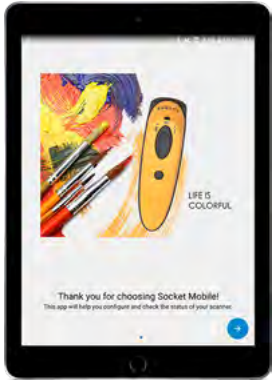




TABLE OF CONTENTS

COMPANION APP	3
RESETS	3
BLUETOOTH CONNECTION MODE	4
PREFIX/SUFFIX	5
VIBRATE/BEEP MODES	6
ACTIVE MODES	7
PRESENTATION MODES	8
HID KEYBOARD LANGUAGE SETTINGS	9-10
AUTOMATIC RECONNECTION	11
BLUETOOTH CONNECTION ROLES	12
DATA MODE - FOR SPP MODE ONLY	13
PROGRAMMING	14
1D SYMBOLOGIES	
UPC/EAN	15-25
CODE 128	26
GS1-128	26
CODE 39	27-28
CONVERT CODE 39 TO CODE 32 (ITALIAN PHARMA CODE)	29
CODE 32 PREFIX	29
CODE 93	30
INTERLEAVED 2 OF 5	31
CODABAR	32-33
MSI	34-35
GS1 DATABAR	36
2D SYMBOLOGIES	
PDF417	38
MICROPDF417	38
DATAMATRIX	38
MAXICODE	38
QR CODE	39
MICROQR	39
AZTEC	39
HAN XIN	39
POSTAL CODES	40-41
SAMPLE BARCODES	42-43



Set up your scanner with Socket Mobile Companion App.

- Easy to follow instructions for pairing scanners
- Check scanner status
- Check warranty and register scanners

[Learn more about Application Mode.](#)



Scan QR code with mobile device to download app.



Scan QR code with mobile device to download app.



RESETS



Make sure the scanner is not connected to a host computer or device before scanning a command barcode.

Factory Reset

Configures the scanner to factory defaults. The scanner powers off after scanning this barcode.



Pairing Reset



If the scanner is paired with a device, unpair it before trying to connect to a different device.

Step 1: Scan barcode (for serial number that begins 1931 and above only).



Or follow steps to manually reset scanner:

- Power on the scanner.
- Press and hold down the scan button.
- Press and hold down the power button.
- After you hear 3 beeps, release both buttons.

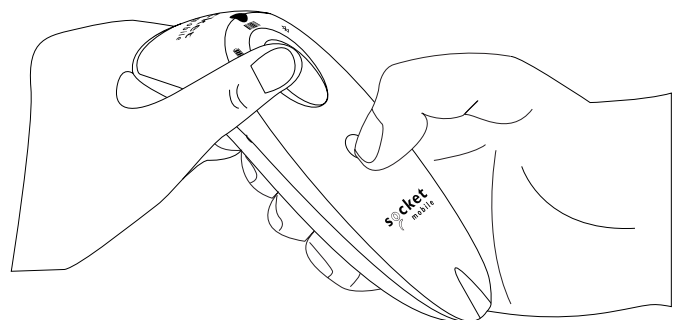
The scanner will unpair and automatically power off.

Step 2: Remove or forget the scanner from the Bluetooth list on the host device.

The scanner is now discoverable.



Both steps above must be done to complete the unpairing.



BLUETOOTH CONNECTION MODE





Make sure the scanner is not connected to a host computer or device before scanning a command barcode.

Scan command barcode(s) to configure the scanner.

Basic Mode (HID) (default)




  (All host devices)

Configures the scanner to Human Interface Device (HID) mode. The scanner will be discoverable as a keyboard to other Bluetooth devices.



Application Mode (MFi-SPP) for Apple Devices



  *Required for Apple iOS applications developed with Socket Mobile SDK.



Application Mode (Auto Connect-SPP) for Windows or Android 8.0 and later



*Configures the scanner to Serial Port Profile.



Application Mode (SPP) for Windows or Android version 7.0 and lower



*Configures the scanner to Serial Port Profile (SPP).



