

GENERAL

TOOLSMART™

CONNECTED PRECISION

VIDEO INSPECTION CAMERA

USER'S MANUAL



TS03

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Please read this manual carefully and thoroughly before using this product.

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INTRODUCTION

Thank you for purchasing General Tools & Instruments' (General's) ToolSmart™ Video Inspection Camera (VIC). Please read this user's manual carefully and thoroughly before using the instrument.

The VIC can operate as a standalone instrument or in concert with an iPhone® or Android™ smartphone.

In standalone mode, the VIC can capture and display real-time video on its LCD, but it cannot record video clips or take still photos or play them back for review.

When linked to a smartphone via a self-generated local WiFi hotspot (without Internet access), the VIC can record video clips, capture still photos of the video frame, and send both file types to the linked phone by executing commands entered through the VIC's front-panel buttons or via soft buttons on the ToolSmart™ app. Separate apps for Apple iOS devices and Android devices are free and available from the iTunes® App Store and Google Play Store.

iPhone® and iTunes® are trademarks of Apple Inc., registered in the U.S. and other countries.

Android™ is a trademark of Google Inc.

KEY FEATURES

- Generates a local WiFi hotspot (without Internet access) for transmitting video clips and still photos captured by the probe camera to an app-enabled smartphone or tablet computer for storage and sharing
- Fixed (non-interchangeable) 8mm (0.31 in.) diameter, 3.3 ft. (1m) long camera-tipped probe with four adjustable-brightness LED lights produces VGA (640 x 480 pixel) resolution video
- Probe is waterproof and flexible-obedient, meaning it retains its shape
- 2.7 in. (69mm) diagonal color LCD makes videos and images large and crystal-clear
- Includes three probe tip accessories (45° mirror, pickup hook and magnetic pickup)

SAFETY INSTRUCTIONS

- Do not use the VIC to inspect environments known or suspected to contain exposed electrical wiring.
- Do not use it in the presence of flammable or explosive gases.
- Do not use the instrument to perform medical inspections.

WHAT'S IN THE PACKAGE

The VIC comes in a display box along with:

- Three snap-on probe tip accessories (a 45° mirror, a pickup hook and a magnetic pickup)
- Four “AA” batteries
- This user’s manual

PRODUCT OVERVIEW

Fig. 1 shows the labels and positions of the VIC's display, controls and physical structures. Familiarize yourself with their functions before moving on to the setup and operating instructions.

