unitech
because we care

Wireless Pocket 2D Imager Scanner

- MS920 -

User's Manual

Version 3.2

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Table of Contents

Chapter 1

Overview 1

Package Contents 1

Scanner Detail 2

Getting Start 3

Battery Charging 3

Specification 4

Chapter 2

Bluetooth Function Setting 5

Pairing With PC/Notebook For The First Time 5

Buffer Mode 6

Switching Between HID and SPP Mode 7

Factory Default 8

Display F/W Version 8

BT Un-pair 8

iOS Keypad 8

Batch Send 8

Batch Space Left 8

Beep on Good Read (Toggle) 8

Beep on Connection Charge (Toggle) 8

Erasing the Buffer 9

MCU Power Saving 10

HID Keyborad Character Delay..... 11
HID Keyborad Block Delay.....12
HID Keyborad Case 12
HID Keyborad Languages.....13
Enter BT Pairing Code 14

Chapter 3

Symbologies 15

Disable all symbologies.....15
Codabar 15
Codablock 19
Code 11 21
Code 39.....24
Code 93/ Code 93i 30
Code 128 / GS1-128 32
DataMatrix.....37
EAN / UPC 40
GS1 DataBar (RSS).....48
Interleaved 2 of 5 52
Matrix 2 of 5 55
MaxCode.....58
MicroPDF417 60
MSI Code 61
PDF 417 64
Plessey Code 66
QR Code 68

Standard 2 of 5 71

Telepen.....75

Chapter 4

Operating Settings..... 78

Pre-defined trigger modes 78

Scanning / Triggering 79

Data decoding security 86

Beeps / LEDs 89

Chapter 5

Data Transmission Settings..... 96

Symbology identifier..... 94

Preamble..... 95

Postamble 95

Inter-Character / message delay..... 96

Data editing 97

Appendix I

Worldwide Support 103

Preface

About This Manual

Thank you for purchasing the unitech product.
This manual explains how to install, operate and maintain our product.

Regulatory Compliance Statements

FCC Warning Statement

This device 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 with radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference with 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.

1. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. To maintain compliance with FCC RF exposure requirements, avoid direct contact to the transmitting antenna during transmitting.
3. Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.

Operation on the 5.15 - 5.25GHz frequency band is restricted to indoor use only. The FCC requires indoor use for the 5.15-5.25GHz band to reduce the potential for harmful interference to co-channel Mobile Satellite Systems. Therefore, it will only transmit on the 5.25-5.35 GHz, 5.47-5.725 GHz and 5.725 – 5.850 GHz band when associated with an access point (AP).

FCC Label Statement

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

RF Radiation Exposure Statement

For body contact during operation, this device has been tested and meets FCC RF exposure guidelines when used with an accessory that contains no metal and that positions the handset a minimum of 0.5 cm from the body.
Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

Canadian Compliance Statement

This Class B Digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.
Cet appareil numerique de la classe B respecte les exigences du Reglement sur le material broilleur du Canada.

European Conformity Statement

unitech Electronics co., Ltd herewith declares that the unitech product is in compliance with the essential requirements and all other provisions of the RED 2014/53/EU directive, the EMC 2014/30/EU directive and the Low Voltage 2014/35/EU directive.
The declaration of conformity is available for download at :
https://portal.unitech.eu/public/Safetyregulatorystatement

CE RF Exposure Compliance

This device meets EU requirements (2014/53/EC) on the limitation of exposure of the general public to electromagnetic fields by way of health protection.
For body-worn operation, this device has been tested and meets the ICNIRP guidelines and the European Standard EN 62209-2, for use with dedicated accessories, SAR is measured with this device at a separation of 0.5 cm to the body, while transmitting at the highest certified output power level in all frequency bands of this device. Use of other accessories which contain metals may not ensure compliance with ICNIRP exposure guidelines.

CE Mark Warning

CE

This equipment complies with the requirements of Directive 2014/53/EC of the European Parliament and Commission from 24 May, 2014 governing Radio and Telecommunications Equipment and mutual recognition of conformity.

RoHS Statement

This device conforms to RoHS (Restriction Of Hazardous Substances) European Union regulations that set maximum concentration limits on hazardous materials used in electrical and electronic equipment.

Waste electrical and electronic equipment (WEEE)

unitech has set up a policy and process to meet the EU directive 2002/96/EC and update 2003/108/EC concerning electronic waste disposal.

For more detailed information of the electronic waste disposal of the products you have purchased from unitech directly or via unitech's resellers, you shall either contact your local supplier or visit us at : https://portal.unitech.eu/public/WEEE

Taiwan NCC Warning Statement

低功率電波輻射性電機管理辦法

第十二條：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。

第十四條：低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。
前項合法通信，指依電信法規定作業之無線電通信。
低功率射頻電機需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。

注意事項:

1. 使用過度恐傷害視力。
2. 使用30分鐘請休息10分鐘；2歲以下幼兒不看螢幕，2歲以上每天看螢幕不要超過1小時。
3. 減少電磁波影響，請妥適使用。

SAR 標準值 2.0W/Kg，送測產品實測值為 0.217 W/kg@10g

Laser Information

The unitech product is certified in the U.S. to conform to the requirements of DHHS/CDRH 21CFR Subchapter J and to the requirements of IEC 825-1. Class II and Class 2 products are not considered to be hazardous. The unitech product contains internally a Visible Laser Diode (VLD) whose emissions do not exceed the maximum limits as set forth in the above regulations. The scanner is designed so that there is no human access to harmful laser light during normal operation, user maintenance or prescribed service operations.

The laser safety warning label required by the DHHS/IEC for the unitech product's optional laser scanner module is located on the memory compartment cover, on the back of the unit.

* Laser information only applies to the products with laser components.

CAUTION! Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous laser light. Use of optical instruments with the scanner, including binoculars, microscopes, and magnifying glasses, with will increase eye damage. This does not include eyeglasses worn by the user.

LED Information

The unitech product contains LED indicator(s) or LED ring whose luminance is not harmful to human eyes during normal operation, user maintenance or prescribed service operations.

*LED information only applies to the products with LED components.

Battery Notice

1. To guarantee optimal performance, it is recommended that rechargeable batteries be replaced every year, or after 500 charging cycles are completed. It is normal for the battery to balloon or expand after one year or 500 cycles. Although it does not cause damage, it cannot be used again and must be disposed of according to the location's safe battery disposal procedures.
2. If a battery performance decreases more than 20%, the battery is at the end of its life cycle. Stop use and ensure the battery is disposed of properly.
3. The length of time that a battery lasts depends on the battery type and how the device is used. Conserve the battery life by doing the following:
   - Avoid fully uncharging the battery because this places additional strain on it. Several partial uncharges with frequent charges are better than a fully uncharged battery. Charging a partially charged battery does not cause harm to the unit.
   - Keep the battery cool. Avoid hot vehicles. For prolonged storage, keep the battery at a 40% charge level.
   - Do not leave the battery uncharged and unused for an extended period of time, the battery will wear out and the longevity of the battery will be at least half of one with frequent charges.
4. Protect battery life by not over or under charging the battery.
5. Please do not leave battery unused for long time without charging it. Despite unitech's safety precautions, the battery pack may begin to change shape. If so, stop using it immediately. Please check to see if you are using a proper power adapter to charge the battery or contact your service provider for service.
6. If you cannot charge the battery after it has been idle for an extended period of time and it begins to heat up, please do not try to charge it. It may not be functional anymore.
7. Please only use the original battery from unitech. Using a third party battery can damage our products. Please note that when such damage occurs, it is not covered by unitech's warranty policy.

