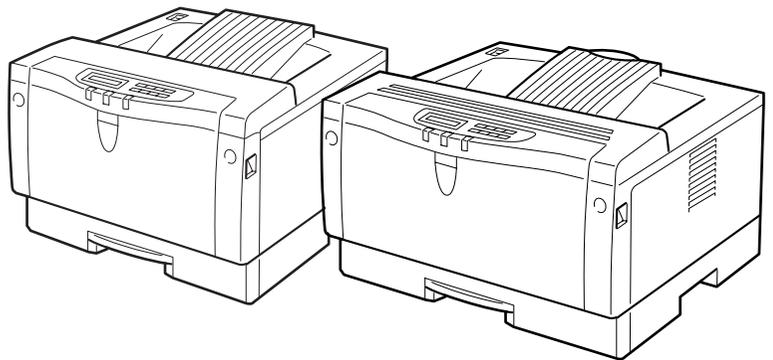




HARD DISC DRIVE TYPE 2000 OR RS232C BOARD TYPE 2000

OPERATING INSTRUCTIONS
<Supplement>



Read this manual carefully before you use this product and keep it handy for future reference.

For safety, please follow the instructions in this manual.



OPERATING INSTRUCTIONS



Printed in Japan

UEUSA EE GB

Gxxx-xxxx



Introduction

This manual contains detailed instructions on the operation and maintenance of this machine. To get maximum versatility from this machine all operators should carefully read and follow the instructions in this manual. Please keep this manual in a handy place near the machine.

Please read the Safety Information before using this machine. It contains important information related to USER SAFETY and PREVENTING EQUIPMENT PROBLEMS.

Trademarks

PCL[®] is a registered trademark of Hewlett-Packard Company.

Other product names used herein are for identification purposes only and might be trademarks of their respective companies. We disclaim any and all rights in those marks.

Notes:

Some illustrations might be slightly different from your machine.

Certain options might not be available in some countries. For details, please contact your local dealer.

Note

The proper names of the Windows operating systems are as follows:

- Microsoft[®] Windows[®] 95 operating system
- Microsoft[®] Windows[®] 98 operating system
- Microsoft[®] Windows[®] for Workgroups operating system Version 3.11
- Microsoft[®] Windows NT[®] Server network operating system Version 4.0
- Microsoft[®] Windows NT[®] Workstation operating system Version 4.0

How to Read this Manual

Symbols

In this manual, the following symbols are used:

 **WARNING:**

This symbol indicates a potentially hazardous situation which, if instructions are not followed, could result in death or serious injury.

 **CAUTION:**

This symbol indicates a potentially hazardous situation which, if instructions are not followed, may result in minor or moderate injury or damage to property.

* The statements above are notes for your safety.

 **Important**

If this instruction is not followed, paper might be misfed, originals might be damaged, or data might be lost. Be sure to read this.

 **Preparation**

This symbol indicates the prior knowledge or preparations required before operating.

 **Note**

This symbol indicates precautions for operation, or actions to take after misoperation.

 **Limitation**

This symbol indicates numerical limits, functions that cannot be used together, or conditions in which a particular function cannot be used.

 **Reference**

This symbol indicates a reference.

[]

Keys that appear on the machine's panel display.

Keys and buttons that appear on the computer's display.

【 】

Keys built into the machine's operation panel.

Keys on the computer's keyboard.

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1. Installing Options

⚠ CAUTION:

- *Make sure to turn off the printer and wait for about 30 minutes before installing options. Not waiting for the printer to cool down can result in a burn.*
- *When lifting the machine, use the inset grips on both sides of the machine. Otherwise, the machine might fall and cause personal injury.*
- *When you move the machine, unplug the power cord from the wall outlet to avoid a fire or an electric shock.*

Type 1 Printer: Installing the HARD DISC DRIVE TYPE 2000

1

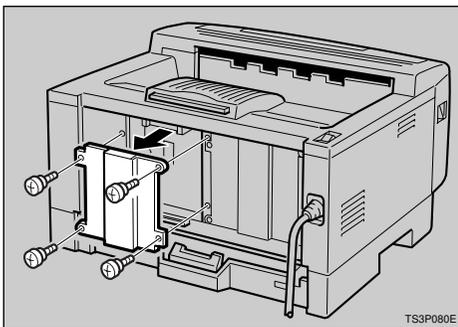
Note

- ❑ Please refer to the inside of the front cover of the Operating Instructions that comes with your printer to confirm which printer (Type 1 Printer or Type 2 Printer) you have.
- ❑ The hard disc drive (HDD) can be attached to either the left or the right side of the back of your printer. This procedure is for attaching to the left side.
- ❑ You cannot install two HDD at a time.

