

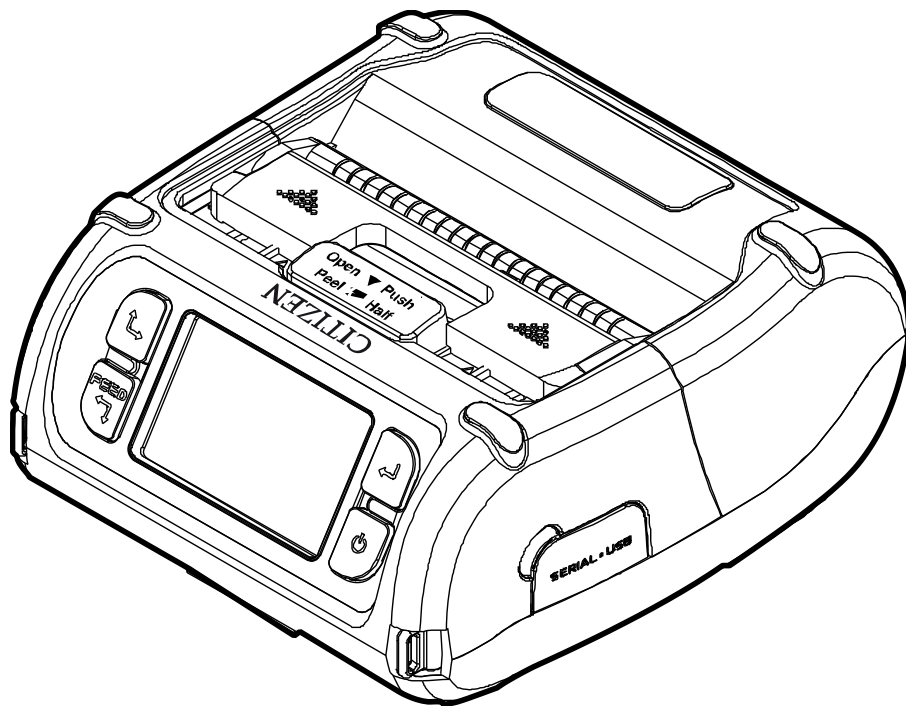
# CITIZEN

## MOBILE THERMAL PRINTER

MODEL CMP-40 series

### Command Reference Overview

Rev. 1.2A



**CITIZEN SYSTEMS JAPAN CO., LTD.**

# Emulation Command Compatibility

Compatible	Compatible with the commands provided by the manufacturer.	Partially Compatible
○	●	△

## 1 ESC/POS Command

Command	Function	Compatibility
HT	Horizontal tab	○
LF	Print and line feed	○
CR	Print and carriage return	○
FF	Print end position label to start printing	○
CAN	Cancel print data in page mode	○
RS	Beep 0.3seconds	○
DLE EOT	Transmit real-time status	○
DLE ENQ	Send real-time request to printer	○
ESC FF	Print data in page mode	○
ESC SP	Set character right-side spacing	○
ESC !	Set print mode	○
ESC \$	Set absolute print position	○
ESC %	Select/cancel user-defined character set	○
ESC &	Define user-defined characters	○
ESC *	Set bit image mode	○
ESC -	Turn underline mode on/off	○
ESC 2	Select default line spacing	○
ESC 3	Set line spacing	○
ESC ?	Cancel user-defined characters	○
ESC @	Initialize printer	○
ESC D	Set horizontal tab positions	○

