BARTEC

FAQ - Frequently Asked Questions

Hand-held scanner BCS 36x8ex series

Carriage Return (CR) and Line Feed (LF)

Hand-held scanner type:

Type 17-A1S4-****

Type B7-A2S4-****

Status: April 2024

Reservation: Technical data subject to change without notice. Changes, errors and misprints may not be used as a basis for any claim for damages.

BARTEC GmbH
Max-Eyth-Straße 16
97980 Bad Mergentheim
GERMANY

Fon: +49 7931 597-0
Fax: +49 7931 597-119

Support: em-support@bartec.com
Download: http://automation.bartec.de
Internet: www.bartec.com

1. Information of this FAQ 2
1.1 Reference documents 2
2. About Carriage Return & Line Feed 4
3. Data is transferred with two line breaks 5
3.1 Issue/Question 5
3.2 Applicable to 5
3.3 Resolution / Answer 6
3.3.1 Programming of Enter (7013) CR/LF 8
3.3.2 Programming of Enter (1013) CR 9
3.4 Test of the transmitted data 10

1. Information of this FAQ

Read carefully before commissioning the device.

The FAQ is an additional description to the available Quick Start Guide and part of the device.
The FAQ is directed at all persons who are entrusted with handling the device.
Knowledge of the safety instructions and warnings in this FAQ and strict compliance with them is essential for safe handling.

- Carefully read the FAQ and especially the safety instructions before using the device.
- Make the FAQ accessible to all people who are entrusted with handling the device.

Warnings are used in this FAQ - Frequently Asked Questions to warn of the risks of damage to property and personal injuries.

Symbol	Explanation
	Important advice and information for the effective, efficient and environmentally sound use of the product.

1.1 Reference documents

All documents are available online from the following websites:

- BARTEC (global): www.bartec.de
- BARTEC (ACS): http://automation.bartec.de
- ZEBRA (ZEB): www.zebra.com

In the event of an overlaps with Zebra, the instructions of BARTEC apply.

Document BARTEC	Explanation	Download page
BARTEC		
Quick-Start-Guide BCS 3608ex-NI / BCS 3608ex-IS / BCS 3678ex-NI / BCS 3678ex-IS	Instructions for commissioning and safe handling of the hand-held scanners (including mounting, Ex-relevant safety instructions and instructions for programming).	global
User manual BCS 3608ex-NI / BCS 3608ex-IS / BCS 3678ex-NI / BCS 3678ex-IS	Instructions for commissioning and safe handling of the hand-held scanners (including mounting, Ex-relevant safety instructions and instructions for programming).	global
Data sheet BSC 3608ex-NI / BSC 3608ex-IS / BCS 3678ex-NI / BSC 3678ex-IS	Explosion protection data and technical data for handheld scanners.	global

Zebra		
For DS3608-HP and DS3678-HP: For DS3608-ER and DS3678-ER: • Product Reference Guide • Multicode Data Formatting and Preferred Symbol • Advanced Data Formatting (ADF) • Simple Serial Interface Programmer's Guide	Instructions for commissioning, operation, configuration, programming and maintenance of the hand-held scanners (complete information can be found on the ZEBRA support page).	ZEB

2. About Carriage Return & Line Feed

Background:

The implementation of a line break in the computer world originally comes from the typewriter.

In the development of operating systems and applications, however, the implementation was realized inconsistently. This can lead to different systems and applications interpreting a carriage return (CR) and line feed (LF) differently.

The following describes how this may look like and how to program the scanner to realize the correct display of the data.

Source: https://de.wikipedia.org/wiki/Zeilenvorschub
https://de.wikipedia.org/wiki/Zeilenumbruch
https://en.wikipedia.org/wiki/Newline

Representation on the basis of a Code 39 test barcode with content "**123456789**".

3. Data is transferred with two line breaks

3.1 Issue/Question

Suffix CR/LF is programmed but data is transferred with a second line break (blank line).

