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MADM™ SYSTEM

MADM™ is the world's first inline direct injection and anesthetic vaporizer. Connect it to any ventilator and instantly you can deliver gas anesthesia, safely and accurately, wherever your mission takes you. The versatility and portability of **MADM™** make it ideal not only in the controlled environments of operating rooms, intensive care units and medical clinics, but also for delivering gas anesthesia in more challenging environments, such as field hospitals and forward-deployed surgical operations.

Part #	Description	Included With System
124198	MADM™ System	
	Anesthetic Canister – Sevoflurane	1
	Anesthetic Canister – Isoflurane	1
	Sevoflurane Refilling Adapter	1
	Isoflurane Refilling Adapter	1
	Tubing, 22mm x 36"	1
	Patient (Mouth) Anesthesia and CO_2 Monitoring Sensor	1
	Airway Adapter (for anesthetic gas sensors)	2
	Power Supply	1
	Hospital Grade Power Cable (North America)*	1
	Operator's Manual	1
	Transport Case with Foam	1
	Quick Start Guide	1

*For customers outside of North America, please contact Thornhill Medical to discuss your specific power requirements. Unless a specific request is made, the standard North America power cable will be supplied.

CONSUMABLES

Part #	Description
127508	Tubing, 22mm x 36" Box of 10

127509	Airway Adapter Box of 10

PERIODIC REPLACEMENT ITEMS

Part #	Description
125915	Purged Anesthetic Container

127847	Scavenging Tube (Waste Gas Tubing) 30mm x 30ft

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OPTIONAL ACCESSORIES

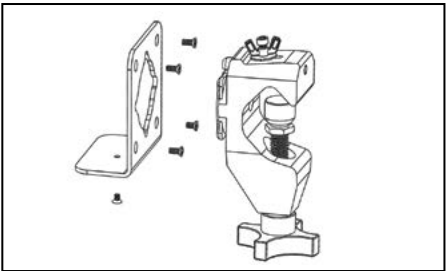| Part #	Description
127704	External Battery

127705	External Battery Dock and Charger

127706	Mounting Bracket and Clamp

This optional accessory allows for the attachment of MADM™ to an IV pole or hospital bed/stretcher rail.

ACCESSORIES

Part #	Description
127502	Anesthetic Canister – Isoflurane

| 127503 | Anesthetic Canister – Sevoflurane |

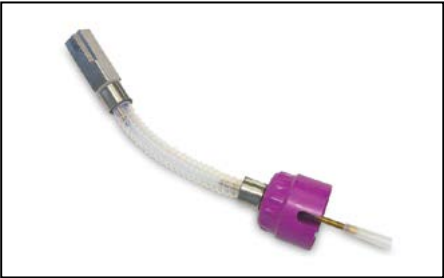| 127504 | Hospital Grade Power Cable (North America)* |

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| 127505 | Power Supply |

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Part #	Description
127506	Isoflurane Refilling Adapter

| 127507 | Sevoflurane Refilling Adapter |

| 127462 | Transport Case with Foam |

SERVICE DEPOT

MAINTENANCE

Part #	Description
127510	Service Support Kit
127816	Fasteners
127817	Cables
128849	MADM™ Field Service Tool Kit

REPAIR PARTS

Part #	Description
125913	Mouth Anesthetic Sensor (Anesthesia + CO_2 Monitoring Sensor)
125914	Protective Caps
125916	Front Enclosure
125917	Input/ Output (IO) PCA
125918	Display Assembly
125919	User Interface (UI) PCA
125920	Liquid Crystal Display (LCD)
125921	Controller PCA and Flow Sensor
125922	Power PCA
125923	Input Anesthetic Sensor
125924	Manifold and Mixer Assembly
125930	Anesthetic Pump
125928	Anesthetic Cartridge Fitting
125929	Air Pump and Valves
125927	Manifold Chassis
125931	Heater Kit including Door
125932	Cooling Fan
125933	Rear Enclosure
127707	Heater Door
127955	Anesthetic Dial
127796	Graphical User Interface (GUI) Cable

For more information on system maintenance, repairs or training, contact:
info@thornhillmedical.com | 416-597-1325

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INTENDED USE

MADM™ is intended to deliver volatile anesthetic to a patient when placed in either circle or open anesthetic circuits. It vaporizes isoflurane and sevoflurane and delivers the vaporized anesthetic agent into the inspiratory limb of the breathing circuit.

MADM™ is also intended to monitor respiratory rate, CO_2, and the anesthetic gases isoflurane and sevoflurane. It is intended to be connected to a patient breathing circuit for monitoring of patients to whom it is delivering volatile anesthetic gases.

MADM™ is not indicated for use with a carrier gas containing nitrous oxide.

INTENDED ENVIRONMENTS

MADM™ is intended to be operated in hospitals. **MADM™** is not intended to be used during patient transport.

INTENDED USE POPULATION

The intended patient population is adults who weigh 40 kg (88 lbs) or more.

CONTRAINDICATIONS

MADM™ is subject to any contraindication to inhaled anesthetics.

INTENDED USERS

MADM™ is intended to be used by:

• Trained physicians

• Anesthesiologists

STANDARDS COMPLIANCE

MADM™ complies with the standards listed below:

Standard #	Description
IEC 60601-1	Medical Electrical Equipment, General Requirements for basic safety and essential performance
IEC 60601-1-2	Medical Electrical Equipment – Part 1-2: General requirements for safety – Collateral standard: Electromagnetic compatibility – Requirements and tests
IEC 60601-1-8	Medical Electrical Equipment – Part 1-8: General requirements for safety – Collateral standard: General requirements, tests and guidance for alarm systems in medical electrical equipment and medical electrical systems
ISO 80601-2-13	Medical Electrical Equipment – Part 2: Particular Requirements for the safety and essential performance of anesthetic systems
ISO 80601-2-55	Medical Electrical Equipment – Particular requirements for the basic safety and essential performance of respiratory gas monitors

FDA Cleared   Health Canada

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