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ESC E	Turn emphasized mode on/off	○
ESC G	Turn double-strike mode on/off	○
ESC J	Print and feed paper	○
ESC L	Select page mode	○
ESC M	Select character font	○
ESC R	Select international character set	○
ESC S	Select standard mode	○
ESC T	Select print direction in page mode	○
ESC V	Turn 90° clockwise rotation mode on/off	○
ESC W	Set printing area in page mode	○
ESC \	Set relative position	○
ESC a	Select justification	○
ESC c 5	Enable/disable panel buttons	
ESC d	Print and feed paper <i>n</i> lines	○
ESC t	Select character code table	○
ESC v	Transmit paper sensor status	○
ESC {	Turn upside-down print mode on/off	○
ESC 0xFF	Macro	○
GS !	Select character size	○
GS \$	Set absolute vertical print position in page mode	○
GS *	Define downloaded bit image	○
GS /	Print down-loaded bit image	○
GS B	Turn white/black reverse printing mode on/off	○
GS H	Select printing position of HRI characters	○
GS I	Transmit printer ID	○
GS L	Set left margin	○
GS P	Set horizontal and vertical motion units	○
GS W	Set printing area width	○
GS \	Set relative vertical print position in page mode	○
GS ^	Execute macro	○
GS :	Start/end macro definition	○
GS a	Enable/disable Automatic Status Back(ASB)	○
GS f	Select font for HRI characters	○
GS h	Set bar code height	○
GS k	Print bar code	○
GS r	Transmit status	○

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GS v 0	Print raster bit image	○
GS w	Set bar code width	○
GS S C	Set Serial Baud rate	○
DLE EOT n	Selects card read mode / Cancel card read mode	○
GS S P	Power Save Mode	○
FS !	Set print mode(s) for Kanji characters	○
FS &	Select Kanji character mode	○
FS -	Turn underline mode on/off for Kanji characters	○
FS .	Cancel Kanji character mode	○
FS 3	Select Kanji character code system	○
FS S	Set Kanji character spacing	○
FS W	Turn quadruple-size mode on/off for Kanji characters	○
FS p	Print NV bit image	○
FS q	Define NV bit image	○

## 2 CPCL Command

Command	Function	Compatibility
<b>PRINTER COMMANDS</b>		
PRINT	Terminate and print the file.	○
FORM	Instruct the printer to feed to top of form after printing.	○
JOURNAL	Disable this automatic media alignment.	○
UNITS	Specify a measurement system for all subsequent command fields.	○
USING COMMENTS	Comments.	○
<b>TEXT</b>		
TEXT	Place text on a label.	○
FONT-GROUP(FG)	Give a user the ability to group up to 10 pre-scaled font files into a single group.	○
TEXT CONCATENATION	Assign different character styles to strings.	○
MULTILINE(ML)	Print multiple lines of text using the same font and line-height.	○
COUNT	Is used for printing multiple labels.	○
SETMAG	Magnify a resident font to the magnification factor specified.	○
<b>SCALABLE TEXT</b>		
SCALE-TEXT	Specify the point size of both the width and height of the font.	○
SCALABLE CONCATENATION	Assign different character styles to strings.	○
<b>LINEAR BARCODES</b>		
BARCODE	prints bar codes in both vertical and horizontal orientations at specified widths and heights.	○

BARCODE-TEXT	Is used to label bar codes with the same data used to create the bar code.	<input type="radio"/>
COUNT	Is used for printing multiple labels where a numeric text field or numeric data encoded in a bar code is to be incremented or decremented for each label.	<input type="radio"/>
<b>TWO-DIMENSIONAL BARCODES</b>		
PDF417	Produce the PDF417 barcode.	<input type="radio"/>
MICROPDF-417	Produce the MICROPDF-417barcode.	<input checked="" type="radio"/>
MAXICODE	Produce the MAXICODE barcode.	<input type="radio"/>
QRCODE	Produce the QRCODE barcode.	<input type="radio"/>
DATAMATRIX	Produce the DATAMATRIX barcode.	<input checked="" type="radio"/>
GS1(RSS-14)	Produce the GS1barcode.	<input type="radio"/>
AZTEC	Produce the AZTEC barcode.	<input type="radio"/>
<b>GRAPHICS</b>		
BOX	Produce rectangular shapes of specified line thickness.	<input type="radio"/>
LINE	Produce the lines of any length, thickness, and angular orientation.	<input type="radio"/>
INVERSE-LINE	Black areas re-drawn white, and white areas re-drawn black.	<input type="radio"/>
PATTERN	Is used with the LINE and SCALE-TEXT commands to change the patterns used to fill these shapes.	<input type="radio"/>
GRAPHICS	Print bit-mapped graphics.	<input type="radio"/>
PCX	Send ".PCX" graphics formatted images to the printer.	<input type="radio"/>
<b>ADVANCED COMMANDS</b>		
CONTRAST	Specify the print darkness for the entire label.	<input type="radio"/>
TONE	Specify the print darkness for all labels.	<input type="radio"/>
JUSTIFICATION	Control alignment of field.	<input type="radio"/>
PAGE-WDITH	Specify page width.	<input type="radio"/>
PACE	Batch printing.	<input type="radio"/>
NO-PACE	Cancel the PACE and AUTO-PACE mode.	<input type="radio"/>
WAIT	Introduce a delay after a label is printed.	<input type="radio"/>
SPEED	Set the highest motor speed level.	<input type="radio"/>
SETSP	Change spacing between text characters.	<input type="radio"/>
ON-FEED	Can be configured to ignore, form-feed, or reprint the last label when the feed key is pressed or when it receives a form-feed character (0x0c).	<input type="radio"/>
PREFEED	Advance the media a specified amount prior to printing.	<input type="radio"/>
POSTFEED	Advance the media a specified amount after printing.	<input type="radio"/>
COUNTRY / CODE PAGE	Substitute the appropriate character set for the specified country.	<input type="radio"/>
FORMAT FILES	Identify format and data respectively.	<input type="radio"/>
BEEP	Sound the beeper for a given time length.	<input type="radio"/>

