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## Director's Message



Many who live in cold climates are in the habit of allowing their automobile to warm up before driving. For accurate temperature measurement, one should allow sufficient time for a radiometer to equalize with ambient temperature.

When performing non-contact temperature measurements, many thermographers correct for error sources due to emissivity, reflectivity, and transmissivity. An error source that is often ignored is the temperature of the radiometer itself. Depending upon design, radiometer operating temperature can significantly affect measurement accuracy.

Radiometers are calibrated under controlled laboratory conditions at stable ambient temperatures. To help ensure measurement accuracy, quality radiometers are constructed with internal temperature sensors. These sensors allow the radiometer's firmware to correct for operation over a range of ambient temperatures.

When performing non-contact temperature measurements, radiometers should always be allowed to stabilize with ambient air temperature prior to use. Additionally, one should ensure that the radiometer's lens is clean and free of condensation.

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## IR/INFO 2017 A Huge Success

Infraspection Institute's annual IR/INFO conference was recently held in Orlando, FL. IR/INFO 2017 marks the 28th anniversary for the advanced training conference, technical symposium, and technology expo.



## Upcoming Courses

### [Level I Certified Infrared Thermographer®](#)

- Feb 13 - 17 West Windsor
- Mar 6 - 10 Melbourne
- Mar 27 - 31 Monterrey
- Mar 30 - 31 Auckland\*
- Apr 24 - 28 West Windsor
- May 4 - 5 Brisbane\*
- May 18 - 19 Perth\*
- Jun 12 - 16 West Windsor
- Jun 21 - 22 Sydney\*
- Jun 26 - 30 Monterrey

### [Level II Certified Infrared Thermographer®](#)

- Mar 27 - 31 West Windsor
- May 1 - 5 Melbourne
- Jun 19 - 23 West Windsor

### [Level III Certified Infrared Thermographer®](#)

- Jun 26 - 28 West Windsor

\* Flexible Learning Course

[Full 2017 Schedule](#)

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## Upcoming

IR/INFO was attended by infrared thermographers, predictive maintenance technologists, and building inspection professionals from around the world who enjoyed four days of networking, learning, and fun in a relaxed and professional atmosphere.

We thank our exhibitors, our speakers, and all who attended and helped to make this year's conference one of our best ever.

[More Information](#)

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## Infraspection Introduces Master Thermographer™ Program



For over 30 years, thermographer credentials have been routinely referred to based upon an individual's level of certification. Until now, it has been customary to issue one of three certification levels (I, II, or III) to students who have completed formal training classes dedicated to the use and application of thermal imagers. Because this practice does not consider an

individual's experience, it is impossible to determine a thermographer's qualifications based solely upon such certification.

Responding to requests from thermographers and consumers alike, the Infraspection Institute Master Thermographer™ Program is a completely new approach to establishing thermographer qualifications. Unlike certifications that rely solely upon the completion of formal training classes, this program is based upon thermographer training, experience, and professional references.

Initial qualification is good for two years and must be renewed biannually. Participants in the program will enjoy several exclusive benefits including permission to use the Infraspection Institute Master Thermographer™ seal on their websites, business cards, and company literature and a free listing in the Master Thermographer directory.

[More Information](#)

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## IR Inspections of Lightning Arrestors

Lightning arrestors are a common feature in electrical distribution systems and are used to guard against voltage surges associated with lightning strikes on power or communications lines. Installed at strategic locations, lightning arrestors act as safety devices to provide a short circuit path that carries excess voltage to ground during a lightning strike.

Lightning arrestors are connected between a conductor and

## Conferences

Infraspection Institute invites you to see us at the following upcoming conferences. Be sure to stop by and say Hello!

### [Ultrasound World XIII](#)

May 9 - 12, 2017  
Clearwater, FL

### [UI Thermal Imaging Conference](#)

October 1 - 4, 2017  
San Antonio, TX

### [SMRP Conference](#)

October 16 - 19, 2017  
Kansas City, MO

### [IR/INFO Conference](#)

January 21 - 24, 2018  
New Orleans, LA

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## Links of Interest

[IRINFO.ORG](#)

[Maintenance & Reliability Topics](#)

[NACBI](#)

[CITA.ORG](#)

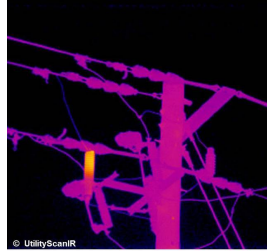
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ground. In order to prevent a ground fault, lightning arrestors are engineered so that normal line voltage will not pass through the arrestor under normal conditions. While some lightning arrestors employ a simple spark gap, others consist of porcelain tubes that are filled with semi-conductive discs made of silicon carbide or zinc oxide. During a lightning strike, the resistance of the spark gap or oxide plates is overcome and excess energy flows to ground.

If a lightning strike is sufficiently strong, lightning arrestors may be permanently damaged and begin to conduct electricity to ground full time. When this happens, the body of damaged arrestors will heat up allowing them to be detected with a thermal imager. The thermogram at right shows a typical defective lightning arrestor.



Properly functioning lightning arrestors should be uniform in temperature and close to ambient air temperature if they have not undergone recent solar loading. Individual arrestors should not have any pronounced hot spots across them. Working early in the morning, on cloudy days, or at night will help to eliminate solar loading which can hide defective arrestors. When performing your inspection, don't forget to check grounding connections for hot spots as well.

### [More Information](#)



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