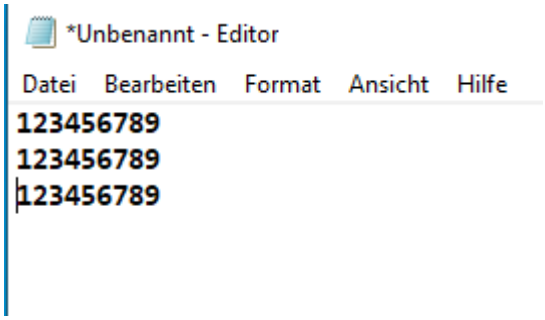
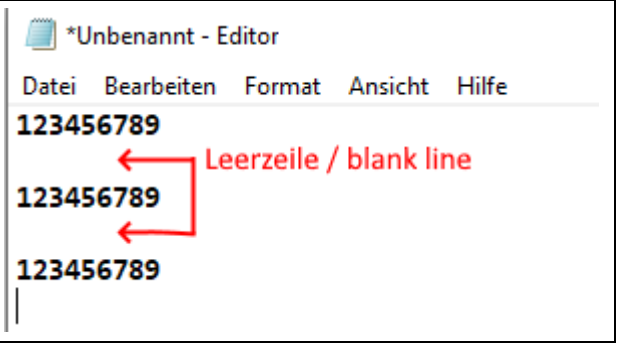
On the scanner, the Enter key has been programmed as a suffix.

The Enter is a Carriage Return (CR) Line Feed (LF).

The corresponding 4-digit ASCII programming code is "7013".

Add Enter Key (Carriage Return/Line Feed)

On a Windows 10 PC, data is displayed in Notepad as follows.

Target	Data as it is
	

In Notepad a CR is automatically interpreted as CR/LF.

This results in LF being executed twice and a blank line being created.

3.2 Applicable to

All devices of BCS3608ex & BCS3678ex series.

3.3 Resolution / Answer

Different suffixes can be programmed to execute the Enter character differently.

4-digit ASCII programming code	Function key	Command syntax
7013	Enter (CR/LF)	Carriage Return (CR) + Line Feed (LF) Hex value: 0D0A
1013	Enter (CR)	Carriage Return (CR) Hex value: 0D
1010	Line Feed (LF)	Line Feed (LF) Hex value: 0A

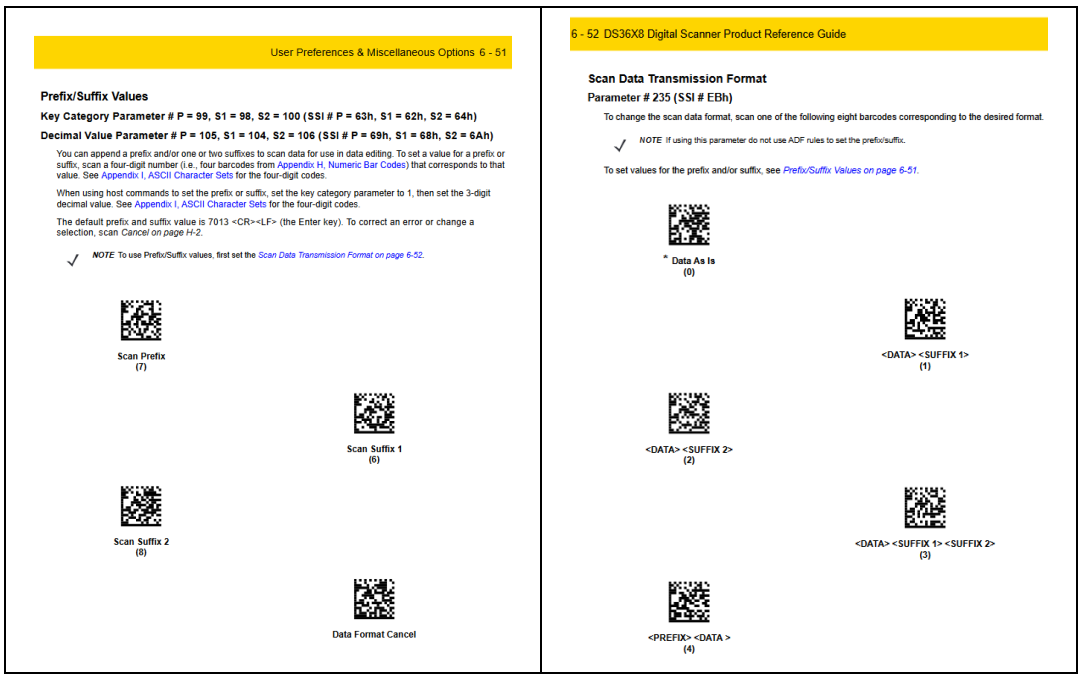
How is the suffix programmed?