1 Be sure to check the following points:

- The printer's power switch is turned off.
- The power cord is unplugged from the wall outlet.

2 Remove the back plate.

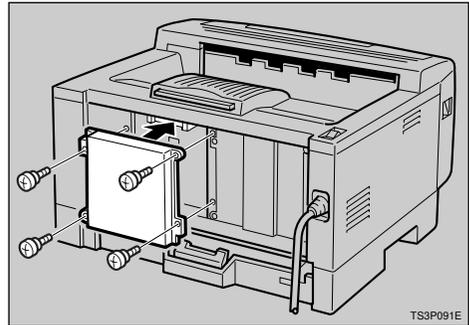


Note

- ❑ A coin can be used to remove the screws.

3 Align the screw holes of the HDD over the screw holes where the back plate used to be. Make sure

that the HDD is aligned as shown in the illustration. Press the HDD firmly against the printer. The interface connectors on the printer and the HDD should align and offer a slight resistance before popping into place.



Note

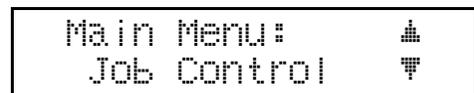
- ❑ Use a coin to reattach the screws.

4 Turn on the printer's power switch.

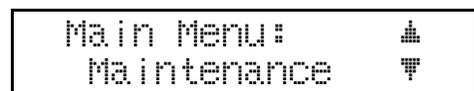
After installing the HDD, configure the printer for formatting the HDD with the operation panel.

5 Press [Menu].

The following message appears on the panel display.



6 Press [▼][▲] until the following message appears.



7 Press **[Enter]**.

The following message appears on the panel display.

```
Maintenance:  ▲
1.System Reset ▼
```

8 Press **[▼][▲]** until the following message appears.

```
Maintenance:  ▲
5.HDD Format   ▼
```

9 Press **[Enter]**.

The following message appears on the panel display.

```
HDD Format:
Yes=#
```

10 Press **[Enter]**.

If you success to format the HDD, the following message appears on the panel display.

```
HDD Format:
Completed
```

Note

- If you failed, see P.13 "Troubleshooting".

11 Press **[On line]**.

The panel display returns to the ready condition as follows:

```
Ready
```

12 Print a configuration page to confirm that the HDD is properly installed.**Reference**

For more information on printing the configuration page, refer to the Operating Instructions that comes with your printer.

Type 1 Printer: Installing the RS232C BOARD TYPE 2000

1

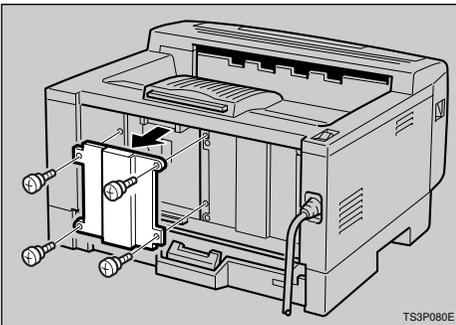
Note

- ❑ Please refer to the inside of the front cover of the Operating Instructions that comes with your printer to confirm which printer (Type 1 Printer or Type 2 Printer) you have.
- ❑ The RS232C board can be attached to either the left or the right side of the back of your printer. This procedure is for attaching to the left side.
- ❑ You cannot install two RS232C board at a time.

1 Be sure to check the following points:

- The printer's power switch is turned off.
- The power cord is unplugged from the wall outlet.

