

# MINI PRINTER

Instruction Manual

## SE 7200

DESK TYPE

SE7200 SD

SE7200 PD

SE7200 ST

SE7200 PT



## Contents

### Chapter 1. Pre-face

- 1-1. Feature
- 1-2. Usage

### Chapter 2. Introduction

- 2-1. Specification
- 2-2. Control Panel Function
- 2-3. Self Test Mode
- 2-4. Hex Decimal Dump Mode

### Chapter 3. Connection

- 3-1. Serial Interface
- 3-2. Parallel Interface
- 3-3. Others

### Chapter 4. Dimension

### Chapter 5. Command Mode

- 5-1. Basic Command mode
- 5-2. EPSON TM-U200 Command mode
- 5-3. CITIZEN iDP-3540 Command mode
- 5-4. THERMAL Command mode(EPSON TM-88 II)
- 5-5. THERMAL Command mode (CITIZEN iDP-3540 command)

## Chapter 1. Pre-face

This product, "Mini Printer" can be applied to various systems, like Factory automation, Bill issuing machine, Digital scale, Digital Weighing Indicator

### 1 – 1 Feature

- DESK type
- Compact & Light Size
- High Reliability & Durability
- High Printing Speed & Clear printing condition
- Various kinds of Columns can be selected - Print out with various format
- Self testing Function
- Hex Decimal Dumping mode - Check Data correction
- Various graphic support function

### 1 – 2 Usage

- Measuring Machine / System
- Digital Weighing Indicator / Digital Scale
- Factory Automation
- Bill Issuing Machine / system
- Parking Management System
- Various kinds of Data Recordings.

## Chapter 2. Introduction

### 2 – 1 Specification

Section	Specification	
Type	DESK TYPE	
Print method	DOT IMPACT	THERMAL
COLUMNS	24/30/40 COLUMNS	24/32/36/42 COLUMNS
Pont Size	* 24/30COL Eng: 8x14, Kor: 16x14 * 40COL Eng: 6x12, Kor: 12x12	* 24/32COL Eng: 12x24, Kor: 24x24 * 36/42COL Eng: 9x24, Kor: 18x24
Pont	English, Korean, Number, Symbols	
Dot/line	240 DOT / line	384DOT / line
Print Speed	1.6line/sec	50mm/sec
Cartridge	EPSON ERC-09	-
Paper	57mmx60mm ROLL PAPER	
Print Width	48.0mm	
Data Buffer	2Kbyte	8Kbyte
Interface (Factory Preset)	RS-232C SERIAL (BAND-RATE : 2400/9600/19200/115200bps Selectable)	
	CENTRONICS PARALLEL	
Power	DC +12 ~ 24V, 1.5A ( OPTION : AC adaptor 110V/220V)	
Dimension	110W(mm)x165D(mm)x85H(mm)	

### 2 – 2 Control Panel Function

Section	Function
"Green" LED	"ON LINE" condition Lamp <ul style="list-style-type: none"> <li>● LED turns on When printer is ready</li> <li>● Under "OFF" condition, printer is not ready</li> <li>● Under blinking condition, it means "no paper". Please, replace new paper</li> </ul>
"ON-LINE" Button	"ON-LINE/OFF-LINE" button <ul style="list-style-type: none"> <li>● Paper feeding is possible under "ON-LINE button" off, only.</li> <li>● All communication can be used under "ON-LINE". (OFF-Line - No communication)</li> </ul>
"RED" LED	Paper feeding lamp / Power lamp Power is connected to "RED" lamp is ON.
"FEED" Button	Paper Feeding Button

## 2 – 3. Self Test Mode

You can check Printer operation/condition through this function  
Self Test Mode will be done as follow.

- ① Install paper with correction
- ② Under Power is on, press “ON-LINE Button” for 2~3sec. Then Self Test mode will be activated.
- ③ When Self Test is done, printer will be stand by mode automatically.

## 2 – 4. Hex Decimal Dump Mode

You can check the Data comes into the printer with correction or not.

Also you can use this mode with software problem.

Hex Decimal Dump Mode will be done as follow.

