AS-9400BT

Cordless 2D Scanner

User Guide

https://www.argox.com

Version: 2.4

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/ TV technician for help.

CAUTION:

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

RF exposure warning

The equipment complies with FCC RF exposure limits set forth for an uncontrolled environment.

The equipment must not be co-located or operating in conjunction with any other antenna or transmitter.

AS-9400BT Scanner/Cradle
Frequency: 2402MHz~2480MHz
RF Power:
Barcode Scanner – 2.02dBm (EIRP) /
Base - 1.21dBm (EIRP)
Hereby, Argox Information Co., Ltd. declares that the radio equipment type AS-9400BT is in compliance with the standard ETSI EN 301489-1.

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

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前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

RF EXPOSURE WARNING:

The equipment complies with FCC RF exposure limits set forth for an uncontrolled environment.

The equipment must not be co-located or operating in conjunction with any other antenna or transmitter.

警告：電池若未妥善處理，可能會導致爆炸。
請勿拆卸電池，或用火銷毀電池。請將電池放置於兒童拿不到的地方。請使用專用充電器充電，並請依照當地政府或法律規定妥善處理廢棄電池。

CAUTION: EXPLOSION HAZARD

Do not disassemble, short circuit, heat the battery or dispose of in fire. Store battery pack in a proper place. Do not expose to temperature above 60°C/140°F. Use specified charger only. Please dispose of the used batteries following the rules or laws issued by the local government.

Note All brands and trademarks shall belong to their respective owner.

Note Specification is subject to changes without notice.

Contents

1 Introduction

AS-9400BT is a cordless scanner that can read bar codes on objects or on screens. The high performance scanning engine delivers high speed and high readability, making it an ideal scanning solution for business.

- **High decoding performance** Fast and easy scan for 1D & 2D bar codes
- **High optical resolution** Your scanner reads high density bar codes up to 3mil for 1D (code 39) & 7.5mil for QR code.
- **Distortion processing** Even if your bar code is distorted, AS-9400BT still recognizes it.
- **Mobile Phone Displays Readable**
- **Support Interfaces of USB / USB COM / RS-232**
- **Using type C connector at cradle for data transmission and battery recharging**
- **Bluetooth 5.0 Dual mode (BLE & Classic BT+EDR)**
- **Data rate of up to 3 Mbps**
- **Auto-Sensing Support (Automatically switch on cradle)**
- **Windows, Android, iOS devices direct link**
- **Large memory for out of communication range backup**

1.1 Unpacking

Make sure all of the following items are included in your package.

- ✓ Scanner x1
- ✓ Cradle x1
- ✓ USB cable x1
- ✓ Y cable x1
- ✓ Quick start guide x1

When you receive your scanner, open the package immediately and inspect for shipping damage. If you discover any damage, contact the shipping company and file a claim. Argox is not responsible for any damage incurred during shipping. Save all package materials for the shipping company to inspect.

Note If any item is missing, please contact your local dealer.

2 Get started

This chapter provides information about how to install, connect and use your scanner to do your work, and how to charge and replace your battery.

2.1 Charging and Installation

This section describes how to charge and set up your scanner.

2.1.1 Charging Your Scanner

AS-9400BT contains a lithium-ion battery that is partially charged at the factory. You might want to charge it to full before your use it. The battery life varies depending on usage.

You can charge the battery by connecting the cradle with a USB (type C) cable to your computer, or with a power supply, which charges the battery faster. When your scanner is fully charged, your cradle's LED turns to green.

Note: The percentage of power measured is for reference only and the actual value may vary depending on the battery power error.

Charging with	Full Charge Time
Power Supply	4 hours
USB Cable (USB2.0)	5 hours
USB Cable (USB3.0)	4 hours

Caution Keep the charging pins dry when you put your scanner on your cradle to charge the battery. Wet charging pins may cause water seeping into your cradle and shortening its life.

Be sure to fully charge your scanner before connecting it to your computer for operation. Please follow the steps below to charge the scanner.

2.1.2 Set up your scanner

There are two options for connecting the scanner, cradle and computer together. The following section describes the connection procedure for each of these two types of connections.

Option 1: Connection with a USB cable

1. Connect one end (Type C) of the USB cable to the data transmission port of the cradle.
2. Connect the other end (Type A) of the USB Cable to a USB port of your computer.

Note: The are two USB cables provided in the gift box, one for connection between the cradle and your computer and the other for connection between a power supply and the cradle.

Option 2: Connection with an RS-232 cable and a USB cable

1. Connect one end (Type C) of the Y cable to the data transmission port of your cradle.
2. Connect the USB (Type A) connector of the other end of the Y cable to a USB port of your computer and then connect the RS-232 connector of the other end of the Y cable to the RS-232 port of your computer.

2.2 Bluetooth Connection

Basic Mode (HID) (default)

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

AT+MODE=2

*Basic Mode (HID)

Basic Mode Features:

·NO software installation required
·Connects to most devices
·Scanner interacts with host device like a keyboard

How to pair with Bluetooth in Basic Mode (HID)?

- **Android: Connect Android Device in Basic Mode (HID)**

1. Power on the scanner and scan the Basic Mode (HID) barcode. The LED indicator of the scanner will be flashing in blue.
2. Touch the Bluetooth setting of your Android device.
3. Make sure the device has Bluetooth “On”.
4. In the list of found devices, select “Argox Bluetooth”. Tap Pair.
5. The scanner will make one long beep after Bluetooth paired and LED light will turn to solid blue (no blinking).

➢ **Apple: Connect Apple iOS Device (HID)**

1. Power on the scanner and scan the Basic Mode (HID) barcode. The LED light will be flashing in blue.
2. Touch the Bluetooth setting of Apple iOS device.
3. Make sure the device has Bluetooth “On”. A Bluetooth device search will begin.
4. In the list of found devices, select “Argox Bluetooth”. Tap Pair.
5. The scanner will make one beep once being connected, and its LED light will turn to solid blue (no blinking) and the scanner is ready to scan.

➢ **Windows: Connect Windows PC (HID)**

Method 1:

1. Read Bluetooth Basic Mode (HID) (default).
2. Scan the pairing code on the charging base, the scanner will be paired and connected to the computer automatically.

The pairing code can also be found by program, see steps below:

1. Connect the charging base with the attached USB cable to your computer.
2. Execute the mini program of Bluetooth Address, and then click to get pairing code.

P.S. Please ask the sales person or download on website to get Bluetooth Address mini program.

Method 2:

1. Power on the scanner. Make sure the scanner is discoverable (unpaired).
2. Use your computers Bluetooth Settings to connect to the scanner.
3. Open Devices and Printers and select “Add a device”.
4. In the device list, select “Argox Bluetooth”. Click Next.
5. Follow the remaining screens to complete the wizard.
6. The scanner will make one beep once it’s connected and LED light will turn to solid blue (no blinking) and is ready to scan.

Important Notes:

- Make sure the device is in range with bluetooth.
- Scanner will power off if there's no work within 1 minute.
- Pressing the scan button will initiate the attempts to connect.

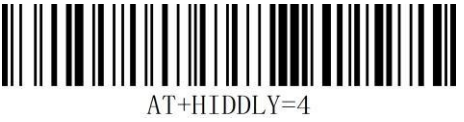
Transfer Through Stand/holder Upload Speed

*Top Speed

Middle Speed

Low Speed

Bluetooth keyboard Upload Speed



High Speed

Medium Speed

AT+HIDDLY=25

Low Speed

Important Note:
Default Idle Time: Scanner will power off automatically if device is not connected within 1min.

Un-Pair Bluetooth:

Below are two steps of unpairing the Bluetooth from previous device completely.

1. Scan Un-pair Bluetooth HID, Scanner disconnected from current device and waits for another device to be paired.
2. Remove or Ignore "Argox Bluetooth" from your previous device.

Un-Pair Bluetooth

BLE Mode

For Apple Devices (a software was required to work under this mode)

AT+MODE=3

BLE Mode

SPP Mode

For Windows or Android (a software was required to work under this mode)

AT+MODE=1

SPP Mode

Important Note:

If you want to shift from HID to SPP or BLE, just scan the Corresponding command barcode.

If you want to shift from SPP or BLE to HID mode, please ignore (or delete) "Argox Bluetooth" → turn off Bluetooth→ scan command barcode of HID → Open the Bluetooth → repair it.

If you encounter Bluetooth settings problems, follow these four steps to restore Bluetooth settings to factory settings.

Scan Settings Step 1:

Scan Settings Step 2:

Scan Settings Step 3:

Scan Settings Step 4:

2.3 How to scan

AS-9400BT emits a light bar when it is scanning. This bar needs to cross the bar code horizontally to decode it.

