

RSE300, RSE600

Thermal Imagers

Users Manual



May 2018 Rev. 1, 3/22

©2018-2022 Fluke Corporation. All rights reserved.

Specifications are subject to change without notice.

All product names are trademarks of their respective companies.

LIMITED WARRANTY AND LIMITATION OF LIABILITY

Each Fluke product is warranted to be free from defects in material and workmanship under normal use and service. The warranty period is 2 years and begins on the date of shipment. Parts, product repairs, and services are warranted for 90 days. This warranty extends only to the original buyer or end-user customer of a Fluke authorized reseller, and does not apply to fuses, disposable batteries, or to any product which, in Fluke's opinion, has been misused, altered, neglected, contaminated, or damaged by accident or abnormal conditions of operation or handling. Fluke warrants that software will operate substantially in accordance with its functional specifications for 90 days and that it has been properly recorded on non-defective media. Fluke does not warrant that software will be error free or operate without interruption.

Fluke authorized resellers shall extend this warranty on new and unused products to end-user customers only but have no authority to extend a greater or different warranty on behalf of Fluke. Warranty support is available only if product is purchased through a Fluke authorized sales outlet or Buyer has paid the applicable international price. Fluke reserves the right to invoice Buyer for importation costs of repair/replacement parts when product purchased in one country is submitted for repair in another country.

Fluke's warranty obligation is limited, at Fluke's option, to refund of the purchase price, free of charge repair, or replacement of a defective product which is returned to a Fluke authorized service center within the warranty period.

To obtain warranty service, contact your nearest Fluke authorized service center to obtain return authorization information, then send the product to that service center, with a description of the difficulty, postage and insurance prepaid (FOB Destination). Fluke assumes no risk for damage in transit. Following warranty repair, the product will be returned to Buyer, transportation prepaid (FOB Destination). If Fluke determines that failure was caused by neglect, misuse, contamination, alteration, accident, or abnormal condition of operation or handling, including overvoltage failures caused by use outside the product's specified rating, or normal wear and tear of mechanical components, Fluke will provide an estimate of repair costs and obtain authorization before commencing the work. Following repair, the product will be returned to the Buyer transportation prepaid and the Buyer will be billed for the repair and return transportation charges (FOB Shipping Point).

THIS WARRANTY IS BUYER'S SOLE AND EXCLUSIVE REMEDY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. FLUKE SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LOSSES, INCLUDING LOSS OF DATA, ARISING FROM ANY CAUSE OR THEORY.

Since some countries or states do not allow limitation of the term of an implied warranty, or exclusion or limitation of incidental or consequential damages, the limitations and exclusions of this warranty may not apply to every buyer. If any provision of this Warranty is held invalid or unenforceable by a court or other decision-maker of competent jurisdiction, such holding will not affect the validity or enforceability of any other provision.

Fluke Corporation
P.O. Box 9090
Everett, WA 98206-9090
U.S.A.

11/99

Table of Contents

- Introduction..... 1
- Contact Fluke 1
- Safety Information..... 1
- Specifications 1
- Product Familiarization 2
 - Features..... 2
 - LED Indicator 3
- Operation 4
- SmartView R&D Software 6
- Accessories 6
- Optional Lenses..... 7
- Maintenance 8
 - Clean the Case 8
 - Lens Care 8

Introduction

The RSE300 and RSE600 Thermal Imagers (the Product or Imager) are stationary, infrared imaging cameras for use in many applications. These applications include equipment troubleshooting, preventive and predictive maintenance, building diagnostics, and research and development.

The Imager can stream live infrared and IR-Fusion technology video to a PC that has SmartView R&D software installed. SmartView R&D is a high-performance, professional software suite for quality analysis and reporting. The Imager also works with MATLAB® and LabVIEW®.

Contact Fluke

Fluke Corporation operates worldwide. For local contact information, go to our website: www.fluke.com.

To register your product, or to view, print, or download the latest manual or manual supplement, go to our website.

Fluke Corporation	Fluke Europe B.V.
P.O. Box 9090	P.O. Box 1186
Everett WA 98206-9090	5602 BD Eindhoven
U.S.A.	The Netherlands

+1-425-446-5500 fluke-info@fluke.com

Safety Information

General safety information is in the printed Safety Information document that ships with the Product and at www.fluke.com. More specific safety information is listed where applicable.

