



TOSHIBA TEC Bar Code Printer

B-SX4T, B-SX5T

Network Specification

First Edition: October 18, 2002

TOSHIBA TEC CORPORATION

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1. SCOPE

This specification applies to the network for the B-SX4T and the B-SX5T general purpose thermal label/tag printers.

2. GENERAL DESCRIPTION

With the optional PCMCIA board (B-9700-PCM-QM) and either the LAN card or the optional LAN interface board (B-9700-LAN-QM), the B-SX4T and the B-SX5T can be connected to the host by using TCP/IP.

NOTE: *If the ATA card has been inserted in Slot 1 on the PCMCIA board, be sure to press the [PAUSE] key before turning the printer OFF. (For more details, see chapter 12 "NOTES ON USING NETWORK FUNCTION".)*

3. APPLICABLE PROTOCOL

TCP/IP

4. IP ADDRESS SETTING

Each IP address should be set by using a command or in the system mode.

| | Initial value at shipment | Remark |
|---------------------------|---------------------------|--------|
| Printer IP address | 192. 168. 10. 20 | |
| Gateway IP address | 0. 0. 0. 0 | |
| Subnet mask | 255. 255. 255. 0 | |
| Socket communication port | OFF 8000 | |

5. NETWORK SPECIFICATIONS

This printer has the functions of the LPR server, Web printer, socket communication, FTP server, mail transmission/reception, and DHCP client, as the network specifications.

6. LPR SERVER

If the LAN card has been inserted into Slot 2 on the PCMCIA board, when the power is turned on or the LAN interface board has been installed, this printer starts up the printer daemon task.

6.1 REQUIREMENTS

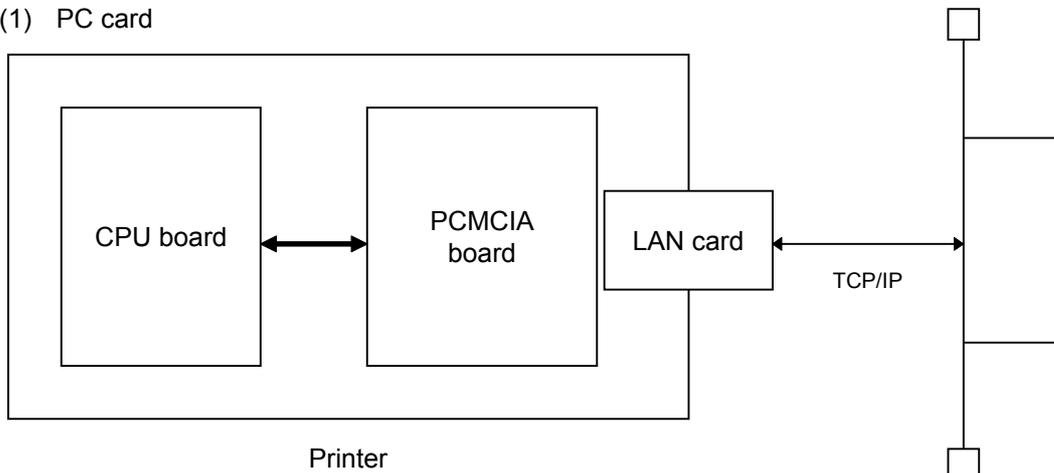
- LAN connection environment

Either 1) or 2) is required for LAN connection.

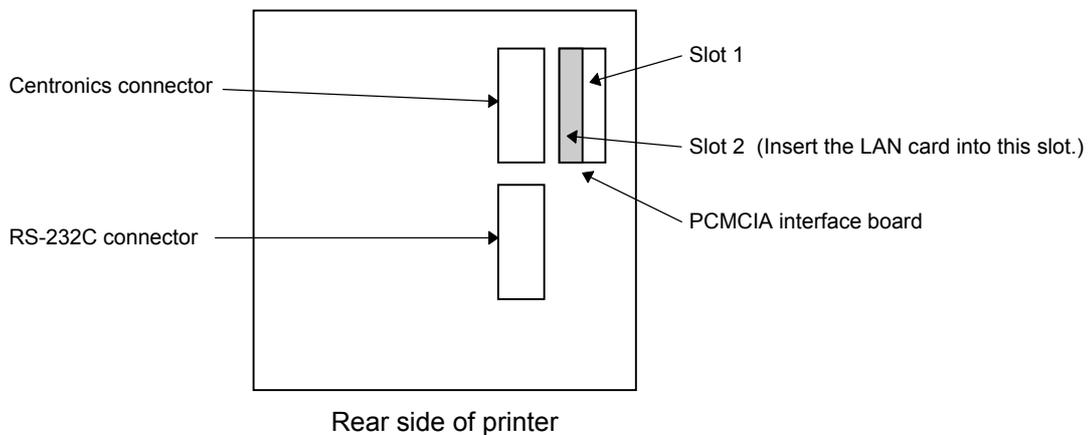
- 1) PC card
 - PCMCIA board (B-9700-PCM-QM)
 - LAN PC card (3CCE589ET manufactured by 3COM)
- 2) Interface board
 - LAN interface board (B-9700-LAN-QM)

