



# NLS-HR100

## Hand-held 1D Barcode Scanner

### User Guide



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# About this guide

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## Introduction

This NLS-HR100 ( “HR100” ) Barcode Scanner User Guide provides general instructions for how to use it .

---

## Chapter Description

Getting to Start: The chapter of Getting to Start gives a brief description of the HR100. It covers the general, overall specifications of the HR100.

General Programming: The chapter of General Programming describes the general methods to program HR100. There are two methods respectively Code Programming and Command Programming.

Query Command: The chapter of Query Command describes how to query related information of HR100 by reading programming codes.

Communication Programming: The chapter of Communication Programming describes the serial port programming and KBW programming.

Data Format: The chapter of Data Format describes how to use Prefix and Suffix to fulfill users' needs in more information of the barcodes.

Symbols, lists all the available symbols and provides the parameters supported by the HR100.





## About this guide

### Graphic Notations



Tool – Handy item for a task.



Attention – Important subject to be aware of or to avoid.



Tips – Helpful information about a topic or a feature.



Example – Illustration of how to use a feature.

---

### Newland Auto-ID Support Center

If you have a problem with your equipment, contact the Newland Support Center in your region. Before calling, have the model number, serial number, and several of your barcodes at hand.

Call the support Center from a phone near the scanning equipment so that the service person can try to talk you through your problem. If the equipment is found to be working properly and the problem is barcode readability, the Support Center will request samples of your bar codes for analysis at our plant.

If your problem cannot be solved over the phone, you may need to return your equipment for servicing. If that is necessary, you will be given specific directions.

Note: Newland Auto-ID Tech. is not responsible for any damages incurred during shipment.

For service information, warranty information or technical assistance contact or call the Support Center listed below. For the latest service information go to <http://www.nlscan.com>

If you purchased your Newland product from a Newland Business Partner, contact that Business Partner for Service.





# Getting to Start

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## Introduction

HR100 is a 1D barcode reader. Newland Auto-ID patented **UIMG™** technology ensure HR100 fast image capture and accurate decoding. It provides the customer the best value.

HR100 can be used as a hand-held reader. Ergonomically designed to provide comfortable and easy use.

This chapter presents an overall picture of how to use HR100 step by step. Please have an HR100 handy.

This chapter is recommended to general users, maintenance personnel, and software programmers.





# Getting to Start

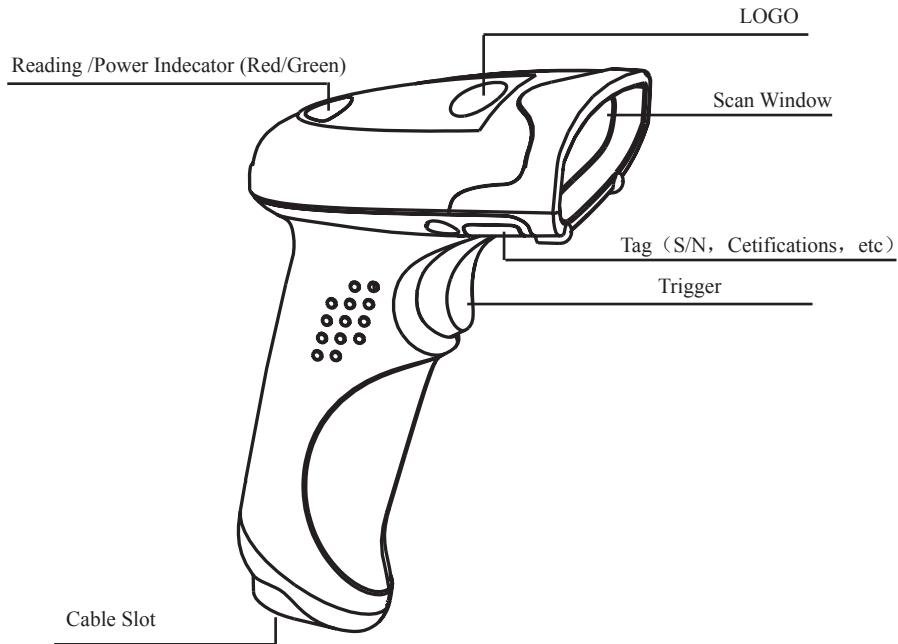
## Unpacking

### Unpacking

Unpack HR100 and accessories. Check with the packing list. Make sure that there is no damage or missing part(s). If any damage or missing parts, please keep the original package and contact your supplier for services.

### Outline of HR100

The figure below shows major components of HR100.



HR100 Outline

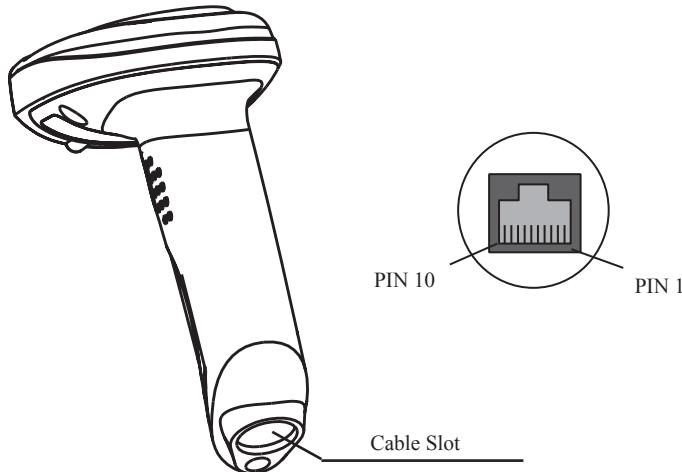




# Getting to Start

## Unpacking

### Data Interface



Pin	Function	Type	Name
1	CLK1	IO	Keyboard Clock Signal
2	DATA1	IO	Keyboard Data Signal
3	VCC	P	Power DC5V
4	RXD	I	Serial Port Input, RS232
5	TXD	O	Serial Port Output, RS232
6	CLK2	IO	PC Clock Signal
7	DATA2	IO	PC Data Signal
8	GND	P	Ground
9	D-	IO	USB Data Signal
10	D+	IO	





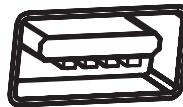
# Getting to Start

## Communication Ports

HR100 must connect to a Host to operate. A Host can be PC, POS, or any intelligent terminal with at least one of the following communication ports: USB, RS232, or PS/2.

1、USB

USB port on Host:



2、RS232

RS232 port on Host:



3、PS/2

PS/2 port on Host:



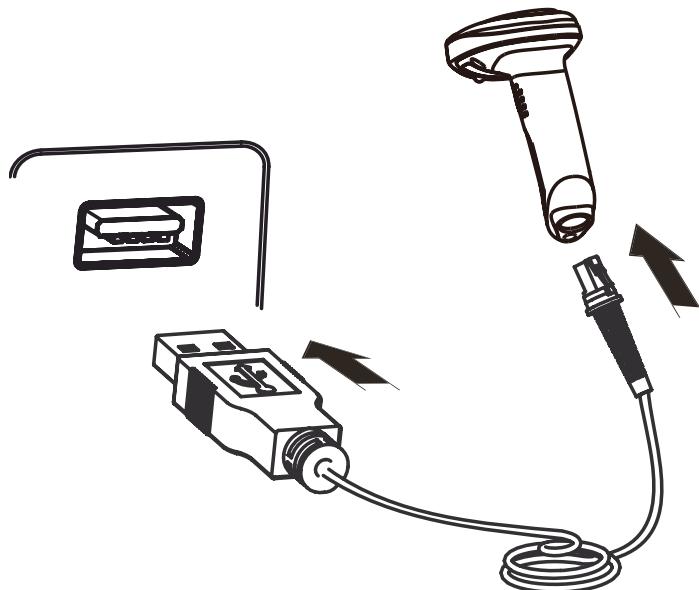
Please check the ports first to order the fitting cable.





## Getting to Start

### Connecting with USB Cable



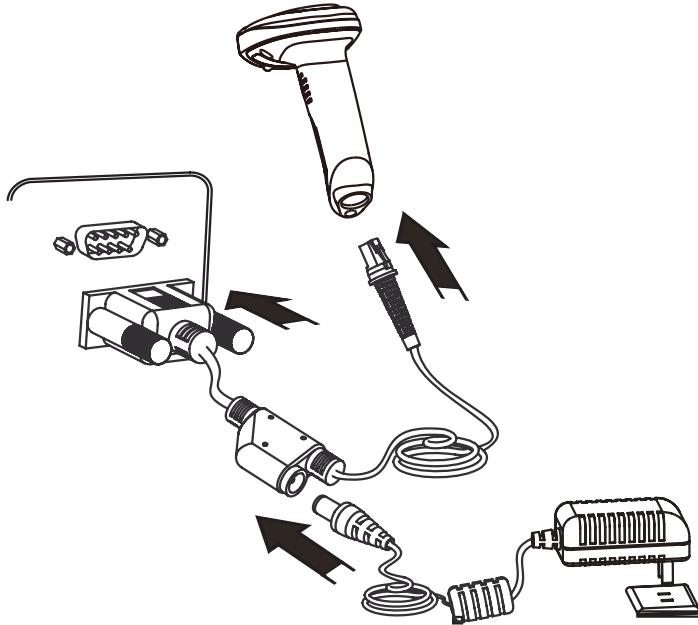
- 1、Insert USB Cable (RJ45 male head) into HR100 cable slot;
- 2、Insert USB Cable (USB male head) into Host's (female) USB connector;
- 3、Click the HR100 Trigger to switch the unit on and it is ready to use.





## Getting to Start

### Connecting with RS232 Cable



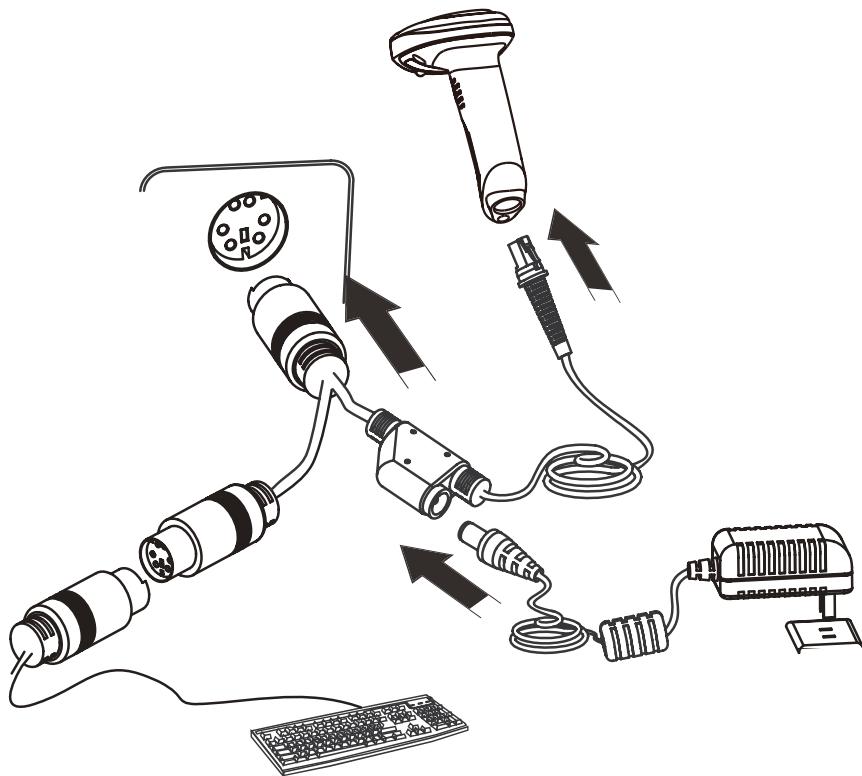
- 1、Insert RS232 cable (RJ45 male head) into HR100 cable slot;
- 2、Insert RS232 cable (RS232 male head) into Host's (female) RS232 connector;
- 3、Connect RS232 cable and the mains with power adapter;
- 4、Click the HR100 Trigger to switch the unit on and it is ready to use.