CAUTION!

- RISK OF EXPLOSION IF BATTERY IS REPLACED INCORRECTLY.
  DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.
- 如果更換不正確之電池行事會有爆炸的風險
  請依製造商說明書處理用過之電池
- 如果更换不正确之电池行事会有爆炸的风险
  请依制造商说明书处理用过之电池

Battery charge notice

It is important to consider temperature when the battery pack is charging. Charging is most efficient at normal room temperature or in a slightly cooler environment. It is essential that batteries are charged within the stated range of 0˚C to 40˚C. Charging batteries outside of the specified range could damage the batteries and shorten their life cycle.

CAUTION! Do not charge batteries at a temperature lower than 0˚C. This will make the batteries unstable and dangerous. Please use a battery temperature detecting device for a charger to ensure a safe charging temperature range.

CAUTION! To ensure the unit working properly, please keep all connectors away from the contaminants staying inside of them such as dust, grease, mud, and water. The negligence may cause the unit with no communication, short circuited, overheated and so on.

CAUTION! If the connector is damaged, please ensure the connector is being fully repaired before use the unit to avoid causing short circuited.

Storage and safety notice

Although charged batteries may be left unused for several months, their capacity may be depleted due to build up of internal resistance. If this happens, they will require recharging prior to use. Batteries may be stored at temperatures between -20°C to 60°C, however they may deplete more rapidly at higher temperatures. It is recommended to store batteries at room temperature.

** The message above only applies to the usage of the removable batteries. For the products with non-removable batteries / without batteries, please refer to the specification of each product.*

Product Operation and Storage Notice

The unitech product has applicable operation and storage temperature conditions. Please follow the limitation of suggested temperature conditions to avoid failure, damage or malfunction.

**For applicable temperature conditions, please refer to the specification of each product.*

Adapter Notice

1. Please do not leave the power adapter in the socket when it is not connected to your unitech product for charging.
2. Please remove the power adapter when the battery is fully recharged.
3. The bundled power adapter that comes with your unitech product is not meant to be used outdoors. An adapter exposed to water or rain, or a very humid environment can cause damage to both the adapter and the product.
4. Please only use the bundled power adapter or same specification of adapter to charge your unitech product. Using the wrong power adapter can damage your unitech product.

** The message above only applies to the product connected to the adapter. For the products without using the adapters, please refer to the specification of each product.*

Hearing Damage Warning

Zx.3 Warning

The warning shall be placed on the equipment, or on the packaging, or in the instruction manual and shall consist of the following:

- the symbol of Figure 1 with a minimum height of 5 mm; and
- the following wording, or similar :

To prevent possible hearing damage, do not listen at high volume levels for long periods.

Figure 1 – Warning label (IEC 60417-6044)

Alternatively, the entire warning may be given through the equipment display during use, when the user is asked to acknowledge activation of the higher level.

Worldwide Support

unitech's professional support team is available to quickly answer questions or assist with technical-related issues. Should an equipment problem occur, please contact the nearest unitech regional service representative.
For complete contact information please visit the Web sites listed below:

Taipei, Taiwan – Headquarters		Europe	
Tel:	+886-2-89121122	**Tel:**	+31-13-4609292
E-mail:	info@hq.ute.com	**E-mail:**	info@eu.ute.com
Address:	5F, No. 136, Lane 235, Baoqiao Road, Xindian District, New Taipei City 231, Taiwan (R.O.C.)	**Address:**	Kapitein Hatterasstraat 19, 5015 BB, Tilburg, the Netherlands
Website:	http://www.ute.com	**Website:**	http://eu.ute.com
China		**Japan**	
Tel:	+86-59-2310-9966	**Tel:**	+81-3-35232766
E-mail:	info@cn.ute.com	**E-mail:**	info@jp.ute.com
Address:	Room401C, 4F, RIHUA International Mansion, Xinfeng 3nd Road, Huoju Hi-tech District, Xiamen, Fujan , China	**Address:**	Kayabacho Nagaoka Building 8F.,1-5-19 Shinkawa, Chuo-Ku, Tokyo, 104-0033, Japan
Website:	http://cn.ute.com	**Website:**	http://jp.ute.com
Asia & Pacific / Middle East		**Latin America**	
Tel:	+886-2-27911556	**Tel:**	+52-55-5171-0528
E-mail:	info@apac.ute.com info@india.ute.com info@mideast.ute.com	**E-mail:**	info@latin.ute.com
Address:	4F., No. 236, ShinHu 2nd Rd., NeiHu Chiu, 114, Taipei,Taiwan	**Address:**	17171 Park Row, Suite 210 Houston, TX 77084USA (Rep.)
Website:	http://apac.ute.com / http://mideast.ute.com	**Website:**	http://latin.ute.com
North America		**Please scan QR Code to visit us :**	
Tel:	+1-714-8916400		
E-mail:	info@us.ute.com / info@can.ute.com		
Address:	6182 Katella Ave, Cypress, CA 90630, USA		
Website:	http://us.ute.com		

Warranty Policy

The following items covered under the unitech Limited Warranty are free from defects during normal use:

The warranty period is varied from each country. Please consult with your supplier or unitech local office for actual length of warranty period to your purchased product.

Warranty becomes void if equipment is modified, improperly installed or used, damaged by accident or neglect, or if any parts are improperly installed or replaced by the user.

Overview

Package Contents

Please make sure the following contents are in the MS920 carton. If something is missing or damaged, please contact your Unitech representative

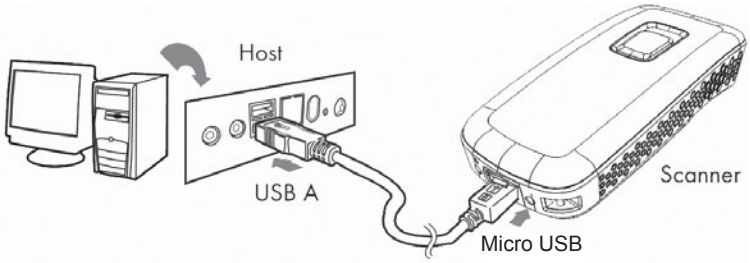
		
MS912 scanner	**Battery**	**Quick Guide**
		
USB Charging Cable	**Hand Strap**	

NOTE: 1. The scanner's default power off (idle mode) time is 3 minutes.

2. Please charge scanner for at least 2 hours prior to initial use.

Scanner Detail

Battery Charging



1. Flip up the rubber cover to expose the micro USB port on the scanner.
2. Insert the mini USB connector into the port on the scanner and the standard USB connector of the USB cable into a USB port on the host PC.