Specifications

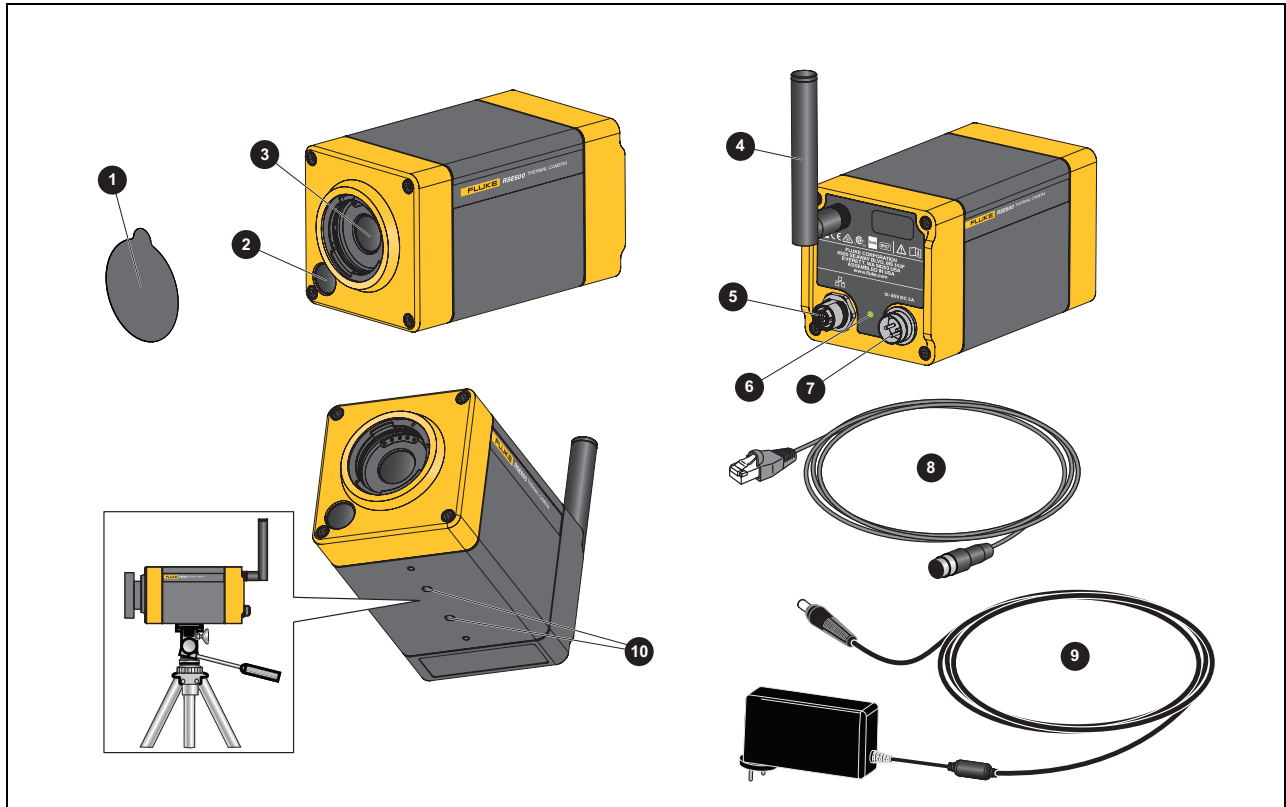
Complete specifications are at www.fluke.com. Search for RSE300 or RSE600.

Product Familiarization

Features

Table 1 lists the features of the Product.

Table 1. Features



Item	Description	Item	Description
1	Lens cover	6	LED indicator (See LED Indicator)
2	Visual light lens	7	M16 DC power jack
3	Infrared lens	8	M12 ethernet and power over ethernet cable
4	Antenna	9	M16 DC power cable
5	M12 ethernet and power over ethernet jack	10	Tripod/accessory mounting holes

LED Indicator

[Table 2](#) explains what the colors on the LED indicator means.

Table 2. LED Indicator Light Colors

Color	Description	Action
Blinking red	Not ready or not able to talk to the engine.	Wait for the Product to warm up. Or Connect the RJ45 connector end of the Ethernet cable to the Ethernet switch and the M12 connector end to the Product. If the problem persists, see Contact Fluke .
Solid red	Over ambient temperature.	Move the Product to a cool location.
Blinking green	Flash memory update is in progress.	NA
Solid green	Ready, IP address is set, and Ethernet cable is connected.	Use the Product.
Blinking yellow	Booting	NA
Solid yellow	Wait, the operating system is loading.	NA
Solid blue	Shutter is closed	NA

Operation

The Imager and SmartView R&D need a stable network connection to work properly. Set up your network without interference from other systems. Do not connect the Imager to a Virtual Private Network (VPN). SmartView R&D is a data-intensive application. Use of other data-intensive applications (streaming audio or video) on the PC or the same network system can cause loss of data.

