

# **Technical Data**

## **FLIR P640 45°**

#### Part number:

### 40402-3103

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#### **Customer support**

http://support.flir.com

#### Legal disclaimer

Specifications subject to change without further notice. Camera models and accessories subject to regional market considerations. License procedures may apply.

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#### General description

FLIR P640 is the highest-performing infrared inspection system available. With its state of the art technology, including 640 × 480 detector resolution and a unique ergonomic design, it is the natural choice for professional thermographers who want the most efficient instrument producing professional results. The camera is equipped with a 45° wide-angle lens.

#### Key features:

- Image resolution  $640 \times 480$ Sensitivity <30 mK
- Large high-resolution 5.6" flip-out LCD
- Tiltable high-resolution viewfinder High-performance lenses with USM technology
- 1-8 times continuous zoom with pan
- Rotatable handle for convenient operation
  Built-in 3.2 MP digital camera with target illuminator
- Standard temperature range -40°C to 500°C
- Real-time radiometric storage to built-in RAM Periodic storage
- Panorama
- Voice (via Bluetooth) and text annotation MeterLink connection
- Wireless communication (with USB adapter)
- MPEG-4 streaming to PC using USB or FireWire
- Programmable buttons
- User profiles

#### Imaging and optical data

Datastar tuna	Food Plane Arroy (FDA) uncoded microbalemeter
Detector data	
Digital image enhancement	Adaptive digital noise reduction
Panning	Panning on frozen image
Digital zoom	1–8× continuous
Focus	Automatic or manual (electric or on the lens)
Image frequency	30 Hz
F-number	1.1
Lens identification	Automatic
Spatial resolution (IFOV)	1.3 mrad
Focal length	19 mm (0.7 in.)
Minimum focus distance	0.2 m (0.7 ft.)
Field of view (FOV)	45° × 34°
Thermal sensitivity/NETD	<30 mK @ +30°C (+86°F)
IR resolution	640 × 480 pixels

Detector type	Focal Plane Array (FPA), uncooled microbolometer
Spectral range	7.5–13 μm

#### Image presentation

Display	Built-in widescreen, 5.6 in. LCD, 1024 × 600 pixels
Viewfinder	Built-in, tiltable LCD, $800 \times 600$ pixels
Automatic image adjustment	Continuous/manual; linear or histogram based
Automatic image adjustment, type	Standard or histogram based from image content
Manual image adjustment	Level/span/max/min

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Image presentation modes	
Infrared image	Full IR-image with selected color scale
Visual image	Full color visual image
Reference image	Shown together with live IR image
Measurement	
Object temperature range	-40°C to +120°C (-40°F to +248°F) 0°C to +500°C (+32°F to +932°F)
Accuracy	±2°C (±3.6°F) or ±2% of reading
Measurement analysis	
Spotmeter	10
Area	5 boxes or circles with max./min./average
Profile	1 live line (horizontal or vertical)
Automatic hot/cold detection	Max/Min temp. value and position shown within box, circle or on a line
sotherm	2 with above/below/interval
Difference temperature	Delta temperature between measurement functions or refe ence temperature
Reference temperature	Manually set or captured from any measurement function
Atmospheric transmission correction	Automatic, based on inputs for distance, atmospheric temperature and relative humidity
Optics transmission correction	Automatic, based on signals from internal sensors
Emissivity correction	Variable from 0.01 to 1.0 or selected from editable materials list
Emissivity table	Emissivity table of predefined and editable materials
Reflected apparent temperature correction	Automatic, based on input of reflected temperature
External optics/windows correction	Automatic, based on inputs of optics/window transmission and temperature
Alarm	
Measurement function alarm	Audible/visual alarms (above/below) on any selected measurement function
Humidity alarm	1 humidity alarm, including dew point alarm
nsulation alarm	1 insulation alarm
Set-up	
Set-up commands	Configurable measurment tools menu; configure informatio to be shown in image; 2 Programmable buttons; user profiles; local adaptation of units, language, date and time formats
Storage of images	
	Removable memory card Built-in RAM memory for burst recording
Storage media	
Storage media mage storage mode	Built-in RAM memory for burst recording  IR/visual images, simultaneous storage of IR and visual images.  Visual image is automatically associated with correspond-
Storage media Image storage mode Periodic image storage	Built-in RAM memory for burst recording  IR/visual images, simultaneous storage of IR and visual images.  Visual image is automatically associated with corresponding IR image.
Storage media  mage storage mode  Periodic image storage  Panorama	Built-in RAM memory for burst recording  IR/visual images, simultaneous storage of IR and visual images.  Visual image is automatically associated with corresponding IR image.  Every 10 seconds up to 24 hours  For creating panorama images in FLIR Reporter Profes-
Storage media Image storage mode Periodic image storage Panorama File formats	Built-in RAM memory for burst recording  IR/visual images, simultaneous storage of IR and visual images.  Visual image is automatically associated with corresponding IR image.  Every 10 seconds up to 24 hours  For creating panorama images in FLIR Reporter Professional software  Standard JPEG, 14 bit measurement data included
Storage media Image storage mode Periodic image storage Panorama File formats File formats, visual	Built-in RAM memory for burst recording  IR/visual images, simultaneous storage of IR and visual images.  Visual image is automatically associated with corresponding IR image.  Every 10 seconds up to 24 hours  For creating panorama images in FLIR Reporter Professional software  Standard JPEG, 14 bit measurement data included  Standard JPEG, automatically associated with correspond-
Storage media Image storage mode Periodic image storage Panorama File formats File formats, visual Image annotations	Built-in RAM memory for burst recording  IR/visual images, simultaneous storage of IR and visual images.  Visual image is automatically associated with corresponding IR image.  Every 10 seconds up to 24 hours  For creating panorama images in FLIR Reporter Professional software  Standard JPEG, 14 bit measurement data included  Standard JPEG, automatically associated with correspond-
Storage of images Storage media Image storage mode Periodic image storage Panorama File formats File formats, visual Image annotations Voice Text	Built-in RAM memory for burst recording  IR/visual images, simultaneous storage of IR and visual images.  Visual image is automatically associated with corresponding IR image.  Every 10 seconds up to 24 hours  For creating panorama images in FLIR Reporter Professional software  Standard JPEG, 14 bit measurement data included  Standard JPEG, automatically associated with corresponding thermal image



