ZEBEX
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Programming Guide

2D Image Reader

Revision History

Changes to the original manual are listed below:

Version	Date	Description of Version
1.0	2018/4/18	Preliminary release
1.1	2019/3/28	Added descriptions to scan modes
1.2	2019/5/21	Revised cap lock settings
1.3	2019/6/6	Added GS Substitution for NMVS Application
1.4	2019/8/29	Replaced Code 39 Redundant check barcodes, updated Aim Pattern
1.5	2019/11/7	Full ASCII codes updated
1.6	2020/1/13	Default Parameters added
1.7	2020/7/27	MSI identifier code setting updated
1.8	2021/4/14	Deleted Aiming Light Always on Mode
1.9	2022/9/16	QR Model 1 Code disable barcode corrected
2.0	2024/8/1	Restored Set barcode in ASCII section
2.1	2024/11/19	Corrected Full ASCII ---SO barcode

Important Notice

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General Handling Precautions

Do not dispose the scanner in fire.
Do not put the scanner directly in the sun or by any heat source.
Do not use or store the scanner in a very humid place.
Do not drop the scanner or allow it to collide violently with other objects.
Do not take the scanner apart without authorization

Table of Contents

Settings and Programming

Scan selected barcodes in this manual to affect setup and programming of your handheld imaging barcode scanner. Decoding options and interface protocols can be tailored to a specific application.

Setup parameters are stored in non-volatile memory in the scanner and are retained even when power is off. Setup parameters change only when you reset them. You may need to hide adjacent code patches with your hand when scanning.

Default Parameters

The factory default setting table gives the default settings of all the programmable parameters. The default settings will be restored whenever the "Reset" programming label is scanned and the scanner is in programming mode. Default values are highlighted in grey background in the settings.

Factory Default Setting

Scanner Operation

User Preferences	
Parameter	Default
Baud Rate	9600 BPS
Interface	USB Keyboard
Good read beep length	50 msec
Good read beep frequency	Medium
Aiming pattern	Auto
Terminal character	CR
Country code	US

Symbologies

Symbology	Default
Codabar	Enable
Code 39	Enable
Code 32	Disable
Interleaved 2 of 5	Enable
Matrix 2 of 5	Disable
Standard 2 of 5	Disable
Industrial 2 of 5	Disable

Pharmacode	Disable
Code 11	Disable
Code 93	Enable
Code 128	Enable
MSI	Disable
Plessey	Disable
UPC-A	Enable
UPC-E	Enable
EAN-8	Enable
EAN-13	Enable
GS1-14	Enable
GS1-Limited Code	Enable
GS1-Expanded Code	Enable
Composite CC-A	Disable
Composite CC-B	Disable
Composite CC-C	Disable
PDF417	Enable
Micro PDF417	Disable
Aztec	Disable
Maxicode	Disable
Data Matrix	Enable
Micro QR	Enable
QR	Enable
Telepen	Disable
Chinese pose code	Disable
PostNet, PLANET, Australia, Royal Post	Disable
Codablock F	Disable

Code Identifiers

Identifier code setting	Zebex	AIM
CODE 39 identifier code setting	M	]A0
ITF 2 of 5 identifier code setting	I	]I0
CHINESE POST CODE identifier code setting	H	]h0
UPC-E identifier code setting	E	]E0
UPC-A identifier code setting	A	]E0
EAN-13 identifier code setting	F	]E0
EAN-8 identifier code setting	FF	]E0
CODABAR identifier code setting	N	]F0
CODE 128 identifier code setting	K	]C0
CODE 93 identifier code setting	L	]G0
MSI identifier code setting	P	]M0
GS1 Databar identifier code setting	RS	]e0
GS1 Databar limited identifier code setting	RL	]e0
GS1 Databar expanded identifier code setting	RX	]e0
Industrial 2 of 5 Identifier code setting	D	]S0
Code 11 Identifier code setting	O	]H0
Standard 2 of 5 Identifier code setting	S	]R0
Matrix 2of 5 (Japanese) Identifier code setting	G	]J0
Telepen identifier code setting	T	]T2
PDF417 identifier code setting	p	]L0
QR Code identifier code setting	q	]Q1
DataMatrix identifier code setting	d	]d1
AZTEC identifier code setting	a	]z0
Maxi code identifier code setting	m	]U0

User Preferences

System Settings

Use the following codes to set, reset, or display firmware version.

