

**Dot Matrix Printer**  
**DP8340 SERIES**

**[PARALLEL INTERFACE]**

***USERS MANUAL***



**Federal Communications Commission  
Radio Frequency Interference  
Statement**

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.

For compliance with the Federal Noise Interference Standard, this equipment requires a shielded cable.

*This statement will be applied only for the printers marketed in U.S.A.*

**Statement of  
The Canadian Department of Communications  
Radio Interference Regulations**

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

*The above statement applies only to printers marketed in Canada.*

**Trademark acknowledgments**

DP8340: *Star Micronics Co. Ltd.*

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- The above notwithstanding, STAR can assume no responsibility for any errors in this manual.

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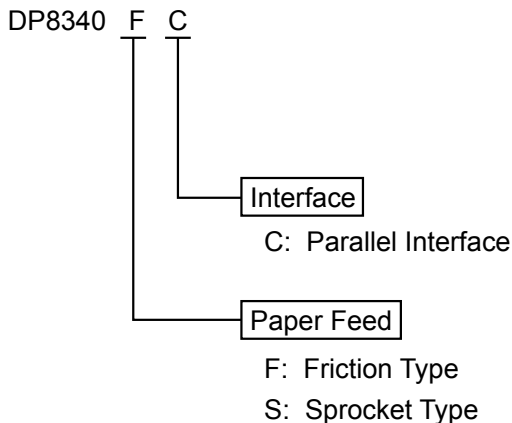
# 1. OUTLINE

The DP8340 series of serial dot matrix printers is for use in ECR, POS, electronic instruments, banking machines and computer peripheral equipment.

The DP8340 series include the following features;

- 1) 2 color printing (Red and Black)
- 2) High-speed bidirectional printing (2 line/sec, 40 columns per line)
- 3) 9-pin print head
- 4) Parallel interface (Centronics compatible)
- 5) Commands for expanded characters, inverted characters, emphasized characters, and red and black printing are provided, which makes the printer very versatile.
- 6) Simultaneous Data Communication and Printing
- 7) 2 Peripheral Drivers

## Model Name Notation

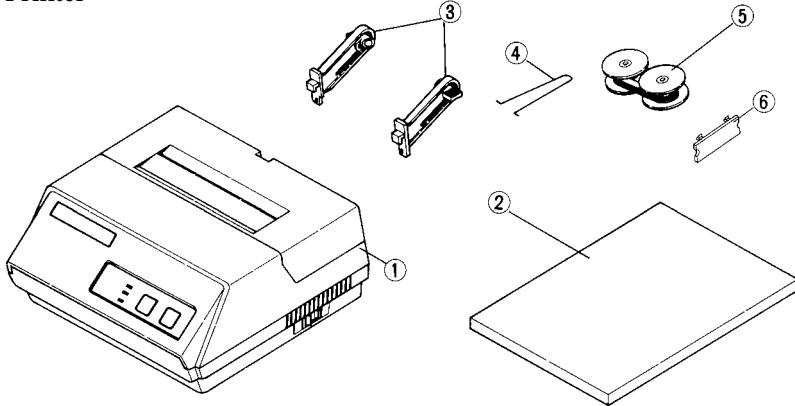


## 2. UNPACKING AND INSTALLATION

### 2-1. Unpacking

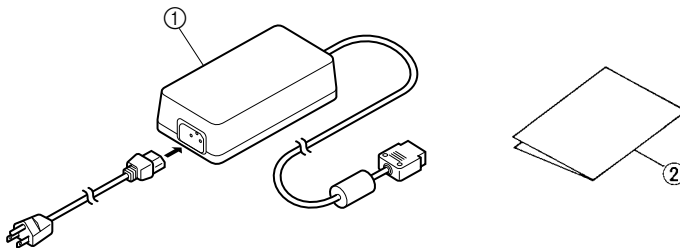
After opening the box, check if all necessary accessories are included.

#### (A) Printer



- |                 |                            |
|-----------------|----------------------------|
| ① Printer       | ④ Re-Roll Prevention Guard |
| ② User's Manual | ⑤ Ink Ribbon               |
| ③ Paper Holders | ⑥ DIP Switch Cover         |

#### (B) Power Supply Unit (Option: PS8340A)



- |                     |
|---------------------|
| ① Power Supply Unit |
| ② User's Manual     |

Figure 2-1. Unpacking

## 2-2. Installation of Paper Holders and Re-Roll Prevention Guard (Only Model DP8340FC)

Install the Paper Holders in the outermost holes in the rear of the printer.

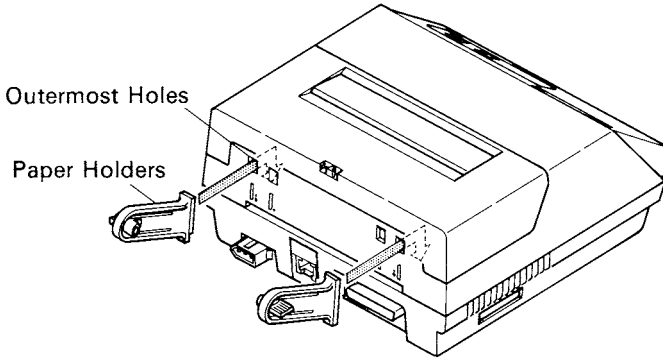


Figure 2-2. Installation of Paper Holders

Install the Re-Roll Prevention Wire in the holes of the printer cover. Twisting the Wire as shown in the figure below, will make the installation easier.

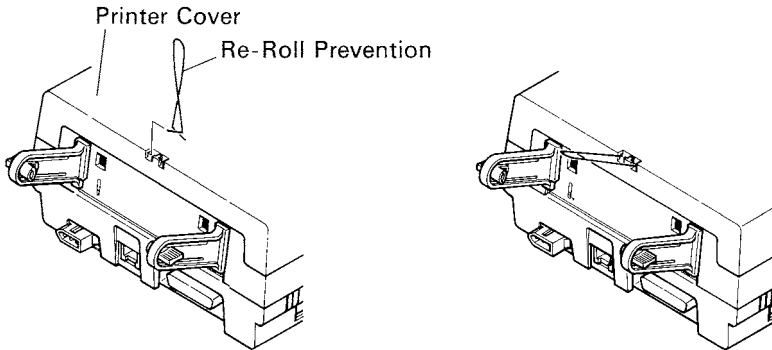


Figure 2-3. Installation of Re-Roll Prevention

## 2-3. Handling Care

1. Be careful not to drop paper clips, pins or other foreign matter into the unit as these cause the printer to malfunction.
2. Do not attempt to print when either paper or ribbon cartridge is not located in the printer, otherwise the print head can be damaged.
3. Do not open the cover while printing.
4. Do not touch the print head immediately after printing as it gets very hot.
5. Use only roll paper that is not glued to the core.
6. When the paper end mark appears on the paper, replace the roll paper before it runs out.

### WARNING

- ✓ Shut down your equipment immediately if it produces smoke, a strange odor, or unusual noise. Immediately unplug the equipment and contact your dealer for advice.
- ✓ Never attempt to repair this product yourself. Improper repair work can be dangerous.
- ✓ Never disassemble or modify this product. Tampering with this product may result in injury, fire, or electric shock.
- ✓ During and immediately after printing, the area around the print head is very hot. Do not touch it, as you could be burned.

### CAUTION

- ✓ We recommend that you unplug the printer from the power outlet whenever you do not plan to use it for long periods. Because of this, you should locate the printer so that the power outlet it is plugged into is nearby and easy to access.
- ✓ If the voltage shown on the label on the of your printer does not match the voltage for your area, contact your dealer immediately.
- ✓ Make sure that the printer is turned off and unplugged from the AC outlet and that the computer is turned off before making connections.
- ✓ Do not connect a telephone line into the modular connector.
- ✓ Do not pull out paper while the printer cover is closed.
- ✓ If liquids, foreign objects (coins and paper clips), and so on enter the printer, turn off the printer, unplug it from the AC outlet, and contact your dealer for advice. Continued use could cause a short circuit, which may result in fire or electric shock.

## **2-4. Maintenance**

Essentially, your printer is a robust piece of equipment, but should be treated with a modicum of care in order to avoid malfunctions. For example:

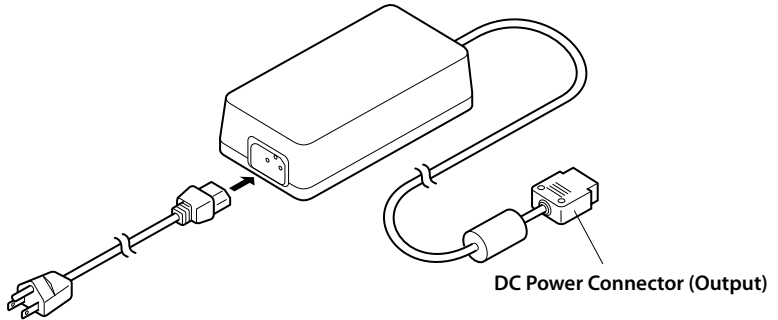
1. Keep your printer in a “comfortable” environment. Roughly speaking, if you feel comfortable, then the environment is suitable for your printer.
2. Do not subject the printer to physical shocks or excessive vibration.
3. Avoid over-dusty environments. Dust is the enemy of all precision mechanical devices.
4. To clean the exterior of the printer, use a cloth barely dampened with either water with a little detergent or a little alcohol, but do not allow any liquid to fall inside the printer.
5. The interior of the printer may be cleaned with a small cleaner or a compressed-air aerosol (sold for this purpose). When performing this operation, be sure not to bend or damage any cable connections or electronic components.



# 3. PART IDENTIFICATION AND NOMENCLATURE

## 3-1. Power Supply Unit (Option)

Model name : PS8340A  
Input : 100 to 240V AC, 50/60 Hz 6.0A  
Output : DC12V±5% 2.0A



Shape of AC Power plug will vary according to destinations.

