SRP - 350

SAMSUNG ELECTRONICS

RECEIPT PRINTER

Operator's Manual

All specifications are subjected to change without notice

Warning - U.S.

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates uses, and can radiate radio frequency energy and , if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Notice - Canada

This Apparatus complies with class “A” limits for radio interference as specified in the Canadian department of communications radio interference regulations.

Get appareil est conforme aux normes class “A” d’interference radio tel que specifier par ministre canadien des communications dans les reglements d’interference radio.

Caution

Some semiconductor devices are easily damaged by static electricity. You should turn the printer “OFF”, before you connect or remove the cables on the rear side, in order to guard the printer against the static electricity. If the printer is damaged by the static electricity, you should turn the printer “OFF”.

INTRODUCTION

The SRP-350, SRP-350S, SRP-350P and SRP-350U Roll Printer are designed for use with electronic instruments such as system ECR, POS, banking equipment, computer peripheral equipment, etc.

The main features of the printer are as follows:

1. High speed printing : 35.5(1/6” Feed) lines per second.
2. Low noise thermal printing.
3. RS-232(SRP-350), RS-485(SRP-350S), Parallel(SRP-350P), USB(SRP-350U)
4. The data buffer allows the unit to receive print data even during printing.
5. Peripheral units drive circuit enables control of external devices such as cash drawer.
6. Characters can be scaled up to 64 times compared to it’s original size.
7. Bar code printing is possible by using a bar code command.
8. Different print densities can be selected by DIP switches.

Please be sure to read the instruction in this manual carefully before using your new SRP-350/SRP-350P.

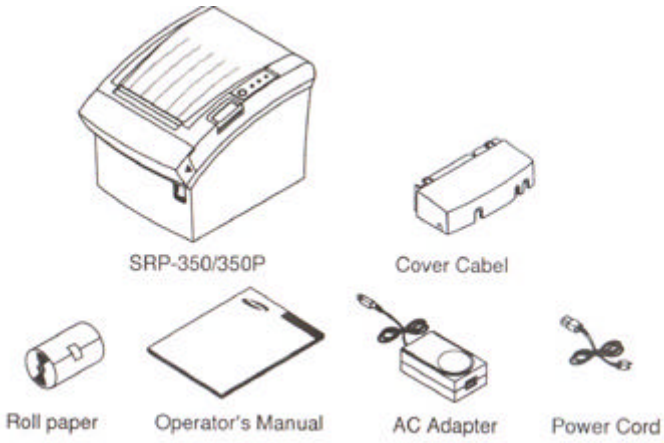
NOTE : The socket-outlet shall be near the equipment and it shall be easy accessible.

Table of Contents

Chapter 1. Setting Up the Printer

1-1. Unpacking

Your printer box should include these items. If any items are damaged or missing, please contact your dealer for assistance.



1-2. Connecting the Cables

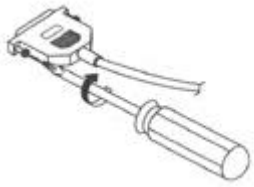
You can connect up the three cables to the printer. They all connect to the connector panel on the back of the printer, which is shown below:

Notes : Before connecting any of the cables, make sure that both the printer and the host are turned off.

1-3. Connecting the computer

You need an appropriate interface cable.

1. Plug the cable connector securely into the printer's interface connector.
2. Tighten the screws on both sides of the cable connector.



3. Attach the other end of the cable to the computer.

1-4. Connecting the Drawer

WARNING:

Use a drawer that matches the printer specification. Using an improper drawer may damage the drawer as well as the printer.

CAUTION:

Do not connect a telephone line to the drawer kick-out connector; otherwise the printer and the telephone line may be damaged.

Plug the drawer cable into the drawer kick-out connector on the back of the printer next to the power supply connector.

1-5. Connecting the Power Supply

CAUTIONS:

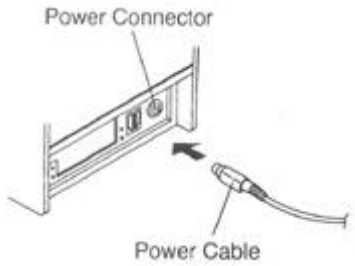
When connecting or disconnecting the power supply from the printer, make sure that the power supply is not plugged into an electrical outlet. Otherwise you may damage the power supply or the printer.

If the power supply's rated voltage and your outlet's voltage do not match, contact your dealer for assistance. Do not plug in the power cord. Otherwise, you may damage the power supply or the printer.

1. Make sure that the printer's power switch is turned off, and the power supply's power cord is unplugged from the electrical outlet.

2. Check the label on the power supply to make sure that the voltage required by the power supply matches that of your electrical outlet.

3. Plug in the power supply's cable as shown below. Notice that the flat side of the plug faces down.



Notes : To remove the DC cable connector, make sure that the power supply's power cord is unplugged; then grasp the connector at the arrow and pull it straight out.

1-6. Installing or Replacing the Paper Roll

Notes : Be sure to use paper rolls that meet the specifications. Do not use paper rolls that have the paper glued to the core because the printer cannot detect the paper end correctly.

1. Make sure that the printer is not receiving data; otherwise, data may be lost.

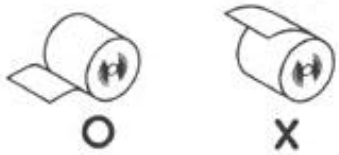
2. Open the paper roll cover by pressing the cover-open button.

Notes : Do not open the print cover while the printer is operating.
This may damage the printer.

