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1. Safety Instructions

IMPORTANT: To prevent electric shock, fire and/or personal injury or damage, read this user's manual first and observe the following safety instructions.

1.1 Work Area Safety

- Always perform automotive testing in a safe environment.
- Keep your work area clean and well lit. Cluttered benches and dark areas may cause accidents.
- Keep clothing, hair, hands, tools, test equipment, etc. away from all moving or hot engine parts.
- Operate the tool in a well-ventilated work area.
- Do not operate the tool in explosive atmospheres, such as in the presence of flammable liquids, gases, or heavy dust.
- Keep a fire extinguisher suitable for gasoline/chemical/electrical fires nearby.
- Do not use the tool around corrosive chemicals which can ruin the photo quality.
- Keep bystanders, children and visitors away while operating the tool.
- Keep the tools dry, clean, free from oil, water and grease. Use a mild detergent on a clean cloth to clean the outside of the tool when necessary.

1.2 Electrical Safety

- Avoid body contact with earthed or grounded surfaces such as pipes, radiators, ranges and refrigerators.
- Do not expose the tool to rain or wet conditions. Water entering the tool will increase the risk of electric risk.
- Do not abuse the cord. Never use the cord for carrying, pulling, or unplugging the tool. Keep cord away from heat, oil, sharp edges or moving parts.
- If operating the tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) to protect supply.

1.3 Personal Safety

- Do not use the tool while tired or under the influence of drugs, alcohol, or medications. A moment of interruption can result in serious personal injury.
- Do not over-reach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.
- Always wear safety eye protection that meets ANSI standards.
- Do not wear loose clothing or jewelry. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.
- Do not place the tool on any unstable cart or surface. The tool may fall causing serious injury to a person or serious damage to the tool itself.
- Never spill liquid on the display units. Liquid increases the risk of electric shock and damage to the tool.
- Do not use the tool for personal or medical use in any way.
- The product is not shock-resistant. Do not use it as a hammer or drop it.

2. Description, Specifications and Tool Components

2.1 Description

The premier Digital Inspection Videoscope MaxiVideo™ MV101 is an ideal tool for inspecting difficult-to-reach areas normally hidden from sight. The ergonomic tool features comfortable pistol grip design, a 2.4" full color LCD screen, and offers the capacity to view real time images directly connected to a TV. Available with a 16mm imager head for general use or a 5.5mm imager head for up-close visual inspections in tight spaces, the multipurpose videoscope is an economical solution to inspect machinery, facilities and infrastructure in the safest, quickest and most-effective manner possible. Accessories (magnet, hook and mirror) are included to attach to the imager head to provide application flexibility.

2.2 Specifications

Recommended use	Indoor
Optimal viewing distance	3/8" to 12" (0.95cm to 30cm)
Image capture	JPG images (640 x 480)
Image controls	Low light vision
Lighting	Fully adjustable LED
Screen type display	2.4" TFT LCD
Display resolution	234 x 160
Power supply	4 alkaline AA, 1.5 Volt batteries
Tested battery life	3-4 hours of continuous use

Dimensions	195 x 78.5 x 191.5mm (7.68" x 3.09" x 7.54")
Weight	Net: 0.7 kg (1.5 lbs); Gross: 1 kg (2.2 lbs) -- blister card; 2.3 kg (5 lbs) -- blow mold case
Cable reach	1m (3') -- expandable to 5m (16') w/optional extensions
Imager head diameter	16mm (0.63") / 8.5mm (0.33") is standard; 5.5mm (0.22") is optional
Waterproof	Imager head and cable to 3m (10')
Operating temp.	Main unit: 32 °F to 113 °F (0 °C to 45 °C); Cable: 14 °F to 176 °F (-10 °C to 80 °C)
Storage temp.	-4 °F to 158 °F (-20 °C to 70 °C)
Operating humidity	5% to 95% non-condensing (display unit)
Video output	RCA

2.3 Accessories Included

- 1) User's Manual
- 2) Imager head and cable – 16mm, 8.5mm and 5.5mm diameter imager head
- 3) Magnet, hook and mirror (Optional)
- 4) Video-out cable
- 5) 4 x AA batteries
- 6) Blister case or blow molded case -- there are two different packages for the tool.