Figure 3-1. Power Supply Unit

### 3-2. Printer

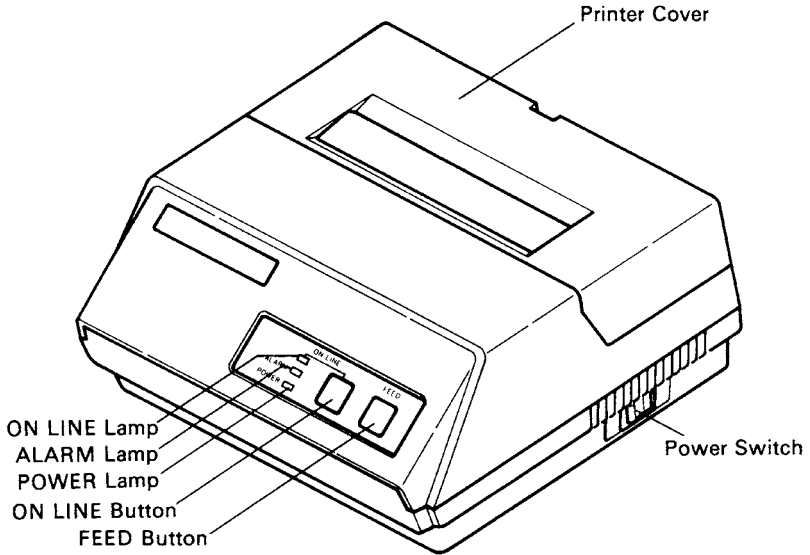


Figure 3-2. Printer: Front View

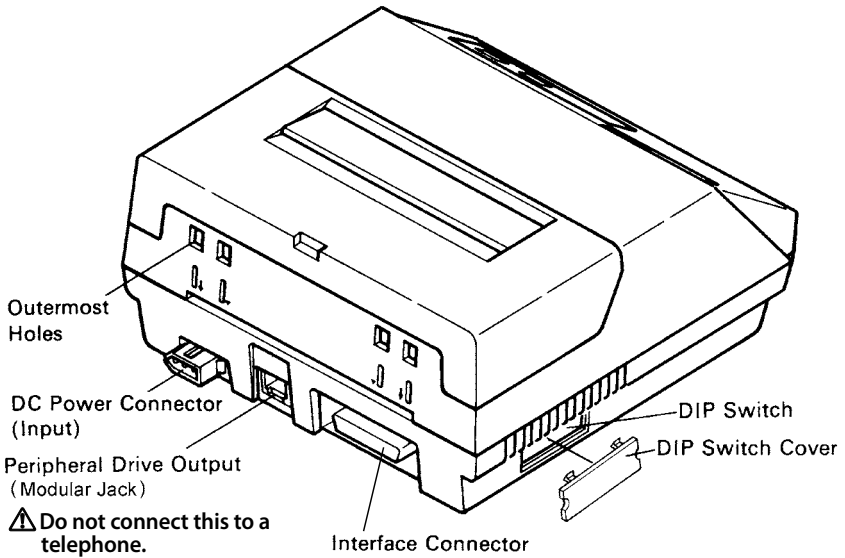


Figure 3-3. Printer: Rear View

### 3-3. Part Functional Description

- (1) AC Power Plug : Connect to an outlet of the specified voltage.
- (2) DC Power Outlet : Supplies DC 12V power to the printer.
- (3) Printer Cover : Protects the printer against dust and reduces noise.
- (4) POWER Lamp : Lights up (green LED) when power is on.
- (5) ON LINE Lamp : Lights up (green LED) when the unit is in the online mode.
- (6) ALARM Lamp : Lights up (red LED) when printer operation is not normal, or the printer is out of paper. It is necessary to install paper into the printer and press the ON LINE Button to recover from paper empty status. Turn off the printer power in order to recover from abnormal operation.
- (7) ON LINE Button : Toggles between the on-line and off-line modes. The printer will go on-line after turning power on.
- (8) FEED Button : Momentary operation of this button provides one line feed. Pressing this button continuously will cause continuous paper feed. If power is turned on while pressing this button, self printing\*1 will be performed.
- (9) Interface Connector : Connects the printer to host computers. Check that both computer and printer are off before connecting.
- (10) DIP Switches : Allows for setting of various functions according to user requirements.
- (11) Peripheral Drive Output : Connects the printer to the peripheral devices such as Cash Drawer, Paper Cutter and Paper Take-Up Device etc. to drive them.

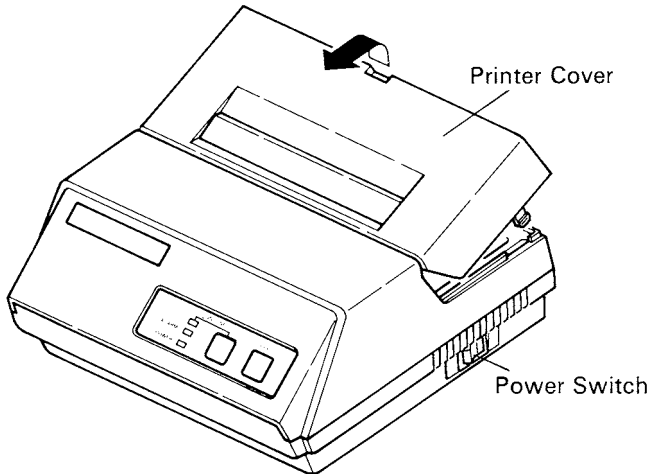
\*1 Self Printing      This printer has another convenient function, the Automatic Test Printing. With the ink ribbon and paper properly installed in the printer, turn the power ON while holding down the Feed switch. Test printing will start and stop again automatically.

## 4. INSTALLATION OF INK RIBBON AND PAPER

### 4-1. Installation of Ink Ribbon

- (1) Turn power off, lift the Printer Cover up and remove it.

**Note: Be careful not to touch the print head immediately after printing, because it can get very hot.**



**Figure 4-1. Printer Cover Removal**

- (2) Unwind ribbon so that the spools are separated as shown in Figure 4-3. Hold the ribbon taut as shown with the drive pins facing down and slide the ribbon between the print head and the platen. While keeping the ribbon taut, wrap one side around the black ribbon guide on the end of the platen and drop one spool on the spool shaft. As you move the spool downwards, move the detecting lever aside to allow the spool to drop into place. Make sure the spool drive pins engage with the spool drive holes. As the spool drops into place there will be a click.
- (3) While continuing to hold the ribbon taut, install the remaining ribbon spool in a similar fashion.
- (4) Turn the spool that rotates freely to take up the ribbon slack.

#### Ribbon Life

Description	Ribbon life	
	Black	Red
SF-03BR	Approx. 0.8 million characters	Approx. 0.4 million characters

## Ribbon Life

Description	Ribbon life
	Black
SF-03B	Approx. 0.8 million characters

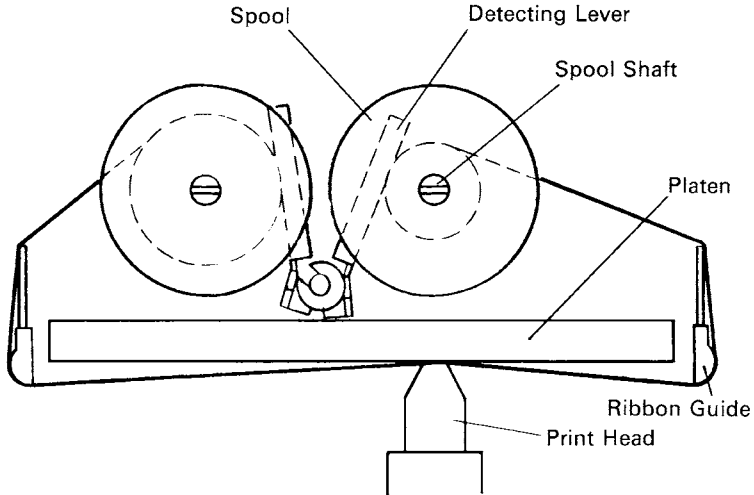


Figure 4-2. Installation of Ink Ribbon

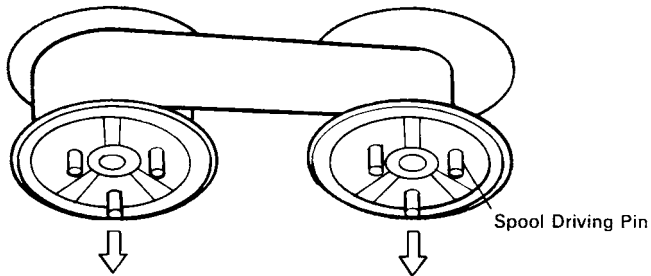


Figure 4-3. Ribbon Spools

## 4-2. Removal of Ink Ribbon

Hold the spool and lift gently, rotating it until the ribbon sags. Push the ribbon detecting lever out, lift the spool until it comes off the shaft. Remove the second spool in a similar manner.

(Do not apply excessive force when lifting spools.)

## 4-3. Paper Insertion

### 4-3-1. Model DP8340FC

- (1) Cut the Roll Paper end straight and square. Hold the roll so that the paper comes from the bottom.
- (2) Attach the Roll Paper to the Holders Paper by slipping one side of the roll onto the Hub and pulling the other Hub out to allow the roll to slip in place.
- (3) Insert the paper evenly into the Paper Insertion Slot.
- (4) Turn the Power Switch "ON", and press the FEED Button. The paper will be fed into the unit.

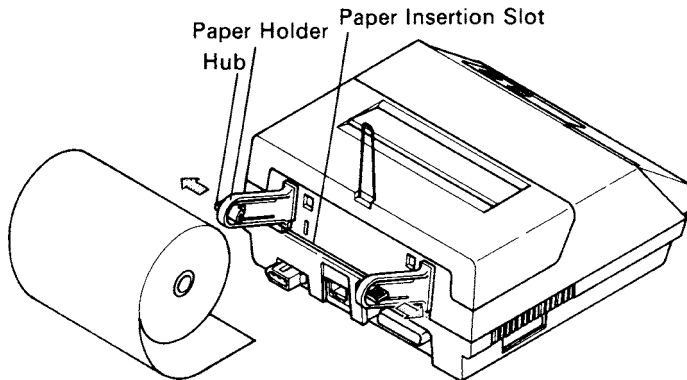


Figure 4-4. Paper Insertion (1) [Model DP8340FC]

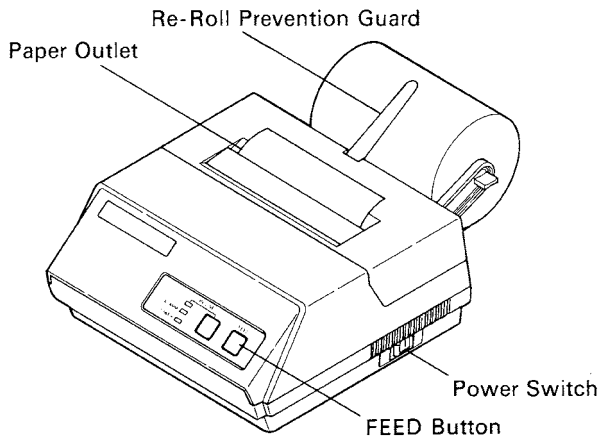


Figure 4-5. Paper Insertion (2) [Model DP8340FC]

### 4-3-2. Model DP8340SC

1. Make a straight cut along the top of the paper, about 1/4 inch away from the sprocket holes, (as shown in the figure). If there is perforation, cut the paper on the perforation.
2. Insert the paper squarely into the paper insertion slot until the ALARM lamp goes out. Then, hold down the FEED switch to advance the paper 8 lines, and release the switch when 8-line feeding is completed.  
If the paper is not fed straight during 8-line feeding, straighten the paper by pulling it back slowly as you hold the paper release lever down. If a sprocket hole is torn or enlarged, recut the paper and reinsert it as before.
3. After confirming that the paper has been fed in straight, feed the paper continuously by holding the feed switch down.
4. Release the feed switch when the paper emerges through the paper outlet.

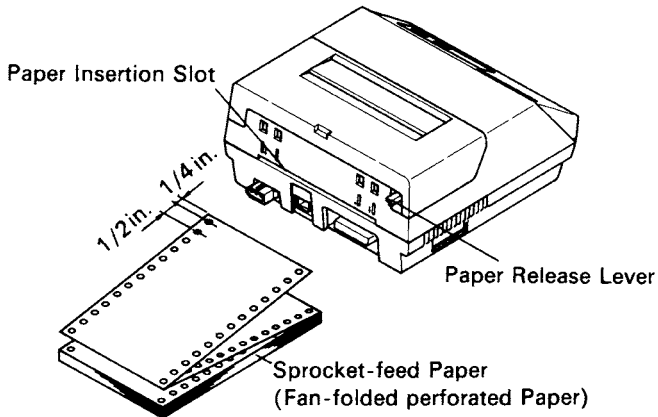


Figure 4-6. Paper Insertion (1) [Model DP8340SC]

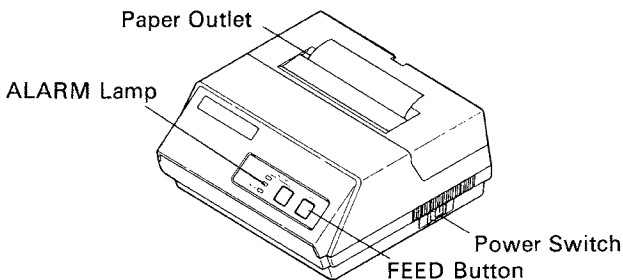


Figure 4-7. Paper Insertion (2) [Model DP8340SC]

#### **4-4. Paper Removal**

Cut the paper close to the slot and use the feed button until paper has passed completely through the printer.