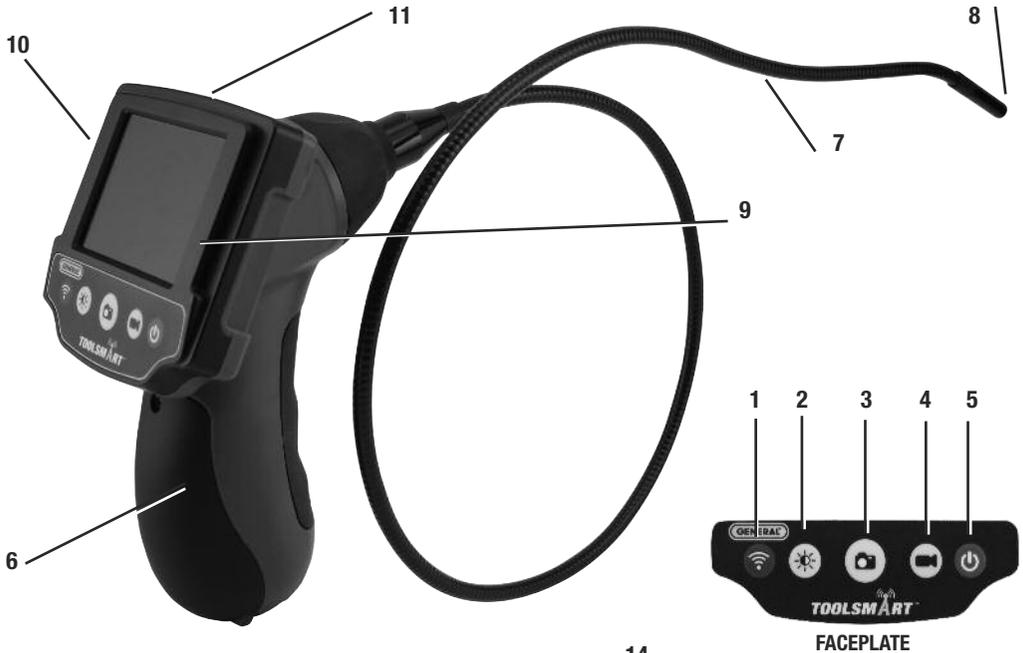


Fig. 1. The VIC's controls, physical structures and accessories

1. Press to generate a local WiFi network
 2. Press to increase/decrease camera lighting
 3. Press to start/stop recording of video clip (enabled only when linked to ToolSmart™ app)
 4. Press to take a still photo of the displayed image (enabled only when linked to ToolSmart™ app)
 5. Press to power the VIC on and off
 6. Battery compartment
 7. 1m long, 8mm diameter probe
 8. Camera head
 9. LCD
 10. **RESET** button (on back); see page 7
 11. Triangular hanger hook (behind monitor)
- INCLUDED ACCESSORIES**
12. 45° mirror
 13. Pickup hook
 14. Magnetic pickup

SETUP INSTRUCTIONS

INSTALL BATTERIES

The VIC's battery compartment is behind a hinged door on the front of the pistol grip (Fig. 1, Callout 6).

1. Open the battery compartment by using a Phillips-head screwdriver to loosen the single screw securing the compartment cover near its top. Swing the hinged door down.
2. Extract the battery magazine by pulling on the black tab at its bottom.
3. Install the four included "AA" batteries in the magazine, orienting them according to the polarity diagrams inside. Push the magazine back into the grip (it fits only one way).
4. Swing the compartment door up to close it.
5. Secure the compartment cover by reinstalling and tightening the Phillips-head screw.

INSTALLING ACCESSORIES

The VIC comes with three accessories (see left photos below) in a Ziploc bag that attach to the camera-tipped end of the probe. Each accessory has a specific purpose:

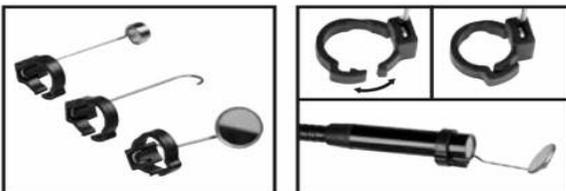
- The 45° mirror lets the probe see around corners.
- The pickup hook lets you retrieve otherwise inaccessible items seen by the camera — for example, a wedding ring accidentally dropped down a sink drain.
- The magnetic pickup lets you retrieve lost or dropped metal objects—nuts and bolts, for example—located by the probe.

To attach an accessory to the VIC's probe,

1. Hold its metal stem with your thumb and index finger.
2. Slide the accessory—plastic clasp first—past the camera head at the probe tip until the clasp is in the channel 1/4 in. from the end of the probe.
3. Squeeze the clasp until you hear a click (see top right photos below), indicating that the two halves have joined.

To detach an accessory from the VIC's probe,

1. Use the nail of your index finger to unhook the clasp, opening it up.
2. Hold the accessory's metal stem with your thumb and index finger and slide the accessory and clasp past the camera head.
3. Put the accessory back in the Ziploc bag it came in.



The VIC's three snap-on probe-tip accessories

OPERATING INSTRUCTIONS

Before using the VIC for the first time, remove and discard the plastic film protecting the LCD.

Before using the VIC for an inspection session, remove the black rubber cap protecting the probe's camera head. Remember to replace this cap after each and every inspection session.

To power on the VIC, press the power on/off (🔌) button (Fig. 1, Callout 5). This will cause the LCD to illuminate and show real-time video from the camera at the tip of the probe.

To change the brightness of the display, press the ☀️ button one or more times. Four brightness levels are available: 0%, 25%, 50% and 100%. After a brightness setting is changed, its new value appears briefly on the top line of the LCD.

Because the probe is flexible-obedient, you can maneuver it into various positions to aim at different targets and it will hold its shape.

The VIC is designed to be powered for up to three hours by the same set of four "AA" batteries. When the batteries' total charge drops below preset thresholds, the battery charge level icon at the upper right of the LCD will show fewer bars. To replace the batteries, follow the procedure in the Setup Instructions section of this manual.