2.4 Tool Components

The MaxiVideo™ MV101 comes with the following items. Here 16mm diameter imager head and its matching accessories -- magnet, hook and cable are shown below as an example.

Note: Because of continuing improvements, actual product may differ slightly from photo.

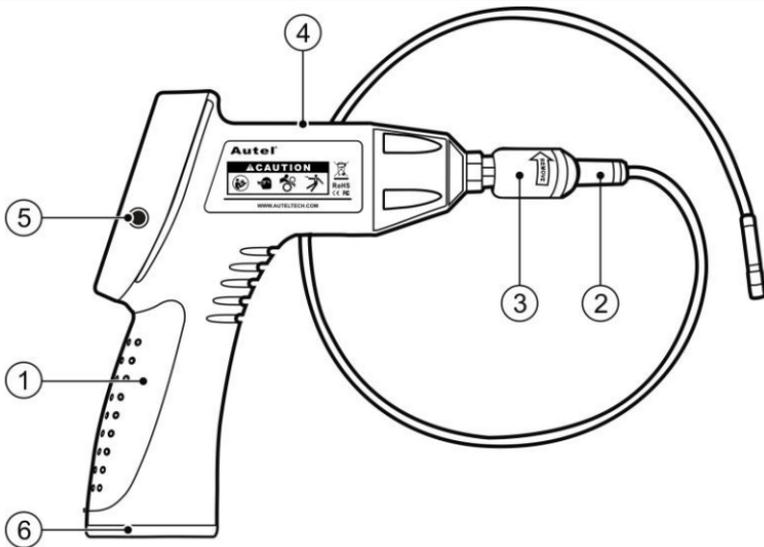


Fig. 1

- 1) **Handheld Display Unit** – The ergonomic tool with comfortable pistol grip design.
- 2) **Imager Head and Cable** – Connects to the tool while in use to view images and videos.
- 3) **Cable Connector** – Connects the handheld display unit to the imager head and cable.
- 4) **Power Indicator Light** – Illuminates green once turning the tool on.
- 5) **Video-out Port** – Connects the tool to a TV with the supplied video-out cable to view the real-time image.
- 6) **Battery Compartment Cap**– Indicates to install or remove batteries

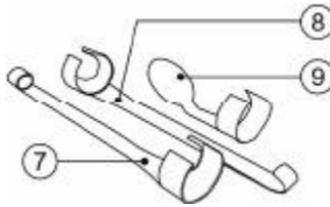


Fig. 2 16mm accessories

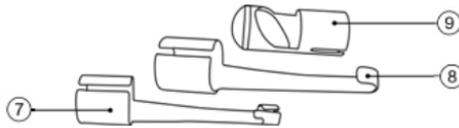


Fig. 3 8.5mm accessories

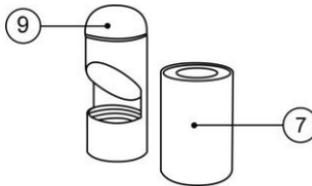


Fig. 4 5.5mm accessories

- 7) **Accessory Magnet** – Picks up small metal objects such as dropped rings or screws on the floor.
- 8) **Accessory Hook** – Unclogs obstacles and picks up wires in the pipes or confined areas.
- 9) **Accessory Mirror** – Helps users look around corners and see inside the unreachable areas.

NOTE: *The accessories for MV101 (16mm imager head), MV101 (8.5mm imager head), MV101 (5.5mm imager head) are different.*

2.5 Buttons and Controls

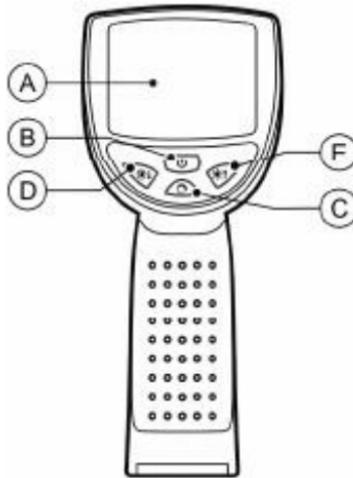


Fig. 5

- A. **LCD Screen** –Indicates test results. Backlit, 234 x 160 pixels display with LED lighting adjustment.
- B. **Power Button** – Turns on/off the tool.
- C. **Reverse Button** – Controls the direction of the real-time image
- D. **DOWN Arrow LED Lighting Adjusting Button** –Adjusts dim LED lighting.
- E. **UP Arrow LED Lighting Adjusting Button** –Adjusts bright LED lighting.