**Note:** Do not try to remove the paper by hand as it could become crooked and get jammed inside the printer.



# 5. CONTROL CODES

## Character Code List

	Character	Code	Function
1	LF	(0A)H	Print and line feed instruction
2	CR	(0D)H	Print and line feed instruction (same as LF)
3	SO	(0E)H	Expanded character instruction
4	DC4	(14)H	Expanded character release
5	ESC-1	(1B)H (2D)H(01)H (1B)H (2D)H (31)H	Underline instruction
6	ESC-0	(1B)H (2D)H(00)H (1B)H (2D)H (30)H	Underline release
7	SI	(0F)H	Inverted print instruction
8	DC2	(12)H	Inverted print release
9	ESC E	(1B)H (45)H	Emphasized print instruction (one-way printing)
10	ESC F	(1B)H (46)H	Emphasized print release
11	ESC 4	(1B)H (34)H	Red character print instruction
12	ESC 5	(1B)H (35)H	Red character print release
13	ESC R n	(1B)H (52)H n	Select an international character set
14	ESC & 0 ...	(1B)H (26)H (00)H ...	Define download character
15	ESC % 1	(1B)H (25)H (01)H (1B)H (25)H (31)H	Select download characters
16	ESC % 0	(1B)H (25)H (00)H (1B)H (25)H (30)H	Cancel download characters
17	ESC a n	(1B)H (61)H n	n-line feed instruction <sup>5</sup>
18	ESC C n	(1B)H (43)H n	Sets page length in lines $1 \leq n \leq 120$ (default $n = 42$ )
19	ESC N n	(1B)H (4E)H n	Set bottom margin in lines $0 \leq n \leq 120$ (default $n = 0$ )
20	ESC O	(1B)H (4F)H	Cancel Bottom margin
21	FF	(0C)H	Form feed
22	ESC @	(1B)H (40)H	Printer initialization instruction

Character		Code	Function
23	ESC BEL n1 n2	(1B)H (07)H n1 n2	Set peripheral unit drive pulse duration $1 \leq n1 \leq 127, 1 \leq n2 \leq 127$ (default n1 = n2 = 20)
24	BEL	(07)H	Trigger peripheral unit drive 1 (Deferred)
25	FS	(1C)H	Trigger peripheral unit drive (Immediate)
26	SUB	(1A)H	Trigger peripheral unit drive 2 (immediate)
27	CAN	(18)H	Clears print buffer

## 6. GENERAL SPECIFICATIONS

Printing method :	Serial impact dot matrix printing, 9 wires
Number of print columns :	40 columns, 12 CPI
Print speed :	Approx. 2 lines/sec
Print direction :	Bi-directional
Line spacing :	1/6 inch
Paper feed method :	Friction Feed or Sprocket-feed
Paper feed speed :	Approx. 12 lines/sec
Character set :	ASCII 96 Special 64 Block graphics* 64 Katakana (Japanese) 64 IBM Special 83 IBM Block graphics* 50 Download 10
Font configuration :	Ordinary characters 5 × 9 dots Block graphics* 6 × 6 dots (6 × 8 dots)
	* Graphic Feed Not Available
Character size :	2.42 (H) × 1.71(W) mm
Dot spacing :	0.35 (H) × 0.35 (W) mm
Print area :	84.3 mm
Print buffer :	Approx. 1.5 KB
Interface :	Parallel Interface (Centronics compatible)
Peripheral drive	2 outputs (each 1A max. at 12V. Both cannot operate at the same time.)
External dimensions :	
(Printer)	202(W) × 200(D) × 98(H) mm (without paper holder, DC Power Connector)
(Power supply unit)	54(W) × 114(D) × 36(H) mm (without AC cable)
Weight :	
(Printer)	Approx. 1.9 kg

(Power supply unit)

Approx. 0.3 kg (without AC cable)

Power supply unit :

Four supplies available with following ratings

Input	Output
AC 100 to 240 V 50/60 Hz 0.6 A	DC 12.0 V $\pm$ 5%  2.0 A

Paper specification :

Paper type Ordinary and carbonless copy paper  
Size Paper width 114.3 mm (4.5 inches)  
Roll diameter 80 mm outer diameter (Max)  
Thickness (single) 0.07 mm (52.3 g/m<sup>2</sup>) to 0.09 mm (64g/m<sup>2</sup>)  
(2 copy) One copy and one original (max 0.13 mm)  
Paper end Paper should not be attached to the core

Ink ribbon specification :

Color Black and red / Black only  
Ribbon material Nylon (#40 denier)  
Ribbon size 13mm  $\times$  6mm  
Spool 13mm (width), 35mm in diameter (two spool)  
Recommended ribbon SF-03BR (Black and red), SF-03B (Black)

Operating conditions :

Temperature +5°C to +40°C  
Humidity 10% to 80%RH

Storage conditions :

Temperature -20°C to +70°C  
Humidity 5% to 95%RH (+40°C)

Head life :

70 million characters

Printer reliability :

5.0 million lines MCBF (except head life)

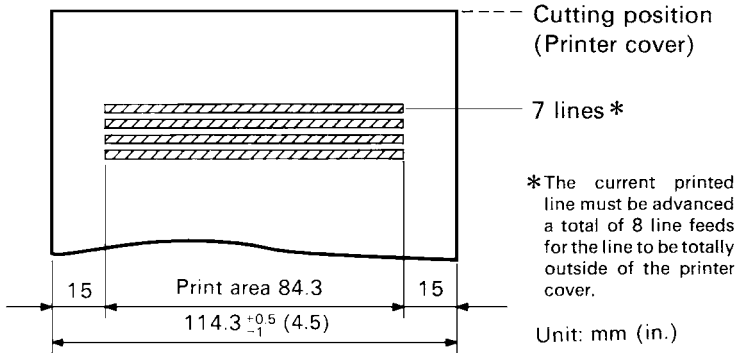


Figure 6-1. Roll Paper and Print Area [Model DP8340FC]

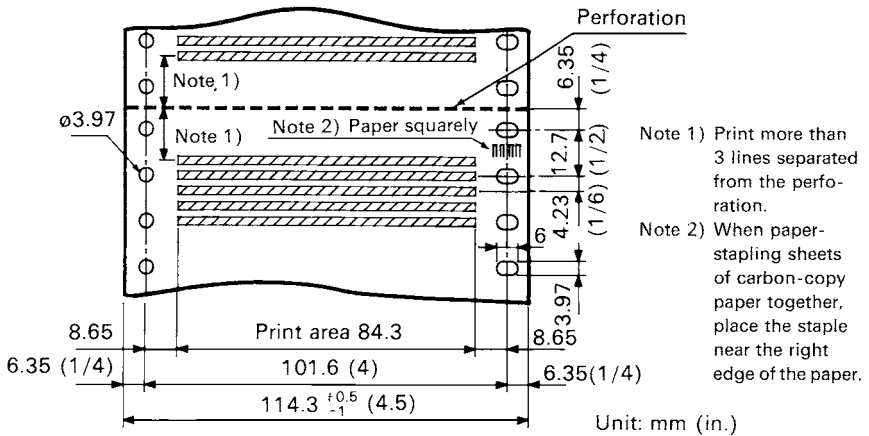
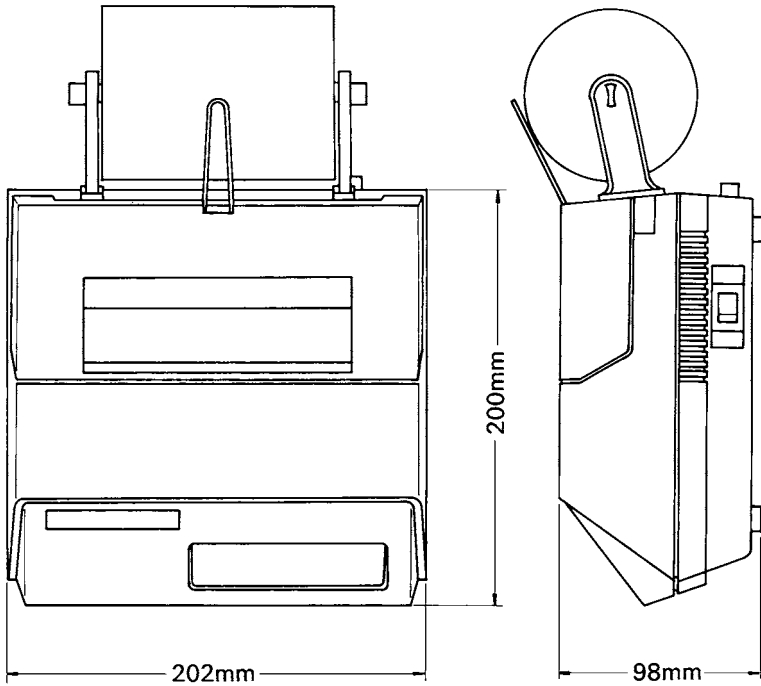
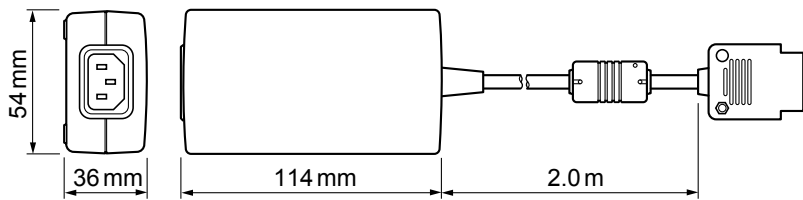


Figure 6-2. Sprocket-feed Paper and Print Area [Model DP8340SC]



**Figure 6-3. External Dimensions (Printer)**



Shape of AC Power plug will vary according to destinations.

**Figure 6-4. External Dimensions (Power Supply Unit)**

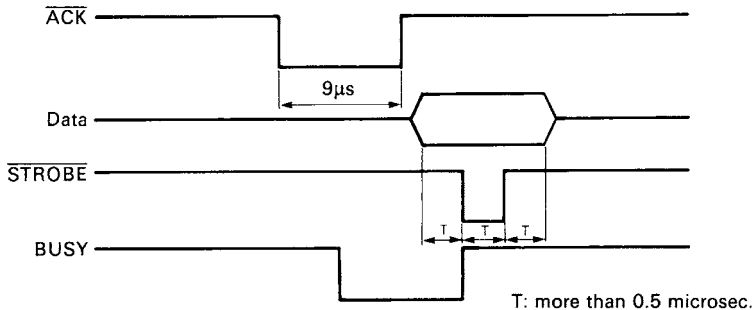
# 7. INTERFACE

## 7-1. Interface Specifications

This printer has a parallel interface to communicate with the computer. The operating specifications of the parallel interface are as follows.