2 Remove the back plate.

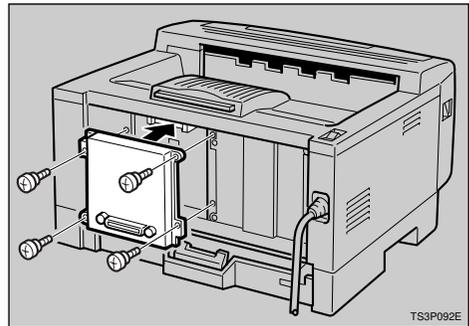


Note

- ❑ A coin can be used to remove the screws.

3 Align the screw holes of the RS232C board over the screw holes where the back plate used

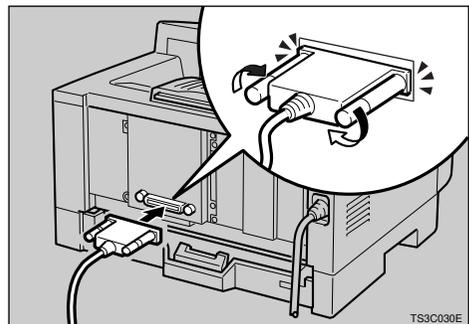
to be. Make sure that the board is aligned so that the jack is facing out and is on the bottom. Press the board firmly against the printer. The interface connectors on the printer and the board should align and offer a slight resistance before popping into place.



Note

- ❑ Use a coin to reattach the screws.

4 Attach the cable to the connector on the board. Fasten it with two screws as shown in the illustration.



5 Attach the other end of the cable to the interface connector of the computer.

- 6** Turn on the printer's power switch.
- 7** Print a configuration page to confirm that the RS232C board is properly installed.

 **Reference**

For more information on printing the configuration page, refer to the Operating Instructions that comes with your printer.

Type 2 Printer: Installing the HARD DISC DRIVE TYPE 2000

1

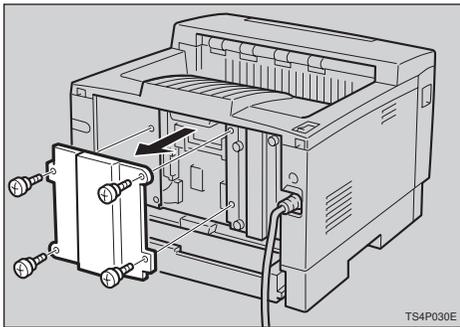
Note

- ❑ Please refer to the inside of the front cover of the Operating Instructions that comes with your printer to confirm which printer (Type 1 Printer or Type 2 Printer) you have.

1 Be sure to check the following points:

- The printer's power switch is turned off.
- The power cord is unplugged from the wall outlet.

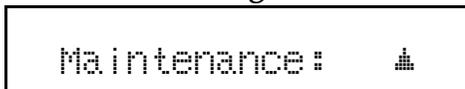
2 Remove the back plate.



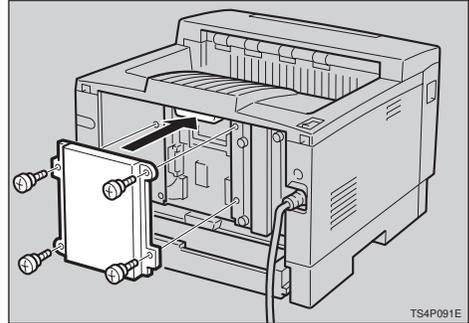
Note

- ❑ A coin can be used to remove the screws.

3 Align the screw holes of the hard disc (HDD) over the screw holes where the back plate used to be. Make sure that the HDD is aligned as shown in the illustration. Press the HDD firmly against the printer. The interface connectors on the printer and the HDD should align and offer a



slight resistance before popping into place.



Note

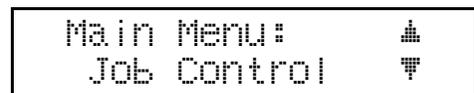
- ❑ Use a coin to reattach the screws

4 Turn on the printer's power switch.

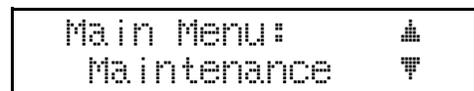
After installing the HDD, configure the printer for formatting the HDD with the operation panel.

5 Press [Menu].

The following message appears on the panel display.