## Getting to Start

### Connecting with PS/2 Cable

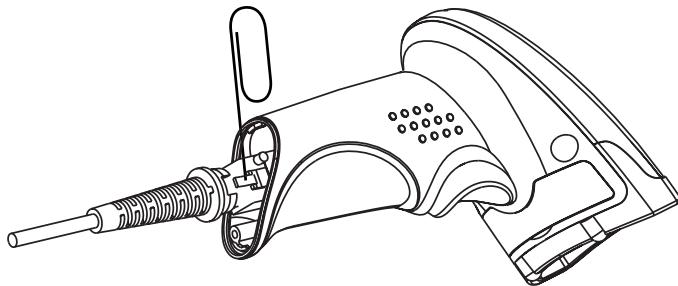


- 1、Insert PS/2 cable (RJ 45 male DIN) into HR100 cable slot;
- 2、Insert PS/2 cable (PS/2 male DIN) into Host PS/2 female slot;
- 3、Connect PS/2 cable and the mains with power adapter;
- 4、If necessary, keyboard can connect to female slot on the PS/2 cable;
- 5、Click on the HR100 Trigger to switch the unit on and it is ready to use.



## Getting to Start

### Removal of Communication Cable



A Pin that fit the HR100 “Dismount hole” is needed. A paper clip could be ideal. Stretch one end of the paper clip to fit the “Dismount Hole”. Follow the steps:

- 1、For RS232 and PS/2 connections, unplug the power adaptor.
- 2、Insert the Pin into “Dismount Hole” and keep some pressure.
- 3、Pull out the cable gently.
- 4、Pull out the Pin after the cable is removed.
- 5、Unplug the connector from the Host.



## Getting to Start

### ON, OFF, IDLE, RESTART

#### Power On

Connect HR100 and Host. One click the "Trigger". HR100 powers on and in "Idle" (ready to use) state (factory default).

---

#### Power Off

There are 4 ways to "Power OFF":

- » Remove Cable Off HR100;
- » Remove Power Adapter Off RS232 Cable;
- » Remove USB Cable Off the Host;
- » Remove PS/2 cable off the Host or power adaptor off.

---

#### IDLE Mode

When reader is NOT reading, it is in "IDLE mode".

No reading attempt within a timeout, the Imager switch to IDLE mode automatically.

---

#### RESTART

If HR100 halted and does not respond to operations, please "Restart" by "Power OFF", and then "Power ON".

---

#### Maintenance

- » The scan window must be kept clean. Improper maintenance will breach the limited warranty.
- » Avoid rough objects not to damage or scratch the window.
- » Use brush to remove the stain.
- » Use soft cloth (cloth for glasses) to clean.
- » Prohibit spraying towards the window.
- » Only use clean water as a cleanser.



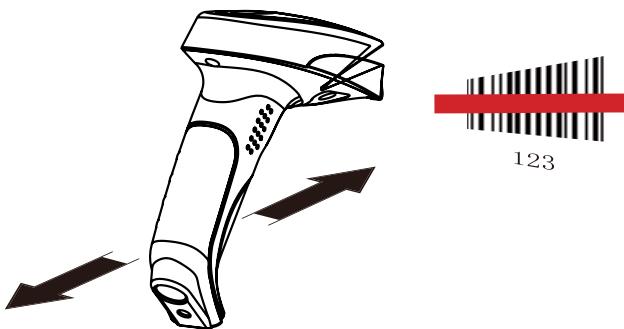
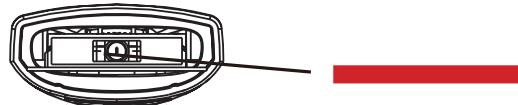


# Getting to Start

## Reading

- 1、Ensure HR100, cables, and the Host are connected, then turn the unit Power ON
- 2、Press & hold Trigger.  
Illumination LED cast an Illumination Pattern (red light line) ;
- 3、Keep Illumination Pattern in the center of a bar code. Zoom in and zoom out to allocate the Optimum Reading Stance.
- 4、On a successful reading, there'll be a beep sound, illumination die out. The HR100 then transmits barcode message to the Host.

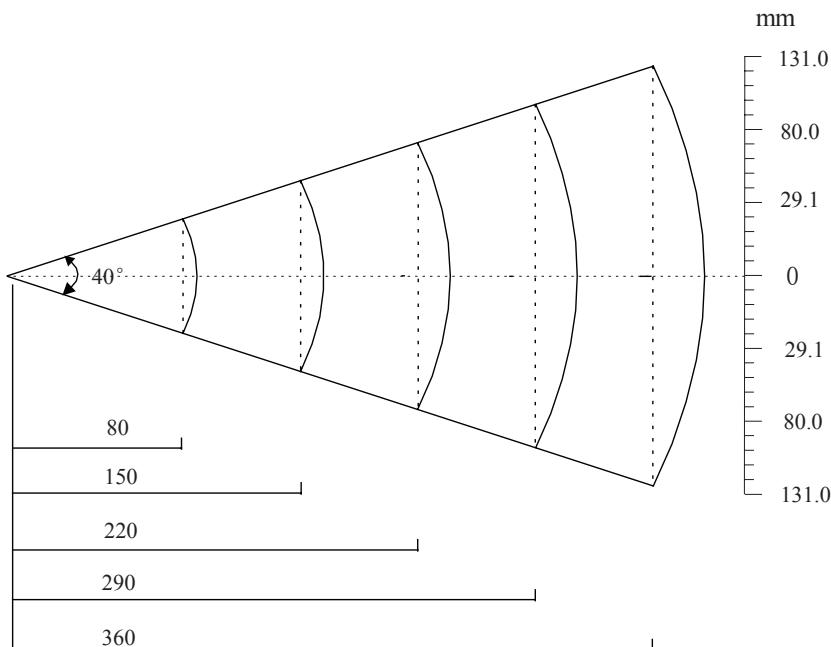
NOTE: Experiences tell a certain range of distances has higher successful reading rate. This range is the Optimum Reading Stance.





## Getting to Start

### Depth of Field



### Decode Distances

Barcode	Density(mil)	Near(mm)	Far(mm)
EAN-8	10	40	240
EAN-8	15	10	300
Code39	5	80	140
Code39	10	30	260
Code39	12	25	280
Code39	16	15	360





# Getting to Start

## Dimensions of HR100 Unit

### HR100 Left View

The figure 1 HR100 Left View has the height dimensions.

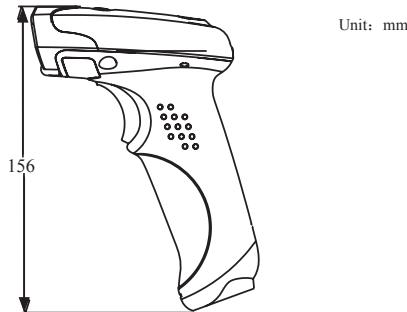


Figure 1. HR100 Front View

### HR100 Front View

The Figure 2 HR100 Front View has the length dimensions of scan window and handle.

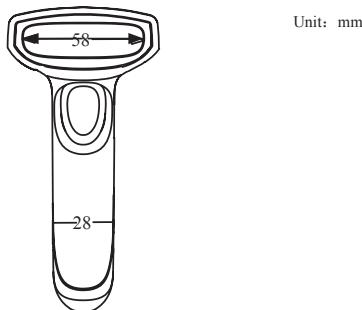


Figure 2. HR100 Right Side View

### HR100 Top View

The figure 3 HR100 Top View has the width and length dimentions of the head.

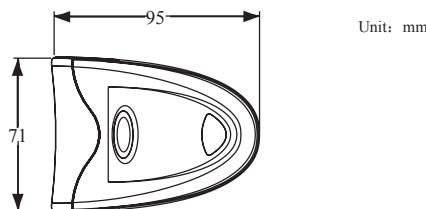


Figure 3. HR100 Top View



# General Programming

---

## Introduction

There are 2 ways to program (configure) the Engine, Code Programming and Command Programming.

---

### Code Programming

The Engine reads a set of specially encoded barcodes to program options and features. In the following sections, we will explain the options and features available and provide the barcodes to program them.

This method of programming the Engine is most straight forward. However, it requires manually readings of each barcode. As all manual operations, errors are more likely to occur.

---

### Command Programming

The Host can send the Pro CMD strings to program the Engine. In the following sections, the Pro CMD strings will be included with the barcodes for Code Programming.

This method of programming the Engine could be automated. A software program can be developed to download all the configuration data to the Engine. The program can also verify the download.

Note: The programming results are restored in non-volatile memory. They will not be lost when the Engine is powered off.





## General Programming

Programming Notation



Code Programming ON



Code Programming OFF



\*\* Code Programming Off  
【Pro CMD: 99900032】

This is the notation to disable the Code Programming.

There are 3 parts of a notation:

- » The first part of the notation is the barcode for Code Programming
- » The second part of the notation is the name of the options or features, such as Disable Code Programming. If there is “\*\*” in front of the name, it means the notation is factory default.
- » The third part of the notation is the corresponding Pro CMD string of the Code Programming.





# General Programming

Code Programming On/Off



Tools

Code Programming ON



Code Programming OFF



Read the "Code Programming ON" barcode to activate "Code Programming" function. More than one Code Programming barcodes can be read to configure the Engine.

If an option or feature needs additional parameters, such as digits, they can be found at the end of this chapter.

The value of code programming can be sent to the Host. For factory default, "No Send Pro Code Value", the value of programming codes will not be sent to the Host; by reading "Send Pro Code Value", the reader will send the value of Programming Code to the Host.

## Code Programming

In order to avoid misreading, "Code Programming On" barcodes shoud be read to activate "Code Programming" before reading programming barcodes. After programming, "Code Programming OFF" barcode or any common barcode ( not programming barcodes)should be read to quit configuration.

Some working parameters could be programmed. The data type of parameters is Dec or Hex and the numbers are also input through programming barcodes. The Appendix of the Integration Guide includes all needed data barcodes.

Programming barcodes are used to program the engine. For factory default, the reader will not send code value to the Host. But if needed, the engine could be programmed to "Send Pro Code Value". And whether the value is sent or not won't affect the programming function.



Code Programming ON  
【Pro CMD: 99900031】



\*\* Code Programming OFF  
【Pro CMD: 99900032】



\*\* No Send Pro Code Value  
【Pro CMD: 99900033】



Send Pro Code Value  
【Pro CMD: 99900034】





# General Programming

## Programming Outline

### Command Programming

Commands under RS232 connection mean using 0x20-0x7D (the displayable characters) to express all commands information.

#### 1、 Configuration State

The engine should be in configuration state when programming functions under RS232 connection. In the state, the engine would only accept and execute the commands from communication and feed back.

Sending certain command to the engine will make it enter or quit the configuration state. Or if in configuration state the engine hasn't received new information for five seconds, the engine will quit the state automatically.

#### 2、 Express Regulation

- ※ Sending “\$\$\$\$” and receiving “@{@@” mean entering configuration state successfully.
- ※ Sending “%%%%” and receiving “^/^/^” mean quitting configuration state successfully.
- ※ Receiving “^/^/^” in configuration state means that the engine has quitted the state automatically.
- ※ In configuration state, every command begins with “#” and ends with “;”. E.g. “#9990030;”
- ※ In configuration state, if the command is executed successfully, the Host will receive a command which begins with “!” and ends with “;”. E.g. “!9990030;”。
- ※ In configuration state, if the command is invalid or executed unsuccessfully, the Host will receive a command which begins with “?” and ends with “;”. E.g. “?99976543;”
- ※ In configuration state, if commands of query type are executed successfully, the host will receive “! xxxxxxxx; ” as well as the feedback which begins with “&{ “ and ends with “|” . In the last nine characters in feedback, such as “|BF7974B7” , “|” is the separating character which separates the feedback information and check value. And other eight characters “BF7974B7” are CRC32’s Hex value and arranged from the highest position to the lowest. The feedback information is placed between “{ “ and “|” . E.g.: Sending “#99900301;” and receiving “199900301;&{Firmware v1.7.5;Decoder v1.00.023.C6;FD25430B}”

If feedback information may have undisplayable characters, it will be expressed in hexadecimal notation. Two characters represent a character value. E.g.