2.3.1 Floodlight Control

Parameter # 0xF2 0x02

3030020

Lighting when Read
(0x00)

3030021

Always Lighting
(0x01)

3030022

Always Close
(0x02)

2.3.2 Positioning lights control (only for 2D)

Parameter # 0xF2 0x03

Lighting when Read
(0x00)

Always Lighting
(0x01)

Always Close
(0x02)

2.3.3 IR Detect

By default, the IR detect function of the AS-9400BT is enabled, so when this scanner is placed on the cradle, it enters the presentation mode. To disable this feature, scan **IR Detect Disable**.

*IR Detect Enable (Default)

%%IRDET#1

IR Detect Disable

3 Controls and settings

Customize your scanner to work efficiently. AI-6801 offers many features to match your preferences. This chapter provides information about how to change controls and settings of your scanner.

3.1 Firmware Version

Read below command barcode to check scanner firmware version.

$SW#VER

Firmware Version

3.2 Interface Selection

%RS232_TX#0

Cradle Interface - USB

%#IFSNC$3

Cradle Interface - Virtual COM

%RS232_TX#1

Cradle Interface - RS232

%RS232_BR#0

Cradle RS232 Baudrate- 9600 (Default)

Cradle RS232 Baudrate- 19200

Cradle RS232 Baudrate- 38400

Cradle RS232 Baudrate- 57600

Cradle RS232 Baudrate- 115200

3.3 Barcode Programming

Argox barcode scanners are factory programmed for the most common terminal and communications settings. If you need to change these settings, programming is accomplished by scanning the bar codes in this guide. An asterisk (*) next to an option indicates the default setting.

Important Notes: Many of the command barcodes only work with a scanner in a particular connection modes.

3.4 LED Indicator Light

Status lights (LED) are helpful for checking your scanner’s status. Both your scanner and cradle have LEDs; your scanner’s LED has red, blue and green colors and your cradle’s LED has blue color. The table below shows the LED behavior and the status it indicates.

Scanner Indicator Light: Red, Green
Red light when scanner is charging, green light after fully charged.

Charging Base Indicator Light: Blue
The blue light flashes when the bluetooth is not connected, and the blue light is always on when the bluetooth is connected.

Status	Scanner LED	Cradle LED
Bluetooth connected	**Blue** LED is permanent on	**Blue** LED is permanent on
Bluetooth disconnected	Flashing **Blue** LED once per second	Flashing **Blue** LED once per second
Charging	**Red** LED is permanent on	**Blue** LED is permanent on
Full charged	**Green** LED is permanent on	**Blue** LED is permanent on

Note: When the scanner that is connected is charged with power, the indicator color on the scanner may be purple (a color between blue and red).

3.5 Beep Indicator

One beep: normal data upload and normal power supply

One beep: normal data upload and different tones (storage mode)

Two beeps: normal data upload (low battery)

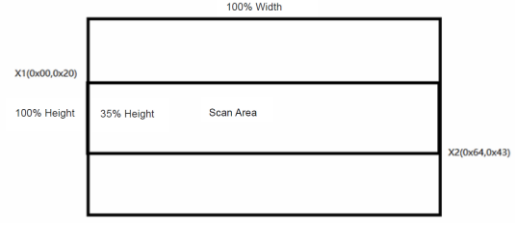
Three beeps: no data upload (no pairing)

Five beeps: no data upload (insufficient power, need to be charged)

3.6 Scanning Mode

Parameter # 0xF2 0xD7

The origin of the area is set at the starting point of the image, and the size of this area is defined as a ratio relative to the full width or height. The values range from 1 to 100, indicating the proportion of the width or height of this area relative to the full width or height. If you need to set the width to 100% and the height to 35% with the center, you should set two points X1 (0x00, 0x20) and X2 (0x64, 0x43). The coordinate difference between these two points represents the reading range, as shown in the diagram below.



3030D70

*Disable
(0x00)

3030D71

Enable
(0x01)

Scan Range Type

Parameter # 0xF8 0x2C

Using the starting point origin of the image, the reading range is determined by setting the coordinates of two points (x1, y1), (x2, y2), where the coordinate difference between the two points defines the reading range.

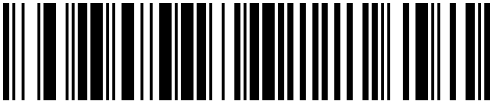
8082C00206443
*(Height*35% Width*100%)
(0x00)

8082C002D6437
(Height*10% Width*100%)
(0x01)

8082C002A6439
(Height*15% Width*100%)
(0x02)

8082C0028643C
(Height*20% Width*100%)
(0x03)

8082C0025643E
(Height*25% Width*100%)
(0x04)



8082C00003264
(Left Half)
(0xC8)

8082C32006464
(Right Half)
(0xC9)

3.6.1 *Trigger Mode (Default)
Scanning this bar code will enable the scanner to enter manual trigger mode.

Trigger Mode

3.6.2 Auto Sense Mode

Scanning this bar code will enable the scanner to enter auto sense mode.

Auto Sense Mode

3.6.3 Continuous Mode

This mode enables the engine to scan/capture, decode and transmit over and over again.

Continuous Mode

3.7 Keyboard Language

If you use French Keyboard, for example, scan command barcode of “French keyboard”. If you use a US keyboard, you can ignore this step.

*America EN keyboard

French keyboard

Germany keyboard

Italy keyboard

Portugal keyboard

Spain keyboard

Turkey Q keyboard

Turkey F keyboard

UK keyboard

Czech keyboard

Hungary keyboard

Belgium FR keyboard

Brazil PT keyboard

Canadian FR keyboard

Croatia keyboard

Slovak keyboard

Denmark keyboard

Finland keyboard

Latin-America ES keyboard

Netherland keyboard

Norway keyboard

Poland keyboard

Serbia keyboard

Slovenia keyboard

Sweden keyboard

Swiss DE keyboard

3.8 Data Uploading Mode

If you are heading for a working area which lies outside the Bluetooth signal range, you may activate scanner's store mode, following steps described below. Under this mode, all scanned data will be stored directly into the buffer memory of the device. Furthermore, the data entries will be permanently saved in the buffer memory prior to the manual upload into the working station, so that you may upload them when you are near your working device.

3.8.1 Normal Mode

By scanning the following barcode, the device leaves the offline mode, normal mode will be reinitialized.

*Normal Mode

3.8.2 Save Mode

By scanning the following barcode, the offline mode will be activated.

Save Mode

Auto Save Mode Off

Auto Save Mode On[1]

Note 1: When the automatic save mode is enabled in wireless transmission mode, the barcode will be automatically saved if the transmission fails. You can obtain the saved data through "data upload".

3.8.3 Output Saved Data

By scanning the following barcode, all data entries in the buffer memory can be manually uploaded after reconnecting to the working station.

Output Saved Data

Data Upload[1]

Note 1: Scanning the "Data Upload" command barcode again during the data upload process will cancel / stop the data upload.

3.8.4 Output Total Entry

By scanning the following barcode, the gross quantity of the uploaded data entries will be summarized.

Output Total Entry

3.8.5 Clear Memory

By scanning the following barcode, all data in the buffer memory will be deleted.

Clear Memory

3.9 Get Battery Volume

Scan below command barcode to get battery rough volume.

%BAT_VOL#

Battery Rough Volume

3.10 Idle time

Scanner will turn to sleep after idle/inactive for 1min. If you want to make other idle time options, please refer to the following settings to configure your scanner.

$POWER#OFF

Power Off

$RF#ST00

Disable Sleep Mode

$RF#ST01

30S

$RF#ST06

3Mins

10Mins

30Min

3.11 Interval Time

The interval time is between two readings in continuous mode. Regardless of the last success or failure to read, more than the specified time will automatically trigger the next reading.

Default: 500ms, unit: 100ms, range: 0-9900ms

To set an Interval Time, scan the bar code below. Next scan two ***Numeric Bar Codes*** in appendix that correspond to the desired time-out. Single digit values must have a leading zero. For example, to set a time-out of 0.5 seconds, scan the bar code below, and then scan the “0” and “5” bar codes. To change the selection or cancel an incorrect entry, scan ***Cancel*** in appendix.

Interval Time
(Default: 500ms.)

3.12 Same Code Delay

To avoid the same barcode being read multiple times in continuous mode and auto-sensing mode, the reading engine can be asked to delay for a set amount of time before allowing the same barcode to be read.

The same reading delay is the refusal to read the same barcode for a set length of time after reading a barcode. It can be recognized and output only after the time duration is exceeded. Default: 500, Unit: 100ms, Range: 0-9900ms.

To set the same read delay, scan the barcode below. Next scan the two ***Numeric Bar Codes*** in the appendix to correspond to the desired timeout. Insufficient bits are made up with zeros. For example, set a timeout of 0.5 seconds, scan the following barcode, and then scan the "0" and "5" barcodes. To change the selection or cancel an incorrect input setting, scan the ***Cancel*** barcode in the appendix.