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Image annotations	
Image marker	4 on IR or visual image
External sensors	Possible to connect (Bluetooth®): Extech Moisture Meter MO297 Extech Clamp Meter EX845
Video recording in camera	
Radiometric IR-video recording	Real-time to built-in RAM, transferable to memory card.
Non-radiometric IR-video recording	MPEG-4 to memory card
Video streaming	
Non-radiometric IR-video streaming	MPEG-4 to PC using USB and FireWire
Digital camera	
Built-in digital camera	3.2 Mpixel, auto focus, and video lamp
Video lamp	Built-in video lamp
Laser pointer	
Laser	Activated by dedicated button
Laser classification	Class 2
Laser type	Semiconductor AlGaInP diode laser, 1 mW, 635 nm (red)
Data communication interfaces	
Bluetooth	Communication with headset and external sensors (option- al), using Bluetooth USB micro adapter
FireWire	Non radiometric IR video streaming output File transfer to and from PC
FireWire, standard	IEEE 1394, 100/200/400 Mbps
FireWire, connector type	6/6 IEEE 1394 connector
IrDA	Infrared communications for text comments from PDA
WLAN	Peer to peer (adhoc) or infrastructure (network), using Wi-F USB micro adapter
SD Card	Two card slots
Audio	Headset connection for voice annotation of images
Audio, connector type	4-pole 3.5 mm jack
USB	<ul> <li>USB-A: Connect external USB device</li> <li>USB Mini-B: Data transfer to and from PC / streaming MPEG-4</li> </ul>
USB, standard	USB 1.1 Full speed (12 Mbps)
USB, connector type	USB-A connector USB Mini-B connector
Composite video	
Video out	Composite video output
Video out	CVBS (ITU-R-BT.470 PAL/SMPTE 170M NTSC)
Video, connector type	Standard RCA connector
Power system	
Battery type	Rechargeable Li Ion battery
Battery voltage	7.2 V
Battery capacity	4.4 Ah
Battery operating time	> 3 hours at 25°C (+68°F) and typical use
Charging system	In camera (AC adapter or 12 V from a vehicle) or 2-bay charger
Charging time	2.5 h to 95% capacity, charging status indicated by LED's
External power operation	AC adapter 90–260 VAC, 50/60 Hz or 12 V from a vehicle (cable with standard plug, optional)
Power management	Automatic shutdown and sleep mode (user selectable)

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°F)
8°F)
humidity +25°C to +40°C
unity) sion) s B (Emission)
5.7 × 5.8 in.)
5.7 × 5.8 in.)
< 1.1 in.)
× 1.0 in.)
Plastics

#### **Shipping information**

- Hard transport case
- Infrared camera with lens
- Battery (2 ea.)
- Battery charger Bluetooth headset
- Bluetooth USB micro adapter FireWire cable, 4/6 FireWire cable, 6/6