3. Installation

3.1 Battery Removal and Installation

NOTE: If the power indicator light is blinking continuously, this reminds you to replace batteries in time as instructed.

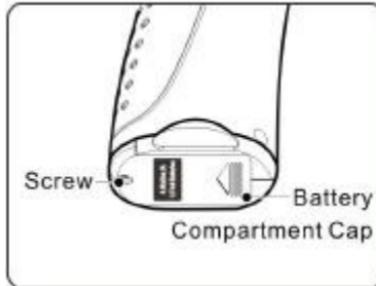


Fig.6

- 1) Turn the handheld display unit upside down to expose the battery compartment cap and screw. (**Fig. 6**)
- 2) Use a screwdriver to remove screw and battery compartment cap.
- 3) Battery removal and installation.

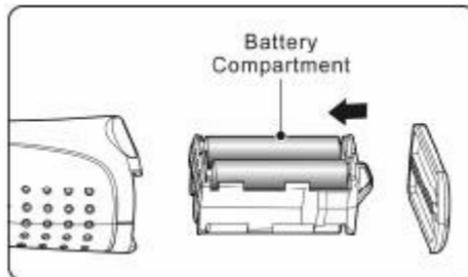


Fig. 7

- ✓ To remove the batteries, hold handheld display unit to remove the battery compartment and then remove batteries. (**Fig. 7**)
- ✓ To install the batteries, remove the battery compartment and insert four (4) new AA batteries into the proper slots in the battery compartment.

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- 4) Proper battery orientation is indicated in the battery compartment.
 - 5) Replace the battery compartment and screw using a screwdriver to close the battery compartment cap.

3.2 The Imager Head and Cable Installation

To use the tool, the imager head and cable must be connected to the display unit. To connect the cable to the display unit, make sure the key and slot (*Fig. 8*) are properly aligned. Once they are aligned, finger-tighten the knurled knob to hold the connection firmly in place.

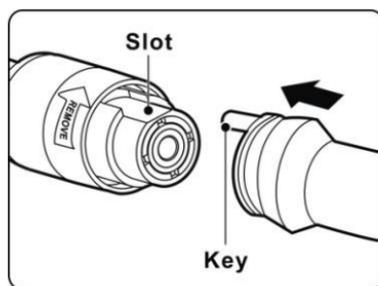


Fig. 8

3.3 Accessories Installation

For MV101 (with 16mm imager head):

The three accessories include magnet, hook and mirror (*Fig. 2*). All are attached to the imager head in the same manner. Hold the accessory and the imager head as shown in *Fig. 9*, slip the end of the accessory over the flats of the imager head and then fix the accessory as shown in *Fig. 10*.

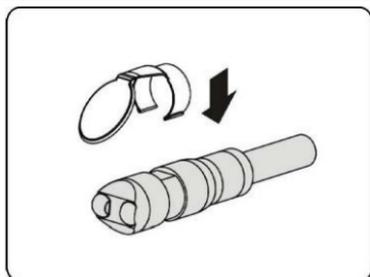


Fig. 9

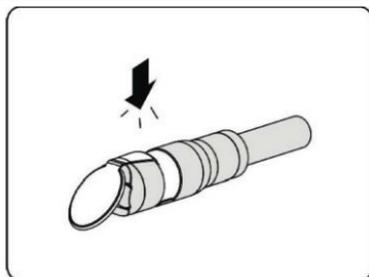


Fig. 10

For MV101 (with 8.5mm imager head):

The three accessories include magnet, hook and mirror (*Fig. 3*). All are attached to the imager head in the same manner. Hold the accessory and the imager head as shown in *Fig. 11*, slip the end of the accessory over the imager head and then fix the accessory as shown in *Fig. 12*.