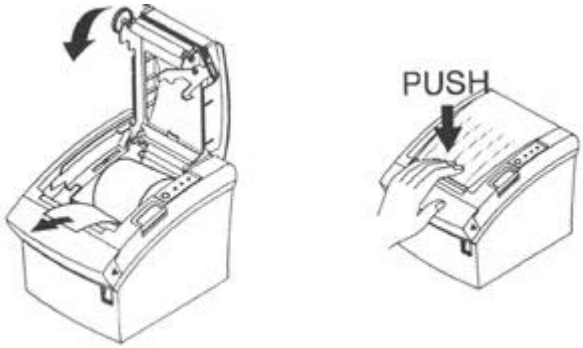
3. Remove the used paper roll core if there is one.

4. Insert the paper roll as shown.

5. Be sure to note the correct direction that the paper comes off the roll.



6. Pull out a small amount of paper, as shown. Then close the cover.



Notes : When closing the cover, press the center of printer cover firmly to prevent Paper miss-loading.

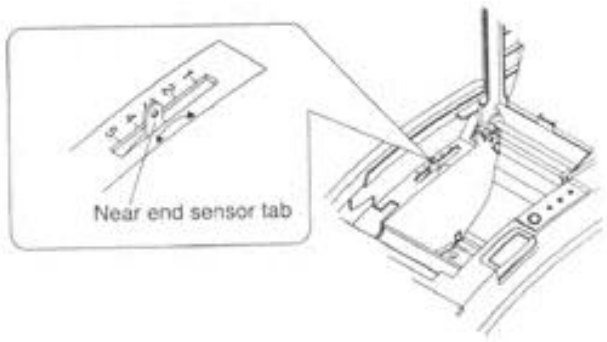
7. Tear off the paper as shown.

1-7. Adjustments and Settings

The SRP-350 is set up at the factory to be appropriate for almost all users. It does, however, offer some settings for users with special requirements.

It has DIP switches that allow you to change communication settings, such as handshaking and parity check, as well as print density.

The SRP-350 also has a near-end sensor for the paper. This can give you a warning when the paper is almost out. If you find that there is not enough paper remaining on the roll when the near-end detector is triggered, you can change the near-end sensor setting. Rotate the near end sensor tab at front or rear position.(See the below figure)



1-8. Using the Printer

Control Panel

Button

The button can be disabled by the ESC c 5 command.

Press the FEED button once to advance paper one line. You can also hold down the FEED button to feed paper continuously.

Panel lights

POWER
The POWER light is on whenever the printer is on.

ERROR
This indicates an error.

PAPER OUT
This light indicates the near end of the paper roll. Install a new paper roll and the printer will continue printing.

When the light blinks, it indicates the self-test printing standby state or macro execution standby state when the macro execution command is used.

Serial Interface(RS-232C, RS-485) Specification

DIP Switch Set 1 Functions

SW	FUNCTION	ON	OFF	DEFAULT
1	Data Receive Error	Ignore	Print ¡ ?¡ ±	OFF
2	Reserved	-	-	OFF
3	HandShaking	XON/OFF	DTR/DSR	OFF
4	Word length	7 bits	8 bits	OFF
5	Parity check	Yes	No	OFF
6	Parity selection	EVEN	ODD	OFF
7	Baud rate selection	Refer to the Following Table		ON
8				OFF

Baud rate selection

Transmission speed	SW – 7	SW – 8
2400 baud	ON	ON
4800 baud	OFF	ON
9600 baud	ON	OFF
19200 baud	OFF	OFF

Dip Switch Set 2 Functions

SW	FUNCTION	ON	OFF	DEFAULT
1	Emulation	STAR	EPSON	OFF
2	Reserved	-	-	-
3	Reserved	-	-	
4	Reserved	-	-	
5	Select Print Density	Refer to the Following Table		OFF
6				OFF
7	Reserved	-	-	-
8	Reserved	-	-	-

Print Density

Print Density	SW - 5	SW – 6
1 (Light)	ON	ON
2	OFF	OFF
3	ON	OFF
4 (Dark)	OFF	ON

Parallel/USB Interface Specification

Dip Switch Set 1 Functions

SW	FUNCTION	ON	OFF	DEFAULT
1	Reserved	-	-	OFF
2	Reserved	-	-	OFF
3	Reserved	-	-	OFF
4	Reserved	-	-	OFF
5	Reserved	-	-	OFF
6	Reserved	-	-	OFF
7	Reserved	-	-	OFF
8	Reserved	-	-	OFF

Dip Switch Set 2 Functions

SW	FUNCTION	ON	OFF	DEFAULT
1	Emulation	STAR	EPSON	OFF
2	Reserved	-	-	-
3	Reserved	-	-	
4	Reserved	-	-	
5	Select Print Density	Refer to the Following Table		OFF
6				OFF
7	Reserved	-	-	-
8	Reserved	-	-	-

Print Density

Print Density	SW - 5	SW – 6
1 (Light)	ON	ON
2	OFF	OFF
3	ON	OFF
4 (Dark)	OFF	ON

Chapter 2. Hexadecimal Dumping

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 data in hexadecimal format along with a guide section to help you find specific commands.

To use the hexadecimal dump function, follow these steps:

1. After you make sure that the printer is off, open the cover.
2. Turn on the printer, while holding down the FEED button.
3. Close the cover, then the printer enters the hexadecimal dump mode.
4. Run any software program that sends data to the printer. The printer will print all the codes it receives in a two-column format. The first column contains the hexadecimal codes and the second column gives the ASCII characters that corresponds to the codes.

```
1B 21 00 1B 26 02 40 40 40 40        . ! . . & . @ @ @ @
02 0D 1B 44 0A 14 1E 28 28 28        . . . D . . . . ( ( (
00 01 0A 41 0D 42 0A 43 43 43        . . . A . B . C C C
```

   - A period (.) is printed for each code that has no ASCII equivalent.
   - During the hex dump, all commands except **DLE EOT** and **DLE ENQ** are disabled.

