

# UniqueResc+ R130 – Frequently Asked Questions

The **UniqueResc+ R130** is a pre-hospital Class II medical warming system designed to help patients maintain normothermia or prevent hypothermia in field and transport settings. This FAQ provides comprehensive guidance on its operation, technical specifications, maintenance, and best practices.

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# Product Overview & Intended Use

## What is the UniqueResc+ R130 warming system?

The **UniqueResc+ R130** is a **pre-hospital Class II medical device** used to provide active warming to patients who are at risk of or experiencing hypothermia. It has a durable polyurethane shell with integrated heating elements and is commonly used by EMS teams, in military field hospitals, and in certain specialized medical facilities.

## Why is this device described as “pre-hospital”?

The device has undergone extensive use in **military field hospitals** and **EMS vehicles**. Although it carries FDA 510(k) clearance, it has not yet been widely adopted in traditional, full-scale civilian hospitals. Its primary design focus is on **transport** and **field care**.

## Who is this device intended for?

It is intended for **adult patients** requiring reliable warming in pre-hospital environments. It is **not suitable** for infants under **3 months** of age or patients under **10 kilograms** due to its heat profile and sizing.

# Specifications & Technical Details

## What are the dimensions and weight?

**R130 Blanket:** Approximately **19" x 33"** (50 cm x 84 cm) and weighs around **2.0 lbs** (0.9 kg).

## What temperatures can it operate in?

The operating environment is **-22°F (-30°C) to +104°F (+40°C)**, with storage up to **+158°F (+70°C)** and relative humidity up to 95%. This ensures reliable performance even in harsh, extreme climates.

## How is the blanket powered and controlled?

The blanket accepts **12–28 VDC** via compatible vehicle power, an approved AC adapter, or military 2590 lithium-ion batteries. An embedded microcontroller monitors and maintains the chosen set temperature. There is an integrated hardware-based emergency shutdown at 41°C to prevent overheating.

## What is the device’s expected lifespan?

The product lifespan for **all** UniqueResc+ patient heating systems is set at **5 years**, assuming proper care, cleaning, and inspection to ensure no material or electrical damage.

## Regulatory & Classification

### Is this device FDA-cleared?

Yes. The UniqueResc+ R130 is **FDA 510(k)** cleared (K093694) and meets the requirements for a Class II medical device in pre-hospital usage.

### Does it have an Approved Airworthiness Release (AWR)?

The device carries an **AWR** (Approved Airworthiness Release) for carry-on equipment on aircraft, allowing its use in aeromedical and other flight environments.

### Are there any NSNs (National Stock Numbers)?

1. **R130 Blanket:** NSN **6532-01-596-1253** (RGMD Part Number 82310).
2. **Power Supply:** NSN **6130-01-600-0763** (Part Number 82009).
3. **2590 Battery:** NSN **6140-01-553-3527**.

Any new combination (e.g., blanket + power supply) may require a separate NSN approval if offered as a single package.

## Usage & Best Practices

### In what environments should the blanket be used?

1. **Military Field Hospitals:** Deployed in rugged conditions for patient warming.
2. **EMS Vehicles:** Used during patient transport, ensuring normothermia.
3. **Certain Medical Facilities:** Smaller clinics or specialized care units may utilize it.
4. **Not for Standard Civilian Hospitals:** It has not been integrated into large civilian hospital systems.

### Does the device require special handling during operation?

The UniqueResc+ R130 is straightforward to operate. Plug it into a suitable power source (12–28 VDC, AC, or battery), and it will begin its **self-test** automatically. Once the self-test is complete, it **heats immediately** to the last preset temperature. Ensure there are no **sharp bends** or compressive forces on the blanket while in use.

### Can I combine it with other warming devices or foils?

The UniqueResc+ R130 is **not intended** to be combined with additional heat-generating blankets or devices. Doing so may lead to undesired temperature fluctuations or potential overheating.

# Power Sources & Battery Information

## Which power sources can I use?

The blanket works with any of the following (within **12–28 V** range):

1. **2590 Battery** (common military battery).
2. **AC Power** (using the approved medical-grade adapter, Part Number 82009).
3. **Vehicle Auxiliary Power** via a 12–28VDC source using the proper cable.

## How long does it run on the 2590 battery?

Under typical conditions, you can expect **5–7 hours** of continuous heating from a **fully charged** 2590 battery. This duration may vary slightly depending on ambient temperatures and the chosen temperature setting.

## Is it safe to power the blanket from an aircraft system?

Yes. Its design, along with AWR approval, makes it suitable for aircraft DC supply in the **12–28V** range. Always verify the aircraft's power capacity and the device's draw before operation.

# Temperature Control & Performance

## How does the device manage temperature?

The R130 uses **internal sensors** and a **microcontroller** to monitor and maintain the selected temperature. A **hardware-based emergency cutoff** at 41°C protects against overheating. If a fault is detected, the system will shut down and display an error.

## What is the default temperature on startup?

The blanket **begins heating** to the **last preset temperature**. If it's the very first use, the device starts at **37°C** (normal body temperature).

## How long does it take to reach the desired temperature?

The R130 typically provides noticeable heat within **1–2 minutes**, and is fully warmed (at the chosen temperature) in about **5 minutes**, depending on the ambient conditions.

