

LVS[®] 95XX Frequently Asked Questions

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GS1 Solution Partner



Disclaimer

The information and specifications described in this manual are subject to change without notice.

Latest Manual Version

For the latest version of this manual, see the Download Center on our web site at:
www.microscan.com.

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IMPORTANT

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- The information in this guide is for informational purposes only. It is not intended for use as an Operations Manual.

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IMPORTANT: Read This Before You Continue

Contact Omron Microscan

If any of the steps in this document do not resolve your issue, contact your local Omron Microscan Distributor or Omron Microscan Headquarters for technical support:

OMRON MICROSCAN HEADQUARTERS:

Phone: 1-425-226-5700 +1-800-762-1149

E-mail:

- Americas_support@microscan.com
- EMEA_support@microscan.com
- APAC_support@microscan.com
- China_support@microscan.com

Omron Microscan representatives are available Monday through Friday, 9:00 a.m. to 4:00 p.m. (EST/EDT).

GLOBAL DISTRIBUTORS:

Omron Microscan serves the entire world with vision inspection solutions. To locate an authorized Omron Microscan distributor, log on to www.microscan.com and click the "Contact Us" tab. You will find a list of authorized Omron Microscan distributors located around the world.

Helpful Notes

1. DO NOT unplug or plug in your LVS-95XX system USB while the software is open.
2. If there is only one admin account (with permissions to add/remove operators), this account will never be locked out on software version 3.0.9HH and higher.
3. Default admin account: Operator ID: **admin** Password: **admin**
4. Prior to calibration, clean your system according to the cleaning instructions in the Operations manual to avoid calibration issues.
5. The I9500.mdb file is the LVS-95XX database; this is where your factory calibration is stored. When installing on a new computer from a link, you will be notified that Factory Calibration is missing. Go to the original installation media (installation flash drive) and recover your i9500.mdb file. (See appendix J in the manuals folder)
6. On-site or on-line training is available for your LVS-95XX system. For more information, contact info@microscan.com.
7. Throughout this document, "Calibrated Conformance Standard Test Card" is referred to as "Calibration Card."

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Q1. How can I acquire an Operations Manual?

- An electronic version of the “LVS-95XX Series Operations Manual” in .pdf format is located on the Installation media (installation flash drive) that came with the software. After the LVS-95XX software is installed, a shortcut to the “Manuals” folder is automatically saved on the computer desktop. If you do not have the Installation media or the “Manuals” folder, visit the Microscan.com download center or contact:
 - Americas_support@microscan.com
 - EMEA_support@microscan.com
 - APAC_support@microscan.com
 - China_support@microscan.com

Q2. How do I reset my password?

- If there is only one administrator account (with permissions to add/remove operators), this administrator account will never be locked out on software versions 3.0.9HH and higher.
- The administrator can unlock the account by following the instructions in Step 3 below.
- After three attempts to login with an incorrect password, the system locks out the operator. If the locked out account is an administrator, use the secondary administrator to unlock the account. If all administrator accounts are locked out, you are required to have the password of the day.

1. Contact Omron Microscan (see Question 1) to obtain the password of the day.
2. Log in to the LVS-95XX software. Enter **lvs** in the “Operator ID” field. Enter the password of the day obtained by Omron Microscan in the “Password” field. Click the “OK” button. You are now logged in to the LVS-95XX software.
3. Click the “Setup” tab and then click the “Setup Operators” button.

The screenshot displays the 'Setup' tab of the LVS-95XX software interface. The 'Setup' tab is highlighted with a red box. The interface includes several sections: 'Camera' (Off), 'Grading mode' (Automatic, Manual, Auto-sector), 'Current information' (Local Time: 05-Jun-2015 13:41, GMT: 05-Jun-2015 17:41, Time Zone: GMT -4), 'Application standards' (ISO/IEC 15415/15416), 'System Settings' (Minimum passing score: 2.5, Days before password expires: n/a, Minutes before auto logoff: n/a, Days before calibration needed: n/a, Allow non-ISO blemish to affect grade: Off, QRCode quiet zone >1X: On, Automatically start program: On), 'Optional features' (List of options: Single sector verification (normal), Optional Features Activation), and 'Change password'. The 'Setup Operators' button is highlighted with a red box.