- ① Install paper with correction
- ② Under Power is on, press “ON-LINE Button” for 2~3sec. Then Self Test mode will be activated.  
\* ① ~ ② processes are all same with “Self Test Mode”
- ③ Press “ON LINE Button” during Self Test Mode.  
After finishing Self Test, “\*\*[ HEX DUMP PRINT START ]\*\*” will be print out.  
Then, if you send data to the printer, all transferred data will be print out with Hex code
- ④ Hex Decimal Dump Mode will be dismissed when power is off

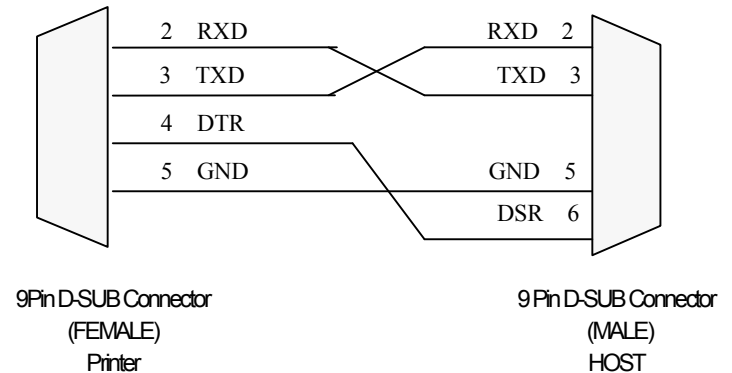
## Chapter 3. Connection

### 3 – 1 Serial Inter Face

#### 1) Serial (RS-232C)

<b>Data Transmission</b>	RS-232C Asynchronous
<b>Handshaking</b>	DTR/DSR or XON/XOFF control
<b>Signal Level</b>	MARK = -3 ~ -15V : “1” SPACE = +3 ~ +15V : “0”
<b>Baud Rate</b>	2400/9600/19200/115200bps (Default : 9600bps)
<b>Bit Length</b>	8 bits
<b>Parity</b>	None
<b>Stop Bits</b>	1 Stop
<b>Connector</b>	D-SUB 9 PIN MALE

#### 2) Interface Connection Cable



- Under “Handshaking” is “XON/XOFF”, DSR/DTR Line is not needed
- Under “Paper End”, send “0x07” signal twice, and Paper is normal condition, send “0x11(XON)”

3) Connector pin specification and contents

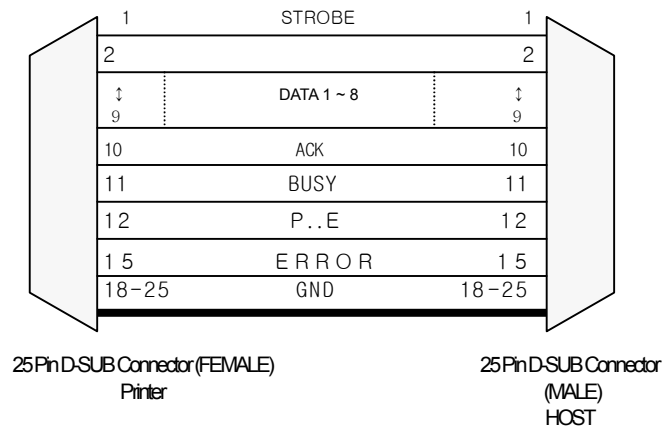
Pin No	Signal	Direction	Contents
2	TXD	Out	Transfer Data
3	RXD	In	Receipt Data
6	DSR	In	<ul style="list-style-type: none"> <li>This signal informs that "Host Device" can be receipt data or not.</li> <li>SPACE : Can be receipt Data</li> <li>MARK : Can not be receipt Data</li> <li>This signal will be operated by "DSR/DTR Handshaking" and Printer send Data after checking this signal</li> <li>This signal will be used by "Hardware Handshaking"</li> </ul>
7	GND	-	Signal Ground
20	DTR	Out	<ul style="list-style-type: none"> <li>This signal informs that "Printer" can be receipt data or not.</li> <li>Under "DTR/DSR" control mode Space : Can be receipt Data MARK : Can not be receipt Data</li> <li>Under Following condition, signal will be "MARK".                             <ul style="list-style-type: none"> <li>- Receipt Buffer is full</li> <li>- Under Printer Error</li> <li>- Under Self Test Mode</li> </ul> </li> </ul>

3 – 2 Parallel Inter Face

1) Centromics parallel

Data Transmission	8-bit parallel
Handshaking	STROBE and BUSY or ACK
Connector	D-SUB 25 MALE