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<b>LINE PRINT MODE</b>		
SETLP	Change the font the printer for line print mode.	<input type="radio"/>
SETLF	Change the height of each line without changing the font.	<input type="radio"/>
Moving With X and Y Coordinates	Move down and across the paper using X and Y values.	<input type="radio"/>
LMARGIN	Set the left margin in line print mode.	<input type="radio"/>
SETBOLD	Make text bolder and slightly wider.	<input type="radio"/>
SETSP	Change spacing between text characters. Spreading out characters on a line makes the font appear wider.	<input type="radio"/>
Special ASCII Characters	Function specific action.	<input type="radio"/>
SETFF	Align top of media to print head.	<input type="radio"/>
SET-TOF	Program the distance between the top-of-form and the end of the next (positive value) or previous (negative value) eye-sense mark or gap.	<input type="radio"/>
SETLP-TIMEOUT	Set receive-timeout value.	<input type="radio"/>
<b>ADVANCED UTILITIES</b>		
VERSION	Report the firmware version.	<input type="radio"/>
CHECKSUM	Report the application checksum.	<input type="radio"/>
DEL	Delete the specified file.	<input type="radio"/>
DIR	Send the file directory to a host.	<input type="radio"/>
DEFINE-FILE	Define a file name for a file to be loaded into the printer.	<input type="radio"/>
TYPE	Report the text file.	<input type="radio"/>
BAUD	Set the printer serial port baud rate.	<input type="radio"/>
COUNTRY / CODE-PAGE	Substitute the appropriate character set for the specified country.	<input type="radio"/>
TIMEOUT	Set the system off-time.	<input type="radio"/>
BEED	Sound the beeper for a given time length.	<input type="radio"/>
ON-LOW-BATTERY	Transmit the message "LOW BATTERY ALERT!" and sound the beeper.	<input type="radio"/>
LT	Specify the command line terminator character(s).	<input type="radio"/>
SET-TIME	Set the time in the real time clock module.	<input type="radio"/>
GET-TIME	Report the current time.	<input type="radio"/>
SET-DATE	Set the date in the real time clock module.	<input type="radio"/>
GET-DATE	Report the current date.	<input type="radio"/>
PRINTING A TIME STAMP	Print a time stamp on a label.	<input type="radio"/>
PRINTING A DATE STAMP	Print a day stamp on a label.	<input type="radio"/>
PAPER-JAM	Establish the parameters that allow the printer to report a paper jam.	<input type="radio"/>
<b>PRINTER ESCAPE</b>		
SET AND READ CODE	Set and read CCL Code.	<input type="radio"/>

STATUS / INFORMATION	Instruct the printer to return a status and information.	○
USER LABEL COUNT	Request the current user label count from the printer or instruct the printer to clear its user label count to zero.	○
POWER OFF	Shut off.	○

