



**SEAWARD**

GMC-INSTRUMENTS GROUP

## **What is the calibration procedure for the Covidien Force Triad™ using the Rigel Uni-Therm?**

The Uni-Therm can perform the Power Calibration and External Sensor calibration. For other calibration requirements: such as the Utility Calibration, refer to the Covidien Service Manual. For a step-by-step video guide on Force Triad preventative maintenance using the Uni-Therm please visit: [https://www.youtube.com/watch?v=IOW9\\_vD8o24&t=3037s](https://www.youtube.com/watch?v=IOW9_vD8o24&t=3037s)

Equipment required:

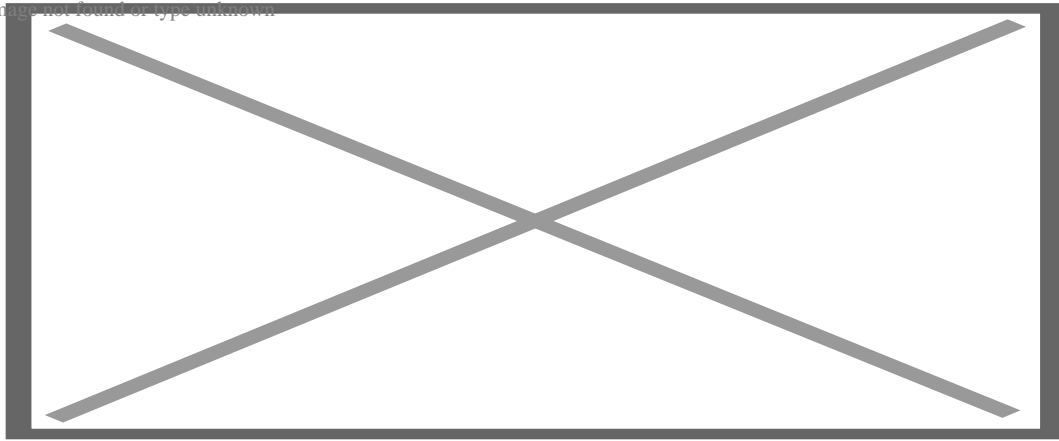
- Force Triad TM
- Uni-Therm
- Associated cables

Power Calibration

RF Leakage Calibration:

Note: The Covidien training manual provides the following pictorial.

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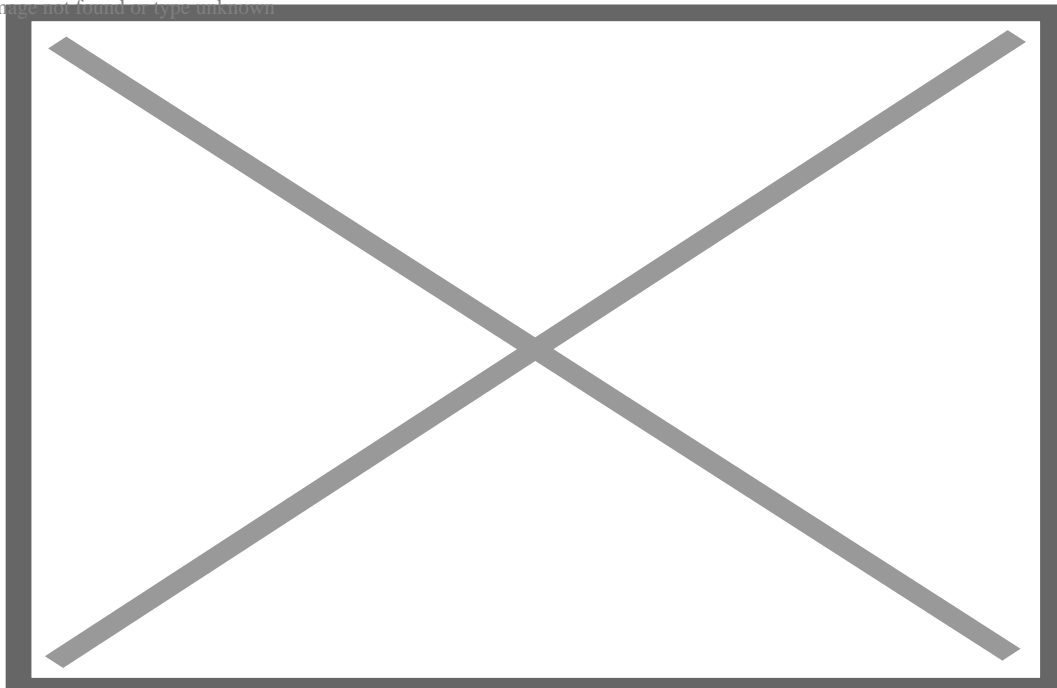
Note: For utilizing the Uni-Therm, connect the patient return of the generator to the left white jack on the side of the Uni-Therm. Connect the right side white jack to the rear ground lug of the generator.

