Creo R Compact Hand Held Scanner User Guide

Version 1.6

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Revision History

Version	Date	Description
1.0	12/4/23	Original Version
1.1	02/15/24	Minor updates
1.2	03/06/24	Programmatic interface overview added
1.3	04/18/24	Command list updates
1.4	04/20/24	Minor Grammatical Updates
1.5	03/03/2026	Added Programming Command Prefixes, Grammatical Revisions, RFID Commands, and Programming Interface Sections
1.6	03/13/2026	Minor Spacing and Grammatical Revisions

Contents

About this Manual

This Manual is meant to serve as a guide on how to use and modify your Creo Hand Held scanner. For further technical information beyond what is contained in this manual please visit www.Diamondt.com, where you can download datasheets, USB drivers, and further documentation on the Creo scanner.

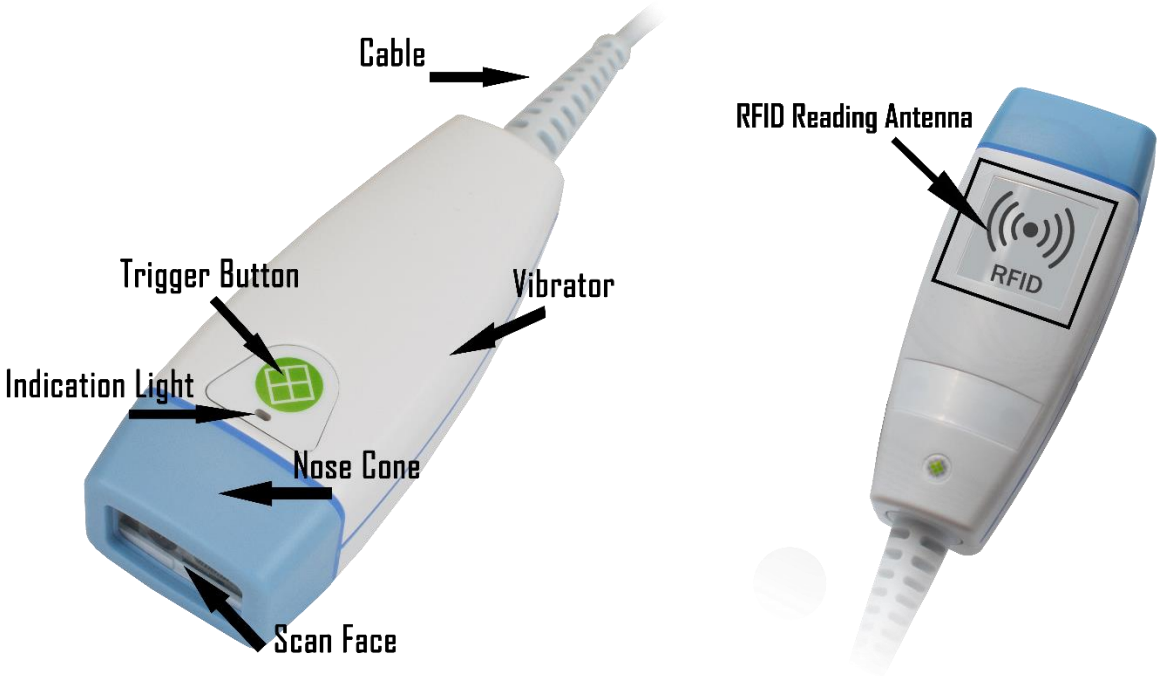
Most Creo units are factory programmed for the most common communication and reading settings. However, some Creo units may have a different set of preconfigured defaults in order to best serve specific applications. If you wish to change or modify Creo settings you can do so by scanning programing codes contained within this guide, or by issuing the device commands with the Diamond Technologies DSCU programing software, which can also be downloaded for free at www.Diamondt.com.

As the Creo is available with a variety of internal hardware components this Manual will support the following models of Creo. Creo models not included on this list may have different programming commands or language.

Product	Supported Models
Creo R	FHR-004
Creo XR	FHR-006

Getting to Know Creo

The Creo compact hand held scanner is a programmable multi-functional handheld companion scanner designed to accurately read barcodes. Despite different options and models, each Creo unit will have the following:



Cable: This allows your device to communicate with your host. This cable output will be either USB or Serial/RS232

Trigger Button: When depressed this allows your device to scan barcodes, read RFID tags and cards, or even capture an image.

Indication Light: This allows you to see the status of the device or confirm the device is powered on.

Scan Face: This is the optical window that the device reads barcodes through. This is where the built-in illuminator will shine from and where the barcode camera module will see out.

Vibrator: Though not visible, each Creo has a built-in vibrating motor which will give tactile feed back to a user when the device has read a barcode or RFID tag. This can be helpful when an audible beep may not be desired. This vibration can also be disabled.

RFID Antenna: The RFID reading antenna shows where on the device the most appropriate place is to align RFID cards and tags for easy reading.

Nose Cone: Underneath the nose cone case are four "heads up" LEDs that allow visual feedback when a barcode or RFID tag is successfully read. These form the Creo's distinctive "smile" and will be illuminated on a successful read.

Using the Creo

Using the Creo is very simple. First, ensure the device is powered on and connected to your host. To power on the device simply plug in the scanners USB cable to your host.

You can ensure the device is powered on by listening for its multi-tonal start up beep, or by looking at the indication light above the button to ensure that it is shining blue. A Blue indication light means the device is on and ready to scan.

Figure 1 Blue Indicator Light

Once the device is powered on, and the indication light is shining blue, the device is ready to use.

Scanning Barcodes

To scan a barcode with the Creo, simply ensure that the unit is powered on. Then, with the scan face pointed at a barcode, simply press the trigger button. Alternatively, you can press and hold the trigger

button, while bringing either the barcode to the center of the reader's aimer, or the readers aimer to the center of the barcode.

To ensure proper and easy aiming, the Creo comes with a built-in aimer in all models. The shape and color of this aimer may vary from model to model, but the basic principle remains the same, as the center of each shape of aimer is where the reader will perform best.

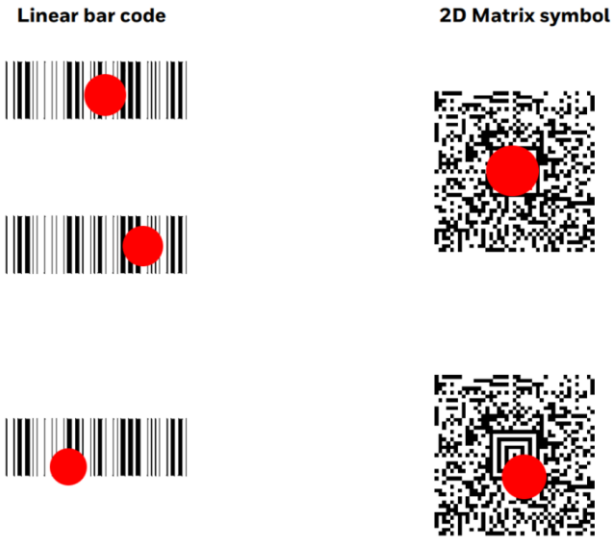
To see the aimer, simply press and hold the Trigger button on the Creo while the unit is powered on.

Examples of different aimers:

Figure 2 Red Dot Aimer

Figure 3 Green Cross Aimer

Here are some examples of acceptable reading and aiming techniques with these aimers. The Aimer does not always need to be centered exactly on the barcode to be read but the reader will perform best and read quickest when the aimer is centered on the barcode.



For smaller or denser codes with more symbols it may be desirable to physically bring the reader closer to the code being scanned. This will allow the reader to better see the code.

Apon a successful read the Creo will vibrate and display its “smile”. If these features are not desired, they can be selectively disabled through programming commands.

Figure 4 Creo's "Smile" Upon a Successful Read

Reading RFID Tags and Cards

To read a High Frequency or Low frequency RFID tag or card with the Creo first ensure that the unit is powered on. Then simply bring the RFID tag or card within 3” (7.62cm) or into contact with the back of the scanner opposite the trigger button.

When a tag is detected, the Indication Light will begin flashing. When the Indication light is flashing depress the trigger and observe the good read yellow LED on the nose cone and the vibration feedback. To prevent re-reads once a card is successfully read, it cannot be read again, until it has left the detection field of the Creo and re-entered it.

Figure 5 Step 1 - Bring RFID Tag to the Creo

Figure 6 Wait for the flashing RFID detection light

Figure 7 Press the trigger to read the tag

If Auto RFID Reading is enabled RFID tags will be automatically read as soon as they are within reading distance. Simply bring the card within 3" (7.62cm) or into contact with the reader.

If Auto RFID Reading is enabled, the Creo will not display the flashing RFID detection light, as it will simply read the tag.

Cleaning the Creo

The Creo is resistant to a wide variety of chemicals and products typically found in hospital, laboratory, and medical settings. Below is a list of recommended cleaning solutions.

Product	Chemical Content
Sani-Cloth® HB, Sani-Cloth® Plus, Super Sani-Cloth®	Quaternary Ammonium Chloride solution
Hepacide Quat® II	Virucidal Disinfectant Cleaner
Alcohol Wipes	70% Isopropyl Alcohol
CaviWipes™	Isopropanol 10-20%; Ethylene Glycol Monobutyl Ether 1-5%
Virex® 256	n-Alkyl Dimethyl Benzyl Ammonium Chloride; Didecyl Dimethyl Ammonium Chloride
409® Glass Surface Cleaner	n-Alkyl Dimethyl Benzyl ammonium Chloride; n-Propoxpropanol
Windex® Blue	Isopropyl Alcohol
Clorox® Bleach	Sodium Hypochlorite 10%; Sodium Hydroxide 10%
100% Gentle Dish Soap and Water	

CAUTIONS:

· **DO NOT** use solutions in their concentrated form.

· **DO NOT** use aerosols, solvents or abrasives.

· **DO NOT** immerse the unit in water or cleaning solution or spray or pour cleaner directly onto the unit.

· **DO NOT** use paper or paper based cloths (paper towels, napkins, etc)

To clean the Creo and its reading window surface:

1. Moisten a soft cloth with a recommended cleaning solution. Be sure to apply the solution to your cloth first. Wring excessive liquid from the cloth.

2. Use the cloth to wipe down the surface of the unit. Use cotton swabs, lightly moistened, to reach in corners and crevices.

3. Use another clean dry cloth to remove any residue of the cleaning agent and ensure the unit is dry.

Interfacing to the Creo

Connecting to the Creo will typically just involve plugging the USB into your host system. When using Microsoft Windows a USB driver can be downloaded and installed from www.diamondt.com. The USB interface for the Creo is a standard CDC/ACM interface and the Creo will utilize this to interface to the host whether it is Windows, Linux, Android or another operating system.

The Creo supports multiple methods of interface depending on what model you currently have.

The USB Model Creo supports:

- USB Keyboard PC
- USB COM

If you are attempting to Connect a USB Creo to a PC you will first need the appropriate drivers which can be downloaded for free from www.Diamondt.com.

The following sections of this manual contain programing codes which can be used to change the operation of the Creo scanner.

Please note that Codes below indicated with a * represent the factory default in each category.

USB Interface Parameters

The following barcodes can be used to set the desired USB operating interface. USB COM mode programs the Creo's USB interface to act like a serial port. USB Keyboard programs the Creo to act like a USB Keyboard so you can output characters directly into a text editor or program.

USB-COM Mode*

#CINT0.