- (1) Data transfer rate : 1000 to 6000 characters per second
- (2) Synchronization : Via externally supplied STROBE pulses
- (3) Handshaking :  $\overline{ACK}$  and BUSY signals
- (4) Logic level : Compatible with TTL level

## 7-2. Interface Timing



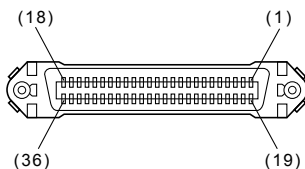
**Figure 7-1. Interface Timing Diagram**

Signal Name	Circuit Example
DATA1-DATA8 (To Printer)	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <math>4.7\text{ k}\Omega</math>  </div> <div style="text-align: right;">             74LS Compatible           </div> </div>
$\overline{STROBE}$ (To Printer)	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <math>1\text{ k}\Omega</math>  </div> <div style="text-align: right;">             74LS Compatible              100Ω           </div> </div>
BUSY, $\overline{ACK}$ (From Printer)	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;"> <math>4.7\text{ k}\Omega</math>  </div> <div style="text-align: right;">             74LS Compatible           </div> </div>

**Figure 7-2. Typical Interface Circuit**

## 7-3. Connectors and Signals

Pin No.	Signal Name	IN/OUT	Function
1	$\overline{\text{STROBE}}$	IN	Signals when data is ready to be read. Signal goes from HIGH to LOW (for at least 0.5 microsec.) when data is available.
2-9	DATA1-8	IN	These signals provide the information of the first to eighth bits of parallel data. Each signal is at HIGH level for a logical 1 and at a LOW level for a logical 0.
10	$\overline{\text{ACK}}$	OUT	A 9 microsecond LOW pulse acknowledges receipt of data.
11	BUSY	OUT	When this signal goes LOW, the printer is ready to accept data. When the printer is in one of the conditions below, "HIGH" is set. 1. Data being entered. 2. Off line. 3. Error condition.
12	PAPER OUT	OUT	This signal is normally LOW. It will go HIGH if the printer runs out of paper.
13	SELECTED	OUT	This signal is HIGH when the printer is online.
14-15	—		Unused
16	SIGNAL GND		Signal ground.
17	CHASSIS GND		Chassis ground, isolated from logic ground.
18	LOGIC		This pin is pulled-up 4.7 k $\Omega$ resistor to +5V.
19-30	GND		Twisted pair return signal ground level.
31	$\overline{\text{RESET}}$	IN	When this signal goes LOW, the printer is reset to its power-on condition.
32	$\overline{\text{ERROR}}$	OUT	This signal is normally HIGH. This signal goes LOW to signal that the printer cannot print due to an error condition. Refer to Item 7-6 Emergency Suspension.
33	EXT GND		External ground.
34	—		Unused
35	+5V		This pin is pulled-up 2.2 k $\Omega$ resistor to +5V.
36	SELECT IN		Unused



This connector mates with an Amphenol 57-30360 connector.

**Figure 7-3. Parallel Interface Connector (Printer side)**



## 7-4. Setting of the DIP Switches

Factory settings : all ON

Switch	Function	ON	OFF
1	Character Table (See below)		
2			
3	Control cord CR	Disable	Enable
4 (*1)	Printing Direction (Red printing)	Bi.	Uni.
5 (*2)	Ink Ribbon	2-color	monochrome
6	International Character Set (See below)		
7			
8			

(\*1) DIP Switch 4 should be set to OFF when you use 2-part sprocket paper having the seam on the right since the ribbon snags at the seam if shifted.

The DIP Switch 4 Should be otherwise set to ON.

(\*2) DIP Switch 5 should be set to ON when you use a 2-color ribbon for 2-color printing.

It should be set to OFF when a monochrome ribbon is used.

Character Table

SW NO.	USA & Europe	IBM#1	IBM#2	JAPAN
1	ON	OFF	ON	OFF
2	ON	ON	OFF	OFF

International Character Set

SW NO.	USA	France	Germany	England	Denmark	Sweden	Italy	Spain
6	ON	OFF	ON	OFF	ON	OFF	ON	OFF
7	ON	ON	OFF	OFF	ON	ON	OFF	OFF
8	ON	ON	ON	ON	OFF	OFF	OFF	OFF

**Note:**When DIP Switches 1 and 2 are set to OFF, the printer always selects the Japan international character set regardless of the status of DIP Switches 6, 7 and 8.

When DIP Switches 1 and 2 are otherwise set, the printer selects the character set determined by DIP Switches 6, 7 and 8.

Each international character set is selectable through software regardless of the selection by DIP Switches.

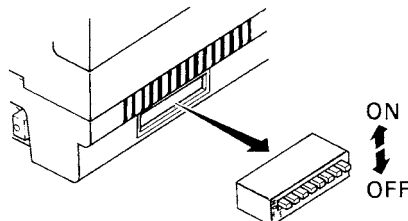


Figure 7-4. DIP Switch Setting

## 7-5. Peripheral Unit Drive Circuit

The Control Board of this printer is equipped with a circuit for driving peripheral units (Paper Cutter, Take-Up Device, Cash Drawer, etc.)

The 6P Modular Jack is used as the Drive Circuit. When using this circuit, connect the peripheral unit cable to the 6P Modular Jack (cable is not included).

**Note:**Peripheral unit drive circuit connector only connects to peripheral units such as cash drawers, etc.

**⚠ Do not connect it to a telephone.**

### 1. Drive Circuit

Drive Output	12V,MAX. 1A
--------------	-------------

Absolute Ratings (Ta = 25°C)	
D1	Voltage Breakdown 400V
D2	Forward Current 1A

**Note:** It is impossible to drive peripheral devices 1 and 2 at the same time. To drive them continuously, set the duty cycle ratio to 20% or less.

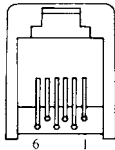


Figure 7-6. 6P Modular Jack Connector

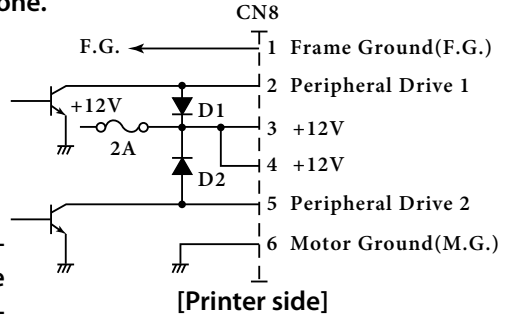


Figure 7-5. Drive Circuit

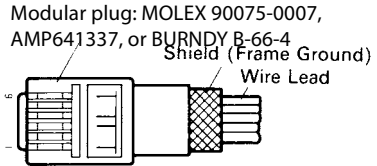


Figure 7-7. Recommend Cable

**Note:**Make sure that the metal structural parts of the peripheral device are connected to frame Ground (Pin 1) to provide a static drain path.

### 2. Control code

Codes for Drive Circuit control are ESC BEL n1 n2, BEL, FS and SUB.

Refer to the Control Codes in Section 5.

## 7-6. Emergency Suspension

If an error condition is detected during operation, the printer will stop printing and ERROR signal will go Low. It is necessary to turn the printer power off and on again in order to recover from the emergency suspension.

This printer can detect the following error conditions:

- Motor Lock
- Defective timing detector
- Micro-processor out of program sequence.

# 8. CHARACTER CODE LIST

## 1) U.S.A. & Europe (DIP SW1: ON, SW2:ON)

Hexa-decimal	0	1	2	3	4	5	6	7
0	0	16	SP	0	@	P	'	p
1	1	17	!	1	A	Q	a	q
2	2	DC2	"	2	B	R	b	r
3	3	19	#	3	C	S	c	s
4	4	DC4	\$	4	D	T	d	t
5	5	21	%	5	E	U	e	u
6	6	22	&	6	F	V	f	v
7	BEL	23	'	7	G	W	g	w
8	8	CAN	(	8	H	X	h	x
9	9	25	)	9	I	Y	i	y
A	LF	SUB	*	:	J	Z	j	z
B	11	27	+	;	K	[	k	{
C	FF	FS	,	<	L	\	l	
D	CR	29	-	=	M	]	m	}
E	SO	30	.	>	N	^	n	~
F	SI	31	/	?	O	-	o	⊗

(SP: Space)

Hexa- decimal	8	9	A	B	C	D	E	F
0	SP 128	┘ 144	Ä 160	é 176	ù 192	ā 208	█ 224	┘ 240
1	┘ 129	┘ 145	Ö 161	è 177	û 193	â 209	█ 225	┘ 241
2	— 130	■ 146	Û 162	ē 178	û 194	° 210	█ 226	┘ 242
3	┘ 131	■ 147	β 163	ê 179	ç 195	°C 211	█ 227	┘ 243
4	— 132	■ 148	§ 164	ÿ 180	¿ 196	°F 212	+	┘ 244
5	┘ 133	■ 149	à 165	ı 181	Ñ 197	Ω 213	┘ 229	┘ 245
6	— 134	/	ó 166	ı 182	ñ 198	μ 214	┘ 230	┘ 246
7	┘ 135	\	ƒ 167	ı 183	Ê 199	Σ 215	┘ 231	┘ 247
8	— 136	◀	ç 168	î 184	ç 200	σ 216	█ 232	┘ 248
9	┘ 137	▶	½ 169	ö 185	€ 201	ā 217	☼ 233	▶ 249
A	— 138	┘ 154	NT 170	ó 186	À 202	T <sub>L</sub> 218	┘ 234	▶ 250
B	┘ 139	┘ 155	T <sub>X</sub> 171	ò 187	φ 203	X 219	← 235	= 251
C	┘ 140	┘ 156	¥ 172	õ 188	θ 204	∞ 220	↑ 236	 252
D	— 141	┘ 157	¼ 173	ô 189	ä 205	± 221	→ 237	┘ 253
E	┘ 142	◆ 158	Ā 174	ü 190	á 206	÷ 222	↓ 238	┘ 254
F	┘ 143	× 159	ë 175	ú 191	â 207	π 223	┘ 239	┘ 255

(SP: Space)

2) IBM Character Set #1 (DIP SW1: OFF, SW2: ON)

Hexa- decimal	0	1	2	3	4	5	6	7
0	0	16	SP 32	0 48	@ 64	P 80	' 96	p 112
1	1	17	!	1 49	A 65	Q 81	a 97	q 113
2	2	DC2 18	" 34	2 50	B 66	R 82	b 98	r 114
3	3	19	# 35	3 51	C 67	S 83	c 99	s 115
4	4	DC4 20	\$ 36	4 52	D 68	T 84	d 100	t 116
5	5	21	% 37	5 53	E 69	U 85	e 101	u 117
6	6	22	& 38	6 54	F 70	V 86	f 102	v 118
7	BEL 7	23	' 39	7 55	G 71	W 87	g 103	w 119
8	8	CAN 24	( 40	8 56	H 72	X 88	h 104	x 120
9	9	25	) 41	9 57	I 73	Y 89	i 105	y 121
A	LF 10	SUB 26	* 42	: 58	J 74	Z 90	j 106	z 122
B	11	ESC 27	+ 43	; 59	K 75	[ 91	k 107	{ 123
C	FF 12	FS 28	, 44	< 60	L 76	\ 92	l 108	! 124
D	CR 13	29	- 45	= 61	M 77	] 93	m 109	} 125
E	SO 14	30	. 46	> 62	N 78	^ 94	n 110	~ 126
F	SI 15	31	/ 47	? 63	O 79	_ 95	o 111	127

(SP: Space)

Hexa-decimal	8	9	A	B	C	D	E	F
0	128	144	á 160	⋮ 176	ℒ 192	℔ 208	α 224	≡ 240
1	129	145	í 161	⋮ 177	ℓ 193	≡ 209	β 225	± 241
2	130	DC2 146	ó 162	⋮ 178	τ 194	π 210	Γ 226	≥ 242
3	131	147	ú 163	ℓ 179	ℓ 195	℔ 211	π 227	≤ 243
4	132	DC4 148	ñ 164	ℓ 180	— 196	℔ 212	Σ 228	ƒ 244
5	133	149	ñ 165	ℓ 181	† 197	F 213	σ 229	J 245
6	134	150	ã 166	℔ 182	℔ 198	π 214	μ 230	÷ 246
7	BEL 135	151	o 167	π 183	℔ 199	℔ 215	τ 231	≈ 247
8	136	CAN 152	¿ 168	π 184	℔ 200	≠ 216	Φ 232	° 248
9	137	153	ƒ 169	℔ 185	℔ 201	ℓ 217	Θ 233	• 249
A	LF 138	SUB 154	ƒ 170	℔ 186	℔ 202	ƒ 218	Ω 234	- 250
B	139	ESC 155	½ 171	π 187	≡ 203	■ 219	δ 235	√ 251
C	FF 140	FS 156	¼ 172	℔ 188	℔ 204	— 220	∞ 236	ⁿ 252
D	CR 141	157	ı 173	℔ 189	= 205	■ 221	∅ 237	² 253
E	SO 142	158	« 174	ℓ 190	℔ 206	■ 222	€ 238	▪ 254
F	SI 143	159	» 175	ƒ 191	℔ 207	■ 223	∩ 239	255