*For compatible applications developed with Socket Mobile SDK: socketmobile.com/partners/app

You can configure the scanner to automatically add a prefix and/or suffix to each scan of data. Scanner is allowed 1 prefix and 2 suffixes.

For custom prefix and suffix, contact support@socketmobile.com.

Note: Scanning multiple commands in a single instance will overwrite (not append) the previous command.

Suffix - Carriage Return (default)

Configures the scanner to add a carriage return after decoded data.



Suffix - Tab

Configures the scanner to add a tab after decoded data.



Suffix - Carriage Return and Line Feed

Configures the scanner to add a carriage return and line feed after decoded data.



Data As Is

Configures the scanner to return only the decoded data (i.e., no prefix or suffix).





Make sure the scanner is not connected to a host computer or device before scanning a command barcode.

Vibrate "On" (default)

Enable the scanner to vibrate to indicate a successful scan.



Vibrate "Off"

Disable the scanner from vibrating to indicate a successful scan.



Beep "On" (default)

Enable the scanner to beep to indicate a successful scan.



Beep "Off"

Disable the scanner from beeping to indicate a successful scan.



Scan one of the barcodes to reconfigure the scanner to remain powered on for a longer time.

 These settings drain the battery faster. Please ensure the scanner is charged daily.

2 hours (default)

Scanner powers off in 2 hours when idle/inactive while connected and 5 minutes when disconnected.



Continuous Power for 4 hours

Configures the scanner to remain on for 4 hours.



Continuous Power for 8 hours

Configures the scanner to remain on for 8 hours.



Scanner Always On

Configures the scanner to never power off.



PRESENTATION MODES

Scan one of the barcodes to configure the scanner to automatically scan barcodes.



These settings drain the battery faster. Please ensure the scanner is charged daily.

Mobile Mode (default)

Reverts back to manual scan mode.



#FNB 41FBA50000#

Auto Mode (recommended)

Configures the scanner to switch to presentation mode when power is detected on the charging pins. The scanner will remain on presentation mode until the scan button is pressed to exit the mode.



#FNB 41FBA50003#

Detect Mode

Configures the scanner to switch to presentation mode when power is detected on the charging pins. The automatic scan will continue until power is removed.



#FNB 41FBA50002#

Stand Mode

Scanner is permanently in presentation mode.



#FNB 41FBA50001#

HID KEYBOARD LANGUAGE SETTINGS



Scan only when the scanner is in Basic Mode (HID profile).

These barcodes are to configure the scanner for different languages using Microsoft Windows keyboard layout.

English (Default)



English UK



French



German



Italian



HID KEYBOARD LANGUAGE SETTINGS

Japanese



Polish



Spanish



Swedish



ANSI Emulation



ANSI Emulation can be slower on Windows systems.

AUTOMATIC RECONNECTION

All Bluetooth Connection Modes are OK.

Important! After scanning this command barcode, power off and power on the scanner to make sure it is configured properly.

Enable Automatic Reconnection from scanner (default)

Configure the scanner to automatically initiate a connection to the last paired computer/device after the scanner is powered on.



Disable Automatic Reconnection from scanner

Configure the scanner to wait for a computer/device to initiate a Bluetooth connection after the scanner is powered on.



BLUETOOTH CONNECTION ROLES

Advanced users only.

Basic Mode (HID) Keyboard

Changes a scanner in HID-Peripheral mode to HID-Keyboard mode.

For Mac OS, Apple iOS, and other smart devices.



Basic Mode (HID) Peripheral

Changes a scanner in HID-Keyboard mode to HID-Peripheral mode.

For some MS Windows or Android mobile devices.



Scan only with scanner in Application Mode (SPP).

Acceptor (default)

Configures the scanner to accept a Bluetooth connection puts the scanner in discoverable mode.



Initiator

Configures the scanner to initiate a connection to a computer/device with the Bluetooth Device Address specified in the barcode.