USB Keyboard Mode

#CINT1.

Barcode Reading Operating Modes

The Creo can operate in various modes called operating modes. The two basic operating modes are Manual Trigger mode and Presentation mode. In Presentation Mode the scanner is always looking for barcodes and will decode a barcode as it is presented to the scanner. In Manual Trigger mode the scanner will turn on and attempt to read barcodes when the trigger button is pressed or when a serial trigger signal is sent to the scanner.

Presentation Mode

TRGMOD3.

Manual Trigger Mode *

TRGMOD0.

The Creo can also operate in modes which are optimized for Cell Phone or LED display reading. These modes include a Mobile Phone trigger mode and a Mobile Phone presentation mode. Note in Mobile Phone mode the speed of scanning barcodes on paper may be slightly reduced. The following barcode can be used to set this specific operating mode.

Mobile Phone Mode Presentation

TRGMOD8;PDCCEL.

RFID Reading Operating Modes

The Creo can selectively enable or disable RFID reading capabilities if desired. The following barcodes can be used to completely disable or enable RFID reading capabilities.

Enable RFID Reading

#RMOD1.

Disable RFID Reading

#RMOD0.

Creo User Feedback

LED Illumination – Manual Trigger

If you wish to set the illumination LED brightness, scan one of the bar codes below. This sets the LED illumination for the Creo when the trigger is pressed.

Illumination low

PWRNOL100.

Illumination off

PWRNOL0.

Illumination High *

PWRNOL150.

Illumination Medium

PWRNOL120.

Creo Smile and Vibration

The Creo scanner features a green “smile” indicator and vibrational feedback upon a successful scan of a barcode and a yellow “smile” indicator and vibrational feedback on the successful scan of an RFID tag or card. This assists operators in ensuring they have successfully scanned a code and received the data. However, this may not be desired for some users. The vibration and green/yellow light “smile” feedback indicator can both be disabled with the following codes. *Default = Enabled.*

Enable Vibration*

#CVIB1.

Disable Vibration

#CVIB0.

Enable Feedback Light*

#CFBL1.

Disable Feedback Light

#CFBL0.

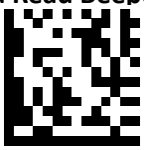
Creo Beeper Volume

The Creo Scanner also features a built-in beeper for audio feedback upon a successful scan of a code. This allows operators to hear as well as see, a successful code scan. Beep volume can be lowered, or muted entirely if you wish to use the scanner silently. *Default = Enabled , High Volume*

Good Read Beeper Off

#CBEP0.

Good Read Beeper On*

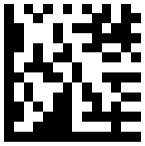


#CBEP1.

Beeper Volume – High*

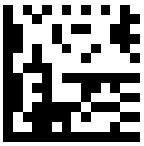
#CBPV2.

Beeper Volume - Low



#CBPV0.

Beeper Volume - Medium



#CBPV1.

Serial Trigger Commands

When the Creo is set to Trigger operating mode, the scanner will turn on when it receives a button press or a serial activate command is programmatically sent to the reader. The serial trigger activate and deactivate commands utilize the following format.

Trigger Activate: **SYN T CR**

Trigger Deactivate: **SYN U CR**

When the Creo receives the Trigger Activate command its' LED illumination will come on and it will begin looking for barcodes. The scanner will turn off and deactivate the scanning phase when either the scanner finds and decodes a valid barcode, the scanner receives the trigger deactivate command, or the scanners serial time out value has been reached (see Read-Time Out in the below command list, default value is 30 seconds).

If an RFID tag is present in the reading field of the Creo, the Creo will not look for barcodes and will instead read the RFID tag, and then deactivate its reading phase. RFID reading when a tag is present within the reading field takes priority in this instance. If RFID reading is disabled via the RMOD0. command, then the Creo will look for barcodes when issued a trigger command even if an RFID tag is within the reading field.

Creo Defaults

The scanner can be restored to its factory default setting by either scanning a barcode or programmatically sending the default command to the reader. The default code is listed below as well as in the Command List table in this guide.

To restore the device to defaults by scanning a barcode, scan the Activate Custom Defaults barcode below.

Activate Custom Defaults

Defining Reading Areas and What to Read

Reread Delay

The DLYRRD command sets the time period before the Creo can read the *same* barcode a second time. Setting a reread delay protects against accidental rereads of the same barcode. Longer delays are effective in minimizing accidental rereads. Use shorter delays in applications where repetitive barcode scanning is required. Reread Delay will only work in presentation mode. *Default = 750ms also known as "Medium".*

Reread Delay 750ms*

Reread Delay 0ms

Reread Delay 500ms

DLYRRD500.

Reread Delay 1000ms

DLYRRD1000.

User Specified Re-Read Delay

If you want to set your own length for the reread delay, use the DLYRRD command followed by a numerical value in milliseconds (from 0-30,000 milliseconds)

2D Reread Delay

Sometimes 2D bar codes can take longer to read than other barcode types. If you wish to set a separate Reread Delay for 2D bar codes use the DLY2RR command followed by the value you want to set. See the command list for further details. Setting DLY2RR to 0 indicates that the same read delay is used for both 1D and 2D bar codes. *Default = 2D Reread Delay Off.*

Multiple Symbols

The SHOTGN1 command can be used to instruct the reader to read multiple barcodes in the same reading phase. If the SHOTGN1 command is set in the reader while sending a hardware trigger this will result in the reader decoding and sending back any codes in its' field of view. The reader will continue to read if the Hardware trigger remains active. SHOTGN2 functions the same as SHOTGN1 but in a more aggressive and expedient manner.

Default = Off.

Data Formatting For Barcode Reading

There are several commands which can be used to instruct the scanner to format its barcode output data in a specific order or format.

Adding a Prefix or Suffix

You can easily add a Prefix or Suffix to the data stream coming from a successful barcode read using the PREBK2 or SUFBK2 commands respectively. A prefix or suffix can be a single character or a group of characters and these can be applied to all barcodes read or to specific barcode symbologies. The process to build a command line to add a prefix or suffix is the same and is as follows:

1. Add prefix or add suffix command (PREBK2, SUFBK2).
2. Add 2-digit hex value for the symbology you want to apply the prefix or suffix to. The hex code can be found in the Symbology Chart found in the appendix of this guide. If you want to apply the prefix or suffix to all symbologies scan or send 99 to the Creo scanner.
3. Add the hex value for the character(s) which you want to use as the prefix or suffix.

The command line will take this format:

<SYN>M<CR>PREBK2[SymbCode][Char1Hex][Char2Hex]...[CharNHex].

Examples:

The following programming sequences will add the STX character as a prefix to all symbologies being read.

PREBK29902.

The following barcode will add a Carraige Return or CR as a suffix to all symbologies being read.

SUFBK2990D.

Data Formatting for RFID Reading

Adding a Prefix or Suffix

You can easily add a Prefix or Suffix to the data stream coming from a successful RFID tag or card read using the RPRE or RSUF commands respectively. RFID prefixes and suffixes must always include 4 bytes (8 characters) in the parameter. When a Hex “00” or NUL is encountered, this indicates the end of the string (if using less than 4 characters). To remove the prefix, set Hex “00” “00” “00” “00” or 4 consecutive NUL characters. Any prefix or suffix applied to the RFID data stream will be present in all RFID tag or card types read by the Creo.

The process to build a command line to add a prefix or suffix varies slightly from the process for Barcoding and is as follows:

1. Add prefix or add suffix command (RPRE, RSUF).

2. Add up to Hex 4 bytes that you want to use as the prefix or suffix.

The command line will take this format:

<SYN>R<CR>RSUF[Char1Hex][Char2Hex][Char3Hex][Char4Hex].

Examples:

The following programming barcode will add the STX character as a prefix to all RFID tags and cards being read.

@RPRE02000000.

The following programming barcode will add the Carraige Return or CR character as a Suffix to all RFID tags and cards being read.

@RSUF0D000000.

Symbologies

The Creo Scanner can read all common 1D and 2D barcodes. Each symbology can be specifically enabled or disabled allowing you to only read intended codes. Each symbology can be further refined in multiple different manners including, only reading certain characters or character combinations, limiting or expecting certain code lengths, validating checksums or redundancies, etc.

For clarification on certain settings, or for more detailed programing information not contained within this manual, contact Diamond Technologies.

Enabling and Disabling All Codes

The following Codes will enable or disable all barcode types.

Note that there is a command for disabling all Symbologies (ALLENA0.) however it does not appear as a programming barcode below as using it would disable the use of any additional programming codes in this manual until symbologies were re-enabled via host commands.

All Symbologies On*

ALLENA1.

Codabar

Default All Codabar Settings

CBRDFT.

Enable Codabar*

CBRENA1.

Disable Codabar

CBRENA0.

Code 39

Default All Code 39 Settings


C39DFT.

Enable Code 39*


C39NA1.

Disable Code 39


C39NA0.

Code 39 Full ASCII

Enable Code 39 Full ASCII


C39ASC1.

Disable Code 39 Full ASCII*


C39ASC0.

Code 93

Default All Code 93 Settings


C93DFT.

Enable Code 93*


C93ENA1.

Disable Code 93


C93ENA0.

Matrix 2 of 5

Default All Matrix 2 of 5 Settings


X25DFT.

Enable Matrix 2 of 5


X25ENA1.

Disable Matrix 2 of 5*


X25ENA0.

Code 32 Pharmaceutical

Enable Code 32 Pharmaceutical


C39B321.

Disable Code 39 Pharmaceutical*


C39B320.

Interleaved 2 of 5

Default All Interleaved 2 of 5 Settings

I25DFT.

Enable Interleaved 2 of 5*

I25ENA1.

Disable Interleaved 2 of 5

I25ENA0.

Code 11

Default All Code 11 Settings

C11DFT.

Enable Code 11

C11ENA1.

Disable Code 11*

C11ENA0.

Code 128

Default All Code 128 Settings


128DFT.

Enable Code 128*


128ENA1.

Disable Code 128


128ENA0.

GS1-128

Default All Code GS1-128 Settings


GS1DFT.

Enable Code GS1-128*


GS1ENA1.

Disable Code GS1-128


GS1ENA0.

UPC-A

Default All UPC-A Settings


UPADFT.

Enable UPC-A*


UPBENA1.

Disable Code GS1-128


UPBENA0.

UPC-E0

Default All UPC-E0 Settings


UPEDFT.

Enable UPC-E0*


UPEEN01.

Disable UPC-E0


UPEEN00.

UPC-E1

Enable UPC-E1


UPEEN11.

Disable UPC-E1*


UPEEN10.

EAN/JAN-13

Default All EAN/JAN-13 Settings

E13DFT.

Enable EAN/JAN-13*

E13ENA1.

Disable EAN/JAN-13

E13ENA0.

EAN/JAN-8

Default All EAN/JAN-8 Settings

EA8DFT.

Enable EAN/JAN-8*

EA8ENA1.

Disable EAN/JAN-8

EA8ENA0.

MSI

Default All MSI Settings

MSIDFT.

Enable MSI

MSIENA1.

Disable MSI*

MSIENA0.

GS1 DataBar Omnidirectional

Default All GS1 Databar Omnidirectional Settings

RSSDFT.

Enable GS1 Databar Omnidirectional*

RSSENA1.

Disable GS1 Databar Omnidirectional

RSSENA0.

GS1 DataBar Limited

Default All GS1 Databar Limited Settings

RSLDFT.

