HORIBA

User guide for IT-480camera

1st edition: May, 2020
2nd edition: June, 2020

June, 2020

Introduction

This manual describes the operation for the users of IT-480camera (the application software for Android^{TM} device) for the HORIBA infrared thermometer IT-480 series. Be sure to read this manual before using the product to ensure proper safe operation of the product.

■Warranty and liability
Using IT-480camera will be understood as acceptance of the terms below.

① HORIBA, Ltd. shall not be liable for any damages, data loss and leakage, Android device malfunction and breakdown caused by IT-480camera and other related accidents caused by IT-480camera.

② HORIBA, Ltd. shall not be liable for Android device malfunction, broken Android devices, data loss or other damages caused by dropping or making an impact to the Android device or incompliance with the instruction manual during the use of IT-480camera.

③ Even if the provisions of the preceding two paragraphs or the disclaimer set forth in this document are not applied due to the application of mandatory laws and regulations, any liability caused by the negligence (excluding gross negligence) of HORIBA, Ltd. shall be limited to the range of actual, direct and normal damages incurred, and shall be liable for up to the selling price of IT-480 main unit itself.

For the handling of the IT-480 main unit, the scope of warranty and liability, please refer to the instruction manual included with the IT-480 main unit.

■Precautions for safe handling
Turn OFF the sleep mode and do not use other power saving functions (including apps) as data may not be downloaded properly and communication may be disconnected.
When IT-480camera is running, IT-480 or the Android device may get hot. Stop the use immediately and wait until it has cooled down to the normal temperature.
Do not turn OFF the display screen while IT-480camera is running as the operating

system (referred to as OS in the rest of this document) may forcibly disconnect users.

Running multiple apps simultaneously may cause unstable operation due to memory shortage.

The date and time on IT-480camera refers to the Android device date and time setting. Set the date and time on your Android device correctly before use.

The storage location of photos, videos and CSV data depends on the Android device or settings, but it is normally saved in the [IT-480] folder created in the internal storage of the Android device or SD memory card. In order to save data, a certain amount of free space is required. Certain Android device may require to insert the SD memory card manually, use the SD memory card that is compatible with your Android device.

Remove any protective cover of Android device when connecting the USB cable and Android device holder to the Android device.

Make sure your Android device is fully charged as IT-480 uses the Android devices battery as the power source.

Do not walk or move, run, etc. while operating IT-480camera as it may be dangerous.

The data charges and all expenses for downloading IT-480camera will be borne by the user.

■Trademarks

・Android is a trademark of Google LLC.

・Google Play and the Google Play logo are trademarks of Google LLC.

・Google Photos and Google Photos logo are trademarks of Google LLC.

・QR Code is registered trademark of DENSO WAVE INCORPORATED.

・SD, SDHC, SDXC, microSD and microSDHC are trademarks of SD-3C, LLC.

Other company names and brand names are either registered trademarks or trademarks of the respective companies. (R), (TM) symbols may be omitted in this manual.

■Contact for using IT-480camera

HORIBA, Ltd.

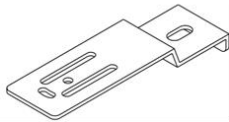2 Miyanohigashi-cho, Kisshoin, Minami-ku, Kyoto, 601-8510, Japan

1 Overview

IT-480camera is used with the infrared thermometer IT-480. Photos and videos of the surface temperature of the measured object can be saved by using the Android device camera.

It may also be attached to a selfie stick or a tripod, but in that case, the attachment (purchase code: 3200856516) is required. Please contact your local distributor.

Attachment (purchase code: 3200856516) includes below
①Attachment
②1/4 inch screw
③M4 screw x 2PC

Android device

Smartphone holder (customer supplied parts), which needs two tapped holes for 1/4 inch screw.

Tapped holes for 1/4 inch screw

Please prepare a selfie stick or a tripod.

OTG (On The Go) Data Cable (customer supplied cable) depends on USB port of your device.