Same Code Delay

For example:
To set the same code delay to 200ms, scan the same code delay setting code first and then scan the numeric setting codes 0 and 2.

To set the same code delay to 1500ms, scan the same code delay setting code first, then scan the numeric setting codes 1 and 5.

3.12.1 Quick Setup for Same Code Delay

Quick Setup for Same Code Delay supports six preset options: 0s, 1s, 3s, 5s, 7s, and Infinite Delay.

No Delay
(0x00)

Delay 1 second
(0x01)

Delay 3 seconds
(0x03)

Delay 5 seconds
(0x05)

Delay 7 seconds
(0x07)

Infinite Delay
(Disable Same Code Scanning)
(0x09)

3.13 Convert Case

*Disable Convert Case

Up Low Case Swap (A<->a)

All Upper Case (a->A)

All Lower Case (A->a)

Notes: Command barcodes from Working mode section are only applied for Bluetooth wireless mode.

3.14 Terminator

The scanner provides a shortcut for setting the terminating character suffix to CR or CRLF and enabling it by scanning the appropriate barcode below.

None

CR&LF*

CR

TAB

3.15 IOS Keyboard POP UP/HIDE

During the scanning IOS keyboard can be hided or popped up by scanning below command barcode.

IOS Keyboard POP UP/HIDE

3.16 Beeper

Enable/Disable scanner to beep to indicate successful scan.

$BUZZ#0
BEEP OFF

$BUZZ#1
*High Volume

$BUZZ#2
Middle Volume

$BUZZ#3
Low Volume

3.17 Restore factory default

Scan the following barcodes one by one to restore the scanner to factory defaults. (Four steps included)

Step 1:

303FFF0

Step 2:

Step 3:

Step 4:

3.18 Transmit Code ID Character

A code ID character identifies the code type of a scanned bar code. This can be useful when decoding more than one code type. The code ID character is inserted between the prefix character (if selected) and the decoded symbol.

Symbol Code ID Character Code ID

Aim Code ID Character AIM ID

*None

3.18.1 Symbol Code ID Identifiers

A=	UPC-A, UPC-E, EAN-8, EAN-13	J=	MSI, MSI/Plessey
B=	Code 39, Code 32	K=	GS1-DataBar, /UCC/EAN-128
C=	Codabar	L=	Bookland EAN, Bookland EAN/ISBN
D=	Code 128, ISBT 128	M=	Trioptic Code 39
E=	Code 93	N=	Coupon Code
F=	Interleaved 2 of 5	R=	GS1 DataBar-14, GS1 DataBar Limited, GS1 DataBar Expanded, RSS
G=	Discrete 2 of 5	S=	SETUP128
H=	CODE11		

r=	PDF417	x=	Maxi Code
u=	Data Matrix(DM)	v=	Veri Code
q=	QR	c=	Han Xin
a=	Aztec Code		

3.18.2 AIM Code Identifiers

Each AIM Code Identifier contains the three-character string]cm where:
] = Flag Character
c = Code Character (see the table below)
m = Modifier Character

A	Code 39, Code 39 Full ASCII, Code 32	S	Discrete 2 of 5, IATA 2 of 5
C	Code 128, ISBT 128, GS1-128, Coupon (Code 128 portion), Setup128	X	Code 39 Trioptic, Bookland EAN, Han Xin
E	UPC/EAN, Coupon (UPC portion)	e	GS1 DataBar
F	Codabar	L	PDF417
G	Code 93	d	Data Matrix(DM)
H	Code 11	Q	QR
I	Interleaved 2 of 5	z	Aztec Code

3.19 All Symbologies

Enable / Disable All Symbologies

If the Disable All Symbologies feature is enabled, the scanner will not be able to read any non-programming barcodes except the programming barcodes.

Disable All Symbologies

Enable All Symbologies

3.19.1 1D Symbologies

Enable / Disable1D Symbologies
If the Disable 1D Symbologies feature is enabled, the scanner will not be able to read any 1D barcodes.

Disable 1D Symbologies

Enable 1D Symbologies

3.19.2 2D Symbologies

Enable / Disable 2D Symbologies
If the Disable 2D Symbologies feature is enabled, the scanner will not be able to read any 2D barcodes.

Disable 2D Symbologies

Enable 2D Symbologies

3.19.3 1D Inverse Barcode

Regular barcode: Dark image on a bright background.
Inverse barcode: Bright image on a dark background.

*Disabled to read 1D reverse barcode

Enabled to read 1D reverse barcode

3.19.4 Decode UPC / EAN Supplementals UPC/EAN

Supplementals are bar codes appended according to specific format conventions (e.g., UPC A+2, UPC E+2, EAN 13+2, EAN 13+5). The following options are available:

*Ignore UPC/EAN with Supplementals

Decode UPC/EAN with Supplementals

Auto discriminate UPC/EAN Supplementals

3.19.5 UPC-A

Enable/Disable UPC-A

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

*Enable UPC-A

Disable UPC-A

Transmit Preamble Character

Preamble characters (Country Code and System Character) can be transmitted as part of a UPC-A barcode. Select one of the following options for transmitting UPC-A preamble to the host device: transmit system character only or transmit system character and country code (“0” for USA).

No System Character

System Character & Country Code

*System Character

UPC-A Transmit Check Character

*Transmit UPC-A Check Character

Do Not Transmit UPC-A Check Character

UPC-A Add-On Code

A UPC-A barcode can be augmented with a two-digit or five-digit add-on code to form a new one.

Enable 2-Digit Add-On Code / Enable 5-Digit Add-On Code: The scanner decodes a mix of UPC-A barcodes with and without 2-digit/5-digit add-on codes.

Disable 2-Digit Add-On Code / Disable 5-Digit Add-On Code: The engine decodes UPC-A and ignores the add-on code when presented with a UPC-A plus add-on barcode. It can also decode UPC-A barcodes without add-on codes.

Enable 2-Digit Add-On Code

*Disable 2-Digit Add-On Code

Enable 5-Digit Add-On Code

*Disable 5-Digit Add-On Code

UPC-A Add-On Code Required

When **UPC-A Add-On Code Required** is selected, the scanner will only read UPC-A barcodes that contain addon codes.

UPC-A Add-On Code Required

*UPC-A Add-On Code Not Required

3.19.6 UPC-E

Enable/Disable UPC-E

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

*Enable UPC-E

Disable UPC-E

Transmit Preamble Character

Preamble characters (Country Code and System Character) can be transmitted as part of a UPC-E barcode. Select one of the following options for transmitting UPC-E preamble to the host device: transmit system character only or transmit system character and country code (“0” for USA).

No System Character

System Character & Country Code

*System Character

UPC-E Transmit Check Character

*Transmit UPC-E Check Character

Do Not Transmit UPC-E Check Character

Convert UPC-E to UPC-A

Convert UPC-E to UPC-A

*Do not convert UPC-E to UPC-A

UPC-E Add-On Code

A UPC-E barcode can be augmented with a two-digit or five-digit add-on code to form a new one.

Enable 2-Digit Add-On Code/ Enable 5-Digit Add-On Code: The scanner decodes a mix of UPC-E barcodes with and without 2-digit/5-digit add-on codes.

Disable 2-Digit Add-On Code/ Disable 5-Digit Add-On Code: The scanner decodes UPC-E and ignores the add-on code when presented with a UPC-E plus add-on barcode. It can also decode UPC-E barcodes without add-on codes.

Enable 2-Digit Add-On Code

*Disable 2-Digit Add-On Code

Enable 5-Digit Add-On Code

*Disable 5-Digit Add-On Code

UPC-E Add-On Code Required

When **UPC-E Add-On Code Required** is selected, the scanner will only read UPC-E barcodes that contain addon codes.

UPC-E Add-On Code Required

*UPC-E Add-On Code Not Required

3.19.7 EAN-8

Enable/Disable EAN-8

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

*Enable EAN-8

Disable EAN-8

EAN-8 Extension
Disable EAN-8 Zero Extend: Transmit EAN-8 barcodes as is.

Enable EAN-8 Zero Extend: Add five leading zeros to decoded EAN-8 barcodes to extend to13 digits.

Enable EAN-8 Zero Extend

*Disable EAN-8 Zero Extend

EAN-8 Add-On Code
A EAN-8 barcode can be augmented with a two-digit or five-digit add-on code to form a new one.

Enable 2-Digit Add-On Code/ Enable 5-Digit Add-On Code: The scanner decodes a mix of EAN-8 barcodes with and without 2-digit/5-digit add-on codes.

Disable 2-Digit Add-On Code/ Disable 5-Digit Add-On Code: The scanner decodes EAN-8 and ignores the add-on code when presented with an EAN-8 plus add-on barcode. It can also decode EAN-8 barcodes without add-on codes.

