Technical Specification

Modes	
	ACMV SIMV SPONT (CPAP,) Volume Guarantee (VtG & MVG) Bi-Lev (APRV)

CONTROLS	
Breath Types	Pressure Control Pressure Support Volume Control
NPPV	ON.OFF (leak compensation up to 30 LPM)
VG Mode	VtG (Tidal Volume Guarantee) MVG (Minute Volume Guarantee)
SIGH	ON/OFF
Synchronized Nebulizer	ON/OFF
Nebulizer Period	OFF, 5 to 60 min
2min 100% O2 function	ON/OFF
Tidal Volume	30 to 2,200ml
Breath Rate	1 to 99 b/min
Inspiration Time	0.1 to 3.0 sec
Flow	2 to 100 L/min
Pressure Control	5 to 60 cmH2O
Pressure Support	0 toi 60 cmH2O
PEEP/CPAP	0 to 30 cmH2O
Pressure Trigger	-9.9 to -0.1 cmH2O
Flow Trigger	1 to 20 LPM
Rise Profile	5 levels
PSV Ti	0.1 to 3 sec
PSV Flow Termination	10% to 70%
Volum Control	Ti/Flow
Flow Waveform	Square / Descending
FiO2	21% to 100%
FiO2 Sensor	ON, OFF, Calibrate
Manual Breath	0 to 3 sec
Panel Lock	ON/OFF

VG Mode Controls	
Target VtG	100 to 2,200 ml
PSV min	5 to 60 cmH2O
PSV max	5 to 60 cmH2O

Bi-Lev Controls	
P High	3 to 60 cmH2O
P Low	0 to 30 cmH2O
T High	1 to 15 sec
T Low	0.5 to 5 sec
Inverse I: E	30:1

ALARMS (variable)	
Alarms Prioritization	3 Levels-Cautions, Medium,High
Low Minute Volume	0.0 to 50 L/Min
Low Pressure	Off, 1 to 98 cmH2O
High Pressure	4 to 99 cmH2O
High Minute Volume	0.4 to 50 L.min
High FiO2	31% to 99%, Off O2
Low FiO2	Off, 22% to 90% O2
High Rate	Off, 1 to 99 bpm
Low Rate	Off, 1 to 99 bpm
Low Vte	Off, 10 to 2,200ml
Low Vti	Off, 10 to 2,200ml
Apnea/Back-Up Ventilation	10-60 sec

Alarms (automatic)	
	Check Circuit (Circuit Disconnect), Low/Empty Battery, O2 Supply Failed, Check O2 Sensor

Low-Flow Oxygen Port

MONITORED PARAMETERS	
Waveforms	Pressure, Flow, Volume
Loops	Pressure/Volume & Flow/Volume
Airway Pressure LED Gauge	-10 to 120 cmH2O
Peak Inspiratory Pressure	0 to 120 cmH2O
Base Pressure	0 to 99 cmH2O
Mean Pressure	0 to 99 cmH2O
Exhaled Tidal Volume	0 to10L
Exhaled Minute Volume	0 to 99L
Inhaled Tidal Volume	0 to 10L
Inhaled Minute Volume	0 to 99L
Actual Breath Rate	0 to 99 b/min
Peak Inspiratory Flow	1 to 120 L/min
FiO2	21% to 100%
I:E Ratio	1:99 to 3:1
Battery Level	100% to 0%, Low, Empty

TECHNICAL SETTINGS	
Buzzer Level	Low/High
Kepad Buttons	Keypad buttons with audible indicator
Power Save	ON/OFF
Languages	English, Turikish, Paotuguese, Spaish, Polish, Russian, Italian, German, Hungarian, Greek

SIZE AND WEIGHT	
Width / Depth / Height	29cm / 28cm / 25cm
Weight	6.9 Kg / 15.2 lbs

OXYGEN	
O2 Mixer	Internal integral, Electronically Controlled
High Pressure	35 to 90 psi O2 (0-100%)
Low Flow Port	0 to 15 L/min O2 (0-70%)
Low Flow Blending Bag	0 to 15 L/min O2 (0-100%)

POWER SUPPLY	
AC Power inlet	100 to 240 VAC, 50-60Hz
DC Power inlet	12 to15 VDC
Internal Batteries	Hot Swappable 12 h Operation
Charging time	Up to 3 h

COMMUNICATIONS	
USB x2	Download Logs, SW Upgrade
LAN Rj45	Networking
Rs232x2	Remote Alarm and Monitoring
Rs485	Communication

ENVIRONMENTAL	
Operation Temperature	-180C to 500C / -0.40F to 1220F
Storage Temperature	-200C to 710C / -4.00F to 1600F
Relative Humidity	15% to 95% at 310C / 880F
Operation Altitude	110 kPa to 70 kPa
Water/ Dust Resistance	Ip34 (splash proof)

STANDARDS	
	IEC 60601-1, IEC 60601-1-2, IEC 60601-2-12, ASTM 1246F, ISO 10651-2/3

Mktd. by:
ASPEN DIAGNOSTICS (P) LTD. (India)
Rapid Diagnostic Group of Companies
(ISO 9001 : 2008 CERTIFIED COMPANY)

Local Contact

Flight 60
Ventilator

FLIGHT 60
RESPOND WITH CONFIDENCE
For
improving criticare patients' comfort and independents

A complete independent ventilation solution for a wide range of patients in ICU, Emergency Transports & Home care in a affordable and cost effective package.

