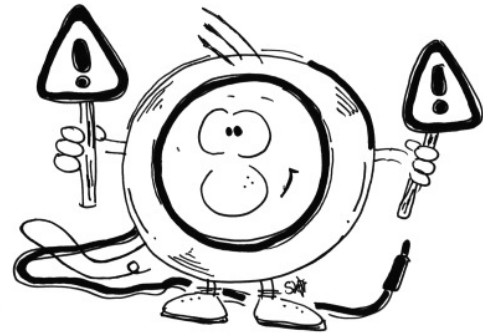


# Instructions on handling and operation of image intensifiers



## [ General ]

Image intensifiers are highly sensitive optoelectronic sensors. They are used for spatial resolved gain of lowest image intensities and are, therefore damageable instruments.

To guarantee a proper operation and longevity the following precautions are strongly recommended.

Otherwise the image intensifier and even peripheral equipment - such as power supply and coupled CCDs - can be damaged irreversibly.

Please do not hesitate to contact us if you have any question.

## [ General Handling ]

### Avoid

- Contamination of input and output faceplates with dust or dirt particles
- heavy hits, impacts or vibrations
- every tensile loading to the leads - never hang the image intensifier up at his leads
- peaked, conductive components (e.g. metal screws for fixing) at the image intensifier

## [ Cleaning ]

**The input and output windows are polished surfaces of optical quality. They are particularly prone to scratching, especially fiber glass.**

**For cleaning of the optical windows use only clean optical paper or cotton swabs which have been moisten with isopropanol, methanol or acetone.**

**The image intensifier must not dipped into water, solvents or other chemicals. Avoid contact of the solvents to the housing as well as to the potting material during cleaning the optical windows.**

**Loose particles may be removed by dry nitrogen or oil free pressurized air.**

Low Light Cameras Special Purpose Cameras	Short Exposure Cameras Pulse Generators	Fiber Optical Coupling Phosphor Coatings	Detector and Camera Upgrades and Customised Prototyping
Solar Blind & Visible Image Intensifiers	UV & X-Ray Cameras Corona Detection Cameras	Customised Facilities & Equipment	Vacuum & Open MCP Detectors



**[ Power supply from ProxiVision ]**

We strongly recommend to operate the MCP-Proxifier only in connection with an original ProxiVision power supply. These are specially designed for use with the image intensifier and are fixed, potted and carefully tested as unit.

**[ Power supply from customer ]**

**[ Limited Warranty ]**

In case you connect MCP-Proxifier to your own power supply strongly consider the below mentioned instructions. We cannot grant warranty on image intensifiers damaged through overvoltage, voltage peaks or overexposure.

Permissible voltage	Photocathode to MCP input	+ 100 to - 300 V
	MCP input to MCP output	400 to 800 V / plate (see data sheet)
	Phosphor screen to MCP output	0 to + 6 kV

The voltage on MCP and phosphor screen **must not be gated**. Please consider that the switching on of some voltage sources as well as defect connections, power supplies or cables can produce voltage pulses.

Check all leads and connectors before switching on. Incorrect polarity of the voltage, false plugged connectors and loose connection can damage image intensifier during switching off immediately.

Do never fasten or remove any electrical connections during operation.

The MCP input must always be connected otherwise the input side of the MCP charges to the potential of the output side. Resulting from this the maximum voltage between photocathode and MCP input will be exceeded.

Make sure that there are no shortly higher voltages when switching of the voltage sources.

Use high ohmic voltage sources or voltage limitations. The current flow over a MCP at maximum voltage without load is approx. 30 µA. A power supply providing this twice is sufficient absolutely. A tenth part of this value is adequate for the screen.

Use a low ohmic voltage source, make assure that no overexposure occur, otherwise the MCP will be damaged.

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