

9. CALIBRATION

Your TruCheck verifier is a precision optical electronic instrument. Periodic calibration is necessary to account for changes in the environment. Ambient light and temperature are typical environmental conditions that frequently change. Electrical components also drift (change characteristics) over time and this can affect the accuracy of measurements made by the TruCheck verifier. Webscan recommends that you calibrate on a monthly basis; this is set as the default calibration reminder.

Please locate your calibration card for the next steps in this process. Calibration cards do not come standard with verifiers. In most cases, your sales representative should have explained the different card options and one should be included in your packaging.

NOTE: Calibration cards have an expiration date listed on the card. It is very important to only calibrate your unit with a valid card.

If you would like to order a calibration card for your unit, please contact support@webscaninc.com or call 303.485.6811.

Part Number	Description	Verifier models
4899	3MIL Calibration and Conformance Symbol (UPC/EAN)	3mil lasers
1556	6MIL Calibration and Conformance Symbol (UPC/EAN)	6mil Lasers
2633	10MIL (GS1/UCC/EAN-128) Calibration and Conformance Symbol	10Mil Lasers
2222	20MIL Calibration and Conformance Symbol (ITF-14)	20 mil Lasers
4744	GS1 Data Matrix Calibration and Conformance Symbol	All Camera Based verifiers
5136	Webscan Calibration Symbol	All Cameras and 6mil lasers

9.1 HOW TO CALIBRATE YOUR LASER VERIFIER

1. When calibrating with GS1 standards, locate your copy of the "Calibrated Conformance Standard" sheet that was included with your calibration target. This sheet contains the Rmin and Rmax values you will log into the software prior to calibrating. If using the Webscan Calibration card, the Rmin/Rmax values are logged directly on the card.

2. Click "Go Live" and position the "Calibration Symbol" under the guide plate as shown in the image below. Set the laser sweep so that the laser is within the code beginning to end.

3. Select "Options → Calibrate Remote" from the main menu.

4. Enter the Rmax and Rmin values in the respective textboxes. These values can be found by using the chart on page 1 of your "Calibration Conformance Standard-ANSI Print Quality Analysis" sheet. On the Webscan calibration card, these are logged below the UPC symbol.

5. You may log in a calibration interval reminder at this time if desired.

6. Click on 'Calibrate.' The system is now being calibrated. This may take a few seconds.

Calibrate

Please select the calibration card type and place the calibration card under the imager, as shown below

Note
Please make sure the UPC-A Master Grade symbol is centered under the remote, use the two symbol lines extending between numeric fields as a reference

UPC-A MASTER GRADE

Please enter the Rmin and Rmax values for the Master Grade symbol (UPC-A or DataMatrix)

RMin: 5

RMax: 86

Remind in: 0 days since last cal (Recommended: 30 days)

Last Calibrated on: Mon 21-Jul-2014 01:33:43 PM

NOTE: The report included with the calibration barcode gives all the values in tenths. i.e. 69 would be considered a 6.9. The TruCheck accepts whole numbers only so you must round this value to the nearest integer. For the previous example of 6.9, you would enter 7. Likewise, the value 824 represents 82.4 so you would enter 82. Once the Rmin and Rmax values are entered during the initial calibration, they will be stored in the system for future use.

7. At the end of the calibration process, the TruCheck USB calibration screen will show, "Successfully set Rmax and Rmin".

8. Check that the calibration settings are within range by verifying the Calibrated symbol and confirming the results. Results are displayed in the "Quality Parameters" Tab on the User Interface. Beside the SC (Symbol Contrast) grade, RL/ RD (Reflectance Light element/ Reflectance Dark element) values are displayed and should be equivalent or within tolerance to the Rmax /Rmin values logged in at calibration. Tolerance is referenced in the Annex –Engineering Specs.

9.2 HOW TO CALIBRATE YOUR CAMERA VERIFIER

1. Note the Rmin/Rmax values logged on your calibration card. If using a linear one-dimensional calibration symbol on a GS1 calibration and conformance symbol, locate the "Calibrated Conformance Standard" sheet that was included with your calibration target.
2. Click "Go Live" and position the "Calibration Symbol" with the symbol as close to the red target in the live image as possible.
3. Select "Options → Calibrate Remote" from the main menu.
4. Select the bullet appropriate to the type symbol your "Calibration Symbol" represents: Data Matrix or Linear.
5. Enter the Rmax and Rmin values in the respective textboxes. These values can be found by using the chart on page 1 of your "Calibration Conformance Standard-ANSI Print Quality Analysis" sheet GS1 Linear Calibrated Conformance symbols. On the GS1 Data Matrix Calibrated Conformance standard and on the Webscan calibration card, these are logged directly on the card.
6. You may log in a calibration interval reminder at this time if desired.
7. Click on 'Calibrate.' The system is now being calibrated. This may take a few seconds.

The screenshot shows a 'Calibrate' dialog box with the following elements:

- Header:** 'Please select the calibration card type and place the calibration card under the imager, as shown below' (in red text).
- Image Selection:** Two radio buttons are present. The left one is selected and points to a square Data Matrix barcode. The right one is unselected and points to a vertical 1D barcode with 'FAIL' and 'PASS' labels.
- Input Section:** A text box labeled 'Please enter the Rmin and Rmax values for the Master Grade symbol (UPC-A or DataMatrix)'. Below it, 'RMin' is set to 5 and 'RMax' is set to 85.
- Buttons:** 'Calibrate' and 'Close' buttons.
- Reminder:** 'Remind in 0 days since last cal (Recommended: 30 days)'. A dropdown arrow is next to the '0'.
- Status:** 'Last Calibrated on: Never'.

NOTE: The report included with the calibration barcode gives all the values in tenths. i.e. 69 represents the number 6.9. The TruCheck accepts whole numbers only so you must round this value to the nearest integer. For the previous example of 6.9, you would enter 7. Likewise, the value 824 represents 82.4 so you would enter 82. Once the Rmin and Rmax values are entered during the initial calibration, they will be stored in the system for future use.

8. At the end of the calibration process, the TruCheck USB calibration screen will show, "Successfully set Rmax and Rmin and Pixels/Mil".
9. Check that the calibration settings are within range by verifying the Calibrated symbol and confirming the results. Results are displayed in the "Quality Parameters" Tab on the User Interface. Beside the SC (Symbol Contrast) grade, RL/ RD (Reflectance Light element/ Reflectance Dark element) values are displayed and should be equivalent or within tolerance to the Rmax /Rmin values logged in at calibration. Tolerance is referenced in the Annex –Engineering Specs.