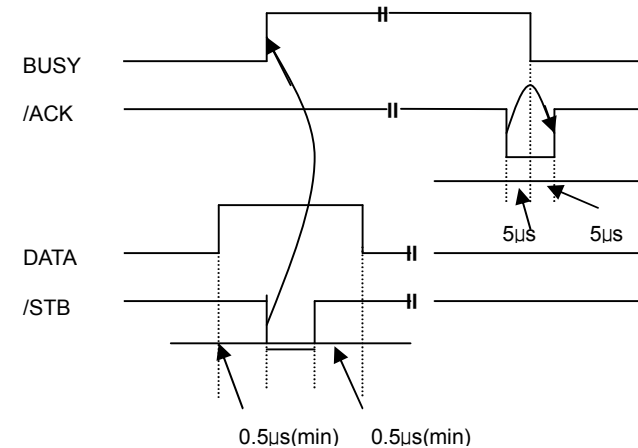
2) Interface connection cable



3) Connector pin specification and contents

No	Signal	Direction	Contents
1	/STROBE	In	<ul style="list-style-type: none"> <li>During reading the data, "STROBE Pulse" will be activated</li> <li>Generally this signal is "HIGH", but when the data reading under printer, the signal is "LOW".</li> </ul>
2~9	DATA 0 ~ 7	In	<ul style="list-style-type: none"> <li>This signal is 8pcs data bit of Parallel Data</li> <li>When detected "HIGH" signal will be "1", "Low" will be "0".</li> </ul>
10	ACK	Out	<ul style="list-style-type: none"> <li>This signal informs that "Printer" can be receipt data.</li> <li>Normally, the signal is "High", under operation it is "Low"</li> </ul>
11	BUSY	Out	<ul style="list-style-type: none"> <li>This signal informs that "Printer" can receipt data or not.</li> <li>HIGH : Can not receipt data</li> <li>LOW : Can receipt data</li> </ul>
12	PE	Out	<ul style="list-style-type: none"> <li>This signal informs that paper is ready or not.</li> <li>HIGH : No Paper</li> <li>Low : Paper is ready</li> </ul>
15	/ERROR	Out	<ul style="list-style-type: none"> <li>This signal informs that there is Error or not..</li> </ul>
18	GND	-	Signal Ground

4) Signal Timing Chart



### 3 – 3 Others

#### 1) Switch

SW No.		DOT type	THERMAL type
1      2		Parity setting	
OFF	OFF	9600bps *	9600 bps *
ON	OFF	19200bps	19200 bps
OFF	ON	115200bps	115200 bps
ON	ON	2400bps	2400 bps
3		Korean mode setting	
OFF		N.A	N.A
ON		N.A	N.A
4		Control Code Setting	
OFF		INTERNAL *	EPSON *
ON		EPSON	CITIZEN
5      6		Columns setting	
OFF	OFF	30 Columns *	32 Columns *
ON	OFF	40 Columns	42 Columns
OFF	ON	24 Columns	24 Columns
ON	ON	36 Columns	36 Columns

#### 2) Jumper Definition (DOT/THERMAL)

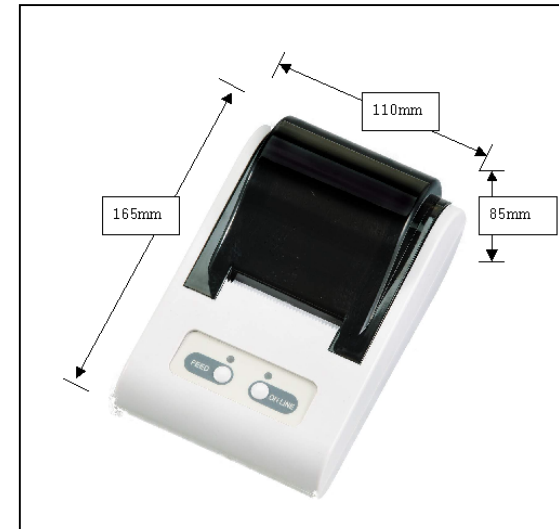
Jumper	Status	Contents
J1	Open	None Parity *
	Short	Parity
J2	Open	Odd Parity
	Short	Even Parity

\* Factory Preset

#### ● Power Connector

	Power Connector specification
+	DC +12V 1.5A
G	GND

### Chapter 4. Dimension



## Chapter 5. Command Mode

### 5 – 1. DOT Command (Basic)

The basic command mode consists with IBM and EPSON command mode, so can be used with other printers

