AMPROBE®

IRC-120
Thermal Camera

Point-and-shoot thermal imaging technology for the professional

The Amprobe IRC-120 thermal camera, designed for the professional, is rugged with point-and-shoot functionality to give you a visual heat map image for quick and accurate identification of temperature related issues. Perform preventative maintenance and troubleshoot issues in electrical connections, HVAC, mechanical and automotive applications. Save and download photos with the included SD card.

IRC-120
Thermal Camera

Features

- **Infrared heat map image blending** at 0%, 25%, 50%, 75%, and 100%
- **Capture and download** thermal images with SD card
- **Laser sighting** helps pinpoints spot of temperature measurement
- **Built-in flashlight** illuminates dark areas
- **UV light** identifies leaks
- **Three selectable color palettes** (grey scale, hot iron and rainbow)
- **Center-point temperature measurement** and focus free
- **IR measurement** 20:1 Distance to Spot ratio
- **Adjustable emissivity** from 0.10 to 1.00
- **Auto off function**
- **Selectable °F and °C**
- **Intuitive joystick navigation** to on-screen menu and settings
- **Hot and cold markers** instantly identifies hottest and coldest spots

Safety Certification

All Amprobe tools, including the Amprobe IRC-120, are rigorously tested for safety, accuracy, reliability, and ruggedness in our state-of-the-art test lab. In addition, Amprobe products that measure electricity are listed by a 3rd party safety lab, either UL or CSA. This system assures that Amprobe products meet or exceed safety regulations and will perform in a tough, professional environment for many years to come.

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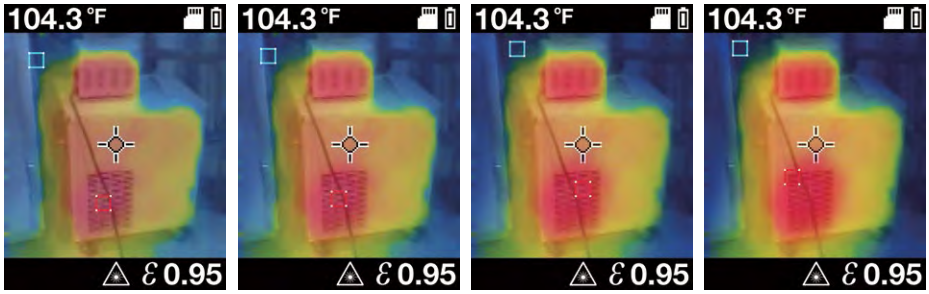
Applications

- **Perform preventive maintenance** of electrical, HVAC, mechanical and automotive systems
- **Identify temperature related issues** for electrical connections and motors
- **Quickly verify** HVAC functionality and performance
- **Locate heat loss spots** on the insulation around buildings to save energy costs

Industries

- **Commercial Facility Maintenance**
- **Building Diagnostics**
- **Electrical, Water & Gas Utilities**
- **Automobile Maintenance**

Infrared heat map image blending



Blending Mode 25% **Blending Mode** 50% **Blending Mode** 75% **Blending Mode** 100%

Comparison Chart

Features	IRC-110	IRC-120
Built-in digital camera	•	•
Infrared heat map blending	•	•
Hot and cold markers	•	•
Center point marker	•	•
Auto power off	•	•
Focus free	•	•
Selectable color palettes	•	•
Selectable temperature units	•	•
20:1 distance to spot	•	•
Adjustable emissivity	•	•
Memory storage		•
Laser sighting		•
Flashlight		•
UV light		•