5. When the printing finishes, turn off the printer.
6. Turn on the printer and then the hexadecimal mode is off.

Chapter 3. The self test

The self-test checks whether the printer has any problems. If the printer does not function properly, contact your dealer. The self-test checks the following;

1. Make sure paper roll has been installed properly.
2. Turn on the power while holding down the FEED button. The self-test begins.
3. The self-test prints the current printer status, which provides the control ROM version and the DIP switch setting.
4. After printing the current printer status, self-test printing will print the following, and pause (The PAPER LED light blinks).

Self-test printing.
Please press the FEED button

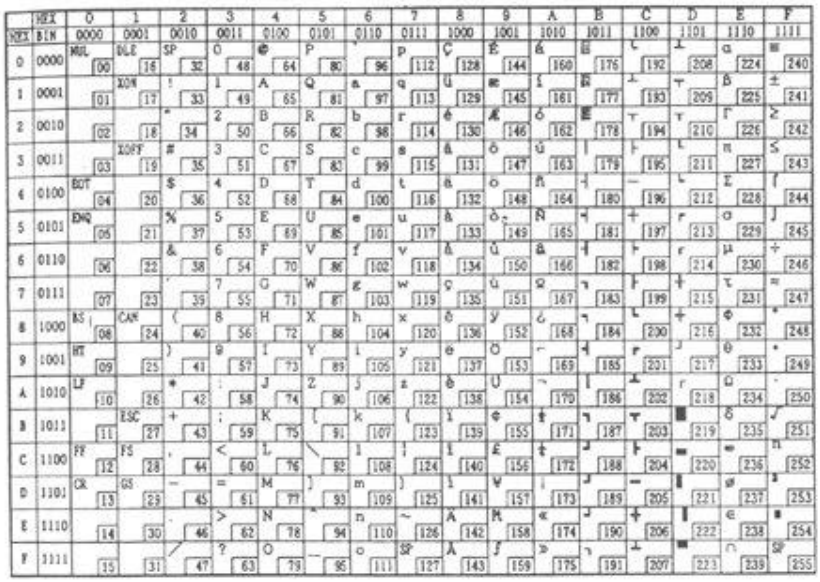
5. Press the FEED button to continue printing. The printer prints a pattern using the built-in character set.
6. The self-test automatically ends and cuts the paper after printing the following.

***** COMPLETED *****

The printer is ready to receive data as soon as it completes the self-test.

Chapter 4. Code Table

The following pages show the character code tables. To find the character corresponding to a hexadecimal number, count across the top of the table for the left digit and count down the left column of the table for the right digit. For example, 4A = J.



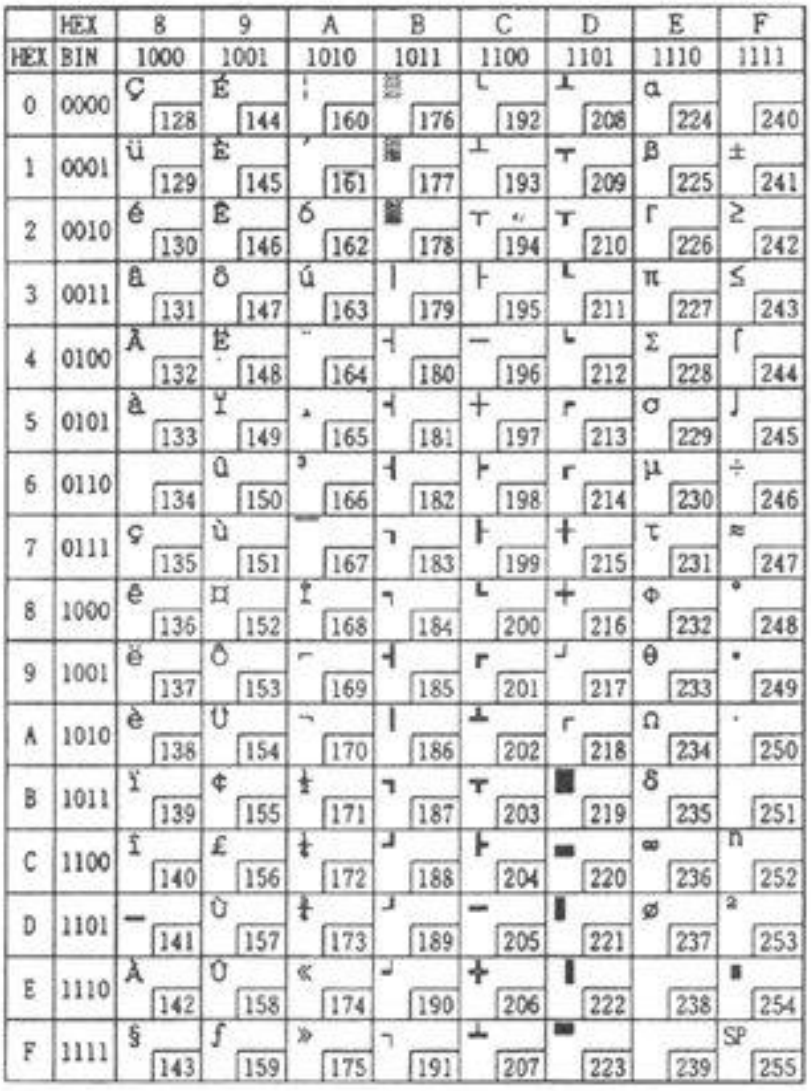
Page 0 (PC437 : USA, Standard Europe)
(International Character Set : USA)

