EXTECH INSTRUMENTS

User's Guide

Video Borescope Inspection Camera

Model BR70

Introduction

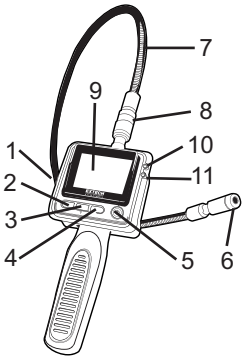
Congratulations on your purchase of this Extech BR70 Video Borescope. This instrument was designed for use as a remote inspection device. Typical applications include HVAC inspection, automotive inspection, cable routing, and automotive/boat/aircraft inspection. This meter is shipped fully tested and, with proper use, will provide years of reliable service.

Cautions

- Do not expose the handle and display to splashing water.
- Turn off the Camera if the system is not in use.
- Attention should be drawn to the environment aspects of battery disposal.
- Remove the batteries when cleaning the unit.
- Remove the batteries before storing the unit for a long time.
- When batteries need replacement, replace all four.
- Use only the size and type of battery specified.
- Be sure to install the battery with the correct polarity as indicated in the battery compartment.
- Properly dispose of the battery. Exposure to high temperatures can cause the battery to explode, so do not dispose of in a fire. Place tape over the terminals to prevent direct contact with other objects. Some countries have regulations concerning battery disposal. Please follow all applicable regulations.

Description

1 Battery compartment (side)
2 DisplayBrightness
3 LED intensity
4 Image rotation
5 Power
6 Camera / LED lights
7 Flexible cable
8 Cable / Display connector
9 Display
10 Power indicator
11 Low voltage Indicator



Safety and Care

- Do not expose instrument (display) to moisture
- Shut off the instrument when not in use
- Remove the batteries when cleaning the instrument
- Replace all batteries at the same time
- Do not immerse the camera in water
- Store in a dry place
- Only the camera head and the flex tube are water resistant

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.

Installation

Install the batteries into the instrument body and connect the camera and flexible tube to the body. Attach any accessory as needed.

Battery Installation

1. Remove the battery compartment cover

2. Insert four new AA batteries into the proper slots in the battery compartment. Proper battery orientation is indicated on the battery compartment.
3. Reinstall battery compartment and battery cover .

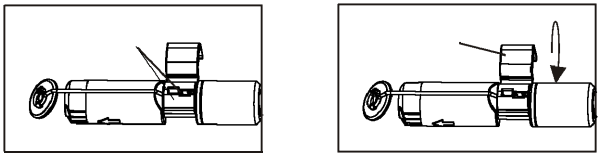
Note: Do Not Mix Old and New Batteries. Do Not Mix Alkaline, Standard (Carbon-Zinc), Or Rechargeable (Nickel Cadmium)

Connect the monitor 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.

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:



Operation

1. Press the power switch to turn the camera ON, the power indicator lights and the image displays on the LCD.
2. Insert the camera head and the flexible cable into the area to be viewed. Pre-shape the cable when inserting into areas with bends and curves.
3. Image adjustments

   LED intensity:

   Two LEDs mounted next to the camera are used to illuminate the inspection area. Press the LED button to step through the six levels of intensity (lowest to highest). A seventh press turns the LEDs off.

   LCD Contrast Control:

   There are 8 levels of LCD contrast. Press the ☼ LCD Contrast Control button to adjust the contrast, Press the button to increase the contrast, at the highest level it will return to the lowest level. When in use, the tube should easily maneuver itself into position going forward.

   Picture Rotation:

   Press the ↻ button to flip the image. The figure to the right demonstrates how the image is adjusted for each button press.

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Specifications

Imaging Sensor	CMOS
Total Pixels	712 x 486 (NTSC)
Horizontal View Angle	50 degree
Minimum Illumination	0 LUX
Night Vision Range	1.5m
Working length	1m(39”)
Focus point	15cm (6”)
Power Supply	4 x AA batteries
Tube Diameter	17mm(0.66”)
Waterproof Capacity	IP67 (only for imager head)
LCD Screen Type	2.36” TFT-LCD
Effective Pixels	480 x 234
Video System	NTSC
Consumption Current (Max.)	150mA
Dimensions	211 x 83 x61mm(8.3x3.3x2.4”)
Weight	284g (10oz)
Operating Temperature	-10°C~+50°C +14°F~+122°F
Operating Humidity (Display)	15~85%RH

FCC Information

Radio Frequency Interference (RFI) (FCC 15.105)

This equipment has been tested and found to comply with the limits for Class B digital devices pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, 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 and correct the interference by one or more of the following measures:

· Reorient or relocate the receiving antenna.

· Increase the separation between the equipment and the receiver.

· Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

· Consult the dealer or an experienced radio/TV technician for help.

Modifications (FCC 15.21)

Changes or modifications to this equipment not expressly approved by Extech may void the user’s authority to operate this equipment.

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