	Reset (return to factory default)
	Display firmware version

Beep Settings

Use the following codes to change beep settings.

	Medium beeper tone
	Low beeper tone
	High beeper tone
	Speaker disable
	Long sound duration (100msec)
	Medium sound duration(50msec)

	Short sound duration(20msec)
	Very short sound duration(5msec)
	Very Long sound duration (200msec)
	Ultra long sound duration (500msec)
	Loud volume (50/50 duty)
	Medium volume (30/70 duty)
	Slight volume (20/80 duty)
	Led/Beep after transmission. Use this bar code to indicate a "good read" after a bar code has been successfully decoded.
	Led/Beep before transmission, Use this bar code to indicate a good read" after successfully transmitting the bar code data to the host.
	Power –up tone enable
	Power –up tone disable

Customer's Factory Default

Scan barcodes below to set or delete customer’s factory default.

	Return as customer default
	Save as customer default

Interface Switch

Your 2D Imager supports interfaces such as USB HID, RS232 serial, USB virtual COM, etc.. To switch the interface, simply select the appropriate cable and configure the proper interface by following interface selection.

	Return as USB Full Speed
	Return as USB High Speed
	Return as USB-virtual COM port default
	Return to HID USB default
	Return to RS232 default
	Return as OPOS port default(USB mode)
	OPOS RS232 mode

	USB Update mode
	Uart Update mode
	Image Mode

Aim Pattern

Aiming pattern works as an aiming system to aid in barcode reading. Use the following settings to enable or disable this function.

	Illumination Light Off (NO_USE_ILLUM)
	Illumination Light On (USE_ILLUM)
	Aiming Light Off (NO_USE_AIM)
	Aiming Light On (USE_AIM)

Scan Mode

Scan a barcodes below to set the scanner to different modes.

	Trigger mode The scanner becomes inactive as soon as the data is transmitted. It must be triggered to become active again.
	Auto scan mode The scanner is still active after the data is transmitted but the successive transmission of the same barcode is not allowed when the trigger switch is pressed again.
	Presentation mode Also called auto trigger mode. The scanner is inactive but will automatically detect barcodes presented in the scan zone and become active.

Same Code Delay Time

Scan a barcode below to select the duration of the delay time for scan code.

	Same Code Delay time 50msec
	Same Code Delay time 100msec
	Same Code Delay time 200msec
	Same Code Delay time 300msec
	Same Code Delay time 400msec
	Same Code Delay time 500msec

	Same Code Delay time 600msec
	Same Code Delay time 700msec
	Same Code Delay time 800msec
	Same Code Delay time 900msec
	Same Code Delay time 1000msec
	Same Code Delay time Infinite

RS232 Interface Settings

Set the imager's baud rate to match the host device. Otherwise, data may not reach the host device or may reach it in distorted form.

	Baud Rate 2400
	Baud Rate 4800
	Baud Rate 9600
	Baud Rate 19200
	Baud Rate 38400

	Baud Rate 57600
	Baud Rate 115200
	Baud Rate 230400
	Even parity
	Odd parity
	None parity
	1 stop bit
	2 stop bit
	7 data bit
	8 data bit
	ACK/NAK
	Xon/Xoff
	RTS/CTS

	None handshaking
	Enable BEEPER ON<BEL> CHARACTER
	Ignore BEEP ON <BEL> CHARACTER
	ACK/NAK response time 300ms
	ACK/NAK response time 2s
	ACK/NAK response time 500ms
	ACK/NAK response time 3s
	ACK/NAK response time 1s
	ACK/NAK response time 5s
	ACK/NAK response time infinity
	Message terminator—none
	message terminator—CR/LF
	message terminator—CR

	message terminator—LF
	message terminator—H tab
	message terminator—STX/ETX
	message terminator—EOT

Keyboard Settings

To change any option, scan the appropriate barcode(s) provided.

