Pure performer in critical care neonatal/pediatric ventilator PC900

SIMV + PRESSURE SUPPORT

During the SIMV period, if the patient triggers the PC900, a synchronized breathe will be provided as per the set Peak Inspiratory Pressure & the Inspiration time. The patient is allowed to breathe spontaneously through the "BIAS FLOW" in spontaneous period. If during the spontaneous period, the patient Triggers the PC900, a Demand Valve of a specially incorporated "Reservoir Bag" opens and a "Pressure Support Breathe" is provided to the patient with a preset pressure above PEEP. This avoids unnecessary high Peak Airway Pressure, & also provides support to the patient's spontaneous breathe. The number of Pressure Support Breathes in the spontaneous period depends upon the patients breathing effort.

Patient Triggered Ventilation (PTV MODE)

The benefit of this mode is that patients each inspiratory effort is augmented (supported) by the PC900. This allows patient to determine his own frequency & I:E Ratio. A back up ventilation rate is automatically set by the Micro controller once the Apnea Delay time is set. .

Patient Triggered Ventilation supports spontaneous breathing in an unique and harmonious way and is thus predestined to become the ventilation mode best suited to weaning patients off the ventilator. Clinical studies have shown that patients treated with P.T.V. were weaned more rapidly and had a significantly shorter mean time to extubation.

Provision of Bias Flow to provide ready gas of set FIO2

during patient triggering. This helps in reducing the fatigue to the patient and improves the overall sensitivity of the PC900. It also helps in washing out the CO2 in more effective manner. The Bias Flow can be set from 0.8 to 33.3 ml per second.

The Air Oxygen Blender is an proportionating device that adjusts the flow of air and oxygen automatically and delivers the set Fio2 accurately.

A crisp and clear digital Bar graph precisely indicates the actual pressure delivered to patient along with set PEEP, and the set Trigger level. A color coding is used for the Bar Graph that indicates the Low, Medium, and High pressure zones by corresponding Green, yellow, and Red LEDs. The Bar graph automatically indicates the amount of pressure that the patient has to create to trigger a breathe, once the Trigger level is set.

A LCD display guides the user in setting various parameters of a selected mode. It also indicates various malfunctions and messages like "low airway pressure, high airway pressure, patient in Apnea, mean airway pressure, Inspiratory pause, sigh breath, spontaneous and SIMV time period in SIMV mode, Bias Flow on, mode ready, press start, etc.

A respective LED on each mode key constantly indicates the selected mode of PC900. The user can always shift the mode and can also change the parameters "ONLINE" to enhance his efficacy and patients comfort.

The SIMV% can be set from 60, 65, 70, 75% of the respiratory cycle in SIMV mode. This informs the user regarding the window time of SIMV and spontaneous period.

An unique and easily removable humidifier is incorporated to warm and humidify the blended gas that is delivered to patient. A special adjustable temperature control mechanism is provided to warm the

gas to set temperature..

CPAP Plus Pressure Support :

- No mandatory Breaths.
- Patient Breaths through the Bias Flow and sets his own Rate and I:E. ratio.
- Pressure Support helps to over come airway resistance and inadequate pulmonary effort and is added on top of the CPAP during inspiration.
- A Reservoir bag is connected to the inspiratory limb when a patient effort is sensed, thus makes it easier for the patient to take a Pressure Support Breathe.

Economy of Gases
Thanks to the special "Pressure Regulators",
that operates the PC900 at only 100cm H2O
(approx 1.5 PSI) thus ensuring economy of gases
but still has a capacity to deliver a flow of 130 LPM.

Compressor

- Oil free dry air compressor with patented seizure free technology for piston, ensures continuous operation.
- Pre filters incorporated for pure and hygienic air.
- Stainless Steel reservoir tank incorporated to store the compressed air, enhances compressor life and also provides air in case of power failure.

"Shreeyash" PC900 is a Pressure Controlled, Time Cycled, Continuos Flow Respirator
that is intended for Neonatal & Pediatric use.

Seven different modes of ventilation enhances user's efficacy
matching the varied patient Condition's.

Special Functions
Provision of Bias Flow.
Help line facility to guide the user regarding settings in a given mode.
SIMV Plus Pressure Support.
CPAP Plus Pressure Support : This Speciality mode puts the ventilator in the category of the most updated ventilators. This mode is a boon for the patients with "FLAIL" chest.

Modes

Controlled Mandatory Ventilation	C.M.V.
Controlled Mandatory Ventilation + Sigh	C.M.V+ Sigh
Assist Controlled Mandatory Ventilation	A.C.M.V.
Synchronized Intermittent Mandatory Ventilation + Pressure Support	S.I.M.V. + P.S.
Patient Triggered Ventilation	P.T.V.
Continuous Positive Airway Pressure Plus Pressure Support.	CPAP. + P.S.
Pressure controlled Inverse Ratio Ventilation	P.C.I.R.V.

(Separate mode key not provided)

Controls

Respiratory Rate	4 to 99 Breathes per minute.
Inspiratory Time	0.2 to 3 seconds.
Inspiratory Pause	0 to 30 % of set inspiratory time.
Inspiratory Pressure	2 to 40 cm/H2O.
PEEP	2 to 20 cm/H2O.
Trigger Sensitivity	- 15 to 0 cm/H2O (below PEEP).
Trigger Method	Pressure.
SIMV Rate	4 to 20 Breaths per Minute.
Sigh Breathe	At each 100th breathe.
Sigh %	50% of set inspiratory time.

Digital Displays

Inspiration Time	2 Digit green LED Display
Set PIP	2 Digit green LED Display
Respiratory Rate	2 Digit green LED Display
Expiration Time	2 Digit green LED Display
Trigger Level	3 Digit red LED Display
I: E Ratio	3 Digit green LED Display
SIMV %	2 Digit red LED Display

Alarms:• High Air way pressure • Low Air way pressure • Apnea • Oxygen supply failure
Settings: By means of feather touch keys
Oxygen concentration: Can be Set from 21% to 100%. Marking provided.

Technical Details

- Input Gas Pressure: Air & Oxygen at 60 PSIG. (4kg/4 Bar/420 KPA)
- Ventilator working pressure: 100 cm/H2O.
- Electric supply: 230 Volts AC +/- 10%, 50 HZ.

Accessories at extra cost.

- Digital Display for FIO2
- APRV mode (Bi phasic positive pressure ventilation)