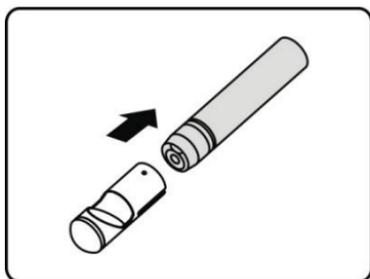


Fig. 11

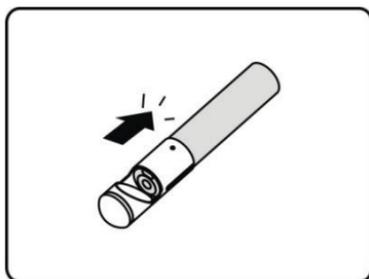


Fig. 12

For MV101 (with 5.5mm imager head):

The two accessories include magnet and mirror (*Fig. 4*). All are attached to the imager head in the same manner. Hold the accessory and the imager head as shown in *Fig. 13*, screw the thread part of the accessory over the imager head and then fix the accessory as shown in *Fig. 14*.

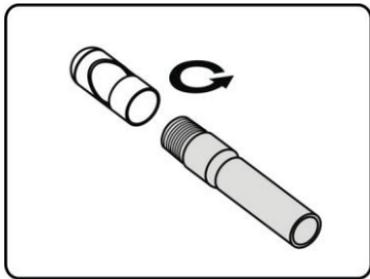


Fig. 13

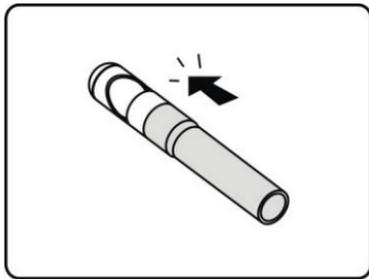


Fig. 14

3.4 Video-Out (TV-out) Cable Connection

Insert the video-out cable into the video-out port of the tool and the other end of the cable into the video-in port of a TV, the LCD screen will output a high quality real-time image.

4. Operation Instructions

4.1 Basic Operation

NOTE: When in operation, the cable can be bent into a certain shape. This may help you operate the cable into confined areas.

CAUTION: Keep the cable away from heat, oil, sharp edges or moving parts. Replace damaged cables immediately.

- (1) To turn the tool on, hold the handheld display unit with LCD screen facing you.
- (2) Press **Power** button to turn on the screen. The power indicator light will illuminate green. The real-time image will appear on the LCD screen.
- (3) Press **LED Lighting Adjusting** buttons to adjust LED light intensity as needed. Press **DOWN** arrow button to adjust dim LED lighting while press **UP** arrow button to adjust bright LED lighting.
- (4) Press **Reverse** button to control the direction of the real-time image. The real-time image will do a horizontal reverse or vertical reverse. (See Fig. 15)

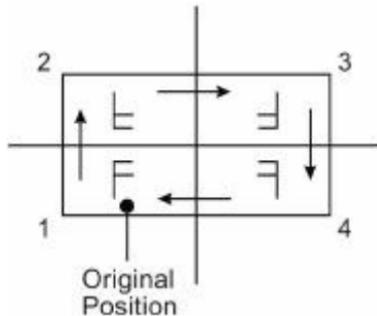


Fig. 15

- (5) Use the supplied accessories to provide application flexibility.
- (6) Connect the supplied video-out cable to video-out port of the tool and the other end of the cable to the video-in port of a TV to view a high quality real-time image.

4.2 Operation Precautions

CAUTION: CAUTION: Do not put the tool into anything or anywhere that may contain a live electrical charge.