“ & { AAAA100423C5008001FF400001FF400001FF400001FF4000000408000  
0040800000400000004080000040800000408000004080000040800000408  
006FF400006FF400006FF400004FF400004FF400002FF400004FF400004FF400004F  
F400001FF400000000000006A75667467646E426863657271776C6F7669736261797A706D52000-  
000000000000000000000000000000000000000000000000000000000000000000600000FEB2A2F4CCCF  
D390ADC8D38FF5E6D99DAA|E1DFA587} ”

※ In configuration state, if a command is with parameters, it will be composed following the rules which command system defined. For example, the command string which has 0x0D and 0x0A as ending character and be saved is “#99904112,#99900000,#9990015,#99900000,#99900012,#99900020;” 。



## General Programming

Default



Code Programming ON



Code Programming OFF



### Factory Default

Read “Load All Factory Default” to reset all parameters to factory default.

Applicable conditions:

- » User options programming wrong configuration leads to reading malfunction
- » Forget details of previous programming and start over.
- » Restore to default after unusual settings are not needed.



\*Load All Factory Default  
【Pro CMD: 99900030】





## General Programming

Working Mode



Mode Select

Code Programming ON



Code Programming OFF



Shut Down

【Pro CMD: 99900100】



\*\* Hand-held Mode

【Pro CMD: 99900110】



Deep Sleep

【Pro CMD: 99900101】



Auto Mode

【Pro CMD: 99900111】



Sleep

【Pro CMD: 99900102】



Interval Mode

【Pro CMD: 99900112】



Test Mode

【Pro CMD: 99900103】



Sensor Mode

【Pro CMD: 99900113】



Restart

【Pro CMD: 99900104】



Continuous Mode

【Pro CMD: 99900114】





## General Programming

Working Mode Parameters



Code Programming ON



For all modes



Time length to read a barcode  
(Default 3 seconds.)

【Pro CMD: 99900150】

Code Programming OFF



For Interval Mode Only



Interval Length

【Pro CMD: 99900151】

For Sensor Mode Only



High Sensitivity

【Pro CMD: 99900152】



Low Sensitivity

【Pro CMD: 99900154】



Medium Sensitivity

【Pro CMD: 99900153】



User Sensitivity  
(Level:0 to F)

【Pro CMD: 99900161】

For Auto Mode Only



Disable Reading Same Barcode

【Pro CMD: 99900155】



Restart Timer After a Valid Reading

【Pro CMD: 99900157】



Do Not Restart Timer After a Valid Reading

【Pro CMD: 99900160】



Enable Reading Same Barcode

【Pro CMD: 99900156】





## General Programming

Security Level



Security Level

Code Programming ON



Code Programming OFF



Security Level 1

【Pro CMD: 99900120】



Security Level 3

【Pro CMD: 99900122】



Security Level 2

【Pro CMD: 99900121】



Security Level 4

【Pro CMD: 99900123】





## General Programming

Beeper



Beeper

Code Programming ON



Code Programming OFF



No Beeper Output  
【Pro CMD: 99900130】



Medium Frequency & Medium Volume  
【Pro CMD: 99900135】



\*\* High Frequency & Loud Volume  
【Pro CMD: 99900131】



Medium Frequency & Low Volume  
【Pro CMD: 99900136】



High Frequency & Medium Volume  
【Pro CMD: 99900132】



Low Frequency & Loud Volume  
【Pro CMD: 99900137】



High Frequency & Low Volume  
【Pro CMD: 99900133】



Low Frequency & Medium Volume  
【Pro CMD: 99900140】



Medium Frequency & Loud Volume  
【Pro CMD: 99900134】



Low Frequency & Low Volume  
【Pro CMD: 99900141】





# Query Command

## Introduction

After reading interrelated programming barcodes, the engine will feed information needed back to the Host to achieve the purpose of query.



Code Programming ON



Code Programming OFF



Query all the information of product  
【Pro CMD: 99900300】



Query the hardware version  
【Pro CMD: 99900301】



Query ID  
【Pro CMD: 99900302】



Query Manufacturing Date  
【Pro CMD: 99900303】



Query Factory Name  
【Pro CMD: 99900304】



Query User ID  
【Pro CMD: 99900305】



Query User Date  
【Pro CMD: 99900306】



Query User Name  
【Pro CMD: 99900307】



Query STM32 MCU ID  
【Pro CMD: 99900310】





# Communication Programming

---

## Introduction

Under RS232 connection the engine and the Host use the same communication parameters: baud rate, parity check, data bits select and stop bits select.

The engine also supports virtual keyboard (KBW) and the configuration of KBW also be provided.





## Communication Setup

Serial Port Programming



Code Programming ON



Under RS232 connection, the engine and the Host should set communication baud rate to the same to keep normal communication.

Baud rate is the bits transmitted per second (8 bits per bytes). The engine and the Host must communicate at the same baud rate.

The reader supports baud rate as the following:

Code Programming OFF



\*\* 9600

【Pro CMD: 99902104】



1200

【Pro CMD: 99902101】



2400

【Pro CMD: 99902102】



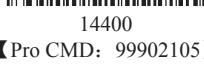
14400

【Pro CMD: 99902105】



4800

【Pro CMD: 99902103】



19200

【Pro CMD: 99902106】



38400

【Pro CMD: 99902107】



57600

【Pro CMD: 99902110】



115200

【Pro CMD: 99902111】





## Communication Programming

Serial Port Programming



Check

Code Programming ON



Code Programming OFF



\*\*No Check

【Pro CMD: 99902104】



Even Check

【Pro CMD: 99902101】



Odd Check

【Pro CMD: 99902102】

---

Stop Digit



\*\* Stop Digit 1

【Pro CMD: 99902131】

---

Flow Controlling



\*\* No Flow Controlling

【Pro CMD: 99902140】



# Communication Programming

KBW Programming



Tools

Code Programming ON



Code Programming OFF



## Keyboard Layout

The keyboard could choose any one of the sixteen layouts which were decided previously.



No.0

【Pro CMD: 99902200】



No.1

【Pro CMD: 99902201】



No.2

【Pro CMD: 99902202】



No.3

【Pro CMD: 99902203】



No.4

【Pro CMD: 99902204】



No.5

【Pro CMD: 99902205】



No.6

【Pro CMD: 99902206】



No.7

【Pro CMD: 99902207】



No.8

【Pro CMD: 99902210】



No.9

【Pro CMD: 99902211】



No.10

【Pro CMD: 99902212】



No.11

【Pro CMD: 99902213】



No.12

【Pro CMD: 99902214】



No.13

【Pro CMD: 99902215】



No.14

【Pro CMD: 99902216】



No.15

【Pro CMD: 99902117】



# Communication Programming



KBW Programming



---

Inter-character Delay

Code Programming ON



Code Programming OFF



Program Inter-character Delay as 0 ~ 150 ms  
【Pro CMD: 99902220】



---

Characters Transformation



Normal  
【Pro CMD: 99902230】



Lower  
【Pro CMD: 999002232】



Upper  
【Pro CMD: 999002231】



Inverse  
【Pro CMD: 99902233】

---

CapsLock



Normal  
【Pro CMD: 99902230】



Lower  
【Pro CMD: 999002232】



Upper  
【Pro CMD: 999002231】



Inverse  
【Pro CMD: 99902233】





# Data Format

## Introduction

1D barcodes could contain digits, letters and symbols, etc. 2D barcodes could contain more data, such as Chinese characters and other multi-byte characters. However, in reality, they do not and should not have enough information we need, such as barcode type, date and time of scan, delimiter, and so on, in order to keep the code short and flexible.

Prefix and Suffix are how to fulfill the needs mentioned above. They can be added, removed, and modified while the original barcode message is still in tact.



### Barcode processing sequences:

1. Intercept barcode message
2. Add Prefix/Suffix
3. Pack
4. Terminate with Stop Suffix and transmit





## Data Format

Prefix Sequences



Tools

Code Programming ON



Code Programming OFF



\*\* CodeID+User Prefix  
【Pro CMD: 99904010】



User Prefix+CodeID  
【Pro CMD: 99904011】





## Data Format

User Prefix



### Disable or Enable User Prefix

User Prefix is added before barcode message. For example, if the user prefix is “AB” and the barcode message is “123”, the Host receives “AB123”.

Code Programming ON



Code Programming OFF



\*\* Disable User Prefix  
【Pro CMD: 99904020】



Enable User Prefix  
【Pro CMD: 99904021】

### Program User Prefix

Enable “Program User Prefix”. Then program user prefix byte(s). To end the prefix, read “Save programming”. The user prefix byte is programmed in its hex values. See example below.

Note: The maximum length for user prefix is 10 bytes.



Program User Prefix  
【Pro CMD: 99904022】

**E**  
*xample*

- 
- Program “CODE” as user prefix (The hex of “CODE” are 0x43/0x4F/0x44/0x45):
1. Read “Code Programming ON”
  2. Read “Program User Prefix”
  3. Read “4,3,4,F,4,4,4,5” in order
  4. Read “Save Programming”
  5. Read “Code Programming OFF” .
  6. Read “Allow User Prefix” to enable above programming. “CODE” will appear to the left of a barcode.
- 





## Data Format

AIM Prefix



Code Programming ON



Code Programming OFF



AIM (Automatic Identification Manufacturers) defines AIM prefix for many standard barcode formats. The engine will add the identifier before the barcodes. And this identifier is the AIM Prefix.



\*\*No AIM Prefix  
【Pro CMD: 99904030】



Full Characters Mode  
【Pro CMD: 99904031】

---

### AIM Prefix definitions

Symbols	AIM ID	Hex
Code128 / UCC/EAN-128	C	43
UPC-E / UPC-A / EAN-8 / EAN-13	E	45
Interleaved 2 OF 5 / China Post25	I	49
Code39	A	41
Codabar	F	46
Code93	G	47





## Data Format

Code ID Prefix



Code Programming ON



Besides AIM prefix, Code ID prefix can be used to denote barcode format and can be customized.

The Code ID prefix MUST be one (1) visible English letter, only.

Code Programming OFF



\*\* No Code ID Prefix

【Pro CMD: 99904040】



Allow Code ID Prefix

【Pro CMD: 99904041】

Load Code ID Factory Default

【Pro CMD: 99904042】

Symbols	Code ID Default	Hex
Code128 / UCC/EAN-128	j	6A
UPC-E / UPC-A	c	63
EAN-8 / EAN-13	d	64
Interleaved 2 OF 5 / China Post25	e	65
Code39	b	62
Codabar	a	61
Code93	i	69



## Data Format

User Suffix



Code Programming ON

Disable or Enable User Suffix



User suffix is appended to the right of barcode message. For example, if user suffix is “AB” , and the barcode message is “123” , The Host receives “123AB” .



\*\*Disable User Suffix  
【Pro CMD: 99904100】



Enable User Suffix  
【Pro CMD: 99904101】

## Program User Suffix

Read “Program User Suffix” . Then program user suffix byte(s). To end the suffix, read “Save programming” . The user suffix byte is programmed in its hex values. See example below.

Note: The maximum length for user suffix is 10 bytes.