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Specifications

Features	IRC-110	IRC-120
Built-in digital camera	•	•
Infrared heat map overlay	Five blending modes: 0%, 25%, 50%, 75%, 100%	Five blending modes: 0%, 25%, 50%, 75%, 100%
Color palettes	Grey Scale, Hot Iron, Rainbow	Grey Scale, Hot Iron, Rainbow
Field of view	33 ° x 33 °	33 ° x 33 °
Focus system	Focus free	Focus free
IR temperature range	14 °F to 932 °F (-10 °C to 500 °C)	14 °F to 932 °F (-10 °C to 500 °C)
Distance to Spot ratio (D:S)	20:1	20:1
Emissivity	0.10 to 1.00	0.10 to 1.00
Display resolution	0.2 °F/0.1 °C	0.2 °F/0.1 °C
Hot and cold markers	•	•
Center point marker	•	•
Temperature units	Selectable °F/°C	Selectable °F/°C
Memory storage	–	•
Laser sighting	–	•
Flashlight	–	•
UV light	–	•
Auto power off	•	•

Detailed Specifications	
UV light	5 blue LEDs
Flash light	4 LEDs
Laser sighting	Circle/dot/center point laser, Output < 1 mW, wavelength 650 nm
Temperature measurement	Yes, center point
Temperature range	14 °F to 932 °F (-10 °C to 500 °C)
IR accuracy (calibration geometry with ambient temperature 23°C ± 2°C)	≥ 32 °F (≥ 0 °C): ± 4 °F (± 2 °C) or ± 2 % of the reading, whichever is greater
Display resolution	0.2 °F / 0.1 °C
IR Repeatability	± 0.8 % of the reading or ± 2 °F (± 1 °C), whichever is greater
Temperature Coefficient	0.1 °C/°C or ± 0.1 %/°C of the reading, whichever is greater
Distance to spot	20:1
Minimum spot size	0.32 in (8 mm)
Response time (95 %)	< 125 ms
Spectral response	8 µm to 14 µm
Emissivity	Digitally adjustable from 0.10 to 1.00 by 0.01
Visual image with infrared heat map overlay	Five blending modes (0%, 25%, 50%, 75% and 100%)
Visual image resolution	16,384 pixels (128 x 128 pixels) (Interpolation pixels)
IR detector resolution	32 x 32 pixels
Field of view	33 ° x 33 °
Thermal sensitivity	150 mK
Focus system	Focus free
Image palettes	Grey Scale (white hot), Hot Iron and Rainbow
Hot and cold marker	Yes
Center point marker	Yes
Display	1.77 in color TFT with 128 x 160 pixels
Data storage	Stored image size: 124 x 160 pixels, Image file size: typical 40 KB, Estimated stored images on a 2 G SD card: approx. 50,000
Operating temperature and humidity	32 °F to 122 °F (0 °C to 50 °C), 10 % to 90 % RH non-condensing at 86 °F (30 °C)
Storage temperature	-4 °F to 140 °F (-20 °C to 60 °C) without batteries
Visual to IR effective image alignment	≥ 10 in (25.4 cm), Optimal for 1 m
Laser sighting to center of visual image	≥ 18 in (45 cm) typical
Laser pointer to center of UV field	Approx. 18 in (45 cm) typical
Operating and storage altitude	< 6561 ft (< 2000 m)
Drop proof	4 ft (1.2 m)
Vibration and shock	IEC 60068-2-6, 2.5g, 10 to 200 Hz, IEC 60068-2-27, 50g 11ms
Power supply	Three (3) 1.5 V AA IEC LR6 alkaline batteries
Battery life	8 hours with display ON (Typical) Power consumption: 150 mA (Typical)
Auto power off	Selectable modes: OFF, 1 minute, 2 minutes, 5 minutes and 10 minutes
Agency approvals	CE KC
Laser safety compliance	IEC 60825-1, Class 2
Electromagnetic compatibility	EN 61326-1 Korea (KCC): Class A Equipment (Industrial Broadcasting & Communication Equipment) [1] [1] This product meets requirements for industrial (Class A) electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and is not to be used in homes.
Size (H x W x L)	Approx. 7.3 x 2.1 x 4.1 in (185 x 54 x 104 mm)
Weight	Approx. 0.64 lb (0.29 kg)

Included: 2 G micro SD card (installed), standard SD card adapter, 3 x 1.5 V AA batteries, wrist strap and user manual