4. Select the desired operator name from the “Operators” list.
5. Click the “Change this operator” button.
6. Uncheck, and then recheck any of the permissions (see below).

- Click the “Save Changes” button, and then click the “Done” button.

Permissions

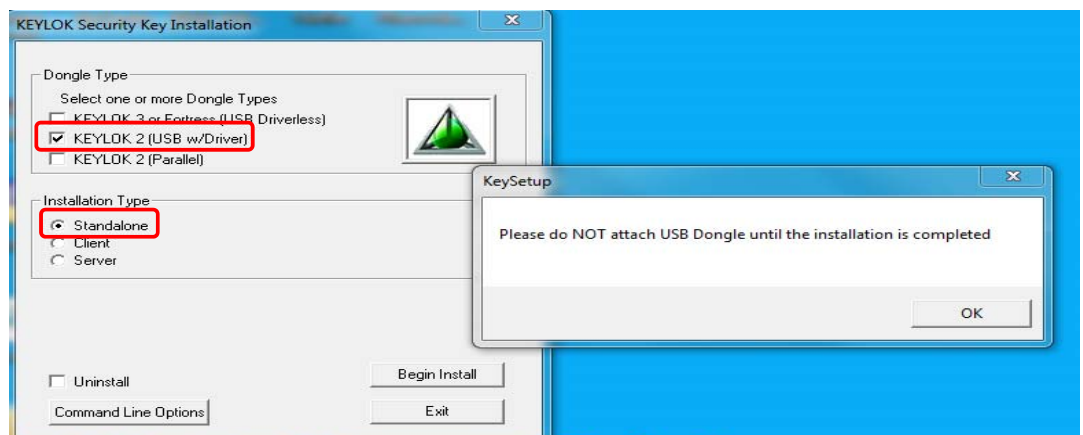
- ☐ Allow Add/Change operator
- ☐ Allow Calibration
- ☐ Allow change Setup Options
- ☐ Allow Pass/Fail ISO
- ☐ Allow Full ISO
- ☐ Allow create or edit app
- ☐ Allow change archive file

Q3. When logging onto my system, I am receiving the following error message: “The machine is not authorized to perform this function.”

This error message is typically a result of the USB serial dongle not being recognized. To resolve this issue, close the LVS-95XX software and unplug the USB from your computer that is attached to the system. Plug back in another USB port on your computer wait 10 seconds. Then, reopen the software. If this step does not resolve the issue, follow the remaining steps.

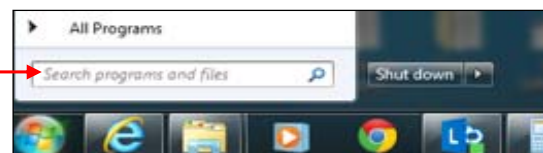
Make sure that you have administrator privileges to the computer prior to install.


- Close the LVS-95XX software.
- Unplug the USB cable of the Omron Microscan system from the computer.
- Go to Installation Flash Drive → “Other setup” folder → click “Keysetup.exe.”
- Select “Keylok 2 (USB w/ Driver)” and “Standalone.”
- Click the “Begin Install” button. A message appears indicating that all files have been copied. Close the dialog box.

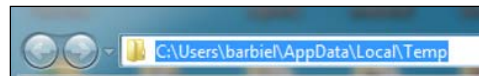



6. Plug in the USB cable.
7. Windows should report a "New hardware found" message. Select "No, not this time."
8. On the next screen, select "Install software automatically."
9. Click "Finish."
10. Run the LVS-95XX software. You should be able to correctly log on to your system and the "The machine is not authorized to perform this function" message should not appear. If the message appears, follow the next step.
11. If the "The machine is not authorized to perform this function" appears again, and this is a new installation, click on the Windows search bar and search for **%temp%**.

In the search field enter: **%temp%**



12. Open the temp folder and scroll down to locate the Keylok icon. 
13. If the icon is present, go to the address bar and copy the file path.