Function	type	HEX
Horizontality Tab	HT	\$09
Print / Line Feed	LF	\$0A
Print / Carriage Return	CR	\$0D
Form Feed	FF	\$0C
Letter Width enlarge selection	SO	\$0E
Letter Width enlarge cancel	SI	\$0F
Letter Width enlarge cancel	DC4	\$14
Clear	CAN	\$18
Printer Status inspection	ESC BEL	\$1B \$07
Under line mode set / delete	ESC - n	\$1B \$2D n
Line Interval setting	ESC 1 n	\$1B \$31 n
Letter Pont #1(8x14) 30COL, set	ESC 6	\$1B \$36
Letter Pont #2(6x12) 40COL set	ESC 7	\$1B \$37
Letter Pont #1(8x14) 24COL set	ESC 8	\$1B \$38
Covering Graphic	ESC ' m n1 n2 ... nk CR	\$1B \$27 m n1 n2 ... nk CR
Printer Initialize	ESC @	\$1B \$40
Page Length Set	ESC C n	\$1B \$43 n
Horizontality Tab position set	ESC D n1 ... nK NUL	\$1B \$44 n1 ... nK NUL
Dot line Feed	ESC J	\$1B \$4A
Graphic command	ESC K n1 n2 d1 ... dk	\$1B \$4B n1 n2 d1 ... dk
Right Space set	ESC Q n	\$1B \$51 n
Inverse image mode	ESC R n	\$1B \$52 n
Letter Width enlarge selection	ESC U n	\$1B \$55 n
Letter long enlarge selection	ESC V n	\$1B \$56 n
Letter Width/long enlarge selection	ESC W n	\$1B \$57 n
Transliterate selection	ESC i n	\$1B \$69 n
Korean Printing mode selection	ESC h n	\$1B \$68 n
Left Space set	ESC l n	\$1B \$6C n
User letter definition	ESC & m n1 n2 ... nk	\$1B \$26 m n1 n2 ... nk
User letter definition	ESC % mn	\$1B \$25 mn
User letter definition	ESC :	\$1B \$3A

### 5 - 2 DOT Command (EPSON TM-U200 Command)

Function	Type	HEX
Horizontality Tab	HT	\$09
Print / Line Feed	LF	\$0A
Print / Carriage Return	CR	\$0D
Printer status inspection	ESC BEL	\$1B \$07
Letter right interval setting	ESC SP n	\$1B \$20 n
Print mode setting	ESC ! n	\$1B \$21 n
Absolute position setting	ESC \$ nL nH	\$1B \$24 nL nH
User definition letter set selection / cancel	ESC % n	\$1B \$25 n
User letter definition	ESC & y c1 cw [...]	\$1B \$26 y c1 cw [...]
Bit Image setting	ESC * m nL nH d1 ... dk	\$1B \$2A m nL nH d1 ..
Under line mode selection/cancel	ESC - n	\$1B \$2D n
Line interval selection(1/6inch)	ESC 2	\$1B \$32
Line interval setting	ESC 3 n	\$1B \$33 n
User letter definition cancel	ESC ? n	\$1B \$3F n
Printer Initialize	ESC @	\$1B \$40
Horizontality Tab position setting	ESC D n1 ... nK NUL	\$1B \$44 n1 ... nK NUL
Emphasis mode selection	ESC E n	\$1B \$45 n
Double strike mode selection/cancel	ESC G n	\$1B \$47 n
Letter Pont selection	ESC M n	\$1B \$4D n
Muti-languages selection	ESC R n	\$1B \$52 n
Panel button activate mode	ESC c 5 n	\$1B \$63 \$35 n
Print / "n" line feed	ESC d n	\$1B \$64 n
Koran printing mode selection	ESC h n	\$1B \$68 n
Letter code table selection	ESC t n	\$1B \$74 n
Inverse Image print mode selection	ESC { n	\$1B \$7B n
Letter size selection	GS 1 n	\$1D \$21 n
Printer ID transfer	GS 1 n	\$1D \$49 n

### 5 – 3 DOT Command (CITIZEN iDP-3540 Command)

Function	Type	HEX
Print / Line Feed	LF	\$0A
Print / Carriage Return	CR	\$0D
"N" line paper Transfer	FF n	\$0C n
Letter width enlarge selection	SO	\$0E
Letter width enlarge cancel	SI	\$0F
Clear	CAN	\$18
Initialize	DC1	\$11
Inverse letter mode	DC2	\$12
Printer status inspection	ESC BEL	\$1B \$07
Under line mode selection / cancel	ESC - n	\$1B \$2D n
Graphic Command	ESC * n1 n2 d1 ... dk	\$1B \$2A n1 n2 d1 ... dk
Page length selection	ESC C n	\$1B \$43 n
Feed composition	ESC f	\$1B \$66
Korean printing mode selection	ESC h n	\$1D \$68 n

