

3 GENERAL INSTRUMENTATION

3.1 Disposable Reflective Marker Spheres

3.1.1 Overview

General Information

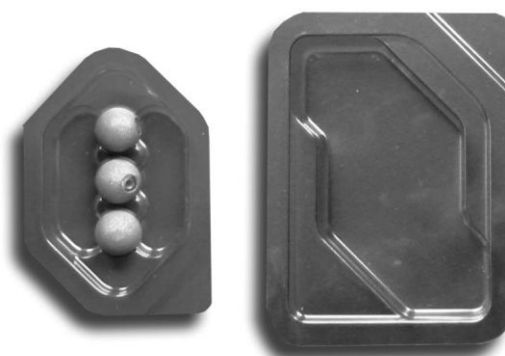


Figure 1

Product	Pieces	Article No.	Available from
Disposable Reflective Marker Spheres	90 (30 x 3)	41773	Brainlab and NDI
	270 (90 x 3)	41774	

Disposable Reflective Marker Spheres are attached to reference arrays and instruments, thus enabling the system to detect the position of the patient and instruments in the surgical field.



Brainlab navigation systems can only be used with the above marker spheres. The use of other marker spheres could affect navigation accuracy, posing a risk to the patient.

When to Attach Marker Spheres

Attach marker spheres to instruments and arrays before calibration or use in surgery.

Ensuring Sterility

Schanz screws are delivered un-sterile and need to be sterilized before use. They cannot be resterilized and must be disposed of after use.



Do not resterilize disposable reflective marker spheres as this reduces their accuracy, posing a risk to the patient. The reflective marker spheres are single use only.

3.1.2 Using Marker Spheres

Ensuring Navigation Accuracy

Navigation accuracy critically depends on the condition of the marker spheres used.



Verify prior to use that the reflective surface of all marker spheres is in good condition, and not peeling.



Disposable Reflective Marker Spheres are highly sensitive medical devices and should be handled with care.



Only use clean and dry marker spheres. Wet or soiled marker spheres must either be cleaned and dried before further use, or replaced.



Do not use defective or deformed marker spheres as this negatively affects navigation, potentially harming the patient.



Set up the OR prior to surgery to ensure the camera has an unobstructed view of all marker spheres on the instrument adapters and reference arrays. Do not mask or cover any marker spheres, otherwise navigation is not possible or may be inaccurate.

How to Attach Marker Spheres

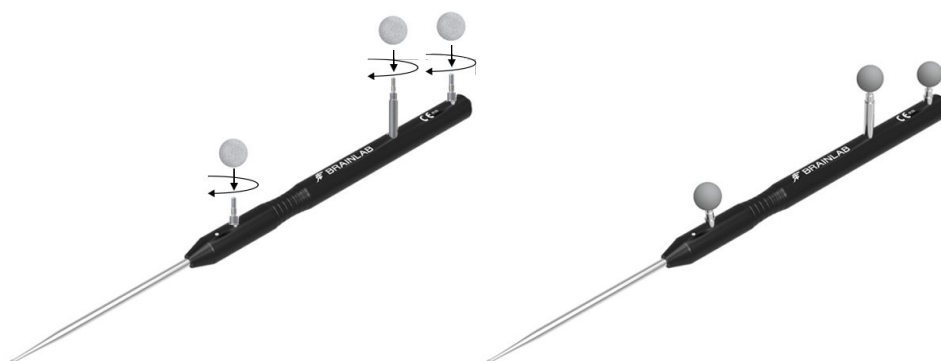


Figure 2

Step
Tightly screw marker sphere by hand onto each attachment pin of the instrument.

Ensuring Secure Attachment



Ensure that marker spheres can be screwed onto the pin until there is no gap between the sphere and the base of the pin. Do not use a marker sphere if it is not securely attached in this position.



If excessive force is needed to screw a marker sphere onto its pin, dispose of the marker sphere and use a new one.



If you use marker spheres on, or in the vicinity of, oscillating or vibrating instruments, check the marker spheres at regular intervals to ensure that they remain securely attached.

Cleaning Marker Spheres



Only use a soft cloth moistened with sterile water to clean the surface of soiled marker spheres. Ensure that the cleaned marker sphere is absolutely dry before use.



If you clean or replace a marker sphere on an instrument or reference array, verify navigation accuracy before continuing.