14. Open your Device Manager and click on the USB that has the warning icon. 
15. Right-click and select "Update Driver Software."
16. Select "Browse my computer for driver software" and paste in the link copied from the address bar from the temp file into the browse bar.
17. Click "Next." The drivers will be automatically installed.
18. If the issue persists, please make sure that firewalls are allowing for installation

Q4. When launching the software, I am receiving the following error message with an 8-digit number beginning with "214." What does that mean?

This error message indicates that the .mdb file has reached or surpassed the 2GB size limit (dictated by the MS Access size limit). The resolution for this is to first run C:\Program Files (x86)\LVS-95XX\CompactLvsDb.exe to compact the .mdb file below the size limit, then create a backup database using LVS-95XX and then deleting a sufficient number of reports to get well under the size limit. See page 91 of the operator manual for further details on database backup.

Q5. How do I acquire the latest software updates?

1. Software is available on-line at www.microscan.com in support/downloads. You may also send an e-mail to Omron Microscan and request the latest version of software for your system. In the e-mail, include the following:
 - System Model (LVS-9510, LVS-9570, LVS-9580)
 - System Serial Number (located on system)
 - Current version of software that you are running (located on “Welcome” tab)
 - Windows Operating System that you are using
2. Omron Microscan will send you a link to download the latest software. **Do not plug in your system until installation is complete.** Make sure that you have administrator privileges to download the software. Save the software to your desktop and unzip the extract files prior to installing. You MUST install the software with administrative rights.
3. Prior to installation, copy your i9500.mdb (the path can be found on the “Archive” tab → “Change SQL Connection” button → Data Source). Save the file to place back into the specified folder when complete. If you do not save off your i9500.mdb file, you will be prompted when opening the software to perform a factory calibration or that factory calibration is not found.
4. Double-click on “setup.exe” to install the software and follow the prompts accordingly.
5. After installation is complete, connect the USB to your LVS-95XX system. Right-click on the LVS-95XX icon and run as an administrator.

Q6. Why are letter grades no longer shown in the grading results for software version 4.3 and later?

The letter grade is not used as part of the normative standards of ISO 15416, and the informative table D.1 that has a letter grade reference is not consistent with the 15416:2016 ranges of values for scan reflectance profile values shown in the standards. Some barcodes will receive higher scores due to the changes in ISO 15416:2016 when graded with version 4.3 and later software compared with earlier versions of LVS-95xx software. ISO 15415 also defines that symbol grade shall be reported as a numeric value with decimal. For consistency purposes version 4.3 will also no longer report a letter grade for 2D symbols.

Q7. My code is graded as “0” and the following message appears: “Required <FNC1> not found.” Why is it that when I switch application standards to ISO/IEC 15415/15416, I do not receive the error message?

<FNC1> is a special character reserved for GS1-compliant symbols when using Code 128, QR code or Data Matrix. If “GS1 General Specifications” is selected as the Application Standard on the “Setup” tab, and FNC1 is not encoded in the first position of the code, the code will automatically be graded an “0” since it is not GS1 compliant. If the code is intended to be GS1 compliant, notify the originator that ISO/IEC 15415/15416 does not require that FNC1 be present. If you are not grading a GS1 barcode, change your Application Standard on the “Setup” tab to “ISO/IEC 15415/15416.”

Q8. Why am I receiving a “Calibration Failed” message when I attempt to calibrate?

Follow the suggestions below:

1. Make sure your system is clean and free of debris, dust, dirt, oils or other contaminants.
2. If using an LVS-95XX, use the top cover provided with the system and turn off any overhead lighting. Then, turn on the system and check that all LEDs are illuminated on the light tray; if they are not, the light tray will need to be replaced.
3. Confirm that the serial number on the LVS-95XX system matches the serial number on the Installation Flash Drive.
4. Confirm the following on your calibration card:
 - The serial number on the calibration card matches the serial number on the LVS-95XX system
 - The values on the GS1 CC match the “Goal” values on the “Calibration” tab (Decodability, Contrast, Modulation, and Rmax)
 - The calibration card it is not expired
 - The calibration card is not damaged
5. If calibration does not pass after attempting the above suggestions, contact Omron Microscan technical support and provide the following information:
 - LVS-95XX system model number (example: LVS-9510)
 - LVS-95XX system serial number (located on system)
 - LVS-95XX software version running on your computer (located on “Welcome” tab)

Runtime 214:

- “Runtime 214” will be shown if the USB is unplugged while the software is running. Close the software, plug in the USB and restart the software.
- “Runtime 214” can also be associated with older revisions of software, which is an indication that your database is full or corrupt. This issue can be resolved by updating the software and performing a Factory Calibration.