- 1) On the Main menu of the Uni-Therm select Power Test and then External Load and then zero (0) ohms.
- 2) Set test time to 255 seconds, with 5 seconds on, 5 seconds off.
- 3) Start the test on the Uni-Therm, monitor the current reading on the Uni-Therm's display, and follow the directions provided on the Triad's display. If needed, re-start the Uni-Therm test to finish the adjustment.

#### Voltage Calibration

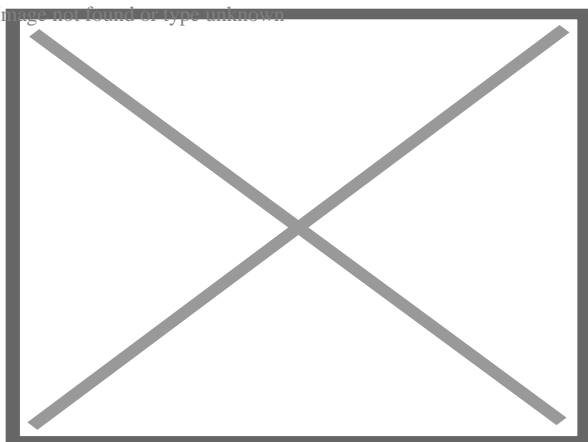
Note: The Covidien training manual provides the following pictorial.

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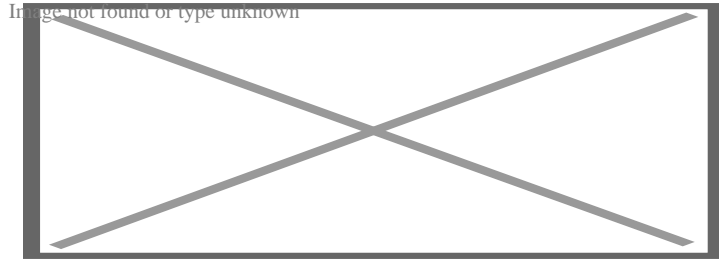
- 1) Set the Uni-Therm to Power Test and then Continuous
- 2) Set the test time to 255 seconds, with 5 seconds on and 5 seconds off.

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- 3) Connect the left jack of monopolar output to the red jack on the side of the Uni-Therm.
- 4) Use a link to connect the black jack to the white jack.
- 5) The REM cable (without male clear pin) connects to the right side white jack and back to the patient return input on the generator. (Set up is identical to a monopolar power test.)
- 6) Follow the instructions on the Triad's screen while monitoring current on

the Uni-Therm's display.



### Current Calibration

Note: The Covidien training manual provides the following pictorial.

