Laser Sentinel Window Replacement Quick Reference Guide

This Quick Reference Guide does not replace the Instruction Manual. Download the Instruction Manual at www.datalogic.com. Click on Support > Search by product and enter the Laser Sentinel family name, then ask your product from the dropdown list. Click on the Manuals & Technical Literature link to download your Instruction Manual. The Instruction Manual must be available at all times when installing and working with the product.

WINDOW REPLACEMENT

When a “Clean Window” error is shown on the device display even after cleaning the window, check for any scratches or spots. If the window is cracked (which would compromise the IP55 protection of the device), the user is allowed to replace the Laser Sentinel optical window.

Order the replacement window from Datalogic and carefully follow the procedure below.

In all other cases, please contact Datalogic for device replacement.

WARNING TERMS - DISCLAIMER FOR WINDOW REPLACEMENT AND CALIBRATION

PLEASE READ CAREFULLY THIS STATEMENT. BY REPLACING AND CALIBRATING THE WINDOW, YOU ACKNOWLEDGE AND ACCEPT THE FOLLOWING TERMS.

The new optical window package contains the following parts:

1. optical window;
2. 4 Tuflok® screws.

The replacement of the optical window must be performed by skilled, authorized personnel only.

When handling the new optical window, avoid contaminating it with fingerprints, dirt, scratches, dust, and polluting agents. It is recommended to wear clean, thin gloves to unpack and install the new window.

Always disconnect power to the Safety Laser Scanner before starting the window replacement procedure.

1. Place the Safety Laser Scanner on an even base in a controlled, pollution-reduced environment.
2. Remove the screws fixed on the damaged optical window.
3. Remove the optical window with a linear, vertical movement.
4. Remove the seal positioned on the device body. Avoid touching or damaging the internal parts of the device.
5. Position the new seal, gently pressing it on the device body and making sure it perfectly adheres to it.
6. Hold the new optical window on the sides and carefully place it in the correct position. Exert pressure on the angles and make sure that the window is perfectly attached to the device body without any inclination.
7. Snug the 4 Tuflok® screws (do not overtighten them). Use a 2.5 x 10 ball-end hex screwdriver with a shank long enough to avoid damaging the optical window.
8. After removing the damaged window, avoid contaminating all the internal optical parts with fingerprints, dirt, scratches, dust, and polluting agents.
9. After replacing the optical window, supply power to the Safety Laser Scanner and connect it to DLSentinel.
10. On DLSentinel, discover your device. On the Discovery page, go to Scanner > Window Replacement and enter your passkey (if any), then start the procedure.

NEW WINDOW CALIBRATION

If the Window Replacement procedure is performed on a Slave device, this must be connected to a Master device. In this case, the last configuration is preserved only if the optical window is replaced while the Slave device is connected to the same Master device of said configuration. On the other hand, if the Slave device is connected to a different Master device during Window Replacement, the last configuration will be lost.

12. Carefully read the disclaimer. By clicking OK you accept the terms and disclaimer contained herein.
13. Select the device underlying window replacement and enter the serial number of the new window.
14. Window calibration will start now. Make sure that the device has a 2-meter free area around its 275° angle range.

When window calibration is in progress, the device first switches to offline status (black display), then to offline test mode, displaying the following message.

The test area is automatically configured. To test the detection capability of the device(s), use a suitable test piece, e.g. an optically dark, opaque cylinder with a diameter of 40 mm. Place the test piece on several points at the edges (distance from the device = 1 meter) of the 275° safety area. The safety laser scanner must detect the test piece at each position and go to STOP. The number and location of sites where the test is performed must be chosen so that undetected access to the hazardous area is not possible. Do not attempt to insert the test piece into dangerous parts of the machine located in the safety area.

15. If the test area is not compliant, an error message will be displayed. Clear the required area and retry.

16. To validate the calibration procedure, the user must test the device detection capability with a test configuration.

When window calibration is complete, the following fault message is displayed. Click OK.

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17. After window calibration has successfully completed, the following fault message is displayed. Click OK.

The device display will show the “Commit On Field” warning message.

18. Restore the Safety Laser Scanner on field. Refer to the Laser Sentinel Instruction Manual (Chapter 4 - Installation, Chapter 5 - Mechanical Mounting, Chapter 6 - Electrical Connections). Perform a field test to commit the configuration (see “Checks After First Installation” in the Laser Sentinel Instruction Manual), then go to Scanner > Window Replacement and click “Done” on the displayed message.

19. If window calibration fails, the Safety Laser Scanner remains in offline mode until power-off and DL.Sentinel displays the following error message.

Repeat the window replacement procedure described above. Should the calibration fail again, replace the window or contact Datalogic to repair or replace the device.