Prior to updating the software, if you wish to keep previous data, you must save off the i9500.mdb file and rename it or copy it from your installation media as described in “Appendix J: Factory Calibration Not Found.”

Q9. How do I replace the light tray on my LVS-95XX system?

Send an e-mail to Omron Microscan and request a quote for a light tray. In your e-mail, include the model number and serial number of your LVS-95XX system. When you receive the light tray, replacement instructions are included with the package.

Q10. How do I perform Factory Calibration?

Read the instructions in “Appendix J: Factory Calibration Not Found” located on the installation media (installation flash drive) that came with your system. If you do not have the installation media that came with your system, contact:

- Americas_support@microscan.com
- EMEA_support@microscan.com
- APAC_support@microscan.com
- China_support@microscan.com


To perform Factory Calibration, you must contact Omron Microscan Technical Support for the password of the day.

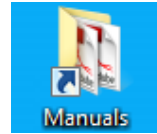
Q11. I have placed a label in the field of view. Why does the picture remain black?

1. Make sure the system camera is turned on. Do this by clicking the “Setup” tab. Within the “Camera” section, make sure the “ON” option is selected. If this step does not work, follow the remaining steps.
2. Shut down the LVS-95XX software.
3. Right-click on “My Computer” → select “Properties” → “Hardware” tab → “Device Manager” button.
4. Locate an entry called “Imaging Devices.” If the entry exists, check that it contains a “Lumenera Imaging Device” or an “Omron Microscan camera.” If the entry does not exist, contact Omron Microscan Technical Support.

Q12. How can I change the format of my reports?

1. Refer to “Appendix G: Special Features” for detailed instructions on changing report formats.

 **Note:** When you install the LVS-95XX software, a shortcut icon labeled “Manuals” (see right) is automatically installed on the computer’s desktop. This shortcut contains “Appendix G: Special Features.”



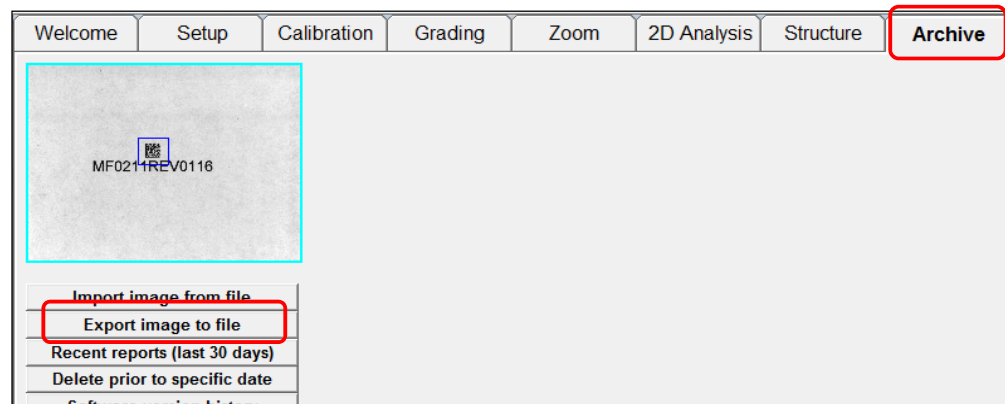
2. Some changes require you to have the password of the day. Contact Omron Microscan to obtain the password of the day.

Q13. How can I send a barcode to Omron Microscan for analysis when the barcode is receiving failing or poor grades?

Note: The below procedure does not apply to DPM (direct part mark) application standards, including ISO/IEC TR 29158, MIL STD 130N, and GS1 Table 7.

Place your barcode on the system window (grading is not required).

