



User's Manual Mobile Printer



http://www.samsungminiprinters.com

Information to the user

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION : Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Safety Precautions

In using the present appliance, please keep the following safety regulations in order to prevent any hazard or material damage.



WARNING

Violating following instructions can cause serious injury or death.



CAUTION

Violating following instructions can cause slight wound or damage the appliance.



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WARNING

The connection of a non-shielded printer interface cable to this printer will invalidate the EMC standards of this device. You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Waste Electrical and Electric Equipment (WEEE)



This marking shown on the product or its literature, indicates that is should not be disposed with other household wastes at the end of its working life, To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources. Household

users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

Label Material

- * Rating Label: PP
- * Other Labels: PET

Introduction

The SPP-R200 is a high-quality Mobile printer. This mobile printer has the following features.

- Elegant design of outer case and light-weight
- High-speed printing (80mm/s) but low noise
- Drop durability (Applied cushion rubber and high-strength material)
- Easy paper loading (Drop in and print) and easy separable Lithium-ion battery pack
- High speed wireless interface and reliable data reception
- Indication of battery consumption and low battery alarm (4 stages)
- Power save mode (time set up by user's choice)
- Long lating battery by electric circuit design for low power consumption
- Cover open switch and Paper end sensor is standard
- Download of firmware and font (cable/wireless)
- Download of NV image
- Download of Bluetooth firmware (cable)
- Survival function (recovery of main board damaged by error of firmware download)
- Memory switch
- Automatic recognition of connection either cable or wireless
- Support status of printer
- Variable option
 - Cradle for recharge of battery
 - Spare battery
 - A battery charger in the car
 - A portable case
 - Belt strap
 - Interface cable for both Serial and USB

• Front view



• Rear view



NOTES

Please be sure to read the instructions in this manual carefully before using your new printer.

Table of Contents

1.	Unp	backing9					
2.	Inst	allation and Operation10					
	2.1	Installing the Battery10					
	2.2	Charging the Battery10					
	2.3	Using the MSR10					
	2.4	Connecting the interface cable (Option)11					
	2.5	Installing the paper roll12					
	2.6	Using the belt strap13					
	2.7	Using the control panel14					
3.	Set	ting the Memory Switches16					
	3.1	Memory Switch 116					
	3.2	Memory Switch 217					
	3.3	Memory Switch 5 (Power off time selection)18					
	3.4	Memory Switch 6 (Idle mode time selection)18					
	3.5	Memory Switch 7 (Selecting MSR read mode)19					
	3.6	Memory Switch 819					
	3.7	Serial communication					
4.	Self	f Test 20					
5.	Нех	adecimal Dumping 20					
6.	Spe	cifications 21					
7.	Overall dimensions						

1. Unpacking

Your printer box should include the items shown in the illustration below. If any items are damaged or missing, please contact your dealer.



2. Installation and operation

2.1 Installing the battery



2.2 Charging the battery



2.3 Using the MSR



- 1) Insert two hook of battery into two hole of printer.
- 2) Lock the battery into the printer until it makes a clicking sound.

NOTES

The battery is packed uncharged. For the printer works, you must charge the battery using the battery charger or the battery cradle (option). (See "2.2 Charging the battery".)

- 1) Make sure the printer is turned off.
- 2) Connect the power cord to the battery charger.
- 3) Plug the battery charger into the printer's power connector.
- 4) Plug the power cord into the outlet.

CAUTION

Before connecting the printer to the battery charger, make sure that the voltage and power specifications match the printer's requirements. Using an incorrect battery charger can cause serious damage to the printer.

- 1) Open the front cover by pushing the Front cover.
- 2) Insert the card as shown and then swipe in the direction of arrow.
- 3) Close the front cover by pushing the front cover.

NOTES Be sure to note the correct card direction.

2.4 Connecting the interface cable (Option)



1) Connect the interface cable to the printer's interface connector.

