

USER MANUAL: REACT RULERS

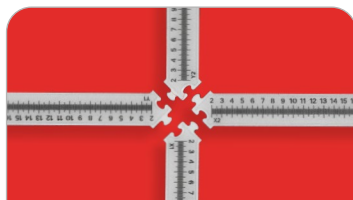
THE **REACT RULERS** DEVELOPED BY FIBERMATRIX ARE **MILLIMETRIC, RADIOPAQUE, AND SCINTILLATING**. THEY CAN BE USED ON THE FULL RANGE OF IMAGING DEVICES, THUS REPLACING GAFCHROMIC FILMS, PHOTOSTIMULABLE PHOSPHOR PLATES AS WELL AS LEAD RULERS USED DURING QUALITY CONTROL.

THE FOLLOWING RECOMMENDATIONS HELP IN OPTIMIZING THEIR USE.

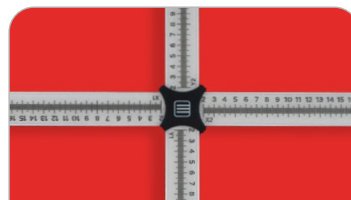
STEP 1

INSTALLATION OF THE RULERS

The **REACT** rulers come in the form of a set of four rulers with a fastener. The following steps will guide you in assembling the different pieces of the kit.



Position the rulers crosswise



Position the fastener above the rulers



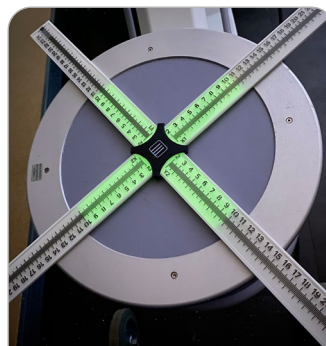
For vertical positioning, place the tape in the notch and attach it to the back of the detector

STEP 2

ADAPTATION TO THE ROOM ENVIRONMENT



Room with the light turned on



Room with the light turned off

For optimal scintillation visualization, particularly on low-irradiating devices, prefer a darker environment in the room.

To this aim, turn off the lights and if possible, close the window blinds.

Also, if feasible, cover any extraneous lights such as the device's indicator ones.

Example : photos taken in the same irradiation conditions (c-arm 120kV, 6mA)

STEP 3

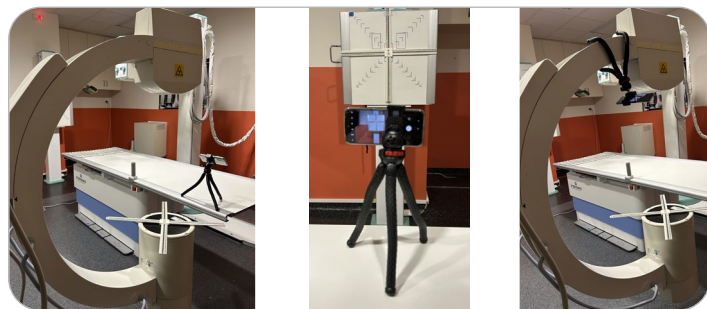
SET UP THE PHONE TO CAPTURE THE PHOTOS



The type of tripod will help you fix your phone easily, for instance, by wrapping it around a pole.

For obvious radiation protection reasons, it is strongly recommended not to remain close to the device during control, to observe the scintillation.

Therefore, we recommend using your smartphone (or another camera with high quality) along with the flexible tripod and the Bluetooth remote control provided.



STEP 4

ADJUSTING THE CAMERA SETTINGS

Two capturing modes are available: photo and video mode. *In photos mode:* use the self-timer or the supplied Bluetooth remote control. *In video mode:* select the desired image afterwards. When scintillation is low, take a photo.

By default, focus the camera on the rulers under the room's lighting conditions. If your phone's camera allows it, use the "night" mode. If your camera also allows it, increase the ISO sensitivity or exposure time for a photo.

REACT application can also be used for shooting.

STEP 5

CONFIGURATION OF THE IMAGING DEVICE

Prefer dosing parameters for a better visualization of the scintillation. On a c-arm, setting the parameters around 110 kV and 3 mA has shown the best high-quality photos.

To best visualize the radiopaque graduations on the image, opt for less dosing parameters such as 40 kV and 0.3 mA on a c-arm.

Tip n°1 : Place a lead or copper plate under the rulers to help optimize the parameters for the visualization of the scintillation while protecting the detector.

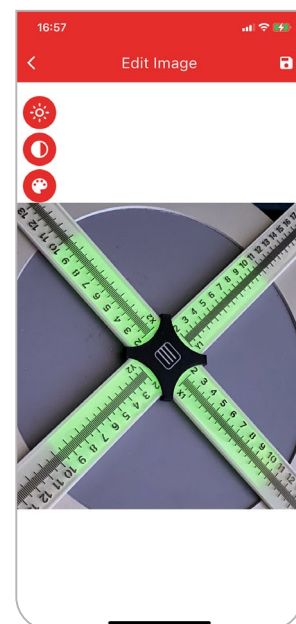
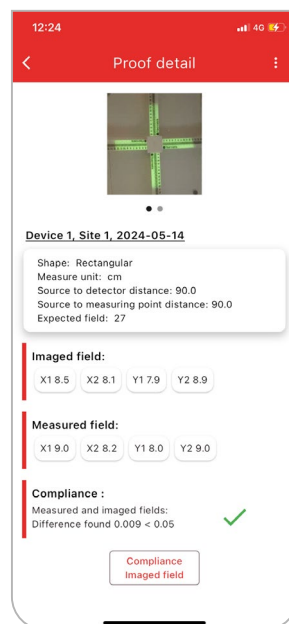
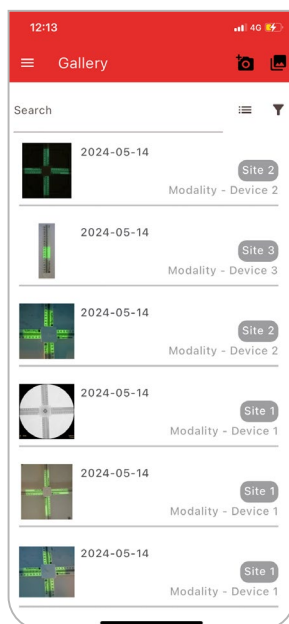
Tip n°2 : A compromise allowing visualization of both the radiopaque graduations and the scintillation is suggested. For example, placing a copper plate under the rulers with a voltage of 75 kV and maximum mA can be applied.

Tip n°3 : **A one-second exposure is enough to carry out your control.**

REACT APPLICATION

DATA STORAGE

- The **REACT** application makes it easy to store, organize and export measurement data. The application can also be used to improve the quality of your images, and to perform compliance calculations.
- To import an image, select the gallery icon on the home screen. To take one or more photos or videos, select the camera icon. Then add the control information.
- To improve the quality of your images, select the proof and then the image to be processed, then play with the various image processing parameters on offer.
- To export a measurement report, select the desired proof and press the share button.



GUIDELINES

TRANSPORT

- After use, disassemble and store the kit in the hard case included.

STOCKAGE

- Store in a clean, dry, temperate place.
- Do not expose to direct sunlight.
- Do not leave rulers in a car in direct sunlight.

APPLICATION

- Do not bend rulers.
- Not for consumption.
- Do not throw in the garbage. Return the product to Fibermetrix, who will dispose of or recycle it in accordance with regulations.
- Carefully read and follow the user manual.