	HEX	8	9	A	B	C	D	E	F
HEX	BIN	1000	1001	1010	1011	1100	1101	1110	1111
0	0000	Ç 128	É 144	á 160	▒ 176	└ 192	ð 208	Ó 224	— 240
1	0001	ü 129	æ 145	í 161	▓ 177	┴ 193	Ð 209	ß 225	± 241
2	0010	é 130	Æ 146	ó 162	▓ 178	┬ 194	Ê 210	Ô 226	‗ 242
3	0011	â 131	ô 147	ú 163	│ 179	├ 195	Ë 211	Ò 227	¾ 243
4	0100	ä 132	ö 148	ñ 164	┤ 180	─ 196	È 212	õ 228	244
5	0101	à 133	ò 149	Ñ 165	Á 181	┼ 197	ı 213	Õ 229	§ 245
6	0110	å 134	û 150	ª 166	Â 182	ã 198	Í 214	µ 230	÷ 246
7	0111	ç 135	ù 151	º 167	À 183	Ã 199	Î 215	þ 231	¸ 247
8	1000	ê 136	ÿ 152	¿ 168	© 184	╚ 200	Ï 216	Þ 232	° 248
9	1001	ë 137	Ö 153	® 169	╣ 185	╔ 201	┘ 217	Ú 233	¨ 249
A	1010	è 138	Ü 154	¬ 170	║ 186	╩ 202	┌ 218	Û 234	· 250
B	1011	ï 139	ø 155	½ 171	╗ 187	╦ 203	■ 219	Ù 235	¹ 251
C	1100	î 140	£ 156	¼ 172	╝ 188	╠ 204	▬ 220	ý 236	³ 252
D	1101	ì 141	Ø 157	¡ 173	¢ 189	═ 205	¦ 221	Ý 237	² 253
E	1110	Ä 142	× 158	« 174	¥ 190	╬ 206	Ì 222	¯ 238	■ 254
F	1111	Å 143	ƒ 159	» 175	┐ 191	¤ 207	▀ 223	´ 239	SP 255

Page 2 (PC850 : Multilingual)

	HEX	8	9	A	B	C	D	E	F
HEX	BIN	1000	1001	1010	1011	1100	1101	1110	1111
0	0000	Ç 128	É 144	á 160	▒ 176	└ 192	╨ 208	α 224	240
1	0001	ü 129	À 145	í 161	▓ 177	┴ 193	╤ 209	ß 225	± 241
2	0010	é 130	È 146	ó 162	▓ 178	┬ 194	╥ 210	Γ 226	≥ 242
3	0011	â 131	ô 147	ú 163	│ 179	├ 195	╙ 211	π 227	≤ 243
4	0100	ã 132	ò 148	ñ 164	┤ 180	─ 196	╘ 212	Σ 228	⌠ 244
5	0101	à 133	ò 149	Ñ 165	╡ 181	┼ 197	╒ 213	σ 229	⌡ 245
6	0110	Á 134	Ú 150	ª 166	╢ 182	╞ 198	╓ 214	µ 230	÷ 246
7	0111	ç 135	ù 151	º 167	╖ 183	╟ 199	╫ 215	τ 231	≈ 247
8	1000	ê 136	Ì 152	¿ 168	╕ 184	╚ 200	╪ 216	Φ 232	° 248
9	1001	Ê 137	Ô 153	⌐ 169	╣ 185	╔ 201	┘ 217	Θ 233	• 249
A	1010	è 138	Ù 154	¬ 170	║ 186	╩ 202	┌ 218	Ω 234	· 250
B	1011	Í 139	¢ 155	½ 171	╗ 187	╦ 203	■ 219	δ 235	√ 251
C	1100	Ô 140	£ 156	¼ 172	╝ 188	╠ 204	▄ 220	∞ 236	n 252
D	1101	ì 141	Ù 157	¡ 173	╜ 189	═ 205	▌ 221	ø 237	² 253
E	1110	Ä 142	₧ 158	« 174	╛ 190	╬ 206	▐ 222	238	■ 254
F	1111	Å 143	ƒ 159	» 175	┐ 191	╧ 207	▀ 223	239	255

Page 3 (PC860 : Portuguese)



	HEX	8	9	A	B	C	D	E	F
HEX	BIN	1000	1001	1010	1011	1100	1101	1110	1111
0	0000	Ç 128	É 144	¡ 160	▒ 176	└ 192	⊥ 208	α 224	240
1	0001	ü 129	È 145	´ 161	▓ 177	┴ 193	┬ 209	β 225	± 241
2	0010	é 130	Ê 146	ó 162	▓ 178	┬ 194	┬ 210	Γ 226	≥ 242
3	0011	â 131	ô 147	ú 163	│ 179	├ 195	└ 211	π 227	≤ 243
4	0100	À 132	Ë 148	¨ 164	┤ 180	─ 196	┌ 212	Σ 228	⌠ 244
5	0101	à 133	Ï 149	¸ 165	┤ 181	┼ 197	┌ 213	σ 229	⌡ 245
6	0110	134	û 150	ª 166	┤ 182	├ 198	┌ 214	µ 230	÷ 246
7	0111	ç 135	ù 151	º 167	┐ 183	├ 199	┼ 215	τ 231	≈ 247
8	1000	ê 136	¤ 152	¿ 168	┐ 184	└ 200	┼ 216	Φ 232	° 248
9	1001	ë 137	Ö 153	⌐ 169	┤ 185	┌ 201	┘ 217	Θ 233	• 249
A	1010	è 138	Ü 154	¬ 170	│ 186	┴ 202	┌ 218	Ω 234	· 250
B	1011	ï 139	¢ 155	½ 171	┐ 187	┬ 203	■ 219	δ 235	√ 251
C	1100	î 140	£ 156	¼ 172	┘ 188	├ 204	▬ 220	∞ 236	n 252
D	1101	ì 141	Ù 157	¡ 173	┘ 189	─ 205	▌ 221	ø 237	² 253
E	1110	Ä 142	Ù 158	« 174	┘ 190	┼ 206	▐ 222	238	■ 254
F	1111	§ 143	ƒ 159	» 175	┐ 191	┴ 207	▬ 223	239	SP 255