6 Press [▼][▲] until the following message appears.



7 Press [Enter].

The following message appears on the panel display.



- 8** Press **[▼][▲]** until the following message appears.

```
Maintenance: ▲
5.HDD Format ▼
```

- 9** Press **[Enter]**.

The following message appears on the panel display.

```
HDD Format:
Yes=#
```

- 10** Press **[Enter]**.

If you success to format the HDD, the following message appears on the panel display.

```
HDD Format:
Completed
```

 **Note**

- If you failed, see P.13 "Troubleshooting".

- 11** Press **[On line]**.

The panel display returns to the ready condition as follows:

```
Ready
```

- 12** Print a configuration page to confirm that the HDD is properly installed.

 **Reference**

For more information on printing the configuration page, refer to the Operating Instructions that comes with your printer.

Type 2 Printer: Installing the RS232C BOARD TYPE 2000

1

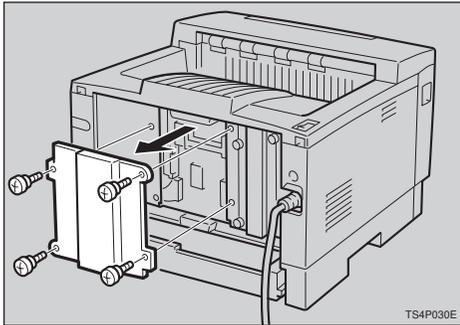
Note

- ❑ Please refer to the inside of the front cover of the Operating Instructions that comes with your printer to confirm which printer (Type 1 Printer or Type 2 Printer) you have.

1 Be sure to check the following points:

- The printer's power switch is turned off.
- The power cord is unplugged from the wall outlet.

2 Remove the back plate.

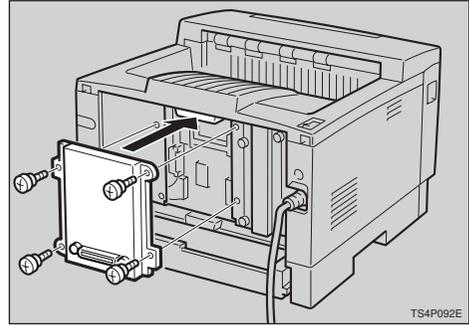


Note

- ❑ A coin can be used to remove the screws.

3 Align the screw holes of the RS232C board over the screw holes where the back plate used to be. Make sure that the board is aligned so that the jack is facing out and is on the bottom. Press the board firmly against the printer. The interface connectors on the printer and the board should

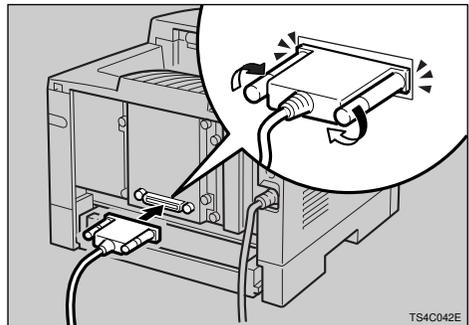
align and offer a slight resistance before popping into place.



Note

- ❑ Use a coin to reattach the screws.

4 Attach the cable to the connector on the board. Fasten it with two screws as shown in the illustration.



5 Attach the other end of the cable to the interface connector of the computer.

6 Turn on the printer's power switch.

7 Print a configuration page to confirm that the RS232C board is properly installed.

Reference

For more information on printing the configuration page, refer to the Operating Instructions that comes with your printer.

2. Troubleshooting

Error & Status Messages on the Operation Panel

Messages	Description	Comments
HDD Full	The HDD is full, or does not have any remaining directory entries to store files. The electrical collate job to be sent is too large to store in the hard disc space.	<p>Press [Enter] to clear the error and abort the electrical collate job. Format the HDD to delete unused files before re-sending the electrical collate job. ⇒ P.17 <i>"Making Printer Settings with the Operation Panel"</i></p> <p>Important</p> <p><input type="checkbox"/> All files in the HDD will be deleted by formatting the disc.</p>
		<p>Delete the font downloaded to the HDD using the Apple Print utility, if you have it.</p>
HDD Error	There might be a fault on the HDD. You cannot read or write on the HDD.	<p>Press [Enter] to clear the error and cancel the electrical collate job. If the error happens on each electrical collate job, format the HDD to mark bad blocks of the HDD. If you fail to format the HDD, the HDD should be replaced.</p> <p>Important</p> <p><input type="checkbox"/> All files in the HDD will be deleted by formatting the disc.</p>
		<p>Delete the font downloaded to the HDD using the Apple Print utility, if you have it.</p>

