

HOW TO: Do Infrared Scans (IR)

Table of Contents:

1. Required Equipment.....	1
2. Safety Requirements.....	2
3. Procedure.....	3-4
4. Report.....	4

1. Required Equipment:

A. Infrared Camera



https://www.grainger.com/product/FLIR-Infrared-Camera-4-to-482-22UL83?gucid=N%3AN%3APS%3APaid%3AGGL%3ACSM-2295%3A4P7A1P%3A20501231&gclid=EAlaIqObChMlrI3J5Zbl_gIVsS6zAB3mUg9oEAYYCSABEgLv

B. Site Plan

2. Safety Requirements for testing:

A. Before beginning testing, review the following items:

1. Become familiar with area to be tested. Review rows, panel configuration and stings feeding into CBX. At this point, inverters are “hot” and site is producing.
2. Job Hazard Analysis (J.H.A.)
 - a. Ensure voltage and current exposures are listed on JHA.
 - b. Have all required PPE.
 - c. Get JHA reviewed by E Light’s Director of Safety and Loss Prevention.
 - d. Create a step-by-step site-specific procedure on how task will be accomplished.
 1. This document is not site-specific and is only a general procedure on how to perform I. R. scanning.
 2. Get procedure reviewed by E Light’s Director of Safety and Loss Prevention.

NOTE:

I.R. scans should be performed with irradiance of 400 watts or better.

COMBINER BOX ACCESS IS REQUIRED to access electrical terminations.

Wear appropriate PPE for ARC FLASH rating of CBX.

DO NOT allow contact between adjacent bus bars.

3. Procedure:

Note: Trackers must be fully operational, all strings terminated and landed.
Equipment must be operating under at least 50% of designed load.

A. Check that the infrared camera is operable with fully charged batteries.

B. This process requires a minimum of 2 team members.

1. An external scan of the 1st box will be taken with obvious markings of box block and number.

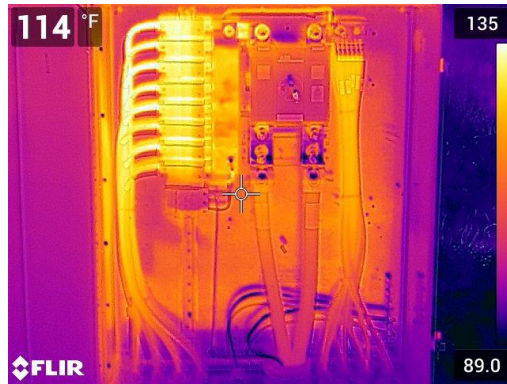


2. Team member 2 will open each CBX / DSC device individually, **without opening circuit**, staying **behind** the door and clear of the limited approach boundary.



3. Wearing appropriate PPE, team member 1 shall remove any shielding that may cause inaccurate readings, If possible, maintaining clearances from restricted approach boundaries.

4. Standing outside of the limited approach boundary, scan the inside of device. Ensure all terminations for each string and positive and negative DC feeders are included in scan.



4. Replace any shielding that may have been removed. Close the device and verify switch is in closed position (unit on) and proceed IN ORDER to next box.

5. Continue until entire block is complete.

4. Report

A. Each block of site will have 2 scans of each Combiner Box/Disconnect Switch

1. Box 1 should have an obvious note showing Block and Box #.

2. All proceeding boxes will be in order with 2 scans each.

Submit scans of the entire block to E Light's Commissioning Manager.

Edit to conform to site specific requirements.