

## Ball Mounted Retroreflector™ (BMR™) Cleaning Instructions

*PLX offers in house-cleaning at a rate of \$75.00/BMR. If it cannot be cleaned, we can repair the unit at cost or return the unit to you. PLX assumes no responsibility for elements cleaned by the customer.*

### Overview

The BMR™ is a precision optical assembly. In order to achieve the optimum results with any laser tracker, both the inner optics and outer ball surface needs to be clean. Handle the BMR™ with care to ensure its longevity.

- ✘ Never touch inner mirror surfaces with your bare hands.
- ✘ Keep your BMR™ free of dust by storing it in its case when not in use.
- ✘ Always use proper cleaning materials and procedures when cleaning is required.
- ✘ Clean your BMR™ only when necessary.



### Materials and Items Required

- ✘ Denatured Alcohol.
- ✘ Lens Tissue (Federal Spec AA-50177A Type I Class I), Lintless cotton tissue (Webril Handi-Pads), or Q-tips (Q-tips® brand Precision Tips).
- ✘ Dry Nitrogen, Clean Dry Air (CDA), or Canned Air.
- ✘ Powder free latex or nitrile gloves.



### Cleaning Instructions

- 1) With gloves on, carefully inspect the optical surface under high intensity lighting. Your laser tracker may be able to assist you in evaluating whether your BMR™ needs cleaning. If your laser tracker has return signal quality monitoring software, and the software provides a good reading, postpone BMR™ cleaning.
- 2) If cleaning is necessary, carefully blow off the BMR™ surfaces using either dry nitrogen, CDA or canned air. Repeat if necessary.
- 3) If further cleaning is necessary, proceed with solvent cleaning.

<i>Lens Tissue/Lintless Cotton Tissue</i>	<i>Q-Tips</i>
<ol style="list-style-type: none"> <li>I. Fold a piece of lens tissue or Webril Handi-Pad so that the folded edge is as wide as the optic.</li> <li>II. Wet the folded edge with the denatured alcohol. Shake off any extra solvent. The wipe should not be dripping wet.</li> <li>III. Clean one panel at a time. Start from the center, and with gentle pressure, slowly pull the wipe across the surface. Discard the wipe, do not re-use it.</li> <li>IV. Re-examine the surface. If there still is contamination, it can be cleaned by folding the tissue into a narrow "Q-Tip" like structure.</li> </ol>	<ol style="list-style-type: none"> <li>I. Lightly wet the end of the Q-tip® and be sure there is no excess alcohol on the cotton swab.</li> <li>II. Carefully wipe the surface always going from the center of the retroreflector to the edge. Use each end of the Q-tip® once only. Do not re-wet the Q-tip® after using it. You can also use the Q-tip® clean small areas, but do not rub with excessive force.</li> </ol>

- 4) Localized cleaning will often leave drying marks. Follow up with a light surface wipe with alcohol.