The barcode must be formatted in Code 128 and contain the data #FNlaabbccddeeff# such that aabbccddeeff is the Bluetooth Device Address of the computer/device you want to connect to the scanner.

You must create a custom barcode for each computer/device that you want to connect to the scanner.

You can use barcode generating software or website (e.g., <http://barcode.tec-it.com>)

Advanced users only.

Packet Mode (default)

Configures the scanner to transmit decoded data in packet format.



Raw Mode - Android and Windows only

Configures the scanner to transmit decoded data in raw (unpacked) format.



What is a 1D barcode?

Linear, 1 dimensional barcodes are a row of parallel lines of varying thickness. The information is stored in the widths of the bars and spaces. 1D barcodes are used in retail products.



What is a 2D barcode?

2D barcodes are a pattern of black and white blocks arranged in a square or rectangles. Two dimensional barcodes can hold significant amount of information and are more typically used than 1D barcodes. 2D barcodes are used for manufacturing, warehousing, etc.



For command barcodes not available in the guide, contact support@socketmobile.com.



After scanning a command barcode, power off and on the scanner to make sure it's configured.



To enhance the speed of reading, disable all symbologies and enable the desired symbology only.



Disable All Symbologies

*No beep when scanning this command barcode

Note: Most computer monitors allow scanning the barcodes directly on the screen. When scanning from the screen, be sure to set the document magnification to a level where you can see the barcode clearly, and bars and/or spaces are not merging.



Make sure the scanner is not connected to a host computer or device before scanning a command barcode.

To enable or disable UPC-A, scan the appropriate barcode below.

Enable UPC-A (default)



Disable UPC-A



To enable or disable UPC-E, scan the appropriate barcode below.

Enable UPC-E (default)



Disable UPC-E



To enable or disable UPC-E1, scan the appropriate barcode below.

Note: UPC-E1 is not a UCC (Uniform Code Council) approved symbology.

Enable UPC-E1



Disable UPC-E1 (default)



To enable or disable EAN-8, scan the appropriate barcode below.

Enable EAN-8 (default)



Disable EAN-8



To enable or disable EAN-13, scan the appropriate barcode below.

Enable EAN-13 (default)



Disable EAN-13



To enable or disable EAN Bookland, scan the appropriate barcode below.

Enable Bookland EAN



Disable Bookland EAN (default)



Note: If you enable Bookland EAN, select a Bookland ISBN Format on page 49. Also select either Decode UPC/EAN Supplementals, Autodiscriminate UPC/EAN Supplementals, or Enable 978/979 Supplemental Mode in Decode UPC/EAN Supplementals on page (insert page number)

Bookland ISBN Format

If Bookland EAN is enabled, select one of the following formats for Bookland data:

- Bookland ISBN-10 - The digital scanner reports Bookland data starting with 978 in traditional 10-digit format with the special Bookland check digit for backward-compatibility. Data starting with 979 is not considered Bookland in this mode.
- Bookland ISBN-13 - The digital scanner reports Bookland data (starting with either 978 or 979) as EAN-13 in 13-digit format to meet the 2007 ISBN-13 protocol.

Note: For Bookland EAN to function properly, ensure Bookland EAN is enabled (see Enable/Disable Bookland EAN), then select either Decode UPC/EAN Supplementals, Autodiscriminate UPC/EAN Supplementals, or Enable 978/979 Supplemental Mode in Decode UPC/EAN Supplementals.

Bookland ISBN-10 (default)



Bookland ISBN-13



Note: If you enable Bookland EAN, select a Bookland ISBN Format. Also select either Decode UPC/EAN Supplementals, Autodiscriminate UPC/EAN Supplementals, or Enable 978/979 Supplemental Mode in Decode UPC/EAN Supplementals on page 31-32.