Messages	Description	Comments
Error SC2600	An error has occurred in the HDD.	Turn the printer's power switch off and on. Then try to print again.
		Turn off the printer's power switch. Reinstall the HDD and turn on the printer's power switch. Then, try to print again.
		Turn off the printer's power switch. Remove the HDD and turn on the printer's power switch. Then, try to print again.
		If the HDD is not installed, you can not sent the electrical collate job.
Error SC2900	An error has occurred in the RS232C board.	Turn the printer's power switch off and on. Then try to print again.
		Turn off the printer's power switch. Reinstall the RS232C board and turn on the printer's power switch. Then, try to print again.
		Turn off the printer's power switch. Remove the RS232C board and turn on the printer's power switch. Then, try to print again.
		<p> Note</p> <p><input type="checkbox"/> If you remove the RS232C board, you cannot perform your print job via serial cable connection. You can send your print job to the printer only via a parallel cable connection.</p>
Error SC2800	An error has occurred in the DIMM.	Turn the printer's power switch off and on. Then try to print again.
		Turn off the printer's power switch. Remove the DIMM and turn on the printer's power switch. Then, try to print again.

Messages	Description	Comments
HDD Format: Failed	An error has occurred in the HDD formatting.	Press any key and turn the printer's power switch off and on. Then try to format again.
		Turn off the printer's power switch. Reinstall the HDD and turn on the printer's power switch. Then, try to format again.