Checking the LED status

LED	Beep	Description
Red & green light flash one time	One Beep	Good Read
Green Light	NA	Battery Fully charged
Red Light	NA	Battery Charging
Blue light flash	NA	BT disconnect and waiting for host connecting
Red light flash continuing	NA	Battery in low power
Red light	NA	Push trigger key
Flashed the red LED in long interval	NA	Battery in very low power
Green light	NA	Totally battery drain out

Getting Started

The aiming beam can be **centered** over the bar code with any direction and have the proper alignment for a good read. (see example below)

Specifications

Light source	Illumination: Highly visible white LED Aiming : 617 nm red LED
Scan rate	240 scans/sec
Sensor	Linear CMOS sensor
Resolution	1D codes 0.1 mm (4 mils) 2D codes 0.167 mm (6.6 mils)
PCS	30%
Housing	Plastic (ABS)
Profile	SPP, HID
Working Hours	Over 13 hours (1 scan/3 seconds)
Charge Time	Fully charged in 4 hours
Coverage	330 ft(100m),class 1
Operating Temp	0 to 50°C (32°F to 122°F)
Symbologies	1D: EAN/UPC, GS1 Databar (limited expanded & omni-directional), Code 39, Code 128, UCC/EAN 128, ISBN, ISBT, Interleaved/Matrix/ Industrial and Standard 2 of 5, Codabar, Code 93/93i, Code 11, MSI, Plessey, Telepen, 2D: Data Matrix, PDF417, Micro PDF 417, Codablock, Maxicode, QR, AztecPostal: Australian Post, BPO, Canada Post, Dutch Post, Japan Post, PostNet, Sweden Post
BC logo	BC

Radio type / Description	Transmitter Frequency	Maximum Output Power
Bluetooth	2400-2483.5MHz	15dBm

Chapter 2

Bluetooth Function Setting

Pairing With PC/Notebook For The First Time

PC (HID mode)

Following steps are based on Microsoft Windows 7.

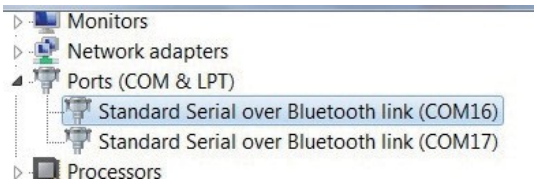
1. Use MS920 to scan barcode “HID”.
2. Open Devices and Printers by clicking the Start button , and then, on the Start menu, clicking Devices and Printers.
3. Click Add a device, and then follow the instructions.
4. Click the Bluetooth enabled device (unitech BT XXXXXX) you want to add to your computer, and then click Next. If you don't see the device you want to add, make sure the device is turned on and discoverable. If you just turned on the device, it may take Windows several seconds to detect it.

For Bluetooth 2.0 (or lower) pairing, you have to use MS 920 to scan function barcodes and numerical “Bluetooth Pincode” according to the direction shown on the screen of the PC the MS 920 is pairing to during the pairing procedure. Numerical barcodes and other function barcodes for Bluetooth Pincode entry can be found on page 14.

PC (SPP mode)

Following steps are based on Microsoft Windows 7.

1. Use MS920 t0 scan barcode “SPP”.
2. Open **Devices and Printers** by clicking the **Start** button , and then, on the **Start** menu, clicking **Devices and Printers**.
3. Click **Add a device**, and then click the **Unitech AXXXXXX** icon.
4. Open Wordpad, and select ingoing com part to make connection.



5. After one beep, start the scan then.

Buffer Mode

Auto

Batch

No Buffer

No Buffer saved in the memory.

Switching Between HID and SPP Mode

From SPP to HID

If your MS920 is on SPP mode:

1. Go to Devices and Printers under Control Panel, remove the MS920.
2. Use MS920 to scan the barcode “HID”.
3. Undertake the procedure of searching new device, and then select device (Unitech BT XXXXXX) and make pairing.

From HID to SPP

If your MS920 is on HID mode:

1. Scan the barcode “BT Un-pair”. *(or press and hold the **scan button** for six seconds)*
2. Scan the barcode “SPP”.
3. Undertake the procedure of searching new device, and then select MS920 and make pairing.
4. Luanch HyperTerminal or Tera Term to make pairing.

Buffer Mode

iOS Device

1. From the Home screen, choose Settings > Bluetooth and turn Bluetooth on.
2. Choose Unitech BT XXXXXX, and then enter pairing code “0000” if prompted.

Android Device

1. From the Home screen, choose Settings and goes to configurations for Bluetooth and turn Bluetooth on.
2. Choose Unitech BT XXXXXX, and then enter pairing code “0000” if prompted.

Factory Default

Display F/W Version

BT Un-pair

*Press and hold the **scan button** for six seconds will also trigger BT Un-pair.

iOS Keypad

* Press the **scan button** once will display the keypad, press twice will be disappeared.

Batch Send

Batch Space Left

Check the memory size.

Beep on Good Read (Toggle)

Beep on Connection Charge (Toggle)

Erasing the Buffer

Batch Mode

1. Scan (Erase Batch Buffer) .

+

2. Scan (Erase)

Auto Mode

1. Scan (Erase Auto Buffer)

+

2. Scan (Erase)

For detail information about barcodes, please refers to section 5. Appendix - Bar Code Configuration And Commands.

Erase Previous Entry

Erase the last scanned item.

MCU Power Saving

Enabled*
(Good for scan with trigger)

Disabled
(Good for continuous scanning)

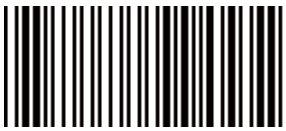
BT Module Power Saving (Power off BT while no activities)

1 Minute*

3 Minutes

5 Minutes

Disabled



HID Keyborad Character Delay

1 ms

5 ms

10 ms

20 ms

50 ms

100 ms

HID Keyborad Block Delay

10 ms

50 ms

100 ms

500 ms

1 Sec.

3 Sec.

HID Keyborad Case

Auto Trace

To Lower

To Upper

HID Keyborad Languages

US English

UK English

Swiss

Swedish

Norwegian

Italian

German

French

Danish

Partial ALT

Japanese

Spanish

ALT Mode

Enter BT Pairing Code

Start BT pairing code

0

1

2

3

4

5

6

7

8

9

Enter

Abort

To scan "//7" label to enter code input mode, to scan "digit" as prompted on host, to scan "$M" to finish input and exit input mode. To scan "$P" to abort input and exit input mode.

Chapter 3

Symbologies

- Symbology = bar code type or family (e.g. Code 39, UPC, EAN).
- Activate the symbologies you need and modify the settings for your symbologies if required.
- To optimize performance, only activate symbologies you need !!! (deactivate the Code 39 and EAN/UPC default symbologies if you don't need them.

Codabar

- Numerical symbology

Disable (*)

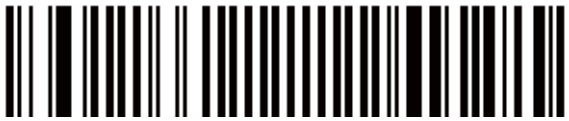
Enable

Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters)

B7 (*)



Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

D (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Start / Stop

Not transmitted (*)

a, b, c, d

A, B, C, D

Check digit

check digit verification

- AIM has a recommended check character for Codabar
- Each Codabar data character (including Start/Stop) has a value assigned to it:

  0 = 0 1 = 1 2 = 2 3 = 3 4 = 4 5 = 5 6 = 6 7 = 7 8 = 8 9 = 9 - = 10 $ = 11 : = 12 / = 13 , = 14 + = 15 A = 16 B = 17 C = 18 D = 19

- The values are added and the check is calculated:

  check = [(next multiple of 16) - (sum of assigned AIM values)]

  Example

  data characters: A 0 1 2 3 4 B

  AIM values = 16 + 0 + 1 + 2 + 3 + 4 + 17: 43

  next multiple of 16: 48

  check = 48 - 43: 5

  final message: A 0 1 2 3 4 5 B

Disable (*)

Enable

check digit transmissionr

- You can chose to transmit or not transmitted the check digit.