- FLIR Tools download card Lens cap (mounted on lens) Lens cap (2 ea.)
- Memory card SD
- Power supply, incl. multi-plugs Printed documentation
- Shoulder strap
- USB cable
- User documentation CD-ROM
- Video cable
- Wi-Fi USB micro adapter (depending on CE and FCC regulations regarding wireless equipment for your country)

#### **Optional Accessories**

- T197188 IR lens, f = 76 mm, 12°, incl. case for FLIR 600 series T197190 IR lens, f = 131 mm, 7°, incl. case for FLIR 600 series T197189 IR lens, f = 19 mm, 45°, incl. case for FLIR 600 series T197187 IR lens, f = 38 mm, 24°, incl. case for FLIR 600 series T197341 Macro lens, 1x (25 um) with case 1196745 High temperature option +2000°C/+2732°F 1196744 High temperature option +1500°C/+2732°F

- 1196744 High temperature option +1500°C/+2732°F T197692 Battery charger, incl. power supply with multi plugs T910814 Power supply, incl. multi plugs T198511 Li-lon Battery pack 7.4V 33Wh T911230ACC Memory card SDHC 4 GB 1910423 USB cable Std A <-> Mini-B T198509 Cigarette lighter adapter kit, 12 VDC, 1.2 m/3.9 ft. 1910484ACC Video cable, RCA <-> RCA, 2.0 m/6.6 ft. 1910482ACC FireWire cable 6/6, 2.0 m/6.6 ft. 1910482ACC FireWire cable 6/6, 2.0 m/6.6 ft. 1910482ACC FireWire cable 6/6, 2.0 m/6.6 ft.

- T197262 Hard transport case for FLIR B/P/SC6xx T197921 Option for P/B6xx: Radiometric IR-video streaming using FireWire T198508 Headset, 3.5 mm plug
- T951387 Wi-Fi USB micro adapter
- T197771ACC Bluetooth Headset
  T951235ACC Bluetooth® USB micro adapter T910972 EX845: Clamp meter + IR therm TRMS 1000A AC/DC
- T910973 MO297: Moisture meter, pinless with memory



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### Optional Software

- T198586 FLIR Reporter Professional (license only)
  T198584 FLIR Tools
  T198583 FLIR Tools+ (license only)
  DSW-10000 FLIR IR Camera Player
  APP-10002 FLIR Tools Mobile (Android Application)

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# T197188; IR lens, f = 76 mm, $12^{\circ}$ , incl. case for FLIR 600 series



#### General description

The 12° lens is a popular lens accessory and provides 2× magnification compared to the standard lens. Ideal for small or distant targets such as overhead power lines.

#### Technical data

Field of view (FOV)	12° × 9°
Minimum focus distance	1.2 m (3.9 ft.)
Focal length	76 mm (3.0 in.)
Spatial resolution (IFOV)	0.33 mrad
F-number	1.1

#### Shipping information

- Lens
- Lens case

v1.0

# T197190; IR lens, f = 131 mm, $7^{\circ}$ , incl. case for FLIR 600 series



#### General description

The  $7^{\circ}$  lens is a popular lens accessory and provides  $3.5\times$  magnification compared to the standard lens. Ideal for small or distant targets such as overhead power lines.

#### Technical data

Field of view (FOV)	7° × 5.3°
Minimum focus distance	3.0 m (9.8 ft.)
Focal length	131 mm (5.2 in.)
Spatial resolution (IFOV)	0.19 mrad
F-number	1.1
Weight	1.50 kg (3.30 lb.), Support 0.45 kg (0.99 lb.)
Size (L × D)	168.2 mm (6.62 in.) × 146.0 mm (5.75 in.)

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#### Shipping information

- lens
- Lens case
- Mounting support

v1.01

## T197189; IR lens, f = 19 mm, $45^{\circ}$ , incl. case for FLIR 600 series





#### General description

This wide angle lens has a field of view almost double that of the standard 24° lens. Perfect for wide or tall targets or when working in crowded spaces.

#### Technical data

Field of view (FOV)	45° × 34°	
Minimum focus distance	0.2 m (0.7 ft.)	
Focal length	19 mm (0.75 in.)	
Spatial resolution (IFOV)	1.3 mrad	
F-number	1.1	

#### Shipping information

- Lens
- Lens case

v1.0

# T197187; IR lens, f = 38 mm, 24 $^{\circ}$ , incl. case for FLIR 600 series



#### General description

The standard  $24^{\circ}$  lens is suitable for the majority of applications.

#### Technical data

Field of view (FOV)	24° × 18°
Minimum focus distance	0.3 m (1.0 ft.)
Focal length	38 mm (1.5 in.)
Spatial resolution (IFOV)	0.65 mrad
F-number	1.1

### Shipping information

- Lens
- Lens case

v1.0

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## T197341; Macro lens, 1x (25 um) with case



#### General description

For R&D usage or development purposes. As an example looking at PCB's or small electronic components.