The Zebra "Product Reference Guide" serves as a reference.

https://automation.bartec.de/scannerE.htm

Optionen:

- Scan of programming barcodes from the Zebra “Product Reference Guide”
  - Scan parameter barcodes for prefix/suffix
  - Scan numerical barcodes for the function (e.g. 7013 for Carriage Return/Line Feed)



User Preferences & Miscellaneous Options 6 - 51

Prefix/Suffix Values

Key Category Parameter # P = 99, S1 = 98, S2 = 100 (SSI # P = 63h, S1 = 62h, S2 = 64h)

Decimal Value Parameter # P = 105, S1 = 104, S2 = 106 (SSI # P = 69h, S1 = 68h, S2 = 6Ah)

You can append a prefix and/or one or two suffixes to scan data for use in data editing. To set a value for a prefix or suffix, scan a four-digit number (i.e., four barcodes from Appendix H, Numeric Bar Codes) that corresponds to that value. See Appendix I, ASCII Character Sets for the four-digit codes.

When using host commands to set the prefix or suffix, set the key category parameter to 1, then set the 3-digit decimal value. See Appendix I, ASCII Character Sets for the four-digit codes.

The default prefix and suffix value is 7013 <CR><LF> (the Enter key). To correct an error or change a selection, scan *Cancel on page H-2*.

✓ *NOTE* To use Prefix/Suffix values, first set the *Scan Data Transmission Format on page 6-52*.

Scan Prefix (7)

Scan Suffix 1 (6)

Scan Suffix 2 (8)

Data Format Cancel

6 - 52 DS36X8 Digital Scanner Product Reference Guide

Scan Data Transmission Format

Parameter # 235 (SSI # EBh)

To change the scan data format, scan one of the following eight barcodes corresponding to the desired format.

✓ *NOTE* If using this parameter do not use ADF rules to set the prefix/suffix.

To set values for the prefix and/or suffix, see *Prefix/Suffix Values on page 6-51*.

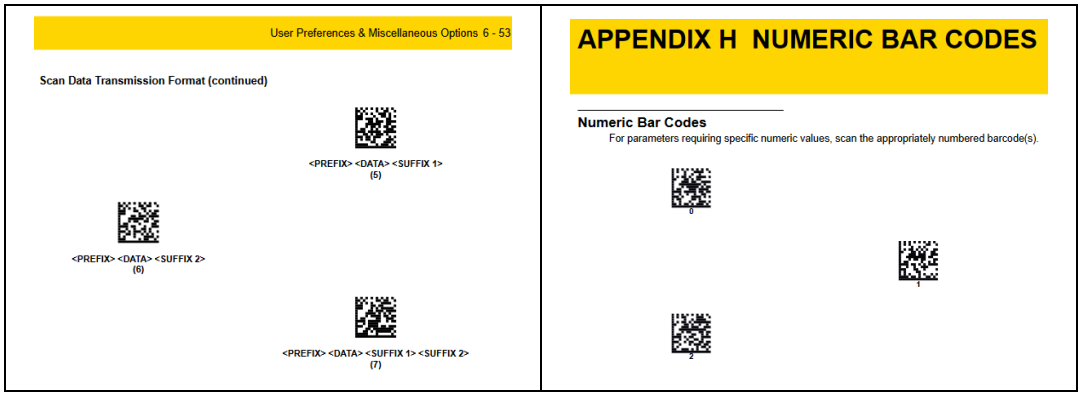
* Data As Is (0)