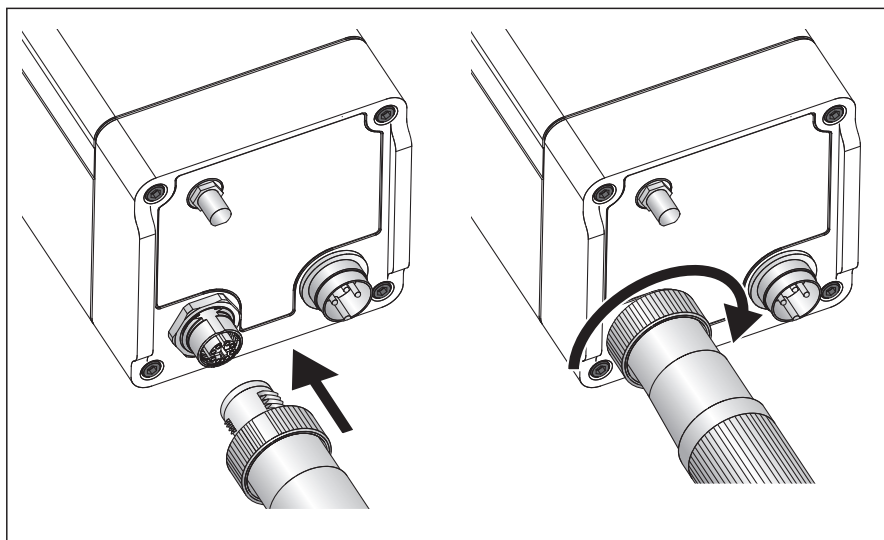
Note

All thermal imagers need sufficient warm-up time for accurate temperature measurements and best image quality. Fluke recommends a warm-up period of 60 minutes for optimal performance.

To set up the Product:

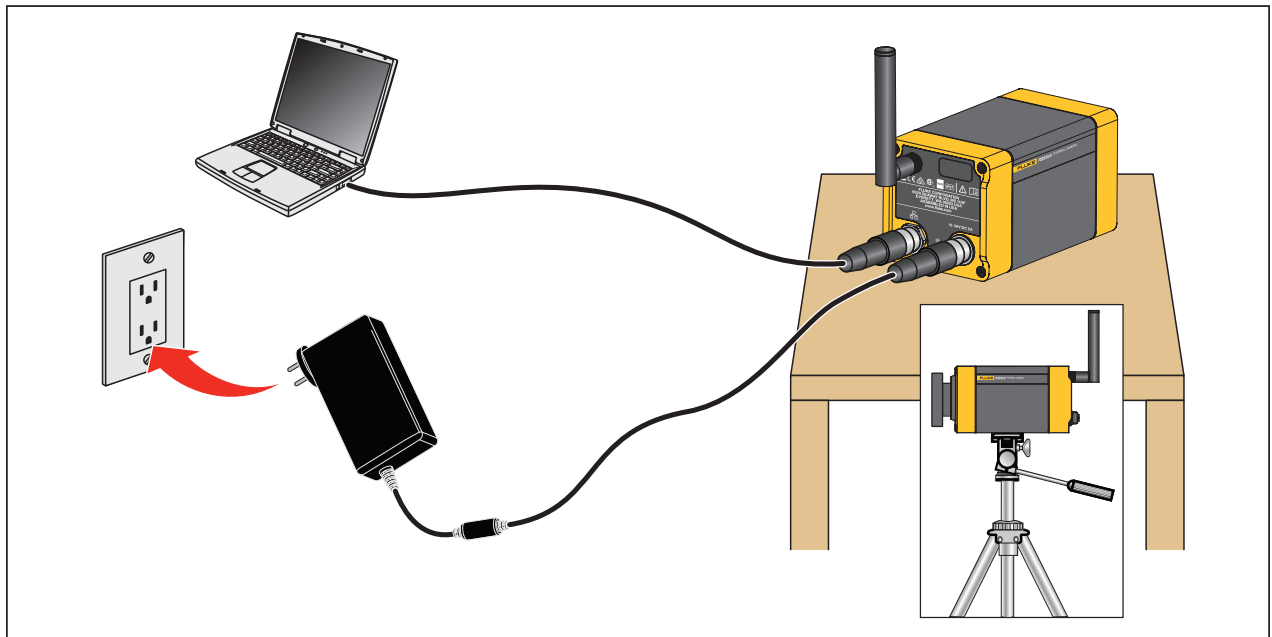
1. Attach the antenna.
2. Stabilize the Product either on a flat surface or a tripod.
3. Connect the M12 end of the ethernet cable to the M12 ethernet jack on the Product. See [Figure 1](#).
 - a. Fully insert the ethernet cable into the ethernet jack.
 - b. Rotate the ring 180 ° clockwise. Connect the M12 connector end of the ethernet cable to the Product.

Figure 1. M12 Ethernet Cable Connection



4. Connect the RJ45 connector end of the ethernet cable to the ethernet jack on the PC. See [Figure 2](#).
5. Connect the AC plug of the M16 DC power cable (15 V dc) to a power outlet and the M16 connector to the Product.
6. Wait for the Product to warm up and the LED indicator to show solid green.
7. Remove the lens cover.
8. Use SmartView R&D to focus the image.