3) IBM Character Set #2 (DIP SW1: ON, SW2: OFF)

Hexa- decimal	0	1	2	3	4	5	6	7
0	0	16	SP 32	0 48	@ 64	P 80	' 96	p 112
1	1	17	!	1 49	A 65	Q 81	a 97	q 113
2	2	DC2 18	" 34	2 50	B 66	R 82	b 98	r 114
3	♥ 3	19	# 35	3 51	C 67	S 83	c 99	s 115
4	♦ 4	DC4 20	\$ 36	4 52	D 68	T 84	d 100	t 116
5	♣ 5	§ 21	% 37	5 53	E 69	U 85	e 101	u 117
6	♠ 6	22	& 38	6 54	F 70	V 86	f 102	v 118
7	BEL 7	23	' 39	7 55	G 71	W 87	g 103	w 119
8	8	CAN 24	( 40	8 56	H 72	X 88	h 104	x 120
9	9	25	) 41	9 57	I 73	Y 89	i 105	y 121
A	LF 10	SUB 26	* 42	: 58	J 74	Z 90	j 106	z 122
B	11	ESC 27	+ 43	; 59	K 75	[ 91	k 107	{ 123
C	FF 12	FS 28	, 44	< 60	L 76	\ 92	l 108	 124
D	CR 13	29	- 45	= 61	M 77	] 93	m 109	} 125
E	SO 14	30	. 46	> 62	N 78	^ 94	n 110	~ 126
F	SI 15	31	/ 47	? 63	O 79	_ 95	o 111	 127

(SP: Space)

Hexa- decimal	8	9	A	B	C	D	E	F
0	Ɔ 128	Ɛ 144	ǎ 160	⋮ 176	ℒ 192	℔ 208	α 224	≡ 240
1	ü 129	æ 145	í 161	⌘ 177	⌞ 193	⌟ 209	β 225	± 241
2	é 130	Æ 146	ó 162	⌘ 178	⌞ 194	⌟ 210	Γ 226	≥ 242
3	â 131	ô 147	ú 163	ℓ 179	ℓ 195	℔ 211	π 227	≤ 243
4	ä 132	ö 148	fi 164	ℓ 180	— 196	ℓ 212	Σ 228	ℓ 244
5	à 133	ò 149	ñ 165	ℓ 181	⊕ 197	ℓ 213	σ 229	ℓ 245
6	á 134	û 150	ä 166	ℓ 182	ℓ 198	ℓ 214	μ 230	÷ 246
7	ç 135	ù 151	œ 167	ℓ 183	ℓ 199	ℓ 215	τ 231	≈ 247
8	ê 136	ÿ 152	ç 168	ℓ 184	℔ 200	≠ 216	Φ 232	° 248
9	ë 137	ö 153	ƒ 169	ℓ 185	ℓ 201	ℓ 217	Θ 233	· 249
A	è 138	Û 154	ƒ 170	ℓ 186	℔ 202	ℓ 218	Ω 234	— 250
B	ï 139	ç 155	½ 171	ℓ 187	ℓ 203	■ 219	δ 235	√ 251
C	î 140	£ 156	¼ 172	ℓ 188	ℓ 204	— 220	∞ 236	∞ 252
D	ì 141	¥ 157	ì 173	ℓ 189	= 205	■ 221	∅ 237	² 253
E	Ë 142	℔ 158	« 174	ℓ 190	ℓ 206	■ 222	€ 238	■ 254
F	À 143	ƒ 159	» 175	ℓ 191	℔ 207	■ 223	∩ 239	■ 255



4) JAPAN (DIP SW1: OFF, SW2: OFF)

Hexa-decimal	0	1	2	3	4	5	6	7
0	0	16	SP 32	0 48	@ 64	P 80	' 96	p 112
1	1	17	!	1 49	A 65	Q 81	a 97	q 113
2	2	DC2 18	" 34	2 50	B 66	R 82	b 98	r 114
3	3	19	# 35	3 51	C 67	S 83	c 99	s 115
4	4	DC4 20	\$ 36	4 52	D 68	T 84	d 100	t 116
5	5	21	% 37	5 53	E 69	U 85	e 101	u 117
6	6	22	& 38	6 54	F 70	V 86	f 102	v 118
7	BEL 7	23	' 39	7 55	G 71	W 87	g 103	w 119
8	8	CAN 24	( 40	8 56	H 72	X 88	h 104	x 120
9	9	25	) 41	9 57	I 73	Y 89	i 105	y 121
A	LF 10	SUB 26	* 42	: 58	J 74	Z 90	j 106	z 122
B	11	ESC 27	+ 43	; 59	K 75	[ 91	k 107	{ 123
C	FF 12	FS 28	, 44	< 60	L 76	¥ 92	l 108	124
D	CR 13	29	- 45	= 61	M 77	] 93	m 109	} 125
E	SO 14	30	. 46	> 62	N 78	^ 94	n 110	~ 126
F	SI 15	31	/ 47	? 63	O 79	_ 95	o 111	⦿ 127

(SP: Space)

Hexa- decimal	8	9	A	B	C	D	E	F
0	SP 128	┘ 144	SP 160	ー 176	タ 192	ミ 208	■ 224	T 240
1	┘ 129	┘ 145	。○ 161	ア 177	チ 193	ム 209	■ 225	■ 241
2	ー 130	■ 146	「 162	イ 178	ツ 194	メ 210	■ 226	■ 242
3	┘ 131	■ 147	」 163	ウ 179	テ 195	モ 211	■ 227	■ 243
4	ー 132	■ 148	、 164	エ 180	ト 196	ヤ 212	＋ 228	┘ 244
5	┘ 133	■ 149	・ 165	オ 181	ナ 197	ユ 213	」 229	┘ 245
6	ー 134	／ 150	ヲ 166	カ 182	ニ 198	ヨ 214	┘ 230	┘ 246
7	┘ 135	＼ 151	ア 167	キ 183	ヌ 199	ラ 215	┘ 231	■ 247
8	ー 136	▲ 152	イ 168	ク 184	ネ 200	リ 216	■ 232	■ 248
9	┘ 137	▲ 153	ウ 169	ケ 185	ノ 201	ル 217	■ 233	▲ 249
A	ー 138	┘ 154	エ 170	コ 186	ハ 202	レ 218	┘ 234	▲ 250
B	┘ 139	┘ 155	オ 171	サ 187	ヒ 203	ロ 219	← 235	＝ 251
C	ト 140	┘ 156	ヤ 172	シ 188	フ 204	ワ 220	↑ 236	 252
D	ー 141	┘ 157	ユ 173	ス 189	へ 205	ン 221	→ 237	┘ 253
E	┘ 142	◆ 158	ヨ 174	セ 190	ホ 206	〃 222	↓ 238	┘ 254
F	┘ 143	× 159	ツ 175	ソ 191	マ 207	。 223	┘ 239	┘ 255

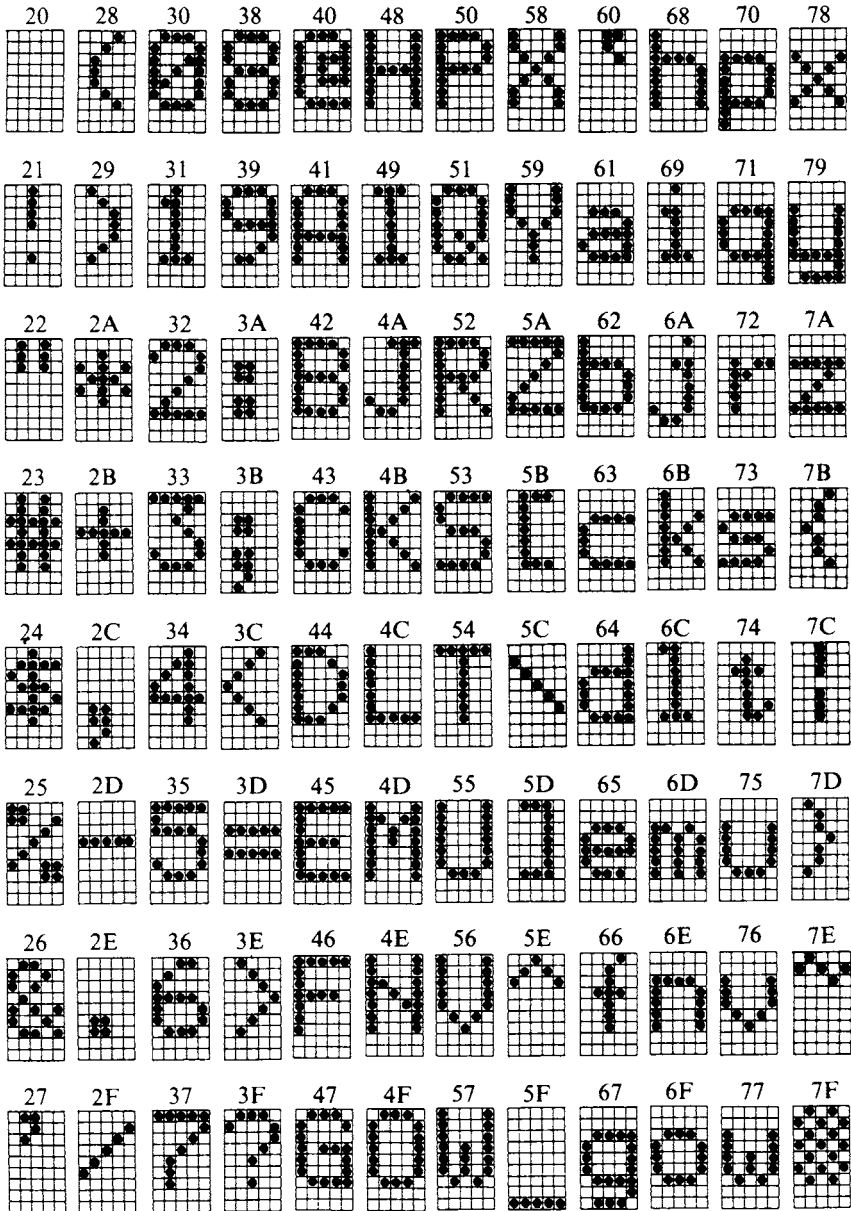
(SP: Space)