1) Type-C port of device
device
IT-480
USB cable
Type-C   MicroB
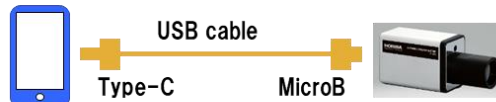
2) MicroB port of device
device
IT-480
USBcable
MicroB   MicroB
HOST   device
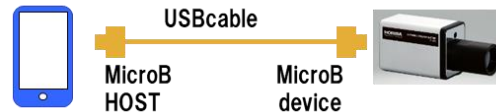
2 Installing IT-480camera

■Supported OS

・Android 8.0 (Oreo) or above

However, connection and operation with all Android devices is not guaranteed.

■Available languages

Depends on the language setting on Android device.

	Android device	IT-480camera
Setting	Japanese	Japanese
	Other than Japanese	English

■Downloading IT-480camera

Access to the link below and download IT-480camera.

https://play.google.com/store/apps/details?id=com.horiba.it480.it480camera

3 Assembling method for IT-480camera

① Fix the attachment to IT-480 with M4 screw.

② Use the 1/4 size screw and connect it to the Android device holder.

Make sure the screw is tight and the Android device is stable.

③ Attach the Android device to the Android device holder and connect the USB cable to IT-480 and Android device.

Caution

Make sure the screws are securely tightened and the Android device is stable before use. If you are using a selfie stick or tripod, the weight of the IT-480 or Android device may cause the mounting position to shift or drop. Proper care is needed.
Make sure to remove the cable, Android device and IT-480 when carried.

4 Application operation

The screens are as of March, 2020. The specifications for IT-480camera may change without prior notice for improvement.
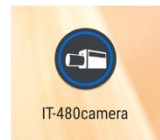
Notice
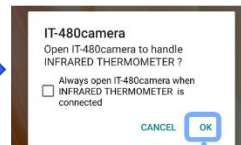Depending on your device, OTG connection setting is needed to turn ON.
For the setting, refer to the instruction manual of your device.

■Startup

IT-480camera icon

IT-480camera
Open IT-480camera to handle
INFRARED THERMOMETER ?
☐ Always open IT-480camera when
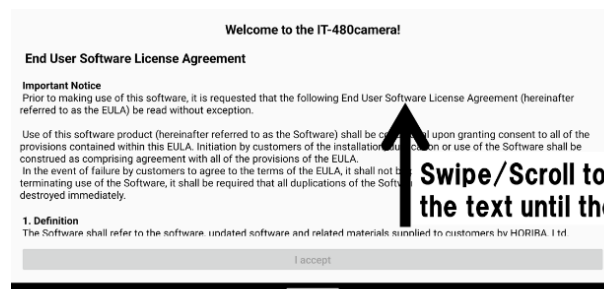INFRARED THERMOMETER is
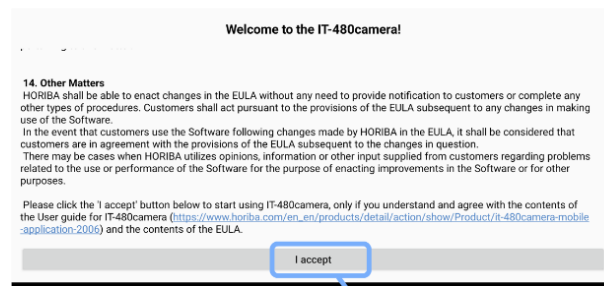connected
CANCEL   OK

Tap starts IT-480camera.

Tap [OK].

■End-User License Agreement
Tap [I accept] below to start using IT-480camera, only if you understand and agree with the contents of this User guide for IT-480camera and the contents of the End-User License Agreement.

Welcome to the IT-480camera!

End User Software License Agreement

Important Notice
Prior to making use of this software, it is requested that the following End User Software License Agreement (hereinafter referred to as the EULA) be read without exception.