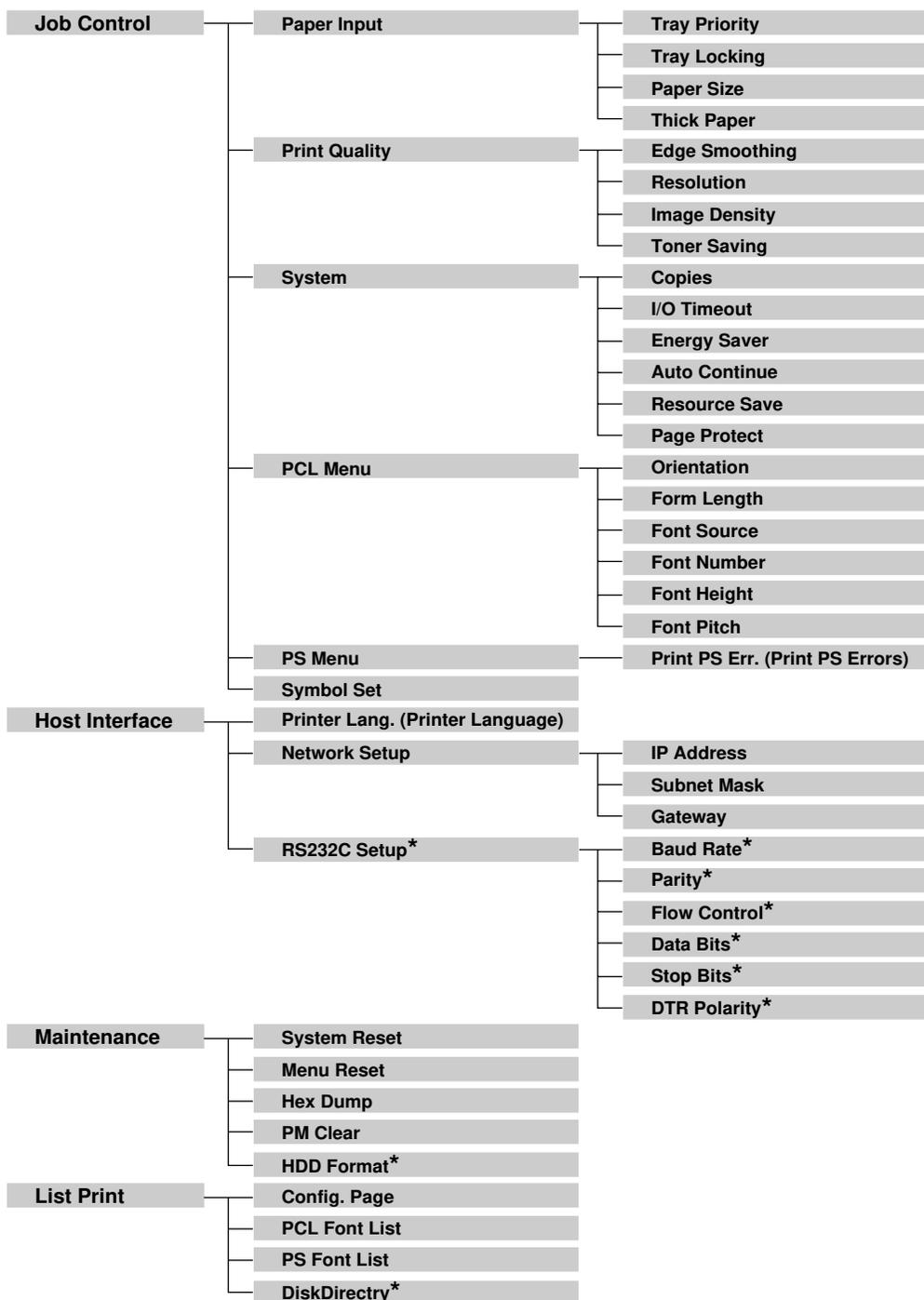
 **Note**

- If you cannot solve the problem by taking the above actions, contact your sales or service representative.

3. Making Printer Settings with the Operation Panel

Menu Chart

This section describes how to change the default settings of the hard disc drive and the RS232C board. For more information on other menus, refer to the Operating Instructions that comes with your printer.



*: Menus for the HDD and the RS232C.

Accessing the Main Menu

Press **[Menu]**, and the Main menu appears.

The Main menu has the following four menu items, which can be displayed one by one using **[▲]** or **[▼]**.

- Job Control
- Host Interface
- Maintenance
- List Print

Note

- [▼]**: Press to go to the next page.
- [▲]**: Press to go back to the previous page.
- After making the printer's settings, be sure to return to the previous menu by pressing **[Escape]**.
- After making the printer's settings, press **[On Line]** to return to the ready condition.
- The revised settings are not canceled even if the printer's power switch is turned off.

Making Printer Settings with the Operation Panel

1 Press **[Menu]**.

The Main Menu appears.

2 Search for the desired menu with **[▲]** or **[▼]**.

The desired menu item appears.

3

3 Press **[Enter]**.

4 Search for the desired menu with **[▲]** or **[▼]**.

The desired menu item or parameter appears.

 **Note**

- “▶” shown in front of the tray name indicates the tray that is currently specified.

5 Press **[Enter]**.

The specified item will be displayed in the panel display.

6 If necessary, repeat steps **4** and **5** until you complete the desired settings.

 **Note**

- [Escape]**: Press to return to the previous menu. If you press this key before pressing **[Escape]**, the adjusted data is canceled.

Host Interface Menu

There are 3 menu items in the Host Interface Menu. This section describes how to set up the RS232C.

- Printer Lang.(Printer Language)
- Network Setup (⇒ See “Configuring the Printer for the Network with the Operation Panel” in the “Operating Instructions”.)
- RS232C Setup

Note

- This “Network Setup” menu appears only when you are using the optional network interface board.
- This "RS232C Setup" menu appears only when you are using the RS232C board.

