

Cleaning emission and reception windows

Laser Scanner emission and reception windows are made from polycarbonate, which can easily be scratched on the surface from harsh cleaners and scrubbers. These cleaners produce small scratches on the surface of the windows, resulting in a cloudy look. Once the damage has been done, it is difficult to undo it. However, it is possible to prevent it from getting worse. Here are the proper cleaning techniques for polycarbonate.

CLEANING PROCESS

The following material is necessary to clean polycarbonate:

- water
 - non-abrasive/non-contaminating cloth
 - mild, non-abrasive cleaner
1. Begin by determining what kind of cleaning solution is needed by observing the amount of pollution.
 2. If there is just a small amount of dust, then water is sufficient. If there is significant pollution, you may wish to mix in a mild, non-abrasive detergent with the water.
 3. If the surface is just lightly covered with dirt, use a soft cloth moistened with water to gently wipe the surface. Turn the cloth inside out to keep a clean side on the windows. It is important to avoid rubbing the dirt on the surface because it can cause even more scratching.
 4. For more significant amounts of dirt, use a very wet cloth. Gently swab the cloth on the surface and allow the water to lift the dirt and “rinse” it away.
 5. Once most of the dirt has been removed with the water, use a second cloth to clean the windows using the same technique described in step 3.

TIPS

- Avoid any cleaning products with ammonia as it will eat through the surface and leave it looking cloudy.
- Other cleaners that should be avoided include ketenes, halogens, window cleaners, kitchen scouring compounds, aromatics and solvents such as thinners, acetone, gasoline, benzene and tetrachloride. Any cleaner that is abrasive or strong enough to eat through the surface should be avoided.
- If required, polycarbonate can be cleaned with a solution of neutral detergent and water. Always clean with a soft cloth, applying very little pressure.

WARNING

The emission and reception windows are critical components in an optical base product like the laser scanner. They have an immediate impact on the product performances.

If for any reason they are strongly scratched, spoilt or damaged in a permanent way, the product should be refurbished or replaced.