Program User Suffix  
【Pro CMD: 99904102】

**E**xample

-----  
Program “CODE” as user suffix (The hex of “CODE” are 0x43, 0x4F, 0x44, and 0x45):

1. Read “Code Programming ON”
  2. Read “Program User Suffix”
  3. Read “4,3,4,F,4,4,4,5” in order
  4. Read “Save Programming”
  5. Read “Code Programming OFF”
  6. Read “Allow User Suffix” to enable above programming. “CODE” will appear to the right of a barcode.
- 





## Data Format

Stop Suffix



Code Programming ON



Disable or Enable Stop Suffix

Code Programming OFF



"Stop Suffix" is the termination for a string of barcode messages. It can not be formatted like other suffix and prefix. It is fixed to the right and the very end of a barcode transmission.

The major difference between "Stop Suffix" and "User Suffix" is that the information and the decoded messages in user suffix could be formatted but couldn't in stop suffix.



\*\*Disable Stop Suffix  
【Pro CMD: 99904110】



Enable Stop Suffix  
【Pro CMD: 99904111】

## Program Stop Suffix

Read "Program Stop Suffix". Then program stop suffix byte(s). To end the suffix, read "Save programming". The stop suffix byte is programmed in its hex values. See example below.

Note: The maximum length for stop suffix is 10 bytes.



Program Stop Suffix  
【Pro CMD: 99904112】

**E**xample

-----  
Program "CODE" as stop suffix (The hex of "CODE" are 0x43, 0x4F, 0x44, and 0x45):

1. Read "Code Programming ON"
  2. Read "Program Stop Suffix"
  3. Read "4,3,4,F,4,4,4,5" in order
  4. Read "Save Programming"
  5. Read "Code Programming OFF"
  6. Read "Allow Stop Suffix" to enable above programming. "CODE" will appear to the right of a barcode.
- 





# Symbols

---

## Introduction

Each type of barcode has its unique attribute. With the programming code, the engine will adjust to the changes of these attributes. Disabling reading of the symbols which do not apply will improve reading performance.

---

## Symbols Available

Barcode Type	Factory Default	Barcode Type	Factory Default
Code 128	Allow Reading	Deutshe 12	Forbid Reading
UCC/EAN-128	Allow Reading	COOP 25 (Japanese Matrix 25)	Forbid Reading
AIM128	Forbid Reading	Matrix 25 (Europe Matrix 25)	Forbid Reading
ISBT128	Forbid Reading	Industrial 25	Forbid Reading
EAN-8	Allow Reading	Standard 25	Forbid Reading
EAN-13	Allow Reading	China Post 25	Forbid Reading
ISSN	Forbid Reading	Code 39	Allow Reading
ISBN	Forbid Reading	Codabar	Allow Reading
UPC-E	Allow Reading	Code 93	Allow Reading
UPC-A	Allow Reading	Code11	Allow Reading
Interleaved 2 of 5	Forbid Reading	Plessey	Allow Reading
ITF6	Forbid Reading	MSI-Plessey	Allow Reading
ITF14	Forbid Reading	RSS	Allow Reading
Deutshe 14	Forbid Reading		





## Symbols

Code 128



Tools

Load Factory Default

Code Programming ON



Code Programming OFF



\*\* Load Code 128 Factory Default  
【Pro CMD: 99910000】

---

Enable/Disable Code 128



\*\* Enable Code 128  
【Pro CMD: 99910002】



Disable Code 128  
【Pro CMD: 99910001】



-----  
When the engine can not read Code 128, please read “Enable Code 128” and try again.  
-----

---

Code 128 Code ID



Code ID Setting  
【Pro CMD: 99910005】

## E xample

Example of setting Code 128 Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read Code 128 Code ID Setting barcode.
3. Read Following Barcodes: “7”, and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





## Symbols

Code 128



Code Programming ON



Code Programming OFF



### Select Message Length

It is used to program the valid reading length of Code 128. The engine will send an error beep, if the decoded data length does not match the valid length.

Code 128 Message Length is defined by “Min. Message Length” and “Max. Message Length” .



Min Message Length (default: 1)

【Pro CMD: 99910003】



Max Message Length (default: 48)

【Pro CMD: 99910004】



-----  
1D bar code Message Length should not exceed 127 bytes. Max Message Length should not be less than Min Message Length.  
-----

### Example

To set Min Message Length of Code 128 to 8 bytes and Max Message Length to 12 bytes, read these programming codes

- 1、 “Code Programming ON”
- 2、 “Select Min Message Length”
- 3、 Digit Code “8” , see Digit Code
- 4、 “Save Programming” , see Digit Code
- 5、 “Select Max Message Length”
- 6、 Digit Code “1”
- 7、 Digit Code “2”
- 8、 “Save Programming”
- 9、 “Code Programming OFF”





## Symbols

Code 128



Check Digit

Code Programming ON



Code Programming OFF



Send Check Digit

【Pro CMD: 99910006】



Do Not Send Check Digit

【Pro CMD: 99910007】



Trans FNC1 to GS

【Pro CMD: 99910010】



Trans FNC1 to ~

【Pro CMD: 99910011】





## Symbols

UCC/EAN-128



Code Programming ON



Load Factory Default



\*\* Load UCC/EAN-128 Factory Default

【Pro CMD: 99910100】

Code Programming OFF



Enable/Disable UCC/EAN-128



\*\* Enable UCC/EAN-128  
【Pro CMD: 99910102】



Disable UCC/EAN-128  
【Pro CMD: 99910101】



When the engine can not read UCC/EAN-128, please read “Enable UCC/EAN-128” and try again.

UCC/EAN-128 Code ID



Code ID Setting  
【Pro CMD: 99910105】

**E**xample

Example of setting UCC/EAN-128 Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read UCC/EAN-128 Code ID Setting barcode.
3. Read Following Barcodes: “7” , and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





## Symbols

UCC/EAN-128



Code Programming ON



### Select Message Length

It is used to program the valid reading length of UCC/EAN-128. The engine will send an error beep, if the decoded data length does not match the valid length.

UCC/EAN-128 Message Length is defined by “Min. Message Length” and “Max. Message Length” .



Min Message Length (default: 1)

【Pro CMD: 99910103】



Max Message Length (default: 48)

【Pro CMD: 99910104】



-----  
1D bar code Message Length should not exceed 127 bytes. Max Message Length should not be less than Min Message Length.  
-----

## Example

To set Min Message Length of UCC/EAN-128 to 8 bytes and Max Message Length to 12 bytes, read these programming codes

- 1、 “Code Programming ON”
- 2、 “Select Min Message Length”
- 3、 Digit Code “8” , see Digit Code
- 4、 “Save Programming” , see Digit Code
- 5、 “Select Max Message Length”
- 6、 Digit Code “1”
- 7、 Digit Code “2”
- 8、 “Save Programming”
- 9、 “Code Programming OFF”





## Symbols

UCC/EAN-128



Code Programming ON

Check Digit



Code Programming OFF



Send Check Digit

【Pro CMD: 99910106】



Do Not Send Check Digit

【Pro CMD: 99910107】



Trans FNC1 to GS

【Pro CMD: 99910110】



Trans FNC1 to ~

【Pro CMD: 99910111】





## Symbols

AIM 128



Code Programming ON

Load Factory Default



\*\* Load AIM 128 Factory Default  
【Pro CMD: 99910200】



Code Programming OFF

Enable/Disable AIM 128



\*\* Enable AIM 128  
【Pro CMD: 99910202】



Disable AIM 128  
【Pro CMD: 99910201】



When the engine can not read AIM 128, please read “Enable AIM 128” and try again.

AIM 128 Code ID



Code ID Setting  
【Pro CMD: 99910205】

**E**xample

Example of setting AIM 128 Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read AIM 128 Code ID Setting barcode.
3. Read Following Barcodes: “7”, and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





## Symbols

AIM 128



Code Programming ON



### Select Message Length

It is used to program the valid reading length of AIM 128. The engine will send an error beep, if the decoded data length does not match the valid length. Code Programming OFF

AIM 128 Message Length is defined by “Min. Message Length” and “Max. Message Length”.



Min Message Length (default: 1)

【Pro CMD: 99910203】



Max Message Length (default: 48)

【Pro CMD: 99910204】



-----  
1D bar code Message Length should not exceed 127 bytes. Max Message Length should not be less than Min Message Length.  
-----

## Example

To set Min Message Length of AIM 128 to 8 bytes and Max Message Length to 12 bytes, read these programming codes

- 1、 “Code Programming ON”
- 2、 “Select Min Message Length”
- 3、 Digit Code “8”, see Digit Code
- 4、“Save Programming”, see Digit Code
- 5、“Select Max Message Length”
- 6、Digit Code “1”
- 7、Digit Code “2”
- 8、“Save Programming”
- 9、“Code Programming OFF”





## Symbols

ISBT 128



Code Programming ON

Load Factory Default



\*\* Load ISBT 128 Factory Default

【Pro CMD: 99910300】



Enable/Disable ISBT 128



\*\* Enable ISBT 128

【Pro CMD: 99910302】



Disable ISBT 128

【Pro CMD: 99910301】



When the engine can not read ISBT 128, please read “Enable ISBT 128” and try again.

ISBT 128 Code ID



Code ID Setting

【Pro CMD: 99910303】

**E**  
*xample*

Example of setting ISBT 128 Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read ISBT 128 Code ID Setting barcode.
3. Read Following Barcodes: “7” , and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





## Symbols

EAN-8



Code Programming ON

Load Factory Default



\*\* Load EAN-8 Factory Default  
【Pro CMD: 99910400】

Enable/Disable EAN-8



\*\* Enable EAN-8  
【Pro CMD: 9991402】



Disable EAN-8  
【Pro CMD: 99910401】



When the engine can not read EAN-8, please read “Enable EAN-8” and try again.

EAN-8 Code ID



Code ID Setting  
【Pro CMD: 99910416】

**E**  
*example*

Example of setting EAN-8 Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read EAN-8 Code ID Setting barcode.
3. Read Following Barcodes: “7” , and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





## Symbols

EAN-8



Code Programming ON



Code Programming OFF



### 2 Digits Addenda Code

2 Digits Addenda Code is the one to the right of an ordinary code.



\*\* Disable 2 Digits Addenda Code  
【Pro CMD: 99910405】



Only Read With 2 digits Addenda Code  
【Pro CMD: 99910407】



Enable 2 Digits Addenda Code  
【Pro CMD: 99910406】

### 5 Digits Addenda Code

5 Digits Addenda Code is the one to the right of an ordinary code.



\*\* Disable 5 Digits Addenda Code  
【Pro CMD: 99910410】



Only Read With 5 digits Addenda Code  
【Pro CMD: 99910412】



Enable 5 Digits Addenda Code  
【Pro CMD: 99910411】



“ Enable 2 Digits Addenda Code “ — read an ordinary code and 2 digits Addenda Code.  
“ Disable 2 Digits Addenda Code “ — read an ordinary code only, and ignore 2 digits Addenda Code.  
“ Only Read With 2 digits Addenda Code “ — read 2 digits Addenda Code and only read code with 2 digits Addenda Code.



## Symbols

EAN-8



Code Programming ON



Code Programming OFF



EAN-8 expand to EAN-13

“ Do Not Expand to EAN-13 “ — keep original type and digits, do not expand.

“Expand to EAN-13 by Adding Leading 0s “ — expand to EAN-13 but keep code type.

“ Expand Message and Convert to EAN-13 “ — expand code digits and convert code type.



\*\* Do Not Expand to EAN-13  
【Pro CMD: 99910413】



Expand Message and Convert to EAN-13  
【Pro CMD: 99910415】



Expand to EAN-13 by Adding Leading 0s  
【Pro CMD: 99910414】

---

## Check Digit

EAN-8 is fixed 8 digits barcode and the last digit is check digit. Check digit is a value calculated from the first seven digits. It is used for checking if the first seven digits are right.