Page 4 (PC 863 : Canadian - French)

	HEX	8	9	A	B	C	D	E	F
HEX	BIN	1000	1001	1010	1011	1100	1101	1110	1111
0	0000	Ç 128	É 144	á 160	▒ 176	└ 192	⊥ 208	α 224	240
1	0001	ü 129	æ 145	í 161	▒ 177	┴ 193	┬ 209	ß 225	± 241
2	0010	é 130	Æ 146	ó 162	▓ 178	┬ 194	┬ 210	Γ 226	≥ 242
3	0011	â 131	ô 147	ú 163	│ 179	├ 195	└ 211	π 227	≤ 243
4	0100	ä 132	ö 148	ñ 164	┤ 180	─ 196	┘ 212	Σ 228	⌠ 244
5	0101	à 133	ò 149	Ñ 165	┤ 181	┼ 197	┌ 213	σ 229	⌡ 245
6	0110	å 134	û 150	ª 166	┤ 182	├ 198	┌ 214	µ 230	÷ 246
7	0111	ç 135	ù 151	º 167	┐ 183	├ 199	┼ 215	τ 231	≈ 247
8	1000	ê 136	ÿ 152	¿ 168	┐ 184	└ 200	┼ 216	Φ 232	° 248
9	1001	ë 137	Ö 153	⌐ 169	┤ 185	┌ 201	┘ 217	Θ 233	∙ 249
A	1010	è 138	Ü 154	¬ 170	│ 186	┴ 202	┌ 218	Ω 234	· 250
B	1011	ï 139	ø 155	½ 171	┐ 187	┬ 203	■ 219	δ 235	√ 251
C	1100	î 140	£ 156	¼ 172	┘ 188	├ 204	▬ 220	∞ 236	n 252
D	1101	ì 141	Ø 157	¡ 173	┘ 189	─ 205	▌ 221	ø 237	² 253
E	1110	Ä 142	₧ 158	« 174	┘ 190	┼ 206	▐ 222	238	■ 254
F	1111	Å 143	ƒ 159	¤ 175	┐ 191	⊥ 207	▬ 223	239	SP 255

Page 5 (PC 865 : Nordic)

	HEX	8	9	A	B	C	D	E	F
HEX	BIN	1000	1001	1010	1011	1100	1101	1110	1111
0	0000	Ç 128	É 144	á 160	▒ 176	└ 192	ð 208	Ó 224	— 240
1	0001	ü 129	æ 145	í 161	■ 177	┴ 193	Ð 209	ß 225	± 241
2	0010	é 130	Æ 146	ó 162	■ 178	┬ 194	Ê 210	Ô 226	‗ 242
3	0011	â 131	ô 147	ú 163	│ 179	├ 195	Ë 211	Ò 227	¾ 243
4	0100	ä 132	ö 148	ñ 164	┤ 180	─ 196	È 212	õ 228	¶ 244
5	0101	à 133	ò 149	Ñ 165	Á 181	┼ 197	€ 213	Õ 229	§ 245
6	0110	å 134	û 150	ª 166	Â 182	ã 198	Í 214	µ 230	÷ 246
7	0111	ç 135	ù 151	º 167	À 183	Ã 199	Î 215	þ 231	¸ 247
8	1000	ê 136	ÿ 152	¿ 168	© 184	╚ 200	Ï 216	Þ 232	° 248
9	1001	ë 137	Ö 153	® 169	╣ 185	╔ 201	┘ 217	Ú 233	¨ 249
A	1010	è 138	Ü 154	¬ 170	║ 186	╩ 202	┌ 218	Û 234	· 250
B	1011	ï 139	ø 155	½ 171	╗ 187	╦ 203	■ 219	Ù 235	¹ 251
C	1100	î 140	£ 156	¼ 172	╝ 188	╠ 204	▪ 220	ý 236	³ 252
D	1101	ì 141	Ø 157	¡ 173	¢ 189	═ 205	¦ 221	Ý 237	² 253
E	1110	Ä 142	× 158	« 174	¥ 190	╬ 206	Ì 222	¯ 238	■ 254
F	1111	Å 143	ƒ 159	» 175	┐ 191	¤ 207	▪ 223	´ 239	SP 255

Page 19 (PC 858 : Euro)

	HEX	8	9	A	B	C	D	E	F
HEX	BIN	1000	1001	1010	1011	1100	1101	1110	1111
0	0000	SP 128	SP 144	SP 160	SP 176	SP 192	SP 208	SP 224	SP 240
1	0001	SP 129	SP 145	SP 161	SP 177	SP 193	SP 209	SP 225	SP 241
2	0010	SP 130	SP 146	SP 162	SP 178	SP 194	SP 210	SP 226	SP 242
3	0011	SP 131	SP 147	SP 163	SP 179	SP 195	SP 211	SP 227	SP 243
4	0100	SP 132	ö 148	SP 164	SP 180	SP 196	SP 212	SP 228	SP 244
5	0101	SP 133	SP 149	SP 165	SP 181	SP 197	SP 213	SP 229	SP 245
6	0110	SP 134	SP 150	SP 166	SP 182	SP 198	SP 214	SP 230	SP 246
7	0111	SP 135	SP 151	SP 167	SP 183	SP 199	SP 215	SP 231	SP 247
8	1000	SP 136	SP 152	SP 168	SP 184	SP 200	SP 216	SP 232	SP 248
9	1001	SP 137	SP 153	SP 169	SP 185	SP 201	SP 217	SP 233	SP 249
A	1010	SP 138	SP 154	SP 170	SP 186	SP 202	SP 218	SP 234	SP 250
B	1011	SP 139	SP 155	SP 171	SP 187	SP 203	SP 219	SP 235	SP 251
C	1100	SP 140	SP 156	SP 172	SP 188	SP 204	SP 220	SP 236	SP 252
D	1101	SP 141	SP 157	SP 173	SP 189	SP 205	SP 221	SP 237	SP 253
E	1110	SP 142	SP 158	SP 174	SP 190	SP 206	SP 222	SP 238	SP 254
F	1111	SP 143	SP 159	SP 175	SP 191	SP 207	SP 223	SP 239	SP 255