Enable 2-Digit Add-On Code

*Disable 2-Digit Add-On Code

Enable 5-Digit Add-On Code

*Disable 5-Digit Add-On Code

UPC-A Add-On Code Required

When **UPC-A Add-On Code Required** is selected, the scanner will only read UPC-A barcodes that contain addon codes.

UPC-A Add-On Code Required

*UPC-A Add-On Code Not Required

3.19.8 UPC-E

Enable/Disable UPC-E

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

*Enable UPC-E

Disable UPC-E

Transmit Preamble Character

Preamble characters (Country Code and System Character) can be transmitted as part of a UPC-E barcode. Select one of the following options for transmitting UPC-E preamble to the host device: transmit system character only or transmit system character and country code (“0” for USA).

No System Character

System Character & Country Code

*System Character

UPC-E Transmit Check Character

*Transmit UPC-E Check Character

Do Not Transmit UPC-E Check Character

Convert UPC-E to UPC-A

Convert UPC-E to UPC-A

*Do not convert UPC-E to UPC-A

UPC-E Add-On Code
A UPC-E barcode can be augmented with a two-digit or five-digit add-on code to form a new one.

Enable 2-Digit Add-On Code/ Enable 5-Digit Add-On Code: The scanner decodes a mix of UPC-E barcodes with and without 2-digit/5-digit add-on codes.

Disable 2-Digit Add-On Code/ Disable 5-Digit Add-On Code: The scanner decodes UPC-E and ignores the add-on code when presented with a UPC-E plus add-on barcode. It can also decode UPC-E barcodes without add-on codes.

Enable 2-Digit Add-On Code

*Disable 2-Digit Add-On Code

Enable 5-Digit Add-On Code

*Disable 5-Digit Add-On Code

UPC-E Add-On Code Required

When **UPC-E Add-On Code Required** is selected, the scanner will only read UPC-E barcodes that contain addon codes.

UPC-E Add-On Code Required

*UPC-E Add-On Code Not Required

3.19.9 EAN-8

Enable/Disable EAN-8

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

*Enable EAN-8

Disable EAN-8

EAN-8 Extension

Disable EAN-8 Zero Extend: Transmit EAN-8 barcodes as is.

Enable EAN-8 Zero Extend: Add five leading zeros to decoded EAN-8 barcodes to extend to13 digits.

Enable EAN-8 Zero Extend

*Disable EAN-8 Zero Extend

EAN-8 Add-On Code

A EAN-8 barcode can be augmented with a two-digit or five-digit add-on code to form a new one.

Enable 2-Digit Add-On Code/ Enable 5-Digit Add-On Code: The scanner decodes a mix of EAN-8 barcodes with and without 2-digit/5-digit add-on codes.

Disable 2-Digit Add-On Code/ Disable 5-Digit Add-On Code: The scanner decodes EAN-8 and ignores the add-on code when presented with a EAN-8 plus add-on barcode. It can also decode EAN-8 barcodes without add-on codes.

Enable 2-Digit Add-On Code

*Disable 2-Digit Add-On Code

Enable 5-Digit Add-On Code

*Disable 5-Digit Add-On Code

EAN-8 Add-On Code Required

When **EAN-8 Add-On Code Required** is selected, the scanner will only read EAN-8 barcodes that contain addon codes.

EAN-8 Add-On Code Required

*EAN-8 Add-On Code Not Required

EAN-8 Transmit Check Character

*Transmit EAN-8 Check Character

Do Not Transmit EAN-8 Check Character

3.19.10 EAN-13

Enable/Disable EAN-13

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

*Enable EAN-13

Disable EAN-13

EAN-13 Add-On Code

An EAN-13 barcode can be augmented with a two-digit or five-digit add-on code to form a new one.

Enable 2-Digit Add-On Code / Enable 5-Digit Add-On Code: The scanner decodes a mix of EAN-13 barcodes with and without 2-digit/5-digit add-on codes.

Disable 2-Digit Add-On Code / Disable 5-Digit Add-On Code: The scanner decodes EAN-13 and ignores the add-on code when presented with a EAN-13 plus add-on barcode. It can also decode EAN-13 barcodes without add-on codes.

Enable 2-Digit Add-On Code

*Disable 2-Digit Add-On Code

Enable 5-Digit Add-On Code

*Disable 5-Digit Add-On Code

EAN-13 Add-On Code Required

When **EAN-13 Add-On Code Required** is selected, the scanner will only read EAN-13 barcodes that contain add-on codes.

EAN-13 Add-On Code Required

*EAN-13 Add-On Code Not Required

EAN-13 Transmit Check Character

*Transmit EAN-13 Check Character

Do Not Transmit EAN-13 Check Character

3.19.11 Bookland EAN (ISBN)

Enable/Disable EAN(ISBN)
To enable or disable EAN Bookland, scan the appropriate bar code below.

Enable Bookland EAN

*Disable Bookland EAN

3.19.12 Bookland ISBN

Enable/Disable ISBN

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

*Bookland ISBN-10

Bookland ISBN-13

3.19.13 Code 128

Enable/Disable Code 128

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

*Enable Code 128

Disable Code 128

Code128 Transmit Check Character

Transmit Code128 Check Character

*Do Not Transmit Code128 Check Character

Length Range Setting for Code 128

Parameter # L1=0xF5 0x04, L2=0xF5 0x05

It allows reading of specific lengths of Code 128 codes. First, scan barcodes within a specific range of lengths, and then scan the four-digit setting code in the appendix to set corresponding pairs of lengths, L1 and L2. L1 and L2 each occupy two digits in the setting code; if it's less than two digits, pad with zeros.

Read Code 128 codes of any length. Simply scan any length; there is no need to scan a numeric setting code. Default: 0-99, configurable range: 01-99.
(1) When L1 < L2, L1 is the minimum length, and L2 is the maximum length.
(2) When L1 > L2, L1 is the maximum length, and L2 is the minimum length.
(3) When L1 = L2, read only at a fixed length (L1/L2).

For example, to allow reading of 4-8 character lengths, scan the numeric setting code "0" "4" "0" "8" or "0" "8" "0" "4"; and to read a fixed length of 12 characters, scan the numeric setting code "1" "2" "1" "2".

Length within a Specific Range

Any Length

3.19.14 GS1-128 (UCC/EAN-128)

Enable/Disable GS1-128 (UCC/EAN-128)

To enable or disable GS1-128, scan the appropriate bar code below.

*Enable GS1-128

Disable GS1-128

GS1-128 Transmit Check Character

Transmit GS1-128 Check Character

*Do Not Transmit GS1-128 Check Character

3.19.15 ISBT 128

Enable/Disable ISBT 128

To enable or disable ISBT 128, scan the appropriate bar code below.

*Enable ISBT 128

Disable ISBT 128

3.19.16 Code39

Enable/Disable Code 39

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

*Enable Code 39

Disable Code 39

Length Range Setting for Code39

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.

NOTE: When setting length range, single digit numbers must always be preceded by a leading zero.

One Discrete Length

This option limits decodes to only those Code 39 symbols containing a selected length. Lengths are selected from the ***Numeric Bar Codes*** in appendix. For example, to decode only Code 39 symbols with 14 characters, scan Code 39 - One Discrete Length, then scan 1 followed by 4. To change the selection or cancel an incorrect entry, scan ***Cancel*** in appendix.

Code 39 - One Discrete Length

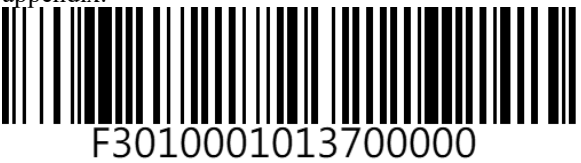
Two Discrete Lengths

This option limits decodes to only those Code 39 symbols containing either of two selected lengths. Lengths are selected from the **Numeric Bar Codes** in appendix. For example, to decode only those Code 39 symbols containing either 2 or 14 characters, select **Code 39 - Two Discrete Lengths**, then scan **0**, **2**, **1**, and then **4**. To change the selection or cancel an incorrect entry, scan **Cancel** in appendix.

Code 39 - Two Discrete Lengths

Length Within Range

This option limits decodes to only those Code 39 symbols within a specified range. For example, to decode Code 39 symbols containing between 4 and 12 characters, first scan **Code 39 - Length Within Range**. Then scan **0**, **4**, **1**, and **2** according to **Numeric Bar Codes** in appendix. To change the selection or cancel an incorrect entry, scan **Cancel** in appendix.



Code 39 - Length Within Range

Any Length

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

Code 39 - Any Length

Code 39 Check Digit Verification

When this feature is enabled, the scan engine checks the integrity of all Code 39 symbols to verify that the data complies with specified check digit algorithm. Only those Code 39 symbols which include a modulo 43 check digit are decoded. Only enable this feature if your Code 39 symbols contain a module 43 check digit.

