GT-7000 Series - Configuration Barcode Tables

To be used with accompanying Manual

Introduction

The barcode tables in this manual are designed to be used with the GT-7000 User's Manual also included with this scanner. These tables are duplicated in that manual. The larger format of this manual makes the tables easier to use. This manual also contains additional examples of the Data Editing functions of this scanner.

If you are familiar with the operation of the GT-7000 scanner, you can use the Quick Setup on the following page to setup the scanner. If you are not familiar with the scanner parameters, use the User's Manual along with this manual to setup individual scanner parameters.

Contents

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Quick Setup Sheet

Device

PC/AT [PS/2]

PS/2[25,30,75,90]

Macintosh

Keyboardless

RS-232

Wand Emulation

Scanner Mode

Trigger

Flash

Beep

None

Medium

Terminator

Enter

Field Exit

Scan Code

US

ALT Key

Character Delay

1 mS

20 mS

Code ID

No

Yes

UPC-E

Default

No Leading Digit

Send Chk Digit

Convrt to UPC-A

EAN-8

Default

No Leading Digit

No Chk Digit

Menu Setup

Enable/Disable

Set Factory Default

Factory Default

EAN-13

Default

No Leading Digit

No Chk Digit

ISBN

UPC-A

Default

No Leading Digit

No Chk Digit

Supplements?

No

Yes

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Enter Group 1

Group 1 - Device Selection

Group Default

Factory Default

0

1

2

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Enter Group one by scanning the barcode at the upper left corner of the page. Pick the Device Type for the scanner from the list below. Make sure the scanner is fitted with the proper cable for that device. Scan the barcodes corresponding to the two number device ID listed for that device. Scan Exit to exit this group. The Default setting for this group is Device 01. Factory Default settings (defaults for all groups) can also be restored by scanning the Factoty Default code after entering this group.

00 - IBM PC/XT
01 - IBM PC/AT or PS/2 Models 40, 60, 80
02 - IBM PS/2 Model 25, 30, 56, 70, 90
03 - Macintosh ADB
04 - RS-232
06 - Keyboardless Wedge
07 - Wand Emulation (Code 39 Output)
08 - IBM 3196/3197
09 - IBM3476/3477
10 - IBM3191/3192/3270PC
11 - IBM3486/3487/3488
13 - IBM3471/3472/3179
15 - IBM3180
17 - IBM3151
19 - IBM5550-5P
20 - IBM5550-6P
26 - Wand Emulation (Native output)
32 - DEC 220/320/420

Exit

Enter Group 2

Group 2 - Beeps and Delays

Group Default

Enter Group 2 by scanning the barcode in the upper left corner of this page. This page is used to adjust the beep-tone, the inter-character delay and the inter-block delay. The beeptone can be turned off, or the frequency set to a high, medium or low tone. The beep can also be a two tone combination, low to high or high to low, instead of a single tone. The inter-character delay is the delay between individual characters in the data transmission. The inter-block delay is the delay between barcode data transmissions. When setup is complete scan the Exit code below.

0

1

2

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4

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Beep Tone

Set Beep Tone

Beep Tone:
0 - None
1 - Low
2 - Medium (default)
3 - High
4 - Low to High
5 - High to Low

Inter-Character Delay

Inter-Character

0 - 1 millisecond (default)
1 - 5 milliseconds
2 - 10 milliseconds
3 - 20 milliseconds
4 - 50 milliseconds
5 - 100 milliseconds

Inter-Block Delay

Inter-Block

0 - 10 milliseconds (default)
1 - 50 milliseconds
2 - 100 milliseconds
3 - 500 milliseconds
4 - 1 second
5 - 3 seconds

Exit

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Enter Group 3

Group 3 - Keyboard Wedge, Wand Emulation Settings and Predefined Labels

Group Default

0

1

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Enter Group 3 by scanning the barcode in the upper left corner of this page. Refer to Page 6 of the GT-7000 manual for a description of the Function Code and Caps Lock functions. The keyboard language can be set to any of those listed. Default is US. For a detailed explanation of Wand Emulation, see page 12 of the scanner manual. For a detailed explanation of Predefined Labels, see page 16 of the Scanner Manual.

