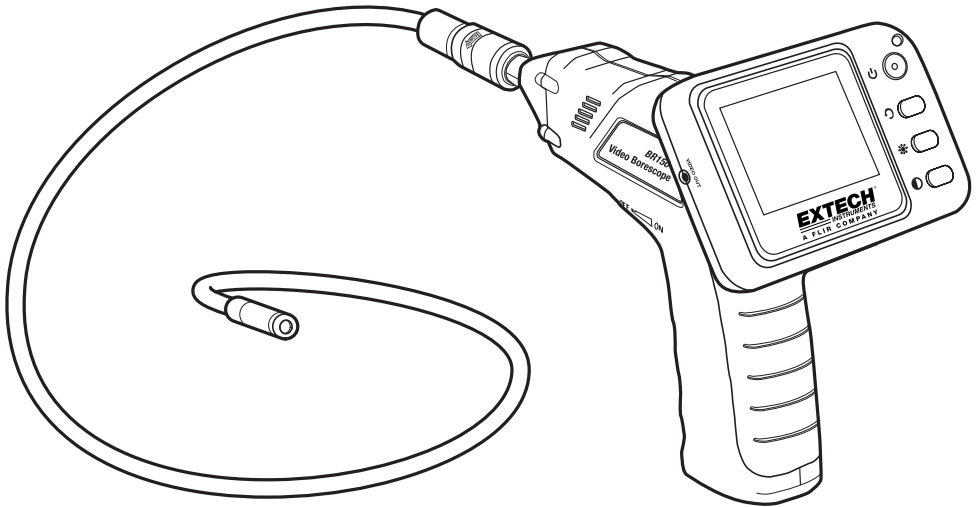




Video Borescope

Model BR150

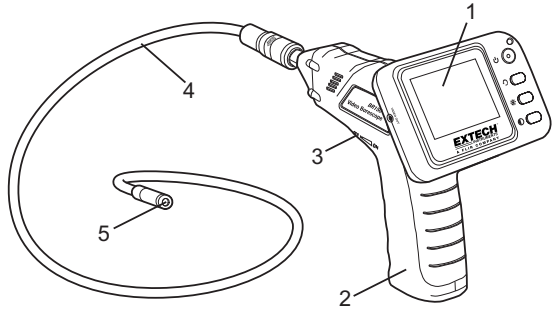


Introduction

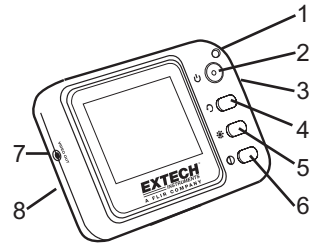
Congratulations on your purchase of this Extech BR150 Video Borescope. This instrument was designed for use as an inspection device. It can be used to peer into tight spots and then supply real-time video and images. Typical applications include HVAC inspection, automotive inspection, cable routing, and automotive/boat/aircraft inspection. This meter is shipped fully tested and, with proper use, will provide years of reliable service. Please visit the Extech Instruments website (www.extech.com) to check for the latest version of this User Guide.

Description

- 1 Display
- 2 Handle/Battery compartment
- 3 Power On/Off, Dimmer
- 4 Flexible tube
- 5 Camera head and LED's



- 1 Power indicator
- 2 Display On/OFF
- 3 Power On/Off (side)
- 4 Image orientation
- 5 Brightness
- 6 Contrast
- 7 Video output
- 8 Handle connector (rear)



Safety

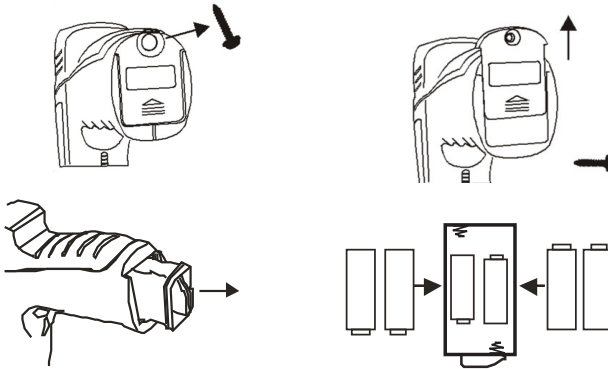
- Do not expose instrument to moisture
- Shut off the instrument when not in use
- Remove the batteries when cleaning the instrument
- Replace all batteries at the same time

Installation

Install the batteries into the instrument body, charge the monitor battery, connect the camera and flexible tube to the body, and install any accessory as needed.

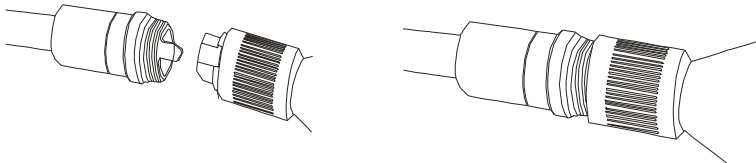
Battery Installation

1. Remove the screw and cover from the base of the handle.
2. Slide out the battery compartment.
3. Replace the four AA batteries observing polarity
4. Reinstall the battery compartment, cover and screw.



Connect the camera and flexible tube

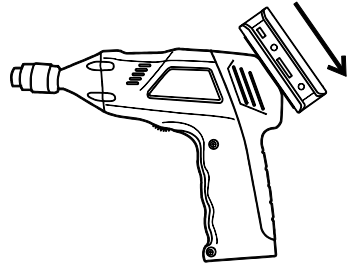
Connect the camera tube to the instrument body; ensure that the keyed ends are properly aligned. Once aligned, tighten the knurled knob to hold the connection firmly in place.