Verify Code 39 Check Digit

*Do Not Verify Code 39 Check Digit

Transmit Code 39 Check Digit

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

Transmit Code 39 Check Digit (Enable)

Scan this symbol to transmit data without the check digit.

*Do Not Transmit Code 39 Check Digit

Enable/Disable Code 39 Full ASCII

Code 39 Full ASCII is a variant of Code 39 which pairs characters to encode the full ASCII character set.

Enable Code 39 Full ASCII

*Disable Code 39 Full ASCII

NOTE: Trioptic Code 39 and Code 39 Full ASCII cannot be enabled simultaneously. If you get an error beep when enabling Code 39 Full ASCII, disable Trioptic Code 39 and try again.

Code39 Transmit Start/Stop Character

Transmit Start/Stop Character

**Do not Transmit Start/Stop Character

3.19.17 Code 32

Enable/Disable Code 32

Code 32 is a variant of Code 39 used by the Italian pharmaceutical industry. Scan the appropriate bar code below to enable or disable Code 32. Code 39 must be enabled and Code 39 check character verification must be disabled for this parameter to function.

*Disable Code 32

Enable Code 32

Code 32 Prefix

Scan the appropriate bar code below to enable or disable adding the prefix character "A" to all Code 32 barcodes. Code 32 must be enabled for this parameter to function.

*Disable Code 32 Prefix

Enable Code 32 Prefix

3.19.18 Code 93

Enable/Disable Code 93

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

Enable Code 93

*Disable Code 93

Length Range Setting for Code93

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.

One Discrete Length

Select this option to decode only those codes containing a selected length. For example, select **Code 93 One Discrete Length**, then scan **1**, **4**, to limit the decoding to only Code 93 symbols containing 14 characters. **Numeric Bar Codes** is in appendix. To change the selection or cancel an incorrect entry, scan **Cancel** in appendix.

Code 93 - One Discrete Length

Two Discrete Lengths

Select this option to decode only those codes containing two selected lengths. For example, select **Code 93 Two Discrete Lengths**, then scan **0**, **2**, **1**, **4**, to limit the decoding to only Code 93 symbols containing 2 or 14 characters. **Numeric Bar Codes** is in appendix. To change the selection or cancel an incorrect entry, scan **Cancel** in appendix.

Code 93 - Two Discrete Lengths

Length Within Range

This option sets the unit to decode a code type within a specified range. For example, to decode Code 93 symbols containing between 4 and 12 characters, first scan **Code 93 Length Within Range,** then scan **0, 4, 1** and **2** (single digit numbers must always be preceded by a leading zero). **Numeric Bar Codes** is in appendix. To change the selection or cancel an incorrect entry, scan **Cancel** in appendix.

Code 93 - Length Within Range

Any Length

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

Code 93 - Any Length

Code 93 Check Digit Verification

*Verify Code 93 Check Digit

Do Not Verify Code 39 Check Digit

Transmit Code 93 Check Digit

Transmit Code 93 Check Digit (Enable)

*Do Not Transmit Code 93 Check Digit

3.19.19 Code 11

Enable/Disable Code 11

To enable or disable Code 11, scan the appropriate bar code below.

Enable Code 11

*Disable Code 11

Length Range Setting for Code 11

The length of a code refers to the number of characters (i.e., human readable characters), including check digit(s) the code contains. Set lengths for Code 11 to any length, one or two discrete lengths, or lengths within a specific range.

One Discrete Length

Select this option to decode only Code 11 symbols containing a selected length. Select the length using the **Numeric Bar Codes** in appendix. For example, to decode only Code 11 symbols with 14 characters, scan **Code 11 - One Discrete Length,** then scan **1** followed by **4**. To correct an error or to change the selection, scan **Cancel** in appendix.

Code 11 - One Discrete Length

Two Discrete Lengths

Select this option to decode only Code 11 symbols containing either of two selected lengths. Select lengths using the **Numeric Bar Codes** in appendix. For example, to decode only those Code 11 symbols containing either 2 or 14 characters, select **Code 11 - Two Discrete Lengths**, then scan **0**, **2**, **1**, and then **4**. To correct an error or to change the selection, scan *Cancel* in appendix.

Code 11 - Two Discrete Lengths

Length Within Range

Select this option to decode a Code 11 symbol with a specific length range. Select lengths using the *Numeric Bar Codes* in appendix. For example, to decode Code 11 symbols containing between 4 and 12 characters, first scan **Code 11 - Length Within Range**. Then scan **0**, **4**, **1,** and **2** (single digit numbers must always be preceded by a leading zero). To correct an error or change the selection, scan *Cancel* in appendix.

Code 11 - Length Within Range

Any Length

Scan this option to decode Code 11 symbols containing any number of characters within the scan engine capability.

Code 11 - Any Length

Code 11 Check Digit Verification

This feature allows the scan engine to check the integrity of all Code 11 symbols to verify that the data complies with the specified check digit algorithm. This selects the check digit mechanism for the decoded Code 11 bar code. The options are to check for one check digit, check for two check digits, or disable the feature.

*Disable Code 11 Check Digit Verification

Enable One Check Digit

Enable Two Check Digits

Transmit Code 11 Check Digits

Transmit Code 11 Check Digit(s) (Enable)

*Do Not Transmit Code 11 Check Digit(s) (Disable)

3.19.20 Interleaved 2 of 5/ITF

Enable/Disable Interleaved 2 of 5

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

*Enable Interleaved 2 of 5

Disable Interleaved 2 of 5

Length Range Setting 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.

One Discrete Length

Select this option to decode only those codes containing a selected length. For example, select **I 2 of 5 One Discrete Length**, then scan **1**, **4**, to decode only D 2 of 5 symbols containing 14 characters. *Numeric Bar Codes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.

I 2 of 5 - One Discrete Length

Two Discrete Lengths

Select this option to decode only those codes containing two selected lengths. For example,select **I 2 of 5 Two Discrete Lengths**, then scan **0**, **6**, **1**, **4**, to decode only I 2 of 5 symbols containing 6 or 14 characters. *Numeric Bar Codes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.

I 2 of 5 - Two Discrete Lengths

Length Within Range

Select this option to decode only codes within a specified range. For example, to decode I 2 of 5 symbols containing between 4 and 12 characters, first scan **I 2 of 5 Length Within Range**, then scan **0**, **4**, **1** and **2** (single digit numbers must always be preceded by a leading zero). *Numeric Bar Codes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.

I 2 of 5 - Length Within Range

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.

I 2 of 5 - Any Length

I 2 of 5 Check Digit Verification

Verify I 2 of 5 Check Digit

*Do Not Verify I 2 of 5 Check Digit

Transmit I 2 of 5 Check Digit

Transmit I 2 of 5 Check Digit (Enable)

*Do Not Transmit I 2 of 5 Check Digit

Enable/Disable ITF14

To enable or disable ITF14, scan the appropriate bar code below.

Enable ITF14

*Disable ITF14

Transmit ITF14 Check Digit

Transmit ITF14 Check Digit (Enable)

*Do Not Transmit ITF14 Check Digit

3.19.21 Discrete 2 of 5/Industrial 2 of 5/IND25

Enable/Disable Discrete 2 of 5
To enable or disable Discrete 2 of 5, scan the appropriate bar code below.

Enable Discrete 2 of 5

*Disable Discrete 2 of 5

Length Range Setting for Discrete 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 D 2 of 5 may be set for any length, one or two discrete lengths, or lengths within a specific range.

One Discrete Length
Select this option to decode only those codes containing a selected length. For example, select **D 2 of 5 One Discrete Length**, then scan **1**, **4**, to decode only D 2 of 5 symbols containing 14 characters. *Numeric Bar Codes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.

D 2 of 5 - One Discrete Length

Two Discrete Lengths

Select this option to decode only those codes containing two selected lengths. For example, select **D 2 of 5 Two Discrete Lengths**, then scan **0**, **2**, **1**, **4**, to decode only D 2 of 5 symbols containing 2 or 14 characters. *Numeric Bar Codes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.

D 2 of 5 - Two Discrete Lengths

Length Within Range

Select this option to decode codes within a specified range. For example, to decode D 2 of 5 symbols containing between 4 and 12 characters, first scan **D 2 of 5 Length Within Range**, then scan **0**, **4**, **1** and **2** (single digit numbers must be preceded by a leading zero). *Numeric Bar Codes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.

D 2 of 5 - Length Within Range

Any Length

Scan this option to decode D 2 of 5 symbols containing any number of characters.

NOTE Selecting this option may lead to misdecodes for D 2 of 5 codes.

D 2 of 5 - Any Length

Discrete 2 of 5 Check Digit Verification

Verify D 2 of 5 Check Digit

*Do Not Verify D 2 of 5 Check Digit

Transmit Discrete 2 of 5 Check Digit

Transmit D 2 of 5 Check Digit (Enable)

*Do Not Transmit D 2 of 5 Check Digit

3.19.22 Matrix 25

Enable/Disable Matrix 25

To enable or disable Matrix 25, scan the appropriate bar code below.