Function Codes

Function Codes

0 - Off
1 - On (default)

Caps Lock

Caps Lock

0 - Auto Trace (Default)
1 - Lower Case
2 - Upper Case

Language

Language

0 - US
1 - UK
2 - Swiss
3 - Swedish
4 - Spanish
5 - Norwegian
6 - Italian
7 - German
8 - French
9 - Alt Key Mode
: - Danish

Wand Emulation Output

Wand Output

0 - Bar = High (default)
1 - Bar = Low

Narrow Element Duration

Duration

0 - 200µS (default)
1 - 600 µs

Wand Idle

Wand Idle

0 - Low (default)
1 - High

Predefined Labels

Predefine Label

0 - Label 1
1 - Label 2
2 - Label 3

Exit

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Enter Group 4

Group 4 - RS-232 Settings

Enter Group 4 by scanning the barcode in the upper left hand corner of this page. This page lets you set the characteristics of the RS-232 settings. It only pertains to models that have an RS-232 interface; not to keyboard wedge units.

0

1

2

3

4

5

6

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8

9

Baud Rate

Baud Rate

0 - 300
1 - 600
2 - 1200
3 - 2400
4 - 4800
5 - 9600 (default)
6 - 19200
7 - 38400

Parity

Parity

0 - Even
1 - Odd
2 - Mark
3 - Space
4 - None (default)

Data BIts

Data Bits

0 - seven
1 - eight (default)

Handshaking

Handshaking

0 - None
1 - Xon/Xoff (default)
3 - RTS/CTS
4 - Both

ACK/NAK

ACK/NAK

0 - Off (default) 1 - On

Exit

Group Default

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Enter Group 5

Group 5 - Scanner Parameters

To enter Group 5, scan the barcode at the left. Group 5 controls several scanner parameters. The transmission terminator character is normally the CR/LF combination, but can be changed or eliminated. A Code ID character can be added to the data transmission to identify the type of barcode being read. It can be either the standard characters listed on page 15 of the manual, or user defined. With Double Verification, the code must be read on two successive scans to be considered valid. Flash mode is used with the accessory stand. The scanner can be set to read both positive and negative (white bars - black spaces) barcodes. A preamble and postamble can be added to the data transmission. They can be up to 8 characters and include both ASCII characters and Function Codes.

0

1

2

3

4

5

6

7

8

9

Terminator

Terminator

0 - Enter (CR/LF) default
1 - Field Exit (CR)
2 - Return (LF)
3 - None

Double Verification

Double

0 - Off (default)
1 - On

Scanning Mode

Scanning Mode

0 - Trigger (default)
1 - Flash Mode

Code ID

Code ID

0 - None (default)
1 - User Defined
2 - Default Set

Label Type

Label Type

0 - Positive (default)
1 - Positive and negative

Group Default

Exit

Define Code ID

Define Code ID

00 - Code 39 Full
01 - Code 39 Std.
02 - EAN-13
03 - UPC-A
04 - EAN-8
05 - UPC-E
06 - I 2 of 5
07 - Codabar
08 - Code 128
09 - Code 93
10 - S 2 of 5
11 - MSI Code
12 - Code 11
13 - Code 32
14 - Delta Distance
15 - Label Code
16 - Plessey Code
17 -
18 - China Postal

Scan two digits corresponding to the code type, then a single ASCII character from the table.

Preamble and Postamble

Scan the Preamble or Postamble code, then up to 8 characters from the ASCII or Function Tables. Scan the barcode again to end.

Preamble

Postamble

Enter Group 6

Group 6 - Code 39 - Code 32 - Interleaved 2 of 5 - Standard 2 of 5

To enter Group Six, scan the barcode at the left. Group Six sets the reading parameters for Code 39, Code 32 (Italian Pharmacy Code) Interleaved 2 of 5 and Standard 2 of 5. Length Setting Example: To set Code 39 for a length between 5 and 20 characters, scan the Code 39 barcode below. Scan the Min Length Barcode. Scan 0 and 5. Scan Min Length again. Scan Max Length. Scan 2 and 0. Scan Max Length again. Scan exit.