### 3 ZPL Command

Command	Function	Compatibility
^A	Specify the font to use in a text field.	○
^A@	Use Font Name to Call Font	○
^B0	Produce the Aztec barcode.	○
^B1	Produce the Code 11 barcode.	○
^B2	Produce the Interleaved 2 of 5 barcode.	○
^B3	Produce the Code 39 barcode.	○
^B4	Produce the Code 49 barcode.	○
^B5	Produce the Planet Code barcode.	○
^B7	Produce the PDF417 barcode.	○
^B8	Produce the EAN-8 barcode.	○
^B9	Produce the UPC-E barcode.	○
^BA	Produce the Code 93 barcode.	○
^BC	Produce the Code 128 barcode.	○
^BD	Produce the UPS Maxi code barcode.	○
^BE	Produce the EAN-13 barcode.	○
^BF	Produce the MicroPDF417 barcode.	○
^BI	Produce the Industrial 2 of 5 barcode.	○
^BJ	Produce the Standard 2 of 5 barcode.	○
^BK	Produce the ANSI Coda bar barcode.	○
^BL	Produce the LOGMARS barcode.	○
^BM	Produce the MSI barcode.	○
^BO	Produce the Aztec barcode.	○
^BP	Produce the Plessey barcode.	○
^BQ	Produce the QR Code barcode.	○
^BR	Produce the RSS barcode.	○
^BS	Produce the UPC/EAN Extensions barcode.	○
^BT	Produce the TLC39 barcode.	○
^BU	Produce the UPC-A barcode.	○
^BX	Produce the Data Matrix barcode.	○

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^BY	Change the default values of barcode fields.	○
^BZ	Produce the POSTNET barcode.	○
^CC ~CC	Change caret.	○
^CD	Change the delimiter character.	○
^CF	Set alphanumeric default font.	○
^CI	Change International Font/Encoding.	○
^CT ~CT	Change tilde.	○
^CW	Assign Font id	○
~DF	Download formats.	○
~DG	Download graphics.	○
^FB	Print text into a defined block type format.	○
^FC	Set the clock-indicators.	○
^FD	Define the data string for the field.	○
^FH	Enter the hexadecimal value for any characters.	○
^FN	Number the data fields.	○
^FO	Set a field origin.	○
^FP	Set vertical and reverse formatting of the font field.	○
^FR	Set field reverse print.	○
^FS	Denote the end of the field definition.	○
^FT	Set the field position.	○
^FV	Define the data string for the variable field.	○
^FW	Set the field orientation.	○
^FX	Comments.	○
^GB	Draw boxes.	○
^GC	Draw circles.	○
^GD	Draw diagonal line.	○
^GE	Draw graphic ellipse.	○
^GF	Download graphic field data.	○
^GS	Change data into graphic symbols.	○
^ID	Delete objects, graphics, fonts, and stored formats.	○
^IL	Load stored image of a format.	○
^IM	Load stored image of a graphic.	○
^IS	Store printed image as a graphic image.	○
~JR	Reset printers.	○
^JS	Select sensor.	○
~JS	Change back feed sequence.	○

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^KL	Select the language displayed on the control panel.	○
^LH	Set the label home position.	○
^LL	Define the length of the label.	○
^LR	Reverse the printing of all fields in the label format.	○
^LS	Shift all field positions to the left.	○
^LT	Move the entire label format from its current position.	○
^MC	Clear map.	○
^MD	Adjust the darkness relative to the current darkness setting.	○
^MN	Set media type.	○
^PM	Print the entire printable area of the label as a mirror image.	○
^PO	Invert the label format 180 degrees.	○
^PQ	Set total quantity of labels to print.	○
^PR	Select print speed.	○
~PR	Reprint.	○
^PW	Set print width.	○
^SC	Change the serial communications parameters	○
^SD	Set the darkness.	○
^SF	Serialize field.	○
^SL	Set clock-mode and language of control panel.	○
^SN	Set serialized data.	○
^SO	Set clock-offset.	○
^ST	Set date and time for RTC.	○
~TA	Adjust tear-off position.	○
^XA	Start format.	○
^XF	Recalls format.	○
^XG	Recall graphic	○
^XZ	End format.	○
^ZZ	Place the printer in an idle or shutdown mode.	○

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