



Perfect Solution
for ***Patient Warming***



SAFE WARM



WHY SHOULD YOU CHOOSE SAFEWARM PATIENT WARMING SYSTEMS?

SAFEWARM reusable patient warming system is very economical, simple to operate and of great clinical benefit.

Its unique combination of high-performance warming systems and sophisticated safety sensor technology provide concentrated professional support for all surgical operations.

Considering the developing technologists in the medical device market, our new generation SAFEWARM W-1000 / W1000B control unit developed by our R&D engineers is succeeded to be the BEST with its 7inch. LCD touch screen and three channel. It is on its way to become a remarkable device in its class in the world market with its modern structure, easy usage and superior quality.

Having the system in hospitals has benefits for Anesthesia and Surgery efficiency, as well as Operation Management.



IMPORTANCE OF PATIENT WARMING

Hypothermia is a condition in which body's regular core temperature of 37.0°C drops below the required temperature of 35.0°C for normal metabolism and body functions. The primary causes of perioperative hypothermia include; administration of anesthetic drugs and liquids, enduring cold temperatures maintained in most operating rooms for extended periods of time and the biological inability of neonates and elderly patients protecting their core body temperature under these conditions.

The good news is that preventing hypothermia can be simple, effective and affordable with Safewarm Patient Warming Systems.

With its wide range of mattresses and blankets at various sizes and dimension, Safewarm Patient Warming Systems provide a high number of benefits both to patients and clinical personnel in their fight against hypothermia. According to clinical researches, our patient warming system can reduce the risk of complication and costs associated with unintended hypothermia by reducing the rate of post-operative wound infection, decreased likelihood of post-operative myocardial infarction shortened hospital length of stay and lower mortality rates





OUR PATIENT WARMING TECHNOLOGY

Our patient warming systems use state of the art technology and the latest developments in carbon fiber materials and microprocessors to avoid hypothermia in operation rooms, neonatal intensive care departments, maternity wards as well as orthopedic departments through stabilizing or raising the peripheral temperature of the patient carrying the risk of hypothermia effectively to provide a warm and comfortable environment.



Three Channel Option

Three channels can be independently controlled using the SAFEWARM W-1000 control unit. Different points of the patient can be simultaneously warmed by three applied parts to avoid hypothermia risk in very cold environments or long and open surgeries.



The Best Heating Performance and Short Warming Time



Our mattresses and blankets can reach 37°C within 3-15 minutes giving us a great advantage over competing products available in the market as well as providing the clinical personnel flexibility and easy use during operation. The ability to set and manage the target warming temperature within 0.1°C increments also allows for additional sensitivity. (eg. 36.8°C, 37.3°C, 38.6°C etc.) Homogeneous and efficient heat is provided by the carbon fabric placed in the mattresses and blankets. The temperature setting in the range from 30 - 40°C can be individually set in precise 0.1°C steps for each applied part. All high and low temperature alarms are continuously monitored by the control unit. The illuminated display and simple operation ensure safe use of the SAFEWARM patient warming system.

High Level Safety



SAFEWARM patient warming systems are installed with a FOUR SAFETY feature. Each system is controlled by three separate micro processors; two of them are available in the control unit and the other on the mattress/blanket card. These three micro processors control the heating system independently. This way, even in the remote possibility that one of the micro processors fail, the other micro processor would act as a fail safe and protect the whole system from any kind of overheating. In addition to these three safe features, there is also a MECHANIC THERMAL CUT-OFF security system that works independently from the software as the fourth security system.

The maximum target temperature is set at 40°C and the heating process is cut off automatically once the real temperature reaches this level. Each mattress and blanket contains 10 sensors which measure the real temperature at all times on the mattresses/blankets and provide a completely safe temperature management system for all our products.

Comfortable and Easy to Use



Through the viscoelastic foam used inside the warming mattresses, we prevent decubitus ulcers which may occur on patients with prolonged stay during operations or recovery. Soft and lightweight blankets can easily cover the patient and provide a comfortable warming experience. Very silent operation of the device also provides a comfortable working period for the clinical specialists. The heat is generated with a 24 Volt protective low voltage for all SAFEWARM applied parts, using carbon fibre which is permeable to X-rays.