• Communication cable

Pin No.	Signal name	Direction	Function
1	GND	-	Ground
2	TXD	Output	Transmit data
3	RXD	Input	Receive data
			Request to send
4	nRTS	Output	Set high when printer is ready to
			accept a command or data
5	nCTS	Input	Clear to send from host
6	GND	-	Ground
7	GND	-	Ground
8	D +	-	Differential data line
9	D -	-	Differential data line
10	nINDEX	Output	Check the interface cable



2.5 Installing the paper roll



- 1) To prevent data loss, make sure that the printer is not receiving data.
- 2) Open the rear cover by pushing the open button.

- 3) Insert the paper roll as shown.(Remove the used paper roll core if there is one.)
- 4) Be sure to note the correct direction that the paper should come off the paper roll.
- 5) Pull out small amount of paper as shown. Then close the rear cover.

6) Tear off the extra paper by pulling it toward the front of the printer.

2.6 Using the belt strap



- 1) Insert the screw of the belt strap in a hole of lower cover.
- 2) Fasten the screw of the belt strap by rotating a coin as shown.

- 3) Spread the velcro fasteners of the belt strap.
- 4) Insert the belt strap to the belt.

5) Attach to the Velcro fasteners as shown.

2.7 Using the control panel

Most of the functions of this printer are governed by software, but you can monitor the printer's status by looking at the lights on the control panel and for some procedures you will use the buttons.



POWER button



Use this button to turn on the power or to turn off the power. If you press this button when the printer is turn off, the printer is turn on. And if you press this button during 2 seconds when the printer is turn on, the printer is turn off.

• FEED button



Use this button to feed the paper or to start the self test and for the hexadecimal dump mode. (See "4. Self test" for self test. See "5. Hexadecimal dump" for hexadecimal dump mode.)

• BATT. LED (Blue or red color)



This indicator lights are on when the power is turned on. And this indicator lights show the battery charge rate. When three LEDs in blue is on, it means that the battery is fully charged. When two LEDs or one LED in blue is on, it means that the battery is not fully charged. And if only one LEDs in red is on, it means that the battery needs to be charged or changed.

• ERROR LED (Red Color)



This indicator light is on (but not blinking) when the printer is errors. When this light is on, it means printer rear cover is open. When this light is blinking, it means the printer is out of paper or the printer head is heating. If you see this light blinking, turn off the printer for a few seconds and then turn it back on. If the light is still blinking, call your supervisor or a service person.

• BT LED (Green Color)



This indicator light is on when the printer is ready to communicate with host. When this light is on, it means printer interfaces are the serial communication or the USB communication. Otherwise it means the Bluetooth communication is connection.

When this light is blinking, it means the Bluetooth communication is

disconnection. After all it means the printer is not ready to communicate with host.

3. Setting the Memory Switches

This printer has "Memory Switch" set which is software switches. Memory Switch set has "MSW 1", "MSW 2", "MSW 5" (Power OFF time selection), "MSW 6" (Power idle mode time selection), "MSW 7 (MSR read mode selection)", "MSW 8" and "Serial communication condition". "Memory Switch setting utility" can change the Memory Switch set to ON or OFF as shown in the table below (default : all OFF):

The Memory Switch is available to be changed by two methods:

- Memory Switch setting utility
- Control from command

Settings of the Memory Switch are stored in the NV memory; therefore, even if the printer is turned OFF, the settings are maintained.