## What happens during the self-test?

Immediately upon powering, the blanket performs a **self-test** that checks:

1. The primary circuit boards and microcontroller.

2. The temperature sensors.
3. The LEDs and safety circuit.

If the blanket passes, it continues to heat. If not, the device may display an error or alarm.

## Cleaning & Disinfection

### Which cleaners are recommended?

Use **mild detergents** or **medical-grade disinfectants** specifically approved for polyurethane surfaces. Avoid strong solvents or **petrol-based cleaners**, as these can damage the RF-welded seams or degrade the PU film.

### Is the material biocompatible?

Yes. The polyurethane film and welded edges have undergone **biocompatibility** testing (including cytotoxicity, sensitization, and irritation tests). Results showed no harmful effects under normal conditions.

### Do I need special care around connectors?

Yes. Ensure you **do not submerge** the connector or immerse it in liquid. Gently wipe around connection points to avoid water intrusion or corrosion.

## Storage & Folding

### How should I fold or store the blanket?

The R130 should be **folded or rolled loosely** to avoid stressing the heating elements. Store it in a **dry area** or use a soft-sided carrying case if provided. Avoid compressing the blanket with heavy items.

### Can extreme temperatures in storage harm the device?

Storage is suitable from **-22°F (-30°C) up to +158°F (+70°C)**. Avoid prolonged exposure to direct sunlight, extremely high humidity, or conditions where ice formation could cause physical damage.

## Durability, Safety, & Testing

### What tests confirm the blanket's durability?

Multiple documents support the R130's ruggedness:

1. **Dielectric Strength Tests** show resilience against voltage breakdown.
2. **Flammability Tests** confirm the polyurethane self-extinguishes or does not sustain flames.
3. **Biocompatibility Tests** confirm safety for skin contact.
4. **Folding Load Tests** indicate no material failure after repeated folds.

## What safety features are built into the device?

The R130 includes:

1. **Internal & External Watchdog Circuits** for monitoring control logic.
2. **Sensor Comparison & Plausibility Checks** to ensure all readings match expected values.
3. **Hardware-Based Emergency Shutdown** that cuts power at 41°C if software control fails.
4. **Error Memory** that logs issues for troubleshooting.

## Compatibility & Accessories

### Which accessories are available for the UniqueResc+ R130?

1. **2590 Battery** (NSN: 6140-01-553-3527)
2. **Battery Charger** (Part Number 82025)
3. **Medical Grade AC Power Supply** (Part Number 82009; NSN: 6130-01-600-0763)
4. **Vehicle Auxiliary Power Cable** (Part Number 82019)
5. **Soft Case** for transport (Part Number 82037)

### Can I buy the blanket and power supply as one combined unit?

Currently, they are sold separately. A blanket+power supply “combo NSN” does not exist yet. Any new configuration would require additional part numbers and regulatory approvals before it could be listed on DAPA/ECAT.

## Purchasing & Pricing

### Where can I find pricing information?

Pricing displayed on older flyers often reflects **DAPA (military)** rates, which may not align with current retail or bulk-purchase pricing. To avoid confusion, most marketing materials no longer list specific prices. **Contact us directly** or your authorized distributor for a quote.

### Why can't civilian purchasers get the same price as the military?

DAPA-regulated pricing is meant for military procurement, which typically involves specific contract terms and large-volume agreements. Retail or one-off purchases often carry a higher

price point. If all buyers received identical low pricing, DAPA could request a reduction for the entire market.

## Troubleshooting & Support

### What should I do if the device fails to heat or shows an error?

1. **Check Power Source:** Confirm the battery is charged, or that the vehicle/AC supply is functioning.
2. **Look for Error Indicators:** The R130 may beep or light an error LED.
3. **Reset:** Turn off power briefly, then reconnect. If the issue recurs, discontinue use.
4. **Contact Support:** Reach out to the manufacturer or an authorized service center.

### Can the device be repaired if damaged?

Repairs require specialized knowledge of the heating elements and sealing process. **Do not attempt** to open or fix the blanket yourself. Doing so may void warranties and compromise safety features.

## Disclaimers & Contact Information

All technical specifications and usage instructions provided in this FAQ may be subject to change based on new regulatory approvals, product iterations, or updates to DAPA/retail pricing. Always consult the latest version of the official product manual or your organization's procurement guidelines before use.

1. **Usage:** This warming system is intended for pre-hospital environments (military, EMS, specialized facilities). It is not cleared for standard civilian hospital use.
2. **Regulatory Compliance:** The device meets FDA Class II standards and holds AWR for carry-on equipment.
3. **No Combination with Other Heating Devices:** The R130 should not be used alongside other electric warming systems.
4. **Pediatric Constraints:** Not intended for infants under 3 months or patients under 10 kg.
5. **Lifespan:** Expected service life is 5 years under normal usage.
6. **Pricing:** Any listed pricing may be outdated or reflect government contract rates (DAPA) only. Always request a formal quote for final pricing.
7. **Liability:** Always follow the official product manual for best practices and safety precautions. This FAQ is for general guidance.

### Contact Information

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