Enable Matrix 25

*Disable Matrix 25

Matrix 25 Check Digit Verification

Verify Matrix 25 Check Digit

*Do Not Verify Matrix 25 Check Digit

Transmit Matrix 25 Check Digit

Transmit Matrix 25 Check Digit (Enable)

*Do Not Transmit Matrix 25 Check Digit

Length Range Setting for Matrix 25

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 Matrix 25 may be set for any length, one or two discrete lengths, or lengths within a specific range.

One Discrete Length

Select this option to decode only those codes containing a selected length. For example, select Matrix 25 One Discrete Length, then scan 1, 4, to decode only Matrix 25 symbols containing 14 characters. *Numeric Bar Codes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.

Matrix 25 - One Discrete Length

Two Discrete Lengths

Select this option to decode only those codes containing two selected lengths. For example, select **Matrix 25 Two Discrete Lengths**, then scan **0**, **2**, **1**, **4**, to decode only Matrix 25 symbols containing 2 or 14 characters. *Numeric Bar Codes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.

Matrix 25 - Two Discrete Lengths

Length Within Range

Select this option to decode codes within a specified range. For example, to decode Matrix 25 symbols containing between 4 and 12 characters, first scan **Matrix 25 Length Within Range**, then scan **0**, **4**, **1** and **2** (single digit numbers must be preceded by a leading zero). *Numeric Bar Codes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.

Matrix 25 - Length Within Range

Any Length
Scan this option to decode Matrix 25 symbols containing any number of characters.

NOTE Selecting this option may lead to misdecodes for Matrix 25 codes.

Matrix 25 - Any Length

3.19.23 Standard 25/IATA 25

Enable/Disable Standard 25
To enable or disable Standard 25, scan the appropriate bar code below.

*Disable Standard 25

Enable Standard 25

Standard 25 Check Digit Verification

*Disable Standard 25 Check Digit Verification

Enable Standard 25 Check Digit Verification

Standard 25 Transmit Check Character

*Disable Standard 25 Transmit Check Character

Enable Standard 25 Transmit Check Character

Length Range Setting for Standard 25

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 Standard 25 may be set for any length, one or two discrete lengths, or lengths within a specific range.

One Discrete Length

Select this option to decode only those codes containing a selected length. For example, select **Standard 25 One Discrete Length**, then scan **1**, **4**, to decode only Standard 25 symbols containing 14 characters. *Numeric Bar Codes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.

Standard 25 - One Discrete Length

Two Discrete Lengths

Select this option to decode only those codes containing two selected lengths. For example, select **Standard 25 Two Discrete Lengths**, then scan **0**, **2**, **1**, **4**, to decode only Standard 25 symbols containing 2 or 14 characters. *Numeric Bar Codes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.

Standard 25 - Two Discrete Lengths

Length Within Range

Select this option to decode codes within a specified range. For example, to decode Standard 25 symbols containing between 4 and 12 characters, first scan **Standard 25 Length Within Range**, then scan **0**, **4**, **1** and **2** (single digit numbers must be preceded by a leading zero). *Numeric Bar Codes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.

Standard 25 - Length Within Range

Any Length

Scan this option to decode Standard 25 symbols containing any number of characters.

NOTE Selecting this option may lead to misdecodes for Standard 25 codes.

Standard 25 - Any Length

3.19.24 Codabar

Enable/Disable Codabar

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

Enable Codabar

*Disable Codabar

Length Range Setting 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.

One Discrete Length

Select this option to decode only those codes containing a selected length. For example, select **Codabar One Discrete Length**, and then scan **1**, **4**, to decode only Codabar symbols containing 14 characters. *Numeric Bar Codes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.

Codabar - One Discrete Length Codabar

Two Discrete Lengths

This option sets the unit to decode only those codes containing two selected lengths. For example, select **Codabar Two Discrete Lengths**, and then scan **0**, **2**, **1**, **4**, to decode only Codabar symbols containing 6 or 14 characters. *Numeric Bar Codes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.

Codabar - Two Discrete Lengths Codabar

Length Within Range

Select this option to decode a code within a specified range. For example, to decode Codabar symbols containing between 4 and 12 characters, first scan **Codabar Length Within Range**, then scan **0**, **4**, **1** and **2** (single digit numbers must always be preceded by a leading zero). *Numeric Bar Codes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.

Codabar - Length Within Range -

Any Length

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

Codabar - Any Length Codabar

Codabar Check Digit Verification

*Disable Codabar Check Digit Verification

Enable Codabar Check Digit Verification

Codabar Transmit Check Character

*Disable Codabar Transmit Check Character

Enable Codabar Transmit Check Character

Start/Stop Character Format

By default, the **Start/Stop Character Format** function is enabled. You can choose your desired start/stop character format by scanning the appropriate barcode below. If you decide to disable the function, scan the **Disable Start/Stop Character Format** barcode.

Disable Start/Stop Character Format

Enable Start/Stop Character Format

*ABCD/ABCD as the Start/Stop Character

ABCD/TN*E as the Start/Stop Character

*Start/Stop Character in Uppercase

Start/Stop Character in Lowercase

3.19.25 MSI

Enable/Disable MSI

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

Enable MSI

*Disable MSI

Length Range Setting 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.

One Discrete Length

Select this option to decode only those codes containing a selected length. For example, select MSI Plessey One Discrete Length, then scan 1, 4, to decode only MSI Plessey symbols containing 14 characters. *Numeric Bar Codes is in Appendix.*

MSI - One Discrete Length

Two Discrete Lengths

Select this option to decode only those codes containing two selected lengths. For example, select **MSI Plessey Two Discrete Lengths**, then scan **0**, **6**, **1**, **4**, to decode only MSI Plessey symbols containing 6 or 14 characters. *Numeric Bar Codes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.

MSI - Two Discrete Lengths

Length Within Range

Select this option to decode codes within a specified range. For example, to decode MSI symbols containing between 4 and 12 characters, first scan

MSI Length Within Range, then scan **0**, **4**, **1** and **2** (single digit numbers must always be preceded by a leading zero). *Numeric Bar Codes* is in appendix. To change the selection or cancel an incorrect entry, scan *Cancel* in appendix.

MSI - Length Within Range

Any Length

Scan this option to decode MSI Plessey symbols containing any number of characters.

NOTE Selecting this option may lead to misdecodes for MSI codes.

MSI - Any Length

MSI Check Character Verification

*One Check Character

Two Check Characters

MSI Transmit Check Character

Transmit Check Character

*Do Not Transmit Check Character

3.19.26 GS1 DataBar/RSS

Enable/Disable GS1 DataBar-14

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

Enable GS1 DataBar-14

*Disable GS1 DataBar-14

Enable/Disable GS1 DataBar Limited

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

Enable GS1 DataBar Limited

*Disable GS1 DataBar Limited

Enable/Disable GS1 DataBar Expanded

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

Enable GS1 DataBar Expanded

*Disable GS1 DataBar Expanded

3.19.27 PDF417

Enable/Disable PDF417

To enable or disable PDF417, scan the appropriate bar code below.

Disable PDF417

*Enable PDF417

PDF 417 Twin Code

PDF417 twin code is 2 PDF417 barcodes paralleled vertically or horizontally. They must both be either regular or inverse barcodes. They must have similar specifications and be placed closely together.

There are 3 options for reading PDF417 twin codes:
Single PDF417 Only: Read either PDF417 code.
Twin PDF417 Only: Read both PDF417 codes.
Both Single & Twin: Read both PDF417 codes. If successful, transmit as twin PDF417 only. Otherwise, try single PDF417 only.

*Single PDF417 Only

Twin PDF417 Only

Both Single & Twin

Read Normal Phase / Phase Reversal

*Read Normal Phase

Read Phase Reversal

Read Normal Phase / Phase Reversal

3.19.28 QR

Read normal phase / phase reversal / mirror image picture

Enable/Disable QR

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

Disable QR Code

*Enable QR Code

QR Twin Code

*Single QR Only

Twin QR Only

Both Single & Twin

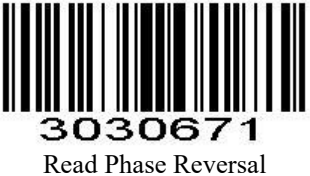
Enable/Disable QR ECI Output

*Disable QR ECI Output

Enable QR ECI Output

Read Normal Phase / Phase Reversal

*Read Normal Phase



Read Phase Reversal

Read Normal Phase / Phase Reversal

3.19.29 Data Matrix (DM)

Scan normal or mirror image picture.

Enable/Disable Data Matrix (DM)

To enable or disable Data Matrix (DM), scan the appropriate bar code below.

