

# Measuring Extreme Heat and Cold

**Non-Contact IR Thermometer** IR-121/ILV-121/ILV-151/ILV-301

**Thermal Camera** TG-301/TG-501

**Simple, Smart, Precise and Versatilities**



2015 TAITRONICS Technical Innovation Awards  
2014 TAITRONICS Technical Innovation Awards



## IR-121 Infrared Thermometer

### Main Features

- Distance/Spot Ratio 12:1 (calculated at 95% energy)
- Simply operated by one navigator and one trigger only
- Precise laser pointing indication of measured area
- Ergonomically designed pistol grips

### Additional Features:

- Large scale display with bright white LED backlit
- Display MAX, MIN, AVG or MAX-MIN Difference
- Hi and Lo alarms for measurements outside the limits
- Powered by 3 standard AA size batteries



## ILV-121/ILV-151/ILV-301 Infrared Thermometer with Leak Detector Flashlight

### Main Features

- Distance/Spot Ratio 12:1(ILV-121)/15:1(ILV-151)/30:1(ILV-301) (calculated at 95% energy)
- Simply operated by one navigator and one trigger only
- Precise laser pointing indication of measured area and the distance
- Compact UV refrigerant leak detector with 5 UV/Blue LEDs
- Bright flashlight with 5 White LEDs
- Ergonomically designed pistol grips

### Additional Features:

- Large scale display with bright white LED backlit
- Display MAX, MIN, AVG or MAX-MIN Difference
- Hi and Lo alarms for measurements outside the limits
- Powered by 3 standard AA size batteries
- Key chain with wrist strap for carrying convenience



## TG-301/TG-501 Thermal Camera

### Main Features

- One Navigator Key Operation
- 16,384 pixels (128 x 128 pixels) thermal image after interpolation
- True D/S 30:1 (TG-301) /D/S 50:1 (TG-501) with precise laser indication.
- Bright flashlight with 5 white LEDs
- Compact UV refrigerant leak detector with 5UV/Blue LEDs
- Ergonomically designed pistol grip housing with excellent industrial Design

### Additional Features:

- 160x128 pixel 1.77 inches TFT-LCD Display
- Alkaline AA size x 3 Batteries
- Key chain with wrist strap for carrying convenience



# Features



## DAY & NIGHT

Super bright flashlight and backlit with selectable Auto Power Off feature give you fulltime display visibility and increased battery life



## SMART NAVIGATOR OPERATION

Optimized function selection and feature operation with a finger of thumb.



## UV LEAK DETECTOR

UV flashlight uncovers refrigerant leaks instantly



## PREMIUM INDUSTRIAL DESIGN

Ergonomically designed slim shape with comfortable pistol grips and rotatable dust proof latch

## INNOVATIVE LASER INDICATION

Precise laser pointing indication of measured area size and the distance



## EASE OF BATTERIES REPLACEMENT

Unscrew only one screw to remove 3 AA size batteries, designed for user's convenience.



**IR-121/ILV-121/ILV-151/ILV-301/TG-301/TG-501**
**Infrared Thermometers and Thermal Camera with Leak Detector Flashlight**
**Specifications**

