

ADS II™

ANESTHESIA DELIVERY SYSTEM



Advancing care is...

OUR VISION

The ADSII is an advanced yet easy to use anesthesia workstation that provides accurate, pneumatically driven and electronically controlled ventilation.

The ADSII has an ergonomic design that incorporates new technology and provides safe and effective treatment options for the clinician. The ADSII includes Adult and Pediatric modes that provide patient-appropriate defaults and ranges.

The ADSII has VCV, PCV and SIMV+PS automatic ventilation modes providing flexibility in your choice of ventilation strategy. It is suitable for pediatric and adult operation.

The ADSII employs many features for outstanding usability including auxiliary oxygen flow control and multiple auxiliary power outlets.



ADVANCED TECHNOLOGY SIMPLIFIED

The Infinium ADS II anesthesia systems offer pure simplicity in patient ventilation and anesthetic delivery.

The ADSII features:

- Highly accurate tidal volumes with 15 mL capability
- 12 inch Touch Screen TFT LCD
- Electronic Flowmeters (Air, N2O, O2)
- Autoclavable and Heated Absorber
- Ventilation modes of VCV, PCV, SIMV+PS
- Highly mobile space saving design with retractable writing table
- Battery Backup
- AGSS
- Electronic PEEP
- Vital signs, EtCo2, and Agent Monitoring



Modern And User-Friendly Design

WITH EXTREMELY SIMPLIFIED USER INTERFACE.

Ventilator/Gas Delivery

The **ADSII** offers an integrated ventilator with 12 inch color touch screen. Ventilation modes of VCV, PCV, SIMV+VCV+PSV, SIMV+PCV+PS, Manual and Standby are standard. On screen monitoring of spirometry loops, Paw, Peak, Pmean, PEEP are also standard. Airway pressure, flow and optional agents and EtCO₂ are shown in graphical waveforms.

The **ADSII** features simplified gas delivery with digital O₂, N₂O and AIR flowmeters. All ventilation and gas delivery controls are located within 10 cm from one and other to allow for an extremely simplified user interface.



Absorber

The **ADSII** features a 2 liter capacity absorber system with integrated bellows, APL valve and bag/ventilator selection switch. The entire absorber system is autoclavable.



Vaporizers

The **ADSII** provides Standard Selectatec™-compatible mounts and holds one or two vaporizers. Sevoflurane, Isoflurane, Desflurane, Enflurane, and Halothane are available.



MODERN AND USER-FRIENDLY DESIGN



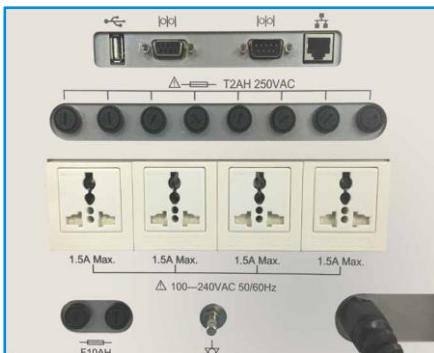
Pin Index Cylinder Yokes

The **ADSII** offers optional cylinder yokes for: N2O, O2, and AIR.



Wheel Lock

The **ADSII** provides an ergonomic Footbrake System to lock the wheels. High-quality Anti-static Castors make the ADSII mobile and easily maneuverable.



Power/Network Panel

The **ADSII** features a universal 110v/220v power panel with 4 - 50/60Hz power outlets. Ethernet, USB, and RS-232 ports are also included to offer a multitude of connectivity options.



Folding Writing Table

The **ADSII** desktop incorporates an expandable writing table with several standard lighting options.

ADS II - ANESTHESIA DELIVERY SYSTEM TECHNICAL SPECIFICATIONS:

SYSTEM

Size Approx. 1420mm(H)×760mm(W)×760mm(D) 56in(H)×30in(W)×30in(D)

Weight Approx.286lbs (130kg)

Top shelf bearing limit Maximum 55lbs (25)kg

CASTER

5in (125mm), one foot braking system

DRAWER

Threedrawers have the same size, and all are 5.12in(H)×14.29in(W)×13.90in(D) 130mm(H)×363mm(W)×353mm(D).