0

1

2

3

4

5

6

7

8

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Code 39

Code 39

0 - Disable 1 - Enable (default)
2 - Full ASCII 3 - Standard (default)
4- Check Digit Calculate and Send
5- Check Digit Calculate No Send
6 - No Check Digit (default)
7 - Send Start & Stop
8 - No Send Start & Stop (default)
Default Length = 0 to 48 characters

Code 32

Code 32

0 - Disable (default)
1 - Enable
2 - Send First Character (default)
3 - No Send First Character
4 - Send Last Character (default)
5 - No Send Last Character

Interleaved 2 of 5

Int. 2 of 5

0 - Disable 1- Enable (default)
2- Fixed Length 8,10,12 digits only
3 - Fixed Length Off (default)
4 - Check Digit Calc and Send
5 - Check Digit Calc No Send
6 - No Check Digit
7 - No Xmit First Digit
8 - No Xmit Last Digit
9 - Xmit All Digits (default)
Default Length 10 to 64 digits

Standard 2 of 5/China Postal

S 2 of 5

0 - Disable (default
1- Enable
2 -Fixed Length (8, 10, 12)
3 - Fixed Length Off (default)
4 - Check Digit Calc. & Send
5 - Check Digit Calc No Send
6 - No Check Digit (default)
Default Length 4 to 48

Group Default

Exit

Min Length

Max Length

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Enter Group 7

Group 7 - Code 128 - MSI Code - Code 93 - Codabar

To enter Group Seven, scan the barcode at the left. Group Seven sets the reading parameters for Code 128, MSI Code, Code 93 and Codabar. Length Setting Example: See Group Six.

0

1

2

3

4

5

6

7

8

9

Code 128

Code 128

0 - Disable
1 - Enable (default)
Default Length 1 to 64

MSI/Plessey

MSI/Plessey

0 - Disable (default) 1 - Enable
2 - Send Check Digit
3 - No Send Check Digit (default)
4 - Chk Digit Double Mod 10
5 - Chk Digit Mod 11 plus 10
6 - Chk Digit Mod 10 (default)
Default Length 1 to 16

Code 93

Code 93

0 - Disable
1 - Enable (default)
Default Length 1 to 48

Code 11

Code 11

0 - Disable (default)
1 - Enable
2 - One Check Digit
3 - Two Check Digits (default)
4 - Send Check Digit
5 - No Send (default)
Default Length 1 to 48

Codabar

Codabar

0 - Disable (default)
1 - Enable
2 - Send Start - Stop
3 - No Send (default)
4 - Chk Digit Calc & Send
5 - Chk Digit Calc No Send
6 - No Chk Digit (default)
7 - CLSI Format On
8 - CLSI Format Off (default)
Default Length 1 to 48

Min Length

Max Length

Group Default

Exit

Enter Group 8

Group 8 - UPC - EAN - Delta Distance Code

To enter Group Eight, scan the barcode at the left. Group Eight sets the reading parameters for UPC, EAN and Delta Distance Code.

0
1
2
3
4
5
6
7
8
9

UPC-A

UPC-A

0 - Disable
1 - Enable (default)
2 - Send First Digit (default)
3 - Don't Send First Digit
4 - Send Chk Digit(default)
5 - No Send Check Digit

UPC-E

UPC-E

0 - Disable
1 - Enable (default)
2 - Send First Digit (default)
3 - No Send First Digit
4 - Send Check Digit
5 - No Send Chk Digit (default)
6 - Expand to UPC-A
7 - No Expand (default)

EAN-13

EAN-13

0 - Disable
1 - Enable (default)
2 - Send First Digit (default)
3 - Do Not Send First Digit
4 - Send Check Digit (default)
5 - No Send Check Digit
6 - Enable Bookland Output
7 - Disable Bookland (default)

EAN-8

EAN-8

0 - Disable
1 - Enable (default)
2 - Send First Digit (default)
3 - No Send First Digit
4 - Send Chk Digit (default)
5 - No Send Chk Digit

Supplemental Codes

Supplements

0 - 2 Digit Off (default)
1 - 2 Digit On
2 - 5 Digit Off (default)
3 - 5 digit On
4 - Transmit if Present
5 - Must be Present (default)
6 - Insert Space
7 - No Space (default)

Delta Distance Code

Delta Distance

0 - Disable (default)
1 - Enable
2 - Calc Chk Digit (default)
3 - No Calc Chk Digit
4 - Send Chk Digit
5 - No Send (default)

Group Default

Exit

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Enter Group 9

Group 9 - Data Editing

To enter Group Nine, scan the barcode at the left. Group Nine barcodes are used in Data Editing, which is covered in detail in the main manual starting on page 20. There are also more examples of data editing later in this manual.

0

1

2

3

4

5

6

7

8

9

+

-

,

IN_ID

MATCH

“

#

Review

LEN

O-STR

*

Enter

Backspace

Exit

Group Default

Full ASCII Chart

NUL

SOH

STX

ETX

EOT

ENQ

ACK

BEL

BS

HT

LF

VT

SO

CR

DLE

SI

DC2

DC1

DC4

DC3

NAK

FF

Full ASCII Chart Continued

SYN

ETB

CAN

EM

SUB

ESC

FS

RS

GS

US

SPACE

!

