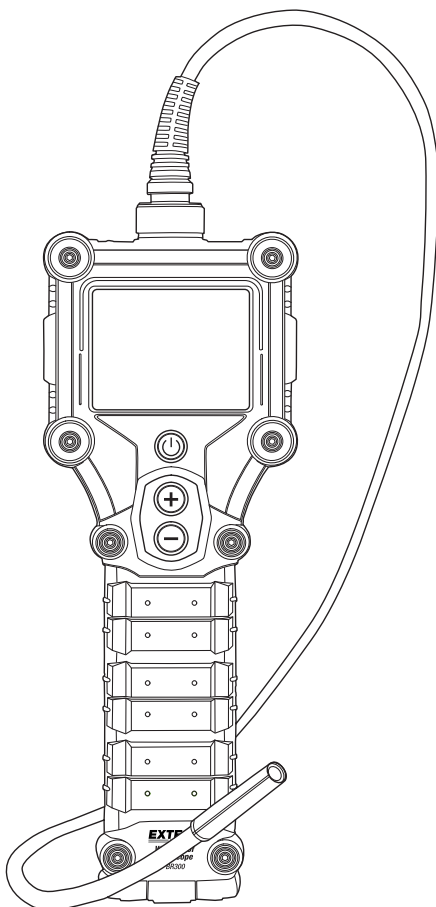


Waterproof Borescope

Models BR300 and BR350



Introduction

Thank you for selecting the Extech Instruments Model BR300/BR350 Waterproof Borescope. The Waterproof Borescope can be fully immersed in water (to 1m) for up to 30 minutes. The BR300/350 has a 6.8 cm (2.7") color TFT LCD glare-free, close-up field of view, monitor. The camera lens includes LED search-lights affixed on a flexible gooseneck cable (that retains the configured shape) for easy insertion in pipes, ducts, and other areas. This device is shipped fully tested and, with proper use, will provide years of reliable service. Please visit our website (www.extech.com) to check for the latest version of this User Guide, Product Updates, and Customer Support.

Safety

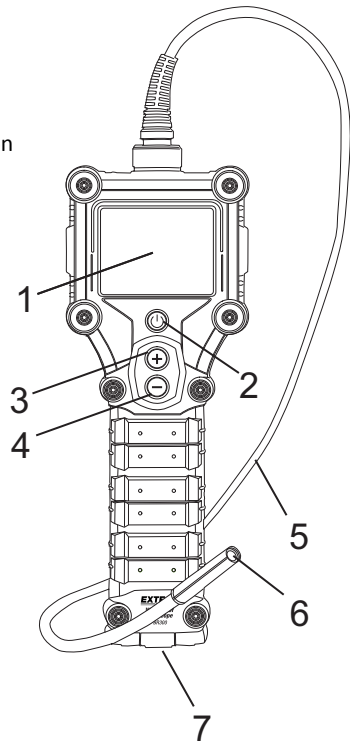
- Keep work area clean and well lit. Accidents are more likely to occur in cluttered and dark or dimly lit areas.
- Do not operate this device in explosive environments such as in the presence of flammable liquids, gases, or dust.
- Do not use this device in areas where contact with electrical wiring or electrically charged circuits or devices is likely. Contact with charged or live circuits and devices can cause this device to conduct electricity to the user resulting in severe injury or even death.
- Do not use near moving machinery, appliances, or other moving or rotating objects.
- Do not use this device near sources of heat.
- Do not allow children to use this device, its accessories, or the batteries.
- Do not use this device in rain or other wet conditions for long periods.
- Use common sense when using this device; stay alert and concentrate on the task at hand to avoid accidents.
- Use personal protective clothing, eye protection, and other protective gear as needed when operating this device.
- Do not over-reach when using this device; keep proper footing and balance at all times.
- Remove the batteries if the device is to be stored for longer than 60 days.
- Never dispose of batteries in a fire. Batteries may explode or leak.
- Never mix battery types. Always install new batteries of the same type.

