AutoSet® T

ResMed

Optimal therapy

for your

OSA patients

AutoSet®

How's Your Patient Sleeping?

The amount of pressure required for effective positive airway pressure therapy varies throughout the night according to sleep stage, sleep position, and other factors. Insufficient pressure results in ineffective therapy while too much pressure can lead to discomfort, non-compliance, and pressure-related side effects.

ResMed's AutoSet T (AutoSet Therapeutic) is an automatic titration system for the treatment of obstructive sleep apnea (OSA). AutoSet T adjusts pressure on a **breath-by-breath** basis to suit patient needs as they vary throughout the night. As a result, your patient receives the minimum pressure required for effective therapy. The lower pressures improve patient comfort, reduce pressure-related side effects, and may lead to increased patient compliance.

Preemptive Response - The Key To Automatic Titration Therapy

AutoSet T acts *preemptively* by increasing pressure in response to inspiratory flow limitation and snore, both of which typically precede obstruction. AutoSet T calculates the pressure required based on the severity of the event. This early intervention prevents obstructive apneas and reduces respiratory arousals. If an apnea suddenly occurs without any preceding flow limitation or snore, AutoSet T will increase pressure in order to prevent subsequent apneas. If no further events occur, AutoSet T reduces the pressure back to a minimum level. By responding to inspiratory flow limitation, snore and apneas, AutoSet T effectively normalizes sleep while delivering mean pressures up to 37% lower than fixed pressure therapy.[1]

T

Comprehensive Patient Management

Easy to set up and use, AutoSet T is an invaluable tool for the busy sleep professional. AutoSet T operates in two modes, AutoSet and Manual.

AutoSet Mode

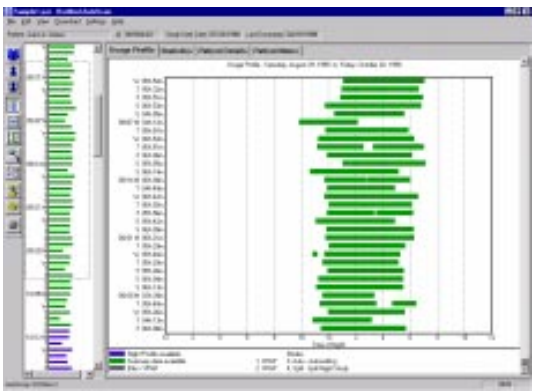
AutoSet T uses ResMed's patented AutoSet algorithm to automatically titrate the patient as pressure requirements change throughout the night.

Manual Mode

AutoSet T can be set by the clinician to operate at a constant pressure.

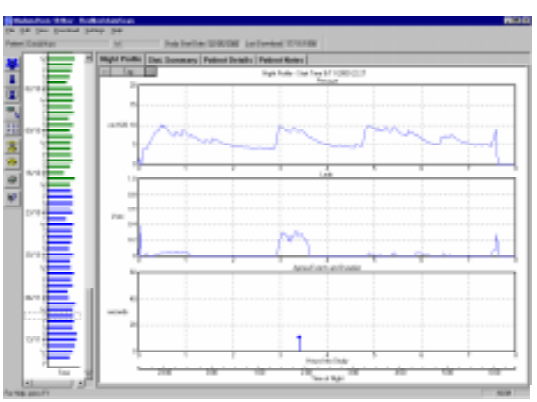
In each mode AutoSet T records comprehensive data for managing your patients' therapy.

All data can be downloaded from AutoSet T to a computer either locally by cable or remotely via modem. ResMed's AutoScan™ software displays the information for review in the form of Usage, Treatment and Night profiles. Reports can be printed in both color and black and white.



Usage Profile *– displays date and time-stamped usage information for 200 nights, including any mask off events, for verification of compliance*

Treatment Profile *– shows AHI, mask leak, and pressure requirements for 200 nights for optimizing long-term treatment efficacy*



Night Profile *– shows detailed overnight profiles for pressure, leak, apnea and hypopnea (30 nights)*

The AutoSet Advantage

AutoSet T uses clinically validated AutoSet technology [2, 3, 4] to determine the status of the upper airway. The algorithms utilize flow limitation, snore, and apnea measurements to determine the pressure required to maintain airway patency.

Inspiratory Flow Limitation

AutoSet T is unique in that it records and responds to inspiratory flow limitation, as measured by the inspiratory flow-time curve.

Silent inspiratory flow limitation involves a partial collapse of the upper airway and usually precedes obstruction. Studies have shown that unless pressure is titrated to counter inspiratory flow limitation, increased swings in intrathoracic pressure persist. This can lead to arousals and associated cardiovascular sequelae [5].