Enable GS1 Databar Limited*

RSLNA1.

Disable GS1 Databar Limited

RSLENA0.

GS1 DataBar Expanded

Default All GS1 Databar Expanded Settings

RSEDFT.

Enable GS1 Databar Limited*

RSLENA1.

Disable GS1 Databar Limited

RSLENA0.

PDF417

Default All PDF417 Settings

PDFDFT.

Enable PDF417*

PDFENA1.

Disable PDF417

PDFENA0.

MicroPDF417

Default All MicroPDF417 Settings

MPDDFT.

Enable MicroPDF417

MPDENA1.

Disable MicroPDF417*

MPDENA0.

GS1 composite Codes

Enable GS1 Composite

COMENA1.

Disable GS1 Composite*

COMENA0.

QR Code

Default All QR Settings

QRCDFT.

Enable QR*

QRCENA1.

Disable QR

QRCENA0.

Data Matrix

Default All Data Matrix Settings

IDMDFT.

Enable Data Matrix*

IDMENA1.

Disable Data Matrix

IDMENA0.

MaxiCode

Default All Data Matrix Settings


MAXDFT.

Enable Data Matrix*


MAXENA1.

Disable Data Matrix


MAXENA0.

Aztec Code

Default All Aztec Code


AZTDFT.

Enable Aztec Code*


AZTENA1.

Disable Aztec Code


AZTENA0.

Programmatic Interface

Sending Data

The Creo scanners support programming via either reading programming barcodes or via a host programmatic configuration through the USB interface. This is helpful when programming larger numbers of scanners or when the use of programming barcodes may be a hinderance (disabling the Data Matrix symbology for example). The following describes the command format used when sending commands to the Creo.

The programmatic interface requires that the user send commands to the scanner in the correct format. This format is defined as the following:

Prefix[Command{Value}]Terminator

Prefix	[Barcode & Imaging Configuration] (3) ASCII characters **SYN M CR** (HEX 16, 4D, 0D) [RFID Configuration] (3) Ascii characters **SYN R CR** (HEX 16, 52, 13) [System/General Configuration] (3) Ascii characters **SYN C CR** (HEX 16, 43, 13)
Command	A (4)-(6) character case-insensitive field that identifies the desired setting to be modified or applied
Value	A single or multidigit field which modifies the prior command. Leave Absent if querying the current value of the command
Command Extender	An optional character that can be used to add an additional command to the same command string.*
Query	An optional "?" character (HEX 3F) for receiving information that returns the current value of the prior command
Terminator	A single " . " character (HEX 2E) that specifies the command is finished.

**Consecutive commands are issued in the order in which they appear. The command extender is only to be used with two or more commands which share the same prefix. To issue multiple commands with different prefixes in the same string, a terminator must be used after each command and the new prefix must be used before each command*.

Example Commands:

The following command will turn off the Creo Vibration:

Prefix	Command	Value	Terminator
SYN C CR	CVIB	0	.

The following command will query the Creo to see if QR code reading is enabled:

Prefix	Tag	Value	Terminator
SYN M CR	QRCDFT		?

The following command will enable QR code reading and disable PDF417 code reading:

Prefix	Tag	Value	Command Extender	Tag	Value	Terminator
SYN M CR	QRCDFT	1	;	PDFENA	0	.

The following command will set an RFID data prefix of “ABCD” and turn off the Creo feedback LED.

Prefix	Tag	Value	Terminator	Prefix	Command	Value	Terminator
SYN R CR	RPRE	41424344	.	SYN C CR	CFBL	0	.

Receiving Data

The scanner will respond to commands by echoing back the command followed by three possible responses to the command. These responses are as follows.

Response	Description
ACK	Indicates a good command which has been accepted and processed.
ENQ	Indicates an invalid command.
NAK	Indicates the command was good but the value was out of allowable range for this command. Example: <SYN>C<CR>CVIB2.

The following are examples of commands sent to the scanner and responses from the scanner.

Sent: **<SYN>M<CR>IDMENA0.**

Recieved: **IDMENA0[ACK].**

In this example the command was accepted and processed. The scanner will no longer read Data Matrix codes.

Example: Disable scanning of Data Matrix symbology codes but value of (4) is out of range.

Host: **<SYN>M<CR>IDMENA4.**

Scanner: **IDMENA4[NAK].**

In this example the scanner responded that the command was good but the data field value, in this case (4), was out of allowable range.

Example: Turn off the scanner's vibration.

Host: **[SYN]C[CR]CVIB0.**

Scanner: **CVIB0[ACK].**

In this example the command was accepted and processed and stored in volatile memory.

Example: Turn off the scanner's illumination lights command is misspelled.

Host: **[SYN]M[CR]BWRNOL0.**

Scanner: **BWRNOL0[ENQ].**

In this example the command was rejected as the tag value was incorrect and not understood by the scanner.

Example: Provide the current setting for Data Matrix Code Reading.

Host: **[SYN]M[CR]IDMENA?.**

Scanner: **IDMENA1[ACK].**

In this example the command was accepted and the scanner reports back that the current setting for Data Matrix Code Reading is "1" indicating that it is currently enabled.

Command List

The below table includes the programmatic commands for the Creo Compact scanners.

Selection	Setting * indicates Default	Serial Command ## indicates a numeric value	Description	Associated Prefix
Product Default Settings				
Default		CDFT	Returns the Creo to Default Settings	#
System Commands				
System Firmware Version		CVER	Returns the Hardware and Software Version of the Creo	#
Barcode Reading	On*	SMOD1		<SYN>C<CR>
	Off	SMOD0		<SYN>C<CR>
Beeper	On*	CBEP1		<SYN>C<CR>
	Off	CBEP0		<SYN>C<CR>
Vibrator	On*	CVIB1		<SYN>C<CR>
	Off	CVIB0		<SYN>C<CR>
RFID Reading	On*	RMOD1		<SYN>C<CR>
	Off	RMOD0		<SYN>C<CR>

COM Mode	USB-COM*	CINT0		<SYN>C<CR>
	USB-Keyboard	CINT1		<SYN>C<CR>
Feedback LED	On*	CFBL1		<SYN>C<CR>
	Off	CFBL1		<SYN>C<CR>
Beeper Volume	Low	CBPV0		<SYN>C<CR>
	Medium	CBPV1		<SYN>C<CR>
	High*	CBPV2		<SYN>C<CR>
Keyboard Fallback	On	CKBD1	When the USB-COM port is not open, but a USB-HID endpoint exists, all data will be automatically sent as USB-KBD data. NOT COMPATIABLE WITH CPWK=1	<SYN>C<CR>
	Off	CKBD0		<SYN>C<CR>
Sleep Mode	On	CPWK1	When enabled, the device will enter a low power sleep mode any time the COM port is closed. It will automatically wake from sleep mode when the COM port opens	<SYN>C<CR>
	Off	CPWK0		<SYN>C<CR>
Wake On Trigger	On	CTWK1	When Creo-R is in SLEEP mode, a	<SYN>C<CR>

	Off	CTWK0	trigger press will wake the device	<SYN>C<CR>
RFID Commands				
Enable Tag	***Values:*** *Tag Type :* ***99:*** *ALL* ***10:*** *Low Freq* ***20:*** *High Freq* *Enabled State:* ***00:*** *Disable* ***01:*** *Enable* **----------** Examples: **SET** <SYN>R<CR>RTEA99,01. <SYN>R<CR>RTEA10,00. **GET** <SYN>R<CR>RTEA?10.	RTEA	***This command requires 2 parameters for SET and 1 Parameter for GET:*** **SET SYNTAX:** ---------- XX,YY *WHERE:* *XX = Tag Type to Set* *YY = State to Set* ---------- **GET SYNTAX:** ---------- ?XX *WHERE:* *XX = Tag Type to Get*	<SYN>R<CR>
RFID Tag Byte Order	Standard*	RTBO0		<SYN>R<CR>
	Reversed	RTBO1		<SYN>R<CR>
RFID Prefix	Four ASCII-HEX bytes (eg. 31323334 = '1234'). 00 for 'end of string' if less than 4 characters used	RPRE	Must always inclue 4 bytes (8 characters) in the parameter. When a 00 is encountered, this indicates the end of the string (if using less than 4 characters). To	<SYN>R<CR>

			remove the prefix, set 00000000	
RFID Suffix	Four ASCII-HEX bytes (eg. 31323334 = '1234'). 00 for 'end of string' if less than 4 characters used	RSUF	Must always inclue 4 bytes (8 characters) in the parameter. When a 00 is encountered, this indicates the end of the string (if using les than 4 characters). To remove the prefix, set 00000000	
RFID Auto Read	Enabled	AUTO1		<SYN>R<CR>
	Disabled	AUTO0		<SYN>R<CR>
Barcode Commands				
Input/Output Selections				
Selection	**Setting * indicates Default**	**Serial Command** **## indicates a numeric value**	**Description**	**Associated Prefix**
Good Read Delay	*No Delay	DLYGRD0	Minimum time before SCANNER can read another barcode	<SYN>M<CR>
	Short Delay (500ms)	DLYGRD500		<SYN>M<CR>
	Medium Delay (1000ms)	DLYGRD1000		<SYN>M<CR>
	Long Delay (1500ms)	DLYGRD1500		<SYN>M<CR>

User-Specified Good Read Delay	Range 0 – 30,000ms	DLYGRD#####		<SYN>M<CR>
Manual Trigger Mode	*Manual Trigger – Normal	TRGMOD0		<SYN>M<CR>
LED Illumination – Manual Trigger	Off	PWRNOL0		<SYN>M<CR>
	Low	PWRNOL100		<SYN>M<CR>
	Medium	PWRNOL120		<SYN>M<CR>
	*High	PWRNOL150		<SYN>M<CR>
Trigger Toggle	*Trigger Toggle Off	TRGTM0		<SYN>M<CR>
	Trigger Toggle – image capture	TRGTGM1		<SYN>M<CR>
	Trigger Toggle – Centering	TRGTGM2		<SYN>M<CR>
Trigger Number	2 Quick Triggers	TRGTPC2		<SYN>M<CR>
	*3 Quick Triggers	TRGTPC3		<SYN>M<CR>
	4 Quick Triggers	TRGTP4		<SYN>M<CR>
Trigger Toggle Timeout	Trigger Toggle Timeout (range 0-65) *5	TRGTGT##		<SYN>M<CR>
Trigger Toggle Indicator	*Off	TRGIND0		<SYN>M<CR>
	On	TRGIND1		<SYN>M<CR>
Character Activation Mode	*Off	HSTCEN0	Allows for the use of a user defined character to trigger the SCANNER.	<SYN>M<CR>
	On	HSTCEN1		<SYN>M<CR>

			SCANNER will scan until either Deactivation character is received, time out occurs or barcode is successfully scanned.	
Activation Character (range 0-255)	*12 [DC2]	HSTACH###		<SYN>M<CR>
End Character Activation After Good Read	*Do not end	HSTCGD0	LED illumination remains on after good read and SCANNER continues scanning	<SYN>M<CR>
	End	HSTCGD1	LED illumination turns off after good read scanning phase ends	<SYN>M<CR>
Character Activation Timeout	Range 1-30,000ms (*30,000ms)	HSTCDT	Timeout for LED illumination of HSTCGD command	<SYN>M<CR>
Character Deactivation Mode	*Off	HSTDEN0	Sets the scanner to deactivate scanning on receiving a user defined character	<SYN>M<CR>
	On	HSTDEN1		<SYN>M<CR>
Deactivation Character	*14 [DC4]	HSTDCH	Sets user defined deactivation character	<SYN>M<CR>
Serial Trigger Timeout	Read Time-Out (0-300,000ms) *30,000	TRGSTO####	Controls duration before timeout	<SYN>M<CR>
Presentation Mode	Presentation Mode	TRGMOD3	Scanner in presentation mode.	<SYN>M<CR>

