

# NPi®-200 Pupillometer System

# Cleaning and Maintenance Instructions

Always handle the NPi®-200 Pupillometer and NPi®-200 Charging Station with care because sensitive metal, glass, plastic and electronic components are contained inside. The NPi-200 Pupillometer and NPi-200 Charging Station can be damaged if dropped, or if they come in contact with liquid.

The NPi-200 Pupillometer and NPi-200 Charging Station do not require any regularly scheduled maintenance. If the NPi-200 Pupillometer and NPi-200 Charging Station are not working properly, or are believed to have been damaged, immediately contact NeurOptics Customer Service at Toll Free North America: 866.99.PUPIL (866-997-8745), international: +1-949-250-9792, or email: info@NeurOptics.com.

## Cleaning the NPi-200 Pupillometer and NPi-200 Charging Station

Isopropol alcohol (IPA)-based cleaning solutions, in formula concentrations up to 70% IPA, are recommended for use in cleaning the NPi-200 Pupillometer and NPi-200 Charging Station. Do not use chemicals that can damage the pupillometer and charging station surface. Some chemicals can weaken or damage plastic parts and may cause instruments to not operate as intended. Use all cleaning products per manufacturer's instructions, being careful to squeeze out excess liquid prior to wiping the pupillometer and charging station and do not use an oversaturated cloth.

Wipe all exposed surfaces. Follow the cleaner's manufacturer instructions as to the time required to leave the solution on the device surface.

- DO NOT allow any cleaner greater than 70% IPA to contact the gold connector blades located on the bottom of the NPi-200 Pupillometer handle, and the gold connector pins located in the base of the NPi-200 Charging Station.
- DO NOT use an oversaturated cloth. Be sure to squeeze out excess liquid prior to wiping the NPi-200 Pupillometer or the NPi-200 Charging Station.
- DO NOT allow the cleaner to collect on the instrument.
- DO NOT use any hard, abrasive or pointed objects to clean any part of the NPi-200 Pupillometer or NPi-200 Charging Station.
- DO NOT immerse the NPi-200 Pupillometer or the NPi-200 Charging Station in liquid, or attempt to sterilize the product, as damage to the electronic and optical componentry could occur.

#### Drying and Inspection Following Cleaning

Confirm the NPi-200 Pupillometer is thoroughly dry before placing in the NPi-200 Charging Station to charge. Once thoroughly dry, place the NPi-200 Pupillometer into the NPi-200 Charging Station and plug in the NPi-200 Power Adapter and Plug to the back of the charging station to power ON.

- DO NOT place the NPi-200 Pupillometer into the NPi-200 Charging Station until all components are completely dry.
- DO NOT reconnect the NPi-200 Power Adapter and Plug to the NPi-200 Charging Station until all components are completely dry.

### Cleaning Considerations: Gold Connector Pins and Blades

In instances where there is concern of exposure to highly resistant bacteria, viruses, fungi or spores (ie: Clostridium difficile, or "C. diff"), we understand that hospital protocols may require use of cleaning solutions containing sodium hypochlorite (bleach) when cleaning equipment. Please be aware solutions containing sodium hypochlorite (bleach) will corrode the gold connector blades located on the bottom of the NPi-200 Pupillometer handle (Figure 1), and the gold connector pins located in the base of the NPi-200 Charging Station (Figure 2).



• DO NOT use products containing sodium hypochlorite (bleach) to clean the gold connector blades located on the bottom of the NPi-200 Pupillometer handle, and the gold connector pins located in the base of the NPi-200 Charging Station.

If products containing sodium hypochlorite (bleach) are used to clean the gold connector blades located on the bottom of the NPi-200 Pupillometer and the gold connector pins located in the base of the NPi-200 Charging Station, the cleaning process should be followed by a second cleaning using up to 70% IPA solution to ensure that all residue is completely removed from the device in order to minimize damage to the gold connector pins and blades.

# Cleaning Considerations: Pupillometer Liquid Crystal Display (LCD)

For best protection of the liquid crystal display (LCD), use a clean, soft, lint-free cloth and up to 70% IPA cleaning solution to clean the pupillometer optics.

In instances where there is concern of exposure to highly resistant bacteria, viruses, fungi or spores (ie: Clostridium difficile, or "C. diff"), we understand that hospital protocols may require use of cleaning solutions containing sodium hypochlorite (bleach) when cleaning equipment. If products containing sodium hypochlorite (bleach) are used to clean the LCD of the NPi-200 Pupillometer, the cleaning process should be followed by a second cleaning solution with up to 70% IPA solution to ensure that all bleach residue is completely removed from the LCD using a clean, soft, lint-free cloth.

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