<DATA> <SUFFIX 1> (1)

<DATA> <SUFFIX 2> (2)

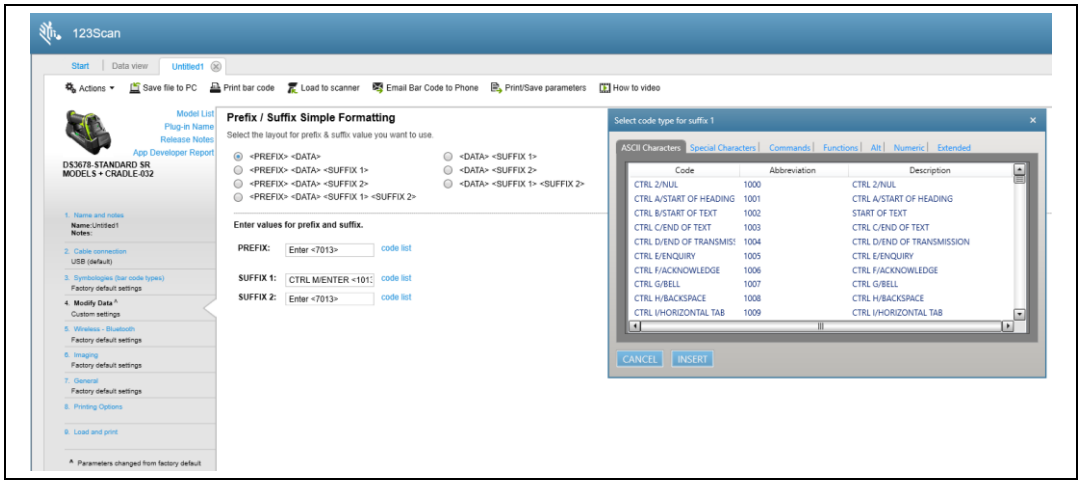
<DATA> <SUFFIX 1> <SUFFIX 2> (3)

<PREFIX> <DATA > (4)



- Using Zebra 123 Scan Utility Software
  Download (freeware)
  https://www.zebra.com/us/en/support-downloads/software/utilities/123scan-utility.html

  Note on using the utility with the Ex version oft he BCS36x8ex scanner.



3.3.1 Programming of Enter (7013) CR/LF

1. Scanning <Data> <Suffix 1> programmable code.
   Chapter 6 – 42

<DATA> <SUFFIX 1>
(1)

2. Scanning Scan Suffix 1 programmable code.
   Chapter 6 – 41

Scan Suffix 1
(6)

3. Scanning 7013 numeric programmable code.
   Chapter Appendix H

7

0

1

3

3.3.2 Programming of Enter (1013) CR

1. Scanning <Data> <Suffix 1> programmable code.
   Chapter 6 – 42

<DATA> <SUFFIX 1>
(1)

2. Scanning Scan Suffix 1 programmable code.
   Chapter 6 – 41

Scan Suffix 1
(6)

3. Scanning 1013 numeric programmable code.
   Chapter Appendix H

1

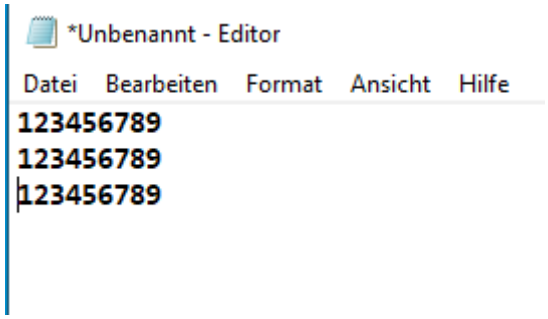
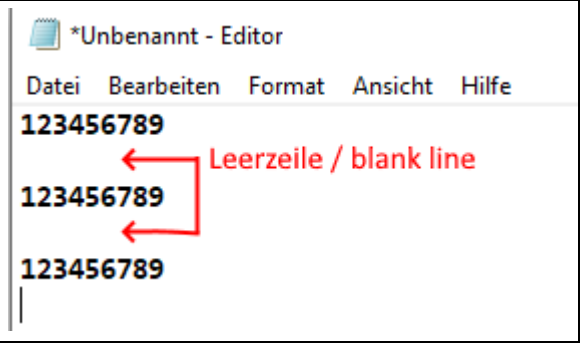
0