Streaming Presentation Mode	Streaming Presentation Mode Normal	TRGMOD8		<SYN>M<CR>
LED Illumination Presentation Mode	Off	PWRLDC0		<SYN>M<CR>
	Low	PWRLDC100		<SYN>M<CR>
	*High	PWRLDC150		<SYN>M<CR>
Idle Illumination	Off	PWRIDL0	LED illumination state when SCANNER is in presentation mode in idle state	<SYN>M<CR>
	Low	PWRIDL7		<SYN>M<CR>
	Medium	PWRIDL15		<SYN>M<CR>
	*High	PWRIDL50		<SYN>M<CR>
Presentation LED behavior after decode	*LEDs On	TRGPCK1		<SYN>M<CR>
	LEDs Off	TRGPCK0		<SYN>M<CR>
Presentation Sensitivity	Range 0-20 (*1)	TRGPMS##	Sets the Creo's reaction time to bar code presentation. 0 = fastest response	<SYN>M<CR>
Presentation Centering	On	PDCWIN1	Narrows area in which codes will be detected in presentation mode. This allows user to pick specific codes to be read when multiple codes are in close proximity.	<SYN>M<CR>

			The below settings are used to define a % of the centering window in which codes must be present to be read	
	*Off	PDCWIN0		<SYN>M<CR>
	Top	PDCTOP##	40% is default of top when centering = on	<SYN>M<CR>
	Bottom	PDCBOT##	60% is default of bottom when centering = on	<SYN>M<CR>
	Left	PDCLFT##	40% is default of top when centering = on	<SYN>M<CR>
	Right	PDCRGT##	60% is default of bottom when centering = on	<SYN>M<CR>
	Note: xx = percentage of centering window			<SYN>M<CR>
Code Gate	*Off	AOSCGD0	Scanners sends decoded data on decode	<SYN>M<CR>
	On	AOSCGD1	Delays the transmission of decoded data until scanner receives a trigger signal	<SYN>M<CR>
Mobile Phone Read Mode optimization	On	DECCEL1	Optimize scanner for reading codes off mobile devices screens	<SYN>M<CR>
	Off	DECCEL0	Turn off cell phone mode optimization	<SYN>M<CR>

Poor Quality 1D Codes	Poor Quality 1D reading on	DECLDI1	Improves scanners ability to read poorly printed 1D codes, Note reduces scanner snappiness in reading	<SYN>M<CR>
	* Poor Quality 1D reading Off	DECLDI0		<SYN>M<CR>
Poor Quality PDF Codes	Poor Quality PDF reading on	PDFXPR1	Improves scanners ability to read poorly printed PDF codes, Note reduces scanner snappiness in reading	<SYN>M<CR>
	* Poor Quality PDF reading Off	PDFXPR0		<SYN>M<CR>
Decode Security	Very high	DECSEC0	Very high most permissive reading	<SYN>M<CR>
	High	DECSEC1	High reading tolerance	<SYN>M<CR>
	*Medium	DECSEC2	Medium reading tolerance	<SYN>M<CR>
	Low	DECSEC3	Low reading tolerance	<SYN>M<CR>
Decode Time-Out	0-2500 ms	DECTMX####	Maximum amount of time the decoder will use to decode an image	<SYN>M<CR>
Hands Free Time-Out	Range 0-300,000ms	TRGPTO#####		<SYN>M<CR>
Reread Delay	Short (500ms)	DLYRRD500	Sets the timeout before the SCANNER will read the same barcode again. Used to protect against multiple reads of the same code. Note only valid in	<SYN>M<CR>
	*Medium (750ms)	DLYRRD750		<SYN>M<CR>
	Long (1000ms)	DLYRRD1000		<SYN>M<CR>
	Extra Long (2000ms)	DLYRRD2000		<SYN>M<CR>

			Presentation operation mode	
User-specified Reread Delay	Range 0 – 30,000 ms	DLYRRD#####	User defined re-read delay	<SYN>M<CR>
2D Re-read Delay	*2D Re-read delays off	DLY2RR0	Re-read delay between re-reading a 2D code. Default is off which means 2D delay = 1D delay	<SYN>M<CR>
	Short (1000)	DLY2RR1000	1000 ms	<SYN>M<CR>
	Medium (2000ms)	DLY2RR2000	2000 ms	<SYN>M<CR>
	Long (3000ms)	DLY2RR3000	3000 ms	<SYN>M<CR>
	Extra Long (4000ms)	DLY2RR4000	4000 ms	<SYN>M<CR>
Illumination Lights	*Lights On	SCNLED1		<SYN>M<CR>
	Lights Off	SCNLED0		<SYN>M<CR>
	Lights On – Mobile Phone Reading	SCNLED3		<SYN>M<CR>
Aimer Delay	200 milliseconds	SCNDLY200	Sets a delay between when a trigger is activated and the scanner acquires and image for processing. Aiming light will appear on trigger but LED illumination will not appear until	<SYN>M<CR>
	400 milliseconds	SCNDLY400		<SYN>M<CR>
	*Off (no delay)	SCNDLY0		<SYN>M<CR>

			delay time has elapsed	
User-Specified Aimer Delay	Range 0-4000ms	SCNDLY####		<SYN>M<CR>
Aimer Mode	Off	SCNAIM0		<SYN>M<CR>
	*Interlaced	SCNAIM2		<SYN>M<CR>
	Concurrent	SCNAIM3		<SYN>M<CR>
Centering Window	Centering On read codes that are at least partially in the defined centering window in perspective to imager. If no centering windows is defined reader will only read codes in center of field of view.	DECWIN1	Narrows area in which codes will be detected. This allows user to pick specific codes to be read when multiple codes are in close proximity. The below settings are used to define a % of the centering window in which codes must be present to be read. DECWIN1 will only read codes that are at least partially inside the defined window.	<SYN>M<CR>
	Centering On read codes that are at least partially in the defined centering window in perspective to scanner aimer. If no centering windows is defined reader will only read codes in center of field of view.	DECWIN2		<SYN>M<CR>
	Centering On read only those codes that are totally withing the defined centering window. If no centering windows is defined reader will only read codes in center of field of view.	DECWIN3		<SYN>M<CR>
	*Centering Off	DECWIN0		<SYN>M<CR>
	Top of Centering Window (*40%)	DECTOP###		<SYN>M<CR>
	Bottom of Centering Window (*60%)	DECBOT###		<SYN>M<CR>

Show Centering Windows	Show centering window	SHWWIN1	Turn on. On sending a IMGSHP command, A box will be shown representing the defined centering window.	<SYN>M<CR>
		SHWWIN0	Turn off.	<SYN>M<CR>
Preferred Symbology	On	PRFENA1		<SYN>M<CR>
	Off	PRFENA0		<SYN>M<CR>
	High priority Symbology	PRFCOD##		<SYN>M<CR>
	Low priority Symbology	PRFBLK##		<SYN>M<CR>
	Preferred Symbology Time out (*500) Range 100-3000	PRFPTO####		<SYN>M<CR>
	Preferred Symbology Default	PRFDFT		<SYN>M<CR>
Output Sequence Editor	Enter Sequence	SEQBLK	Instructs SCANNER to output code data in a user defined order see overview in this guide.	<SYN>M<CR>
	Default Sequence	SEQDFT	Transmit data as decoded	<SYN>M<CR>
Partial Sequence	Transmit Partial Sequence	SEQTTS1	Transmit data that is a partial sequence of the sequence which has been programmed into the reader using the Output	<SYN>M<CR>

			Sequence editor command.	
	*Discard Partial Sequence	SEQTTS0	Discard data that is a partial sequence of the sequence which has been programmed into the reader using the Output Sequence editor command.	<SYN>M<CR>
Require Output Sequence	Required	SEQ_EN2	Do not transmit data that does not match the defined sequence	<SYN>M<CR>
	On/Not Required	SEQ_EN1	Scanner attempts to get the output data to match the output sequence but if this is not possible transmit all data as is.	<SYN>M<CR>
	*Off	SEQ_EN0	Transmit data to host as it is decoded	<SYN>M<CR>
Multiple Symbols	On	SHOTGN1	Instructs reader to read as many codes as it sees while the HW trigger is active. Each code is read once.	<SYN>M<CR>
	On/Aggressive Search	SHOTGN2	Instructs the reader to read as many codes as it	<SYN>M<CR>

			sees while the HW Trigger is active. Each code is read once. More aggressive searching for multiple codes enabled.	
	*Off	SHOTGN0	Turns off Shotgun Mode	<SYN>M<CR>
Video Reverse	Video Reverse Only	VIDLDP1	Only read inverted codes (where black bars are represented as white spaces, and white spaces become black bars)	<SYN>M<CR>
	Video Reverse and Standard Bar Codes	VIDLDP2	Read both inverted and non inverted codes	<SYN>M<CR>
	*Video Reverse Off	VIDLDP0	Turns off this feature	<SYN>M<CR>
Working Orientation	*Upright	ROTATN0	Used to read direction sensitive codes such as KIX codes when they may not be presented to the scanner in the correct orientation	<SYN>M<CR>
	Vertical, Bottom to Top (Rotate CCW 90°)	ROTATN1		<SYN>M<CR>
	Upside Down	ROTATN2		<SYN>M<CR>
	Vertical, Top to Bottom (Rotate CW 90°)	ROTATN3		<SYN>M<CR>

Prefix/Suffix Selections				
Add CR Suffix to All Symbologies	VSUFCR			<SYN>M<CR>
Prefix	Add Prefix	PREBK2##	## = hex representation of Prefix to add. CodeID must be sent before prefix/suffix value. See *Adding a Prefix or Suffix* in this guide.	<SYN>M<CR>
	Clear One Prefix	PRECL2		<SYN>M<CR>
	Clear All Prefixes	PRECA2		<SYN>M<CR>
Suffix	Add Suffix	SUFBK2##	## = hex representation of Prefix to add. CodeID must be sent before prefix/suffix value. See *Adding a Prefix or Suffix* in this guide.	<SYN>M<CR>
	Clear One Suffix	SUFCL2		<SYN>M<CR>
	Clear All Suffixes	SUFCA2		<SYN>M<CR>
Function Code Transmit	*Enable	RMVFNC0		<SYN>M<CR>
	Disable	RMVFNC1		<SYN>M<CR>
Intercharacter Delay	Range 0-1000 (5ms increments)	DLYCHR##	Slows transmission of data.	<SYN>M<CR>
User Specified Intercharacter Delay	Delay Length 0-1000 (5ms increments)	DLYCRX##	Slows the transmission of data after a user defined character.	<SYN>M<CR>
	Character to Trigger Delay	DLY_XX##		<SYN>M<CR>
Interfunction Delay	Range 0-1000 (5ms increments)	DLYFNC##	Delay between the transmission of each control character.	<SYN>M<CR>