3

Host Interface Parameters

❖ RS232C Setup

Menu	Description
Baud Rate	<p>You can specify Baud Rate. 600,1200,2400,4800,9600,19200,38400</p> <p> Note <input type="checkbox"/> Default: 9600</p>
Parity	<p>You can specify Parity.</p> <ul style="list-style-type: none"> • None • Odd • Even <p> Note <input type="checkbox"/> Default: <i>None</i></p>
Flow Control	<p>You can specify Flow Control.</p> <ul style="list-style-type: none"> • Xon/Xoff • DTR • DTR+ Xon/Xoff • DTR+RTS <p> Note <input type="checkbox"/> Default: <i>Xon/Xoff</i></p>

Menu	Description
Data Bits	You can specify Data Bits. <ul style="list-style-type: none"> • 8 • 7  Note <input type="checkbox"/> Default: 8
Stop Bits	You can specify Stop Bits. <ul style="list-style-type: none"> • 1 • 2  Note <input type="checkbox"/> Default: 1
DTR Polarity	You can specify DTR Polarity. <ul style="list-style-type: none"> • High • Low  Note <input type="checkbox"/> Default: <i>High</i>

Maintenance Menu

There are 5 menu items in the Maintenance Menu. This section describes how to format the HDD.

- System Reset
- Menu Reset
- Hex Dump
- PM Clear
- HDD Format

 **Note**

- This "HDD Format" menu appears only when you are using the HDD.

3

Maintenance Parameters

◆ Maintenance

Menu	Description
HDD Format	<p>You should perform the "HDD Format" after installing it to the printer.</p> <p> Reference</p> <p>⇒ P.4 "Type 1 Printer: Installing the HARD DISC DRIVE TYPE 2000"</p> <p>⇒ P.8 "Type 2 Printer: Installing the HARD DISC DRIVE TYPE 2000"</p>

List Print Menu

There are 4 menu items in the List Print Menu. This section describes about the DiskDirectory.

- Config. Page
- PCL Font List
- PS Font List
- DiskDirectory

3

List Print Parameters

❖ List Print

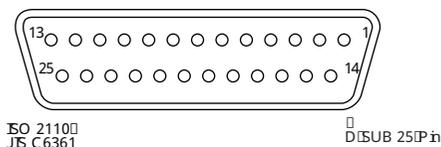
Menu	Description
DiskDirectory	You can print a DiskDirectory.

4. Appendix

Specifications of Serial Interface (RS232C)

The serial interface is shown in the following illustration.

The pin number express in figure in the illustration.



Pin	Signal	JIS C 6361	Direction of the signal printer - computer	Meaning of the signal
1	FG(Frame Ground)	FG		
2	TXD(Transmit Data)	SD	→	The data line from the printer to computer.
3	RXD(Receive Data)	RD	←	The data line from the computer to printer.
4	RTS(Ready To Send)	RS	→	Refer to the following table.
5	CTS(Clear To Send)	CS	←	It is possible to transmit the data from the computer to printer.
6	DSR(Data Set Ready)	DR	←	It is which is possible or not to transmit the data from the computer to printer. When the DSR is High, it is possible to resieve. When the DSR is Low, it is disregarded.
7	SG(Signal Ground)	SG		
8	(Reserved)CD	CD		
11	(Reserved)DSC	-		

Pin	Signal	JIS C 6361	Direction of the signal printer - computer	Meaning of the signal
20	DTR(Data Terminal Ready)	ER	→	The data line required to forward from the printer to computer. Refer to the following table.

The timings of the DTR signal and the RTS signal are shown in the following table.

Status of the printer	Signal	Serial DTR	Serial XON/XOFF	Serial DTR+RTS	Configuring the parallel port
offline	RTS	HIGH	HIGH	LOW	LOW
	DTR	LOW	HIGH	LOW	LOW
You cannot print cause of the paperend or opening the cover and so on.	RTS	HIGH	HIGH	LOW	LOW
	DTR	LOW	HIGH	LOW	LOW
Full of the buffer to receive	RTS	HIGH	HIGH	LOW	LOW
	DTR	LOW	HIGH	LOW	LOW
Under outputting	RTS	HIGH	HIGH	HIGH	LOW
	DTR	HIGH	HIGH	HIGH	

Specifications

Options

HARD DISC DRIVE TYPE 2000

- ❖ Type:

- ❖ Storage Capacity (Formatted):

- ❖ Disk Rotational Speed:

- ❖ Seek Time (Average):

- ❖ Host Interface:

RS232C BOARD TYPE 2000

Reference

⇒ P.25 "*Specifications of Serial Interface (RS232C)*"

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