\*\* Transmit Check  
【Pro CMD: 99910404】



Do Not Transmit Check  
【Pro CMD: 99910403】





## Symbols

EAN-13



Load Factory Default

Code Programming ON



Code Programming OFF



\*\* Load EAN-13 Factory Default

【Pro CMD: 99910500】

---

Disable/Enable EAN-13



\*\* Enable EAN-13

【Pro CMD: 99910502】



Disable EAN-13

【Pro CMD: 99910501】



When the engine can not read EAN-13, please read “Enable EAN-13” and try again.





## Symbols

EAN-13



Code Programming ON

Check Digit



EAN-13 is fixed 13 digits barcode and the last digit is check digit. Check digit is a value calculated from the first twelve digits. It is used for checking if the first twelve digits are right.



\*\* Transmit Check

【Pro CMD: 99910504】



Do Not Transmit Check

【Pro CMD: 99910503】

---

EAN-13 Code ID



Code ID Setting

【Pro CMD: 99910513】

**E**  
*xample*

Example of setting EAN-13 Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read EAN-13 Code ID Setting barcode.
3. Read Following Barcodes: “7”, and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





## Symbols

EAN-13



Code Programming ON



Code Programming OFF



### 2 Digits Addenda Code

2 Digits Addenda Code is the one to the right of an ordinary code.



\*\* Disable 2 Digits Addenda Code  
【Pro CMD: 99910505】



Only Read With 2 digits Addenda Code  
【Pro CMD: 99910507】



Enable 2 Digits Addenda Code  
【Pro CMD: 99910506】

### 5 Digits Addenda Code

5 Digits Addenda Code is the one to the right of an ordinary code.



\*\* Disable 5 Digits Addenda Code  
【Pro CMD: 99910510】



Only Read With 5 digits Addenda Code  
【Pro CMD: 99910512】



Enable 5 Digits Addenda Code  
【Pro CMD: 99910511】



-----  
“ Enable 2 Digits Addenda Code “ — read an ordinary code and 2 digits Addenda Code.  
“ Disable 2 Digits Addenda Code “ — read an ordinary code only, and ignore 2 digits Addenda Code.  
“ Only Read With 2 digits Addenda Code “ — read 2 digits Addenda Code and only read code with 2 digits Addenda Code.  
-----





## Symbols

ISSN



Code Programming ON

Load Factory Default



Code Programming OFF



\*\* Load ISSN Factory Default  
【Pro CMD: 99910600】

Enable/Disable ISSN



\*\* Enable ISSN  
【Pro CMD: 99910602】



Disable ISSN  
【Pro CMD: 99910601】



-----  
When the engine can not read ISSN, please read “Enable ISSN” and try again.  
-----

ISSN Code ID



Code ID Setting  
【Pro CMD: 99910603】

**E**  
*example*

- Example of setting ISSN Code ID to “p” (0x70)
1. Read Enable Code Programming barcode.
  2. Read ISSN Code ID Setting barcode.
  3. Read Following Barcodes: “7”, and “0”
  4. Read Save barcode
  5. Read Disable Code Programming barcode.





## Symbols

ISBN



Code Programming ON

Load Factory Default



Code Programming OFF



\*\* Load ISBN Factory Default  
【Pro CMD: 99910700】

Enable/Disable ISBN



\*\* Enable ISBN  
【Pro CMD: 99910702】



Disable ISBN  
【Pro CMD: 99910701】



-----  
When the engine can not read ISBN, please read “Enable ISBN” and try again.





## Symbols

ISBN



Code Programming ON

ISBN Digits



Code Programming OFF



Use 13 Digits

【Pro CMD: 99910704】



\*\* Use 10 Digits

【Pro CMD: 99910703】

---

ISBN Code ID



Code ID Setting

【Pro CMD: 99910705】

**E**  
*xample*

Example of setting ISBN Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read ISBN Code ID Setting barcode.
3. Read Following Barcodes: “7”, and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





## Symbols

UPC-E



Load Factory Default

Code Programming ON



Code Programming OFF



\*\* Load UPC-E Factory Default

【Pro CMD: 99911000】

Disable/Enable UPC-E



\*\* Enable UPC-E

【Pro CMD: 99911002】



Disable UPC-E

【Pro CMD: 99911001】



When the engine can not read UPC-E, please read “Enable UPC-E” and try again.





## Symbols

UPC-E



Code Programming ON

Check Digit



UPC-E is fixed 8 digits barcode and the last digit is check digit. Check digit is Code Programming OFF a value calculated from the first seven digits. It is used for checking if the first seven digits are right.



\*\* Transmit Check  
【Pro CMD: 99911004】



Do Not Transmit Check  
【Pro CMD: 99911003】

---

UPC-E Code ID



Code ID Setting  
【Pro CMD: 99911020】

**E**  
*xample*

Example of setting UPC-E Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read UPC-E Code ID Setting barcode.
3. Read Following Barcodes: “7” , and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





## Symbols

UPC-E



Code Programming ON



Code Programming OFF



### 2 Digits Addenda Code

2 Digits Addenda Code is the one to the right of an ordinary code.



\*\* Disable 2 Digits Addenda  
【Pro CMD: 99911005】



Only Read With 2 digits Addenda Code  
【Pro CMD: 99911007】



Enable 2 Digits Addenda Code  
【Pro CMD: 99911006】

### 5 Digits Addenda Code

5 Digits Addenda Code is the one to the right of an ordinary code.



\*\* Disable 5 Digits Addenda Code  
【Pro CMD: 99911010】



Only Read With 5 digits Addenda Code  
【Pro CMD: 99911012】



Enable 5 Digits Addenda Code  
【Pro CMD: 99911011】

- 
- “ Enable 2 Digits Addenda Code “ — read an ordinary code and 2 digits Addenda Code.
  - “ Disable 2 Digits Addenda Code “ — read an ordinary code only, and ignore 2 digits Addenda Code.
  - “ Only Read With 2 digits Addenda Code “ — read 2 digits Addenda Code and only read code with 2 digits Addenda Code.
- 





## Symbols

UPC-E



Tools

Transmit Default “0”

The first byte of UPC-E is default to “0” .



\*\* Do Not Transmit “0”  
【Pro CMD: 99911013】

Code Programming ON

Code Programming OFF



Transmit “0”  
【Pro CMD: 99911014】

---

UPC-E Expand to UPC-A

“ Do Not Expand “ — keep original type and digits, do not expand.

“Expand to UPC-A “ — expand to UPC-A but keep code type.

“ Expand Message and Convert to UPC-A “ — expand code digits and convert code type.



\*\*Do Not Expand  
【Pro CMD: 99911015】



Expand Message and Convert to UPC-A  
【Pro CMD: 99911017】



Expand to UPC-A  
【Pro CMD: 99911016】





## Symbols

UPC-A

Tools

Load Factory Default

Code Programming ON



Code Programming OFF



\*\* Load UPC-A Factory Default  
【Pro CMD: 99911100】

---

Disable/Enable UPC-A



\*\* Enable UPC-A  
【Pro CMD: 99911102】



Disable UPC-A  
【Pro CMD: 99911101】



-----  
When the engine can not read UPC-A, please read “Enable UPC-A” and try again.

---

UPC-A Code ID



Code ID Setting  
【Pro CMD: 99911115】

**E**  
*example*

Example of setting UPC-A Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read UPC-A Code ID Setting barcode.
3. Read Following Barcodes: “7” , and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





## Symbols

UPC-A



Code Programming ON

Check Digit



UPC-A is fixed 13 digits barcode and the last digit is Check Digit. Check digit is a value calculated from the first twelve digits. It is used for checking if the first twelve digits are right.



\*\*Transmit Check  
【Pro CMD: 99911104】



Do Not Transmit Check  
【Pro CMD: 99911103】

---

Transmit Default “0”

The first byte of UPC-A is default to “0” .



\*\* Do Not Transmit “0”  
【Pro CMD: 99911113】



Transmit “0”  
【Pro CMD: 99911114】





## Symbols

UPC-A



Code Programming ON



Code Programming OFF



### 2 Digits Addenda Code

2 Digits Addenda Code is the one to the right of an ordinary code.



\*\* Disable 2 Digits Addenda Code

【Pro CMD: 99911105】



Only Read With 2 digits Addenda Code

【Pro CMD: 99911107】



Enable 2 Digits Addenda Code

【Pro CMD: 99911106】

### 5 Digits Addenda Code

5 Digits Addenda Code is the one to the right of an ordinary code.



\*\* Disable 5 Digits Addenda Code

【Pro CMD: 99911110】



Only Read With 5 digits Addenda Code

【Pro CMD: 99911112】



Enable 5 Digits Addenda Code

【Pro CMD: 99911111】

- 
- “ Enable 2 Digits Addenda Code “ — read an ordinary code and 2 digits Addenda Code.
  - “ Disable 2 Digits Addenda Code “ — read an ordinary code only, and ignore 2 digits Addenda Code.
  - “ Only Read With 2 digits Addenda Code “ — read 2 digits Addenda Code and only read code with 2 digits Addenda Code.
- 





## Symbols

Interleaved 2 of 5



Code Programming ON



Load Factory Default



\*\* Load Interleaved 2 of 5 Factory Default  
【Pro CMD: 99911200】

Code Programming OFF



Disable/Enable Interleaved 2 of 5



\*\* Enable Interleaved 2 of 5  
【Pro CMD: 99911202】



Disable Interleaved 2 of 5  
【Pro CMD: 99911201】



When the engine can not read Interleaved 2 of 5, please read “Enable Interleaved 2 of 5” and try again

Interleaved 2 of 5 Code ID



Code ID Setting  
【Pro CMD: 99911210】

## Example

Example of setting Interleaved 2 of 5 Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read Interleaved 2 of 5 Code ID Setting barcode.
3. Read Following Barcodes: “7”, and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





## Symbols

Interleaved 2 of 5



Code Programming ON



### Check Digit

Interleaved 2 of 5 may include Check Digit (not compulsory) following its barcode messages. If included, it must be the last digit. It verifies the barcode message.

» “NO Check, Transmit All” means to read without check and transmit all bytes including barcode message and Check digit.

» “Check, Do Not Transmit Check Digit” means to read and check. If verification is successful, transmit barcode message; if not, engine sends an error beep.

» “Check, Transmit All” means to read and check. If verification is successful, transmit all messages; if not, engine sends an error beep.



\*\* “NO Check, Transmit All”

【Pro CMD: 99911203】



Check, Do Not Transmit Check Digit

【Pro CMD: 99911204】



Check, Transmit All

【Pro CMD: 99911205】



When “Check, Do Not Transmit Check digit” is enabled and barcode message length minus one is less than Min Message Length, it will lead to error beep.

E.g.: Reading a 4-byte (include check Digit) Interleaved 2 of 5 with the Min Message Length being 4 bytes and “Check, Do Not Transmit Check digit” enabled leads to error beep.



## Symbols

Interleaved 2 of 5



Code Programming OFF

Select Message Length



It is used to program the valid reading length of Interleaved 2 of 5. The engine will send an error beep, if the decoded data length does not match the valid length.

Interleaved 2 of 5 Message Length is defined by “Min. Message Length” and “Max. Message Length”



Min Message Length (default: 1)

【Pro CMD: 99911206】



Max Message Length (default: 48)

【Pro CMD: 99911207】



-----  
1D bar code Message Length should not exceed 127 bytes.