Use of this software product (hereinafter referred to as the Software) shall be contingent upon granting consent to all of the provisions contained within this EULA. Initiation by customers of the installation, operation or use of the Software shall be construed as comprising agreement with all of the provisions of the EULA.
In the event of failure by customers to agree to the terms of the EULA, it shall not be ... terminating use of the Software, it shall be required that all duplications of the Software ... destroyed immediately.

1. Definition
The Software shall refer to the software, updated software and related materials supplied to customers by HORIBA, Ltd.

I accept

Swipe/Scroll to read
the text until the end.

Welcome to the IT-480camera!

14. Other Matters
HORIBA shall be able to enact changes in the EULA without any need to provide notification to customers or complete any other types of procedures. Customers shall act pursuant to the provisions of the EULA subsequent to any changes in making use of the Software.
In the event that customers use the Software following changes made by HORIBA in the EULA, it shall be considered that customers are in agreement with the provisions of the EULA subsequent to the changes in question.
There may be cases when HORIBA utilizes opinions, information or other input supplied from customers regarding problems related to the use or performance of the Software for the purpose of enacting improvements in the Software or for other purposes.

Please click the 'I accept' button below to start using IT-480camera, only if you understand and agree with the contents of the User guide for IT-480camera (https://www.horiba.com/en_en/products/detail/action/show/Product/it-480camera-mobile-application-2006) and the contents of the EULA.
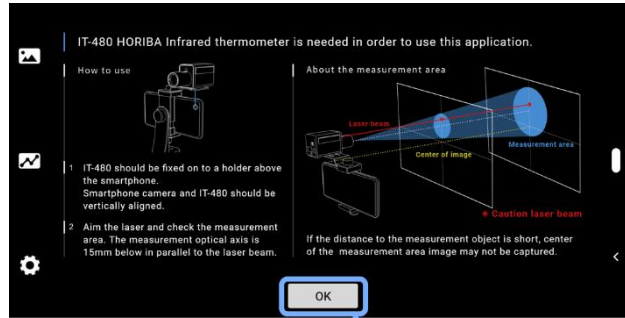
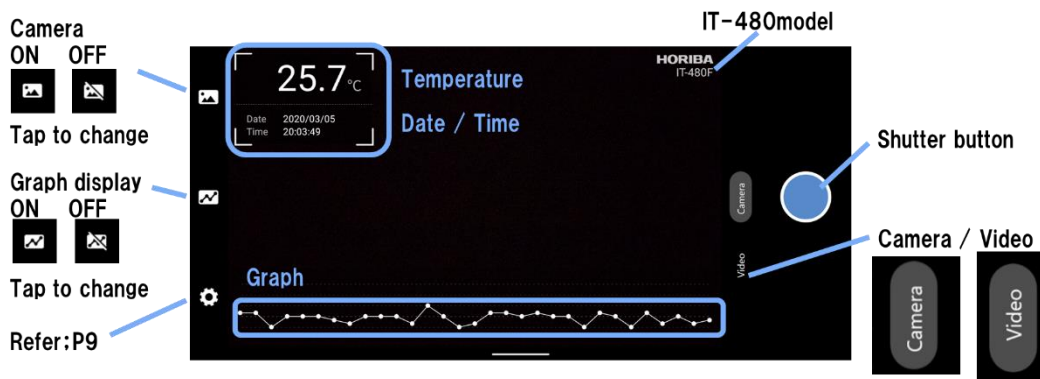I accept

Tap [I accept].

■[HELP SCREEN]

When IT-480 is connected to Android device, the help screen appears.

After checking, tap [OK].
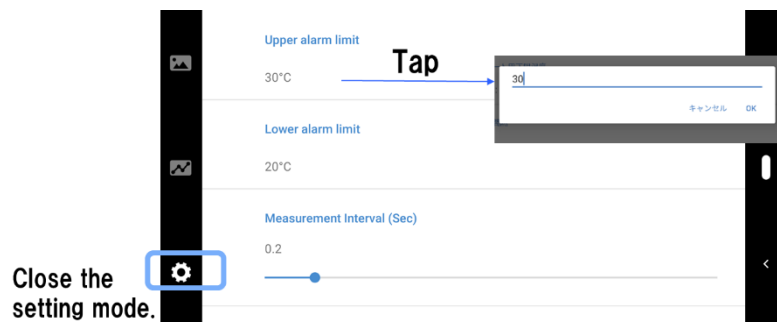

Tap [OK].

