

## **TV-100 VENTILATOR**

Infant - Pediatric - Adult / ICU-Transport







## One Vent - All Patients - Anywhere Superior Portability, Flexibility, and Performance

Bio-Med Devices' new industry leading TV-100 Ventilator offers the latest technology, and provides the modes and performance of a full size ICU ventilator in a compact design that is ideal for transport.

### Full FiO<sub>2</sub> Capability

The TV-100 features an internal compressor which provides air supply without the need for external pressurized gas supplies. Oxygen may also be provided from a 50 psi gas source and is delivered via an internal blender in O<sub>2</sub> concentrations from 21 - 100%.

#### Dependable & Easy to Use

The TV-100 features dual, hot swap capable, rechargeable batteries that allow for uninterrupted use on the go. The TV-100 is capable of 7 to 11 hours of continuous battery operation smallest of premature with fully charged batteries.

The TV-100 offers the user a simple set-up assistant to get up and running fast, when seconds count. The user can also take full advantage of advanced features like waveform graphs and loop graphs to provide complete patient care.

#### **Unmatched Capability**

The TV-100 offers the capability to ventilate the infants to the largest of adult patients. This wide range of use, as well as the inclusion of non-invasive modes, sets the TV-100 apart.

Patient type: Neonate	Parameters Flow sensor type Neo flow sensor		Oxygen	21 %
			Pressure trigger	0.5 cmH2
Mod	e	NIV	Flow trigger	1.0 црм
IPA	15	cmH2O	Flow cycle	50 %
EPAP 5 cmH20		cmH2O	Backup Press. ctrl	10 cmH20
Set ra	Set rate 40 BPM		Backup rate	30 врм
I-Time 0.40 Sec.			Apnea delay time	10 sec.
Acce	əpt	Cancel		
Insp. hold	Exp. hold Manus breat		PRVC-AC	Δ

## NIV Mode

- A diverse mode that can be used for many non-invasive applications

- Differing inspiratory and expiratory pressures (IPAP and EPAP)
- CPAP
- With or without a set rate
- With or without apnea backup
- Can be used with a vast array of neonatal nasal CPAP interfaces

Patient type: Neonate	Flow sensor type: Neo flow sensor	LE Ratio 1: 2.8	Oxygen	21 %
Mode PRVC-AC		-40	Oxygen source	High pressure
1410.05	PRVC	-AC	Pressure trigger	0.5 cmH2
Tidal volun	<sup>ne</sup> 10 <sub>mL</sub>		Flow trigger	Off
I-Time	0.40 sec.		Flow cycle	Off
Set rate 40 BPM				
PEEP 5 cmH20				
Start / Stop ve	entilation			

## PRVC Mode

- Pressure Regulated Volume Control
- Inspiratory pressure adjusts up or down
- to maintain a set target tidal volume
- Volume guarantee



## **Constant Flow**

- Use this mode to provide flow to a resuscitation bag prior to intubation
- Provide flow to a high flow cannula
- Provide flow to a low flow neonatal cannula

## **TV-100 Meets Transport Requirements**

Tested to and complies with the new standards for Emergency Medical Services 60601-1-12. Testing includes water ingress (rated to IP44), extreme vibration, 30G forces, EMI/RFI, and drop test from a height of 75 cm to concrete onto all six sides of the ventilator.

The TV-100 has been tested and passed important clauses of the DO-160G aviation standard.

Your choice for transport ventilation, the TV-100 uses the latest in smart battery technology with built-in charge intelligence and safety features including protection from over-charge, deep discharge, and short circuit overload making it the frontrunner for safety in air transport.

Automatic barometric compensation for altitude or cabin pressure changes up to 12,000 feet.





Pictured Above: Ventilator Roll Stand (BMD Part Number 1060T) with 2 E-Cylinder Tank Brackets (BMD Part Number 1061T)

Pictured Left: TV-100 Bed Rail Bracket (BMD Part Number 2013BR)

#### Model 5500 Neonatal-Adult

# TV-100

#### Ventilation Modes

Volume Assist Control Volume-SIMV PRVC Pressure-Assist Control Pressure-SIMV NIV Constant Flow CPAP-Volume Apnea Backup

#### Monitors/Alarms

Rate Oxygen % (FiO<sub>2</sub>) PEEP EPAP IPAP Apnea VTe MVe Peak Pressure Mean Pressure Low Battery I:E Ratio

#### Included Accessories

TV-100 Operator's Manual Disposable Adult Circuit Disposable Infant Circuit Adult Test Lung Infant Test Lung Pediatric/Adult Flow Sensor Infant Flow Sensor Disposable Patient Filter O<sub>2</sub> High Pressure Supply Hose TV-100 Power Supply (with Power Cord)

#### **Optional Accessories**

Disposable Pediatric Circuit Disposable Dual Limb Adult Circuit Reusable Infant Circuit Reusable Pediatric Circuit Reusable Adult Circuit O<sub>2</sub> Filter/Water Trap Pediatric Test Lung TV-100 Battery TV-100 Battery TV-100 Battery Charger Roll Stand Bed Rail Bracket DC 12-30 Volts Cable Carry Bag



#### Set-Up Assistant



Lung Mechanics





Loop Graph



**Battery Compartment** 

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DDOC021 REV100818 Specifications subject to change without notice

#### Physical Characteristics

Size: 12.8" x 11.9" x 7.6" (32.5 cm x 30.2 cm x 19.3 cm) Weight: 15.6 lbs. (7.1 kg) (Without AC Adapter)

#### Specifications

Parameter F	Range
Apnea Alarm 1	.0 - 60 seconds
I:E Ratio 3	3:1 to 1:99
Oxygen 2	21 - 100%
Pressure Support 1	- 60 cmH <sub>2</sub> O
Rate (Pediatric/Adult) 5	5 - 100 bpm
Rate (Neonatal) 5	5 - 150 bpm
SIMV Rate 1	- 50 bpm
Expiratory Time C	) - 100 seconds
Inspiratory Time C	).1 - 3.0 seconds
Flow Trigger C	).5 - 30 lpm
Pressure Trigger relative to baseline -(	0.2 to -10 cmH <sub>2</sub> O
Purge Flow 4	40 - 60 ml/min
Base Flow (Pediatric/Adult) 6	5 lpm
Base Flow (Neonatal)	
Flow	0 - 180 lpm
PEEP/CPAP (Pediatric/Adult) (	0 - 35 cmH <sub>2</sub> O
PEEP (Neonatal) (	0 - 25 cmH <sub>2</sub> O
EPAP 2	2 - 20 cmH <sub>2</sub> O
IPAP 3	$3 - 40 \text{ cmH}_{2}^{-}\text{O}$
PIP (Pediatric/Adult)	0 - 99 cmH <sub>2</sub> O
PIP (Neonatal)	0 - 60 cmH <sub>2</sub> O
Tidal Volume (Pediatric/Adult) 7	
Tidal Volume (Neonatal)	2 - 100 ml
Pop-off Relief Valve (Ped/Adult)	100 cmH <sub>2</sub> O
Pop-off Relief Valve (Neonatal)	60 cmH <sub>2</sub> O