

NFI Faraday Cage - Operating Instructions

The Netherlands Forensic Institute (NFI) has developed a new, more effective version of a 'Faraday cage'. The NFI Faraday Cage enables police and other authorities to read out data from a mobile phone without running the risk of the data being changed or wiped by a criminal remotely. Instructions on how to operate the cage can be found below.

Gloves

- Replace gloves when they become dirty and in any case at least once a year.
- Use the cage only if your hands are clean and free of grease, or, preferably, wear latex examination gloves, in order to prevent oxidation contamination of the conductive gloves.

Telephones

- Use a stylus to operate touch-screen phones.
- Use a small open top box when placing dirty phones in the cage.

Opening and closing the cage

- Leave the lid open when the cage is not in use.
- Ensure that no dirt can fall into the cage when open.

Safety

- Take care not to touch the power socket holes with the (conductive!) gloves.
- Make sure the cabinet is earthed.

Storage

- The cage can be safely opened temporarily in the following manner: It is possible to pick up a phone in one of the gloves while the cage is closed, and to turn the glove inside out and then twist it one full turn. This creates a type of miniature Faraday chamber for the phone. To do this, the charger must be **removed from the phone**. The cage can then be safely opened temporarily to remove or add objects. If the telephone is not clean, it must be placed in a plastic bag before it is placed in the glove.
- If you want to secure more phones than the number of power sockets available, make sure that all chargers are in the cage and regularly alternate the chargers for phones with full batteries and the chargers for phones whose batteries are almost empty.
- Use the cage to secure a maximum of 10 phones, supplementing the power strip with an extension power strip, or regularly alternating the chargers for phones with full batteries and the chargers for phones whose batteries are almost empty.
- When storing telephones without using the cage, the gloves should be placed in the holes in a crumpled manner, to serve as plugs.

Extra protective measures

- The NFI recommends that a cage never be used within 5 metres of a cellular repeater.
- The NFI recommends that the investigator working with the cage does not have a telephone in his or her pocket, in order to prevent the body serving as an antenna for the telephone in the cage.

- Make sure that the tensor latch is not loosened a full turn (version 1.0), as this would result in ineffective attenuation.

Reading out

- The video feed can also be recorded using the camera software, for training and evidential value purposes.