Disable (*)

Enable

Barcode length

- Use the L1 as minimum length option if you know the minimum length of the codes in your application!!!
- To optimize decoding performance and increase security, select the same length as the minimum length in your application (do not select a shorter length!!).

  Length = [start] + [barcode data] + [check digit] + [stop]
- Minimum length possible = 3 characters.
- If the codes in your application have fixed lengths, use barcode length mode "L1, L2, and L3 as fixed lengths."

Length mode

- L1 = Codes with as many characters as specified by L1 and longer are read (L2 and L3 are not used).
- L2 = Only codes that comply with the lengths specified by L1, L2, and L3 will be read.
- L3 = Codes at least the length specified by L1 and no longer than the maximum length specified by L2 are read (L3 is not used).

L1 as Minimal length (*)

L1, L2, L3 as fixed length

L1 as min, L2 as max

Set lengths 1, 2 and 3

- Set barcode length L1, L2 and L3 according to the barcode length mode used.

Compose L1:

Compose L2:

Compose L3:

Codablock

- 2-dimensional alphanumerical symbology

Codablock A

Disable (*)

Enable

Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters).

K1 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

*(*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Codablock F

Disable (*)

Enable

Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters)..

K1 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

*(*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code 11

- numerical symbology

Disable(*)

Enable

Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters).

C1 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

*(*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Check digits

1 digit (*)

2 digits

Transmitted (*)

Not transmitted

Barcode Length

- Use the L1 as minimum length option if you know the minimum length of the codes in your application!!!
- To optimize decoding performance and increase security, select the same length as the minimum length in your application (do not select a shorter length!!).

Length mode

- L1 = Codes with as many characters as specified by L1 and longer are read (L2 and L3 are not used).
- L2 = Only codes that comply with the lengths specified by L1, L2, and L3 will be read.
- L3 = Codes at least the length specified by L1 and no longer than the maximum length specified by L2 are read (L3 is not used).

L1 as Minimal length (*)

L1, L2, L3 as fixed length

L1 as min, L2 as max

Set lengths 1, 2 and 3

- Set barcode length L1, L2 and L3 according to the barcode length mode used.

Compose L1:

Compose L2:

Compose L3:

Code 39

- Alphanumeric symbology.
- Letter case not defined - transmitted in upper case.
- Format: standard 43 characters (default) or full ASCII (see "format" for lists).

Disable

Enamle(*)

Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters).

B1 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

*(*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Format

Standard 43 characters (*)

Full ASCII (extended)

Start / Stop

Not transmitted (*)

Transmitted

accepted characters

'*' only (*)

'$' only

'$' only *'

Check digit

check digi verification

Disable (*)

Modulo 43

French CIP

Italian CPI

check digi transmission

- You can chose to transmit or not transmitted the check digit.

Disable (*)

Enable

Barcode length

- Use the L1 as minimum length option if you know the minimum length of the codes in your application!!!
- To optimize decoding performance and increase security, select the same length as the minimum length in your application (do not select a shorter length!!).

  Length = [start] + [barcode data] + [check digit] + [stop]
- Minimum length possible = 3

Length mode

- L1 = Codes with as many characters as specified by L1 and longer are read (L2 and L3 are not used).
- L2 = Only codes that comply with the lengths specified by L1, L2, and L3 will be read.
- L3 = Codes at least the length specified by L1 and no longer than the maximum length specified by L2 are read (L3 is not used).

L1 as Minimal length (*)

L1, L2, L3 as fixed length

L1 as Min, L2 and L3

Set lengths 1, 2 and 3

- Set barcode length L1, L2 and L3 according to the barcode length mode used.

Compose L1:

Compose L2:

Compose L3:

Reading range

- Applies a special algorithm for long-distance reading (default setting).
- Use the "normal" setting if distance reading is not required.

Extended (*)

Normal

Reading tolerance

- Sets the tolerance level for reading hard to read bar codes.
- High = most permissive (reads codes of variable quality).
- Low = least permissive (only reads high quality codes that meet official Code 39 standards)
- Quiet zone verification (space before and after bar code to ensure correct decoding).

High (*)

Medium

Low

Unconventional Code 39

- Used for decoding unconventional Code 39 such as:
- very large inter-character
- large ratio between narrow and wide elements

Disable (*)

Enable

Special keys interpretation

- Special keyboard keys such as [Enter] and [Tab] (see list below) can be interpreted and transmitted by using dual-character combinations.
- This function is also compatible with the Code 39 full ASCII format.

Disable (*)

Enable

Code 93/ Code 93i

- Code 93

  Alphanumeric full ASCII symbology - letter case defined.

- Code 93i (encompasses and extends Code 93)

  Alphanumeric, full and extended ASCII, all Unicode characters, etc

Disable

Enable (*)

Symbology indentifier

User Defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters).

B6 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

D (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Barcode length

- Use the L1 as minimum length option if you know the minimum length of the codes in your application!!!
- To optimize decoding performance and increase security, select the same length as the minimum length in your application (do not select a shorter length!!).

  Length = [barcode data]
- Minimum length possible = 1 characters.

Length mode

- L1 = Codes with as many characters as specified by L1 and longer are read (L2 and L3 are not used).
- L2 = Only codes that comply with the lengths specified by L1, L2, and L3 will be read.
- L3 = Codes at least the length specified by L1 and no longer than the maximum length specified by L2 are read (L3 is not used).

L1 as Minimal length (*)

L1, L2, L3 as fixed length

L1 as min, L2 as max

Set lengths 1, 2 and 3

- Set barcode length L1, L2 and L3 according to the barcode length mode used.

Compose L1:

Compose L2:

Compose L3:

Code 128 / GS1-128

- Alphanumeric full ASCII symbology - letter case defined.
- "GS1-128" = Code 128 with the FNC1 character in the first position.

Code 128 enable (*)

Code 128 disable

GS1 - 128 enable (*)

GS1 - 128 disable

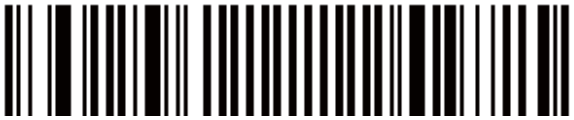
Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters).

Code 128

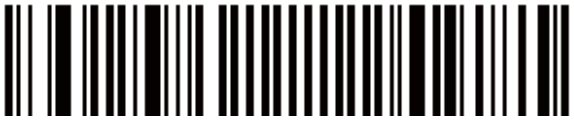
B3 (*)



Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

GS1 128

C9 (*)



Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

Code 128

D (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

GS1 128

D (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

GS1 - 128 identifier

- The]C1 AIM identifier for GS1-128 is automatically added by default in front of GS1-128 bar codes.

Enable (*)

Disable

Barcode length

- Use the L1 as minimum length option if you know the minimum length of the codes in your application!!!
- To optimize decoding performance and increase security, select the same length as the minimum length in your application (do not select a shorter length!!).

  Length = [barcode data]
- Minimum length possible = 1 characters.

Length mode

- L1 = Codes with as many characters as specified by L1 and longer are read (L2 and L3 are not used).
- L2 = Only codes that comply with the lengths specified by L1, L2, and L3 will be read.
- L3 = Codes at least the length specified by L1 and no longer than the maximum length specified by L2 are read (L3 is not used).

L1 as Minimal length (*)

L1, L2, L3 as fixed length

L1 as min, L2 as max

Set lengths 1, 2 and 3

- Set barcode length L1, L2 and L3 according to the barcode length mode used..