Max Message Length should not be less than Min Message Length.  
-----

## Example

To set Min Message Length of Interleaved 2 of 5 as 8 bytes, and Max Message length as 12 bytes, read these programming codes:

1. “Code Programming ON”
2. “Select Min Message Length”
3. Digit Code “8”, see Digit Code Appendix (Pxxx)
4. “Save Programming”, see Digit Code Appendix (Pxxx)
5. “Select Max Message Length”
6. Digit Code “1”
7. Digit Code “2”
8. “Save Programming”
9. “Code Programming OFF”





## Symbols

ITF-6



Code Programming ON



Code Programming OFF



ITF-6 is a fixed length 6 bytes Interleaved 2 of 5 barcode with check digit.  
When enabled, ITF-6 precedes 6-byte Interleaved 2 of 5 barcode.



\*\* Load ITF-6 Factory Default  
【Pro CMD: 99911300】



\*\*Disable ITF-6 User Selection  
【Pro CMD: 99911301】



Enable ITF-6, Do Not Transmit Check Digit  
【Pro CMD: 99911302】



Enable ITF-6, Transmit Check Digit  
【Pro CMD: 99911303】



For instance, when ITF-6 is enabled and Interleaved 2 of 5 is disabled, the ITF-6 and 6 bytes Interleaved 2 of 5 with check digit can be read, but other Interleaved 2 of 5 can not.

ITF-6 Code ID



Code ID Setting  
【Pro CMD: 99911304】

**E**xample

- Example of setting ITF-6 Code ID to “p” (0x70)
1. Read Enable Code Programming barcode.
  2. Read ITF-6 Code ID Setting barcode.
  3. Read Following Barcodes: “7” , and “0”
  4. Read Save barcode
  5. Read Disable Code Programming barcode.



## Symbols

ITF-14



Code Programming ON

ITF-14 is a fixed length of 14 bytes Interleaved 2 of 5 barcode with Check digit. By factory default, it is disabled.

When enabled, ITF-14 precedes 14-byte Interleaved 2 of 5 barcode.



\*\* Load ITF-14 Factory Default  
【Pro CMD: 99911400】



\*\*Disable ITF-14  
【Pro CMD: 99911401】



Enable ITF-14, Do Not Transmit Check Digit  
【Pro CMD: 99911402】



Enable ITF-14, Transmit Check Digit  
【Pro CMD: 99911403】



For instance, when ITF-14 is enabled and Interleaved 2 of 5 is disabled, the ITF-14 and 14 bytes Interleaved 2 of 5 with check digit can be read, but other Interleaved 2 of 5 can not.

ITF-14 Code ID



Code ID Setting  
【Pro CMD: 99911404】

**E**xample

Example of setting ITF-14 Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read ITF-14 Code ID Setting barcode.
3. Read Following Barcodes: “7”, and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





## Symbols

Deutshe14



Code Programming ON



Load Factory Default



\*\* Load Deutshe14 Factory Default  
【Pro CMD: 99911500】

Code Programming OFF



Disable/Enable Deutshe14



\*\* Enable Deutshe14, Do Not Transmit Check Digit  
【Pro CMD: 99911502】



Disable Deutshe14  
【Pro CMD: 99911501】



\*\* Enable Deutshe14, Transmit Check Digit  
【Pro CMD: 99911503】



When the engine can not read Deutshe14, please read “Enable Deutshe14” and try again

Deutshe14 Code ID



Code ID Setting  
【Pro CMD: 99911504】

**E**  
*example*

Example of setting Deutshe14 Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read Deutshe14 Code ID Setting barcode.
3. Read Following Barcodes: “7”, and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





## Symbols

Deutshe12



Code Programming ON



Load Factory Default



\*\* Load Deutshe12 Factory Default  
【Pro CMD: 99911600】

Code Programming OFF



Disable/Enable Deutshe12



\*\* Enable Deutshe12, Do Not Transmit Check Digit  
【Pro CMD: 99911602】



Disable Deutshe12  
【Pro CMD: 99911601】



\*\* Enable Deutshe12, Transmit Check Digit  
【Pro CMD: 99911603】



When the engine can not read Deutshe12, please read “Enable Deutshe12” and try again

Deutshe12 Code ID



Code ID Setting  
【Pro CMD: 99911604】

**E**  
*example*

Example of setting Deutshe12 Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read Deutshe12 Code ID Setting barcode.
3. Read Following Barcodes: “7”, and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





## Symbols

COOP25 (Japanese Matrix 25)



Load Factory Default

Code Programming ON



Code Programming OFF



\*\* Load COOP25 Factory Default  
【Pro CMD: 99911700】

Enable/ Disable COOP25



\*\*Enable COOP25  
【Pro CMD: 99911702】



Disable COOP25  
【Pro CMD: 99911701】



-----  
When the engine can not read COOP25, please read “Enable COOP25” and try again.  
-----

COOP25 (Japanese Matrix 25) Code ID



Code ID Setting  
【Pro CMD: 99911710】

**E**xample

Example of setting COOP25 (Japanese Matrix 25) Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read COOP25 (Japanese Matrix 25) Code ID Setting barcode.
3. Read Following Barcodes: “7”, and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





## Symbols

COOP25 (Japanese Matrix 25)



Code Programming ON



### Check Digit

COOP25 may include Check Digit (not compulsory) following its barcode messages. If included, it must be the last digit. It verifies the barcode message.

Code Programming OFF



» “NO Check, Transmit All” means to read without check and transmit all bytes including barcode message and Check Digit.

» “Check, Do Not Transmit Check Digit” means to read and check. If verification is successful, transmits barcode message; if not, engine sends an error beep.

» “Check, Transmit All” means to read and check. If verification is successful, transmits all messages; if not, engine sends an error beep.



\*\* NO Check, Transmit All  
【Pro CMD: 99911703】



Check, Transmit All  
【Pro CMD: 99911704】



Check, Do Not Transmit Check Digit  
【Pro CMD: 99911705】



-----  
When “Check, Do Not Transmit Check Digit” is enabled and barcode message length minus one is less than Min Message Length, it will lead to error beep.

E.g.: Reading a 4-byte (include Check Digit) COOP25 with the Min Message Length being 4 bytes and “Check, Do Not Transmit Check Digit” enabled leads to error beep.  
-----





## Symbols

COOP25 (Japanese Matrix 25)



Code Programming ON



### Select Message Length

It is used to program the valid reading length of COOP25. The engine will send an error beep, if the decoded data length does not match the valid length. COOP25 Message Length is defined by “Min. Message Length” and “Max. Message Length”.

Code Programming OFF



Min Message Length (default: 1)

【Pro CMD: 99911706】



Max Message Length (default: 48)

【Pro CMD: 99911707】



-----  
1D bar code Message Length should not exceed 127 bytes.

Max Message Length should not be less than Min Message Length.  
-----

## Example

To set Min Message Length of COOP25 to 8 bytes and the Max Message Length to 12 bytes. Read these programming code:

1. “Code Programming ON”
2. “Select Min Message Length”
3. Digit Code “8”, see Digit Code (Appendix Pxxx)
4. “Save Programming”, see Digit Code (Appendix Pxxx)
5. “Select Max Message Length”
6. Digit Code “1”
7. Digit Code “2”
8. “Save Programming”
9. “Code Programming OFF”



## Symbols

Matrix 25( Europe Matrix 25)



Code Programming ON

Load Factory Default



Code Programming OFF



\*\* Load Matrix 25 Factory Default  
【Pro CMD: 99912000】

Enable/ Disable Matrix 25



\*\*Enable Matrix 25  
【Pro CMD: 99912002】



Disable Matrix 25  
【Pro CMD: 99912001】



-----  
When the engine can not read Matrix 25, please read “Enable Matrix 25” and try again.  
-----

Matrix 25 Code ID



Code ID Setting  
【Pro CMD: 99912010】

**E**xample

Example of setting Matrix 25 Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read Matrix 25 Code ID Setting barcode.
3. Read Following Barcodes: “7” , and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





## Symbols

Matrix 25( Europe Matrix 25)



Code Programming ON



### Check Digit

Matrix 25 may include Check Digit (not compulsory) following its barcode messages. If included, it must be the last digit. It verifies the barcode message.

» “NO Check, Transmit All” means to read without check and transmit all bytes including barcode message and Check Digit.

» “Check, Do Not Transmit Check Digit” means to read and check. If verification is successful, transmits barcode message; if not, engine sends an error beep.

» “Check, Transmit All” means to read and check. If verification is successful, transmits all messages; if not, engine sends an error beep.

Code Programming OFF



\*\* NO Check, Transmit All  
【Pro CMD: 99912003】



Check, Transmit All  
【Pro CMD: 99912004】



Check, Do Not Transmit Check Digit  
【Pro CMD: 99912005】



-----  
When “Check, Do Not Transmit Check Digit” is enabled and barcode message length minus one is less than Min Message Length, it will lead to error beep.  
E.g.: Reading a 4-byte (include Check Digit) Matrix 25 with the Min Message Length being 4 bytes and “Check, Do Not Transmit Check Digit” enabled leads to error beep.  
-----





## Symbols

Matrix 25( Europe Matrix 25)



Code Programming ON



Select Message Length

It is used to program the valid reading length of Matrix 25. The engine will send an error beep, if the decoded data length does not match the valid length.

Matrix 25 Message Length is defined by “Min. Message Length” and “Max. Message Length” .

Code Programming OFF



Min Message Length (default: 1)

【Pro CMD: 99912006】



Max Message Length (default: 48)

【Pro CMD: 99912007】



1D bar code Message Length should not exceed 127 bytes.

Max Message Length should not be less than Min Message Length.

## Example

To set Min Message Length of Matrix 25 to 8 bytes and the Max Message Length to 12 bytes. Read these programming code:

1. “Code Programming ON”
2. “Select Min Message Length”
3. Digit Code “8”, see Digit Code (Appendix Pxxx)
4. “Save Programming”, see Digit Code (Appendix Pxxx)
5. “Select Max Message Length”
6. Digit Code “1”
7. Digit Code “2”
8. “Save Programming”
9. “Code Programming OFF”



## Symbols

Industrial 25



Load Factory Default

Code Programming ON



Code Programming OFF



\*\* Load Industrial 25 Factory Default  
【Pro CMD: 99912100】

Enable/ Disable Industrial 25



\*\*Enable Industrial 25  
【Pro CMD: 99912102】



Disable Industrial 25  
【Pro CMD: 99912101】



When the engine can not read Industrial 25, please read “Enable Industrial 25” and try again.

Industrial 25 Code ID



Code ID Setting  
【Pro CMD: 99912110】

**E**xample

Example of setting Industrial 25 Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read Industrial 25 Code ID Setting barcode.
3. Read Following Barcodes: “7”, and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





# Symbols

Industrial 25



Code Programming ON



Code Programming OFF



## Check Digit

Industrial 25 may include Check Digit (not compulsory) following its barcode messages. If included, it must be the last digit. It verifies the barcode message.

» “NO Check, Transmit All” means to read without check and transmit all bytes including barcode message and Check Digit.

» “Check, Do Not Transmit Check Digit” means to read and check. If verification is successful, transmits barcode message; if not, engine sends an error beep.

» “Check, Transmit All” means to read and check. If verification is successful, transmits all messages; if not, engine sends an error beep.



\*\* NO Check, Transmit All  
【Pro CMD: 99912103】



Check, Transmit All  
【Pro CMD: 99912104】



Check, Do Not Transmit Check Digit  
【Pro CMD: 99912105】



-----  
When “Check, Do Not Transmit Check Digit” is enabled and barcode message length minus one is less than Min Message Length, it will lead to error beep.  
E.g.: Reading a 4-byte (include Check Digit) Industrial 25 with the Min Message Length being 4 bytes and “Check, Do Not Transmit Check Digit” enabled leads to error beep.  
-----





# Symbols

Industrial 25



Code Programming ON



Select Message Length

It is used to program the valid reading length of Industrial 25. The engine will send an error beep, if the decoded data length does not match the valid length.

Industrial 25 Message Length is defined by “Min. Message Length” and “Max. Message Length” .