- ✓ **THE BEST HEATING PERFORMANCE AND SHORT WARMING TIME**
- ✓ **HIGH LEVEL SAFETY**
- ✓ **LCD TOUCH SCREEN**
- ✓ **THREE CHANNEL OPTION**
- ✓ **ABILITY TO MONITOR PATIENT BODY TEMPERATURE**

- ✓ **COMFORTABLE AND EASY TO USE**
- ✓ **HYGIENIC AND EASY TO CLEAN**
- ✓ **ENVIRONMENT FRIENDLY**
- ✓ **WIDE VARIETY OF PRODUCTS**
- ✓ **AFFORDABLE PRICE**
- ✓ **SILENT AND LIGHTWEIGHT**

TECHNICAL SPECIFICATIONS

POWER	W-1000	Power Input : 180-240 V AC 50 HZ / 60 HZ	Output: 997 VA 24 Volt DC
	W-1000B	Power Input : 180-240 V AC 50 HZ / 60 HZ	Output: 997 VA 24 Volt DC
TEMPERATURE OUTPUT RANGE	30° C to 40° C in steps of 0.1° C High Temperature Safety Cut Off Point at 42-43°C		

TYPE	SIZE	WEIGHT	DESCRIPTION
Control Units:			
W1000	230x270x165 mm	3,8 kg	Three channel
W-1000B	230x270x165 mm	3,8 kg	Three channel (Compatible with control stand)
Warming Mattresses:			
HMG-190MS	190x50x4 cm (with foam)	4 kg	Large size
HMG-150MS	150x50x4 cm (with foam)	3,3 kg	Medium size
HMG-120MS	120x50x4 cm (with foam)	2,25 kg	Medium size
HMG-80MS	80x50x3 cm (with foam)	1,9 kg	Small size
HMG-190M	190x50 cm	2,75 kg	Large size
HMG-150M	150x50 cm	1,9 kg	Medium size
HMG-120M	120x50 cm	1,75 kg	Medium size
HMG-80M	80x50 cm	1,25 kg	Small size
HMG-60MS	60x35x2 cm	0,76	Neonatal
HMG-50M	50x30cm	0,62	Neonatal
Warming Blankets:			
HMG-190B	190x100 cm	2,3 kg	Large size
HMG-180BAS	180x45 cm	1,1 kg	Arm-Shoulder warming
HMG-150BAS	150x45 cm	0,85 kg	Arm-Shoulder warming
HMG-180B	180x80 cm	2,0 kg	Large size
HMG-150B	150x80 cm	1,6 kg	Medium size
HMG-120B	120x80 cm	1,1 kg	Medium size
HMG-85DB	85x55 cm (Double)	1,4 kg	Small size
HMG-80B	80x70 cm	0,75 kg	Small size

* Contact us for all models

Extension Cable Length: 2 m

Pad Cable Length: 1 m

ALARMS

Power Alarm: Activated if power is cut off or if the power cord is disconnected when the unit is turned on.

Pad Alarm: Activated when the connection between the controller and the mattress is cut off.

High Temperature Alarm: For Adults and Pediatrics, 41° C is the highest temperature. When the measured temperature reaches this value, the device outputs audible and visual alarms.

High/Low Deviation: If the temperature make a difference of +/- 1° C set temperature, deviation alarm is sounded.

INOP Alarm: If the temperature does not go over 30° C for 10 minutes after it is turned on, System alarm will start.

STANDARDS

93/42/EEC – MEDICAL DEVICE DIRECTIVE

EN 60601-1: Medical electrical equipment - Part 1: General requirements for basic safety and essential performance

EN 60601-1-2: Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral Standard: Electromagnetic disturbances - Requirements and tests.

En 60601-2-35: Medical electrical equipment - Part 2-35: Particular requirements for the basic safety and essential performance of heating devices using blankets, pads and mattresses and intended for heating in medical use.

EN ISO 14971, EN ISO 15223-1, EN 62366-1, EN 60601-1-8, EN 62304, EN ISO 20417, EN ISO 13485, EN ISO 60601-1-6, EN ISO 10993-1

ENVIRONMENTAL

Ambient Temperature (Operating)

-10° C / +40° C

Ambient Temperature (Storage)

-10° C / +55° C

RELATIVE HUMIDITY

%30 - %70



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