IVES *IMAGING FRIENDLY™* EEG ELECTRODE SYSTEM

**Directions for Use:** Conductive Plastic Electrode (CPE)

The CPE is designed for use on patients requiring long term EEG monitoring (LTM) in the Epilepsy Monitoring Unit (EMU) or continuous EEG monitoring (cEEG) in the Intensive Care Unit (ICU).

The CPE is made of plastic so that CT images can be obtained with the electrode set left in place without the usual “star-burst” artifact associated with metal electrodes.

Generally plastic electrodes do not record as high a quality EEG as metal electrodes; however, we have added a thin layer of conductive silver epoxy that makes the CPE equivalent in quality as metal electrodes for recording high quality EEG.

The CPE leads are designed to be as short as possible to prevent snagging on the imaging gantry mechanism.

Because the CPE leads are very short. 1) They should be untangled before placement on the patient’s head. 2) The tails should be aligned so they point towards the apex of the patient’s head.

The CPE is designed so that the mating connect is situated at the apex of the head in order to prevent the patient from lying on it as well as easy access for connecting/disconnecting. A sponge should be used ensure that this connector is a few cm off of the scalp to prevent image artifact impinging on the brain structures.

**Warning:** Since the CPE are plastic, they are very susceptible to chemicals such as acetone that will dissolve the plastic. Brief exposure to acetone during removal is fine as the acetone evaporates very quickly; however, never soak them in acetone.

**Warning:** CPE should be quickly cleaned and not soaked for any prolonged length of time (i.e. >10 to 20 minutes) in any solution, even water. Forgetting and leaving them to soak over night will deteriorate the lead wire and silver epoxy junction.

**Cleaning of Conductive Plastic Electrode:** immediately after removing the electrode, wash out the electrode gel and remove any residual adhesive. Do not let the gel or adhesive dry out in the cup. Warm water and a soft brush usually works well.

**Sterilization of Conductive Plastic Electrode:** CPE may be sterilized using the low temperature sterilization methods such as EtO, or peroxide. High temperature methods may cause distortion and stiffening of the lead wire. **NOTE:** no sterilization methods have been evaluated nor validated, as surface EEG electrodes are not normally used as sterile devices. They can also be disinfected by soaking in a Cidex solution for manufactures recommended time.