Decode UPC/EAN Supplementals

Supplementals are appended characters (2 or 5) according to specific code format conventions (e.g., UPC A+2, UPC E+2). Several options are available:

- If Decode UPC/EAN with Supplemental characters is selected, the scan engine does not decode UPC/EAN symbols without supplemental characters.
- If Ignore UPC/EAN with Supplemental characters is selected, and the SM1 is presented with a UPC/EAN symbol with a supplemental, the scan engine decodes the UPC/EAN and ignores the supplemental characters.
- Select Enable 978/979 Supplemental Mode to enable the SM1 to identify supplementals for EAN-13 bar codes starting with a '978' or '979' prefix only. All other UPC/EAN bar codes are decoded immediately and the supplemental characters ignored.

Note: To minimize the risk of invalid data transmission, we recommend selecting whether to read or ignore supplemental characters.

Select the desired option by scanning one of the following barcodes.

Ignore UPC/EAN With Supplementals (default)



Decode UPC/EAN With Supplementals



Autodiscriminate UPC/EAN With Supplementals



Enable 978/979 Supplemental Mode



Scan the appropriate barcode below to transmit the symbol with or without the UPC-A check digit.

Transmit UPC-A Check Digit (default)



Do Not Transmit UPC-A Check Digit



Scan the appropriate barcode below to transmit the symbol with or without the UPC-E check digit.

Transmit UPC-E Check Digit (default)



Do Not Transmit UPC-E Check Digit



Scan the appropriate barcode below to transmit the symbol with or without the UPC-E1 check digit.

Transmit UPC-E1 Check Digit (default)



#FNB00F507C60408FF2A010000#

Do Not Transmit UPC-E1 Check Digit



#FNB00F507C60408FF2A000000#

UPC-A Preamble

Preamble characters (Country Code and System Character) can be transmitted as part of a UPC-A symbol. Select one of the following options for transmitting UPC-A preamble to the host device: transmit system character only, transmit system character and country code (“0” for USA), or transmit no preamble.

No Preamble



System Character (default)



System Character & Country Code



UPC-E Preamble

Preamble character (System Character) can be transmitted as part of a UPC-E symbol. Select one of the following options for transmitting UPC-E preamble to the host device: transmit system character or transmit no preamble.

No Preamble



System Character (default)



System Character & Country Code



UPC-E1 Preamble

Preamble character (System Character) can be transmitted as part of a UPC-E1 symbol. Select one of the following options for transmitting UPC-E1 preamble to the host device: transmit system character or transmit no preamble.

No Preamble



System Character (default)



System Character & Country Code



Convert UPC-E1 to UPC-A

Enable this parameter to convert UPC-E1 (zero suppressed) decoded data to UPC-A format before transmission. After conversion, data follows UPC-A format and is affected by UPC-A programming selections (e.g., Preamble, Check Digit). Scan DO NOT CONVERT UPC-E TO UPC-A to transmit UPC-E1 (zero suppressed) decoded data.

Convert UPC-E1 to UPC-A



Do Not Convert UPC-E1 to UPC-A (default)



EAN Zero Extend

When enabled, this parameter adds five leading zeros to decoded EAN-8 symbols to make them compatible in format to EAN-13 symbols and code type would be changed to EAN-13.

Disable this parameter to transmit EAN-8 symbols as is.

Enable EAN Zero Extend



Disable EAN Zero Extend (default)



To enable or disable Code 128, scan the appropriate barcode below.

Enable Code 128 (default)



Disable Code 128



To enable or disable GS1-128 (formerly UCC/EAN-128), scan the appropriate barcode below.

Enable GS1-128 (default)



Disable GS1-128



To enable or disable Code 39, scan the appropriate barcode below.

Enable Code 39 (default)



Disable Code 39



Code 39 Full ASCII is a variant of Code 39 which pairs characters to encode the full ASCII character set. To enable or disable Code 39 Full ASCII, scan the appropriate barcode below.

Enable Code 39 Full ASCII



Disable Code 39 Full ASCII (default)



Set Lengths for Code 39

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Lengths for Code 39 may be set for any length, one or two discrete lengths, or lengths within a specific range. If Code 39 Full ASCII is enabled, Length Within a Range or Any Length are the preferred options. To set lengths, contact support@socketmobile.com.