Intermessage Delay	Range 0-1000 (5ms increments)	DLYMSG##	Delay between each scan transmission.	<SYN>M<CR>
Data Formatter				
Data Format Editor	*Default Data Format (None)	DFMDF3		<SYN>M<CR>
	Enter Data Format	DFMBK3##		<SYN>M<CR>
	Clear One Data Format	DFMCL3		<SYN>M<CR>
	Clear All Data Formats	DFMCA3		<SYN>M<CR>
Data Formatter	Data Formatter Off	DFM_EN0		<SYN>M<CR>
	*Data Formatter On, Not Required, Keep Prefix/Suffix	DFM_EN1		<SYN>M<CR>
	Data Format Required, Keep Prefix/Suffix	DFM_EN2		<SYN>M<CR>
	Data Formatter On, Not Required, Drop Prefix/Suffix	DFM_EN3		<SYN>M<CR>
	Data Format Required, Drop Prefix/Suffix	DFM_EN4		<SYN>M<CR>
Data Format Non-Match Error Tone	*Data Format Non-Match Error Tone On	DFMDEC0		<SYN>M<CR>

	Data Format Non-Match Error Tone Off	DFMDEC1		<SYN>M<CR>
Primary/Alternate Data Formats	Primary Data Format	ALTFNM0		<SYN>M<CR>
	Data Format 1	ALTFNM1		<SYN>M<CR>
	Data Format 2	ALTFNM2		<SYN>M<CR>
	Data Format 3	ALTFNM3		<SYN>M<CR>
Single Scan Data Format Change	Single Scan-Primary Data Format	VSAF_0		<SYN>M<CR>
	Single Scan-Data Format 1	VSAF_1		<SYN>M<CR>
	Single Scan-Data Format 2	VSAF_2		<SYN>M<CR>
	Single Scan-Data Format 3	VSAF_3		<SYN>M<CR>
Symbologies				
All Symbologies	All Symbologies Off	ALLENA0		<SYN>M<CR>
	All Symbologies On	ALLENA1		<SYN>M<CR>
Codabar	Default All Codabar Settings	CBRDFT		<SYN>M<CR>
	Off	CBRENA0		<SYN>M<CR>

	*On	CBRENA1		<SYN>M<CR>
Codabar Start/Stop Char.	*Don't Transmit	CBRSSX0		<SYN>M<CR>
	Transmit	CBRSSX1		<SYN>M<CR>
Codabar Check Char	*No Check Character	CBRCK20		<SYN>M<CR>
	Validate Modulo 16, but don't transmit	CBRCK21		<SYN>M<CR>
	Validate Modulo 16, and transmit	CBRCK22		<SYN>M<CR>
Codabar Concatenation	*Off	CBRCCT0		<SYN>M<CR>
	On	CBRCCT1		<SYN>M<CR>
	Require	CBRCCT2		<SYN>M<CR>
Codabar Message Length	Minimum (2-60)*4	CBRMIN##		<SYN>M<CR>
	Maximum (2-60)*60	CBRMAX##		<SYN>M<CR>
Code 39	Default All Code 39 Settings	C39DFT		<SYN>M<CR>
	Off	C39ENA0		<SYN>M<CR>
	*On	C39ENA1		<SYN>M<CR>
	*Don't Transmit	C39SSX0		<SYN>M<CR>

Code 39 Start/Stop Char.	Transmit	C39SSX1		<SYN>M<CR>
Code 39 Check Char.	*No Check Char.	C39CK20		<SYN>M<CR>
	Validate, but don't transmit	C39CK21		<SYN>M<CR>
	Validate and transmit	C39CK22		<SYN>M<CR>
Code 39 Message Length	Minimum (0 - 48) *0	C39MIN##		<SYN>M<CR>
	Maximum (0 - 48) *48	C39MAX##		<SYN>M<CR>
Code 39 Append	*Off	C39APP0		<SYN>M<CR>
	On	C39APP1		<SYN>M<CR>
Code 32 Pharmaceutical (PARAF)	*Off	C39B320		<SYN>M<CR>
	On	C39B321		<SYN>M<CR>
Code 39 Full ASCII	*Off	C39ASC0		<SYN>M<CR>
	On	C39ASC1		<SYN>M<CR>
Code 39 Code Page	Code 39 Code Page	C39DCP		<SYN>M<CR>
				<SYN>M<CR>
Code 39 Unconventional Inter-Character Gaps	*Off	C39UIC0		<SYN>M<CR>
	On	C39UIC1		<SYN>M<CR>

Interleaved 2 of 5	Default All Interleaved 2 of 5 Settings	I25DFT		<SYN>M<CR>
	Off	I25ENA0		<SYN>M<CR>
	On	I25ENA1		<SYN>M<CR>
Interleaved 2 of 5 Check Digit	*No Check Char.	I25CK20		<SYN>M<CR>
	Validate, But Don't Transmit	I25CK21		<SYN>M<CR>
	Validate, and Transmit	I25CK22		<SYN>M<CR>
Interleaved 2 of 5 Message Length	Minimum (2 - 80) *4	I25MIN##		<SYN>M<CR>
	Maximum (2 - 80) *80	I25MAX##		<SYN>M<CR>
FEBRABAN Decode	*Off	I25PAY0		<SYN>M<CR>
	On	I25PAY1		<SYN>M<CR>
NEC 2 of 5	Default All NEC 2 of 5 Settings	N25DFT		<SYN>M<CR>
	*Off	N25ENA0		<SYN>M<CR>
	On	N25ENA1		<SYN>M<CR>
NEC 2 of 5 Check Digit	*No Check Char	N25CK20		<SYN>M<CR>
	Validate, But Don't Transmit	N25CK21		<SYN>M<CR>
	Validate, and Transmit	N25CK22		<SYN>M<CR>

NEC 2 of 5 Message Length	Minimum (2 - 80) *4	N25MIN##		<SYN>M<CR>
	Maximum (2 - 80) *80	N25MAX##		<SYN>M<CR>
NEC 2 of 5 Redundancy	Range(0-10) *0	N25VOT##		<SYN>M<CR>
Code 93	Default All Code 93 Settings	C93DFT		<SYN>M<CR>
	Off	C93ENA0		<SYN>M<CR>
	*On	C93ENA0		<SYN>M<CR>
Code 93 Message Length	Minimum (0 - 80) *0	C93MIN##		<SYN>M<CR>
	Maximum (0 - 80) *80	C93MAX##		<SYN>M<CR>
Code 93 Redundancy	Range (0-10)*0	C93VOT##		<SYN>M<CR>
Code 93 Append	On	C93APP1		<SYN>M<CR>
	*Off	C93APP0		<SYN>M<CR>
Code 93 Code Page	Code 93 Code Page	C93DCP		<SYN>M<CR>
Straight 2 of 5 Industrial	Default All Straight 2 of 5 Industrial settings	R25DFT		<SYN>M<CR>
	*Off	R25ENA0		<SYN>M<CR>
	On	R25ENA1		<SYN>M<CR>
Straight 2 of 5 Industrial Message Length	Minimum (1 - 48) *4	R25MIN##		<SYN>M<CR>
	Maximum (1 - 48) *48	R25MAX##		<SYN>M<CR>

Straight 2 of 5 Industrial Redundancy	Range (0-10)*0	R25VOT##		<SYN>M<CR>
Straight 2 of 5 IATA	Default All Straight 2 of 5 IATA Settings	A25DFT		<SYN>M<CR>
	*Off	A25ENA0		<SYN>M<CR>
	On	A25ENA1		<SYN>M<CR>
Straight 2 of 5 IATA Message Length	Minimum (1 - 48) *4	A25MIN##		<SYN>M<CR>
	Maximum (1 - 48) *48	A25MAX##		<SYN>M<CR>
Straight 2 of 5 IATA Redundancy	Range (0-10)*0	A25VOT##		<SYN>M<CR>
Matrix 2 of 5	Default All Matrix 2 of 5 Settings	X25DFT		<SYN>M<CR>
	*Off	X25ENA0		<SYN>M<CR>
	On	X25ENA1		<SYN>M<CR>
Matrix 2 of 5 Message Length	Minimum (1 - 80) *4	X25MIN##		<SYN>M<CR>
	Maximum (1 - 80) *80	X25MAX##		<SYN>M<CR>
Matrix 2 of 5 Redundancy	Range (0-10)*0	X25VOT##		<SYN>M<CR>
Code 11	Default All Code 11 Settings	C11DFT		<SYN>M<CR>
	*Off	C11ENA0		<SYN>M<CR>
	On	C11ENA1		<SYN>M<CR>

Code 11 Check Digits Required	1 Check Digit	C11CK20		<SYN>M<CR>
	*2 Check Digits	C11CK21		<SYN>M<CR>
Code 11 Message Length	Minimum (1 - 80) *4	C11MIN##		<SYN>M<CR>
	Maximum (1 - 80) *80	C11MAX##		<SYN>M<CR>
Code 11 Redundancy	Range (0-10)*0	C11VOT##		<SYN>M<CR>
Code 128	Default All Code 128 Settings	128DFT		<SYN>M<CR>
	Off	128ENA0		<SYN>M<CR>
	*On	128ENA1		<SYN>M<CR>
ISBT Concatenation	*Off	ISBENA0		<SYN>M<CR>
	On	ISBENA1		<SYN>M<CR>
Code 128 Message Length	Minimum (0 - 80)*0	128MIN##		<SYN>M<CR>
	Maximum (0 - 90) *80	128MAX##		<SYN>M<CR>
Code 128 Append	*On	128APP1		<SYN>M<CR>
	Off	128APP0		<SYN>M<CR>
Code 128 Code Page	Code 128 Code Page (*2)	128DCP##		<SYN>M<CR>
Code 128 Redundancy	Range (0-10)*0	128VOT##		<SYN>M<CR>

GS1-128	Default All GS1-128 Settings	GS1DFT		<SYN>M<CR>
	*On	GS1ENA1		<SYN>M<CR>
	Off	GS1ENA0		<SYN>M<CR>
GS1-128 Message Length	Minimum (1 - 80) *1	GS1MIN		<SYN>M<CR>
	Maximum (0 - 80) *80	GS1MAX		<SYN>M<CR>
GS1-128 Redundancy	Range (0-10)*0	GS1VOT##		<SYN>M<CR>
Telepen	Default All Telepen Settings	TELDFT		<SYN>M<CR>
	*Off	TELENA0		<SYN>M<CR>
	On	TELENA1		<SYN>M<CR>
Telepen Output	*AIM Telepen Output	TELOLD0		<SYN>M<CR>
	Original Telepen Output	TELOLD1		<SYN>M<CR>
Telepen Message Length	Minimum (1 - 60) *1	TELMIN##		<SYN>M<CR>
	Maximum (1 - 60) *60	TELMAX##		<SYN>M<CR>
Telepen Redundancy	Range (0-10)*0	TELVOT##		<SYN>M<CR>
UPC-A	Default All UPC-A Settings	UPADFT		<SYN>M<CR>
	Off	UPBENA0		<SYN>M<CR>
	*On	UPBENA1		<SYN>M<CR>