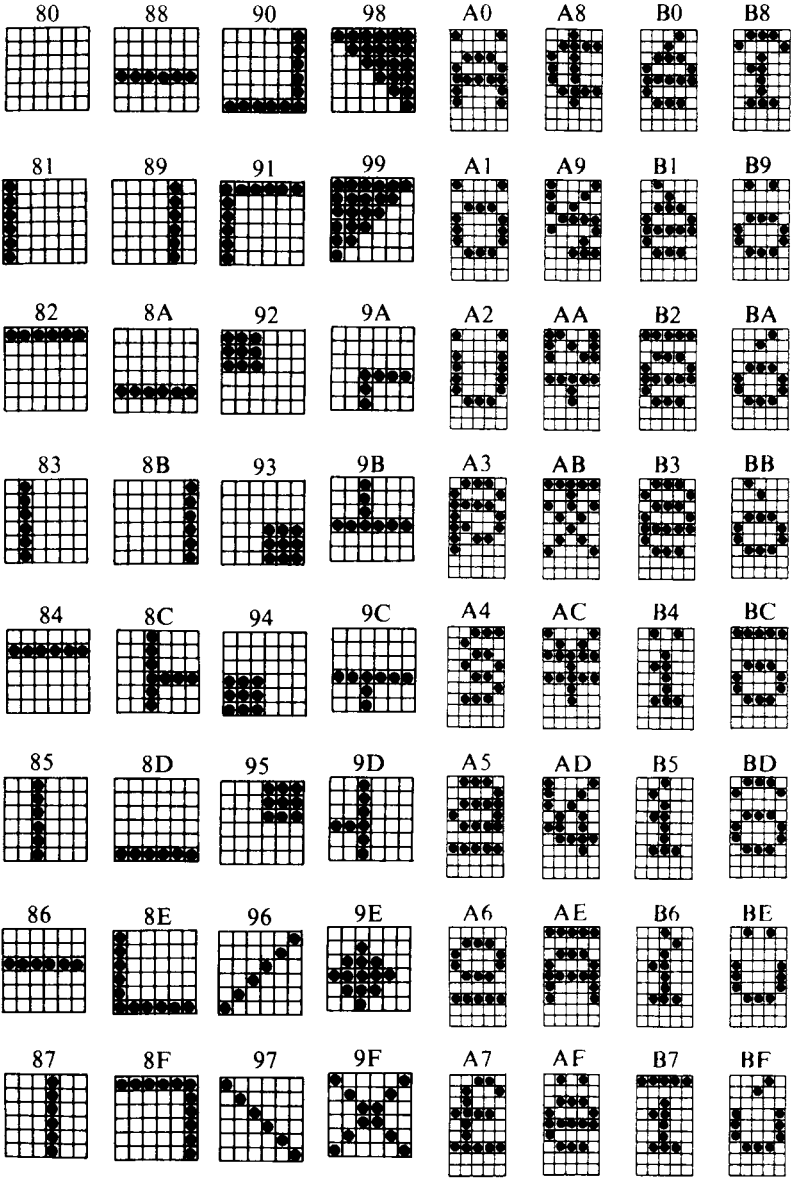
## International Character Sets

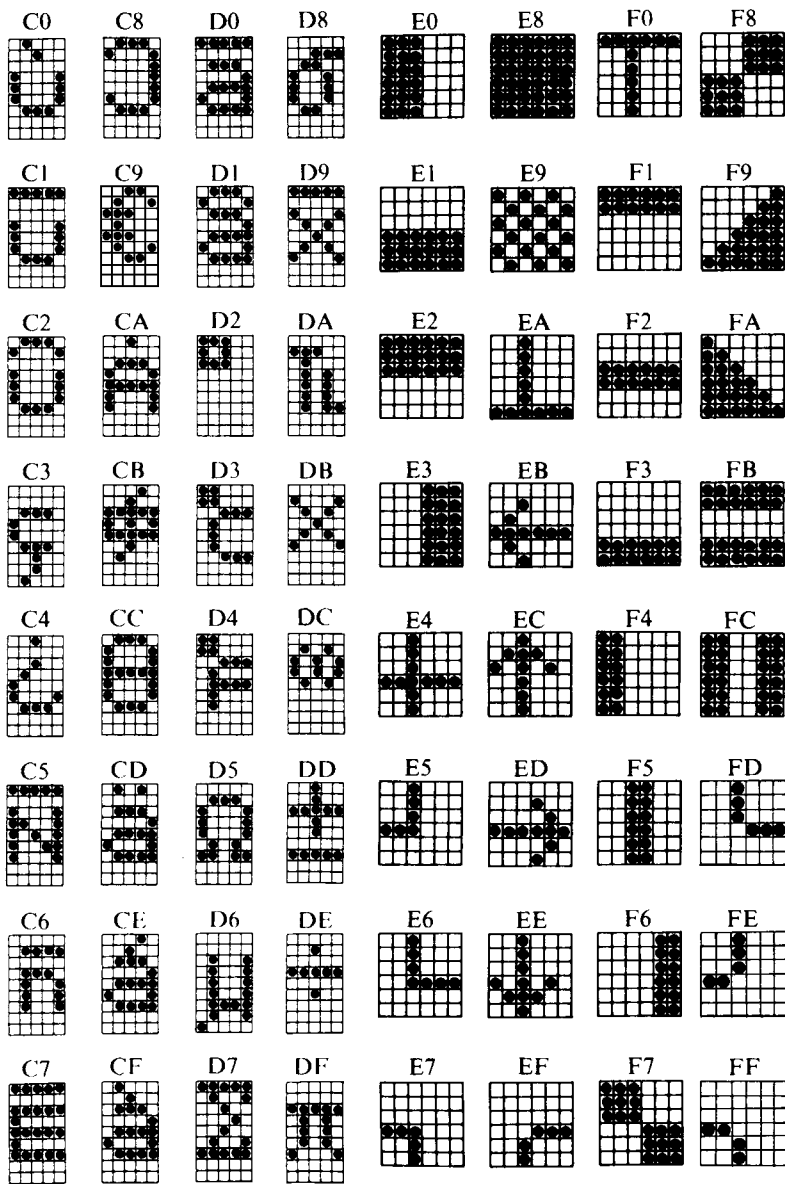
Hexadecimal	23	24	40	5B	5C	5D	5E	60	7B	7C	7D	7E
U.S.A.	#	\$	@	[	\	]	^	'	{		}	~
France	#	\$	à	°	ç	š	^	'	é	ù	è	¨
Germany	#	\$	š	Ä	Ö	Ü	^	'	ä	ö	ü	ß
England	£	\$	@	[	\	]	^	'	{		}	~
Denmark	#	\$	@	Æ	Ø	Å	^	'	æ	ø	å	~
Sweden	#	¤	é	Ä	Ö	Å	Ü	é	ä	ö	å	ü
Italy	#	\$	@	°	\	é	^	ù	à	ò	è	ì
Spain	₧	\$	@	í	ñ	¿	^	'	¨	ñ	}	~
Japan	#	\$	@	[	¥	]	^	'	{		}	—

# 9. FONT LIST

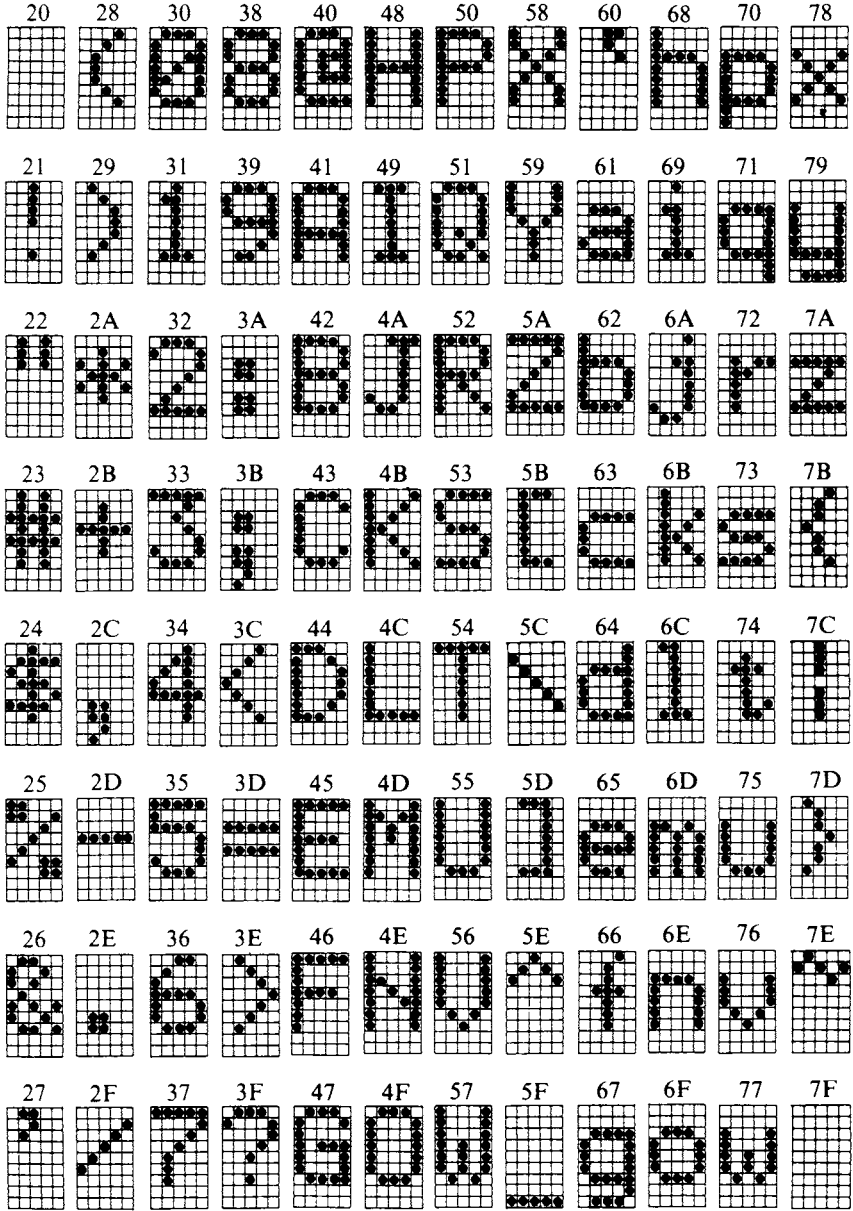
## 1) U.S.A. & Europe (DIP SW1: ON, SW2: ON)

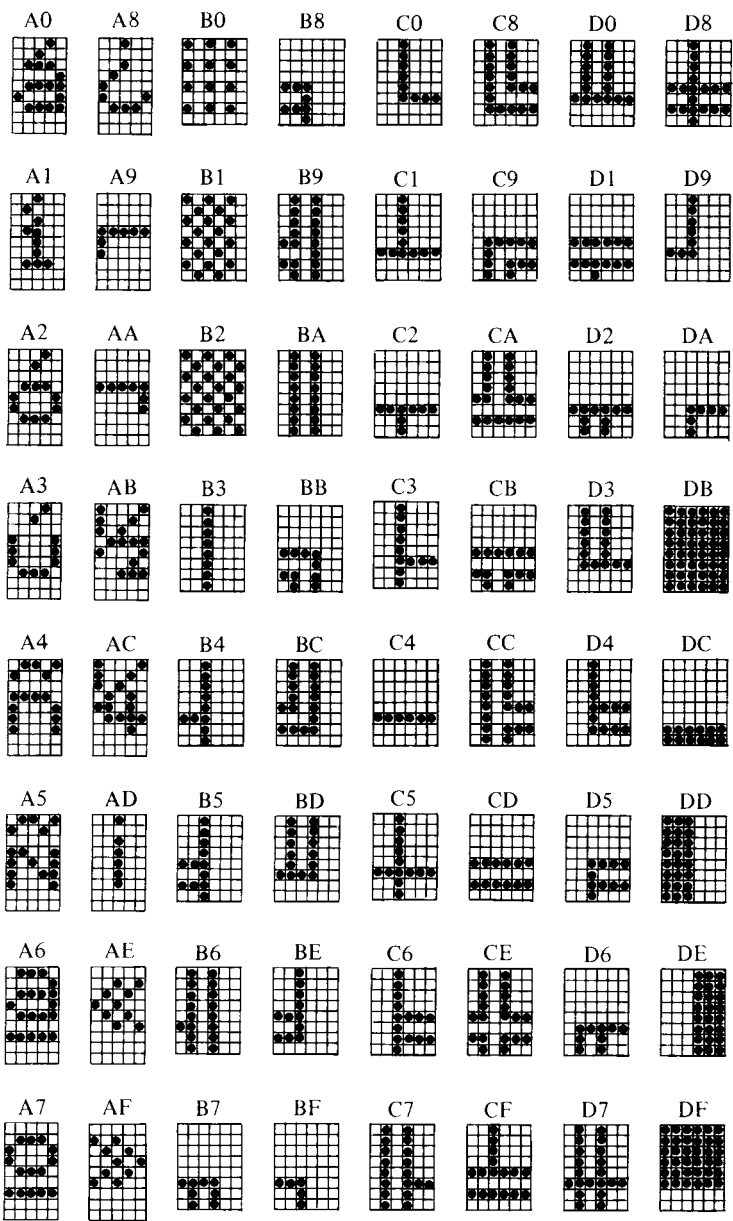




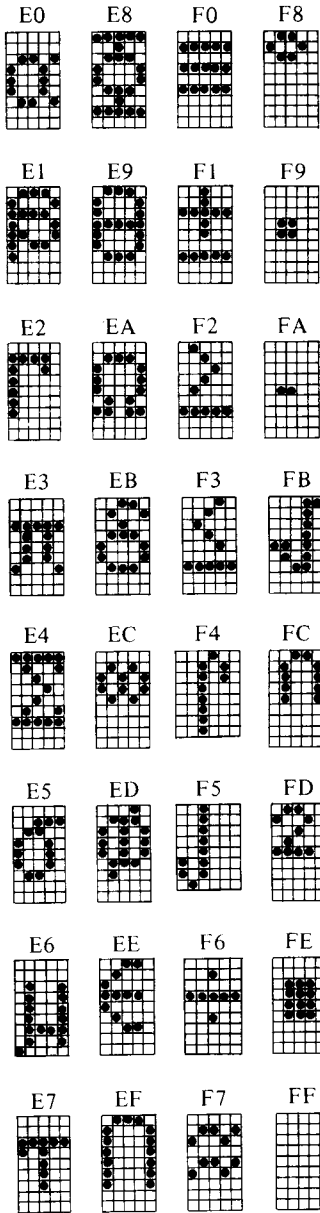


2) IBM Character Set #1 (DIP SW1: OFF, SW2: ON)

