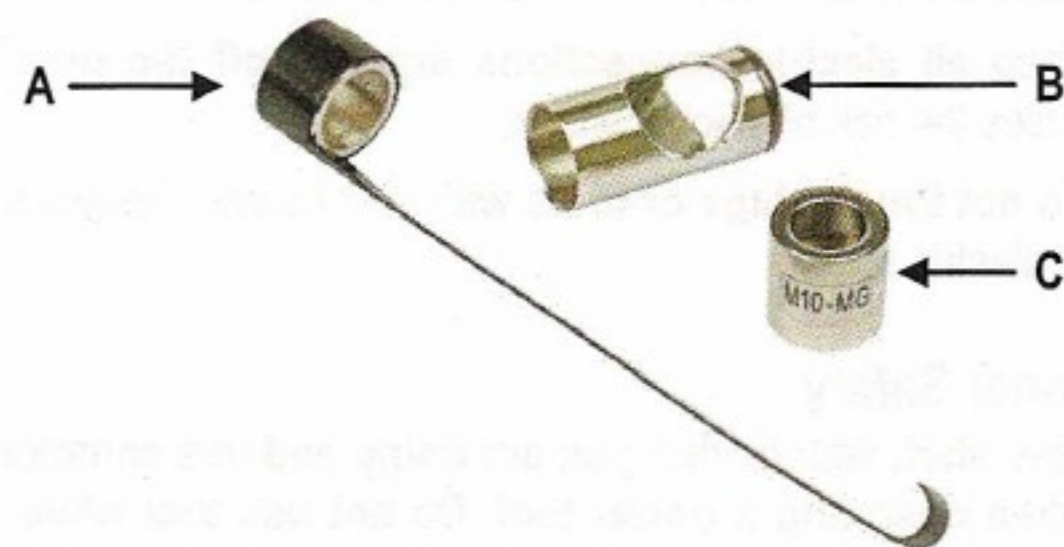## SPECIFIC SAFETY RULES

1. **Keep the device out of the reach of children.**

2. **Do not look directly into the camera lens at the end of the probe rod.** Your eyesight may be seriously damaged.

3. **Do not forcibly bend, twist or elongate the probe rod.**

4. **Strong impact on the device may result in the breakage of the camera lens at the tip of the insertion tube.**

5. **Do not use or store the device at a temperature higher than 140°F (60°C) or lower than -4°F (-20° C).**

6. **Store the device in a dry and adequately ventilated environment.**

7. **Keep the device away from acid or alkaline solutions, oil or petrol, and do not use it in an atmosphere containing their vapors.**

8. **Do not remove the SD Card while data is being saved to the card.** This may cause the data to be lost or the card to be damaged.

9. **Do not use tool if switch does not turn it ON or OFF.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.

10. **Be sure that the unit is plugged into a properly grounded receptacle.** If in doubt, check receptacle before plugging in machine. Check the power cord to see that there are no cuts or frays, and that the grounding prong on the plug is still in place.

11. **If the power cord supplied with the machine is not long enough, be sure to use a 16 gauge heavy duty extension cord no more than 50 feet long and in good condition.** Using lighter cords can result in severe power loss and motor overheating.

13. **Be careful when cleaning drains where cleaning chemicals have been used.** Avoid direct contact with corrosive drain cleaners. Drain cleaning chemicals can cause serious burns, as well as damage the cable. Neutralize or remove corrosive drain cleaners in the drain before starting the job.

14. **Do not operate machine if operator or machine is standing in water.** Will increase risk of electrical shock.

15. **Wear safety glasses and rubber soled, non-slip shoes.** Use of this safety equipment may prevent serious injury.

16. **Protect against lightening.** For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power surges.

17. **Protect against excessive heat.** The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

FEATURES

A.	Probe Rod	K.	Mirror Image & Rotate
B.	Command Module	L.	Escape
C.	SD Slot	M.	POWER Button
D.	DC-in	N.	USB Port
E.	Video-out	O.	Speaker
F.	Microphone	P.	Zoom In
G.	LED Brightness Increase	Q.	RECORD Button
H.	Zoom Out	R.	UP Button
I.	PHOTO Button	S.	DOWN Button
J.	LED Brightness Decrease	T.	OK Button

ATTACHMENTS

A. Hook = pick up tool
B. 45° Mirror = gives you a 90° view
C. Magnet = use to pick up metal objects

To use the attachments:
1. Unscrew chrome tip from the end of the Probe Rod and thread on the desired attachment.
2. Tighten securely before use.

TECHNICAL DATA

Probe Rod & Light Source

Image Sensor	CMOS Image Sensor
Resolution (Dynamic/ Static)	320 (H) x 240 (V) / 640 (H) x 480 (V)
Size Tip (Probe Rod) Diameter	10 mm
Probe Rod	3 ft. (Extensions Available)
Field of View (FOV)	56 °
Depth of View (DOV)	1.5 cm - 5 cm (OD 5.5 mm/OD 4.0 mm)
Light Source	6 LEDs
Probe Working Temperature	-4 to 140 °F (-20 to 60°C)
Ingress Protection	IP57

Command Module

Power	DC5V
Display	3.5" TFT LCD Monitor 320 x 240 Pixels
Interface	Mini USB 1.1/AV out
Battery (Not User Serviceable)	Rechargeable Li-Polymer Battery (3.7V)
Power Adapter	100 - 240 V AC in / 5.5V DC out
Video Out Format	NTSC & PAL
Recording Medium	SD card
Compression Format	MPEG4
Still Image Storage Format	JPEG (640 x 480)
Video Recording Format	AVI (640 x 480)
Working & Storage/ Battery Charging Temperature Range	-4 to 140 °F (-20 to 60°C) / 32 to 104 °F (0 to 40 °C)
Functions	Snapshot, Video Recording, Picture & Video Review on LCD Screen, TV Out, Transfer of Picture & Video from SD card to PC, Digital Zoom

SET UP - COMMAND MODULE

1. Insert SD card in SD card slot at the side of the display unit. The metal strips should be facing up for insertion.

2. Connect the probe rod to the Command Module, or the interface cable from the reel to the Command Module, as shown and tighten the locking collar.

3. Press the POWER button for 3-5 seconds to turn the Command Module on. The Start-up screen is shown briefly, followed by the status screen for five seconds.

The status screen shows the capacity of the SD card and the internal battery. If the Micro-Scope has been stored for a long time the display might not have enough power to turn on. Please use the power adapter to re-charge the battery. Make sure you plug the power adapter into the port closest to the keypad on the command module.

MENU SET UP

1. Switch the unit on. Ensure that camera mode is active (i.e. a "live" picture can be seen).

2. Press the OK button to access the menus. Use the UP or DOWN button to select the menu item. Press OK to confirm.

The options displayed are as follows:

- Delete All
- Video Output
- Date / Time Setup
- Language
- Video Format
- Auto Power Off
- Input Source

DELETE ALL:

Take care in selecting this option, as everything will be deleted from the SD card!

1. Navigate to DELETE ALL in the menu, press the OK button.

2. Select YES or NO using the UP or DOWN buttons.

3. Confirm with the OK button.

VIDEO OUTPUT:

This function allows live pictures or recorded photos and videos to be displayed on a TV screen.

1. Make sure that the Video format is set correctly to the used TV system (NTSC or PAL). *See the Menu Set Up section.*

2. Connect the scope video cable to the display unit TV out jack. Ensure that the other end of the video cable is well connected to the TV.

3. Press the OK button to select menu options, select Video Output and press the OK button.

4. The screen will turn black and the display will be shown on the TV. You can transfer the screen back to the display unit by selecting the same function.