	Enable Alt mode.
	Keyboard language support---USA
	Keyboard language support---UK send scan code
	Keyboard language support---GERMANY
	Keyboard language support---FRENCH send scan code
	Keyboard language support---SPANISH send scan code
	Keyboard language support---ITALIAN send scan code
	Keyboard language support--- Switzerland
	Keyboard language support---Sweden send scan code
	Keyboard language support---Belgium send scan code
	Keyboard language support---Portugal send scan code

	Keyboard language support---Turkish send scan code
	Keyboard language support---Hungary
	Keyboard language support---Japanese
	Keyboard language support---iMac-French
	Capital lock on
	Capital lock off
	Function key emulation enable
	Function key emulation disable
	Send number as normal data
	Send number as keypad data
	Alphabet follow as keyboard **RS-232 also available**
	Alphabet always upper case **RS-232 also available**
	Alphabet always lower case **RS-232 also available**

	Caps lock override enable
	Caps lock override disable

Please see the table below on how each setting affects the case of the data.

ABCabc	**Host Capital lock off**	**Host Capital lock on**
Alphabet follow as keyboard	ABCabc	abcABC
Alphabet always upper case	ABCABC	ABCABC
Alphabet always Lower case	abcabc	abcabc
Caps Lock Override Enable	ABCabc	ABCabc
Caps Lock Override Disable	ABCabc	abcABC

Symbology Settings

This section provides the programming barcodes for enabling and disabling symbology functions. If the default values suit requirements, programming is not necessary.

Example: Felting length 4 to 10 characters

Codabar minimum length setting

Full ASCII ---4

SET

Codabar maximum length setting

Full ASCII ---1

Full ASCII ---0

SET

Set

Codabar Settings

To change any option, scan the appropriate barcode(s) provided.

	Codabar enable
	CODABAR disable
	Codabar data redundant check=off
	Codabar data redundant check=1
	Codabar data redundant check=2
	Codabar data redundant check=3
	Codabar start/stop character transmission-----none
	Codabar start/stop character transmission-----A,B,C,D
	Codabar start/stop character transmission-----DC1~DC4
	Codabar start/stop character transmission-----a/t,b/n,c/*,d/e
	Codabar start/stop character transmission –a,b,c,d

Set

	Codabar maximum length setting
	Codabar minimum length setting
	No check character
	Validate modulo 16,but don’t transmit
	Validate modulo 16,but transmit

Set

Code 39/Code 32 Settings

To change any option, scan the appropriate barcode(s) provided.

	Code 39 enable
	Code 39 disable
	Code 32 enable
	Code 32 disable
	Code 39 data redundant check=off
	Code 39 data redundant check=1
	Code 39 data redundant check=2
	Code 39 data redundant check=3
	Standard code 39
	FULL ASCII code 39
	Code 39 start/stop character transmission

Set

	Code 39 start/stop character without transmission
	Code 39 check digit calculate and transmit
	Code 39 check digit calculate but without transmit
	No check character
	Code 39 maximum length setting
	Code 39 minimum length setting
	Code 32 (Italian pharmacy)transmit “A” character
	Code 32 (Italian pharmacy)without transmit ”A” character


Set

Code 93 Settings

To change any option, scan the appropriate barcode(s) provided.

	Code 93 enable
	Code 93 disable
	Code 93 data redundant check=off
	Code 93 data redundant check=1
	Code 93 data redundant check=2
	Code 93 data redundant check=3
	Code 93 maximum length setting
	Code 93 minimum length setting


Set

Code 128/EAN 128 Settings

To change any option, scan the appropriate barcode(s) provided.

	Code 128 enable
	Code 128 disable
	EAN –128 enable
	EAN-128 disable
	Code 128 data redundant check=off
	Code 128 data redundant check=1
	Code 128 data redundant check=2
	Code 128 data redundant check=3
	Code 128 maximum length setting
	Code 128 minimum length setting


Set

Chinese Postcode Settings

To change any option, scan the appropriate barcode(s) provided.