3.1 Memory Switch 1

Switch	Function	ON	OFF
1~3	Print density selection(*1)	Refer to the f	ollowing table
4	Reserved	-	Fixed to OFF
5	Print speed Selection	Print speed 50mm/s	Print speed 70mm/s
6	BUSY condition	Receive buffer full	Receive buffer full or offline
7	Reserved	-	Fixed to OFF
8	Reserved	-	Fixed to OFF

NOTES

(*1) Print density selection

MSW 1-3	MSW 1-2	MSW 1-1	Function
OFF	OFF	OFF	Print density 130%
OFF	OFF	ON	Print density 120%
OFF	ON	OFF	Print density 110%
OFF	ON	ON	Print density 105%
ON	OFF	OFF	Print density 100%
ON	OFF	ON	Print density 95%
ON	ON	OFF	Print density 90%
ON	ON	ON	Print density 80%

3.2 Memory Switch 2

Switch	Function	ON	OFF
1~2	Interface selection (*1)	Refer to the f	ollowing table
3	Reserved	-	Fixed to OFF
4~8	Codepage selection (*2)	Refer to the f	ollowing table

NOTES

(*1) Interface selection

MSW 2-2	MSW 2-1	Function
OFF	OFF	Bluetooth Interface
OFF	ON	RS-232C(serial) Interface
ON	OFF	USB Interface

Desired code page can be selected using Memory Switch 2-4~8 by setting as following.

(*2) Code page selection

MSW 2-8	MSW 2-7	MSW 2-6	MSW 2-5	MSW 2-4	Character Table
OFF	OFF	OFF	OFF	OFF	Page 0 - PC437 (USA, Standard Europe)
OFF	OFF	OFF	OFF	ON	Page 1 – Katakana
OFF	OFF	OFF	ON	OFF	Page 2 - PC850 (Multilingual)
OFF	OFF	OFF	ON	ON	Page 3 - PC860 (Portuguese)
OFF	OFF	ON	OFF	OFF	Page 4 - PC863 (Canadian-French)
OFF	OFF	ON	OFF	ON	Page 5 - PC865 (Nordic)
OFF	OFF	ON	ON	OFF	Page 16 - WPC1252 (Latin I)
OFF	OFF	ON	ON	ON	Page 17 - PC866 (Cyrillic #2)
OFF	ON	OFF	OFF	OFF	Page 18 - PC852 (Latin II)
OFF	ON	OFF	OFF	ON	Page 19 - PC858 (Euro)
OFF	ON	OFF	ON	OFF	Reserved
OFF	ON	OFF	ON	ON	Page 22 - PC864 (Arabic)
OFF	ON	ON	OFF	OFF	Page 23 - Thai character code 42
OFF	ON	ON	OFF	ON	Page 24 - WPC1253 (Greek)
OFF	ON	ON	ON	OFF	Reserved
OFF	ON	ON	ON	ON	Reserved
ON	OFF	OFF	OFF	OFF	Page 27 - Farsi
ON	OFF	OFF	OFF	ON	Page 28 - WPC1251 (Cyrillic)
ON	OFF	OFF	ON	OFF	Page 29 - PC737 (Greek)
ON	OFF	OFF	ON	ON	Reserved
ON	OFF	ON	OFF	OFF	Page 31 - Thai character code 14
ON	OFF	ON	OFF	ON	Reserved
ON	OFF	ON	ON	OFF	Page 33 - WPC1255 (Hebrew New code)
ON	OFF	ON	ON	ON	Reserved
ON	ON	OFF	OFF	OFF	Reserved
ON	ON	OFF	OFF	ON	Page 36 - PC855 (Cyrillic)
ON	ON	OFF	ON	OFF	Page 37 - PC857 (Turkish)
ON	ON	OFF	ON	ON	Reserved
ON	ON	ON	OFF	OFF	Reserved
ON	ON	ON	OFF	ON	Reserved
ON	ON	ON	ON	OFF	Reserved
ON	ON	ON	ON	ON	Reserved

