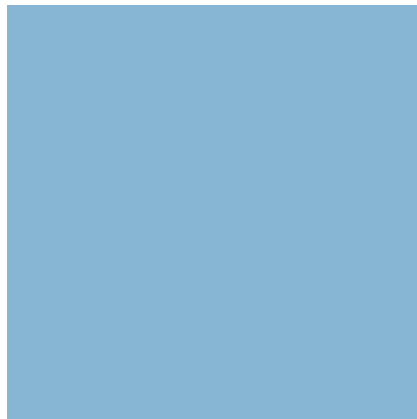




FOR PROFESSIONALS WHO SAVE LIVES

# THERMAL IMAGING SUIT

## USER INSTRUCTIONS



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Our Thermal Imaging Suit gives any adult Ruth Lee Manikin (up to 90kg) instant thermal imaging capabilities. Simply dress your manikin in the thermal suit, and cover with the overalls provided to give added protection.

### 24Ah Battery

The batteries used with the Ruth Lee Thermal Imaging Suit and Hood are Li-Ion cells, with a high discharge current. The battery is designed to supply power to the Ruth Lee Ltd Thermal Imaging Suit and to be fully waterproof so can be safely used in wet environments.

The Total power of connected devices to the battery must not exceed 200W. Those devices must be designed to be powered with 10.8-12V input.

The battery is equipped with a number of safety features to protect against over discharge, overcharge, overload and short circuit. On the enclosure there is an E/O cord connector (for use in wet environments), piezo switch and overpressure valve.

One touch is enough to turn the battery on, which is indicated by the built-in blue LED on the EO cord connector. After each switch-on the level of power available is indicated.

The number of flashes emitted by the blue LED indicates the battery charge level:

- 3 LED flashes stand for 60-100%
- 2 LED flashes stand for 30-60%
- 1 LED flash stands for <30%
- No LED light – fully discharged

Please note that the battery charger LCD Display changes from red to blue once the battery is fully charged. The display will show the amount of charge in the battery in percentage. There is also a USB connection should there be a need to charge a mobile phone for example.

Once the battery is fully charged and disconnected from the charger it will remain on. If you do not plan to use it immediately, please remember to switch it off by pressing the piezo switch on the top of the battery.

To comply with IATA transport regulations, the 24 Ah battery is shipped with an initial low charge. Please plug the battery into the supplied charger and leave to fully charge. Once charging the screen on the battery charger will turn from red to blue. Please note the initial charge may take upwards of 10 hours or more.

Approximate operating time after a full charge : ca 2-3 hours

Please note that the operating time of the heated equipment can vary depending on different climatic conditions.

### Technical Parameters

- Capacity: 24Ah
- Operating Voltage: 11.1V
- Cells Type: Li-Ion
- Height: 270mm
- Diameter: 74mm
- E/O Cord Length: 60cm
- Housing Material: Poliacetal / POM / Delrin®
- Charging Time: 14h
- Weight: 1.8Kg

## HOW TO PUT THE THERMAL SUIT ON YOUR MANIKIN



### STEP 1

Everything you will need to prepare your manikin for thermal imaging training comes neatly packaged in a compact bag.

Bag Contains:

- Thermal Imaging Suit and Hood
- Battery
- Overalls
- Battery Charger
- Blanking piece to protect the battery connecting wire when not in use.



### STEP 2

To dress the manikin, we recommend positioning it on a table or bed to raise it off the floor and save lots of bending.

Please remove your current overalls from your manikin, but leave the Wellington boots clipped on.

The suit has sufficient stretch to allow a manikin to be dressed easily.

It has a stirrup which goes under the heel of the Wellington boots and a split up the back of the leg to make it easier to dress the manikin. The split is secured with strong Velcro.



### STEP 3

Inside the suit are various lead connectors which are colour coded for ease of use.

The connectors are situated at points across the manikin - there are two in total with coloured coded markers.

One connects the battery to the suit wiring and the lead passes out of the suit via a grommet on the waist, where it can be plugged into the battery. The painted blue dot matches up with the blue led of the battery charging lead.

The other connects the suit wiring to the hood and is located near to the neck. Please push any extra length of wire back into the suit once the connectors are plugged together.

The thermal suit will retain heat for longer if left connected to the battery. However, if you do not wish to have the battery attached to the manikin and want to pre-heat the suit instead simply push the connector to the battery back into the grommet in the suit.





## STEP 4

Dress the manikin in the overalls provided. This is VERY important and provides added protection to the suit, as well as helping to disperse the heat for more lifelike thermal imagery.

## HOW TO USE YOUR THERMAL IMAGING SUIT

There are two methods of using the suit.

- 1) You can pre-heat the suit. After approx 20 minutes the suit should be warm enough to use during training. Disconnect the battery and make sure all the cables are safely stored inside the suit. A 20 minute charge should give approximately 30 minutes training time.
- 2) You can keep the battery connected in the storage pouch on the overalls. If you need to keep the heat signature for longer periods of time (such as during SAR or USAR), keep the product connected to the battery. A full battery should provide thermal imagery for 2-3 hours dependent on ambient temperatures and camera type.

In both cases the wires in the suit will warm up to in excess of 30 degrees, with the head reflecting a greater heat of around 40 degrees. The suit should be warm all over.

## IMPORTANT ADVICE & INFORMATION

It is your responsibility to complete a full risk assessment for the exercise your team are performing. An essential part of the risk assessment should include the requirement for regular visual checks for damage both at the start and end of training. It is imperative that you place the overalls provided over the top of the suit. Not only does it help to disperse the heat over the whole body of the manikin but it helps to prevent damage to the thermal suit.

Please note the suit can be washed in a washing machine. We recommend that it be put into a net bag to protect the cables.

Please note that if transporting the battery with the suit, we recommend the battery be discharged to  $\leq 30\%$  of the rated charge to comply with IATA transport regulations

**\*\*IMPORTANT\*\*** - the Thermal Imaging Suit and Hood has been designed for use on Ruth Lee adult manikins only (up to 90kg). It MUST NOT be worn by a live person.

Ruth Lee Ltd will not accept any responsibility for damage or injury as a result of using this product.

This product uses a Lithium Ion battery. Please refer to the instructions on the sleeve of the battery. We advise that you always handle the battery with care and that you complete your own risk assessment for safe handling, transportation, use and storage of the battery.

Never connect the suit directly to the charger - only to the battery.

SPEAK TO THE EXPERTS:

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