### Technical data

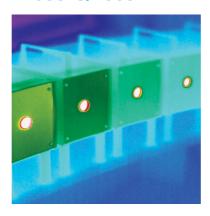
Field of view (FOV)	16 × 12 mm (0.63 x 0.47 in.)
Magnifying factor	1x
Working distance	18 mm (0.71 in.)
Depth of field	±0.13 mm
Spatial resolution (IFOV)	25 μm
F-number	1.1
Focus	Fixed

#### **Shipping information**

- Len
- Lens case

v1.03

# 1196745; High temperature option +2000°C/+3632°F



### General description

For high temperature applications the camera can be calibrated for high temperature ranges.

#### Technical data

Optional object temperature range	Up to +2000°C (+3632°F)	
		v1.0

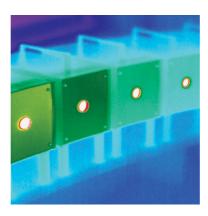
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#### P/N: 40402-3103

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# 1196744; High temperature option +1500°C/+2732°F



#### General description

For high temperature applications the camera can be calibrated for high temperature ranges.

#### Technical data

Optional object temperature range	Up to +1500°C (+2732°F)

v1.0

## T197692; Battery charger, incl. power supply with multi plugs



#### General description

Stand-alone 2-bay battery charger, including power supply with multi plugs.

Note: This product replaces T197563 and 1196210EU/UK/US

#### Technical data

AC operation	100-240 VAC, 50/60 Hz, 12 VDC out
Power	3000 mA at 12 VDC
Battery charger size (L × W × H)	158 × 122 × 25 mm (6.2 × 4.8 × 1.0 in.)
Cable length	1.98 m (6.5 ft.)

### Shipping information

- Stand-alone 2-bay battery charger Power supply including cable
- EU plug
- UK plug
- US plug AU plug

EAN-13	7332558003787
UPC-12	845188004002
	v1.02

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## T910814; Power supply, incl. multi plugs



#### General description

FLIR P/B/SC6xx and FLIR GF3xx series:

Power supply, including multiple plugs, to charge the battery when it is inside or outside of the camera.

FLIR T6xx and FLIR Exx series:

Power supply, including multiple plugs, to charge the battery when it is inside the camera or in the battery charger.

#### Technical data

AC operation	100-240 VAC, 50/60 Hz, 12 VDC out
Power	3000 mA at 12 VDC
Cable length	1.98 m (6.5 ft.)

#### Shipping information

- Power supply including cable
- EU plug
- UK plugUS plug
- AU plug

v1.03

## T198511; Li-Ion Battery pack 7.4V 33Wh



#### General description

High capacity battery for the IR camera.

#### Technical data

Battery type	Rechargeable Li Ion battery
Battery voltage	7.2 V
Battery capacity	4.4 Ah at +20°C (+68°F)
Battery note	Approximate lithium content: 3.0 g
Charging system	In camera (AC adapter or 12 V from a vehicle) or 2-bay charger
Charging time	2.5 h to 95% capacity, charging status indicated by LED's
Charging temperature	0°C to +45°C (+32°F to +113°F)
Battery storage temperature range	-40°C to +70°C (-40°F to +158°F)
Battery weight	0.24 kg (0.52 lb.)
Size (L × W × H)	141 × 47 × 28 mm (5.5 × 1.8 × 1.1 in.)

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#### **Shipping information**

EAN-13	7332558004364	
UPC-12	845188004347	
		v1 00

## T911230ACC; Memory card SDHC 4 GB

#### General description

SD Card for data storage (e.g. images)

#### Technical data

Memory card, size	At least 4 GB
Weight	2 g (0.07 oz.)
Size (L × W × H)	32.0 × 24.0 × 2.1 mm (1.26 × 0.94 × 0.08 in.)

#### **Shipping information**

SD Card

v1.0

## 1910423; USB cable Std A <-> Mini-B



#### General description

This cable is used to connect the infrared camera with a computer, using the USB protocol.

#### Technical data

Weight	60 g (2.1 oz.)	
Cable length	1.8 m (5.9 ft.)	
Connector	Standard USB-A to USB Mini-B	
		v1.02

# T198509; Cigarette lighter adapter kit, 12 VDC, 1.2 m/3.9 ft.



#### General description

This cable is used to power the infrared camera from the cigarette lighter socket in a car.

Note: This is the same product as p/n 1196497.