The most effective way to assess flow limitation is through analyzing the shape of the inspiratory flow-time curve. A rounded inspiratory flow contour best predicts upper airway patency and a transition to deeper sleep stages without arousals. Studies state that responding to this inspiratory flow contour characteristic is preferable to responding to apneas and hypopneas directly and should be used routinely to achieve an optimal pressure level.

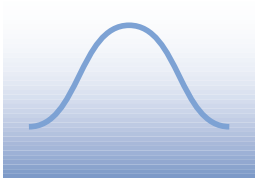
A rounded inspiratory flow-time curve indicates a normal breath. If the upper airway begins to narrow, causing flow limitation and upper airway resistance, the shape of the curve will flatten. AutoSet T adjusts the pressure in response to this flattening of the flow-time curve to maintain airflow and restore the curve to normal.

Best Therapy at Lowest Pressures

AutoSet technology has been clinically validated in numerous peer-reviewed journals. Its combined measurement and response to flow limitation, snore, and apnea is unique within the field for sleep disordered breathing therapy. The AutoSet advantage enables you to provide your patients with the best sleep therapy at the lowest possible pressures.

A NORMAL BREATH

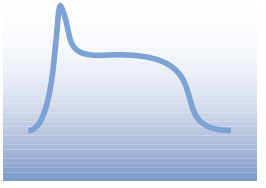
AutoSet monitors airway but will not increase pressure



Open airway

FLOW LIMITATION

Pressure is increased



Partially closed airway

1 Teschler, Berthon-Jones. Thorax 1998; Vol 53 (Suppl 3): S49-54
2 Teschler, et al. Am J Respir Crit Care Med, Vol 154. pp734-740, 1996
3 Berthon-Jones, et al. Sleep, 19(9):S131-S135, 1996
4 Teschler, et al. Eur Respir J, 1997; 10: 2073-2078
5 Montserrat, et al. Am J Respir Crit Care Med, Vol 152. pp1854-1859, 1995

AutoSet ADVANTAGE

At-A-Glance Guide To AutoSet T

Best Therapy at Lowest Pressures

Provides effective therapy at mean pressures up to 37% lower than fixed pressure therapy[1]

Adapts to patients' changing pressure needs on a short- and long-term basis

Responds to inspiratory flow limitation, snore, apneas, and mask leak

Provides greater breathing comfort through smooth, quiet pressure delivery

Provides visual display for quality of mask fit. Optional alert tone in presence of significant leaks

Comprehensive Patient Management

Night profile of apnea, mask leak and pressure variation (over 30 night period) for therapy and mask fit evaluation.

Time/date stamped compliance data for 200 night period. Comprises dates and time spent at each pressure, including any gaps in therapy, and a summary of AHI and mask leak.

Enhanced Convenience

Menu-driven LCD screen allows easy set-up and use

Modem compatibility allows remote treatment adjustment and patient data download

SmartStart® automatic start/stop feature, which can be enabled or disabled by the clinician

Automatic altitude compensation, universal power supply, and sturdy carry handle for portability

Compatible with ResMed's HumidAire™ and Passover humidifiers

Specification

Performance
Settling Time: 0 to 30 mins
Operating pressure range: 4 to 20 cm H_2O
(3 cm H_2O in SNS mode)

Dimensions (H x W x D)
5.7" x 10.2" x 12.4"/145 x 260 x 315 mm

Weight
7.7 lbs/3.5 kgs

Power supply
Input range 110-240 V, 50-60 Hz, 120 VA

Housing construction
Injection molded Noryl® plastic*

Environmental conditions
Operating temperature: +41°F to +104°F/+5°C to +40°C
Storage and transport temperature: -4°F to +140°F/-20°C to +60°C
Humidity: 15% - 95% non-condensing

Air filter strip
Two layered, powder bonded, polyester open cell foam

Air tubing
Flexible plastic, 1 x 6' 6"/2 m length

IEC 601-1 Classifications
Class II, Type CF

Note: The manufacturer reserves the right to change these specifications without notice.

Product Codes

17103 Europe
17104 UK

Protected by: AU 691200, AU 697652, AU 709279, EP (DE, FR, GB) 0088761, EP (DE, FR, GB) 0661071, JP 1697822, US 4944310, US 5199424, US 5245995, US 5522382, US 5704345, US 6029665. Other patents pending.
Designs registered: AU 138187, AU 138188, DE 49810518, DE 49905995, FR 986148, FR 558747-558759, GB 2078565, JP 1065862, US D421298.
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