3.3	Memory	/ Switch 5 (Power	off time	selection)
-----	--------	--------------	-------	----------	------------

MSW 5-8	MSW 5-7	MSW 5-6	MSW 5-5	MSW 5-4	MSW 5-3	MSW 5-2	MSW 5-1	Value
OFF	0							
OFF	ON	1						
OFF	OFF	OFF	OFF	OFF	OFF	ON	OFF	2
OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	3
OFF	OFF	OFF	OFF	OFF	ON	OFF	OFF	4
OFF	OFF	OFF	OFF	OFF	ON	OFF	ON	5
OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	10
OFF	OFF	OFF	ON	OFF	ON	OFF	OFF	20
:								
OFF	OFF	OFF	ON	ON	ON	ON	OFF	30
OFF	OFF	ON	OFF	ON	OFF	OFF	OFF	40
								•
OFF	OFF	ON	ON	OFF	OFF	ON	OFF	50
OFF	OFF	ON	ON	ON	ON	OFF	OFF	60
		÷						
OFF	ON	OFF	OFF	OFF	ON	ON	OFF	70
÷		÷						
OFF	ON	OFF	ON	OFF	OFF	OFF	OFF	80
:								
OFF	ON	OFF	ON	ON	OFF	ON	OFF	90

NOTES

Power OFF time ranges : 1 ~ 90 minutes

3.4 Memory Switch 6 (Power idle mode time selection)

MSW 6-8	MSW 6-7	MSW 6-6	MSW 6-5	MSW 6-4	MSW 6-3	MSW 6-2	MSW 6-1	Value
OFF	OFF	OFF	OFF	ON	OFF	ON	OFF	10
OFF	OFF	OFF	OFF	ON	OFF	ON	ON	11
OFF	OFF	OFF	OFF	ON	ON	OFF	OFF	12
OFF	OFF	OFF	OFF	ON	ON	OFF	ON	13
OFF	OFF	OFF	OFF	ON	ON	ON	OFF	14
OFF	OFF	OFF	OFF	ON	ON	ON	ON	15
OFF	OFF	OFF	ON	ON	ON	ON	OFF	30
OFF	OFF	ON	ON	ON	ON	OFF	OFF	60
								•
OFF	ON	ON	ON	ON	OFF	OFF	OFF	120
ON	OFF	ON	ON	OFF	ON	OFF	OFF	180
ON	ON	ON	ON	OFF	OFF	OFF	OFF	240
								•
ON	255							

NOTES

Idle mode time ranges : 10 ~ 255 seconds

3.5 Memory Switch 7 (MSR read mode selection)

Switch	Function	ON	OFF
1~3	MSR read mode selection (*1)	Refer to the f	ollowing table
2	Reserved	-	Fixed to OFF
3	Reserved	-	Fixed to OFF
4	Reserved	-	Fixed to OFF
5	Reserved	-	Fixed to OFF
6	Reserved	-	Fixed to OFF
7	Reserved	-	Fixed to OFF
8	Reserved	-	Fixed to OFF

NOTES

(*1) MSR read mode selection

MSW 7-3	MSW 7-2	MSW 7-1	Function		
OFF	OFF	OFF	Track 1 & 2 read mode command		
OFF	OFF	ON	Track 2 & 3 read mode command		
OFF	ON	OFF	Track 1 read mode AUTO trigger		
OFF	ON	ON	Track 2 read mode AUTO trigger		
ON	OFF	OFF	Track 1 & 2 read mode AUTO trigger		
ON	OFF	ON	Track 2 read mode AUTO trigger		
ON	ON	OFF	Track 3 read mode AUTO trigger		
ON	ON	ON	Track 2 & 3 read mode AUTO trigger		

3.6 Memory Switch 8

Switch	Function	ON	OFF
1	Reserved	-	Fixed to OFF
2	Font selection	Font B (9x24)	Font A (12x24)
3	Beeps for paper end selection	No beeps for paper end	Beeps for paper end
4	Reserved	-	Fixed to OFF
5	Reserved	-	Fixed to OFF
6	Reserved	-	Fixed to OFF
7	Reserved	-	Fixed to OFF
8	Reserved	-	Fixed to OFF

3.7 Serial communication

Function	Selectable value	
	2400 bps	
	4800 bps	
	9600 bps	
Baud rate	19200 bps	
	38400 bps	
	57600 bps	
	115200 bps	
	None	
Parity	Odd	
	Even	
Handebako	DSR/DTR	
Hanushake	XON/XOFF	
Data longth	7 bit	
Data length	8 bit	

4. Self Test

The self test let you know if your printer is operating properly. It checks the printing quality, ROM version and memory switch settings.