Compose L1:

Compose L2:

Compose L3:

Reading tolerance

- Sets the tolerance level for reading hard to read bar codes.
- High = most permissive (reads codes of variable quality).
- Low = least permissive (only reads high quality codes that meet official Code 39 standards)
- Quiet zone verification (space before and after bar code to ensure correct decoding).

High (*)

Medium

Low

Reading range

- Applies a special algorithm for long-distance reading (default setting).
- Use the "normal" setting if distance reading is not required.

Extended (*)

Normal

ISBT 128

- International Society of Blood Transfusion
- Activating ISBT 128 deactivates Code 128 / GS1-128 (to avoid confusion with Code 128 / GS1-128).
- You can re-activate Code 128 or GS1-128 by using the corresponding setup command if desired.
- IMPORTANT:
  - Codes are not concatenated by default (default transmission setting is "single codes only").
  - You must select one of the "concatenated codes" transmission options to send concatenated codes (see "transmit" section).

Disable (*)

Transmit

Disable (*)

Only transmit concatenated codes

Transmit concatenated codes or single codes

Concatenate

Disable (*)

Enable

DataMatrix

- Two-dimensional symbology.
- Only available with models equipped with an area imager.
- Can encode up to approximately 2000 characters.
- Negative image DataMatrix supported.
- Mirror image DataMatrix not supported.

Disable

Enamle (*)

Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters).

D0 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

* (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Mirrored labels activation

- When enabled mirrored labels can be read as well as normal labels.
- When disabled only normal labels can be read.

Disable (*)

Enable

Structured append

Disable (*)

Enable

Header transmission

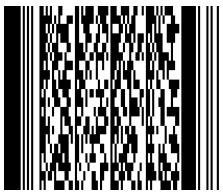
Disable (*)

Enable

GS1-Datamatrix

The]d2 AIM identifier for GS1-Datamatrix is automatically added by default in front of GS1-Datamatrix bar codes. To disable]d2 AIM identifier, please scan the barcode below.

Disable



EAN / UPC

- Numerical symbology.

UPC - A enable (*)

UPC - A disable

UPC - E enable (*)

UPC - E disable

EAN - 8 enable (*)

EAN - 8 disable

EAN - 13 enable (*)

EAN - 13 disable

UPC - E1

- Irregular UPC-E with number system equal to 1 (usually the first printed character).
- UPC-E must be active for UPC-E1 to be taken into account.

Disable (*)

Enable

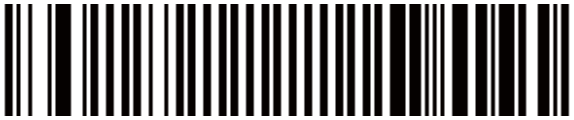
Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters).

UPC-A

A0 (*)



Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

UPC-E

E0 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

EAN-8

FF (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

EAN-13

F (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

UPC-A

A (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

UPC-E

E (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

EAN-8

N (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

EAN-13

F (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Add - on digits

not required but transmitted if read (*)

required and transmitted

add-on 2

Disable (*)

Enable

add-on 5

Disable (*)

Enable

security level

10 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Check digit transmission

[leading character] [number system] [data] [check digit]

UPC-A

Enable (*)

Disable

UPC-E

Enable (*)

Disable

EAN-8

Enable (*)

Disable

EAN-13

Enable (*)

Disable

UPC number system

[leading character] [number system] [data] [check digit]

UPC-A

Enable (*)

Disable

UPC-E

Enable (*)

Disable

Re-encoding UPC-A, UPC-E, EAN-8

[leading character] [number system] [data] [check digit]

- Converts decoded data to other code formats.
- Transmission only takes into account the parameters available for the target bar code format.
- Regular UPC-A has a transmitted number system equal to 0.
- To transmit the additional leading character (country code), select the "UPC-A transmitted as EAN-13" option.

UPC-A, UPC-E, EAN-8 - UPC-A transmitted as EAN-13 (*)

UPC-A, UPC-E, EAN-8 - UPC-A transmitted as UPC-A

UPC-A, UPC-E, EAN-8 - UPC-E transmitted as UPC-E (*)

UPC-A, UPC-E, EAN-8 - UPC-E transmitted as UPC-A

UPC-A, UPC-E, EAN-8 - EAN-8 transmitted as EAN-8 (*)

UPC-A, UPC-E, EAN-8 - EAN-8 transmitted as EAN-13

ISBN

- International Standard Book Number
- EAN-13 code, the first 3 characters "978" or "979" (except for "9790") are ignored and the checksum (0..9, "X") is calculated on the remaining characters.

Disable (*)

Enable

ISMN

- International Standard Music Number
- EAN-13 code starting with "9790", the first 3 characters "979" are ignored and the first "0" is converted to "M"

Disable (*)

Enable

ISSN

- International Standard Serial Number
- EAN-13 code, the first 3 characters "977" are ignored and the ISBN checksum (0..9, "X") is calculated on the remaining characters.

Disable (*)

Enable

Reading range

- Applies a special algorithm for long-distance reading (default setting).
- Use the "normal" setting if distance reading is not required.

Normal

Extended (*)

GS1 DataBar (RSS)

- Also known as Reduced Space Symbology (RSS).

Omni-directional

- Numerical symbology.
- Reads the following types of GS1 DataBar:

  GS1 DataBar Omni-Directional

  GS1 DataBar Truncated

  GS1 DataBar Stacked

  GS1 DataBar Stacked Omni-Directional

Enable

Disable (*)

Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters).

C3 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

* (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Limited

- Numerical symbology.
- Does not read stacked version.

Enable

Disable (*)

Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters).

C4 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

* (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Expanded

- Alphanumerical symbology.
- Reads the following types of GS1 DataBar Expanded:

  GS1 DataBar Expanded

  GS1 DataBar Expanded Stacked

Enable

Disable (*)

Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters).

C5 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

* (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Interleaved 2 of 5

- Numerical symbology.
- For GTIN compatibility set barcode length to one fixed length of 14 characters.

Disable (*)

Enable

Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters).

B2 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

I (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Check digit

- Especially recommended for variable length Interleaved 2 of 5 and if "consecutive same read data validation" (data decoding security parameters) is not activated.

Check digit verification

Disable (*)

Modulo 10

Check digit transmission

Disable (*)

Enable

Barcode length

- Use the L1 as minimum length option if you know the minimum length of the codes in your application!!!
- To optimize decoding performance and increase security, select the same length as the minimum length in your application (do not select a shorter length!!).

  = [barcode data] + [check digit]
- Recommended minimum length = 4 characters.
- Interleaved 2 of 5 always encodes an even number of characters.
- For codes with an odd number of characters, you can add a last character printed as 5 narrow bars (not transmitted).

- For GTIN compatibility set barcode length to one fixed length of 14 characters
- compose 1 or 2 or 3 fixed lengths provides the best performance and security if the codes in your application have fixed lengths

Length mode

- L1 = Codes with as many characters as specified by L1 and longer are read (L2 and L3 are not used).
- L2 = Only codes that comply with the lengths specified by L1, L2, and L3 will be read.
- L3 = Codes at least the length specified by L1 and no longer than the maximum length specified by L2 are read (L3 is not used).

L1 as Minimal length (*)

L1, L2, L3 as fixed length

L1 as min, L2 as max

Set length L1, L2 and L3

- Set barcode length L1, L2 and L3 according to the barcode length mode used.