**5 – 4 Thermal Command(EPSON TM-88 II)**

Function	type	HEX
Horizontality Tab	HT	\$09
Print / Line Feed	LF	\$0A
Print / Carriage Return	CR	\$0D
Printer Status Inspection	ESC BEL	\$1B \$07
Letter right interval setting	ESC SP n	\$1B \$20 n
Print mode setting	ESC ! n	\$1B \$21 n
Absolute position setting	ESC \$ nL nH	\$1B \$24 nL nH
User definition letter set selection / cancel	ESC % n	\$1B \$25 n
User Letter definition	ESC & y c1 cw[...]	\$1B \$26 y c1 cw[...]
Bit Image setting	ESC * m nL nH d1...dk	\$1B \$2A m nL nH d1..
Under line mode selection / cancel	ESC - n	\$1B \$2D n
Line interval selection(1/8inch)	ESC 0	\$1B \$30
Line interval selection(1/6inch)	ESC 2	\$1B \$32
Line interval setting	ESC 3 n	\$1B \$33 n
Sub equipment setting	ESC = n	\$1B #3Dn
User letter definition cancel	ESC ? n	\$1B \$3F n
Printer Initialize	ESC @	\$1B \$40
Horizontality Tab position set	ESC D n1...nK NUL	\$1B \$44 n1...nK NUL
Emphasis mode selection	ESC E n	\$1B \$45 n
Double strike mode selection/cancel	ESC G n	\$1B \$47 n
Letter Pont selection	ESC M n	\$1B \$4D n
Muti-languages selection	ESC R n	\$1B \$52 n
Letter Rotation selection/cancel (90 degree, right direction)	ESC V n	\$1B \$56 n
Relative Printer position setting	ESC \ nL nH	\$1B \$5C nL nH

Function	type	HEX
Panel button activate mode	ESC c 5 n	\$1B \$63 \$35 n
Print / "n" line feed	ESC d n	\$1B \$64 n
Paper Full Cutting operate	ESC i	\$1B \$64 n
Paper Partial Cutting operate	ESC m	\$1B \$69
Korean printing mode selection	ESC h n	\$1B \$68 n
Letter code table selection	ESC t n	\$1B \$74 n
Inverse Image print mode selection	ESC { n	\$1B \$7B n
Letter size selection	GS ! n	\$1D \$21 n
Download Bit image definition	GS*x y d1...d(x*y*8)	\$1D\$2Axyd1...d(x*y*8)
Download Bit image print	GS / m	\$1D \$2F m
Printer ID transfer	GS I n	\$1D \$49 n
Left margin setting	GS L nL nH	\$1D \$4C nL nH
Printing Area setting	GS W nL nH	\$1D \$57 nL nH
Printing Intensity setting	GS g n	\$1D \$67 n
Bar Code Height setting	GS h n	\$1D \$68n
Bar Code Print	①GS k m d1...dk NUL	\$1D \$6B m d1...dk NUL
	②GS k m n d1...dn	\$1D \$6B m n d1...dn
Bit image print (Width direction)	GS v 0 m xL xH yL yH d1...dk	\$1D \$76 S30 m xL xH yL yH d1...dk
Bar Code width setting	GS w n	\$1D \$77 n

**MINI PRINTER  
SE7200**

**5 – 5 THERMAL Command (CITIZEN iDP-3540 Command)**

Function	type	HEX
Print / Line Feed	LF	\$0A
Print / Carriage Return	CR	\$0D
“N” line paper Transfer	FF n	\$0C n
Letter Width enlarge selection	SO	\$0E
Letter Width enlarge cancel	SI	\$0F
Letter Width enlarge cancel	DC4	\$14
Printer Status Inspection	ESC BEL	\$1B \$07
Clear Command	CAN	\$18
Initialize Command	DC1	\$11
Inverse Letter Mode	DC2	\$12
Inverse Letter selection / cancel	ESC R n	\$1B \$2A n1 n2 d1...dk
Line interval selection(1/8inch)	ESC 0	\$1B \$30
Line interval selection(1/6inch)	ESC 2	\$1B \$32
Page length setting	ESC C n	\$1B \$43 n
Feed composition command	ESC f	\$1B \$66
Cutting line skip command	ESC N n	\$1B \$4En
Cutting line skip cancel command	ESC O	\$1B \$4F
Letter Pont Selection	ESC M n	\$1B \$4Dn
Korean printing mode selection	ESC h n	\$1B \$68 n
Paper Full Cut command	ESC P O	\$1B \$50 \$30
Paper Partial Cut command	ESC P I	\$1B \$50 \$31
Printing Intensity setting	GS g n	\$1D \$67 n
Printer ID transfer	GS I n	\$1D \$49 n
Bar Code Height setting	GS h n	\$1D \$68n
Bar Code Print	①GS k m d1...dk NUL	\$1D \$6B m d1...dk NUL
	②GS k m n d1...dn	\$1D \$6B m n d1...dn
Bar Code width setting	GS w n	\$1D \$77 n