The test is independent of any other equipment or software, so it is a good idea to run it when you first set up the printer or if you have any trouble. If the self test works correctly, the problem is in the other equipment or the software, not the printer.

• Running the self test

- 1) Make sure the printer is turned off and the printer cover is closed properly.
- 2) While holding down the FEED button, turn on the printer and continue to hold until the paper begins to feed.
- 3) Press the FEED button to continue printing the rolling ASCII pattern.
- 4) The self test mode terminates after printing the rolling ASCII pattern automatically.

5. Hexadecimal Dumping

Hexadecimal dump

This feature allows experienced users to see exactly what data is coming to the printer. This can be useful in finding software problems. When you turn on the hexadecimal dump function, the printer prints all commands and other data in hexadecimal format along with a guide section to help you find specific commands.

• To use the hexadecimal dump feature, follow these steps:

- 1) After you make sure that the printer is off, open the rear cover of the printer.
- 2) Hold down the FEED button while you turn on the printer.
- 3) Close the rear cover.
- 4) Run any software program that sends data to the printer. The printer prints "Hexadecimal dump" and then all the codes are received in a two column format. The first column contains the hexadecimal codes and the second column gives the ASCII characters that correspond to the codes.

```
Hexadecimal Dump
To terminate hexadecimal dump
Press FEED button three times
1B 21 00 1B 26 02 40 40 . ! . . & . @ @
1B 25 01 1B 63 34 00 1B . % . . c 4 . .
41 42 43 44 45 46 47 48 A B C D E F G H
<Online Hex Dump Completed>
```

(A period(.) is printed for each code that has no ASCII equivalent.)

5) When the printing finishes, turn off the printer.

6. Specifications

	Item	Description
	Print method	Direct thermal
	Print speed	80 mm/sec
	Resolution	203 DPI
	Paper supply method	Easy paper loading
		Font A : 12 × 24
	Character size	Font B : 9 × 24
	Character per line	Font A : 32
		Font B : 42
	Character sets	Alphanumeric character : 95
Drint		Extended graphic : 128 × 20 pages
Finit		International character : 32
		1D : Codabar, ITF, UPC A, UPC B
	Barcodes	CODE 39, CODE 93, Code 128,
		EAN 8, EAN 13, EAN 18,
		2D : PDF417
	Emulation	ESC/POS
	Drivers	WinCE 4.2
	Sensor	Paper end sensor, Rear cover open switch
	Cutter type	Manual cutter
	Language	Buyer language support
	Paper type	Thermal paper
Paper roll	Width	58 ± 0.5 mm (2.28" ± 0.2")
	Diameter	Max. ø40 mm (1.57")
Poliability	TPH	50 km
Reliability	Battery	500 cycles rechargeable
Connectivity	Interface	Serial/USB, Bluetooth
	Input	Voltage : 100 ~ 250 VAC
Battery		Current : 1.0A (Max. at 110VA)
charger	Output	Voltage : 8.4 VDC
		Current : 0.8A
	Туре	Lithium-ion
Battery	Output	Voltage : 7.4 VDC
Battery		Capacity : 1100 mAh
	Charging time	2.5 Hrs
Dimension	Printer	81mm × 127.4mm × 44.7mm
Dimension		(3.19 × 5.02 × 1.76)
	Printer	Printer : 184g (0.41lbs)
Weight		Printer+battery : 236g (0.52lbs)
Weight		Printer+battery+paper roll : 293g (0.65lbs)
		Shipping : Approximately 680g (1.5lbs)
	Packing	Battery
		Battery charger
		Belt strap
Accessories	Unpacking	Battery
		Battery cradle
		Leather case
		Interface cable

7. Overall dimensions