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Technical data		
Cable length	1.2 m (3.9 ft).	
Shipping information		
EAN-13	7332558004340	
UPC-12	845188004361	

# 1910484ACC; Video cable, RCA <-> RCA, 2.0 m/6.6 ft.



#### General description

This cable is used to transfer video signals from the infrared camera to an external monitor, or to a computer featuring an internal video card.

Weight	60 g (2.1 oz.)	
Cable length	2.0 m (6.6 ft.)	
Connector	RCA to RCA	
Shipping information		
	7332558006252	
Shipping information  EAN-13  UPC-12	7332558006252 845188006600	

## 1910483ACC; FireWire cable 4/6, 2.0 m/6.6 ft.



#### General description

This cable is used to connect the infrared camera with a computer, using the FireWire protocol.

### Technical data

Weight	128 g (4.5 oz.)
Cable length	2.0 m (6.6 ft.)
Connector	FireWire 4-pin to 6-pin

#### Shipping information

	r9	
EAN		7332558006238

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#### Shipping information

UPC-12	845188006587	
		v1.0

## 1910482ACC; FireWire cable 6/6, 2.0 m/6.6 ft.



#### General description

This cable is used to connect the infrared camera with a computer, using the FireWire protocol.

#### Technical data

Weight	157 g (5.5 oz.)
Cable length	2.0 m (6.6 ft.)
Connector	FireWire 6-pin to 6-pin

#### Shipping information

EAN-13	7332558006245	
UPC-12	845188006594	
		v1.0

## T197262; Hard transport case for FLIR B/P/SC6xx



#### General description

Hard transport case for FLIR B/P/SC6XX

#### Technical data

i common data	
Weight	3.5 kg (7.7 lb.)
Size (L × W × H)	495 × 387 × 194 mm (19.5 × 15.2 × 7.6 in.)
Color	Black
	v1.01

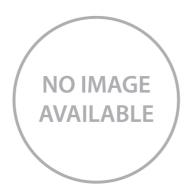
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# T197921; Option for P/B6xx: Radiometric IR-video streaming using FireWire



#### General description

This camera option adds more functionality to the FireWire port. The FireWire port can now be used to transfer real-time, full dynamic IR video to a PC for data capture and analysis.

This option for P/B6XX shall primarily be sold with FLIR QuickPlot for the predictive maintenance and building market, however it is also compatible with FLIR ResearchIR.

#### Key features:

- Real time radiometric data streaming to PC using FireWire Supports Windowing (with FLIR ReseachIR)

#### Technical data

Radiometric IR-video streaming	Real-time full dynamic to PC using FireWire: - 9 Hz using FLIR QuickPlot - 30 Hz or 60/120 Hz (with windowing) using FLIR ResearchIR

#### **Shipping information**

Option for P/B6XX: Radiometric IR-video streaming using FireWire

v1.02

## T198508; Headset, 3.5 mm plug



Standard headset with 3.5 mm plug



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#### Technical data

Audio	Headset including microphone
Audio, connector type	4-pole 3.5 mm jack

#### **Shipping information**

Headset

v1.01

## T951387; Wi-Fi USB micro adapter



#### General description

Wi-Fi USB adapter for wireless connection between the infrared camera and external equipment.

NOTE: Only for use in markets accepting CE and FCC regulations for wireless equipment.

### Shipping information

• Wi-Fi USB micro adapter

v1.0

## T197771ACC; Bluetooth Headset



#### General description

Headset with Bluetooth for wireless connection with the infrared camera.

#### Technical data

Bluetooth	Connection to the infrared camera
Audio	Headset including microphone

#### **Shipping information**

- Headset
- Ear clip
- Charger
- Multi plugs USB cable Std A to Mini-B

EAN-13	7332558006337	
UPC-12	845188006686	
		v1.0

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## T951235ACC; Bluetooth® USB micro adapter



#### General description

Bluetooth® USB micro adapter for wireless connection between the infrared camera and external Bluetooth equipment.

#### Technical data

Bluetooth	USB-A

#### Shipping information

Bluetooth® USB micro adapter		
EAN-13	7332558006283	
UPC-12	845188006631	
		v1.0

## T910972; EX845: Clamp meter + IR therm TRMS 1000A AC/DC



#### General description

Bluetooth Transmitter with METERLiNK™

Wirelessly transmits Voltage and Current readings to your FLIR high-definition infrared camera to incorporate meter readings with thermal images. For more info see www.extech.com

METERLINK™ makes it easy for a thermographer to quickly take electrical readings using an Extech EX845 clamp meter and instantly record them right on an infrared image. METERLINK™ accelerates infrared inspections and diagnostics while adding value to your reports by increasing the amount of detail you provide.