Warning. Permanent damage to the flex tube and loss of operation will occur if the flex tube is subjected to narrow radius or sharp angle bends.

Attaching the Monitor to the instrument body

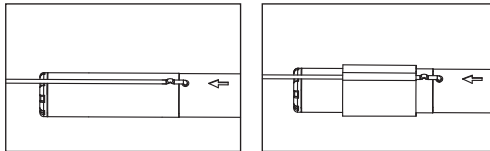
Insert the connector on the handle into the opening of the connector on the monitor and slide down until the monitor is firmly attached.



Installing the accessory tools

The included accessories (mirror, hook and magnet) all attach to the camera in the same manner. Refer to the diagrams below:

1. Align the tool as shown in the diagram below at left.
2. Wrap the rubber band ring around the shaft and tool to hold in place as shown in diagram below on right.



Video Output

Insert the video cable into the VIDEO OUT socket on the monitor. Insert the other end of the cable into the VIDEO IN jack of a TV or other monitor. The LCD Monitor will output a high quality video image.

Battery Replacement

When the battery icon appears on the LCD, the 'AA' battery must be replaced. The battery compartment is located on the bottom of the meter.

1. Press in and down on the arrow located above the tilt stand hinge.
2. Replace the 9V battery.
3. Replace the battery cover.

Battery Safety Reminders

- Please dispose of batteries responsibly; always observe local, state, and federal regulations with regard to battery disposal.
- Never dispose of batteries in a fire. Batteries may explode or leak.
- Never mix battery types. Always install new batteries of the same type.

Operation

1. Rotate the ON/OFF dial switch to power the camera. The power indicator on the top of the handle will switch on.
2. Further rotation of the switch adjusts the intensity of the two LEDs on the camera head.
3. Slide the On/Off switch on the side of the monitor to the ON position
4. Press the power button on the face of the monitor. The power light will turn on and the picture will appear.
5. Press the orientation button on the face of the monitor to rotate the picture as needed.
6. Press the brightness and contrast buttons in conjunction with the rotating the LED intensity for the best image quality.
7. The tube can be easily maneuvered into position. The tube can be bent into the shape of the area to be examined.
8. Use the supplied accessories to help retrieve small items.

Specifications

CAMERA

Imaging Sensor	CMOS
Total Pixels	712×486 (NTSC)
Horizontal View Angle	45 degree
Transmission Frequency	2468MHz
Minimum Illumination	0 Lux
Power Supply	4 x AA batteries
LCD Screen Type	2.36" TFT-LCD
Effective Pixels	480 x 234
Video Output Level	0.9-1.3VP-P@75Ω
Receiving Sensitivity	≤-85dBm
Dimensions (Monitor)	(W x D x H) 3.9 x 2.8 x 1.2" (100 x 70 x 30mm)
Operating Humidity (Max.)	15~85%RH
Waterproof Capacity	IP67 (imager head only)
Dimensions (Handle)	(W x D x H) 7.3 x 5.7 x 1.6" (186 x 145 x 41mm) (Excluding Flexible Tube)
Weight (approx)	15.5 oz. (440g)
Camera head Diameter	0.35" (9mm)
Operating Temperature	+14°F~+122°F (-10°C~+50°C)

Warranty

FLIR Systems, Inc. warrants this Extech Instruments brand device to be free of defects in parts and workmanship for one year from date of shipment (a six month limited warranty applies to sensors and cables). If it should become necessary to return the instrument for service during or beyond the warranty period, contact the Customer Service Department for authorization. Visit the website www.extech.com for contact information. A Return Authorization (RA) number must be issued before any product is returned. The sender is responsible for shipping charges, freight, insurance and proper packaging to prevent damage in transit. This warranty does not apply to defects resulting from action of the user such as misuse, improper wiring, operation outside of specification, improper maintenance or repair, or unauthorized modification. FLIR Systems, Inc. specifically disclaims any implied warranties or merchantability or fitness for a specific purpose and will not be liable for any direct, indirect, incidental or consequential damages. FLIR's total liability is limited to repair or replacement of the product. The warranty set forth above is inclusive and no other warranty, whether written or oral, is expressed or implied.

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FLIR Systems, Inc. offers repair and calibration services for the Extech Instruments products we sell. NIST certification for most products is also provided. Call the Customer Service Department for information on calibration services available for this product. Annual calibrations should be performed to verify meter performance and accuracy. Technical support and general customer service is also provided, refer to the contact information provided below.

Support Lines: U.S. (877) 439-8324; International: +1 (603) 324-7800

Technical Support: Option 3; E-mail: support@extech.com

Repair & Returns: Option 4; E-mail: repair@extech.com

Product specifications are subject to change without notice

Please visit our website for the most up-to-date information

www.extech.com

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ISO 9001 Certified

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Lignes d'assistance: États-Unis (877) 439-8324; international: +1 (603) 324-7800

Service d'assistance technique : Option 3 ; E-mail : support@extech.com

Réparations et retours : Option 4 ; E-mail : repair@extech.com

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Líneas de soporte: EE.UU. (877) 439-8324; Internacional: +1 (603) 324-7800

Soporte Técnico Opción 3; correo electrónico: support@extech.com

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