

Introduction to Infrared Scanning

Purpose:

The purpose of this course is to teach industrial electrical crafts to use their plants infrared scanner to inspect the plant electrical installation.

Objectives:

At the completion of this course you will:

1. **Be able to describe the sources of infrared radiation**
2. **Explain the effect of absorption**
3. **Explain the effect of reflection on the image seen**
4. **Demonstrate ways to avoid problems with reflection**
5. **Explain the effect of emissivity on the image seen**
6. **Explain the effect of scanning in sunlight**
7. **Explain the safety precautions required while scanning**
8. **Be able to interpret images of electrical equipment**
9. **Be able to interpret images of mechanical equipment**
10. **Communicating results**
11. **Have used your plants infrared scanner to inspect plant electrical equipment**

Description:

This course is designed to teach industrial electricians and maintenance technicians to use an infrared scanner to inspect electrical installations for loose and corroded connections, overheating contactors and breakers, and other problems. The students will actually use their plants infrared scanner to inspect their electrical installation. The class size is limited to give each participant the opportunity to actually work with the equipment.

Content:

- **Basic infrared theory**
- **Sources of absorption, reflection**
- **Emissivity**
- **Basic scanner operating principals**
- **Scanner operation**
- **Practical scanning techniques**
- **Typical electrical problems**
- **Use of Scanner in the plant**