"

#

$

%

&

'

(

)

*

+

Full ASCII Chart Continued

,

-

.

/

0

1

2

3

4

5

6

7

8

9

:

:

<

=

>

?

@

Full ASCII Chart Continued

A 

B 

C 

D 

E 

F 

G 

H 

I 

J 

K 

L 

M 

N 

O 

P 

Q 

R 

S 

T 

U 

V 

Full ASCII Chart Continued

W

X

a

Y

b

Z

c

[

d

\

e

]

f

^

g

_

h

`

i

j

Full ASCII Chart Continued

k

l

m

n

o

p

q

r

s

t

u

v

w

x

y

z

{

|

}

~

DEL

Function Codes for IBM PC Compatibles

F1

F2

F3

F4

F5

F6

F7

F8

F9

F10

F11

F12

Right Arrow

Left Arrow

Up Arrow

Down Arrow

Page Up

Page Down

TAB

BACK TAB

Esc

Left Enter

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Function Codes for IBM PC Compatibles Continued

Right Enter

Right Ctrl

Shift Make

Shift Break

Insert

Ctrl Make

Ctrl Break

Alt Make

Alt Break

Delete

Function Codes for Macintosh

F1

F2

F3

F4

F5

F6

F7

F8

F9

F10

F11

F12

F13

F14

F15

Left Arrow

Right Arrow

Down Arrow

Up Arrow

Page Down

Page Up

Insert

Function Codes for Macintosh Continued

Tab

Enter

Esc

Return

Option Make

Option Break

Control Make

Control Break

Shift Make

Shift Break

Apple Make

Apple Break

Data Editing Examples

Here are a few more examples of Data Editing, in addition to those in Chapter 7 of the Main Manual.

Example 1

The user wants to read two barcodes that contain certain information, extract that information, ignore the remaining information and format the output to enter the information into a data base in the proper sequence. The first code that will be read contains date and lot number information. The barcode is a 17 digit Code 128. The date information starts in character position 3 of the barcode. Characters 3 and 4 are the month (MM), characters 5 and 6 are the day (DD) and characters 7 and 8 (YY) are the year. The lot number starts in position 10 and ends at position 17. The desired output is: Lot Number<CR>MM/DD/YY<CR>. The second barcode is a 16 digit Code 128. The catalog number is contained in positions 10 thru 15. All other data is to be ignored (not output). The desired output is: Catalog Number <CR>. The programming formulas used to accomplish the above are:

IN_ID,8,LEN,17,17,O-STR,11,#,"<0D>",O-STR,3,2,"/",O-STR,5,2,"/",O-STR,7,2,"<0D>",Enter
IN_ID,8,LEN,16,16,O-STR,10,6,"<0D>",Enter
IN_ID,19,O-STR,1,#,<0D>",Enter

The above formulas appear as they would after scanning the "Review" barcode. The scanner has also been programmed for a terminator of "None".

The IN_ID and LEN statements indicate that these formulas only apply to 17 and 16 character Code 128 barcodes. The third formula lets data from any other codes and lengths pass through unaltered. *It is important to note that barcode data must meet the requirements of some formula, or nothing is output.* <0D> represents the CR (carriage return) character from Page 12. The / character is on page 14. These characters must be in quotes. The # symbol represents all remaining characters in the code. In the first formula you could substitute 7 for #, and the results would be the same.

Example 2

The user will be reading a Code 39 barcode. When a code is read that has “1234” as the first four characters, the function key F1 should be substituted for these characters, and then the remainder of the barcode is output. The formula, as it would appear after scanning the “review” barcode, is shown below.

IN_ID,1,MATCH,1,”1234”,”<80>”,O-STR,5,#,Enter
IN_ID,19,O-STR,1,#,Enter

Note: <80> represents F1. This is how the formula appears after scanning the “Review” barcode. When entering the formula, scan the barcode for F1 in either the PC or Macintosh Function Code tables in this manual. Make sure to scan the quote (“) barcode before and after the F1.

The first formula looks for a Code 39 barcode that has the characters “1234” as the first four characters. When it finds this, it substitutes F1 for those characters and then outputs the remaining characters from position 5 to the last character in the code.

The second formula passes all codes, not meeting the requirements of the first formula, to the output unaltered. *It is important to note that barcode data must meet the requirements of some formula, or nothing is output.*