Compose L1:

Compose L2:

Compose L3:

Reading tolerance

- Sets the tolerance level for reading hard to read bar codes.
- High = most permissive (reads codes of variable quality).
- Low = least permissive (only reads high quality codes that meet official Code 39 standards)
- Quiet zone verification (space before and after bar code to ensure correct decoding).

High (*)

Medium

Low

Matrix 2 of 5

- Numerical symbology.

Disable (*)

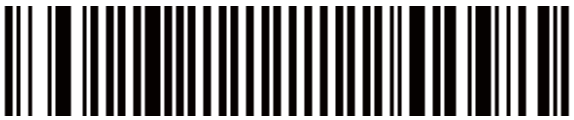
Enable

Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters).

B4 (*)



Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

D (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Matrix stop/start char

Regular (*)

- Start/stop characters and checksum not transmitted.

Regular (*)

ChinaPost

- Specific start/stop characters (not transmitted) and checksum (transmitted).

ChinaPost

Barcode length

- Use the L1 as minimum length option if you know the minimum length of the codes in your application!!!
- To optimize decoding performance and increase security, select the same length as the minimum length in your application (do not select a shorter length!!).

  Length = [barcode data]
- Minimum length possible = 3 characters.

Length mode

- L1 = Codes with as many characters as specified by L1 and longer are read (L2 and L3 are not used).
- L2 = Only codes that comply with the lengths specified by L1, L2, and L3 will be read.
- L3 = Codes at least the length specified by L1 and no longer than the maximum length specified by L2 are read (L3 is not used).

L1 as Minimal length (*)

L1, L2, L3 as fixed length

L1 as min, L2 as max

Set length L1, L2 and L3

- Set barcode length L1, L2 and L3 according to the barcode length mode used.

Compose L1:

Compose L2:

Compose L3:

MaxCode

- Two-dimensional alphanumerical symbology used by UPS.
- Only available with models equipped with an area imager.

Disable (*)

Enable

Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters).

D2 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

* (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Mode 0

- This mode is obsolete.
- We do not recommend using this mode.

Disable (*)

Enable

Header

regular (AIM) (*)

Extended

MicroPDF417

- Two-dimensional symbology.
- Alphanumeric full ASCII symbology - letter case defined.
- It is highly recommended to select "stacked codes" in sensor optimization (see Operating settings/read optimization).

Disable (*)

Enable

Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters).

C8 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

* (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code 128 emulation

- When active and reading a MicroPDF code containing a special flag, the scanner transmits the Code 128 AIM symbology identifier instead of the MicroPDF symbology identifier ( ]C instead of]L)

Disable (*)

Enable

MSI Code

- Numerical symbology.

Disable (*)

Enable

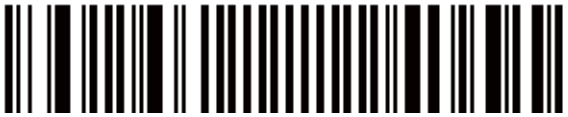
Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.

- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters).

B8 (*)



Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

D (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Check digit

Check digit verification

Modulo 10 (*)

Double Modulo 10

Check digit transmission

- You can chose to transmit or not transmitted the check digit.

Enable (*)

Disable

Barcode length

- Use the L1 as minimum length option if you know the minimum length of the codes in your application!!!
- To optimize decoding performance and increase security, select the same length as the minimum length in your application (do not select a shorter length!!).

  Length = [barcode data] + [check digit]
- Minimum length possible = 2 characters.

Length mode

- L1 = Codes with as many characters as specified by L1 and longer are read (L2 and L3 are not used).
- L2 = Only codes that comply with the lengths specified by L1, L2, and L3 will be read.
- L3 = Codes at least the length specified by L1 and no longer than the maximum length specified by L2 are read (L3 is not used).

L1 as Minimal length (*)

L1, L2, L3 as fixed length

L1 as min, L2 as max

Set length L1, L2 and L3

- Set barcode length L1, L2 and L3 according to the barcode length mode used.

Compose L1:

Compose L2:

Compose L3:

PDF 417

- Set barcode length L1, L2 and L3 according to the barcode length mode used.

Enable (*)

Disable

Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters).

C7 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

* (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Structured append

Disable (*)

Enable

Header transmission

Disable (*)

Enable

Plessey Code

- Numerical symbology.

Disable (*)

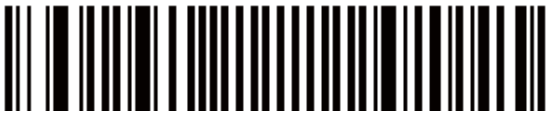
Enable

Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters).

C2 (*)



Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

D (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Check digit transmission

[leading character] [number system] [data] [check digit]

Disable (*)

Enable

Unconventional stop

Disable (*)

Enable

Barcode length

- Use the L1 as minimum length option if you know the minimum length of the codes in your application!!!
- To optimize decoding performance and increase security, select the same length as the minimum length in your application (do not select a shorter length!!).

  Length = [start] + [barcode data] + [2-character check digit] + [stop]
- Minimum length possible = 5 characters.

Maximum length possible = 25 characters.

Length mode

- L1 = Codes with as many characters as specified by L1 and longer are read (L2 and L3 are not used).
- L2 = Only codes that comply with the lengths specified by L1, L2, and L3 will be read.

- L3 = Codes at least the length specified by L1 and no longer than the maximum length specified by L2 are read (L3 is not used).

L1 as Minimal length (*)

L1, L2, L3 as fixed length

L1 as min, L2 as max

Set length L1, L2 and L3

- Set barcode length L1, L2 and L3 according to the barcode length mode used.

Compose L1:

Compose L2:

Compose L3:

QR Code

- Two-dimensional matrix symbology.
- Only available with models equipped with an area imager.
- Can encode up to 2509 numeric or 1520 alphanumeric characters.

- Offers three levels of error detection.
- Activating QR Code activates Model 2. Use the Model 1Control activation if you are using Model 1 (not supported by all scanners).
- Negative image QR Code not supported.

Disable (*)

Enable

Model 1 control

- Enables the decoding of Model 1 QR codes.

Disable (*)

Enable

Inverse video

- Normal = used for decoding black bar codes printed on white background.
- Inverse = used for decoding white bar codes printed on black background.
- Automatic = used to decode both types of bar codes

Normal (*)

Inverse

Automatic

MicroQR activation

- Micro QR is a small QR code with only one pattern.

Disable (*)

Enable

Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters).

D1 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

* (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Structured append

Disable (*)

Enable

Header transmission

Disable (*)

Enable

Standard 2 of 5

- Numerical symbology.
- Default format = Identicon (6 start/stop bars).
- Also referred to as "Straight 2 of 5" and "Industrial 2 of 5."

Disable (*)

Enable

Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters).

B5 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

D (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Format

Identicon (*)

Computer Identics

Check digit

Check digit verification

Disable (*)

Modulo 10

Check digit transmission

- You can chose to transmit or not transmitted the check digit.

Disable (*)

Enable

Barcode length

- Use the L1 as minimum length option if you know the minimum length of the codes in your application!!!
- To optimize decoding performance and increase security, select the same length as the minimum length in your application (do not select a shorter length!!).

  Length = [barcode data] + [check digit]
- Minimum length possible = 3

Length mode

- L1 = Codes with as many characters as specified by L1 and longer are read

(L2 and L3 are not used).

- L2 = Only codes that comply with the lengths specified by L1, L2, and L3 will be read.
- L3 = Codes at least the length specified by L1 and no longer than the maximum length specified by L2 are read (L3 is not used).