	Chinese post code enable
	Chinese post code disable
	Chinese post code data redundant check=off
	Chinese post code data redundant check=1
	Chinese post code data redundant check=2
	Chinese post code data redundant check=3
	Chinese post code check digit calculate and transmit
	Chinese post code check digit calculate but without transmit

Set

MSI Settings

To change any option, scan the appropriate barcode(s) provided.

	MSI enable
	MSI disable
	MSI/PLESSY maximum length setting
	MSI/PLESSY minimum length setting
	MSI/Plessy double check digit calculate but not transmit
	MSI/Plessy double check digit without calculate and transmit
	MSI/Plessy double check digit calculate but only first digit transmit
	MSI/Plessy double check digit calculate and both transmit
	MSI/Plessy single check digit calculate but without transmit
	MSI/Plessy single check digit calculate and transmit


Set

Code 11 Settings

To change any option, scan the appropriate barcode(s) provided.

	CODE 11 enable
	CODE 11 disable
	CODE 11 maximum length setting **Default length 6 ~32 character**
	CODE 11 minimum length setting
	Disable verification
	Code 11 check digit transmitted
	Code 11 check digit not transmitted

Set

ITF 2 of 5 Settings

To change any option, scan the appropriate barcode(s) provided.

	ITF 2 of 5 enable
	ITF 2 of 5 disable
	ITF 25 data redundant check=off
	ITF25 data redundant check=1
	ITF25 data redundant check=2
	ITF 25 data redundant check=3
	ITF 2 of 5 code maximum length setting
	ITF 2 of 5 code minimum length setting
	ITF 2 of 5 no check character
	ITF 2 of 5 check digit calculate and transmit
	ITF 2 of 5 check digit calculate but without transmit

Set

	ITF 2 of 5 one Fixed length setting
	ITF 2 of 5 two Fixed length setting
	ITF 2 of 5 length variable

Telepen Settings

To change any option, scan the appropriate barcode(s) provided.

	Telepen Enable
	Telepen Disable

Pharmacode Settings

To change any option, scan the appropriate barcode(s) provided.

	Pharmacode Enable
	Pharmacode Disable

Set

UPC/EAN/JAN Settings

To change any option, scan the appropriate barcode(s) provided.

	EAN convert to ISSN/ISBN enable
	EAN convert to ISSN.ISBN disable
	UPC/EAN/JAN enable
	UPC/EAN/JAN disable
	EAN-8 OR EAN-13 ENABLE
	UPC-A AND EAN-13 ENABLE
	UPC-A AND UPC-E ENABLE
	UPC-A ENABEL
	UPC-E ENABLE
	EAN-13 ENABLE
	EAN-8 ENABEL

Set

	UPC/EAN ADDon off
	Addon 5 only
	Addon 2 only
	Addon 2 or 5
	Force UPC-E to UPC-A format enable
	Force UPC-E to UPC-A format disable
	Force UPC-A to EAN-13 format enable
	Force UPC-A to EAN-13 format disable
	Transmit UPC-A check digit enable
	Transmit UPC-A check digit disable
	Transmit UPC-E leading character enable
	Transmit UPC-E leading character disable
	Transmit UPC-E check digit enable

Set

	Transmit UPC-E check digit disable
	Transmit EAN-8 check digit enable
	Transmit EAN-8 check digit disable
	Transmit EAN-13 check digit enable
	Transmit EAN-13 check digit disable
	Transmit UPC-A leading character enable
	Transmit UPC-A leading character disable
	Addon format with separator
	Addon format without separator
	EAN/UPC +addon (none mandatory)
	EAN/UPC +addon (mandatory)
	EAN-8 to EAN-13 format enable
	force EAN-8 to EAN-13 format disable

Set

	EAN-13 first “0” can transmitted
	EAN-13 first ”0” can’t transmitted
	EAN-13 with first 0 ID code same as “UPC-A”
	EAN-13 with first 0 ID code same as “EAN-13”
	double code disable(9784/192)
	double code enable(9784/192)
	double code send for other
	double code not send for other
	EAN/UPC +addon mandatory for 491 Japanese (bookland) Supplement requirement, not sent for other
	EAN/UPC +addon mandatory 491 Japanese (bookland) Supplement requirement, optionally for other
	EAN/UPC +addon mandatory for 978/977 (bookland) Supplement requirement, not sent for other
	EAN/UPC +addon mandatory for 978/977 (bookland) Supplement requirement, optionally for other
	UPC-A data redundant check=off