Disable Data Matrix

*Enable Data Matrix

Data Matrix Twin Code

*Single Data Matrix Only

Twin Data Matrix Only

Both Single & Twin

Enable/Disable Data Matrix ECI Output

*Disable Data Matrix ECI Output

Enable Data Matrix ECI Output

Read Normal Phase/ Phase Reversal

*Read Normal Phase

Read Phase Reversal

Read Normal Phase / Phase Reversal

Data Matrix GS Replacement

Set the replacement object (up to 32 bytes supported)

Set the replacement object

Set replacement data (up to 32 bytes supported)

Set replacement data

Complete setup

After setting the replacement object/data, scan the code to complete the setting. The maximum number of replacement objects/data supported is 32 bytes. When 32 bytes are reached, the system will automatically exit and save the settings. If there are less than 32, you need to scan the QR code to complete the setting.

Complete setup

Enable replacement

Replacement prohibited

Read back and clear data

Incorrect settings may occur during the setting process. Through the readback function, you can check and confirm the currently set data. It also supports reading back during the setting process, which will not interrupt the current round of setting. After reading back, you can continue to set the next character after the previous character.

Read back "replaced object"

Read back "replaced data"

Clear "Replaced Objects"

Clear "replaced data"

Brief description of operation:
(1) First scan "Set the replacement object", then scan the numeric setting code to set the characters
(2) Scan "Set replacement data" again, then scan the numeric setting code to set the characters
(3) Finally, scan "Enable data replacement" to enable the replacement function.
(4) Now that the setting is complete, scan the code to replace the corresponding barcode content.

Example: Set the replaced object to "XY" and replace it with "AB". (No forced matching length, supports substitution of any length, such as A replacing BC, or AB replacing C)

(1) Scan the "Set Replaced Object" setting code to set the replaced object

Set the replacement object

(1-1)Find the "Appendix - Character Comparison Table", the corresponding value of "XY" is 0x58 (88), 0x59 (89) (the format is four decimal digits: 1088, 1089)

Set the replacement object, first set X (1088) in the output order

1

0

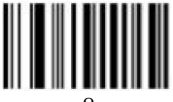
8

8

Set the replacement object and set Y according to the output order (1089)

1

0



8

9

303FF60
End setting

(2) Scan the "Set Replacement Data" setting code to set the data for replacement

3F30000026
Set replacement data

(2-1) Find the "Appendix - Character Comparison Table", the corresponding value of "AB" is 0x41 (65), 0x4 (66) (the format is four decimal digits: 1065, 1066)

Set replacement data, set A (1065) first in order of output

1

0

6

5

Set the replacement object and set B according to the output order (1066)

1

0

6

6

End setting

3. Scan the enable setting code to enable the replacement function

Enable replacement

Replacement prohibited

Example of effect:

0123XY45YX6YXY89

If the barcode is: 0123**XY**45YX6Y**XY**89

After replacing XY with AB: 0123**AB**45YX6Y**AB**8

3.19.30 Maxi Code

Enable/Disable Maxi Code

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

*Disable MaxiCode

Enable MaxiCode

3.19.31 Aztec Code

Enable/Disable Aztec Code

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

*Disable Aztec Code

Enable Aztec Code

3.19.32 Han Xin Code

Enable/Disable Han Xin Code

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

*Disable Han Xin Code

Enable Han Xin Code

Han Xin Twin Code

*Single Han Xin Only

Twin Han Xin Only

Both Single & Twin

Read Normal Phase/ Phase Reversal

*Read Normal Phase

Read Phase Reversal

Read Normal Phase / Phase Reversal

3.19.33 Plessey

Enable/Disable Plessey

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

Enable Plessey

*Disable Plessey

Check Character Verification

Enable Character Verification

*Disable Character Verification

Transmit Check Character

Transmit Check Character

*Do Not Transmit Check Character

3.19.34 Brazil Bank Code

Enable/Disable Brazil Bank Code

It's only applied to 1D barcode. To enable or disable Han Xin Code, scan the appropriate bar code below.

Enable Brazil Bank Code

*Disable Brazil Bank Code

3.19.35 COMPOSITE

Enable/Disable COMPOSITE

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

Enable COMPOSITE Code

*Disable COMPOSITE Code

3.19.36 EAN/UCC

Enable/Disable EAN/UCC

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

Enable EAN/UCC Code

*Disable EAN/UCC Code

UCC/EAN-128 Length Settings

Parameter # L1=0xF5 0x06, L2=0xF5 0x07

It allows recognition of specific lengths of UCC/EAN-128 codes. First, scan barcodes of specific lengths within a defined range, and then scan the four-digit configuration code found in the appendix to set the corresponding pairs of lengths, L1 and L2. L1 and L2 each occupy two digits in the configuration code; if it's less than two digits, pad with zeros.

Read UCC/EAN-128 codes of any length; simply scan any length, no need to scan a numeric configuration code. Default: 0-99, configurable range: 01-99.
(1) When L1 < L2, L1 is the minimum length, and L2 is the maximum length.
(2) When L1 > L2, L1 is the maximum length, and L2 is the minimum length.
(3) When L1 = L2, only read at a fixed length (L1/L2).

For example, to allow reading of 4-8 character lengths, scan the numeric configuration code "0" "4" "0" "8" or "0" "8" "0" "4"; and to read a fixed length of 12 characters, scan the numeric configuration code "1" "2" "1" "2."

Length within a Specific Range

Any Length

4 Unique Device Identification (UDI) Setting

The U.S. Food and Drug Administration (FDA) created unique device identification, often abbreviated UDI, a rule that requires medical device manufacturers to update their products with a unique device identifier that includes both device and production identifiers (such as expiration date and lot or serial number).

*Disable (Default)

Enable

4.1 NMVS Connection Compatibility

<0x20 Combine-Key ON

ALT Global Key

5. Troubleshooting

You might encounter some issues when you scan bar codes. This chapter provides information that helps you fix common issues.

5.1 Scanner issues

My scanner doesn’t emit the aiming pattern.

- Did you charge your scanner?
- Did you turn off the aiming pattern?
- Your battery wears out. Replace the battery and make sure the new battery is charged.
- Your scanner is waiting your computer to acknowledge data and doesn’t receive any response. Unplug your cradle’s cable (USB or RS-232) and connect it again.
- Check your USB cable and power supply by connecting them to other compatible devices and test if they work properly. If not, replace them and charge your scanner again.

5.2 Bar code issues

My scanner doesn't read the bar code properly.

- Reset your scanner.
- Check the quality of your bar codes. Wrinkled, smudged, blurred or torn bar codes won't be read by your scanner.
- The reading window of your scanner may be dirty and block the field of view. Clean the reading window.

The data isn't sent to my computer.

- Did you establish the connection between your scanner and cradle?
- Did your scanner connect to other Bluetooth device?
- Make sure the USB cable is tightly plugged into your cradle and computer.
- Your scanner is connecting to another cradle. Break their connection and connect your scanner to your cradle.

My scanner doesn't decode the bar code, but the bar code type is supported.

- Did you turn on **Read** for the bar code type?
- The density of your bar code may be too high for your scanner to decode.

6. Specifications

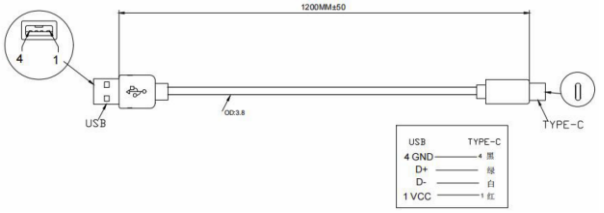
Standard Feature	
Symbologies	1D: Code11, Code39, Code93, Code32 (Pharmaceutical), Code128 (GS1-128), ISBT-128, Codabar (NW7), Interleaved 2of 5, Industrial 2 of 5, Discrete 2 of 5 (DTF), IATA 2 of 5, Matrix 2of 5, EAN/JAN-13, plus supplement, EAN/JAN-8, plus supplement, UPCA, plus supplement, UPCE, plus supplement, UPCE1, ISBN (Bookland), MSI PlesseyCode, GS1 Databar RSS14, GS1 Databar Limited, GS1 Databar Omnidirectional, GS1 Databar Expanded 2D: GS1 Databar Expanded Stacked, GS1 Databar RSS14 Stacked, PDF417, MicroPDF417, Composite Codes (CC-A, CC-B, CC-C/CC-B, CC-C), Aztec, MaxiCode, DataMatrix/ECC 200, QR Code, Micro QR Code, GS1 DataMatrix
Depth of Field	Code 39: 40mm~165mm (5mil) EAN-13: 50mm~365mm (13mil) Data Matrix: 35mm~115mm (10mil) QR Code: 35mm-145mm (15mil) PDF 417: 45mm-115mm (6.67mil)
CPU	32 bit high resolution
Characteristics	
Dimensions	Scanner: 90mm x 60mm x 160mm Base: 110mm x 74mm x 36mm
Working Voltage	3.7V DC
Current	working 350mA(max) +-5%
Rated power consumption	1295mw(max) +-5%
Charging Time	4~5 hours
Scans per Charge	About 25000 times
Trigger Switch	>1,000,000 cycles
Light Source	CMOS Sensor (640 x 480 array image sensor)
Motion Tolerance	5 in/s (127 mm/s)
Print Contrast Signal	≥ 25%
Supported Connection	Bluetooth 5.0 Dual mode (BLE & Classic BT+EDR)