Code Programming OFF



Min Message Length (default: 1)

【Pro CMD: 99912106】



Max Message Length (default: 48)

【Pro CMD: 99912107】



-----  
1D bar code Message Length should not exceed 127 bytes.

Max Message Length should not be less than Min Message Length.

-----

## Example

To set Min Message Length of Industrial 25 to 8 bytes and the Max Message Length to 12 bytes. Read these programming code:

1. “Code Programming ON”
2. “Select Min Message Length”
3. Digit Code “8”, see Digit Code (Appendix Pxxx)
4. “Save Programming”, see Digit Code (Appendix Pxxx)
5. “Select Max Message Length”
6. Digit Code “1”
7. Digit Code “2”
8. “Save Programming”
9. “Code Programming OFF”



## Symbols

Standard 25



Code Programming ON

Load Factory Default



Code Programming OFF



\*\* Load Standard 25 Factory Default

【Pro CMD: 99912200】

---

Enable/ Disable Standard 25



\*\*Enable Standard 25

【Pro CMD: 99912202】



Disable Standard 25

【Pro CMD: 99912201】



When the engine can not read Standard 25, please read “Enable Standard 25” and try again.

---

---

Standard 25 Code ID



Code ID Setting

【Pro CMD: 99912210】



Example of setting Standard 25 Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read Standard 25 Code ID Setting barcode.
3. Read Following Barcodes: “7”, and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





# Symbols

Standard 25



Code Programming ON



Check Digit

Code Programming OFF



Standard 25 may include Check Digit (not compulsory) following its barcode messages. If included, it must be the last digit. It verifies the barcode message.

» “NO Check, Transmit All” means to read without check and transmit all bytes including barcode message and Check Digit.

» “Check, Do Not Transmit Check Digit” means to read and check. If verification is successful, transmits barcode message; if not, engine sends an error beep.

» “Check, Transmit All” means to read and check. If verification is successful, transmits all messages; if not, engine sends an error beep.



\*\* NO Check, Transmit All  
【Pro CMD: 99912203】



Check, Transmit All  
【Pro CMD: 99912204】



Check, Do Not Transmit Check Digit  
【Pro CMD: 99912205】



-----  
When “Check, Do Not Transmit Check Digit” is enabled and barcode message length minus one is less than Min Message Length, it will lead to error beep.  
E.g.: Reading a 4-byte (include Check Digit) Standard 25 with the Min Message Length being 4 bytes and “Check, Do Not Transmit Check Digit” enabled leads to error beep.  
-----



# Symbols

Standard 25



Code Programming ON



Select Message Length

It is used to program the valid reading length of Standard 25. The engine will send an error beep, if the decoded data length does not match the valid length.

Standard 25 Message Length is defined by “Min. Message Length” and “Max. Message Length” .

Code Programming OFF



Min Message Length (default: 1)

【Pro CMD: 99912206】



Max Message Length (default: 48)

【Pro CMD: 99912207】



-----  
1D bar code Message Length should not exceed 127 bytes.

Max Message Length should not be less than Min Message Length.

-----

## Example

To set Min Message Length of Standard 25 to 8 bytes and the Max Message Length to 12 bytes. Read these programming code:

1. “Code Programming ON”
2. “Select Min Message Length”
3. Digit Code “8”, see Digit Code (Appendix Pxxx)
4. “Save Programming”, see Digit Code (Appendix Pxxx)
5. “Select Max Message Length”
6. Digit Code “1”
7. Digit Code “2”
8. “Save Programming”
9. “Code Programming OFF”



## Symbols

Code 39



Code Programming ON

Load Factory Default



Code Programming OFF



\*\* Load Code 39 Factory Default  
【Pro CMD: 99912400】

---

Enable/Disable Code 39



\*\* Enable Code 39  
【Pro CMD: 99912402】



Disable Code 39  
【Pro CMD: 99912401】



-----  
When the engine can not read Code 39, please read “Enable Code 39” and try again

---

Code 39 Code ID



Code ID Setting  
【Pro CMD: 99912414】

**E**  
*xample*

Example of setting Code 39 Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read Code 39 Code ID Setting barcode.
3. Read Following Barcodes: “7”, and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





# Symbols

Code 39



Code Programming ON



Code Programming OFF



## Check Digit

Code 39 may include Check Digit (not compulsory) following its barcode message. It verifies the barcode message.

» "NO Check, Transmit All" means to read without check and transmit all bytes including barcode message and Check Digit.

» "Check, Do Not Transmit Check Digit" means to read and check. If verification is successful, transmits barcode message; if not, engine sends an error beep.

» "Check, Transmit All" means to read and check. If verification is successful, transmits all messages; if not, engine sends an error beep.



\*\* NO Check, Transmit All  
【Pro CMD: 99912403】



Check, Transmit All  
【Pro CMD: 99912405】

Check, Do not transmit Check Digit  
【Pro CMD: 99912404】



-----  
When "Check, Do not Transmit Check digit" is enabled and barcode message length minus one is less than Min Message Length, it will lead to error beep.  
E.g.: Reading a 4-byte (include check byte) Code 39 with the Min Message Length being 4 bytes and "Check, Do not transmit Check Digit" enabled leads to error beep.  
-----



## Symbols

Code 39



Code Programming ON

Transmit Start & Stop Character

Code 39 has one "\*" before and another after digits as Start & Stop Character.  
Transmission of "\*" can be selected.

Code Programming OFF



\*\*Transmit Both "\*"  
【Pro CMD: 99912407】



Transmit Neither "\*"  
【Pro CMD: 99912406】

---

Decode ASCII

Code 39 can include full ASCII characters. For factory default, the engine only decodes part of them.  
Read "Enable Full ASCII decode" to decode full ASCII characters.



\*\*Partial ASCII Decode  
【Pro CMD: 99912410】



Full ASCII Decode  
【Pro CMD: 99912411】





## Symbols

Code 39



Code Programming ON



Select Message Length

Code 39 Message Length is defined by “Min. Message Length” and “Max. Message Length”. It is used to program the valid reading length of Code 39. The engine will send an error beep, if the decoded data length does not match the valid length.

Code Programming OFF



Min Message Length (default: 1)

【Pro CMD: 99912412】



Max Message Length (default: 48)

【Pro CMD: 99912413】



-----  
1D bar code Message Length should not exceed 127 bytes.

Max Message Length should not be less than Min Message Length.  
-----

## Example

To set Min Message Length of Code 39 to 8 bytes, and Max Message Length to 12 bytes, read these programming codes:

1. “Code Programming ON”
2. “Select Min Message Length”
3. Digit Code “8”, see Digit Code (Appendix Pxxx)
4. “Save Programming”, see Digit Code (Appendix Pxxx)
5. “Select Max Message Length”
6. Digit Code “1”
7. Digit Code “2”
8. “Save Programming”
9. “Code Programming OFF”



## Symbols

Codabar



Code Programming ON

Load Factory Default



Code Programming OFF



\*\* Load Codabar Factory Default  
【Pro CMD: 99912500】

---

Enable/Disable Codabar



\*\* Enable Codabar  
【Pro CMD: 99912502】



Disable Codabar  
【Pro CMD: 99912501】



-----  
When the engine can not read Codabar, please read "Enable Codabar" and try again.  
-----

---

Codabar Code ID



Code ID Setting  
【Pro CMD: 99912516】

**E**  
*example*

- Example of setting Codabar Code ID to "p" (0x70)
1. Read Enable Code Programming barcode.
  2. Read Codabar Code ID Setting barcode.
  3. Read Following Barcodes: "7", and "0"
  4. Read Save barcode
  5. Read Disable Code Programming barcode.





## Symbols

Codabar



Code Programming ON



Code Programming OFF



### Check Digit

Codabar may include Check Digit (not compulsory) following its barcode message. It verifies the barcode message.

» "NO Check, Transmit All" means to read without check and transmit all bytes including barcode message and Check Digit.

» "Check, Do Not Transmit Check Digit" means to read and check. If verification is successful, transmits barcode message; if not, engine sends an error beep.

» "Check, Transmit All" means to read and check. If verification is successful, transmits all messages; if not, engine sends an error beep.



\*\* NO Check, Transmit All  
【Pro CMD: 99912503】



Check, Transmit All  
【Pro CMD: 99912504】

Check, Do not transmit Check Digit  
【Pro CMD: 99912505】



When "Check, Do not Transmit Check digit" is enabled and barcode message length minus one is less than Min Message Length, it will lead to error beep.

E.g.: Reading a 4-byte (include check byte) Codabar with the Min Message Length being 4 bytes and "Check, Do not transmit Check Digit" enabled leads to error beep.



## Symbols

Codabar



Code Programming ON

Transmit Start & Stop Character



Code Programming OFF



Do Not Transmit Both Start & Stop Character

【Pro CMD: 99912506】



\*\*Transmit Both Start & Stop Character

【Pro CMD: 99912507】



\*\* Use ABCD/ABCD As Start & Stop Character

【Pro CMD: 99912510】



Use ABCD/TN\*E As Start & Stop Character

【Pro CMD: 99912511】



Use abcd/abcd As Start & Stop Character

【Pro CMD: 99912512】



Use abcd/tn\*e As Start & Stop Character

【Pro CMD: 99912513】





## Symbols

Codabar



Code Programming ON



Select Message Length

Codabar Message Length is defined by “Min. Message Length” and “Max. Message Length”. It is used to program the valid reading length of Codabar. The engine will send an error beep, if the decoded data length does not match the valid length.

Code Programming OFF



Min Message Length (default: 1)

【Pro CMD: 99912514】



Max Message Length (default: 48)

【Pro CMD: 99912515】



-----  
1D bar code Message Length should not exceed 127 bytes.

Max Message Length should not be less than Min Message Length.  
-----

## Example

To set Min Message Length of Codabar to 8 bytes, and Max Message Length to 12 bytes, read these programming codes:

1. “Code Programming ON”
2. “Select Min Message Length”
3. Digit Code “8”, see Digit Code (Appendix Pxxx)
4. “Save Programming”, see Digit Code (Appendix Pxxx)
5. “Select Max Message Length”
6. Digit Code “1”
7. Digit Code “2”
8. “Save Programming”
9. “Code Programming OFF”



## Symbols

Code 93



Code Programming ON

Load Factory Default



Code Programming OFF



\*\* Load Code 93 Factory Default  
【Pro CMD: 99912600】

---

Enable /Disable Code 93



\*\*Enable Code 93  
【Pro CMD: 99912602】



Disable Code 93  
【Pro CMD: 99912601】



-----  
When the engine can not read Code 93, please read “Enable Code 93” and try again.

-----

---

Code 93 Code ID



Code ID Setting  
【Pro CMD: 99912610】

**E**xample

- Example of setting Code 93 Code ID to “p” (0x70)
1. Read Enable Code Programming barcode.
  2. Read Code 93 Code ID Setting barcode.
  3. Read Following Barcodes: “7” , and “0”
  4. Read Save barcode
  5. Read Disable Code Programming barcode.





## Symbols

Code 93



Code Programming ON



Code Programming OFF



### Check Digit

Code 93 may include Check Digit (not compulsory) following its barcode message. It verifies the barcode message.

» "NO Check, Transmit All" means to read without check and transmit all bytes including barcode message and Check Digit.

» "Check, Do Not Transmit Check Digit" means to read and check. If verification is successful, transmits barcode message; if not, engine sends an error beep.

» "Check, Transmit All" means to read and check. If verification is successful, transmits all messages; if not, engine sends an error beep.



\*\* NO Check, Transmit All  
【Pro CMD: 99912603】



Check, Do not transmit Check Digit  
【Pro CMD: 99912604】



Check, Transmit All  
【Pro CMD: 99912605】



-----  
When "Check, Do not Transmit Check digit" is enabled and barcode message length minus one is less than Min Message Length, it will lead to error beep.  
E.g.: Reading a 4-byte (include check byte) Code 93 with the Min Message Length being 4 bytes and "Check, Do not transmit Check Digit" enabled leads to error beep.  
-----





## Symbols

Code 93



Code Programming ON



Code Programming OFF



### Select Message Length

It is used to program the valid reading length of Code 93. The engine will send an error beep, if the decoded data length does not match the valid length.