Considerations and Maintenance

- This instrument is not intended for medical use of any kind
- Store the instrument out of the reach of children and do not allow person unfamiliar with this device to use it
- Check for misalignment or binding of the moving parts and for damage or any other condition that may affect this instrument's safe operation; do not use this device if it emits fumes or smoke. Have the unit repaired before use if any of these conditions are noticed.
- Clean only with a dry or damp cloth. Do not use abrasives, solvents, or scouring agents.
- Remove the battery before cleaning
- Have the unit serviced by qualified personnel only; Do not dis-assemble this instrument




Meter Description

1. Display Monitor
2. Power ON-OFF button
3. Search light brighten (+) button and zoom button
4. Search light dim (-) button and 180° rotation button
5. Flexible gooseneck snake shaft
6. Camera lens and LED search lighting
7. Battery compartment



Keypad Description

Keypad

-  **POWER button:** Press and hold for at least 2 seconds to power ON the instrument. Press momentarily to switch the instrument OFF.
-  **Increase LED lighting/Zoom button:** Press this button momentarily to raise the intensity of the search light LEDs located at the tip of the flexible camera probe. Press and hold this button for at least 2 seconds to ZOOM by a factor of 2 (2x).
-  **Decrease LED lighting/180 degree rotation button:** Press this button momentarily to lower the intensity of the search light LEDs located at the tip of the flexible camera probe. Press and hold this button for at least 2 seconds to rotate the display by 180° (mirror image).

Battery replacement

The battery compartment is located at the bottom of the instrument's handle. Batteries should be replaced when the instrument's video screen no longer switches ON or when the low battery indicator appears on the display screen.

1. Open the battery compartment by flipping up the battery compartment lid located on the bottom of the instrument's handle.
2. Remove the old batteries noting the orientation/polarity.
3. Replace with four (4) fresh 1.5V AA alkaline batteries observing correct polarity.
4. Close the compartment lid securely before operating the instrument.

Battery Safety Reminders

- Please dispose of batteries responsibly; observe local, state, and national regulations.
- Never dispose of batteries in a fire; batteries may explode or leak.
- Never mix battery types; install new batteries of the same type.



Never dispose of used batteries or rechargeable batteries in household waste.

As consumers, users are legally required to take used batteries to appropriate collection sites, the retail store where the batteries were purchased, or wherever batteries are sold.

Disposal: Do not dispose of this instrument in household waste. The user is obligated to take end-of-life devices to a designated collection point for the disposal of electrical and electronic equipment.

Specifications

Display Description	6.8 cm (2.7") digital TFT LCD screen
Display Resolution	960 x 240 pixels
Zoom	2x digital zoom capability
Image adjust	180° rotation (mirror image) capability
Batteries	4 x 1.5V AA alkaline batteries
Battery life	3 to 4 hours of continuous instrument use
Safety rating	IP67; EN60529:1991; A1:2000; completely submersible in water up to 1m (39.4") depth for 30 minutes
Operating Temperature	0 to 40°C (32 to 104°F)
Operating Humidity	10 to 80% RH
Dimensions	25 x 9.3 x 4.2cm (9.8 x 3.7 x 1.6") instrument without flexible cable 1m (39.4") flexible gooseneck flexible cable
Weight	380g (13.4 oz.) without batteries installed

	BR350	BR300
Camera shaft diameter	5.5 mm (0.23")	8 mm (0.31")
Camera viewing angle	60°	60°
Image sensor	1/18" VGA CMOS	1/9" VGA CMOS
Pixel array	320 x 240	640 x 480
Resolution	0.1M pixels	0.3M pixels
Image transfer rate	60 FPS (max.)	30 FPS for VGA
Sensitivity	1.0V/(Lux-sec)	1.3V/(Lux-sec)
Focal range	1 cm to 4 cm (0.39 to 1.57")	2 cm to 7 cm (0.79 to 2.75")
Optimized focal range	1 cm (0.39")	3 cm (1.18")
Shaft length	1m (39.4")	1m (39.4")
Shaft bend radius	30mm (1.2") minimum	30mm (1.2") minimum
LED lighting	2 LED search lights at lens	4 LED search lights at lens

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