- One Discrete Length - This option limits decodes to only those Code 39 symbols containing a selected length.
- Two Discrete Lengths - This option limits decodes to only those Code 39 symbols containing either of two selected lengths.
- Length Within Range - This option limits decodes to only those Code 39 symbols within a specified range.

Code 39- Any Length



- Any Length - Scan this option to decode Code 39 symbols containing any number of characters.

Code 39 Check Digit

Scan this symbol to enable/disable the check digit.

Transmit Code 39 Check Digit



Do Not Transmit Code 39 Check Digit (default)



Code 32 is a variant of Code 39 used by the Italian pharmaceutical industry. Scan the appropriate barcode below to enable or disable converting Code 39 to Code 32.

Note: Code 39 must be enabled in order for this parameter to function.

Enable Convert Code 39 to Code 32



Disable Convert Code 39 to Code 32 (default)



Enable this parameter to add the prefix character “A” to all Code 32 barcodes. Convert Code 39 to Code 32 (Italian Pharma Code) must be enabled for this parameter to function.

Enable Code 32 Prefix



Disable Code 32 Prefix (default)



To enable or disable Code 93, scan the appropriate barcode below.

Enable Code 93



Disable Code 93 (default)



Set Lengths for Code 93

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Lengths for Code 93 may be set for any length, one or two discrete lengths, or lengths within a specific range. To set lengths, contact support@socketmobile.com.

- One Discrete Length - Select this option to decode only those codes containing a selected length.
- Two Discrete Lengths - Select this option to decode only those codes containing two selected lengths.
- Length Within Range - This option sets the unit to decode a code type within a specified range.

Code 93-Any Length



- Any Length - Scan this option to decode Code 93 symbols containing any number of characters.

To enable or disable Interleaved 2 of 5, scan the appropriate barcode below.

Enable Interleaved 2 of 5 (default)



Disable Interleaved 2 of 5



Set Lengths for Interleaved 2 of 5

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Lengths for I 2 of 5 may be set for any length, one or two discrete lengths, or lengths within a specific range. To set lengths, contact support@socketmobile.com.

- One Discrete Length - Select this option to decode only those codes containing a selected length.
- Two Discrete Lengths - Select this option to decode only those codes containing two selected lengths.
- Length Within Range - Select this option to decode only codes within a specified range.

Interleaved 2 of 5-Any Length



- Any Length - Scan this option to decode I 2 of 5 symbols containing any number of characters.

Note: Selecting this option may lead to misdecodes for I 2 of 5 codes.

To enable or disable Codabar, scan the appropriate barcode below.

Enable Codabar



Disable Codabar (default)



Set Lengths for Codabar

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Lengths for Codabar may be set for any length, one or two discrete lengths, or lengths within a specific range. To set lengths, contact support@socketmobile.com.

- One Discrete Length - Select this option to decode only those codes containing a selected length.
- Two Discrete Lengths - This option sets the unit to decode only those codes containing two selected lengths.
- Length Within Range - Select this option to decode a code within a specified range.

Codabar Any Length



- Any Length - Scan this option to decode Codabar symbols containing any number of characters.

CLSI Editing

When enabled, this parameter strips the start and stop characters and inserts a space after the first, fifth, and tenth characters of a 14-character Codabar symbol.

Note: Symbol length does not include start and stop characters.

Enable CLSI Editing



Disable CLSI Editing (default)



NOTIS Editing

When enabled, this parameter strips the start(A) and stop (A or B) characters from decoded Codabar symbol.

Enable NOTIS Editing



Disable NOTIS Editing (default)



To enable or disable MSI, scan the appropriate barcode below.

Enable MSI



Disable MSI (default)



Set Lengths for MSI

The length of a code refers to the number of characters (i.e., human readable characters) the code contains, and includes check digits. Lengths for MSI can be set for any length, one or two discrete lengths, or lengths within a specific range. To set lengths, contact support@socketmobile.com.

- One Discrete Length - Select this option to decode only those codes containing a selected length.
- Two Discrete Lengths - Select this option to decode only those codes containing two selected lengths.
- Length Within Range - Select this option to decode codes within a specified range.