Page 255 (Space Page)

Country	ASCII code (hexadecimal)												
	Hex	23	24	40	5B	5C	5D	5E	60	7B	7C	7D	7E
	Dec	35	36	64	91	92	93	94	96	123	124	125	126
U.S.A.		#	$	@	[	\	]	^	`	{	:	}	~
France		#	$	à	°	ç	§	^	`	é	ù	è	~
Germany		#	$	§	Ä	Ö	Ü	^	`	ä	ö	ü	ß
U.K.		£	$	@	[	\	]	^	`	{	:	}	~
Denmark I		#	$	@	Æ	Ø	Å	^	`	æ	ø	å	~
Sweden		#	¤	É	Ä	Ö	Å	Ü	é	ä	ö	å	ü
Italy		#	$	@	°	\	é	^	ù	à	ò	è	ì
Spain		Pt	$	@	¡	Ñ	¿	^	`	~	ñ	}	~
Norway		#	¤	É	Æ	Ø	Å	Ü	é	æ	ø	å	ü
Denmark II		#	$	É	Æ	Ø	Å	Ü	é	æ	ø	å	ü

International Character Set

Chapter 5. Control Commands List

Control codes	Hexadecimal codes	Function
<HT>	09	Horizontal tab
<LF>	0A	Print and line feed
<FF>	0C	Print and return to standard mode in page mode
<CR>	0D	Print and carriage return
<CAN>	18	Cancel print data in page mode
<DLE> <EOT> n	10 04 n	Real-time status transmission
<DLE> <ENQ> n	10 05 n	Real-time request to printer
<ESC> <FF>	1B 0C	Print data in page mode
<ESC> <SP> n	1B 20 n	Set right-side character spacing
<ESC> ! n	1B 21 n	Select print modes
<ESC> $ nL nH	1B 24 nL nH	Set absolute print position
<ESC> % n	1B 25 n	Select/Cancel user-defined character set
<ESC> & y c1 c2 ..	1B 26 y c1 c2	Define user-defined characters
<ESC> * m nL nH ..	1B 2A m nL nH	Select bit-image mode
<ESC> - n	1B 2D n	Turn underline mode on/off
<ESC> 2	1B 32	Select default line spacing
<ESC> 3 n	1B 33 n	Set line spacing
<ESC> = n	1B 3D n	Set peripheral device
<ESC> ? n	1B 3F n	Cancel user-defined characters
<ESC> @	1B 40	Initialize printer
<ESC> D n1 ~ nK	1B 44 ... 00	Set horizontal tab position
<ESC> E n	1B 45 n	Turn emphasized mode on/off
<ESC> G n	1B 47 n	Turn double-strike mode on/off
<ESC> J n	1B 4A n	Print and feed paper
<ESC> L	1B 4C	Select page mode
<ESC> M n	1B 4D n	Select character fonts
<ESC> R n	1B 52 n	Select an international character set
<ESC> S	1B 53	Select standard mode
<ESC> T n	1B 54 n	Select print direction in page mode
<ESC> V n	1B 56 n	Turn 90º clockwise rotation mode on/off
<ESC> W xL.....	1B 57	Set printing area in page mode

Control codes	Hexadecimal codes	Function
<ESC> \ nL nH	1B 5C n	Set relative print position
<ESC> a n	1B 61 n	Select justification
<ESC> c 3 n	1B 63 33 n	Select paper sensor to output paper end signals
<ESC> c 4 n	1B 63 34 n	Select paper sensor to stop printing
<ESC> c 5 n	1B 63 35 n	Enable/Disable panel button
<ESC> d n	1B 64 n	Print and feed n lines
<ESC> p m t1 t2	1B 70 m t1 t2	Generate pulse
<ESC> t n	1B 74 n	Select character code table
<ESC> { n	1B 7B n	Turn on/off upside-down printing mode
<FS> p n m	1C 70 n m	Print NT bit image
<FS> q n	1C 71 n ...	Define NV bit image
<GS> ! n	1D 21 n	Select character size
<GS> $ nL nH	1D 24 nL nH	Set absolute vertical print position in page mode
<GS> * x y	1D 2A x y	Define downloaded bit image
<GS> / m	1D 2F n	Print downloaded bit image
<GS> :	1D 3A	Start/end macro definition
<GS> B n	1D 42 n	Turn white/black reverse printing mode on/off
<GS> H n	1D 48 n	Select printing position of HRI characters
<GS> I n	1D 49 n	Transmit printer ID
<GS> L nL nH	1D 4C nL nH	Set left margin
<GS> P x y	1D 50 x y	Set horizontal and vertical motion units
<GS> V m <GS> V m n	1D 56 m 1D 56 m n	Select cut mode and cut paper
<GS> W nL hH	1D 57 nL nH	Set printing area width
<GS> \ nL nH	1D 5C nL nH	Set relative vertical print position in page mode
<GS> ^ r t m	1D 5E r t m	Execute macro
<GS> a n	1D 61 n	Enable/Disable Automatic status back
<GS> f n	1D 62 n	Select font for HRI characters
<GS> h n	1D 68 n	Set bar code height

Control codes	Hexadecimal codes	Function
<GS> k m ....NUL <GS> k m n ...	1D 6B m... NUL 1D 6B m n ...	Print bar code
<GS> r n	1D 72 n	Transmit status
<GS> v 0 m	1D 76 30	Print raster bit image
<GS> w n	1D 77 n	Set bar code width

