FAQS

WHAT IS THE DISTANCE TO SPOT (D:S) RATIO?
The distance to spot (D:S) ratio is the ratio of the size of the area where the temperature is being measured in relation to the distance from the target. For instance, if the IRT has an 8:1 distance-spot (D:S) ratio, that means that at 8ft away from the target, the target area is a circle with a 1ft diameter with the laser pointer as the center. The lower the D:S ratio, the closer you have to get to target to make an accurate reading. The minimum distance can become a safety issue when measuring very hot (or cold) surfaces and objects.

WHICH IRT HAS THE HIGHEST TEMPERATURE DETECTION RANGE?
The IRT5000 has the highest temperature detection range. [392° to 4352°F (200° to 2400°C)]

WHICH IRT HAS THE GREATEST LOW TEMPERATURE DETECTION RANGE?
The IRT850K can detect temperatures as low as -76°F (-60°C).

WHICH IRT HAS THE GREATEST DISTANCE-SPOT (D:S) RATIO? WHICH HAS THE SMALLEST?
The IRT5000 has a distance-spot (D:S) ratio of 100:1. Conversely, the IRT built into the HT50 has a D:S ratio of 2:1.

WHAT IS EMISSIVITY?
The emissivity of the surface of a material is its effectiveness in emitting energy as thermal radiation. Knowing the emissivity of a material can help increase the accuracy of the IRT's reading. Generally, the more reflective the surface, the lower the emissivity.

IS IT BETTER TO HAVE AN IRT WITH A FIXED OR ADJUSTABLE EMISSIVITY?
The default emissivity setting for all the IRT's is 0.95. This setting will produce fairly accurate readings for the majority of items you will typically measure. Being able to set the emissivity of the IRT is useful when measuring a wide variety of materials (especially uncommon materials), or when a job requires optimal accuracy. Of course, you will need to know the emissivity of the material in order to set the IRT. A list of the emissivity of common materials is supplied for those units with the capability, but you may have to research the emissivity for uncommon materials.

WHICH IRT'S HAVE ADJUSTABLE EMISSIVITY?
The following models have adjustable emissivity: IRT8, IRT105, IRT659K, IRT730K, IRT850K.

IF MY IRT HAS A FIXED EMISSIVITY, HOW CAN I TAKE MEASUREMENTS ON MATERIALS THAT DON'T HAVE 0.95 EMISSIVITY?
If you are able, cover the area you intend to measure with black electrical tape. Wait a minute and then scan that area. The emissivity of the tape is 0.95.

CAN AN IRT BE USED TO MEASURE BODY TEMPERATURE?
We do not carry an IRT which can be used for body temperature. You would need an IRT designed with medical applications in mind.

CAN YOU TAKE THE TEMPERATURE OF AN ITEM THROUGH A TRANSPARENT MATERIAL? EXAMPLE: TAKING THE TEMPERATURE OF AN ITEM ON THE OTHER SIDE OF A WINDOW.

The IRT cannot take the temperature of one item through another material. If you aim the IRT at a window, it will give you the temperature of the window and not items on the other side of the window.

CAN AN IRT GIVE AIR TEMPERATURE READINGS?

IRT's only give temperature readings of solid materials. You can scan an item to get an approximation of the room temperature, but the IRT will not give an actual ambient temperature reading.