

## SCCAL-IR1 INFRARED COMPARATOR INSTRUCTIONS

1. The Scigiene SCCAL-IR1 Infrared Comparator consists of a sealed chamber into which a precision reference plate has been built and is suspended to allow for extremely high repeatability between the reference probe and I.R. reference plate at 0.97 emissivity. The sealed thermal barrier chamber keeps the reference plate at a constant temperature.
2. This provides Infrared thermometer users a fast, accurate and repeatable way to check infrared thermometers daily to ensure they are reading accurately.
3. The SCCAL-IR1 is designed to be used with any Scigiene NIST Traceable Reference Probe Thermometer with a 3.5mm probe to be inserted into the comparator to measure the temperature of the test plate.
4. The Scigiene Comparator Cup is best used at ambient temperature for the comparison of infra-red thermometers to reduce the possibility of a difference in temperature between the comparator and outside air. The SCCAL-IR1 utilizes a precision thermometer that displays the temperature and thus allows you to determine if outside temperature changes are affecting the stability of the Scigiene comparator
5. Once the temperature of the test plate has been shown to be stable, then an infra-red thermometer may place on top using the marked outline depending on the IR model. The lever is then pulled out and the IR thermometer trigger is pressed to take an IR reading and the temperature is recorded as is the reference thermometer temperature at the same time. Slide the lever closed before removing the IR thermometer.
6. When using the SCCAL-IR1 the probes should be inserted 2cm into the comparator and the instrument(s) reading(s) allowed to stabilize for at least 1 minute.
7. If you are comparing a Scigiene high accuracy infra-red thermometer against a reference penetration probe, the readings should be within 0.5C of each other. If using other makes of I.R. thermometer you can likely expect variances of +/-2.0C or more due to the lower accuracy of these units.
8. It is still Scigiene's recommendation that any reference thermometer be returned to us yearly for recertification against National Standards on an annual basis; or at any time that you suspect problems with your instruments to Scigiene Corporation.
9. If you have any doubts as to the validity of your measurements, please contact us at Scigiene.



Depending on the device, we may be able to perform basic repairs and recalibration. Contact us at 416-261-4865 for more details.



1295 Morningside Avenue, Unit 16-18  
Scarborough, ON M1B 4Z4 Canada  
Phone: 416-261-4865 Fax: 416-261-7879  
[www.scigiene.com](http://www.scigiene.com)

