

# BUDDY LITE™ AC

Safe, Compact, and Battery-Powered

PORTABLE BLOOD & FLUID WARMING



**INSTANTLY** WARM PATIENTS. ANYTIME. ANYWHERE.







## BUDDY LITE™

The buddy lite<sup>™</sup> is a portable, battery-powered, blood and fluid warmer used globally by civilian and military medical personnel to help prevent hypothermia during fluid administration.

The buddy lite™ is designed to be safe, reliable, lightweight and compact. The entire system weighs less than 1.6 pounds (0.73 kg) and is small enough that it can be easily stored in medical response bags and storage compartments. The system can be set up and ready to warm in less than one minute and is capable of warming up to 4.4 liters of fluid from 20°C to 38° ± 2°C on a single charge.

Warmed fluids are delivered through a single disposable set with standard, built-in safety features providing patient protection against vessel trauma and vascular air embolism.

## WARM FLUID SAVES LIVES

Worldwide, more people under the age of 45 fall victim to trauma- related injuries than any other condition, with uncontrolled hemorrhage as the second leading cause of trauma-related death.<sup>1,2</sup> A known factor associated with increased mortality in bleeding trauma victims is hypothermia (core body temperature less than 35°C). Studies have shown up to 14% of trauma patients arrive at hospitals hypothermic, even when transport times are short.<sup>3</sup>

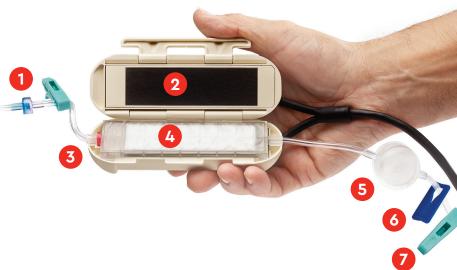
Early interventions by EMS providers can significantly reduce the risk of hypothermia, slowing or even stopping Trauma's Lethal Triad of compounding issues. The addition of fluid warmers to ambulances alone has been associated with a 22% relative risk reduction in admission hypothermia.4

Currently, there are few devices that can safely and accurately control the temperature of I.V. fluids in a pre-hospital setting. Heating cabinets and bag warmers are unable to overcome the impact of heat loss caused by ambient temperature conditions, resulting in line-cooling of fluid before it can reach the patient.5

Delivery of normothermic fluid to prevent or reduce the risk of hypothermia can be achieved using in-line fluid warmers capable of warming fluid close to the cannulation site. The buddy lite™ is the only close-to-the-patient, in-line blood and fluid warmer capable of safely warming blood and fluids prehospital, while also reducing the risk of inadvertent air embolism.

## **BUILT-IN SAFETY**

- 1 One-way valve prevents backflow from the patient
- 2 Dual heater plates gently warm fluids
- 3 Valve helps prevent air entrainment
- 4 Large venting membrane removes air from crystalloid solutions
- 5 Pressure regulating valve prevents over-pressurization of fluid line
- 6 Clamp to quickly stop fluid flow
- 7 Bed sheet clamps help secure heater by patient's side



#### **AUTOMATIC AIR REMOVAL**

Microporous, air-venting membrane within the fluid path designed to prevent air emboli.

#### **CLOSE-TO-PATIENT WARMING**

Warmed fluid outflow is less than 6 inches between the patient and heater to reduce line-cooldown of fluid temperature.

#### **COMPACT & LIGHTWEIGHT**

Total weight of system including heater, battery, and disposable is <725 grams (0.73 kg).

#### **BATTERY OR AC-POWERED\***

Warm up to 4.4 liters of fluid from 20°C to 38° ± 2°C on a single battery charge or switch to AC-power for continuous use.

#### **MILITARY TESTED & APPROVED**

The buddy lite<sup>™</sup> is used extensively by United States Armed Forces as an effective method for delivering warmed fluid to injured soldiers on the field and during patient transport.

#### **EASY TO USE**

Single-button operation and pre-set outflow fluid temperature target of 38°C.

\*Optional AC-powered version available

- s for Disease Control and Prevention, (Aug. 29, 2012) Web-based injury statistics query and reporting system (WISQARS). In U.S. Depai
- Health and Human Services, CDC, National Center for Injury Prevention and Control.

  2. Kauvar DS, Lefering R & Wade CE. Impact of hemorrhage on trauma outcome: an overview of epidemiology, clinical presentations, and therapeuticonsiderations. J Trauma. 2006;60(6 suppl);S3-S11.

  3. Lapostolle F, Sebbah JL, Couvreur J, et al. Risk factors for onset of hypothermia in trauma victims: the HypoTraum study. Crit Care. 2012;16(4):R142.

- 4. Waibel B. H. (2012). Hypothermia in trauma patients: predicting the big chill. Critical care (London, England), 16(5), 155. doi:10.1186/cc11473 5. Collins, N., Daly, S., Johnson, P., & Smith, G. (2015). Pre-hospital use of intravenous in-line fluid warmers to reduce morbidity and mortality for major trauma patients: A review of the current literature, Australasian Journal of Paramedicine, 12(2), doi:10.33151/aip.12.2.139

## BUDDY LITE™ AC

Patient transport times to level 1 or 2 trauma centers in remote areas can exceed 60 minutes, even when transported by helicopter. The buddy lite™ AC was designed to extend the warming capability of the buddy lite™ when AC power is available, allowing for continuous use of the system during long transport times. The internal battery is isolated from the AC power source, conserving battery power and protecting against overcharging. The system can easily switch from AC to battery-power, eliminating any interruption in fluid resuscitation efforts.



#### ORDER INFORMATION

**BUDDY LITE™** 

Part #905-00017

BUDDY LITE™AC

Part #905-00022

BUDDY LITE™ W/12V VEHICLE CHARGER

Part #905-00042

BUDDY™ DISPOSABLE SET

Part #905-00010

AC/DC POWER SUPPLY

Part #111-00030

**BATTERY CHARGER** 

PART #111-00029

**BATTERY PACK** 

Part #101-00029

### PRODUCT SPECIFICATIONS

#### WEIGHT

Heater Unit, Battery, Battery Housing: 1.6 lb. (0.73 kg)

#### **DIMENSIONS**

Battery Housing:  $3.3 \times 7.5 \times 1.2$  in.  $(8.4 \times 19.1 \times 3.1$  cm) Heater Unit:  $1.5 \times 5.2 \times 0.9$  in.  $(3.8 \times 13.2 \times 2.2$  cm) AC/DC Supply:  $6.4 \times 3.8 \times 2.3$  in.  $(16.2 \times 9.5 \times 5.7$  cm)\*

#### **POWER**

Battery Nominal Voltage: 14.4 VDC

Battery Recharge: ≈ 2.5 hours

AC/DC Supply: Input 100-240V AC, ± 10%, 47-63 Hz\*

Single phase - Output 18 VDC 11.7A, 210W Max

#### **OPERATING PARAMETERS**

Output Temperature: 38° ± 2°C

Flow Rate:

- Max 80 mL/min (Input Temperature 20°C)
- Max 50 mL/min (Input Temperature 10°C)

#### **DISPOSABLE**

Prime Volume: 7.5 mL with valves and tubing at input and output. Sterile, non-pyrogenic fluid path, single-patient use only, DEHP free, not made with natural rubber latex.

\*Optional AC-powered version only

For more information about the products we offer, contact us at sales@belmontmedtech.com.



PATIENT WARMING



PATIENT COOLING



FLUID MANAGEMENT



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