

Safety instructions

applicable when using the

portable X-ray unit AJEX 9020 H



1. General considerations

One of the main considerations in X-ray work is protection against the hazards of X-ray radiation. Proper use of the X-ray unit does not pose any danger; however, careless or improper usage can be dangerous. Therefore, it is important that all operating personnel should read these instructions carefully and apply them when using the X-ray unit.

2. Radiation protection

The ionized radiation is dangerous for the operator and others. Ensure maximum radiation protection.

- a. When using the unit **in the laboratory**, make it absolutely clear to third parties that they should not enter the room. At home (University of Antwerp, campus Drie Eiken, building C, in room C1.05, put on the red light above the doors leading to this room. When using the unit in another room on location, mark all doors with the ionized radiation sign and a clear message.



- b. When using the unit **in the field**, delimit a “no-go” area around the unit, using the poles and brightly colored marking tape (available in the safety kit). This area should be large enough to keep others at least 4 m away from the operating unit. Put out safety messages (as in a.)
- c. Always **position** the unit in the right position, i.e. with the X-ray **beam going down**. Use the mounting device to achieve this.



- d. **Collimate** the radiation beam field as small as possible.
- e. All persons near the unit must always wear **lead suits** (aprons). If manipulation is required during X-ray recording, always wear **lead gloves**.



- f. Always wear two **dosimeters**. Put the **red** dosimeter **on top** of the lead suit, put the **blue** dosimeter **underneath** the lead suit.
- g. When releasing the exposure, all persons must keep away more than 2 meter from the radiation source. Fully stretch the cable connected to the exposure release switch to achieve this.
- h. Log your usage of the x-ray unit in the unit’s logbook.

3. Explosion protection

The unit is not intended for use in explosion-prone areas.

4. Mechanical safety

Extreme care must be taken when installing or separating the unit from the mount to prevent injury.

The unit is not protected against water or any liquid.

Do not place objects on the X-ray unit (gloves, aprons, etc.)