Set

	UPC-A data redundant check=1
	UPC-A data redundant check=2
	UPC-A data redundant check=3
	UPC-E data redundant check=off
	UPC-E data redundant check=1
	UPC-E data redundant check=2
	UPC-E data redundant check=3
	EAN-13 data redundant check=off
	EAN-13 data redundant check=1
	EAN-13 data redundant check=2
	EAN-13 data redundant check=3
	EAN-8 data redundant check=off

Set

	EAN-8 data redundant check=1
	EAN-8 data redundant check=2
	EAN-8 data redundant check=3


Set

STD 2 of 5 Settings

To change any option, scan the appropriate barcode(s) provided.

	STD 2 of 5 code enable
	STD 2 of 5 code disable
	Standard 2 of 5 check digit calculate and transmit
	Standard 2 of 5 check digit calculate without transmit
	STD 2 of 5 code maximum length setting Default:6~32
	STD 2 of 5 code minimum length setting

Set

Industrial 2 of 5 Settings

To change any option, scan the appropriate barcode(s) provided.

	Industrial 2 of 5 Enable
	Industrial 2 of 5 Disable
	Industrial 2 of 5 check digit calculate and transmit
	Industrial 2 of 5 check digit calculate without transmit
	Industrial 2 of 5 code maximum length setting Default:6~32
	Industrial 2 of 5 code minimum length setting

Set

Matrix 2 of 5 Settings

To change any option, scan the appropriate barcode(s) provided.

	Matrix 2 of 5 code enable
	Matrix 2 of 5 code disable
	Matrix(Japanese) 2 of 5 code enable
	Matrix(Japanese) 2 of 5 code disable
	Matrix 2 of 5 code maximum length setting
	Matrix 2 of 5 code minimum length setting
	Matrix 2 of 5 check digit calculate and transmit
	Matrix 2 of 5 check digit calculate without transmit

Set

GS1 Settings

To change any option, scan the appropriate barcode(s) provided.

	GS1 Databar enable
	GS1 Databar disable
	GS1 Databar LIMITED enable
	GS1 Databar LIMITED disable
	GS1 Databar EXPANDED enable
	GS1 Databar EXPANDED disable
	GS1 Data Redundant check = off
	GS1 Data Redundant check = 1
	GS1 Data Redundant check = 2
	GS1 Data Redundant check = 3
	GS1 Limited Data Redundant check = off

Set

	GS1 Limited Data Redundant check = 1
	GS1 Limited Data Redundant check = 2
	GS1 Limited Data Redundant check = 3
	GS1 Expanded Data Redundant check = off
	GS1 Expanded Data Redundant check = 1
	GS1 Expanded Data Redundant check = 2
	GS1 Expanded Data Redundant check = 3

GS Substitution for NMVS Application

This setting enables GS substitution function in barcodes with GS characters.

	NMVS Disable (default) GS Substitution value: CTRL +]
	NMVS Enable GS Substitution value: Alt + 29


Set

QR Code Settings

To change any option, scan the appropriate barcode(s) provided.

	QR Code enable
	QR Code disable
	Micro QR Code enable
	Micro QR Code disable
	QR Model 1 Code enable
	QR Model 1 Code disable
	QR Code Mirror enable
	QR Code Mirror disable
	QR/MQR polarity setting = Dark on Light
	QR/MQR polarity setting = Light on Dark
	QR/MQR polarity setting = either


Set

Data Matrix Settings

To change any option, scan the appropriate barcode(s) provided.

	DataMatrix enable
	DataMatrix disable
	DataMatrix Mirror enable
	DataMatrix Mirror disable
	DataMatrix polarity setting = either

Set

PDF417 Settings

To change any option, scan the appropriate barcode(s) provided.