L1 as Minimal length (*)

L1, L2, L3 as fixed length

L1 as min, L2 as max

Set length L1, L2 and L3

- Set barcode length L1, L2 and L3 according to the barcode length mode used.

Compose L1:

Compose L2:

Compose L3:

Telepen

- Alphanumeric full ASCII symbology - letter case defined.
- Default format = ASCII.

Disable (*)

Enable

Symbology identifier

User defined

- User defined symbology identifier.
- See "Data transmission settings - symbology identifier - UDSI" to activate or deactivate UDSI transmission.
- Use the default value or compose your custom symbology identifier for this symbology (1 - 4 characters).

C6 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Code mark

- See "Data transmission settings - symbology identifier - code mark" to activate or deactivate code mark transmission.
- Use the default value or compose your code mark for this symbology (1 character).

* (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Format

ASCII (*)

Numeric

Barcode length

- Use the L1 as minimum length option if you know the minimum length of the codes in your application!!!
- To optimize decoding performance and increase security, select the same length as the minimum length in your application (do not select a shorter length!!).

  Length = [barcode data]
- Minimum length possible = 1 characters.s.

Length mode

- L1 = Codes with as many characters as specified by L1 and longer are read (L2 and L3 are not used).
- L2 = Only codes that comply with the lengths specified by L1, L2, and L3 will be read.
- L3 = Codes at least the length specified by L1 and no longer than the maximum length specified by L2 are read (L3 is not used).

L1 as Minimal length (*)

L1, L2, L3 as fixed length

L1 as min, L2 as max

Set length L1, L2 and L3

- Set barcode length L1, L2 and L3 according to the barcode length mode used.

Compose L1:

Compose L2:

Compose L3:

Chapter 4

Operating Settings

- Settings that affect the way your product operates (trigger settings, flashing mode, data decoding security settings, beep characteristics, etc.).

Pre-defined trigger modes

- These are pre-defined trigger settings used to quickly set up your scanner.
- If you are using a pre-defined mode, do not set the other Scanning/triggering settings.

Toggle

- One pull turns on the aimer only. When the trigger is released, illumination and decoding turn on. If no decode, second pull and release turn the aimer, illumination and decoding off.

Toggle

Level

- One pull turns on the aimer, illumination and decoding. If not decode, aimer, illumination and decoding turn off when the trigger is released.

Level

Aim

- One pull turns on the aimer only. When the trigger is released, illumination and decoding turn on. If no decode, second pull and release turn the aimer, illumination and decoding off.

Aim

Scanning / Triggering

Triggering modes

Continuous

- At power up the lighting and decoding are on all the time. The trigger is not used.

Continuous

Level (*)

- Lighting and decoding are on when the trigger line is activated (trigger pressed) and off when the trigger line is deactivated (trigger released).

Level (*)

Pulse

- Lighting and decoding are on when the trigger line is activated (trigger pressed) and stay on until a period of inactivity lasting the time specified by the trigger timeout.
- After the timeout lighting and decoding are turned off.

Pulse

Flashing

- At power up the lighting and decoding are on (no need to activate the trigger line) and after a period of inactivity lasting the time specified by the trigger timeout, the scanner starts flashing, checking for a bar code to be read.

- When a bar code is detected, the lighting and decoding automatically turn on and stay on until another period of inactivity (timeout), after the timeout the scanner starts flashing again.

Flashing

Autostand

- Autostand triggering mode switches from Level to Flashing (1D models) or Presentation (2D models).
- At power up the scanner is in Flashing or Presentation trigger mode (no need to activate the trigger line). You can put a bar code in front of the scanner and it will be scanned.
- To switch to Level activate the trigger line (press the trigger). You can scan bar codes by pulling the trigger.
- When in Level trigger mode, after a period of inactivity lasting the time specified by the trigger timeout, the scanner switches back to Flashing mode.

Autostand

Toggle

- Aimer and decoding is on when trigger line is activated. Activating the trigger line again turns the aimer and decoding off.

Toggle

Presentation

- At power up lighting and decoding are on.
- After a period of inactivity lasting the time specified by the trigger timeout, the lighting turns off or is dimmed (depending on the scanner used).
- When a new bar code is presented the lighting and decoding restart and stay on until another period inactivity.

- The trigger can be used in Presentation mode - when you pull the trigger the scanner functions as if it were in Level mode.
- Only available with 2D models.

Presentation

Presentation threshold

- Only available on 2D models.
- Use this setting when in Presentation Triggering mode to regulate how sensitive the imager is to movement which automatically wakes up the scanner.
- The higher the value = the stronger the movement is needed to wake up the scanner.

50 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Trigger timeout (sec)

- The trigger timeout is used in the following trigger modes:
  - Pulse
  - Flashing
  - Autostand
- Value in seconds

2 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Turn off after good read

- When active, the scan engine stops the reading session after a successful decoding.
- Turn off after good read is only used in the following trigger modes:
  - Level
  - Pulse
  - Autostand
  - Standard Aim

NOTE: this parameter is NOT used with conti

Enable (*)

Disable

Retrigger delay

- Only valid if "Turn off after good read" is disabled.
- This setting is a time delay in which the scanner turns off after a good read. When the delay is done, the scanner automatically turns back on (retriggers).
- Value is in milliseconds.

0 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Aimer mode

- Allows you to locate the bar code you want to read.
- The aiming beam is only used with the following trigger modes:
  - Level

- Pulse
- Autostand
- Toggle*

NOTE*: In Toggle trigger mode, "one pull aim, one pull read" does not work as stated. Instead one pull turns on the aimer only. When the trigger is released decoding begins. If no decode, second pull turns aimer and decoding off.

Typical aimer (*)

One pull aim and read

- Pull and hold trigger - aiming beam (programmable duration) then reading beam.

One pull aim and read

One pull aim, second pull read

- First pull aiming beam, second pull reading beam.

NOTE*: In Toggle trigger mode, "one pull aim, one pull read" does not work as stated. Instead one pull turns on the aimer only. When the trigger is released decoding begins. If no decode, second pull turns aimer and decoding off.

One pull aim, second pull read

Duration

- Duration is applied differently depending on the aiming beam mode:
- First pull aim and read:
  - Duration is the time the aiming beam stays on before reading begins
- First pull aim, second pull read:
  - Duration is the maximum time between the first pull and second pull

- If you wait longer than the duration before the second pull, the cycle starts over with the aiming beam.

500 (*)

1200

Compose (ms)

Bad read message

Activation

Disable (*)

Enable

Compose

NOREAD (*)

Compose:

Ignore stand detect

- Enable ignore stand detect when you want to use Autostand triggering mode with and you are not using a detectable stand (charge base or Bluetooth base station).

Disable (*)

Enable

Double scan prevention

- When enabled pulling the trigger a second time does not start a new reading session unless the timeout has expired. This prevents the user from accidentally scanning the same bar code twice.
- Use the "Timeout between identical consecutive codes" located in "Data decoding security" to set the timeout.

NOTE: The default value of the timeout is not suitable for double scan prevention. Be sure to adjust it if using this feature.

Disable (*)

Enable

Data decoding security

- Ensures correct transmission of data for difficult reading conditions and varying levels of barcode quality (poorly printed labels, variable lengths and no check digit, "fragile" symbologies).
- Increasing the security level reduces the reading speed !!!

Predefined security levels

- Predefined security level settings can be modified individually
- Use medium and high security levels for poor-quality bar codes or critical applications.
- Increasing the security level reduces the reading speed!!!