UPC-A Check Digit	Off	UPACKX0		<SYN>M<CR>
	*On	UPACKX1		<SYN>M<CR>
UPC-A Number System	Off	UPANSX0		<SYN>M<CR>
	*On	UPANSX1		<SYN>M<CR>
UPC-A Redundancy	Range (0-10)*0	UPAVOT##		<SYN>M<CR>
UPC-A 2 Digit Addenda	*Off	UPAAD20		<SYN>M<CR>
	On	UPAAD21		<SYN>M<CR>
UPC-A 5 Digit Addenda	*Off	UPAAD50		<SYN>M<CR>
	On	UPAAD51		<SYN>M<CR>
UPC-A Addenda Required	*Not Required	UPAARQ0		<SYN>M<CR>
	Required	UPAARQ1		<SYN>M<CR>
Addenda Timeout	Range (0-65535) *100	DLYADD####		<SYN>M<CR>
UPC-A Addenda Separator	Off	UPAADS0		<SYN>M<CR>
	*On	UPAADS1		<SYN>M<CR>
UPC-A/EAN-13 with Extended Coupon Code	*Off	CPNENA0		<SYN>M<CR>
	Allow Concatenation	CPNENA1		<SYN>M<CR>
	Require Concatenation	CPNENA2		<SYN>M<CR>

Coupon GS1 DataBar Output	GS1 Output Off	CPNGS10		<SYN>M<CR>
	GS1 Output On	CPNGS11		<SYN>M<CR>
UPC-E0	Default All UPC-E settings	UPEDFT		<SYN>M<CR>
	Off	UPEEN00		<SYN>M<CR>
	*On	UPEEN01		<SYN>M<CR>
UPC-E0 Expand	*Off	UPEEXP0		<SYN>M<CR>
	On	UPEEXP1		<SYN>M<CR>
UPC-E0 Redundancy	Range (0-10)*0	UPEVOT##		<SYN>M<CR>
UPC-E0 Addenda Required	Required	UPEARQ1		<SYN>M<CR>
	*Not Required	UPEARQ0		<SYN>M<CR>
UPC-E0 Addenda Separator	*On	UPEADS1		<SYN>M<CR>
	Off	UPEADS0		<SYN>M<CR>
UPC-E0 Check Digit	Off	UPECKX0		<SYN>M<CR>
	*On	UPECKX1		<SYN>M<CR>
UPC-E0 Leading Zero	Off	UPENSX0		<SYN>M<CR>
	*On	UPENSX1		<SYN>M<CR>
UPC-E0 Addenda	2 Digit Addenda On	UPEAD21		<SYN>M<CR>

	*2 Digit Addenda Off	UPEAD20		<SYN>M<CR>
	5 Digit Addenda On	UPEAD51		<SYN>M<CR>
	*5 Digit Addenda Off	UPEAD50		<SYN>M<CR>
UPC-E1	*Off	UPEEN10		<SYN>M<CR>
	On	UPEEN11		<SYN>M<CR>
EAN/JAN-13	Default All EAN/ JAN Settings	E13DFT		<SYN>M<CR>
	Off	E13ENA0		<SYN>M<CR>
	*On	E13ENA1		<SYN>M<CR>
Convert UPC-A to EAN-13	UPC-A Converted to EAN-13	UPAENA0		<SYN>M<CR>
	Do not Convert UPC-A	UPAENA1		<SYN>M<CR>
EAN/JAN-13 Check Digit	Off	E13CKX0		<SYN>M<CR>
	*On	E13CKX1		<SYN>M<CR>
	2 Digit Addenda On	E13AD21		<SYN>M<CR>
	*2 Digit Addenda Off	E13AD20		<SYN>M<CR>
	5 Digit Addenda On	E13AD51		<SYN>M<CR>
	*5 Digit Addenda Off	E13AD50		<SYN>M<CR>
EAN/JAN-13 Redundancy	Range (0-10)*0	E13VOT##		<SYN>M<CR>

EAN/JAN-13 Addenda Required	*Not Required	E13ARQ0		<SYN>M<CR>
	Required	E13ARQ1		<SYN>M<CR>
EAN/JAN-13 Beginning with 290 Addenda Required	*Don't Require 5 Digit Addenda	ARQ2900		<SYN>M<CR>
	Require 5 Digit Addenda	ARQ2901		<SYN>M<CR>
EAN/JAN-13 Beginning with 378/379 Addenda Required	*Don't Require Addenda	ARQ3780		<SYN>M<CR>
	Require 2 Digit Addenda	ARQ3781		<SYN>M<CR>
	Require 5 Digit Addenda	ARQ3782		<SYN>M<CR>
	Require 2 or 5 Digit Addenda	ARQ3783		<SYN>M<CR>
EAN/JAN-13 Beginning with 414/419 Addenda Required	*Don't Require Addenda	ARQ4140		<SYN>M<CR>
	Require 2 Digit Addenda	ARQ4141		<SYN>M<CR>
	Require 5 Digit Addenda	ARQ4142		<SYN>M<CR>
	Require 2 or 5 Digit Addenda	ARQ4143		<SYN>M<CR>
EAN/JAN-13 Beginning with 434/439 Addenda Required	*Don't Require Addenda	ARQ4340		<SYN>M<CR>
	Require 2 Digit Addenda	ARQ4341		<SYN>M<CR>
	Require 5 Digit Addenda	ARQ4342		<SYN>M<CR>
	Require 2 or 5 Digit Addenda	ARQ4343		<SYN>M<CR>
EAN/JAN-13 Beginning with	*Don't Require 2 Digit Addenda	ARQ9770		<SYN>M<CR>

977 Addenda Required	Require 2 Digit Addenda	ARQ9771		<SYN>M<CR>
EAN/JAN-13 Beginning with 978 Addenda Required	*Don't Require 5 Digit Addenda	ARQ9780		<SYN>M<CR>
	Require 5 Digit Addenda	ARQ9781		<SYN>M<CR>
EAN/JAN-13 Beginning with 979 Addenda Required	*Don't Require 5 Digit Addenda	ARQ9790		<SYN>M<CR>
	Require 5 Digit Addenda	ARQ9791		<SYN>M<CR>
EAN/JAN-13 Addenda Separator	Off	E13ADS0		<SYN>M<CR>
	*On	E13ADS1		<SYN>M<CR>
ISBN Translate	*Off	E13ISB0		<SYN>M<CR>
	On	E13ISB1		<SYN>M<CR>
EAN/JAN-8	Default All EAN/ JAN 8 Settings	EA8DFT		<SYN>M<CR>
	Off	EA8ENA0		<SYN>M<CR>
	*On	EA8ENA1		<SYN>M<CR>
EAN/JAN-8 Check Digit	Off	EA8CKX0		<SYN>M<CR>
	*On	EA8CKX1		<SYN>M<CR>
EAN/JAN-8 Addenda	*2 Digit Addenda Off	EA8AD20		<SYN>M<CR>
	2 Digit Addenda On	EA8AD21		<SYN>M<CR>
	5 Digit Addenda On	EA8AD51		<SYN>M<CR>

	*5 Digit Addenda Off	EA8AD50		<SYN>M<CR>
EAN/JAN-8 Addenda Required	*Not Required	EA8ARQ0		<SYN>M<CR>
	Required	EA8ARQ1		<SYN>M<CR>
EAN/JAN-8 Addenda Separator	Off	EA8ADS0		<SYN>M<CR>
	*On	EA8ADS1		<SYN>M<CR>
MSI	Default All MSI Settings	MSIDFT		<SYN>M<CR>
	*Off	MSIENA0		<SYN>M<CR>
	On	MSIENA1		<SYN>M<CR>
MSI Check Character	*Validate Type 10, but Don't Transmit	MSICHK0		<SYN>M<CR>
	Validate Type 10 and Transmit	MSICHK1		<SYN>M<CR>
	Validate 2 Type 10 Chars, but Don't Transmit	MSICHK2		<SYN>M<CR>
	Validate 2 Type 10 Chars and Transmit	MSICHK3		<SYN>M<CR>
	Validate Type 10 then Type 11 Char, but Don't Transmit	MSICHK4		<SYN>M<CR>
	Validate Type 10 then Type 11 Char and Transmit	MSICHK5		<SYN>M<CR>
	Disable MSI Check Characters	MSICHK6		<SYN>M<CR>
MSI Message Length	Minimum (4 - 48) *4	MSIMIN##		<SYN>M<CR>
	Maximum (4 - 48) *48	MSIMAX##		<SYN>M<CR>

MSI Redundancy	Range (0-10)*0	MSIVOT##		<SYN>M<CR>
GS1 DataBar Omnidirectional	Default All GS1 DataBar Omnidirectional Settings	RSSDFT		<SYN>M<CR>
	Off	RSSENA		<SYN>M<CR>
	*On	RSSENA1		<SYN>M<CR>
GS1 Databar Omnidirectional Redundancy	Range (0-10)*0	RSSVOT##		<SYN>M<CR>
GS1 DataBar Limited	Default All GS1 DataBar Limited Settings	RSLDFT		<SYN>M<CR>
	Off	RSLENA0		<SYN>M<CR>
	*On	RSLENA1		<SYN>M<CR>
GS1 Databar Limited Redundancy	Range (0-10)*0	RSLVOT		<SYN>M<CR>
GS1 DataBar Expanded	Default All GS1 DataBar Expanded Settings	RSEDFT		<SYN>M<CR>
	Off	RSEENA0		<SYN>M<CR>
	*On	RSEENA1		<SYN>M<CR>
GS1 DataBar Expanded Msg. Length	Minimum (4 - 74) *4	RSEMIN##		<SYN>M<CR>
	Maximum (4 - 74) *74	RSEMAX##		<SYN>M<CR>
GS1 Databar Expanded Redundancy	Range (0-10)*0	RSEVOT##		<SYN>M<CR>
Trioptic Code	*Off	TRIENA0		<SYN>M<CR>

	On	TRIENA1		<SYN>M<CR>
Trioptic Redundancy	Range (0-10) *0	TRIVOT##		<SYN>M<CR>
Codablock A	Default All Codablock A Settings	CBADFT		<SYN>M<CR>
	*Off	CBAENA0		<SYN>M<CR>
	On	CBAENA1		<SYN>M<CR>
Codablock A Msg. Length	Minimum (1 - 600) *1	CBAMIN####		<SYN>M<CR>
	Maximum (1 - 600) *600	CBAMAX####		<SYN>M<CR>
Codablock F	Default All Codablock F Settings	CBFDFT		<SYN>M<CR>
	*Off	CBFENA0		<SYN>M<CR>
	On	CBFENA1		<SYN>M<CR>
Codablock F Msg. Length	Minimum (1 - 2048) *1	CBFMIN####		<SYN>M<CR>
	Maximum (1 - 2048) *2048	CBFMAX####		<SYN>M<CR>
Label Code	On	LBLENA1		<SYN>M<CR>
	* Off	LBLENA0		<SYN>M<CR>
PDF417	Default All PDF417 Settings	PDFDFT		<SYN>M<CR>
	*On	PDFENA1		<SYN>M<CR>
	Off	PDFENA0		<SYN>M<CR>

PDF417 Msg. Length	Minimum (1-2750) *1	PDFMIN		<SYN>M<CR>
	Maximum (1-2750) *2750	PDFMAX		<SYN>M<CR>
PDF417 Code Page	PDF417 Code Page	PDFDCP##		<SYN>M<CR>
MacroPDF417	*On	PDFMAC1		<SYN>M<CR>
	Off	PDFMAC0		<SYN>M<CR>
MicroPDF417	Default All Micro PDF417 Settings	MPDDFT		<SYN>M<CR>
	On	MPDENA1		<SYN>M<CR>
	*Off	MPDENA0		<SYN>M<CR>
MicroPDF417 Msg. Length	Minimum (1-366) *1	MPDMIN		<SYN>M<CR>
	Maximum (1-366) *366	MPDMAX		<SYN>M<CR>
MicroPDF417 Code Page	MicroPDF417 Code Page (*30)	MPDDCP##		<SYN>M<CR>
GS1 Composite Codes	On	COMENA1		<SYN>M<CR>
	*Off	COMENA0		<SYN>M<CR>
UPC/EAN Version	On	COMUPC1		<SYN>M<CR>
	*Off	COMUPC0		<SYN>M<CR>
GS1 Composite Codes Msg. Length	Minimum (1-2435) *1	COMMIN		<SYN>M<CR>
	Maximum (1-2435) *2435	COMMAX		<SYN>M<CR>