EX845 CAT IV Clamp Meter Features:



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#### General description

- Patented built-in non-contact IR Thermometer design with laser pointer
- True RMS Current and Voltage measurements
- Peak hold captures inrush currents and Transients
  MultiMeter functions include AC/DC Voltage, Resistance, Capacitance, Frequency, Diode, and Continuity
- 1.7" (43mm) jaw opening for conductors up to 750MCM or two 500MCM
- 4000 count backlit display Features include Data Hold and Min/Max and Auto Power off
- Autoranging with manual range button
- Complete with CAT IV test leads, 9V battery, Type K probe (-22 to 572°F/-30 to 300°C), pouch case, and Professional Test Lead Set

#### Professional Test Lead Features:

- 8-Piece Professional Test Lead set
- Two 42" (1m) PVC lead extensions with shrouded banana plugs at both ends
- Two modular 4" (102mm) Heavy Duty test probe handles with 0.16" (4mm) banana plug tip
- Two standard size, alligator clips with insulated rubber boot
  Two extra large, double-insulated, alligator clips with sharp teeth for piercing insulated wire. Jaws open to 0.8"

v1.0

## T910973; MO297: Moisture meter, pinless with memory



### General description

Bluetooth Transmitter with MeterLink™

Wirelessly transmits moisture and humidity data to your FLIR high-definition infrared camera to incorporate meter readings with thermal images For more info see www.extech.com

FLIR infrared cameras rapidly reveal moisture problems in homes and commercial structures. Documenting water damage with a moisture meter can provide valuable added details about moisture issues. The process of correlating readings to infrared images however is awkward, imprecise and prone to errors. METERLINK™ expedites building inspections by annoting several moisture-related readings from damaged surfaces directly onto the related infrared image. METERLiNK™ increases accuracy and eliminates confusion about which moisture readings pertain to which

Key features:

images.



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#### General description

- Quickly indicates the moisture content of materials with Pinless technology without damaging the surface; Remote Pin-type probe (MO290-P included) allows for contact moisture readings (3ft/0.9m cable length) Manually store/recall up to 20 labeled readings Works on multiple wood types and other building materials

- Easy to read, large dual display with automatic backlight feature
- Simultaneously displays moisture value of wood or material being tested, Air Temperature, IR Temperature, or Humidity

- Pinless measurement depth to 0.75" (19mm) below the surface
  Programmable high/low Moisture and Humidity alarms
  Designed with a patented IR circuit to measure non-contact surface temperature; 8:1 distance to spot ratio with 0.95 fixed emissivity
- Built-in Humidity/Temperature probe measures Relative Humidity, Air Temperature plus Grains Per Pound (GPP)/(g/kg), Dew Point (DP), Vapor Pressure, and condensation point
- Automatic calculation of differential Temperature (IR DP) to determine condensation point
- Fast Analog Bargraph Min/Max and Data Hold
- Auto power off and low battery indication
- Complete with pin moisture probe with cable, 9V battery and case

v1.0



#### P/N: 40402-3103

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### T198586; FLIR Reporter Professional (license only)



#### General description

FLIR Reporter Professional is a powerful software for creating compelling and professional, fully customized, easy-tointerpret maintenance reports.

Professional Report Wizard guides you step-by-step in combining all IR inspection data - infrared and visual images, temperature measurements, and text notes - into a professional, easy-to-interpret maintenance report.

- Flexible report page design and layout for customized reports
- Use quick insert function to easily create custom report pages Fully integrated with standard Microsoft Word
- Generates reports in standard MS Office format and PDF-format
- Powerful temperature analysis Triple Fusion Picture-in-Picture (movable, sizable, scalable)
- Rapid report manager supporting automatic report generation by drag-and-drop Support for MSX (Multi-Spectral Dynamic Imaging) images
- Support for sketch images in both IR and visual with on/off toggling Support for same FOV ("Field of View Match")
- Grid settings
- Trending functionality
  Automatic link to Google™ Maps for images with GPS coordinates
- Automatic summary table for the report
- Fine tune images and make full temperature analysis directly in Microsoft Word
- Spell check
- Create your own formulas including measurement values from images
- Play radiometric sequences directly in the report Search functionality to quickly finding images for your report
- Panorama tool for combining several images to a larger image Support for GF series IR images Auto Update function

- Office 2003 (32-bit), Office 2007 (32-bit) and Office 2010 (32-bit)
- Windows 7 (32 and 64-bit), Windows Vista (32 and 64-bit) Support for MeterLink™ data
- \*.docx compatibility

Download your copy of FLIR Reporter Professional here:

http://support.flir.com/reporter

#### Release notes

Version	9.2
New features	<ul> <li> News in 9.2:</li> <li>Option to hide Zoom Viewer</li> <li>Option to extract Visual image from MSI/Fusion image.</li> <li>Support for the new FLIR Ex and Exx series cameras.</li> <li>Support for multispectral images.</li> <li>Support for auto-oriented images.</li> <li>Various bug fixes.</li> </ul>

#### **Shipping information**

FLIR Reporter Professional scratchcard

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#### System requirements

Operating system	<ul> <li>Windows XP, 32-bit</li> <li>Windows Vista, 32-bit</li> <li>Windows Vista, 64-bit</li> <li>Windows 7, 32-bit</li> </ul>
Software requirements	Windows 7, 64-bit      Office 2007 (32-bit)
oonware requirements	• Office 2010 (32-bit)
	v1.

