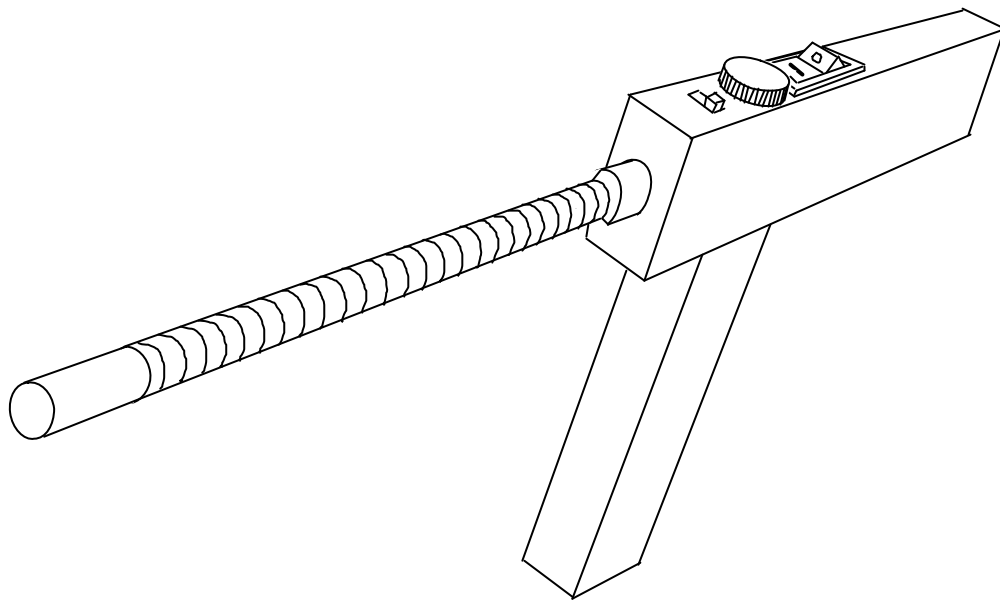


MORITEX

CORPORATION

CCDEndoscope MSC I- 1000

Operation Manual



Features

- Clear image achieved by a high-sensitivity/resolution CCD camera
- Compact design and high portability
- Easy to operate
- Easy to connect with video devices

Before use, please read this manual first and keep this manual with the warranty card provided in the last page.

BEFORE USE

Before use, please read this manual

Please be sure to follow the instructions given in its manual when using this device for your safety

The degree of risk arising from improper use is classified by the following icons



Warning

This sign applies when improper use of the device may result in death or serious personal injury



Caution

This sign applies when improper use of the device may result in personal injury or damage to the device

Other signs

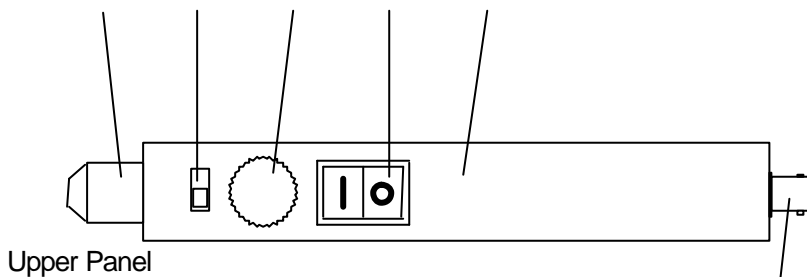


This sign indicates prohibited activities that are shown in figure either inside of or beside each sign (Left indicated "No disassembly" for example)

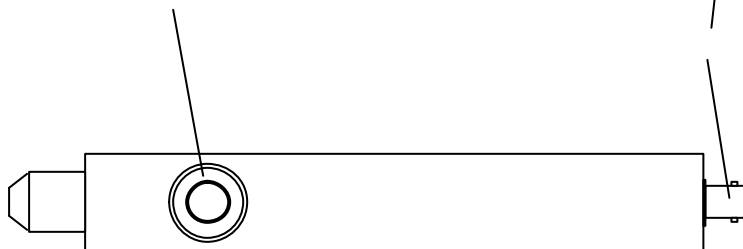


This sign indicates prompted activities also shown in figure either inside of or beside each sign (Left indicated "Please unplug the device" for example)