Figure 2. Product Setup



SmartView R&D Software

SmartView R&D desktop software provides the ability to stream, analyze, and export radiometric video as well as create professional reports.

SmartView R&D desktop software features:

- Radiometric video streaming
- Radiometric video or image creation
- Image analysis tools
- Data trending tools
- Data exports
- Custom reports

For more information on how to download and install SmartView R&D Software, go to: <https://www.fluke.com/en-us/support/software-downloads/software-for-fluke-infrared-cameras>.

Accessories

Table 3 is a list of the accessories available for the Imager.

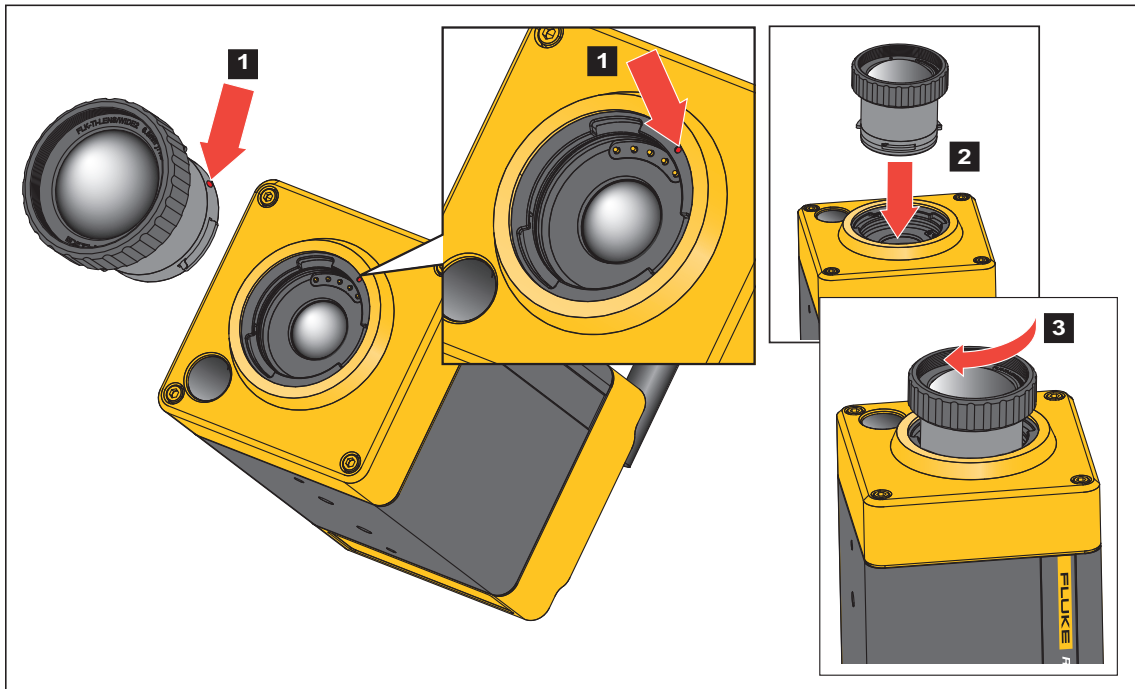
Table 3. Accessories

Model	Description	PN
FLK-RSE-MB	Mounting Base	4961344
FLK-0.75X-WIDE-LENS	Wide-Angle Infrared Smart Lens	4961174
FLK-2X-LENS	2X Telephoto Infrared Smart Lens	4961163
FLK-4X-LENS	4X Telephoto Infrared Smart Lens	4961188
FLK-MACRO-LENS	Macro Infrared Smart Lens	4961195

Optional Lenses

Use optional lenses for more applications of infrared inspection work. [Figure 3](#) shows how to install a lens.

Figure 3. Optional Lens Installation



For more information about optional lenses, go to www.fluke.com and search with the description in [Table 3](#).

Maintenance

Cleaning and lens care are the only maintenance required to the Product.

Clean the Case

Clean the case with a damp cloth and a weak soap solution. Do not use abrasives, isopropyl alcohol, or solvents to clean the case.

Lens Care

Caution

To prevent damage to the infrared lens:

- **Carefully clean the infrared lens. The lens has a delicate anti-reflective coating.**
- **Do not clean the lens too vigorously because this can damage the anti-reflective coating.**

To clean the lens:

1. Use a pressurized can of air or a dry nitrogen-ion gun, if available, to blow off the particulates from the lens surface.
2. Soak a lint-free cloth in a commercial lens cleaning liquid that contains alcohol, ethyl alcohol, or isopropyl alcohol.

Caution

To prevent damage to the case, do not get the alcohol on the case.

3. Squeeze the cloth to remove excess liquid.
4. Wipe the lens surface in one circular motion and discard the cloth.
5. If needed, repeat with a new lint-free cloth.