## **T198584; FLIR Tools**



#### General description

FLIR Tools is a software suite specifically designed to provide an easy way to update your camera and create inspection reports.

#### Key features:

- Report templates (horizontal IR + DC, vertical IR + DC, horizontal IR + IR).
- Manual IR/Visual Image Grouping Import images from your camera to your computer.
- Apply filters when searching for images.
- Search all text in images and text annotations. Store the five latest search criteria's.
- Lay out, move, and resize measurement tools on any infrared image.
- Create PDF imagesheets of any images of your choice. Add headers, footers, and logos to imagesheets.
- Create PDF reports for images of your choice.

- Add headers, footers, and logos to reports.

  Report editor (report page preview and snap to grid).

  Sort function (by date, groups sorted by path, and groups sorted by date).

  Browse and purchase infrared cameras, software, and accessories in the webshop.

  Software localized to 21 languages.
- Support for MSX (Multi-Spectral Dynamic Imaging ) Images
- Support for Sketch Images on both IR and Visual with toggling ON/OFF feature. Support for Same FOV ( Field of View Match )
- Display of Compass Information in Edit and in Report.
- Display of GPS Information in Edit and in Report. Microsoft Windows 7 (32- and 64-bit) and Windows 8 (32- and 64-bit)
- Camera update (applies to FLIR Ex, Kxx, Exx and T6xx series only).

#### Download

This software is a freeware. To download, click the following link:

 $\underline{\text{http://support.flir.com/SwDownload/app/RssSWDownload.aspx?ID=120}}$ 

#### Release notes

Version FLIR Tools 4.1	
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#### P/N: 40402-3103

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#### Release notes

New features

- --- News in 4.1: --
- Previous/next in Edit mode.

- Clone in the Library.

  Extract visual photo from a multispectral image.

  Import \*.mp4, \*.seq, and \*.csq files from the camera.

  Playback/edit \*.seq and \*.csq files.

  Scale enhancement for the FLIR GF3xx series.

- Auto resize of thumbnails during importing for the FLIR T6xx series
- Grouping/ungrouping now added.
- Various bug fixes

#### Shipping information

- Digital download, or

#### System requirements

Operating system

- Windows XP, 32-bit
- Windows Vista, 32-bit
- Windows 7, 32-bit Windows 7, 64-bit
- Windows 8, 32-bit

Windows 8, 64-bit

v1.0

## T198583; FLIR Tools+ (license only)



#### General description

Compared to FLIR Tools, FLIR Tools+ has the following features:

- Radiometric Panorama incl. MSX
   Radiometric IR Video Recording
- Advanced Reporting

FLIR Tools/Tools+ is a software suite specifically designed to provide an easy way to update your camera and create inspection reports

#### FLIR Tools+ main features:

- Manual IR/Visual Image Grouping Radiometric Panorama incl. MSX

- Radiometric IR Video Recording
  Advanced Reporting Microsoft Office 2007 (32bit), and 2010 (32bit) support
  Report templates (horizontal IR + DC, vertical IR + DC, horizontal IR + IR).
- Import images from your camera to your computer.
- Apply filters when searching for images.
- Search all text in images and text annotations.
- Store the five latest search criteria's.
- Lay out, move, and resize measurement tools on any infrared image.
- Create PDF imagesheets of any images of your choice. Add headers, footers, and logos to imagesheets.
- Create PDF reports for images of your choice.
- Add headers, footers, and logos to reports.
- Report editor (report page preview and snap to grid).
- Sort function (by date, groups sorted by path, and groups sorted by date). Browse and purchase infrared cameras, software, and accessories in the webshop.
- Software localized to 21 languages.
- Support for MSX (Multi-Spectral Dynamic Imaging ) Images Support for Sketch Images on both IR and Visual with toggling ON/OFF feature. Support for Same FOV ( Field of View Match )

- Display of Compass Information in Edit and in Report.
  Display of GPS Information in Edit and in Report.
  Microsoft Windows 7 (32- and 64-bit) and Windows 8 (32- and 64-bit)
- Camera update (applies to FLIR Ex, Kxx, Exx and T6xx series only).