APPENDIX

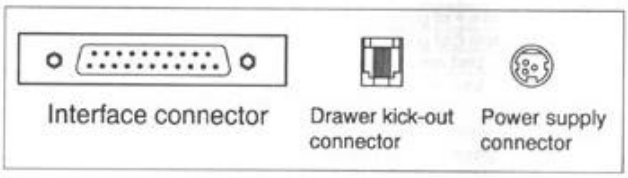
A. Star Mode Command Summary

Control codes	Hexadecimal codes	Function
<ESC> ”R” n	1B 52 n	Select international character set
<ESC> <GS> t n	1B 1D 74n	Select character table
<ESC> ”/” “1” <ESC> ”/” <1>	1B 2F 31 1B 2F 01	Select slash zero
<ESC> ”/” “0” <ESC> ”/” <0>	1B 2F 30 1B 2F 00	Select normal zero
<ESC> “b” n1 n2 n3 n4 d1 ... dk <RS>	1B 62 n1 n2 n3 n4 d1 ... dk 1E	Select bar code printing
<ESC> ”M”	1B 4D	Select 12-dot pitch printing
<ESC> ”p”	1B 70	Select 14-dot pitch printing
<ESC> ”P”	1B 50	Select 15-dot pitch printing
<ESC> ”:”	1B 3A	Select 16-dot pitch printing
<ESC> <SP> n	1B 20 n	Set character spacing
<SO>	0E	Sets the printing magnified double in character width.
<DC4>	14	Resets the printing magnified in character width.
<ESC> “W” n	1B 57 n	Sets the magnification rate in character width.
<ESC> <SO>	1B 0E	Sets the printing magnified double in character height.
<ESC> <DC4>	1B 14	Resets the printing magnified in character height.
<ESC> “h” n	1B 68 n	Sets the magnification rate in character height.
<ESC> ”-“ “1” <ESC> ”-:” <1>	1B 2D 31 1B 2D 01	Select underlining
<ESC> “_” “1” <ESC> “_” <1>	1B 5F 31 1B 5F 01	Select overlining
<ESC> “4”	1B 34	Select highlight printing
<ESC> “5”	1B 35	Cancel highlight printing
<SI>	0F	Inverted printing
<DC2>	12	Cancel inverted printing
<ESC> “E”	1B 45	Select emphasized printing
<ESC> “F”	1B 46	Cancel emphasized printing
<ESC> “C” n	1B 43 n	Set page length in lines
<ESC> “C” <0> n	1B 43 00 n	Set page length in inches
<ESC> “N” n	1B 4E n	Set bottom margin
<ESC> “O”	1B 4F	Cancel bottom margin

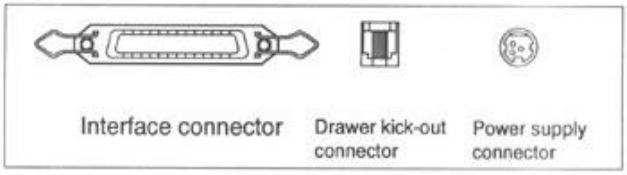
Control codes	Hexadecimal codes	Function
<ESC> “I” n	1B 6C n	Set left margin
<ESC> “Q” n	1B 51 n	Set right margin
<LF>	0A	Line Feed
<ESC> “a” n	1B 61 n	Feed paper n lines
<FF>	0C	Form Feed
<HT>	09	Horizontal tab
<VT>	0B	Vertical tab
<ESC> “z” “1”	1B 7A 31	Set line spacing to 4 mm
<ESC> “0”	1B 30	Set line spacing to 3 mm
<ESC> “J” n	1B 4A n	One time n/4 mm feed
<ESC> “I” n	1B 49 n	One time n/8 mm feed
<ESC> “B” n1 n2...<0>	1B 42 n1 n2 ... 00	Set vertical tab stops
<ESC> “D” n1 n2...<0>	1B 44 n1 n2 ... 00	Set horizontal tab stops
<ESC> <GS> “A” n1 n2	1B 1D 41 n1 n2	Absolute position setting
<ESC> <GS> “R” n1 n2	1B 1D 52 n1 n2	Relative position setting
<ESC> <GS> “a” n	1B 1D 61 n	Alignment
<ESC> “K” n <0> m1 m2 ...	1B 48 n 00 m1 m2	Print normal density graphics
<ESC> “L” n <0> m1 m2 ...	1B 4C n1 n2 m1 m2	Print high density graphics
<ESC> “k” n <0> d1	1B 6B n 00 d1	Print fine density graphics
<ESC> “X” n1 n2	1B 58 n1 n2	Print fine density graphics
<ESC> <FS> “p” n m	1B 1C 70 n m	Print NV bit image
<ESC> “&” ”1” ”1” n m1 m2 ... m48	1B 26 31 31 n m1 m2 ... m48	Define download character
<ESC> “&” <1> <1> n m1 m2 ... m48	1B 26 01 01 n m1 m2 ... m48	
<ESC> “&” ”1” ”0” n	1B 26 31 30 n	Delete a download character
<ESC> “&” <1> <0> n	1B 26 01 00 n	
<ESC> “%” “1” <ESC> “%” <1>	1B 25 31 1B 25 01	Enable download character set
<ESC> “%” “0” <ESC> “%” <0>	1B 25 30 1B 25 00	Disable download character set
<ESC> <GS> “*” xy	1B 1D 2A 78 79	Definition of download bit image
<ESC> <GS> “/” m	1B 1D 2F 6D	Printing of download bit image
<ESC> <BEL> n1 n2	1B 07 n1 n2	Define drive pulse width for peripheral device #1.
<BEL>	07	Control peripheral device #1
<FS>	1C	Control peripheral device #1 immediately.
<EM>	19	Control peripheral device #2 immediately