■Measuring screen

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■Setting screen

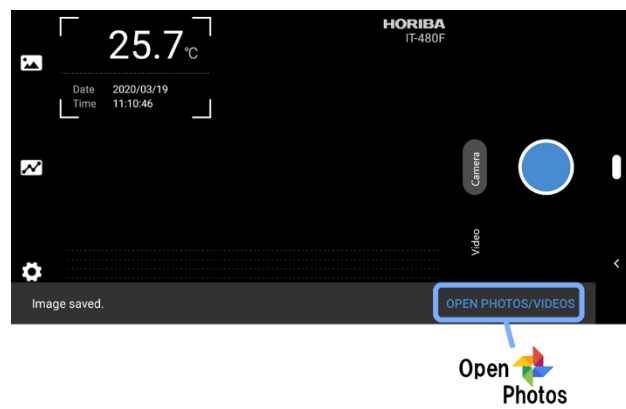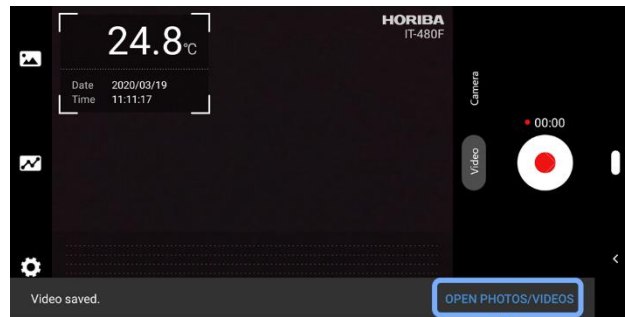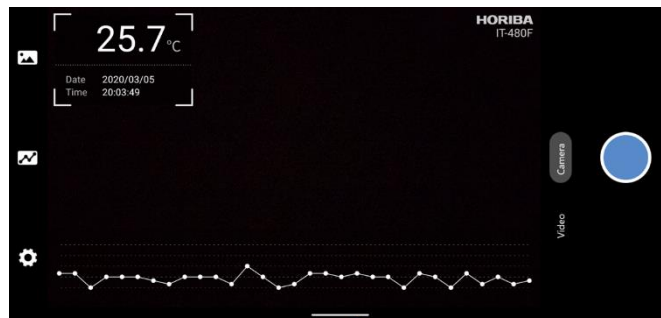| Setting	Method
Upper alarm　limit	Input number
Lower alarm limit	Input number
Measuring interval (sec)	Select from 0.1-1.0
Screen light	on/off
Log CSV output	on/off
Emissivity	Input number
Moving average	Input number
HELP button during connection	on/off
License	Show contents in dialog
Version	Show contents in dialog