MSI-Any Length



- Any Length - Scan this option to decode MSI symbols containing any number of characters.

MSI Check Digits

These check digits at the end of the bar code verify the integrity of the data. At least one check digit is always required. Check digits are not automatically transmitted with the data.

One MSI Check Digit (default)



Two MSI Check Digit



Scan this symbol to transmit the check digit with the data.

Transmit MSI Check Digit



Scan this symbol to transmit data without the check digit.

Do Not Transmit MSI Check Digit (default)



To enable or disable GS1 DataBar-14, scan the appropriate barcode below.

Enable GS1 DataBar-Omnidirectional (default)



Disable GS1 DataBar-Omnidirectional



To enable or disable GS1 DataBar Limited, scan the appropriate barcode below.

Enable GS1 DataBar Limited



Disable GS1 DataBar Limited (default)



To enable or disable GS1 DataBar Expanded, scan the appropriate barcode below.

Enable GS1 DataBar Expanded



Disable GS1 DataBar Expanded (default)





Make sure the scanner is not connected to a host computer or device before scanning a command barcode.

To enable or disable, scan the appropriate bar code below.

PDF417

Enable (default)



#FNB00F507C60408FF0F010000#

Disable



#FNB00F507C60408FF0F000000#

MicroPDF41

Enable (default)



#FNB00F507C60408FFE3010000#

Disable



#FNB00F507C60408FFE3000000#

DataMatrix

Enable (default)



#FNB00F508C60408FFF024010000#

Disable



#FNB00F508C60408FFF024000000#

Maxicode

Enable



#FNB00F508C60408FFF026010000#

Disable (default)



#FNB00F508C60408FFF026000000#

QR Code

Enable (default)



#FNB00F508C60408FFF025010000#

Disable



#FNB00F508C60408FFF025000000#

MicroQR

Enable (default)



#FNB00F508C60408FFF13D010000#

Disable



#FNB00F508C60408FFF13D000000#

Aztec

Enable (default)



#FNB00F508C60408FFF13E010000#

Disable



#FNB00F508C60408FFF13E000000#

Han Xin

Enable



#FNB00F509C60408FFF8048F010000#

Disable (default)



#FNB00F509C60408FFF8048F000000#

To enable or disable US Postnet, scan one of the following barcodes.

US Postnet

Enable



#FNB00F507C60408FF59010000#

Disable (default)



#FNB00F507C60408FF59000000#

US Postal

(includes US Postnet and US Planet, with or without check digit)

Transmit Check Digit (default)



#FNB00F507C60408FF5F010000#

Do Not Transmit Check Digit



#FNB00F507C60408FF5F000000#

UK Postal

Enable



#FNB00F507C60408FF5B010000#

Disable (default)



#FNB00F507C60408FF5B000000#

UK Postal Check Digit

Transmit Check Digit (default)



#FNB00F507C60408FF60010000#

Do Not Transmit



#FNB00F507C60408FF60000000#

To enable or disable Japan Postal, scan one of the following barcodes.

Japan Postal

Enable



#FNB00F508C60408FFF022010000#

Disable (default)



#FNB00F508C60408FFF022000000#

Australia Post

Enable



#FNB00F508C60408FFF023010000#

Disable (default)



#FNB00F508C60408FFF023000000#

SAMPLE BARCODES

Linear 1D and 2D
For testing only.

Code 39



Interleaved 2 of 5



UPC-A



Code 93



Code 128



UPC-E



Codabar



EAN 8/JAN



EAN 13/JAN



GS1 Databar



GS1-128 (UCC/EAN-128)



MSI



GS1 Databar Stacked



GS1-128 Composite



Matrix 2 of 5



SAMPLE BARCODES

QR Code



PDF417



Data Matrix



Micro QR Code



MicroPDF417



MaxiCode



Aztec



Han Xin



Dot Code



Australia Post



US Postnet



Japan Postal



PROGRAMMING GUIDE
SOCKET MOBILE INC.
2020