Control codes	Hexadecimal codes	Function
<SUB>	1A	Control peripheral device #2 immediately
<ESC> “d” n	1B 64 n	Partial-cut command to the auto cutter.
<CAN>	18	Cancel last line & initialize printer immediately
<DC3>	13	Deselect printer
<DC1>	11	Set select mode
<RS>	1E	Beep the buzzer
<ESC> “@”	1B 40	Initialize printer
<ENQ>	05	Inquiry (Status inquiry)
<EOT>	04	Near end status inquiry
<ESC> “?” <LF> <NUL>	1B 3F 0A 00	Reset printer hardware (Perform test print)
<ESC> “8” n1 n2	1B 38 n1 n2	Registers a logo pattern
<ESC> “9” n1 n2	1B 39 n1 n2	Prints a logo pattern

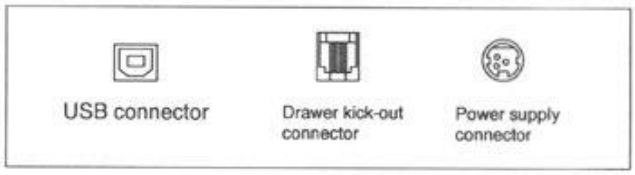
B. Connectors



SRP-350/SRP-350S Connector
(Serial Interface)



SRP-350P Connector
(Parallel Interface)



SRP-350U Connector
(USB Interface)

Interface Connector

Serial Interface(RS-232)

Pin No.	Signal name	Direction	Function
1	FG	-	Frame Ground
2	TxD	Output	Transmit Data
3	RxD	Input	Receive Data
6	DSR	Input	Data Set Ready
7	SG	-	Signal Ground
20	DTR	Output	Data Terminal Ready

Serial Interface(RS-485)

Pin No.	Signal Name	Direction	Function
1	FGND	-	Frame Ground
2	SD2	Output	Send Data
3	SD1	Output	
4	RD2	Input	Receive Data
5	RD1	Input	
7	SGND	-	Signal Ground
8 9	DR2 DR1	Output	Same as DTR(RS-232)
10 11	CS2 CS1	Input	Same as DSR(RS-232)

Parallel Interface(IEEE-1284)

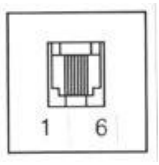
Pin No.	Source	Compatibility Mode	Nibble Mode	Byte Mode
1	Host	nStrobe	HostClk	HostClk
2	Host / Printer	Data 0 (LSB)	-	Data 0 (LSB)
3	Host / Printer	Data 1	-	Data 1
4	Host / Printer	Data 2	-	Data 2
5	Host / Printer	Data 3	-	Data 3
6	Host / Printer	Data 4	-	Data 4
7	Host / Printer	Data 5	-	Data 5
8	Host / Printer	Data 6	-	Data 6
9	Host / Printer	Data 7 (MSB)	-	Data 7 (MSB)
10	Printer	nAck	PtrClk	PtrClk
11	Printer	Busy	PtrBusy /Data3,7	PtrBusy
12	Printer	Perror	AckDataReq /Data2,6	AckDataReq
13	Printer	Select	Xflag /Data1,5	Xflag
14	Host	nAutoFd	HostBusy	HostBusy
15		NC	NC	NC
16		GND	GND	GND
17		FG	FG	FG
18	Printer	Logic-H	Logic-H	Logic-H
19~30		GND	GND	GND
31	Host	nInit	nInit	nInit
32	Printer	nFault	nDataAvail /Data0,4	nDataAvail
33		GND	ND	ND
34	Printer	DK_Status	ND	ND
35	Printer	+5V	ND	ND
36	Host	nSelectIn	1284-Active	1284-Active

USB Interface

Pin No.	Signal Name	Assignment (Color)	Function
Shell	Shield	Drain Wire	Frame Ground
1	VBUS	Red	Host Power
2	D-	White	Data Line(D-)
3	D+	Green	Data Line(D+)
4	GND	Black	Signal Ground

Drawer Connector

Pin No.	Signal name	Direction
1	Frame ground	-
2	Drawer kick- out drive signal 1	Output
3	Drawer open/close signal	Input
4	+24V	-
5	Drawer kick- out drive signal 2	Output
6	Signal ground	-



C. Notes

Paper dust inside the printer may lower the print quality. In this case clean the printer as follows.

1) Open the printer cover and remove the paper if exists.
2) Clean the print head with a cotton swab moistened with alcohol solvent.
3) Clean the platen roller and paper end sensor with cotton swab moistened with water.
4) Insert a paper roll and close the printer cover.

The remained amount of paper detected by paper near end sensor varies with the diameter of the paper core.
To adjust the remained amount, contact your dealer.

D. Specification

Printing method		Thermal line printing
Dot density		180 X 180 dpi (7dots/mm)
Printing width		72.192 +0.2mm or –0.2mm
Paper width		79 ~ 80 mm
Characters per line (default)		42 (Font A) 56 (Font B)
Printing speed		35.5 lines/sec(1/6" Feed) 150 mm/sec
Receive Buffer Size		4K Bytes
NOTE : Printing speed may be slower, depending on the data transmission speed and the combination of control commands.		
Supply voltage	Input voltage	120/230 VAC
	Frequency	50/60 Hz
	Output voltage	+24 VDC
Environmental conditions	Temperature	5 ~ 45 ^{o}C (Operating) -10 ~ 50 ^{o}C (Storage)
	Humidity	30 ~ 80 % RH (Operating) 10 ~ 90 % RH (Storage) ; Except for paper
LIFE *	Mechanism Head	15,000,000 lines 1x10^{8} pulse (Approximately 100 Km)
	Auto Cutter	1,000,000 Cut
MCBF *	Mechanism	37,000,000 lines

***** These values are calculated under printing level 2 with recommended paper at normal temperature.

***** These values may vary with environment temperature, printing level, etc.