To power off the VIC, press the 🔌 button.

USING THE VIC WITH THE ToolSmart™ APP AND AN APPLE iOS OR ANDROID SMARTPHONE

To stream video observed by the VIC to an Apple iOS or Android smartphone, and use the VIC to record inspection video clips and photos, begin by downloading the free ToolSmart™ app from the iTunes Store or Google Play Store to your phone.

Once you have downloaded the app, install it. Then: 1) Press the 📶 button on the VIC to generate a local WiFi hotspot; and 2) Detect and connect to this hotspot after activating WiFi reception on your phone. The default WiFi network password is 12345.

A tutorial on the app explains how to use it to capture video clips and photos using the VIC's camera, save them to your phone, and integrate the information in the files with data from other ToolSmart™ products.

SPECIFICATIONS

Camera-tipped Probe Type/Diameter/Length: Flexible-obedient/8mm (0.31 in.) / 3.3 ft. (1m)

Probe Water/Oil/Dust Resistance: per IP67 standard

Camera Field of View: 54°

Camera Depth of Field: 1.2 in. to 10 ft. (30mm to 3m)

Camera Resolution: 640 x 480 pixels (VGA)

Camera Light Source: Four white adjustable-brightness LEDs

Display Type/Size: Color TFT LCD/2.7 in. (69mm)

Display Resolution: 960 x 240 pixels

WiFi Range: 60 ft. (18m), max (unobstructed)

Power Source: (4) "AA" batteries (included)

Operating Temperature: 32° to 104°F (0° to 40°C) @15 to 85% RH

Weight of Grip, Console and Probe: 12 oz. (340g)

OPERATING & MAINTENANCE TIPS

The VIC is not shock-resistant. Do not use it as a hammer or drop it. Also, do not use the camera-tipped probe to clear debris.

If condensation forms inside the camera lens, let it evaporate before using the system again.

Remove the batteries if planning to store the unit for months or longer.

Properly dispose of used batteries. Exposure to high temperatures can cause batteries to explode, so do not incinerate them. Some countries regulate battery disposal. Please follow all applicable rules.

The VIC is not equipped with an Auto Power Off (APO) function. So remember to power it off whenever you are not "actively" using it. If you do not, the batteries may discharge quickly, in as little as 3 hours.

If the VIC "freezes", press the **RESET** button on the back of the housing (Fig. 1, Callout 10) with the end of a paper clip and hold for 3 seconds. This will reset the VIC's WiFi Service Set Identifier (SSID) and password to their factory default values.

WARRANTY INFORMATION

General warrants its instruments and accessories, and digital tools products against defects in material or workmanship for one year from the date of purchase unless otherwise stated on the packaging, manual, and/or marketing materials. General also warrants its non-digital tools products against defects in material or workmanship on a limited lifetime term.

General will replace or repair the defective unit, at its option, subject to verification of the defect.

This warranty does not apply to defects resulting from abuse, neglect, accident, unauthorized repair, alteration, or unreasonable use of the product. It also does not cover products purchased from unauthorized distributors. A proof of purchase must accompany each warranty claim.

Any implied warranties arising from the sale of a General product, including but not limited to implied warranties of merchantability and fitness for a particular purpose, are limited to the above. General shall not be liable for loss of use of the product or other incidental or consequential damages, expenses, or economic loss, or for any claim of such damage, expenses, or economic loss.

State laws vary. The above limitations or exclusions may not apply to you.

For more details or to file a warranty claim, contact General Tools & Instruments Technical Support at techsupport@generatools.com.

RETURN FOR REPAIR POLICY

Every effort has been made to provide you with a reliable product of superior quality. However, in the event your instrument requires repair, please contact our Customer Service to obtain an RGA (Return Goods Authorization) number before forwarding the unit via prepaid freight to the attention of our Service Center at this address:

General Tools & Instruments
75 Seaview Drive Secaucus, NJ 07094
212-431-6100

FCC STATEMENT

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to a different circuit than the one the receiver is connected to.
- Consult your supplier or an experienced radio/TV technician for help.

Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



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Specifications subject to change without notice

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NOTICE - WE ARE NOT RESPONSIBLE FOR TYPOGRAPHICAL ERRORS.

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