1. Click the “Archive” tab and select “Export image to file.”

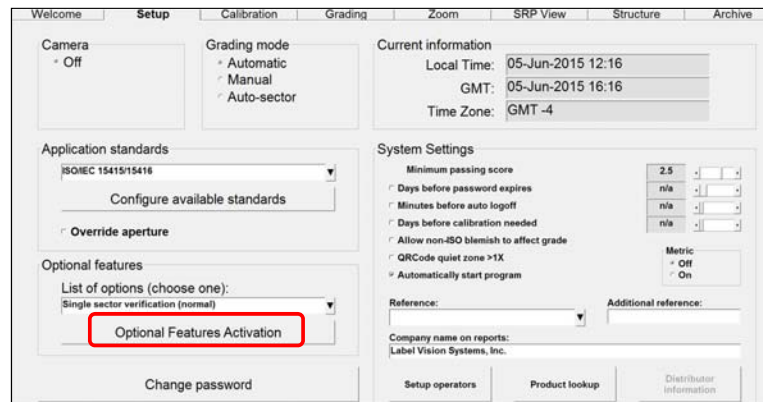


2. Save the image as a .bmp.
3. If you have purchased remote training from Omron Microscan then a report defining the issues of the barcode up to a maximum of five barcodes will be provided.
4. Send an e-mail to Omron Microscan Technical Support:
 - Americas_support@microscan.com
 - EMEA_support@microscan.com
 - APAC_support@microscan.com
 - China_support@microscan.comand include the .bmp, the report from the image and below information:
 - LVS-95XX model number (such as LVS-9510)
 - LVS-95XX serial number (located on system)

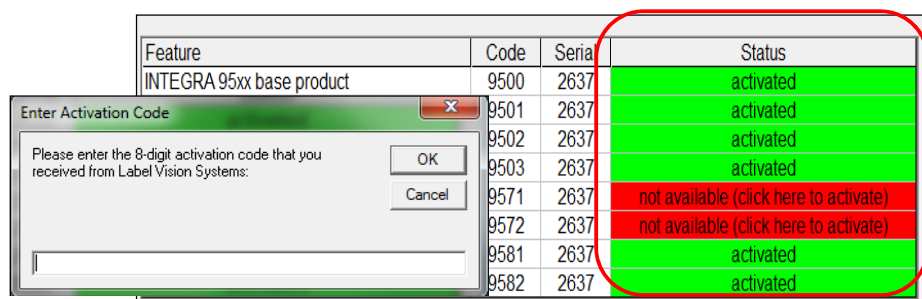
- LVS-95XX software version running on your computer (located on “Welcome” tab)
5. If you have more than five barcodes that you would like analyzed and verified by Omron Microscan, you must send an e-mail to the Omron Microscan sales team (info@microscan.com) and request a quote for barcode analysis. Include the following information in your e-mail:
- The number of barcodes you want analyzed and verified
 - LVS-95XX serial number and model number
 - LVS-95XX software version running on your computer

Q14. How do I activate an optional feature?

1. Optional features must be purchased through Omron Microscan by sending an e-mail to the Omron Microscan sales team: info@microscan.com.
2. After the optional feature is purchased, you will receive an 8-digit activation code.
3. Click the “Setup” tab and then click the “Optional Features Activation” button.



4. Under the “Status” column, click on the optional feature you wish to activate.
 - Features highlighted in green are activated.
 - Features highlighted in red are not activated. To activate the feature, double-click in the red area and enter the 8-digit authorization code when prompted.



5. Close and then reopen the LVS-95XX software. The optional feature is now activated.
6. Detailed instructions on using each optional feature is documented in “Appendix G: Special Features” located in the “Manuals” folder.

Optional Features Trial Period

All unpurchased optional features can be enabled for a free 10-day trial period (the “Enhanced Application Identifier Verification” feature requires training prior to use). Click on the green area at the bottom of the screen (see below) to enable an optional feature for the trial period. An optional feature can be selected only one time for the trial period.



Q15. Why are the lighting option selections for LVS-9585 not available when using ISO 15415/15416?

Only the DPM standards allow for use of the 30 degree angle lighting, so for non-DPM standards the 30 degree angle lighting is disabled.