	PDF417 enable
	PDF417 disable
	Micro PDF417 enable
	Micro PDF417 disable
	PDF417 Data Redundant check = off
	PDF417 Data Redundant check = 1
	PDF417 Data Redundant check = 2
	PDF417 Data Redundant check = 3


Set

Aztec Settings

To change any option, scan the appropriate barcode(s) provided.

	Aztec enable
	Aztec disable
	Aztec Mirror enable
	Aztec Mirror disable
	Aztec polarity setting = Dark on Light
	Aztec polarity setting = Light on Dark
	Aztec polarity setting = either

Maxicode Settings

To change any option, scan the appropriate barcode(s) provided.

	Maxi code enable
	Maxi code disable

Set

Postcode Settings

To change any option, scan the appropriate barcode(s) provided.

	PostNet Enable
	PostNet Disable
	PLANET Enable
	PLANET Disable
	Australia Post Enable
	Australia Post Disable
	Royal Post Enable
	Royal Post Disable


Set

Codablock F Settings

To change any option, scan the appropriate barcode(s) provided.

	Codablock F Enable
	Codablock F Disable

Composite Codes

To change any option, scan the appropriate barcode(s) provided.

	CC-A Enable
	CC-A Disable
	CC-B Enable
	CC-B Disable
	CC-C Enable
	CC-C Disable

Set

Identifier Code Settings

To change any option, scan the appropriate barcode(s) provided.

	Disable identifier code
	Enable identifier code table as ZEBEX standard
	Enable identifier code table as AIM standard. Refer to appendix A.
	CODE 39 identifier code setting
	ITF 2 of 5 identifier code setting
	UPC-E identifier code setting
	UPC-A identifier code setting
	EAN-13 identifier code setting
	EAN-8 identifier code setting
	CODABAR identifier code setting
	CODE 128 identifier code setting

Set

	CODE 93 identifier code setting
	MSI identifier code setting
	GS1 Databar identifier code setting
	GS1 Databar limited identifier code setting
	GS1 Databar expanded identifier code setting
	Industrial 2 of 5 Identifier code setting
	Code 11 Identifier code setting
	Standard 2 of 5 Identifier code setting
	Matrix 2of 5 (Japanese) Identifier code setting
	Telepen identifier code setting
	PDF417 identifier code setting
	QR Code identifier code setting
	DataMatrix identifier code setting

Set

	AZTEC identifier code setting
	Maxi code identifier code setting

Character Settings

To change any option, scan the appropriate barcode(s) provided.

	Add code length as header enable(all barcode)
	Add code length as header disable (all barcode)
	Header (Preamble)
	Trailer (Post amble)
	Truncate header character
	Truncate trailer character
	Inter character delay 0ms
	Inter character delay 2ms
	Inter character delay 5ms


Set

	Inter character delay 10ms
	Inter character delay 20ms
	Inter character delay 50ms
	Inter character delay 90msec
	Inter character delay 100msec
	Inter message delay 0 ms
	Inter message delay 100 ms
	Inter message delay 500 ms
	Inter message delay 1000 ms

Full ASCII Data Matrix Table

Data Matrix	ASCII	Hexa-code
	Full ASCII ---NUL	00
	Full ASCII ---SOH Function key-----“Ins”	01
	Full ASCII ---STX Function key-----“Del”	02
	Full ASCII ---ETX Function key-----“Home”	03
	Full ASCII ---EOT Function key-----“End”	04
	Full ASCII ---ENQ Function key-----“Up arrow”	05
	Full ASCII ---ACK Function key-----“Down arrow”	06
	Full ASCII ---BEL Function key-----“Left arrow”	07
	Full ASCII ---BS Function key-----“Backspace”	08
	Full ASCII ---HT Function key-----“TAB”	09

	Full ASCII ---LF Function key-----“Enter (alpha numeric”	0A
	Full ASCII ---VT Function key-----“right arrow”	0B
	Full ASCII ---FF Function key-----“PgUp”	0C
	Full ASCII ---CR Function key-----“Enetr(num.)”	0D
	Full ASCII ---SO Function key-----“PgDn”	0E
	Full ASCII ---SI Function key-----“Shift”	0F
	Full ASCII ---DLE Function key-----“5(num)”	10
	Full ASCII ---DC1 Function key-----“F1”	11
	Full ASCII ---DC2 Function key-----“F2”	12
	Full ASCII ---DC3 Function key-----“F3”	13
	Full ASCII ---DC4 Function key-----“F4”	14
	Full ASCII ---NAK Function key-----“F5”	15