Part names and descriptions

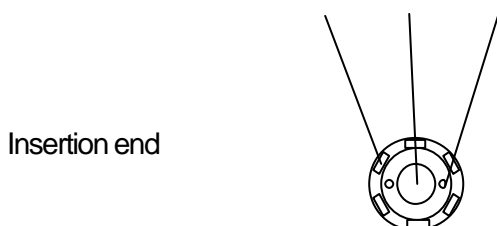


Upper Panel



Bottom panel

Part Names	
	Probe Holder
	Erect/Mirror image selector
	Light Volume adjustment
	ON/OFF switch
	Main body
	DC / Battery connector
	VBS Output / BNC
	Chip bonded LED
	LENS
	Groove for focus adjustment



Insertion end

Clockwise
Farther focusing
Counter-clockwise
Closer focusing



Warning

Instruction for use



In the event of a failure, please immediately unplug the device

Continued use of the device in failure may become fire hazard or electrocution hazard. Please unplug the device and contact your authorized dealer or local Moritex sales office listed on the last page of this manual

Please also be advised to unplug the device in the event ;



of smoke, unusual odor and/or noise



of water or other liquids entering the unit



of foreign objects entering the unit



that the device and/or power cord is damaged



of no image coming on screen without known case

Handling the device



Do not expose the device to shocks and vibrations



Do not disassemble and/or modify



Please switch off the device when connecting and disconnecting the camera cable



Do not apply the device to the human body

Care and maintenance



Please do not place the device on an unstable or inclined location



Please do not place the device under objects that may fall



Please do not place objects on the device



Please keep the device away from water and chemicals



Please keep the unit away from an extremely cold and warm environment



Please do not use in a humid environment, steams and condensation



Please keep the surrounding environment clear from dust



Please do not place the device in an area with poor ventilation



Please keep the device away from flammable or corrosive gases

Power supply



Do not use with any power voltage other than the indicated voltage




Do not modify the power cord








Do not damage the power cord

Failure to follow the above warning or cautions may become fire hazard or electrocution hazard

 CAUTION

Handling of items related to Power Supply.

-  Do not plug or unplug the power supply cable with wet hand.
-  Please unplug the cable when not use for a long while of time.
-  Please unplug the cable when improvement or movement.
-  Please hold the plug part when unplugging.
-  Do not make cable close to any heating devices or instruments.

If you may not follow to these cautions, may occur a fire or get an electrical shock.

Specification

Item	Model	MSCH1000
Tip Diameter		9.8 mm
Camera		1/4" Interline CCD
Effective Pixel Number		0.38 mega pixels
Scanning System		2:1 interlaced
Signal System		NTSC
Sync System		Internal
Video Output		1.0 Vp-p 75 Ohm Unbalanced VBS
S/N ratio		48 dB or more
Minimum Illumination		2 Lux (AGC ON F1.4)
Horizontal Resolution		500 TV Lines or more
AGC		Auto (MAX 24 dB)
Shutter		Auto (1/60 to 1/100,000)
White Balance		Auto
Gamma		0.45
Image		Normal / Mirror Image switchable
Power Requirements		DC 7V to DC12 V
Ampere Consumption		290 mA (at 7 V)
Operation Temperature		- 10 to + 60 degree of Celsius
Material of Insertion parts		Interlocking type PVC coated tube
Illumination		1608 LED chip (6 pcs)
Lens		f = 3.4 F5.0
Angle of View		Horizontal 68.8 degree, Vertical 51.6 degree, Diagonal 86 degree
Focus Distance		40 mm to infinity
Waterproofing		Tip part only
Weight (including Battery Case & Battery)		About 700 g
Gross Weight		About 2.2 kg

After-Sales Service

After-Sales Service

The manufacture shall repair this product at the manufacture's expense if malfunction occurs during the warranty period (1 year from the date of purchase) under normal usage conditions. Confirm the dealer name, date of purchase, warranty period and other conditions on the warranty card before storing the card for safe keeping.

WARRANTY CARD

Model	MSCI - 1000
Serial Number	
Purchase Date	(Day)/ (Month)/ (Year)
Warranty Period	
Your Name	
Company's Address & TEL.	
Name of Retailer's	

Please fulfill all of terms. If not, it may not acceptable for applying warranty, so please check and make sure that nothing are left out.

This CCD Endoscope described on this certified is hereby certified as having passed a stringent quality control and inspection prior shipment. The manufacture shall repair at the manufacture's expense if malfunction occurs during the warranty period under normal usage conditions in accordance with this warranty card.

Warranty Regulation

If a malfunction occurs during the warranty period under normal usage conditions, the manufacture will undertake to perform repairs free of charge in conformity.

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