Q16. What symbol do I use for calibration on my Calibration Card?

1. Omron Microscan supplies two calibration cards: EAN/UPC and GS1-128 (see examples below). You will receive the calibration card that is to be used to calibrate your LVS-95XX system; this card will be the **ONLY** calibration card that you will use for calibration purposes. Locate your calibration card and follow the remaining steps.

CALIBRATED CONFORMANCE STANDARD
TEST CARD
FOR EAN/UPC SYMBOL VERIFIERS
USING 6 MIL APERTURES

EAN-13 MASTER GRADE	UPC-A MASTER GRADE
DECODABILITY: <u>85.6</u> %	DECODABILITY: <u>84.3</u> %
CONTRAST: <u>82.6</u> %	CONTRAST: <u>82.7</u> %
MODULATION: <u>83.7</u> %	MODULATION: <u>85.1</u> %

DEFECTS (VOID): 22.1 %

DECODABILITY (BAR): 43.2 %

CALIBRATION #: UPC2-3350

WAVE LENGTH: 670 nm

EFF. APERT: 0.006 in.

CONTRAST: 48.1 %

DATE ISSUED: _____

BARCODES and eCom™

PART NO. CCBH-1 REV Q-2

EAN/UPC Calibrated Conformance Standard Test Card

CALIBRATED CONFORMANCE STANDARD
TEST CARD
(For Use with 10 mil Apertures and GS1-128 Symbols Only)

GS1-128 Master Grade

(00) 00614141234567890

DECODABILITY: 87.8 %

CONTRAST: 83.6 %

MODULATION: 88.6 %

DEFECTS (SPOT): 24.8 %

LOW DECODABILITY: 42.7 %

CONTRAST: 50.2 %

CALIBRATION #: 128-0172

WAVE LENGTH: 670 nm

EFFECTIVE APERTURE: 0.010 in. (0.250 mm)

DATE ISSUED: _____

BARCODES and eCom™

PART NO. CCBH-128 REV B

GS1-128 Calibrated Conformance Standard Test Card

2. EAN/UPC Calibration Cards:

- a. Choose the appropriate “Master Grade” barcode. The “EAN-13 Master Grade” code is used to calibrate systems in Europe. The “UPC-A Master Grade” code is used to calibrate systems within the United States.
- b. Place the calibration card in the system’s field of view.

- c. Choose one of the “Master Grade” barcodes and place it so the blue line goes through the middle of the “PASS” portion of the barcode.
 - d. Confirm that the “Goal” values in the software (on the “Setup” tab) match the values on the calibration card. If the values do not match, confirm that you have the correct calibration card for the LVS-95XX system serial number (located on system) that you are calibrating.
3. **GS1-128 Calibration Cards:** Larger fields of view require a “GS1-128” calibration card. Use the “PASS” portion of the GS1-128 barcode to calibrate your system.

Q17. Is it acceptable if my calibration values measured do not match exactly, but calibration passes?

The ISO/IEC 15426 requirements for verifiers allows for a tolerance (+/-)


Parameter	Symbology Type	Tolerance
Rmax	Both	± 5% reflectance
Rmin	Both	± 3% reflectance
UEC	Both	± 0%
Decodability	Multi-row	± 8%
Defects	Multi-row	± 8%
Codeword Yield	Multi-row	± 8%
Grid Nonuniformity	Matrix	± 6%
Modulation	Matrix	± 8% of the value (Measured for the reduced dark window on a calibrated test symbol card)
Fixed Pattern Damage	Matrix	Within calibrated grade boundaries

Q18. When does my calibration card expire?

Calibration cards expire two years from the issue date on your card. Please make sure that you keep current to avoid any audit findings. To replace your calibration card, contact:

- Americas_support@microscan.com
- EMEA_support@microscan.com
- APAC_support@microscan.com
- China_support@microscan.com

Q19. What are GS1 System Symbol Specification Tables?

 **IMPORTANT:** Omron Microscan can provide training sessions to help you understand the the GS1 System Symbol Specification Tables and how they affect your organization.

- To request a training session, please send an e-mail to info@microscan.com.