Working Distance	about 100m (in open space)
Battery Capacity	2000mAh
Interface	USB-HID, USB-Virtual COM
Indication	LED, Beeper
Frequency Range	2402-2480MHz
Max. RF Output Power	Scanner: 2.02dBm (EIRP) Base: 1.21dBm (EIRP)
Type of Modulation	GFSK
Data Rate	1Mbps
Quantity of Channels	40
Channel Separation	2MHz
Type of Antenna	PCB Antenna
Antenna Gain	2.0dBi
Performance	
Resolution	1D>=3mil (Code 39) 2D>=7.5mil (QR code)
Scan Rate	60 fps
Scan Angle	Yaw / Skew 45° & Pitch 60°
Environment	
Temperature	Operating: -10°C-45°C Storage: -20°C-60°C
Humidity	5% to 85% relative humidity (non-condensing)
Regulatory	
Regulatory Approvals	CE, CE RED, FCC, NCC, BSMI, RoHS

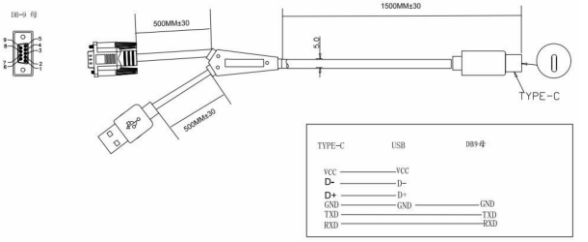
*Argox reserves the right to enhance and modify the specifications without prior notice. Please check them from Argox sales representative for most updated specifications.

7. Pin Assignments

USB (Type-C):

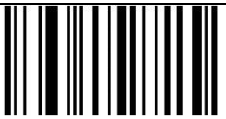
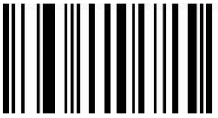


RS232 + USB:



Appendix

Numeric Bar Codes

 0	
	 1
 2	
	 3
 4	
	 5

6	
	7
8	
	9

Cancel Barcode

To change the selection or cancel an incorrect entry, scan the barcode below.

Cancel

Hide Prefix or suffix digits

The start/middle/end of barcode chars can be hidden. After scan below hide set barcode, scan a double-digit hexadecimal number that you want to hide char length (00~FF e.g. hide length 4, scan 0, 4).

$SCAN#5
Hide Barcode Start Chars

$SCAN#6
Hide Barcode Middle Char Start

$SCAN#7
Hide Barcode Middle Chars

$SCAN#8
Hide Barcode End Chars

Output Format

To change the Scan Data Transmission Format, scan one of the eight bar codes corresponding to the desired format.

$DATA#5
Enable Hide Barcode Start Char

$DATA#4
Enable Hide Barcode Middle Char

Enable Hide Barcode End Char

To Hide chars of barcode Start/Middle/End:

Procedures

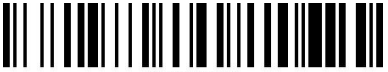
1. Scan the Hide Barcode Start / Middle Start / Middle length / End Chars symbol.
2. Determine the hex value for the length you wish to enter (hide 4 chars, scan 0,4; hide 12 chars, scan 0,C).
3. Scan the 2 digit hex value from the **Numeric Bar Codes**.
4. Scan the output format to enable or cancel hide char function.

Custom prefix and suffix

Maximum 20 prefixes and 20 suffixes can be added to scan data for use in data editing. To set these values, scan a double-digit hexadecimal number (i.e. two bar codes) that corresponds to ASCII values. See the **Numeric Bar Codes** and the Table of **ASCII Character Equivalents** that are given in Appendix.

To Add a Prefix or Suffix:

1. Scan command barcode of "Add Prefix" or "Add Suffix".
2. Check the prefix or suffix hex value from the ASCII Chart.
3. Scan the 2 digit hex value from the Numeric Bar Codes.
4. Repeat Steps 2 and 3 for all the prefix or suffix that you want to add.
5. Scan the output format to enable or disable prefix/suffix output.



$SCAN#2
Add Prefix

$SCAN#1
Add Suffix

$SCAN#4
Clear All Prefix

$SCAN#3
Clear All Suffix

Numeric Bar Codes

$NO#0

$NO#1

$NO#2

$NO#3

$NO#4

$NO#5

$NO#6

$NO#7

$NO#8

$NO#9

$NO#A

$NO#B

$NO#C

$NO#D

$NO#E

$NO#F

Output Format

To change the Scan Data Transmission Format, scan one of the eight bar codes corresponding to the desired format.

$DATA#0

*Default output format

$DATA#1

Enable Suffix output

$DATA#2

Enable Prefix output

Example on how to add normal prefix or suffix on barcode "123456789"

Add " A" and "B" as prefixes and "!" as suffix

1. Scan command barcode of "Add Prefix".

2. Check the prefix hex value from the ASCII Chart.
   A- "4","1"; B-"4" "2";

3. Scan the 2-digit hex value from the Numeric Bar Codes.

4. Scan the output format to enable prefix output.

$DATA#2
Enable Prefix output

5. Scan command barcode of "Add Suffix" to add "!" as suffix.

$SCAN#1
Add Suffix

6. Check the suffix hex value from the ASCII Chart. **!- "2" "1"**

7. Scan the 2-digit hex value from the Numeric Bar Codes.

$NO#2

$NO#1

8. Scan the output format to enable suffix output.

$DATA#1
Enable Suffix output

9. Scan the barcode then you will get **AB123456789!**

Example on how to add Combination Key suffix for barcode "123456789"

Add "Ctrl+P" on "123456789" as suffix

1. Scan command barcode of "Add Suffix" to add "Ctrl+P" as suffix.

$SCAN#1
Add Suffix

2. Check the suffix hex value from the ASCII Chart.
   Ctrl+P - "9" "7" "5" "0"

3. Scan the 4 digits hex value from the Numeric Bar Codes.

$NO#9

$NO#7

$NO#5

$NO#0

4. Scan the output format to enable suffix output.

$DATA#1
Enable Suffix output

5. Scan "Keyboard Ctrl Combination Key".

6. Scan the barcode 123456789. (Test it on Excel)

Table 1. ASCII Character Equivalents

HEX	ASCII	HEX	ASCII	HEX	ASCII	HEX	ASCII
20H	Space	30H	0	40H	@	50H	P
21H	!	31H	1	41H	A	51H	Q
22H	"	32H	2	42H	B	52H	R
23H	#	33H	3	43H	C	53H	S
24H	$	34H	4	44H	D	54H	T
25H	%	35H	5	45H	E	55H	U
26H	&	36H	6	46H	F	56H	V
27H	'	37H	7	47H	G	57H	W
28H	(	38H	8	48H	H	58H	X
29H	)	39H	9	49H	I	59H	Y
2AH	*	3AH	:	4AH	J	5AH	Z
2BH	+	3BH	;	4BH	K	5BH	[
2CH	,	3CH	<	4CH	L	5CH	\
2DH	-	3DH	=	4DH	M	5DH	]
2EH	.	3EH	>	4EH	N	5EH	^
2FH	/	3FH	?	4FH	O	5FH	_
60H	`	70H	p	80H	F1	90H	End
61H	a	71H	q	81H	F2	91H	Page Down
62H	b	72H	r	82H	F3	92H	Right Arrow
63H	c	73H	s	83H	F4	93H	Left Arrow
64H	d	74H	t	84H	F5	94H	Down Arrow
65H	e	75H	u	85H	F6	95H	Up Arrow
66H	f	76H	v	86H	F7	96H	Print Screen
67H	g	77H	w	87H	F8	97H	*Ctrl
68H	h	78H	x	88H	F9	98H	*Shirt
69H	i	79H	y	89H	F10	99H	*Left Alt
6AH	J	7AH	z	8AH	F11	9AH	*Right Alt
6BH	k	7BH	{	8BH	F12	08H	BS
6CH	l	7CH	|	8CH	Insert	09H	HT
6DH	m	7DH	}	8DH	Home	0AH	LF
6EH	n	7EH	~	8EH	Page Up	0DH	CR
6FH	o	7FH	DEL	8FH	Delete	1BH	ESC