- Do not operate the tool unless the user's manual has been read thoroughly and proper training has been completed.
- Do not immerse the handheld display unit in water. Reduce the risk of electric shock and damage.
- Do not use the tool if condensation forms inside the imager head. Let the water evaporate before using again.
- Do not use excessive force to insert or withdraw the cable.
- Do not use the imager head and cable to modify surroundings, clear pathways or clogged areas.
- The handheld display unit is not waterproof. The imager head and its cover are waterproof, but not acid-proof or fireproof. Avoid submersing the imager head into corrosive, oily places and be sure to keep the imager head away from high temperature objects.
- Do not put the imager head and cable into anything or anywhere that may contain a live electrical charge.
- If the tool does not work well after turning it on. Please take batteries out and do not use. Please have the tool checked by a qualified technician. Any tool that cannot be controlled with the power button is dangerous and must be repaired.
- Store idle components out of the reach of children and other untrained persons.
- Maintain the tool with care. Properly maintained tools are less likely to cause injury.
- If the tool is dropped, check for the breakage and any other conditions that may affect its operation.
- Use only accessories that are recommended by the manufacturer of the tool.
- Dry your hands when operating the tool or replacing batteries.
- Protect against excessive heat. The tool should be kept away from heat sources such as radiators, stoves or others that produce heat.
- Store the tool in ventilated and dry places.

NOTE: *Please check following methods to avoid injury.*

- ✓ **FOR WALLS:** For inspecting the inside walls, be sure to shut off the circuit breaker to the whole house before using the tool.
- ✓ **FOR PIPES:** If you suspect a metal pipe could contain an electric charge, have a qualified electrician to check the pipe before using.
- ✓ **FOR AUTOMOBILES:** Be sure the automobile is not running during inspection. Metal and liquid under the hood may be hot.

4.3 Battery Precautions

- Remove the batteries while cleaning the tool.
- Remove the batteries before storing the tool for a long period of time to prevent battery leakage from damaging battery compartment.
- When necessary, replace all four (4) batteries with new ones.
- Use only the size and type of batteries specified.
- Be sure to install batteries with the correct polarity as indicated in the battery compartment.
- Properly dispose of batteries. Exposure to high temperatures can cause batteries to explode. Do not dispose in fire.

4.4 Maintenance Instructions

NOTE: *Make sure the batteries have been removed from the tool before performing maintenance.*

- Tool maintenance must be performed only by qualified repair personnel. Maintenance performed by unqualified repair personnel could cause injury.
- When maintaining, use only identical replacement components.
- Do not attempt to take any pieces of the tool apart unless directed by the manual.
- Follow instructions to replace accessories.
- Do not use acetone to clean the tool. Instead, use alcohol. Avoid rubbing too hard on the LCD screen. After using, wipe the display unit clean gently with a dry cloth.

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- Upon the completion of any maintenance of the tool, ask qualified repair personnel to perform safety check to see if the tool is in proper operating condition.
 - Stop using the tool if it starts smoking or emitting noxious fumes.
 - Always handle the tool with care. It is not shock-resistant and should not be banged or dropped.
 - Do not disassemble the tool beyond what is shown in the manual. Doing so will void your warranty

5. Troubleshooting

SYMPTOMS	POSSIBLE REASONS	SOLUTIONS
Display is on, but does not show image.	Cable connection is loose.	Check and reattach.
	Imager head is covered by debris.	Check if it is covered by debris.
LED on imager head are dim at max brightness, display changes between black and white, color display turns itself OFF after a short period.	Low battery.	Charge battery.
The tool will not turn on.	Dead battery.	Replace battery.

6. Warranty Information

6.1 Limited One Year Warranty

Autel warrants to its customers that this product will be free from all defects in materials and workmanship for a period of one (1) year from the date of the original purchase, subject to the following terms and conditions:

- 1) The sole responsibility of Autel under the Warranty is limited to either the repair or, at the option of Autel, replacement of the tool at no charge with Proof of Purchase. The sales receipt may be used for this purpose.
- 2) This warranty does not apply to damages caused by improper use, accident, flood, lightning, or if the product was altered or repaired by anyone other than the Manufacturer's Service Center.
- 3) Autel shall not be liable for any incidental or consequential damages arising from the use, misuse, or mounting of the tool.
- 4) All information in this manual is based on the latest information available at the time of publication and no warranty can be made for its accuracy or completeness. Autel reserves the right to make changes at any time without notice.

6.2 Service Procedures

If you have any questions, please contact your local store, distributor or visit our website at www.auteltech.com.

If it becomes necessary to return the tool for repair, contact your local distributor for more information