	Full ASCII ---SYN Function key-----“F6”	16
	Full ASCII ---ETB Function key-----“F7”	17
	Full ASCII ---CAN Function key-----“F8”	18
	Full ASCII ---EN Function key-----“F9”	19
	Full ASCII ---SUB Function key-----“F10”	1A
	Full ASCII ---ESC Function key-----“F11”	1B
	Full ASCII ---FS Function key-----“F12”	1C
	Full ASCII ---GS Function key-----“ESC”	1D
	Full ASCII ---RS Function key-----“CTL(L)”	1E
	Full ASCII ---US Function key-----“ALT(L)”	1F
	Full ASCII ---SP	20
	Full ASCII ---!	21

	Full ASCII ---“	22
	Full ASCII ---#	23
	Full ASCII ---$	24
	Full ASCII ---%	25
	Full ASCII ---&	26
	Full ASCII ---‘	27
	Full ASCII --- (	28
	Full ASCII ---)	29
	Full ASCII ---*	2A
	Full ASCII ---+	2B
	Full ASCII ---,	2C
	Full ASCII ----	2D

	Full ASCII ---.	2E
	Full ASCII ---/	2F
	Full ASCII ---0	30
	Full ASCII ---1	31
	Full ASCII ---2	32
	Full ASCII ---3	33
	Full ASCII ---4	34
	Full ASCII ---5	35
	Full ASCII ---6	36
	Full ASCII ---7	37
	Full ASCII ---8	38
	Full ASCII ---9	39

	Full ASCII ---:	3A
	Full ASCII ---;	3B
	Full ASCII ---<	3C
	Full ASCII ---=	3D
	Full ASCII --->	3E
	Full ASCII ---?	3F
	Full ASCII ---@	40
	Full ASCII ---A	41
	Full ASCII ---B	42
	Full ASCII ---C	43
	Full ASCII ---D	44
	Full ASCII ---E	45

	Full ASCII ---F	46
	Full ASCII ---G	47
	Full ASCII ---H	48
	Full ASCII ---I	49
	Full ASCII ---J	4A
	Full ASCII ---K	4B
	Full ASCII ---L	4C
	Full ASCII ---M	4D
	Full ASCII ---N	4E
	Full ASCII ---O	4F
	Full ASCII ---P	50
	Full ASCII ---Q	51

	Full ASCII ---R	52
	Full ASCII ---S	53
	Full ASCII ---T	54
	Full ASCII ---U	55
	Full ASCII ---V	56
	Full ASCII ---W	57
	Full ASCII ---X	58
	Full ASCII ---Y	59
	Full ASCII ---Z	5A
	Full ASCII ---[	5B
	Full ASCII ---\	5C
	Full ASCII ---]	5D

	Full ASCII ---^	5E
	Full ASCII ---_	5F
	Full ASCII ---`	60
	Full ASCII ---a	61
	Full ASCII ---b	62
	Full ASCII ---c	63
	Full ASCII ---d	64
	Full ASCII ---e	65
	Full ASCII ---f	66
	Full ASCII ---g	67
	Full ASCII ---h	68
	Full ASCII ---i	69

	Full ASCII ---j	6A
	Full ASCII ---k	6B
	Full ASCII ---l	6C
	Full ASCII ---m	6D
	Full ASCII ---n	6E
	Full ASCII ---o	6F
	Full ASCII ---p	70
	Full ASCII ---q	71
	Full ASCII ---r	72
	Full ASCII ---s	73
	Full ASCII ---t	74
	Full ASCII ---u	75

	Full ASCII ---v	76
	Full ASCII ---w	77
	Full ASCII ---x	78
	Full ASCII ---y	79
	Full ASCII ---z	7A
	Full ASCII ---{	7B
	Full ASCII ---|	7C
	Full ASCII ---}	7D
	Full ASCII ---~	7E
	Full ASCII ---DEL	7F