A perfect fit for the MRI environment
A Perfect Fit for the MRI Environment

The Narkomed MRI-2 is the only anesthesia system with an integrated ventilator and VPO monitor, designed and engineered to perform, without distance or electromagnetic restrictions, in shielded or unshielded MRI environments of up to 3.0 Tesla. This feature allows operation with the shortest possible distance between the patient and the machine; a very important consideration when scanning pediatric and neonatal patients.

The powerful magnetic fields that create detailed patient images, can create substantial problems with standard anesthesia equipment. Even when placed in direct contact with the MRI, the Narkomed MRI-2 works dependably and produces no detectable image distortion. The machine combines an integrated electronic ventilator and an integrated exhaled volume, airway pressure and oxygen monitor in one compact unit.
Familiar Narkomed Features

Integrated Monitor
Airway pressure, volume and oxygen data are displayed along with an airway pressure waveform. Automatic integrated alarms warn if parameter limits are exceeded. These adjustable alarms allow individual settings to satisfy a wide range of clinical operations.

The monitor is similar in display and operation to the Narkomed GS, which is sold throughout the world.

Patient Suction
The familiar Narkomed Patient Suction system with a regulator and reusable canister specifically designed for MRI use is a standard feature on the Narkomed MRI-2.

Battery Backup
A three-hour battery backup guarantees continuous operation of all machine functions, including monitoring and alarm functions, in the event of a power failure.

AV2+ Ventilator
The AV2+ ventilator is a volume-preset, time-cycled, pressure-limited anesthesia ventilator. It is equipped with electronic timing, pneumatic circuitry and independent controls for breathing rate, inspiratory to expiratory ratio, tidal volume, inspiratory flow and inspiratory pressure limit for flexible ventilation. The unit is capable of inverse I:E ratios with a built-in safety mechanism and can be used in a wide range of patient conditions. Venturi technology is incorporated to ensure economical usage of drive gas.

Flow Sensor
The new ultrasonic flow sensor has no moving parts, is easy to clean, and is extremely accurate and reliable.

Absorber Assembly
The dual canister absorber provides for extended operation between absorbent changes. It incorporates an Auto/Manual selector that permits easy ventilation mode selection.
Optional Features

**Vapor 2000**
The Vapor 2000 vaporizer compensates for variances in pressure, temperature and flow and needs no annual recalibration. Filling is accomplished with either a pin index system or conventional funnel filling.

**Scavenger System**
Waste gas scavenging is accomplished with either an open or closed scavenging system. In the open system neither positive nor negative pressure can build up since the patient breathing system relief ports are open to the atmosphere. The closed system uses spring-loaded valves for positive and negative pressure relief.

**Additional Power Solutions**
Kits are available to solve power needs in MRI and non-MRI environments. Use of an optional power supply kit gives you the versatility to use the machine in MRI environments with different field strengths. A complete anesthesia machine, the MRI-2 can be used in non-MRI environments as well.
## Specifications

### General
- **Dimensions (W x H x D)**: 31.5” x 53” x 27” (80 x 135.3 x 68.6 cm)
- **Weight**: 230 lbs (104.3 kg)
- **Weight of Battery Charger**: 3 lbs (1.36 kg)

### Electricity
- **120 Volt Power Supply**: 100 - 120 VAC @ 50/60 Hz
- **220/240 Volt Power Supply**: 200 - 240 VAC @ 50/50 Hz

### Battery
- **Reserve Power Time**: ≤ 3 hours
- **Charging Time**: ≤ 16 hours

### Gas Delivery System
- **Number of Gases**: 3 gas capability (O₂, N₂O, Air)
- **Oxygen Flush Flow Rate**: 55 L/min
- **Low Oxygen Supply Pressure Alarm**: 34 - 40 psi
- **Vaporizer**: Vapor 2000
- **Positions**: 2
- **Mounting**: Fixed
- **Ventilator**: AV 2+
  - **Frequency**: 1 - 99 (in 1 BPM increments)
  - **I:E Ratio**: 4:1 - 1:4.5
  - **Inspiratory Flow**: 10 - 100 L/min
  - **Tidal Volume**: 20 - 1500 mL
  - **Pressure Limit Adjustment**: 15 - 120 cmH₂O

### Oxygen Monitoring
- **Display Range**: 10 - 100 %
- **Resolution**: 1 vol% O₂

### Airway Pressure Monitoring
- **Display Range**: –10 to 125 cmH₂O
- **Resolution**: 1 cmH₂O

### Tidal Volume Monitoring
- **Display Range**: .01 - 2.0 L
- **Resolution**: 0.01 mL

### Utility Requirements
- System operates with 120 VAC @ 50/60 Hz electrical source.
- Regulator assemblies and yokes for external O₂ and N₂O cylinders.
- O₂, N₂O and Air hoses for connecting pipeline sources to DISS machine connections.

**Tests with MRI Scanners of up to 3.0 Tesla (shielded or unshielded)**

Testing done with unit touching the MRI.

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