GS1 Composite Code Code Page	GS1 Composite Code Code Page	COMDCP##		<SYN>M<CR>
GS1 Emulation	GS1-128 Emulation	EANEMU1		<SYN>M<CR>
	GS1 DataBar Emulation	EANEMU2		<SYN>M<CR>
	GS1 Code Expansion Off	EANEMU3		<SYN>M<CR>
	EAN8 to EAN13 Conversion	EANEMU4		<SYN>M<CR>
	*GS1 Emulation Off	EANEMU0		<SYN>M<CR>
TCIF Linked Code 39	On	T39ENA1		<SYN>M<CR>
	*Off	T39ENA0		<SYN>M<CR>
QR Code	Default All QR Code Settings	QRCDFT		<SYN>M<CR>
	*On	QRCENA1		<SYN>M<CR>
	Off	QRCENA0		<SYN>M<CR>
QR Code Msg. Length	Minimum (1-7089) *1	QRCMIN		<SYN>M<CR>
	Maximum (1-7089) *7089	QRCMAX		<SYN>M<CR>
QR Code Append	*On	QRCAPP1		<SYN>M<CR>
	Off	QRCAPP0		<SYN>M<CR>
QR Code Page	QR Code Page (*3)	QRCDCP##		<SYN>M<CR>
QR Code No Quiet Zone	On	QRCNQZ1		<SYN>M<CR>

	Off	QRCNQZ0		<SYN>M<CR>
DotCode	Default All DotCode Settings	DOTDFT		<SYN>M<CR>
	On	DOTENA1		<SYN>M<CR>
	*Off	DOTENA0		<SYN>M<CR>
Poor Quality DotCodes	Poor Quality DotCodes On	DOTEXS1		<SYN>M<CR>
	*Poor Quality DotCodes Off	DOTEXS0		<SYN>M<CR>
DotCode Message Length	Minimum (1-2400) *1	DOTMIN####		<SYN>M<CR>
	Maximum (1-2400) *2400	DOTMAX####		<SYN>M<CR>
Digimarc Barcode	Decoder Attempts (0-10) *3	DIGSTR##		<SYN>M<CR>
	Off	DIGENA0		<SYN>M<CR>
	On	DIGIENA1		<SYN>M<CR>
	Uses ID Decoder then Both Decoders	DIGIENA2		<SYN>M<CR>
	*Uses Digimarc Decoder then Both Decoders	DIGIENA3		<SYN>M<CR>
	Uses Digimarc Decoder then Alternates Decoders	DIGIENA5		<SYN>M<CR>
Data Matrix	Default All Data Matrix Settings	IDMDFT	Data Matrix	<SYN>M<CR>
	*On	IDMENA1		<SYN>M<CR>
	Off	IDMENA0		<SYN>M<CR>

Low Contrast Data Matrix Enhancements	*Low Contrast Data Matrix Enhancements On	DPMENA1	Low Contrast Data Matrix Enhancements	<SYN>M<CR>
	Low Contrast Data Matrix Enhancements Off	DPMENA0		<SYN>M<CR>
Data Matrix Msg. Length	Minimum (1-3116) *1	IDMMIN	Data Matrix Msg. Length	<SYN>M<CR>
	Maximum (1-3116) *3116	IDMMAX		<SYN>M<CR>
Data Matrix Append	*On	IDMAPP1	Data Matrix Append	<SYN>M<CR>
	Off	IDMAPP0		<SYN>M<CR>
Data Matrix Code Page	Data Matrix Code Page (*51)	IDMDCP##	Data Matrix Code Page	<SYN>M<CR>
Grid Matrix	Default All Grid Matrix Settings	GMXDFT	Grid Matrix	<SYN>M<CR>
	On	GMXENA1		<SYN>M<CR>
	*Off	GMXENA0		<SYN>M<CR>
Grid Matrix Message Length	Minimum (1-2751) *1	GMXMIN####	Grid Matrix Message Length	<SYN>M<CR>
	Maximum (1-2751) *2751	GMXMAX####		<SYN>M<CR>
MaxiCode	Default All MaxiCode Settings	MAXDFT	MaxiCode	<SYN>M<CR>
	*On	MAXENA1		<SYN>M<CR>
	Off	MAXENA0		<SYN>M<CR>
MaxiCode Message Format	Primary Message Only	MAXFMT0	MaxiCode Message Format	<SYN>M<CR>

	Primary Required, Secondary if Available	MAXFMT1		<SYN>M<CR>
	Both Primary and Secondary Required	MAXFMT2		<SYN>M<CR>
MaxiCode Msg. Length	Minimum (1-150) *1	MAXMIN	MaxiCode Msg. Length	<SYN>M<CR>
	Maximum (1-150) *150	MAXMAX		<SYN>M<CR>
Aztec Code	Default all Aztec Code settings	AZTDFT		<SYN>M<CR>
	*On	AZTENA1		<SYN>M<CR>
	Off	AZTENA0		<SYN>M<CR>
Aztec Code Msg. Length	Minimum (1-150) *1	AZTMIN		<SYN>M<CR>
	Maximum (1-150)*150	AZTMAX		<SYN>M<CR>
Aztec Append	*OneScan	AZTAPP1		<SYN>M<CR>
	Swipe	AZTAPP2		<SYN>M<CR>
	Point and Shoot	AZTAPP3		<SYN>M<CR>
	Off	AZTAPP0		<SYN>M<CR>
Aztec Code Page	Aztec Code Page (*51)	AZTDCP##		<SYN>M<CR>
Chinese Sensible (Han Xin) Code	Default All Han Xin Code settings	HX_DFT		<SYN>M<CR>
	On	HX_ENA1		<SYN>M<CR>
	*Off	HX_ENA0		<SYN>M<CR>

Chinese Sensible (Han Xin) Code Msg. Length	Minimum (1-7833) *1	HX_MIN		<SYN>M<CR>
	Maximum (1-7833)*7833	HX_MAX		<SYN>M<CR>
POSTAL CODES – 2D				
2D Postal Codes	*Off	POSTAL0		<SYN>M<CR>
Single 2D Postal Codes	Australian Post On	POSTAL1		<SYN>M<CR>
	British Post On	POSTAL7		<SYN>M<CR>
	Canadian Post On	POSTAL30		<SYN>M<CR>
	Intelligent Mail Bar Code On	POSTAL10		<SYN>M<CR>
	Japanese Post On	POSTAL3		<SYN>M<CR>
	KIX Post On	POSTAL4		<SYN>M<CR>
	Planet Code On	POSTAL5		<SYN>M<CR>
	Postal-4i On	POSTAL9		<SYN>M<CR>
	Postnet On	POSTAL6		<SYN>M<CR>
	Postnet with B and B[1] Fields On	POSTAL11		<SYN>M<CR>
	InfoMail On	POSTAL2		<SYN>M<CR>
Combination 2D Postal Codes	InfoMail and British Post On	POSTAL8		<SYN>M<CR>
	Intelligent Mail Bar Code and Postnet with B and B[1] Fields On	POSTAL20		<SYN>M<CR>

Postnet and Postal-4i On	POSTAL14		<SYN>M<CR>
Postnet and Intelligent Mail Bar Code On	POSTAL16		<SYN>M<CR>
Postal-4i and Intelligent Mail Bar Code On	POSTAL17		<SYN>M<CR>
Postal-4i and Postnet with B and B[1] Fields On	POSTAL19		<SYN>M<CR>
Planet and Postnet On	POSTAL12		<SYN>M<CR>
Planet and Postnet with B and B[1] Fields On	POSTAL18		<SYN>M<CR>
Planet and Postal-4i On	POSTAL13		<SYN>M<CR>
Planet and Intelligent Mail Bar Code On	POSTAL15		<SYN>M<CR>
Planet, Postnet, and Postal-4i On	POSTAL21		<SYN>M<CR>
Planet, Postnet, and Intelligent Mail Bar Code On	POSTAL22		<SYN>M<CR>
Planet, Postal-4i, and Intelligent Mail Bar Code On	POSTAL23		<SYN>M<CR>
Postnet, Postal-4i and Intelligent Mail Bar Code On	POSTAL24		<SYN>M<CR>
Planet, Postal-4i and Postnet with B and B[1] Fields On	POSTAL25		<SYN>M<CR>
Planet, Intelligent Mail Bar Code and Postnet with B and B[1] Fields On	POSTAL26		<SYN>M<CR>
Postal-4i, Intelligent Mail Bar Code and Postnet with B and B[1] Fields On	POSTAL27		<SYN>M<CR>
Planet, Postal-4i, Intelligent Mail Bar Code and Postnet On	POSTAL28		<SYN>M<CR>

	Planet, Postal-4i, Intelligent Mail Bar Code and Postnet with B and B[1] Fields On	POSTAL29		<SYN>M<CR>
Planet Code Check Digit	Transmit	PLNCKX1		<SYN>M<CR>
	*Don't Transmit	PLNCKX0		<SYN>M<CR>
Postnet Check Digit	Transmit	NETCKX1		<SYN>M<CR>
	*Don't Transmit	NETCKX0		<SYN>M<CR>
Australian Post Interpretation	Bar Output	AUSINT0		<SYN>M<CR>
	Numeric N Table	AUSINT1		<SYN>M<CR>
	Alphanumeric C Table	AUSINT2		<SYN>M<CR>
	Combination N and C Tables	AUSINT3		<SYN>M<CR>
Postal Codes – Linear				
China Post (Hong Kong 2 of 5)	Default All China Post (Hong Kong 2 of 5) Settings	CPCDFT		<SYN>M<CR>
	*Off	CPCENA0		<SYN>M<CR>
	On	CPCENA1		<SYN>M<CR>
China Post (Hong Kong 2 of 5) Msg. Length	Minimum (2-80) *4	CPCMIN##		<SYN>M<CR>
	Maximum (2-80)*80	CPCMAX##		<SYN>M<CR>
China Post Redundancy	Range (0-10)*0	CPCVOT##		<SYN>M<CR>
Korea Post	Default All Korea Post Settings	KPCDFT		<SYN>M<CR>

	*Off	KPCENA0		<SYN>M<CR>
	On	KPCENA1		<SYN>M<CR>
Korea Post Msg. Length	Minimum (2-80) *4	KPCMIN##		<SYN>M<CR>
	Maximum (2-80)*48	KPCMAX##		<SYN>M<CR>
Korea Post Check Digit	Transmit Check Digit	KPCCHK1		<SYN>M<CR>
	*Don't Transmit Check Digit	KPCCHK0		<SYN>M<CR>
Data Formatting Commmands				
Data format default	Factory default data format	DFMDF3	Restore factory default data format	<SYN>M<CR>
				<SYN>M<CR>
Imaging Default Commands				
Image Snap	Default all Imaging Commands	IMGDFT	See overview in this guide on imaging commands.	<SYN>M<CR>
	Imaging Style- Decoding	SNPSTY0	Processing until exposure parameters are met, last frame then available for use.	<SYN>M<CR>
	*Imaging Style- Photo	SNPSTY1	Mimics digital camera, a visually optimized image is taken.	<SYN>M<CR>