Code 93 Message Length is defined by “Min. Message Length” and “Max. Message Length.”



Min Message Length (default: 1)

【Pro CMD: 99912606】



Max Message Length (default: 48)

【Pro CMD: 99912607】



-----  
1D bar code Message Length should not exceed 127 bytes.  
Max Message Length should not be less than Min Message Length.

### Example

To set Min Message Length of Code 93 to 8 bytes and Max Message Length to 12 bytes, read these programming codes:

1. “Code Programming ON”
2. “Select Min Message Length”
3. Digit Code “8”, see Digit Code (Appendix Pxxx)
4. “Save Programming”, see Digit Code (Appendix Pxxx)
5. “Select Max Message Length”
6. Digit Code “1”
7. Digit Code “2”
8. “Save Programming”
9. “Code Programming OFF”



## Symbols

Code 11



Code Programming ON

Load Factory Default



Code Programming OFF



\*\* Load Code 11 Factory Default

【Pro CMD: 99912700】

---

Enable/ Disable Code 11



\*\*Enable Code 11

【Pro CMD: 99912702】



Disable Code 11

【Pro CMD: 99912701】



-----  
When the engine can not read Code 11, please read “Enable Code 11” and try again.  
-----

---

Code 11 Code ID



Code ID Setting

【Pro CMD: 99912715】

**E**xample

Example of setting Code 11 Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read Code 11 Code ID Setting barcode.
3. Read Following Barcodes: “7” , and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





# Symbols

Code 11



Code Programming ON

Check Digit

Code 11 may include Check Digit (not compulsory) following its barcode messages. If included, it must be the last digit. It verifies the barcode message.

» “NO Check, Transmit All” means to read without check and transmit all bytes including barcode message and Check Digit.

Code Programming OFF



\*\* No Check

【Pro CMD: 99912703】



Single Check Digit, MOD11

【Pro CMD: 99912704】



Double Check Digits, MOD11/MOD11

【Pro CMD: 99912705】



Double Check Digits, MOD11/MOD9

【Pro CMD: 99912706】



Single Check Digit MOD11 (Len <= 10)

Double Check Digits MOD11/

MOD11 (Len > 10)

【Pro CMD: 99912707】



Single Check Digit MOD11 (Len <= 10)

Double Check Digits MOD11/

MOD9 (Len > 10)

【Pro CMD: 99912710】



Do not transmit Check Digit

【Pro CMD: 99912711】



Transmit Check Digit

【Pro CMD: 99912712】



When “Check, Do Not Transmit Check Digit” is enabled and barcode message length minus one is less than Min Message Length, it will lead to error beep.  
E.g.: Reading a 4-byte (include Check Digit) Code 11 with the Min Message Length being 4 bytes and “Check, Do Not Transmit Check Digit” enabled leads to error beep.





## Symbols

Code 11



Code Programming ON



Code Programming OFF



### Select Message Length

It is used to program the valid reading length of Code 11. The engine will send an error beep, if the decoded data length does not match the valid length.

Code 11 Message Length is defined by “Min. Message Length” and “Max. Message Length” .



Min Message Length (default: 1)

【Pro CMD: 99912713】



Max Message Length (default: 48)

【Pro CMD: 99912714】



1D bar code Message Length should not exceed 127 bytes.

Max Message Length should not be less than Min Message Length.

### Example

To set Min Message Length of Code 11 to 8 bytes and the Max Message Length to 12 bytes. Read these programming code:

1. “Code Programming ON”
2. “Select Min Message Length”
3. Digit Code “8”, see Digit Code (Appendix Pxxx)
4. “Save Programming”, see Digit Code (Appendix Pxxx)
5. “Select Max Message Length”
6. Digit Code “1”
7. Digit Code “2”
8. “Save Programming”
9. “Code Programming OFF”





## Symbols

Plessey



Code Programming ON

Load Factory Default



Code Programming OFF



\*\* Load Plessey Factory Default

【Pro CMD: 99913000】

---

Enable/ Disable Plessey



\*\*Enable Plessey

【Pro CMD: 99913002】



Disable Plessey

【Pro CMD: 99913001】



When the engine can not read Plessey, please read “Enable Plessey” and try again.

---

---

Plessey Code ID



Code ID Setting

【Pro CMD: 99913010】

**E**xample

Example of setting Plessey Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read Plessey Code ID Setting barcode.
3. Read Following Barcodes: “7” , and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





## Symbols

Plessey



Code Programming ON



Code Programming OFF



### Check Digit

Plessey may include Check Digit (not compulsory) following its barcode messages. If included, it must be the last digit. It verifies the barcode message.

» “NO Check, Transmit All” means to read without check and transmit all bytes including barcode message and Check Digit.

» “Check, Do Not Transmit Check Digit” means to read and check. If verification is successful, transmits barcode message; if not, engine sends an error beep.

» “Check, Transmit All” means to read and check. If verification is successful, transmits all messages; if not, engine sends an error beep.



\*\* NO Check, Transmit All  
【Pro CMD: 99913003】



Check, Transmit All  
【Pro CMD: 99913004】

Check, Do not transmit Check Digit  
【Pro CMD: 99913005】



When “Check, Do Not Transmit Check Digit” is enabled and barcode message length minus one is less than Min Message Length, it will lead to error beep.  
E.g.: Reading a 4-byte (include Check Digit) Plessey with the Min Message Length being 4 bytes and “Check, Do Not Transmit Check Digit” enabled leads to error beep.





# Symbols

Plessey



Code Programming ON



Code Programming OFF



## Select Message Length

It is used to program the valid reading length of Plessey. The engine will send an error beep, if the decoded data length does not match the valid length.

Plessey Message Length is defined by “Min. Message Length” and “Max. Message Length” .



Min Message Length (default: 1)

【Pro CMD: 99913006】



Max Message Length (default: 48)

【Pro CMD: 99913007】



-----  
1D bar code Message Length should not exceed 127 bytes.

Max Message Length should not be less than Min Message Length.

-----

## Example

To set Min Message Length of Plessey to 8 bytes and the Max Message Length to 12 bytes.

Read these programming code:

1. “Code Programming ON”
2. “Select Min Message Length”
3. Digit Code “8”, see Digit Code (Appendix Pxxx)
4. “Save Programming”, see Digit Code (Appendix Pxxx)
5. “Select Max Message Length”
6. Digit Code “1”
7. Digit Code “2”
8. “Save Programming”
9. “Code Programming OFF”





## Symbols

MSI-Plessey



Code Programming ON

Load Factory Default



Code Programming OFF



\*\* Load MSI-Plessey Factory Default  
【Pro CMD: 99913100】

Enable/ Disable MSI-Plessey



\*\*Enable MSI-Plessey  
【Pro CMD: 99913102】



Disable MSI-Plessey  
【Pro CMD: 99913101】



When the engine can not read MSI-Plessey, please read “Enable MSI-Plessey” and try again.

MSI-Plessey Code ID



Code ID Setting  
【Pro CMD: 99913113】

**E**xample

Example of setting MSI-Plessey Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read MSI-Plessey Code ID Setting barcode.
3. Read Following Barcodes: “7”, and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





# Symbols

MSI-Plessey



Code Programming ON



Code Programming OFF



## Check Digit

MSI-Plessey may include Check Digit (not compulsory) following its barcode messages. If included, it must be the last digit. It verifies the barcode message.

» “NO Check, Transmit All” means to read without check and transmit all bytes including barcode message and Check Digit.



\*\* No Check

【Pro CMD: 99913103】



Single Check Digit, MOD10

【Pro CMD: 99913104】



Double Check Digits, MOD10/MOD10

【Pro CMD: 99913105】



Double Check Digits, MOD10/MOD11

【Pro CMD: 99913106】



Do not transmit Check Digit

【Pro CMD: 99913107】



Transmit Check Digit

【Pro CMD: 99913110】



-----  
When “Check, Do Not Transmit Check Digit” is enabled and barcode message length minus one is less than Min Message Length, it will lead to error beep.  
E.g.: Reading a 4-byte (include Check Digit) MSI-Plessey with the Min Message Length being 4 bytes and “Check, Do Not Transmit Check Digit” enabled leads to error beep.  
-----





## Symbols

MSI-Plessey



Code Programming ON



### Select Message Length

MSI-Plessey Message Length is defined by “Min. Message Length” and “Max. Message Length”. It is used to program the valid reading length of MSI-Plessey. The engine will send an error beep, if the decoded data length does not match the valid length.

Code Programming OFF



Min Message Length (default: 1)

【Pro CMD: 99913111】



Max Message Length (default: 48)

【Pro CMD: 99913112】



-----  
1D bar code Message Length should not exceed 127 bytes.

Max Message Length should not be less than Min Message Length.

-----

## Example

To set Min Message Length of MSI-Plessey to 8 bytes and the Max Message Length to 12 bytes. Read these programming code:

1. “Code Programming ON”
2. “Select Min Message Length”
3. Digit Code “8”, see Digit Code (Appendix Pxxx)
4. “Save Programming”, see Digit Code (Appendix Pxxx)
5. “Select Max Message Length”
6. Digit Code “1”
7. Digit Code “2”
8. “Save Programming”
9. “Code Programming OFF”





## Symbols

RSS



Code Programming ON

Load Factory Default



Code Programming OFF



\*\* Load RSS Factory Default

【Pro CMD: 99913200】

---

Enable/ Disable RSS



\*\*Enable RSS

【Pro CMD: 99913202】



Disable RSS

【Pro CMD: 99913201】



-----  
When the engine can not read RSS, please read “Enable RSS” and try again.  
-----

---

RSS Code ID



Code ID Setting

【Pro CMD: 99913203】

**E**xample

Example of setting RSS Code ID to “p” (0x70)

1. Read Enable Code Programming barcode.
2. Read RSS Code ID Setting barcode.
3. Read Following Barcodes: “7” , and “0”
4. Read Save barcode
5. Read Disable Code Programming barcode.





# Appendix

---

Digit Code

It is must to be read save after read digit code.



Code Programming ON



Code Programming OFF



0

【Pro CMD: 99900000】



4

【Pro CMD: 99900004】



1

【Pro CMD: 99900001】



5

【Pro CMD: 99900005】



2

【Pro CMD: 99900002】



6

【Pro CMD: 99900006】



3

【Pro CMD: 99900003】



7

【Pro CMD: 99900007】





## Appendix

Digit Code



Code Programming ON



Code Programming OFF



8

【Pro CMD: 99900010】



C

【Pro CMD: 99900014】



9

【Pro CMD: 99900011】



D

【Pro CMD: 99900015】



A

【Pro CMD: 99900012】



E

【Pro CMD: 99900016】



B

【Pro CMD: 99900013】



F

【Pro CMD: 99900017】





## Appendix

### Save and Abort



Code Programming ON



Code Programming OFF



In order to save the received data “Save” has to be read after data transition completed. If error occurs when reading data, the wrong data can be deleted and the setting up can be done again..

Eg, after a program code is received then “1 2 3” in order is received, if then read “Abort One Data of Current Setting” the “3” will be deleted; if read “Abort One String of Current Setting” the ‘123’ will be deleted; if read “Abort Current Setting” both the program code and ‘123’ will be deleted, the device will be on status of “initiating program code”.



Save

【Pro CMD: 99900020】



Abort One Data of Current Setting

【Pro CMD: 99900021】



Abort Current Setting

【Pro CMD: 99900023】



Abort All String of Current Setting

【Pro CMD: 99900022】

