate of air escaping due to mouth and mask leaks.

It is derived by analyzing the inspiratory and expiratory airflows, together with the expected mask vent flows.

High or changing leak rates may affect the accuracy of other measurements.

Minute Ventilation
Minute ventilation is the volume of air breathed in (or out) within any 60-second period.

Pressure
Pressure is an estimate of the pressure delivered at the mask.

Pulse Rate
The number of heart beats in a 60-second time frame. The pulse rate is calculated by an attached oximeter.

Snore (Index)
Snore index is the measure of the amplitude of the pressure wave generated by a patient's snoring.

SpO_2
The saturation of blood hemoglobin with oxygen, expressed as a percentage. The oxygen saturation is calculated by an attached oximeter.

Tidal Volume
Tidal volume is the volume of air inspired or expired in one respiratory cycle (breath).

Total Hours Used
Total hours used is the total patient usage over a selected time range.

Usage
Usage is the length of time that a patient receives therapy from the device.

The start and end times of the first ten (five for S8 Escape) individual periods of usage are available for each session when using ResScan.

Used Days
Used days is the total number of days where daily usage exceeded the compliance threshold (X hours Y minutes).

% Used Days
% used days calculates the percentage of used days out of the total number of days selected.

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📊 ResScan Review Screen Display Descriptions

	Statistics	Summary Graphs	Detailed Graphs	Oximetry Statistics (via S8 ResLink)
AHI/AI[1]		✓ Shows a vertical bar graph where the lower segment is the median AI per hour, and the upper segment is the median AHI per hour.	✓ Shows a cumulative total of the number of apneas and hypopneas that have occurred. The cumulative total is reset every hour, on the hour.	
Events			✓ Apnea events are shown at the time they started. Apneas are shown as a red symbol where the height is proportional to the duration of the apnea. The number at the top of the symbol is the duration of the apnea in seconds. Hypopneas are recorded and made available after ten seconds. Hypopneas are shown as blue rectangles.	
Flattening			✓ Shown on a scale ranging from flat to round.	
Leak (L/sec)	✓ Shows the maximum, 95th percentile and median statistics for the selected sessions in the Data Browser.	✓ Shows the maximum, 95th percentile, and median statistics for single sessions.	✓ Shown as a blue trace. A red line provides a reference level of the recommended maximum acceptable leak.	
Minute Ventilation (L/min)			✓ Shown as a blue trace.	
Pressure (cm H$_2$O)	✓ Shows the maximum, 95th percentile and median statistics for the selected sessions in the Data Browser.	✓ Shows the maximum, 95th percentile, and median statistics for single sessions.	✓ Shown as a blue trace.	
Pulse Rate (beats/min)			✓ Shown as a blue trace.	✓
Snore			✓ Shown on a scale ranging from quiet to loud.	
SpO$_2$ (%)			✓ Shown as a blue trace. A red line provides the 90% reference level to assist identification of desaturations.	✓
Usage	✓ Total hours used, Daily usage, Used Days ≥ X:YY hours, Used Days < X:YY hours, Total days and % Used Days. Calculated for the selected sessions in the Data Browser.	✓ Each period is shown as a solid bar. A hollow bar indicates a period of usage where the end-time is unknown. There is a limit on the maximum number of separate bars that are shown for a single session.		

〽️ ResScan Detailed Graphs Specifications

Parameter	Resolution	Range	Sampling period (sec)	
			via flow generator	via S8 ResLink
Events (sec)	1 (apnea duration)	10–60 (apnea duration)	Aperiodic[1]	Aperiodic[2]
Flattening	n/a	Round to flat	n/a	Every breath
Leak (L/sec)	0.02	0–5	60	2
Minute Ventilation(L/min)	0.1	0–180	n/a	2
Pressure (cm H$_2$O)	0.2	0–25	60	2
Pulse Rate (beats/min)[3]	1	18–300	n/a	5
Snore	n/a	Quiet to loud	n/a	Every breath
SpO$_2$ (%)[3]	1	0–100	n/a	1

1. The flow generator stores the first 500 events/session. When using a ResScan Data Card, only the first 200 events/session are copied.
2. The S8 ResLink stores the first 2000 events/session.
3. Only available if an oximeter is used with the S8 ResLink.

⚙️ Updating Settings

Parameter	ResScan via cable	ResControl II	ResScan via ResScan Data Card[1]
S8 Escape			
Set Pressure (CPAP)	✓	✓	✓
Start CPAP	✓	✓	✓
Ramp Time	✓	✓	✓
Maximum Ramp	✓	✓	✓
Language	✓		
Local Date & Time	✓		
Altitude	✓		
Reminders	✓		✓
S8 AutoSet Vantage/S8 Elite			
Mode[2]	✓	✓	✓
Minimum Pressure[2]	✓	✓	✓
Maximum Pressure[2]	✓	✓	✓
Settling Time[2]	✓	✓	✓
Maximum Settling Time[2]	✓	✓	✓
Set Pressure (CPAP)	✓	✓	✓
Start CPAP	✓	✓	✓
Ramp Time	✓	✓	✓
Maximum Ramp	✓	✓	✓
EPR Setting	✓	✓	✓
EPR Type	✓	✓	✓
Leak Alert	✓	✓	
Mask	✓	✓	✓
Tube Length	✓		
Humidifier	✓	✓	
Language	✓		
Local Date & Time	✓		
SmartStart™/Stop	✓	✓	
Menu Type	✓		
Smart Data	✓		✓
Reminders	✓		✓

1. The ResScan Data Card allows you to enter a flow generator's serial number to target a specific patient.
2 S8 AutoSet Vantage only.