Download your copy of FLIR Tools+ here:



#### P/N: 40402-3103

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#### Download

http://support.flir.com/toolsplus

#### Release notes

Version	FLIR Tools+ 4.1
New features	<ul> <li> News in 4.1:</li> <li>Previous/next in Edit mode.</li> <li>Clone in the Library.</li> <li>Extract visual photo from a multispectral image.</li> <li>Import *.mp4, *.seq, and *.csq files from the camera.</li> <li>Playback/edit *.seq and *.csq files.</li> <li>Scale enhancement for the FLIR GF3xx series.</li> <li>Auto resize of thumbnails during importing for the FLIR T6xx series.</li> <li>Grouping/ungrouping now added.</li> <li>Various bug fixes.</li> </ul>

#### Shipping information

FLIR Tools+ scratchcard

Operating system	<ul> <li>Windows XP, 32-bit</li> <li>Windows Vista, 32-bit</li> <li>Windows 7, 32-bit</li> <li>Windows 7, 64-bit</li> <li>Windows 8, 32-bit</li> <li>Windows 8, 64-bit</li> </ul>	
Software requirements	<ul><li>Office 2007, 32-bit</li><li>Office 2010, 32-bit</li><li>Office 2013, 32-bit</li></ul>	

v1.0

## **DSW-10000; FLIR IR Camera Player**



FLIR IR Camera Player is a PC-based remote control and viewer that you can use with cameras from FLIR Systems.

You can perform one or more of the following with FLIR IR Camera Player:

- Record a video stream from the camera.
- Save a frame from the video stream as a snapshot image (\*.bmp).
- Autofocus, focus far, and focus near. Autoadjust the camera image.
- Freeze the camera image.

- Save a camera image in the camera.
  Change Color palette.
  Add an image description and a text comment to an image.

You connect a camera in one of the following ways:

- Ethernet FireWire

This software is a freeware. To download, click the following link:

 $\underline{\text{http://support.flir.com/SwDownload/app/RssSWDownload.aspx?ID=89}}$ 

#### Release notes

Version	2.3.3

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#### Release notes

New features	<ul> <li> News in 2.3.3</li> <li>Added latest device drivers (1.9.1.0).</li> <li>Various bugfixes</li> <li> News in 2.2.7</li> <li>Added support for FLIR Ax5 series.</li> </ul>

Operating system  • Windows XP, 32-bit • Windows Vista, 32-bit/64-bit • Windows 7, 32-bit/64-bit	System requirements	
	Operating system	<ul> <li>Windows Vista, 32-bit/64-bit</li> </ul>

v1.04

## APP-10002; FLIR Tools Mobile (Android **Application**)



#### General description

FLIR Tools Mobile is an intuitive Android app for analyzing, managing, and distributing infrared images.

#### Key features:

- Remote control
- MSX
- Images with sketch on DC and IR
- Images with field of view follow
- Editable text comments
- Emissivity table Import images from your Wi-Fi-enabled camera.
- Connect and stream infrared images from the camera.
- Connect and stream measurement data from FLIR Test & Measurement meters Lay out and move measurement tools on the image.
- Read out temperature measurements
- Create and configure temporal plots based on results of measurement tools on the infrared image. Log measurement data and export it as a \*.csv file.
- Save a measurement scenario as a data snapshot.
- Zoom in on images.
  On the Android device, remotely take snapshots when a camera is connected. On the camera, take snapshots that will automatically be saved on the Android device.
- Delete images on the Android device.

  Display an image's GPS coordinates on Google Maps.
- Create and e-mail reports
- Save images in the Android device photo library.

  Send images to FTP sites and other file-sharing services (Dropbox, Box.net, etc.).
- Display image information, e.g., object parameters, text comments, and file details.
- Play back voice comments. Change the level and span.
- Change general settings in the app.
- Change the palette.

#### Download

The application can be downloaded from Android Market or Amazon Marketplace, see the link below.

https://market.android.com/details?id=com.flir.viewer

#### Release notes

Version	FLIR Tools Mobile 3.1.0
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### P/N: 40402-3103

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Release notes	
New features	<ul> <li> News in 3.2.0</li> <li>Receive data logs from FLIR DM93.</li> <li>Save or export data logs in new *.csv format.</li> <li>Various bug fixes.</li> <li> News in 3.1.0</li> <li>Added variable level of MSX alpha</li> <li>Added Fusion Blending mode for images with possibility to adjust level</li> <li>Stability fixes</li> <li>Improved memory management</li> <li>Modified internal handling of measurement results and displaying them.</li> </ul>
System requirements	
Operating system	Android 2.3 and later
	v1.04

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