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Biomedical

Nuclear Associates

84-325

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Acoustic Standoffs

Users Manual

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**Fluke Biomedical
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Section 1

General Information

1.1 Introduction

The Acoustic Standoffs provide a means of scanning superficial structures within the near field and regions where acoustic coupling with conventional acoustic coupling gels alone, may be difficult to maintain. They are designed to be used to bring the focal zone closer to the surface, enhancing desired detail. These reusable standoffs are composed of flexible, low attenuation sonolucent gel, covered with a pliable film. The gel material will not melt, freeze or dry out. The outer material is dust-free and permits sterilization between examinations, and will not leak if punctured.

The manufacturing technique utilized to produce the Acoustic Standoffs ensures that the gel adheres to the pliable film, thereby preventing the formation of bubbles. The speed of sound of the gel material is held constant at 1410 meters per second at room temperature.

1.2 Procedure for Use

1. Select the appropriate size Acoustic Standoff for the examination being performed.
2. Prior to use, make sure the surface of the Acoustic Standoff is clean. The Acoustic Standoff may be cleaned with a germicidal soap or alcohol. Rinse the standoff thoroughly with warm water before using.
3. If sterilization is required, we recommend the use of a cold glutaraldehyde sterilizing solution such as Cidex®, or steam autoclaving. Both methods should be performed in accordance with the procedures set forth by the individual institution.
4. Apply a generous amount of a high-viscosity acoustic coupling gel to the Acoustic Standoff surface that is to be placed on the patient's skin. The high viscosity of the gel will aid in keeping the standoff stationary while scanning.
5. Apply a generous amount of a low-viscosity acoustic coupling gel to the Acoustic Standoff surface that is to be scanned by the transducer. The low viscosity gel will facilitate the movement of the transducer on the surface of the acoustic standoff.
6. Place the Acoustic Standoff over the anatomic area to be examined. Scanning of the area of interest is performed through the Acoustic Standoff.
7. Due to the difference in acoustical impedance between the transducer, standoff and the patient's skin, artifacts may appear in the image. These artifacts will appear as a series of lines that will equal the thickness of the standoff.

1.3 Cleaning and Storage

Prior to use, and upon completion of the examination, wash the Acoustic Standoff with a germicidal soap, rinse, and dry thoroughly. For sterilization instructions, see Step 3 in Section 1.2, Procedure for Use.

There are no special requirements for storage. However, we recommend storing Acoustic Standoffs in a clean, dust-free area.

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