

GENERAL SAFETY INSTRUCTIONS

Please, read carefully the operating and safety manual prior to setup. The non-respect of these instructions can lead to people or animals getting hurt or damaged.



These notes warn for things that can lead to people or animals getting hurt or to equipment getting damaged

Read carefully the operating and safety instructions as all labels affixed to the device. Be sure you understand their signification before use. If you do not understand or have doubts about any point of this user's manual, contact IRIS INSTRUMENTS for an explanation or a demonstration.

- Keep the user's manual with the device for future reference. Thus keep it intact, readable and at the disposal of qualified persons during the entire life of the device. Be sure that all the interveners have read the user's manual and safety instructions.
- The use of a device in accordance with the safety instructions does not guarantee the absence of risks. Proceed carefully. Do not use this device if you have a doubt on the correct and safe way to use it.
- In all circumstances, the user must scrupulously respect the entire instructions of the user's manual. He must also comply with all applicable local and national laws of the jurisdiction of using of the device.
- People under the influence of drugs, alcohol, pharmaceutical products or any other product that might disrupt their reaction should not perform any operation or manipulation of the device.
- This device is designed for industrial use only.

Below is a list of the major risks and precautions to be followed before and during the use of the device:

- Be sure that the equipment is in good working order before leaving on the field.
- Use only cable in good conditions, sufficiently isolated and well adapted, regarding operating current and voltage levels of the device. Replace any worn cable.

- Follow rigorously handling and operation instructions. A wrong plug might be dangerous.
- The device is heavy, be careful when you wear the device. Use your knees, and not your back, to carry the device. When you carry the device by the front face, use either both handles or the carrying strap.
- The device must not fall during its use. Place it down flat, directly on the ground, or slightly elevated to avoid any falls from heights. The power cable can be rigid and create a barrier for the operator.
- The connection of the device to excessive voltage source can cause irreversible damages to the device. Make sure you use the right voltage source.
- The device may in no circumstances be connected to the electricity distribution network.
- Do not modify the jack and unroll totally the power cable. Protect it from sharp pieces. A damaged or twisted power cable increases the overheating risks.
- Wear a face shield, shoes and isolating gloves.
- Be sure that nothing and nobody can touch the cables and electrodes during the functioning of the device.
- Protect the working area using safety cones.
- Use labels and panels “Danger, high voltage” wherever there is people present.
- Use non-metallic objects and tools to avoid any electrical contact with the cables and electrodes (meter tape, hammer, ...)
- Be sure to thoroughly clean the area around the injection electrodes. The passage of current in the electrode can produce sparks and cause a fire if the vegetation is abundant.
- Always inform about your presence on the field. Communicate clearly between operators on the field using walkie-talkies that have been checked before the leaving on the field.
- Be careful when using the device in a damp environment. The device is design to work under the rain but not under water. The risk of current leakage is higher in damp environments. Stay at a minimum of 1 m from the electrodes and cables.
- Do not use the device in case of thunderstorm. If a thunderstorm should come up during the measurement, then first stop a possible ongoing measurement process and disconnect the cable from the device without touching any conducting part. Never leave the cables connected to the device overnight unless they are equipped with adequate lightning protections since a thunderstorm may occur.



- Avoid obstructing the ventilation openings of the device. This may generate overheat and stop prematurely the device.
- In case of problem, press the emergency push button to stop immediately the injection process. Before releasing the emergency button, make sure that everything is in order and warn all the operator of the power reconnection.

The assembly and maintenance operations must be realized according to the procedure, the preparation conditions and the environment described in the maintenance documentation, by persons with the training and qualifications required to work on electrical equipment

- The input voltage is present in the device even if the general switch is OFF. Before opening the device, ensure that the power source is turned off and is not likely to be turned back again. For more security, disconnect the power source.
- Make sure that the capacitors are discharged. They can maintain high voltages within the device, even when the power is off. The contact could result in death or serious injuries. Wait at least 10 minutes before opening the device.
- Some parts of the device are used to dissipate excess of heat produced by the components. The parts and components remain hot for some time after switching off the device. Be careful not to burn yourself in contact with these parts.
- Use tools in good conditions and suitable for the work to be done. Be careful not to drop any piece of metal into the device (screw, wiring cables, tools...)
- During all life phases of the device, all operation that is not described in the user's manual is strictly prohibited. Always use accessories and spare parts approved by IRIS INSTRUMENTS
- It is strictly forbidden to anyone to make mechanical or electrical modifications to the device, to modify the functions or technical documents except those recommended by IRIS INSTRUMENTS.

Note:

To help you, IRIS INSTRUMENTS proposes a Security Pack that features Safety cones labelled “Danger, High voltages” and warning plates labelled “Caution, Electrical Hazard” to warn people about the possible danger in the area. They allow to minimize the risk of contact with the electrodes, especially if they are distant from the operator and hidden by vegetation. Moreover, considering the voltage levels present, the wearing of personal protective equipment is highly recommended (mainly insulated gloves class 1 and insulating shoes).