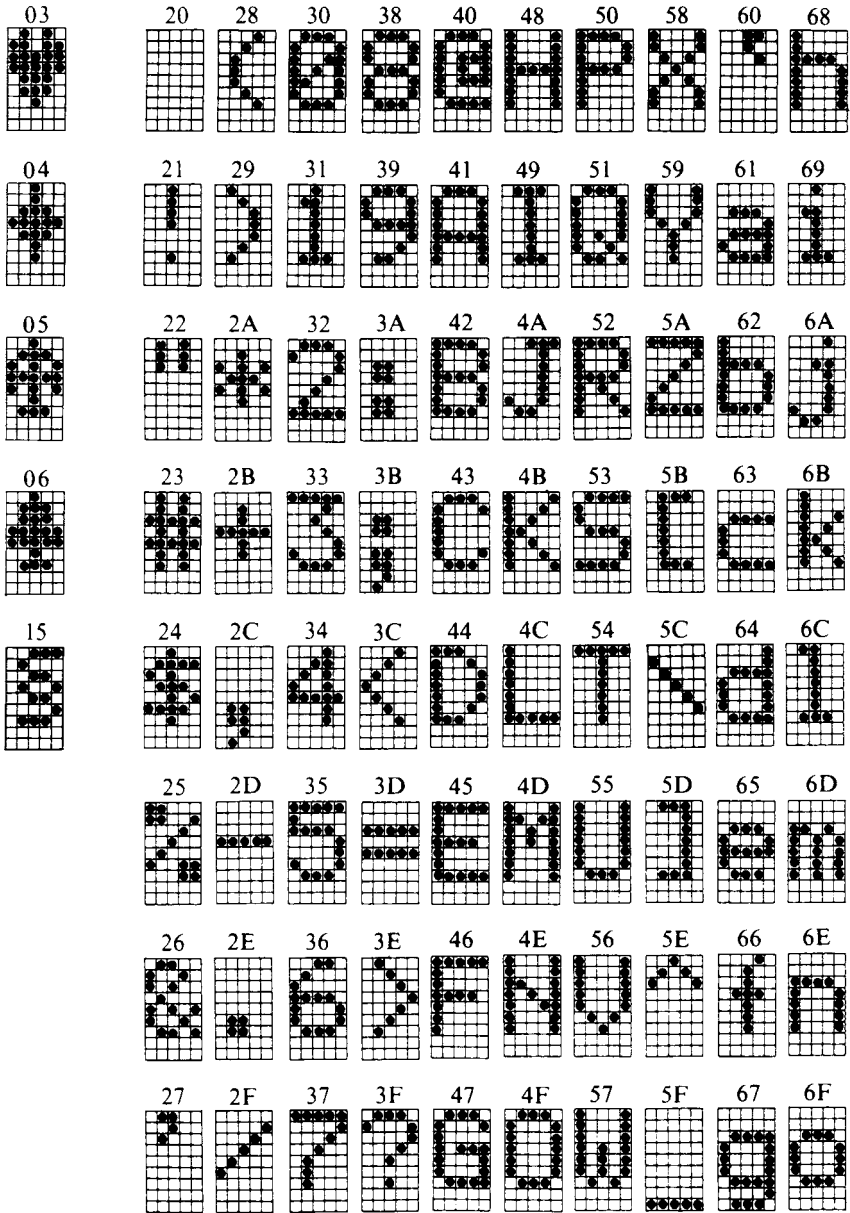


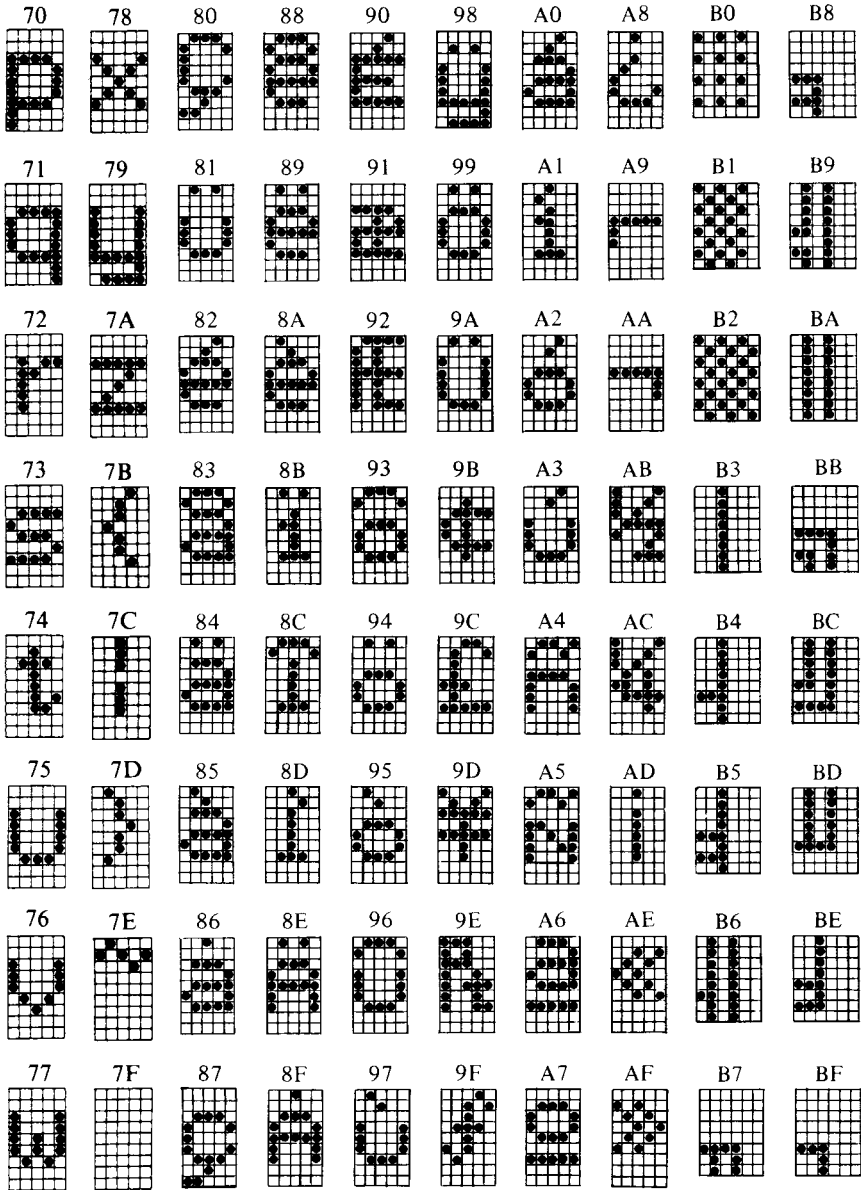


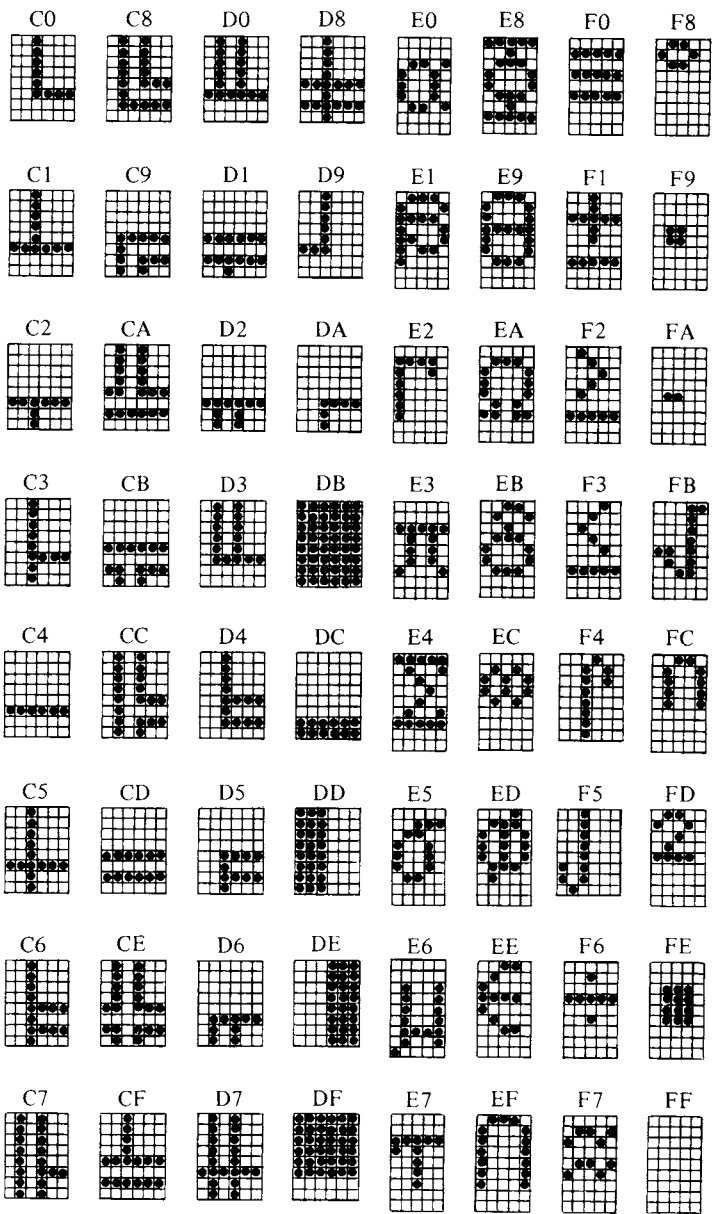




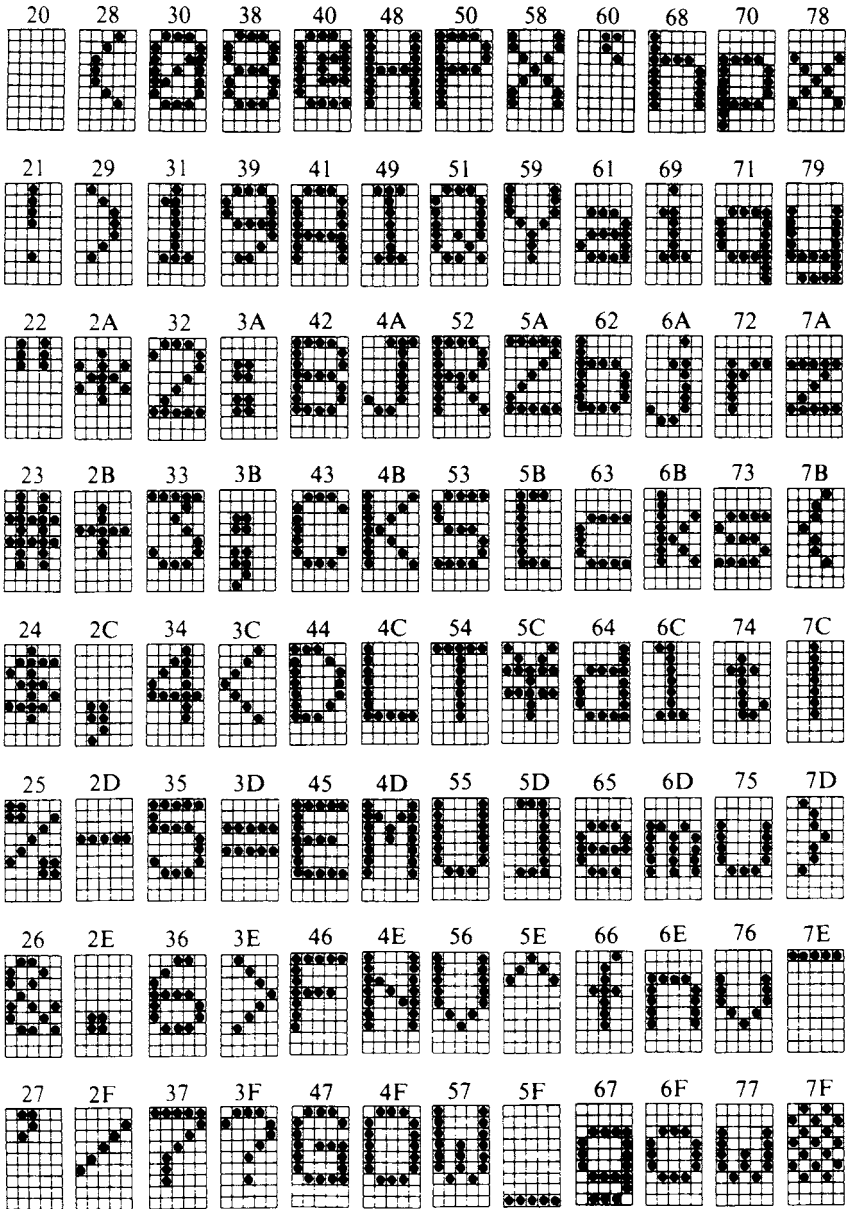
3) IBM Character Set #2 (DIP SW1: ON, SW2: OFF)

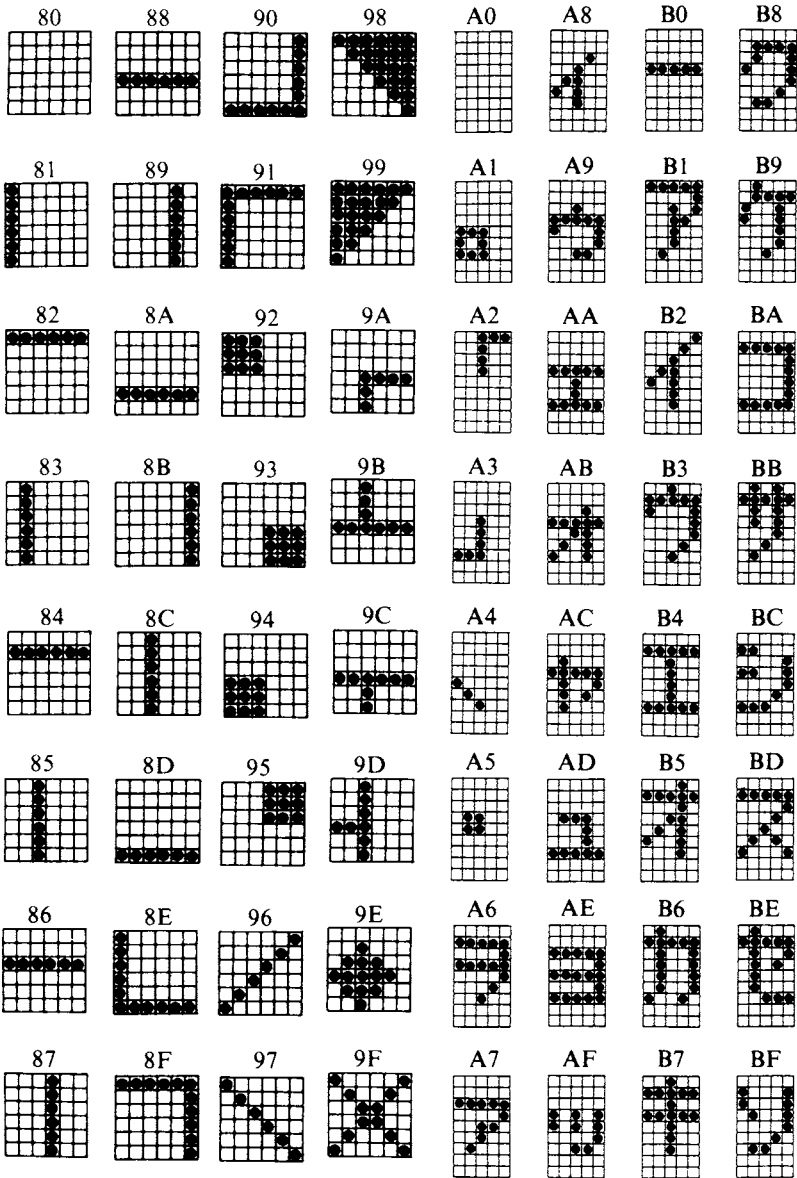


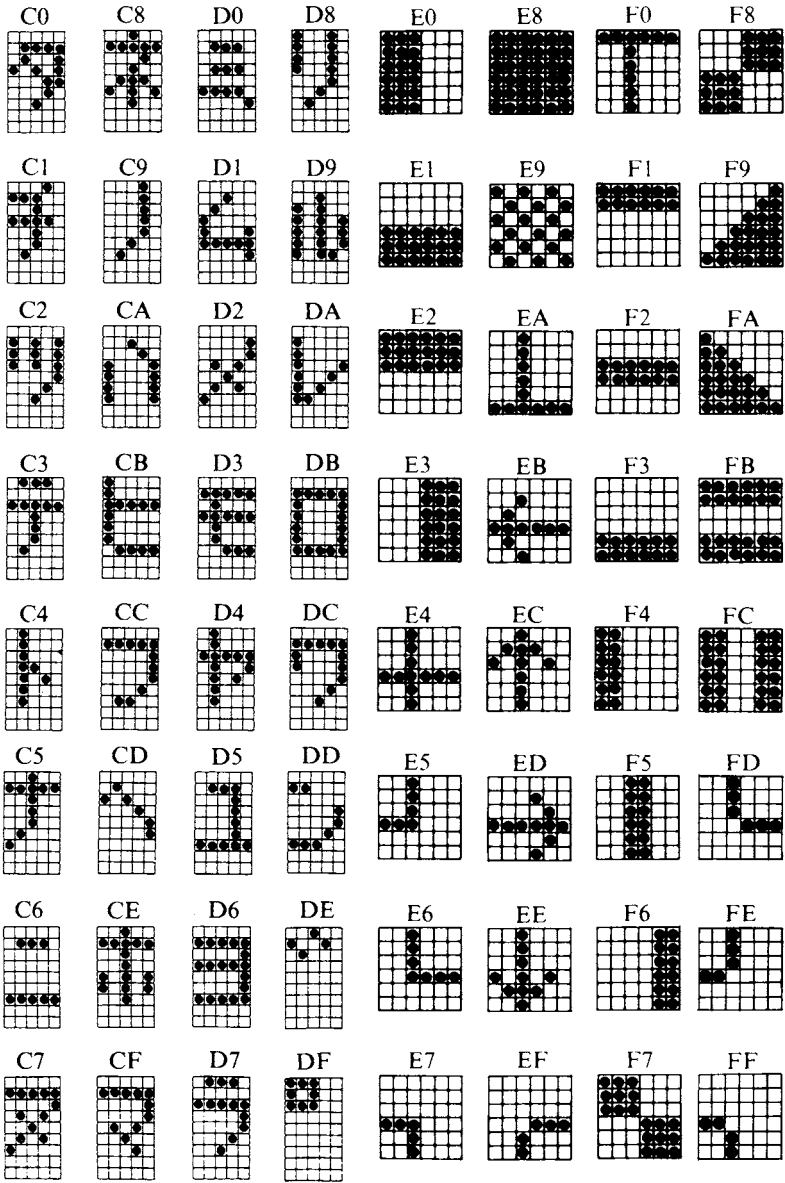
















































































































4) JAPAN (DIP SW1: OFF, SW2: OFF)







# International Character Sets

	23	24	40	5B	5C	5D	5E	60	7B	7C	7D	7E
U.S.A.												
France												
Germany												
England												
Denmark												
Sweden												
Italy												
Spain												
Japan												



## 10. WHEN POWER IS SUPPLIED BY THE USER

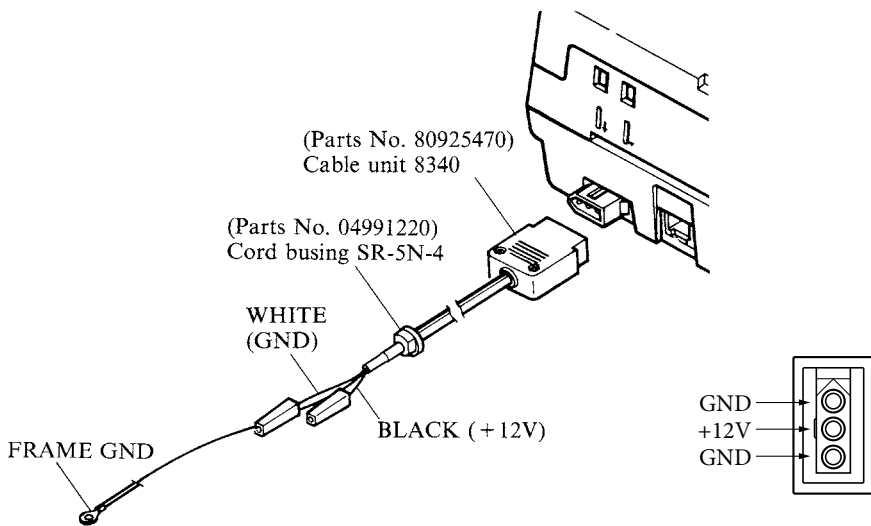
**Note :** The optional AC adapter (PS8340A) has been designed specifically for this unit(DP8340).

Other AC adapters may not meet the EMC technical standards.

When printer power is supplied by the user rather than through the accessory power source unit, please be careful of the following points.

**Note 1:** An electrolytic capacitor ( $C = 4700\mu\text{F}/25\text{V}$  to  $6800\mu\text{F}/25\text{V}$ ) must be connected across the output of the power supply. Use a power supply of DC 12 V  $\pm$  5% and more than 2.0 A with SELV output and LPS or Class 2 (double-insulation structure) output approved by IEC60950.

**Note 2:** A DC power plug is available as an option.



**Note 3:** Be careful about installing the printer in an area where there is noise. Take the appropriate measures to protect against electrostatic AC line noise, etc.



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Please access the following URL

<http://www.star-m.jp/eng/dl/dl02.htm>

for the latest revision of the manual.

**OVERSEAS SUBSIDIARY COMPANIES**

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