Imaging Style- Manual	SNPSTY2	Expert mode not auto-exposure.	<SYN>M<CR>
Beeper On	SNPBEP1	Causes a beep after an image is snapped.	<SYN>M<CR>
*Beeper Off	SNPBEP0		<SYN>M<CR>
*Wait for Trigger Off	SNPTRG0	Waits for hardware button press to take image only	<SYN>M<CR>
Wait for Trigger On	SNPTRG1		<SYN>M<CR>
*LED State- Off	SNPLED0		<SYN>M<CR>
LED State- On	SNPLED1		<SYN>M<CR>
Exposure (1-7874 microseconds)	SNPEXP		<SYN>M<CR>
*Gain – None	SNPGAN1		<SYN>M<CR>
Gain – Medium	SNPGAN2		<SYN>M<CR>
Gain – Heavy	SNPGAN4		<SYN>M<CR>
Gain – Maximum	SNPGAN8		<SYN>M<CR>
Target White Value (0-255)*125	SNPWHT###		<SYN>M<CR>
Delta for Acceptance (0-255)*25	SNPDEL###		<SYN>M<CR>
Update Tries (0-10)*6	SNPTRY##		<SYN>M<CR>

	Target Set Point Percentage (1-99)*50	SNPPCT##		<SYN>M<CR>
Image Ship	*Infinity Filter – Off	IMGINF0		<SYN>M<CR>
	Infinity Filter – On	IMGINF1		<SYN>M<CR>
	*Compensation Off	IMGCOR0		<SYN>M<CR>
	Compensation On	IMGCOR1		<SYN>M<CR>
	*Pixel Depth – 8 bits/pixel (greyscale)	IMGBPP8		<SYN>M<CR>
	Pixel Depth – 1 bit/pixel (B&W)	IMGBPP1		<SYN>M<CR>
	*Don't Sharpen Edges	IMGEDG0		<SYN>M<CR>
	Sharpen Edges (0-23)	IMGEDG##		<SYN>M<CR>
	*File Format – JPEG	IMGFMT6		<SYN>M<CR>
	File Format – KIM	IMGFMT0		<SYN>M<CR>
	File Format – TIFF binary	IMGFMT1		<SYN>M<CR>
	File Format – TIFF binary group 4, compressed	IMGFMT2		<SYN>M<CR>
	File Format – TIFF grayscale	IMGFMT3		<SYN>M<CR>
	File Format – Uncompressed binary	IMGFMT4		<SYN>M<CR>
	File Format – Uncompressed greyscale	IMGFMT5		<SYN>M<CR>
	File Format – BMP	IMGFMT8		<SYN>M<CR>

*Histogram Stretch Off	IMGHIS0		<SYN>M<CR>
Histogram Stretch On	IMGHIS1		<SYN>M<CR>
*Noise Reduction Off	IMGFSP0		<SYN>M<CR>
Noise Reduction On	IMGFSP1		<SYN>M<CR>
Invert Image around X axis	IMGNVX1		<SYN>M<CR>
Invert Image around Y axis	IMGNVY1		<SYN>M<CR>
Rotate Image none	IMGROT0		<SYN>M<CR>
Rotate Image 90° right	IMGROT1		<SYN>M<CR>
Rotate Image 180° right	IMGROT2		<SYN>M<CR>
Rotate Image 90° left	IMGROT3		<SYN>M<CR>
JPEG Image Quality (0-100)*50	IMGJQF###		<SYN>M<CR>
*Gamma Correction Off	IMGGAM0		<SYN>M<CR>
Gamma Correction On (0-1000)	IMGGAM###		<SYN>M<CR>
Image Crop – Left (0-640)*0	IMGWNL###	Defaults may vary due to engine resolution	<SYN>M<CR>
Image Crop – Right (0-640)*639	IMGWNR###	Defaults may vary due to engine resolution	<SYN>M<CR>

	Image Crop – Top (0-480)*0	IMGWNT###	Defaults may vary due to engine resolution	<SYN>M<CR>
	Image Crop – Bottom (0-480)*479	IMGWNB###	Defaults may vary due to engine resolution	<SYN>M<CR>
	Image Crop – Margin (1-238)*0	IMGMAR###	Defaults may vary due to engine resolution	<SYN>M<CR>
	Protocol – None (raw)	IMGXFR0		<SYN>M<CR>
	Protocol – None (default USB)	IMGXFR2		<SYN>M<CR>
	Protocol – HModem Compressed	IMGXFR3		<SYN>M<CR>
	Protocol – HModem	IMGXFR4		<SYN>M<CR>
	Ship Every Pixel	IMGSUB1		<SYN>M<CR>
	Ship Every 2nd Pixel	IMGSUB2		<SYN>M<CR>
	Ship Every 3rd Pixel	IMGSUB3		<SYN>M<CR>
	*Document Image Filter Off	IMGUSH0		<SYN>M<CR>
	Document Image Filter On (0-255)	IMGUSH###		<SYN>M<CR>
	*Don't Ship Histogram	IMGHST0		<SYN>M<CR>
	Ship Histogram	IMGHST1		<SYN>M<CR>
Image Size Compatibility	Force VGA Resolution	IMGVGA1		<SYN>M<CR>

	*Native Resolution IMGVGA0	IMGVGA0		<SYN>M<CR>
Intelligent Signature Capture	Optimize On	DECBND1		<SYN>M<CR>
	*Optimize Off	DECBND0		<SYN>M<CR>
Utilities				
Add Code ID Prefix to All Symbologies (Temporary)	PRECA2,BL2995C80!		<SYN>M<CR>	
Show Decoder Revision	REV_DR		<SYN>M<CR>	
Show Scan Driver Revision	REV_SD		<SYN>M<CR>	
Show Data Format	DFMBK3?		<SYN>M<CR>	
Resetting the Barcode Reading Factory Defaults	Activate Defaults	DEFALT	Will apply default values to the Barcode reading or ~ prefix commands only	

Symbology Chart

Symbology	**ID**	**Possible Modifiers (m)**	**ID**	**Hex**
All Symbologies				99
Codabar	]Fm	0-1	a	61
Code 11	]H3		h	68
Code 128	]C*m*	0,1,2,4	j	6A
Code 32 Pharmaceutical (PARAF)	]X0		<	3C

Code 39 (supports Full ASCII mode)	]A*m*	0,1,3,4,5,7	B	62
TCIF Linked Code 39 (TLC39)	]L2		T	54
Code 93 and 93i	]G*m*	0-9, A-Z,a-m	i	69
EAN	]E*m*	0,1,3,4	d	64
EAN-13 (including Bookland EAN)	]E0		d	64
EAN-13 with Add-On	]E3		d	64
EAN-13 with Extended Coupon Code	]E3		d	64
EAN-8	]E4		D	44

Symbology	**ID**	**Possible modifiers (m)**	**ID**	**Hex**
EAN-8 with Add-On	]E3		D	44
GS1				
GS1 DataBar	]*em*	0	y	79
GS1 DataBar Limited	]*em*		{	7B
GS1 DataBar Expanded	]*em*		}	4D
GS1-128	]C1		I	49
2-5				
China Post (Hong Kong 2 of 5)	]X0		Q	51
Interleaved 2 of 5	]I*m*	0,1,3	e	65
Matrix 2 of 5	]X0		m	6D
NEC 2 of 5	]X0		Y	59
Straight 2 of 5 IATA	]R*m*	0,1,3	f	66
Straight 2 of 5 Industrial	]S0		f	66
MSI	]M*m*	0,1	g	67
Telepen	]B*m*		t	74
UPC		0,1,2,3,8,9,A,B,C		
UPC-A	]E0		c	63
UPC-A with Add-On	]E3		c	63
UPC-A with Extended Coupon Code	]E3		c	63

UPC-E	]E0		E	45
UPC-E with Add-On	]E3		E	45
UPC-E1	]X0		E	45

Add Code ID				5C80
Add AIM Code ID				5C81
Add Backslash				5C5C
Batch mode quantity			5	35

Symbology	**AIM ID**	**Possible modifiers (m)**	**CODE ID**	**Hex**
All Symbologies				99
Aztec Code	]z*m*	0-9,A-C	z	7A
Chinese Sensible Code (Han Xin Code)	]X0		H	48
Codablock A	]O6	0,1,4,5,6	V	56
Codablock F	]O*m*	0,1,4,5,6	q	71
Code 49	]T*m*	0,1,2,4	l	6C
Data Matrix	]*dm*	0-6	w	77
GS1	]*em*	0-3	y	79
GS1 Composite	]*em*	0-3	y	79
GS1 DataBar Omnidirectional	]*em*		y	79
MaxiCode	]U*m*	0-3	x	78
PDF417	]L*m*	0-2	r	72
MicroPDF417	]L*m*	0-5	R	52
QR Code	]Q*m*	0-6	s	73
Micro QR Code	]Q*m*		s	73

Symbology	**ID**	**Possible modifiers (m)**	**ID**	**Hex**
All Symbologies				99
Australian Post	]X0		A	41
British Post	]X0		B	42
Canadian Post	]X0		C	43
China Post	]X0		Q	51
InfoMail	]X0		,	2c
Intelligent Mail Bar Code	]X0		M	4D

Japanese Post	]X0		J	4A
KIX (Netherlands) Post	]X0		K	4B
Korea Post	]X0		?	3F
Planet Code	]X0		L	4C
Postal-4i	]X0		N	4E
Postnet	]X0		P	50

ASCII Chart

ASCII Char.	Hex No.	ASCII Char.	Hex No.	ASCII Char.	Hex No.	ASCII Char.	Hex No.
NUL	00	SP	20	@	40	‘	60
SOH	01	!	21	A	41	a	61
STX	02	“	22	B	42	b	62
ETX	03	#	23	C	43	c	63
EOT	04	$	24	D	44	d	64
ENQ	05	%	25	E	45	e	65
ACK	06	&	26	F	46	f	66
BEL	07	’	27	G	47	g	67
BS	08	(	28	H	48	h	68
HT	09	)	29	I	49	i	69
LF	0A	*	2A	J	4A	j	6A
VT	0B	+	2B	K	4B	k	6B
FF	0C	,	2C	L	4C	l	6C
CR	0D	-	2D	M	4D	m	6D
SO	0E	.	2E	N	4E	n	6E
SI	0F	/	2F	O	4F	o	6F
DLE	10	0	30	P	50	p	70
DC1	11	1	31	Q	51	q	71
DC2	12	2	32	R	52	r	72
DC3	13	3	33	S	53	s	73
DC4	14	4	34	T	54	t	74
NAK	15	5	35	U	55	u	75
SYN	16	6	36	V	56	v	76
ETB	17	7	37	W	57	w	77
CAN	18	8	38	X	58	x	78
EM	19	9	39	Y	59	y	79
SUB	1A	:	3A	Z	5A	z	7A
ESC	1B	;	3B	[	5B	{	7B
FS	1C	<	3C	\	5C	▌	7C
GS	1D	=	3D	]	5D	}	7D
RS	1E	>	3E	^	5E	~	7E
US	1F	?	3F	_	5F	DEL	7F