



LASER BAR CODE SCANNER

Flic Scanner Firmware Update Bulletin

New Version 1.36 (Serial) and 2.36 (Cordless)

Microvision is pleased to announce the release of a new firmware version for its Flic Scanner line of handheld laser bar code scanners. Version 1.36 for serial scanners and 2.36 for cordless scanners (collectively known as version "x.36") implements new commands, control codes, download protocols and batch options that give application developers greater control over advanced scanner capabilities.

Updating to version x.36 is recommended for all developers working on new applications. Updating is also recommended for users who may be experiencing a problem listed below. Customers currently using scanners without issue do not need to update.

Some of the new features are not backward-compatible with earlier firmware versions. Therefore the new firmware is designed to operate exclusively in one of two Operating Modes:

- » Plus Mode is the new standard that implements greater functionality using binary formatted data packets rather than ASCII codes. Plus Mode is recommended for all application development that does not specifically require compatibility with previous firmware versions.
- » Legacy Mode preserves backward compatibility with ASCII codes but does not include the new functionality described in this bulletin.

Note: Current users of version x.34 are strongly advised to update to x.36 regardless of whether you intend to use Plus Mode or any of the new functionality.

New Features Available in Plus Mode

Improved Data Integrity

Cyclic Redundancy Check (CRC) is now used for error detection in data transport and storage.

Higher baud rates

The scanner is now configurable to 19,200 and 38,400 serial baud rates, which can speed downloading by up to a factor of eight.

Support for UCC/EAN-128

The scanner can now be configured to scan UCC/EAN-128 bar codes.

14-character UPC/EAN scanning

The scanner can now be configured to expand UPC and EAN bar codes of various lengths and download them in 14-character format. This is useful for existing host applications that recognize only 14-character bar codes.

Bluetooth batch scanning

Bluetooth enabled scanners can now be configured to scan batches of bar codes, which will be downloaded as a group only when the user requests to do so by holding the scanner button down for five seconds. This enables the same kind of store-and-forward functionality on Bluetooth scanners that has always been available on tethered serial scanners.

Host scan control

Scanners can now be configured to prevent batch scanning by requiring that each scan is downloaded and acknowledged by the application before another scan can be performed. This is useful, for example, if your application needs to perform a verification process on each bar code before authorizing the next scan. The host application can also use blinks and beeps on the scanner to notify the scanner user of errors or readiness to scan.

Secure download option

Scanners can now be commanded to download their bar codes but retain those codes in memory until specifically instructed by the host application to delete them. This is useful to verify the bar codes have arrived intact at their final destination before deleting them from scanner memory.

New Download Protocols

Two new binary download protocols are available in Plus Mode and recommended for new applications:

Plus Protocol

Downloads are controlled by the host using CRC protected binary packet transfers. The scanner sends attention packets to the host to notify the application of events such as a successful scan, a completed connection, or a user download request.

Polled Protocol

Same as the Plus Protocol, except the scanner does not send event notification packets to the host. The scanner only sends data requested by the host.

Note: Plus Mode continues to support the earlier ACK, Serialization, and Compatibility download protocols. The XML-based download protocol is not supported in Plus Mode.

Other Changes and Quality Fixes

- » Improved Code 39 decoding.
- » Improved RSS decoding (on RSS enabled models).
- » Factory defaults command (F1 or control bar code) now sets all configuration features except Bluetooth Name and PIN.
- » New control bar codes to select between Legacy Mode and Plus Mode.
- » Corrected bug in UPCE output length (occurred in 1.34/2.34 when the scanner was configured to ignore supplemental bar codes).
- » Fixed bar code timestamp error on scanner power loss (Time stamps on saved bar codes were incorrect after the scanner had power cycled).



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