Normal (*)

Medium

High

Consecutive same read data validation

- Data is only transmitted after repeated reads give the same result.

Auto read count before transmission

Single read before transmission

Compose number of same reads:

Timeout between identical consecutive codes (ms)

- Prevents reading the same bar code more than once.
- Value is milliseconds.

Compose (ms):

Timeout between different consecutive codes (ms)

- Prevents unwanted reading of other bar codes on the same label.

0 (*)

Compose (ms):

Center decoding

- When enabled the scanner reads only the bar code that the laser aimer is aimed at.
- This is helpful when reading bar codes that are positioned close together.

Activation

Disable (*)

Enable

Tolerance

- The tolerance level for center decoding allows you to aim the laser close to the bar code to be read rather than be positioned on the bar code.
- 0 = No tolerance (laser aimer must be positioned on the bar code to be read), 100 = most permissive (laser aimer can be positioned beside the bar code to be read).

No tolerance (*)

Compose (%):

Bar code sequence

- Bar code sequence allows you to read up to 10 bar codes with one trigger pull. This is useful when reading several bar codes placed closely together and without re-reading the same code twice.
- For example, if set to 2, pull the trigger once and scan both codes. The scanner beeps for each code that is decoded (2). If "turn off after good read" is enabled the scanner turns off AFTER the last bar code in the sequence is read.
- Compose the number of bar codes for the sequence.

1 (*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Beeps / LEDs

Note (tone frequency)

High (*)

Medium

Low

Power-up beeps

2 beeps = successful power-up

3 long beeps = EEPROM integrity error (contact your Intermec representative !).

Disable (*)

Enable

Good read beeps

Number

- "Normal" bar codes: 1 beep (default) = good read
- Configuration codes: 2 beeps = good read, 6 beeps = setup error,
  3 long beeps = EEPROM integrity error (contact your Intermec representative !).

1 beep (*)

2 beeps

None

Duration

60

80 (*)

200

300

Timing

- IBM and OCIA cash registers: do not send this parameter online to the scan engine through RS-232 cable 0-364032-10!!! Send it to the setup sheet and read the configuration code with your normal IBM / OCIA product cable connected.

During transmission (*)

Before transmission

After transmission

Good read LED duration

- "Read" LED green = "good read"
- Setting a duration of 0 ms = "no good read LED"
- Value is in milliseconds.

80 (*)

500

1000

2500

5000

Disable/enable all good read signals

- This setting can be used to disable all good read signals: Beep, LED and vibrate.

Disable

Enable (*)

Error beep

Disable

Enable (*)

Setup beep and LED

Disable

Enable (*)

Multicode beeps

- By default the scanner does not beep when reading several bar codes when using the Multicode function (see Symbologies). Use this setting to activate beeps when reading bar codes that are part of a Multicode.

None (*)

Good Read Beep

Shorter Beep

Chapter 5

Data Transmission Settings

Symbology identifier

[symbology id] [data]

Not transmitted(*)

AIM format

[AIM symbology id] [data]

- Activates for all symbologies the 3-character symbology identifier standardized by the AIM Committee.
- Example: "] A 0" identifies standard Code 39 without check digit[[[If the data in a bar code is modified (ISBN, . . .), the standard AIM identifier for the symbology will be replaced by "]X0"]]].

NOTE: Depending on how the bar

AIM format

User Defined Identifier

[UDSI symbology id] [data]

- Activates user defined symbology identifier (UDSI) transmission for all symbologies.
- NOTE: To change the default values go to "Symbology/select symbology/ symbology identifier/UDSI" and use the compose option.

User Defined Identifier

Code Mark

[preamble] [code mark symbology id] [data] [postamble]

- Activates code mark symbology identifier transmission for all symbologies.

NOTE: To change the default values go to "Symbology/select symbology/ symbology identifier/code mark" and use the compose option.

Code Mark

Preamble

[preamble] [symbology id] [data] [postamble]

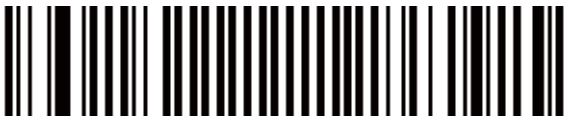
None(*)

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Postamble

[preamble] [symbology id] [data] [postamble]

Carriage Return + Line Feed (*)



None

Compose: Please refer to SCM (Software Configuration Manager) in www.ute.com

Inter-Character / message delay

- Avoids dropping characters if transmitting decoded data too fast for the host system.

Inter-Character delay

- Do not use for IBM 46xx cash registers or laser/wand emulation!!!
- Value is in milliseconds.
- This is not used when ISCP is active

0 (*)

10

20

30

40

50

Inter-message delay

- Value is in milliseconds.

0 (*)

10

30

50

80

100

Data editing

- IMPORTANT [[[[The data editing function is only available with STCDecode version 1.1.5.0 or later]]]]
- Your product can edit the data it receives before it transmits it to the host system.
- Define up to 7 input scenarios to intercept the data you want to edit.

- The order in which you define the scenarios is important (the product compares incoming data with each scenario in turn and edits the data for the first matching scenario it finds).
  1.Activate the scenario(s) you want the product to detect.
  2.Define the input data you want to intercept for editing (any combination of input type, input length, input mask).
  3.Define the actions (editing) you want to apply to this input:
  - Select a scenario
  - Define the Action list (editing) for the selected scenario
- Make sure that the input scenarios you define actually correspond to incoming data conditions:
  - Correct input type ('all' = all input types)
  - Correct input length ('0' = all input lengths)
  - Correct input mask (no value = all input character combinations)

Activate the scenario

- Activate the scenario(s) you want the product to detect.
- The combination of input type (symbology, ...), input length and input mask defines which data you want to intercept for editing.

Scenario 1

Disable (*)

Enable

Select barcode Type:

Compose barcode length:

Compose mask:

Scenario 2

Disable (*)

Enable

Select barcode Type:

Compose barcode length:

Compose mask:

Scenario 3

Disable (*)

Enable

Select barcode Type:

Compose barcode length:

Compose mask:

Scenario 4

Disable (*)

Enable

Select barcode Type:

Compose barcode length:

Compose mask:

Scenario 5

Disable (*)

Enable

Select barcode Type:

Compose barcode length:

Compose mask:

Scenario 6

Disable (*)

Enable

Select barcode Type:

Compose barcode length:

Compose mask:

Scenario 7

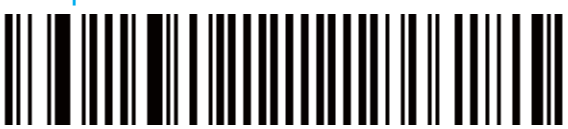
Disable (*)

Enable

Select barcode Type:

Compose barcode length:

Compose mask:



Appendix I

Worldwide Support

Unitech's professional support team is available to quickly answer questions or technical-related issues. Should an equipment problem occur, please contact the nearest Unitech regional service representative. For complete contact information please visit the Web sites listed below:

Region	Web Site
Global Operation Center	http://www.ute.com
Unitech Taiwan	http://tw.ute.com
Unitech Asia Pacific & Middle East	http://apac.ute.com http://india.ute.com
Greater China Division	http://cn.ute.com
Unitech Japan	http://jp.ute.com
Unitech North America	http://us.ute.com ; http://can.ute.com
Unitech Latin America	http://latin.ute.com
Unitech Europe	http://eu.ute.com