|                            | IR-121  | ILV-121   | ILV-151   | ILV-301   | TG-301  | TG-501  |
|----------------------------|---|---|---|---|---|---|
| IR Temperature Range       | -30 °C to 500 °C (-22 °F to 932 °F)   | -30 °C to 500 °C (-22 °F to 932 °F)   | -30 °C to 650 °C (-22 °F to 1202 °F)  | -30 °C to 800 °C (-22 °F to 1472 °F)  | -30 °C to 650 °C (-22 °F to 1202 °F)  | -30 °C to 800 °C (-22 °F to 1472 °F)  |
| Accuracy                   | ±1.5 °C or ±1.5% of reading<br>±2.0°C at -10 °C to 0 °C<br>±3.0°C at -30 °C to -10 °C | ±1.5 °C or ±1.5% of reading<br>±2.0°C at -10 °C to 0 °C<br>±3.0°C at -30 °C to -10 °C | ±1.5 °C or ±1.5% of reading<br>±2.0°C at -10 °C to 0 °C<br>±3.0°C at -30 °C to -10 °C | ±1.5 °C or ±1.5% of reading<br>±2.0°C at -10 °C to 0 °C<br>±3.0°C at -30 °C to -10 °C | ±1.5 °C or ±1.5% of reading<br>±2.0°C at -10 °C to 0 °C<br>±3.0°C at -30 °C to -10 °C | ±1.5 °C or ±1.5% of reading<br>±2.0°C at -10 °C to 0 °C<br>±3.0°C at -30 °C to -10 °C |
| Response Time(95%)         | <500 ms (95% of reading)  | <500 ms (95% of reading)  | <300 ms (95% of reading)  | <300 ms (95% of reading)  | <300 ms (95% of reading)  | <300 ms (95% of reading)  |
| Optical Resolution         | 12:1 (calculated at 90% energy)   | 12:1 (calculated at 95% energy)   | 15:1 (calculated at 95% energy)   | 30:1 (calculated at 95% energy)   | 30:1 (calculated at 95% energy)   | 50:1 (calculated at 95% energy)   |
| Display Resolution         | 0.1 °C (0.2 °F)   | 0.1 °C (0.2 °F)   | 0.1 °C (0.2 °F)   | 0.1 °C (0.2 °F)   | 0.1 °C (0.2 °F)   | 0.1 °C (0.2 °F)   |
| Repeatability of Readings  | ±0.8% of reading or <±1.0 °C (2 °F),<br>whichever is greater                          | ±0.8% of reading or <±1.0 °C (2 °F),<br>whichever is greater                          | ±0.5% of reading or <±0.5 °C (1 °F),<br>whichever is greater                          | ±0.5% of reading or <±0.5 °C (1 °F),<br>whichever is greater                          | ±0.5% of reading or <±0.5 °C (1 °F),<br>whichever is greater                          | ±0.5% of reading or <±0.5 °C (1 °F),<br>whichever is greater                          |
| Power                      | AA x 3 batteries  | AA x 3 batteries  | AA x 3 batteries  | AA x 3 batteries  | AA x 3 batteries  | AA x 3 batteries  |
| Thermal Imaging            |   |   |   |   |   |   |
|                            |   |   |   |   | TG-301  | TG-501  |
| Imaging Detector           | N/A   |   |   |   | IR Array  | IR Array  |
| Image Resolution           |   |   |   |   | 16,384 pixels<br>(128 x 128 pixels) *   | 16,384 pixels<br>(128 x 128 pixels) *   |
| Field of View (H X W)      |   |   |   |   | 30°   | 30°   |
| Upper Sense Range          |   |   |   |   | 650°C   | 800°C   |
| Thermo Imaging Sensitivity |   |   |   |   | 150mK   | 150mK   |
| Color Palettes             |   |   |   |   | 3(Grey Scale, Hot Iron, Rainbow )   | 3(Grey Scale, Hot Iron, Rainbow )   |
| Saved Image Format         |   |   |   |   | Bitmap(BMP) Image with Temperature<br>and Emissivity                                  | Bitmap(BMP) Image with Temperature<br>and Emissivity                                  |

**General Specifications**

|                             | IR-121   | ILV-121  | ILV-151 | ILV-301 | TG-301                               | TG-501 |
|-----------------------------|--|--|---------|---------|--------------------------------------|--------|
| Battery Life                | 25 hours with laser and backlight on                     | 20 hours with laser and backlight on               |         |         | 16 hours with laser and backlight on |        |
| Weight                      | 250 g  | 380 g  |         |         | 300 g                                |        |
| Size                        | (185 x 51 x 85) mm<br>(7.29 x 2.01 x 3.35) inches        | (185 x 51 x 100) mm<br>(7.29 x 2.01 x 3.94) inches |         |         |                                      |        |
| Operating Temp. & Humidity  | -10 °C to 50 °C (14 °F to 122 °F),10 % to 90 % RH        |  |         |         |                                      |        |
| Storage Temperature         | -20 °C to 60 °C (-4 °F to 140 °F)                        |  |         |         |                                      |        |
| Operating Altitude          | 2000 meters above mean sea level                         |  |         |         |                                      |        |
| Vibration and Shock         | IEC 68-2-6 2.5 g, 10 to 200 Hz, IEC 68-2-27, 50 g, 11 ms |  |         |         |                                      |        |
| EMC                         | EN 61326-1:2006, EN 61326-2:2006                         |  |         |         |                                      |        |
| Compliance and Laser Safety | EN/IEC 61010-1: 2001, EN 60825-1 Class II                |  |         |         |                                      |        |

Remark \* : Interpolation Pixels

Specifications subject to change without notice.

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