■Alert screen

■Take photos

Tap to take photo

■Save photos

OPEN PHOTOS/VIDEOS

Image saved.
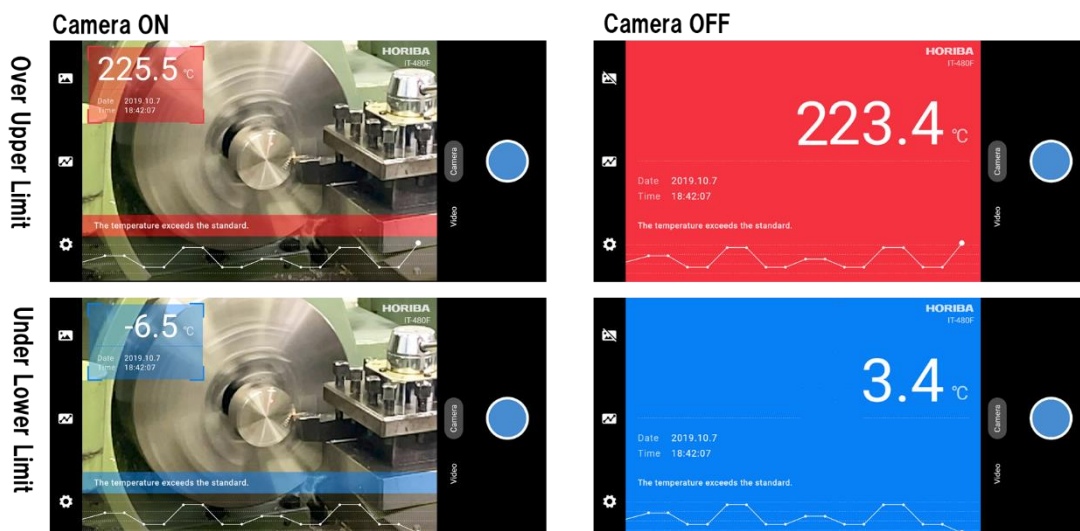
Open Photos

■Shoot videos

Time

Tap to shoot

■Save videos

Open Photos

■End

Swipe up from the bottom of the screen

5 Troubleshooting

Trouble	Reason	Solution	Reference
Cannot measure the temperature or the temperature is displayed not correctly.	Not enough battery power left in Android device.	Charge the Android device.	–
	Cable is not connected properly.	Connect the cable properly.	P7
	Cable is broken.	Replace the cable.	P7
	IT-480 is broken.	Contact your local distributor or contact form on our website.	–
	Out of measured range of IT-480.	Refer to the IT-480 instruction manual.	IT-480 Instruction manual
Cannot save photos or videos.	Not enough storage on Android device or SD memory card	Use an Android device or SD memory card with enough storage.	–
Problem with Android device setting.	Problem with Android device setting.	Contact your nearest Android device service center/store.	–

6 About Open Source Software

■ Open Source Software

This product adopts Open Source Software. The Conditions appropriate for each of the Open Source Software licenses are applied to each of these software.
Before using the software, refer to the version information screen on the software where the information about the Open Source Software adopted in this product is available.
No maintenance services are available for the Open Source Software.

■ Source code and object code supply

Customers are entitled to obtain, alter or redistribute the source code pertaining to the software licensed under the terms of GNU General Public License (GPL) or GNU Lesser General Public License (LGPL). Customers wishing to be supplied with source code of open source software and object code of IT-480camera are requested to convey that desire, along with the version number of the software to us by email at: it480camera@horiba.com. Source code of Source code and object code supply is available in our website;
(https://www.horiba.com/en_en/products/detail/action/show/Product/2006/)
For the longest of the following periods, the customers requesting object code disclosure will be supplied with a file containing a copy of the object code attached to an email. Note that any costs occurring upon the distribution shall be borne by the party requesting the disclosure of the source code.
- A period of no more than three years subsequent to termination of release of IT-480camera.
- The period from the publication of IT-480camera through termination of supply of replacement parts provided by HORIBA.
- The period from the publication of IT-480camera through termination of the customer support services provided by HORIBA.

■ Warranties of Open Source Software

The Open Source Software is provided without any warranties within the sphere of the applicable laws and the regulations. The Open Source Software is provided without any warranties of copyrights or any other third-party rights; it is also provided on an "as is" basis without any express or implied warranties. The

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With the exception of the stipulations under applicable laws, regulations, or agreements in writing, the copyright holder or parties being capable of changes or redistribution of the Open Source Software based upon the aforementioned license shall assume no responsibility for any damages resulting from the use or the inability to make use of the Open Source Software. The same conditions shall apply in the event that the copyright holders or third parties become aware of the possibility of the occurrence of such damages. The "damages" referred to here shall include normal damages, special damages, accidental damages, and indirect damages (while likewise including but not limited to losses of data, losses of precision in such data, losses suffered by customers or third parties, incompatibility of the interfaces of other software and other situations).