1

3

3.4 Test of the transmitted data

View in Notepad:

Enter (1013) CR	Enter (7013) CR/LF
	

Testing the transmitted data string:

The transmitted data can also be checked with the help of a terminal program.

With the help of such a tool in the setting "Display as HEX" the entire data string can be displayed also with the transferred control characters.

How the data is processed by the application can be different as shown in the example of Notepad.

In general, however, the Enter CR/LF (7013) is executed correctly on Windows.

If there are problems it is recommended to use the Enter CR (1013).

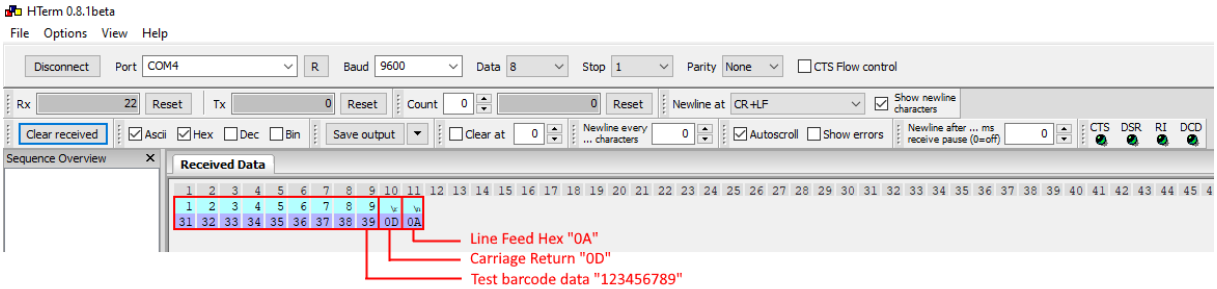
For this article the freeware terminal program H-Term was used.

Check Enter (7013) CR/LF

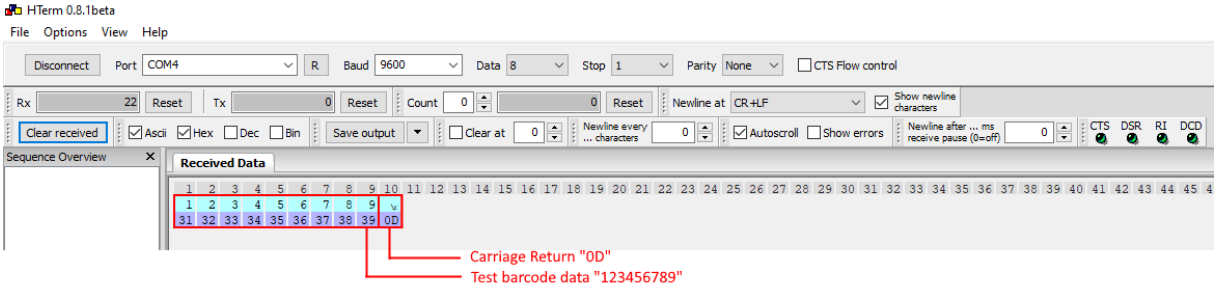
The terminal program must be set to HEX. Then all transmitted characters are displayed as hex code.

CR = Hex 0D

LF = Hex 0A



Check Enter (1013) CR

The terminal program must be set to HEX. Then all transmitted characters are displayed as hex code.

CR = Hex 0D