ANESTHESIA WORKSTATION DISPLAY

12-inch TFT LCD Touch Screen

PIPELINE PRESSURE GAUGE (air, oxygen, nitrous oxide)

Range: 0-1MPa. Resolution: 0.05MPa

Accuracy: full range ±2.5%

AIRWAY PRESSURE GAUGE RANGE

Range: -10-100cmH₂O. Resolution: 2cmH₂O

Accuracy: full range ±2.5%

PHYSICAL TECHNICAL SPECIFICATION

ENVIRONMENTAL REQUIREMENTS

Temperature Operating 50-104 °F (10-40 °C)

Storage 14-140 °F (-10-60 °C)

Transport -4-131 °F (-20-55)

Relative

Humidity

Operating 15-90%RH (non-condensing)

Storage 15-90%RH (non-condensing)

Transport Not more than 93%, non-condensing.

Atmospheric

Pressure

Operating 530-1060hPa (53-106kPa)

Storage 500-1060hPa (50-106kPa)

Transport 700-1060hPa (70-106kPa)

Power Supply

AC100-240V, 50Hz/60Hz

TECHNICAL SPECIFICATIONS OF RESPIRATORY SYSTEM

Fresh gas compensation Flow compensation range: 1-10L/min

Gas composition: O₂, N₂O, air and anesthetic agent

CO₂ Absorbent Single absorber canister volume: 1500mL

Connection Common gas outlet: ISO5356 connector (standard 22mm outer diameter or 15mm inner diameter, tapered friction connector)

Breathing System Leakage Pressure: 3kPa, leakage flow ≤ 150mL/min.

Respiratory System

Resistance

Flow rate: 60L/min, expiratory resistance ≤ 5.5 cmH₂O; inspiratory resistance ≤ 5.5 cmH₂O

APL valve resistance

Flow rate: 3L/min, flow resistance: 0.05 3kPa

Flow rate: 30L/min, flow resistance: 0.1 0.5kPa

Connector leakage

Under 30cmH₂O and APL valve fully closed the leakage rate ≤ 50mL/min

One-way valve resistance

Under dry state: ≤ 0.15kPa

Pressure produced by wet

one-way valve < 0.14kPa

Pressure of opening wet

one-way valve < 0.1kPa

System Compliance < 150mL/30cmH₂O, standard pipeline

Internal capacity

(contains canister) about 7.6L

Oxygen Flush 25-75L/min

O₂ supply failure alarm < 29 psi (200kPa)

O₂ Concentration Not less than 19%

Safety Valve Open pressure is 85 cmH₂O, at a flow is 5L/min.

ANESTHESIA WORKSTATION PERFORMANCE

Maximal inspiratory pressure (85±10)cmH₂O

Complete machine noise Normal work (excluding alarm), not greater than 60dB (A)

Warm-up time Less than 1 minute

Minute volume 0-30L/min

Inspiratory flow Maximum 75L/min

Pressure transmission range 5-80cmH₂O



ADS II - ANESTHESIA DELIVERY SYSTEM TECHNICAL SPECIFICATIONS:

VENTILATION PARAMETER SETUP

PARAMETER	RANGE	INCREMENT	FACTORY DEFAULT	REMARKS
Vt	15-300 mL(child) 15-1500mL(adult)	5mL(below 100) 10mL(100-1000) 50mL(above 1000)	120mL(child) 500mL(adult)	15-100mL, error: ±10mL; 100-1500mL, error: ±10%.
Freq.	4-100bpm	1bpm	20bpm(child) 8bpm(adult) 4bpm(SIMV)	Error is ±1bpm or ±3%, whichever is greater.
I:E	4:1-1:8	0.5	1:2	Error: ±20%.
TINSP	0.2-5.0 secs	0.1sec	1sec(child) 2sec(adult)	This function is available for SIMV mode only. Error is ±10% or 0.1s, whichever is greater.
PEEP	OFF, 3-30cmH2O	1cmH2O	OFF	For OFF, PEEP value is 1-3cmH2O; For 3-30cmH2O, error is ±2cmH2O or ±10%, whichever is greater.
FreqMIN	2-60bpm	1bpm	4bpm(child) 2bpm(adult)	This function is available for PS mode only. Error is ±1 bpm or ±3%, whichever is greater.
TP	OFF, 5%-60%	5%	10%	This function is available for VCV and SIMV mode only. Error is ±20% or ±0.05secs of set value, whichever is greater.
PARAMETER	RANGE	STEPPING VALVE	FACTORY DEFAULT	REMARKS
Trigger	1-15L/min	1L/min	2L/min(child) 3L/min(adult)	This function is available for SIMV and PS mode only. Error is ±15% or ±1L/min, whichever is greater.
PTARGET	5-70cmH2O	1cmH2O	10cmH2O(child) 20cmH2O(adult)	This function is available for PCV mode only. Error is ±3 cmH2O or 10%, whichever is greater.
P	3-50cmH2O	1cmH2O	5cmH2O	This function is available for SIMV and PS mode. Error is ±3 cmH2O or ±10%, whichever is greater.
TSLOPE	0-2 secs	0.1sec	0.5sec	Error: ±0.5 sec.
PMAX	10-70cmH2O	1cmH2O	40cmH2O	Error is ±3cmH2O or ±10%, whichever is greater.

MONITORING PERFORMANCE

PARAMETER	RANGE	STEPPING VALUE	ACCURACY
Vt	0-3000mL	1mL	20-100mL, error: ±10mL; 100-3000mL, error: ±10%.
MV	0-30mL	1mL	Error is ±10% or ±1L, whichever is greater.
Freq.	0-110bpm	1bpm	±1bpm
PEAK	-20-99cmH2O	1cmH2O	±(2 cmH2O + 4% of reading)
MEAN	-20-99cmH2O	1cmH2O	±(2 cmH2O + 4% of reading)
PLAT	-20-99cmH2O	1cmH2O	±(2 cmH2O + 4% of reading)
FI02	18-100%	1%	Error: ±3%(Concentration)
Lung Compliance	0-250mL/cmH2O	1mL/cmH2O	Error is ±15% or ±5mL/cmH2O, whichever is greater.
PEEP	-20-99cmH2O	1cmH2O	±(2 cmH2O + 4% of reading)
PAW	-20-99cmH2O	1cmH2O	±(2 cmH2O + 4% of reading)
Battery voltage status display	100%, 75%, 50%, 25%, 0%. When battery is used to supply power, this sign displays remaining available electric voltage. When the Anesthesia Workstation is connected to AC power, this sign means charging.		
Paw-twave form	Pressure monitor range: 0-80cmH2O. According to different airway pressure. The increment of the wave form displayed is different according to the airway pressure range. 0-10cmH2O, pressure axis increment: 5cmH2O 0-30cmH2O, pressure axis increment: 10cmH2O 0-80cmH2O, pressure axis increment: 20cmH2O Time axis is a fixed range (the axis of Flow-t, PAW-t is same): When gas module is opened, 0-15 secs; when gas module is closed, 0-20 secs.		
Flow-t Wave form	Display range of flow rate: -90-90L/min, gain: 45L/min. On time axis, the positive axes represents inspiratory direction; under the time axis, the negative axes represents expiratory direction. Flow rate is 0L/min, which means there is no gas flow rate in airway.		
CO2 time wave form	Optional CO2 display range is 0-76mmHg, increment is 38mmHg. Time axis is a fixed range. When gas module is opened, 0-15s; when gas module is closed, 0-20s.		
P/V Loop	X axes displays PAW: range is -20-120cmH2O, increment is 60cmH2O. Y axes displays tidal Volume: range is 0-1600ml, increment is 800ml.		
F/V Loop	X axes displays tidal Volume: range is 0-1600mL, increment is 800mL. Y axes represent Flow: range is -120-120L/min, increment is 60L/min; The positive axes represent expiratory flow rate, the negative axes represent inspiratory flow rate.		