Full ventilation package

- Advanced ventilation modes
- Pressure & Volume
- Volume Guarantee mode
- Bi-Level (Bi-Phasic)
- Invasive/Non Invasive
- Pediatric to adult 30ml to 2200ml
- simple to use with 7” color touch screen
- Complete graphic display

-Wave form (P-T, F-T, V-T)

- Loops (P-V, F-V)

- 4 Hours Internal battery + 8 Hours optional extension backup by hot swap battery
- Extensive alarm system
- Light weight & potable 6.3kg
- O_2 internal blender (Optional)/External blender/ O_2 low flow port
- Fully independent internal dual micro piston compressor

Optional:

- O2 Internal blender
- Extended display
- Trends display up to 72 hours
- Synchronized & Volume Compensated Nebulizer

Flight 60 Integrated Oxygen Mixer

Featuring:

- 2 minutes 100% O_2
- In-use O_2 Sensor Calibration

Flight Medical now offers an optional electronically controlled intergrated O_2 mixer, for accurate and safe O_2 enrichment, Up to 100%O_2. O_2 concentration is controlled electronically through the Flight 60 touch screen.

In-use O_2 sensor calibration

In-use calibration can be performed while patient’s ventilation continues. Please consider the changes in oxygen delivery while calibration in on going before performing in-use calibration.

In-use O_2 sensor calibration alternatives:

1. A 2 points calibration at 100% and 21% oxygen concentrations
2. A single point calibration at 100% oxygen concentration
3. A single point calibration at 21% oxygen concentration

Volume Guarantee Mode

Flight 60 advanced pressure control ventilation

Volume Guarantee is pressure control ventilation with a guaranteed volume delivered to the patient. A targeted tidal volume or minute volume is set bythe operator and the Flight 60 will deliver pressure control ventilation in which pressure will increase or decrease by 1 to 2 cmH2Oat a time to maintain the preset tidal or minute volume. The Flight 60 will use the lowest possible pressure to deliver the guaranteed tidal or minute volume. If the tidal or minute volume was not reached due to changing lung compliance or resistance, then the inspiratory pressure is increased on the next breath. If the preset tidal or minute volume is exceeded, then the Flight 60 decreases the inspiratory pressure to deliver the guaranteed tidal volume. The patient is monitored breath by breath guarantying the gas volume delivered within the limits of a minimum pressure limits under pressure control ventilation.

VtG (Tidal Volume Guarantee)

In VtG mode, the target volume is reached by controlling the pressure support applied to the patient based on three parameter settings:

- **Taraget VtG-** The target tidal volume.
- **PSV min-** The minimum pressure allowed by the operator.
- **PSV max-** The maximum pressure allowed by the operator.

MVG (Minute Volume Guarantee)

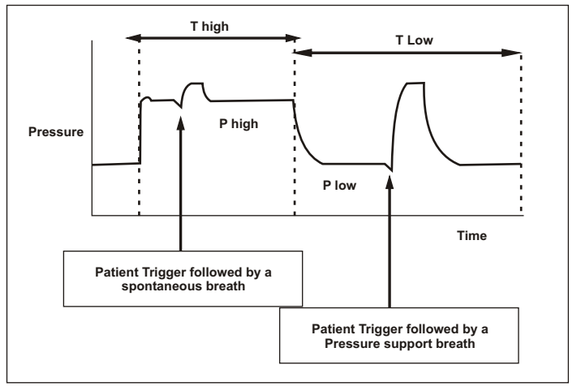
In MVG mode, when the patient fails to trigger a breath within the interval determined by the Rate control, the ventilator triggers a mandatory breath with a set TI. The Rate, in combination with the Target VtG setting, determines the minimum delivered minute volume.
The following parameter settings are required for MAV mode:

- **Target VtG-** The Target tidal volume.
- **PSV min-** The minimum pressure allowed by the operator.

B-LEV Mode (Bi-Phasic)

Background

Bi-Level is a time cycled pressure mode. The ventilator cycles between two different baseline pressures based on time. In this mode the patient is allowed to breath spontaneously at both the high and low pressure baselines. Pressure support can be added during the low pressure baseline period to improve comfort.



B-LEV waveform diagram showing the spontaneous and pressure Support breaths at both high and low pressure levels.

Common terminologies used for B-LEV ventilation are APRV, Bi-Level, Bi-Phasic, Duo-PAP TM (Hamilton Medical), Dual Level PEEP and inverse ratio ventilation IRV