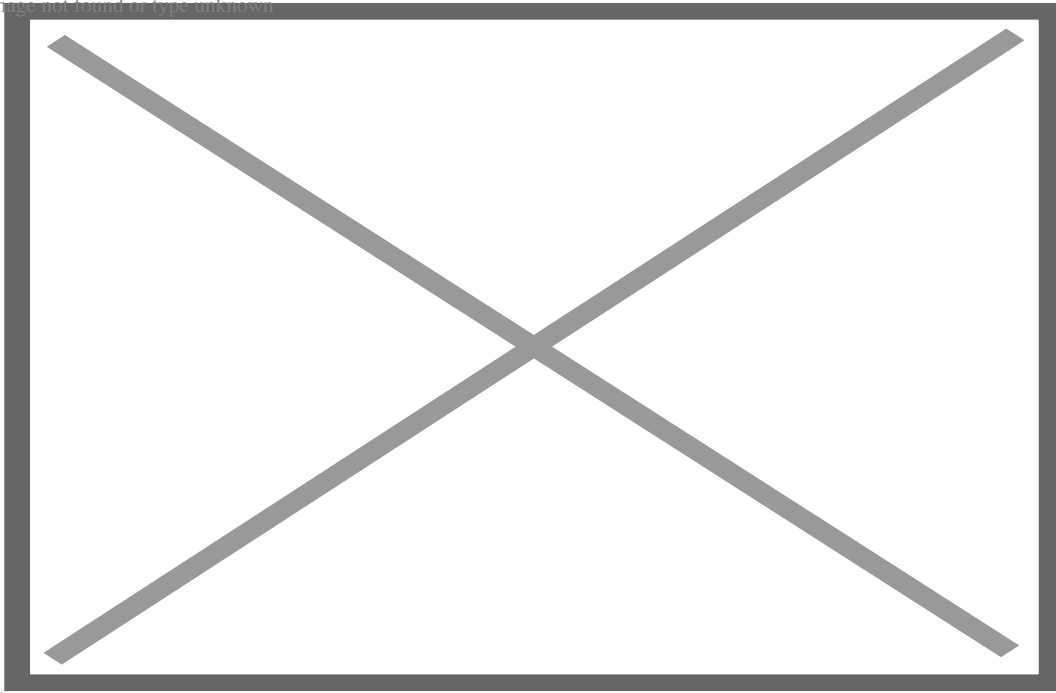
- 1) Select Power Test on the Uni-Therm
- 2) Select External Load and set resistance value to zero (0) ohms.
- 3) Connect left jack of bipolar output to the left white jack on the Uni-Therm.
- 4) Connect the right white jack to the right jack of the bipolar output. (Be sure the banana jack cables fit into the Ligasure outputs.)
- 5) Set test time to 255 seconds, with 5 seconds on, 5 seconds off.
- 6) Follow the instructions provided on the Triad's display while monitoring the current shown on the Uni-Therm's display.

### External Sensor Calibration

REM Calibration:

Note: The Covidien training manual provides the following pictorial.

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Note: Rather than the need for an external decade box, the Uni-Therm's REM load provides the variable resistance needed.

4) Connect the patient return input of the generator to the REM output of the Uni-Therm.

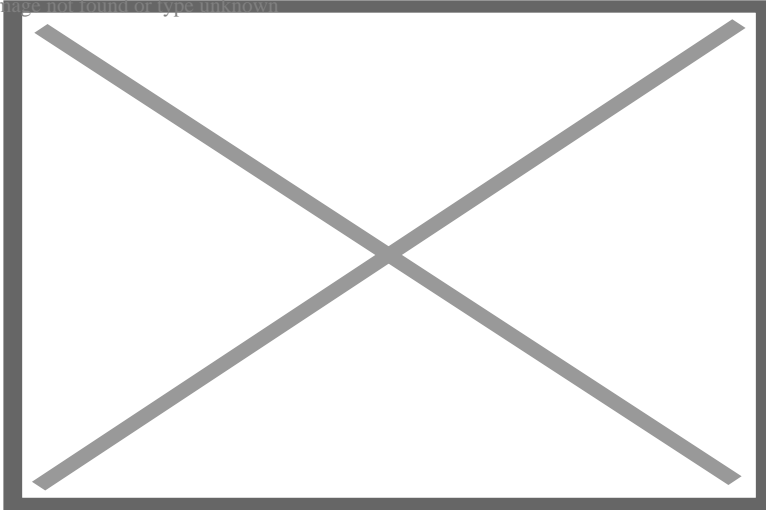
5) Select REM and select manual up and follow the instructions displayed on the Force Triad.

#### Auto Bipolar Calibration

Note: Possible with Uni-Therm serial numbers with xxF xxxx or higher. Contact your Rigel Medical, Seaward Group office for upgrade information. Otherwise, follow instructions calling for an external resistance decade box.

Note: The Covidien training manual provides the following pictorial.

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Note: Rather than the need for an external decade box, the Uni-Therm's REM load provides the variable resistance needed.

- 1) Set the Uni-Therm for a Power Test.
- 2) Rather than conducting a power test, connect the generator's Bipolar output to the top red and bottom black jacks on the side of the Uni-Therm.

Note: This allows the power load resistor bank to mimic the decade box.

- 3) For zero ohms, connect a shorting jumper across the variable resistor.
- 4) Follow the instructions as provided on the generator's operating screen.

If you require more help, please contact us at <https://www.seaward.com/us/enquire/>.