6.2 CONNECTION DIAGRAM

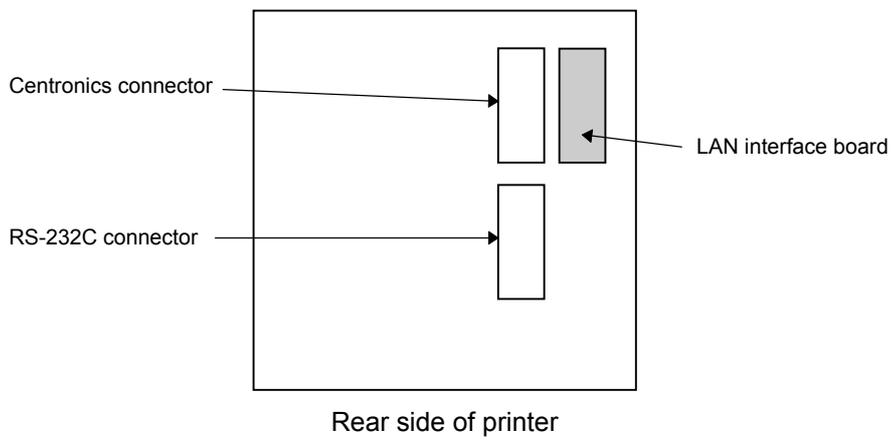
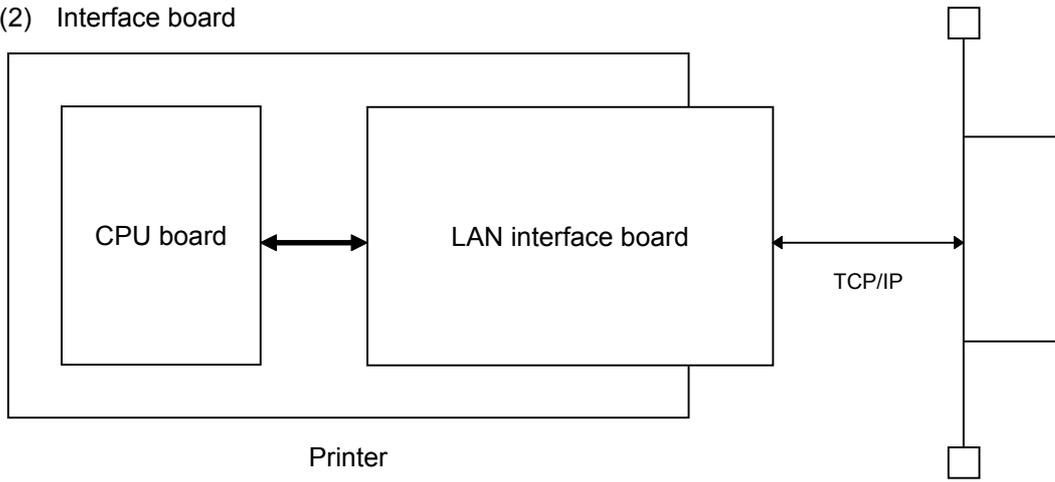
(1) PC card



There are 2 slots (Slot 1 and Slot 2) for PC cards on the PCMCIA board. Insert the LAN card into Slot 2. If it is inserted into Slot 1, it does not work.



(2) Interface board



7. WEB PRINTER

7.1 ABOUT THE WEB PRINTER

When the conditions below are satisfied, the following operations can be carried out from the browser on the PC: checking the printer status, issuing labels, confirming or changing the settings, and downloading the firmware.

The functions described above are called Web printer functions.

Conditions of Web printer operations:

- ① The Web printer setting in the system mode must be ON.
- ② The ATA card must be inserted into Slot 1.
- ③ The LAN connection environment must be provided.

7.2 REQUIREMENTS

- LAN connection environment

Either 1) or 2) is required for LAN connection.

1) PC card

- PCMCIA board (B-9700-PCM-QM)
- LAN PC card (3CCE589ET manufactured by 3COM)

2) Interface board

- LAN interface board (B-9700-LAN-QM)

- ATA card (Conforming to the PC CARD ATA Standard)

- Display files for the browser (*.htm, *.asp)

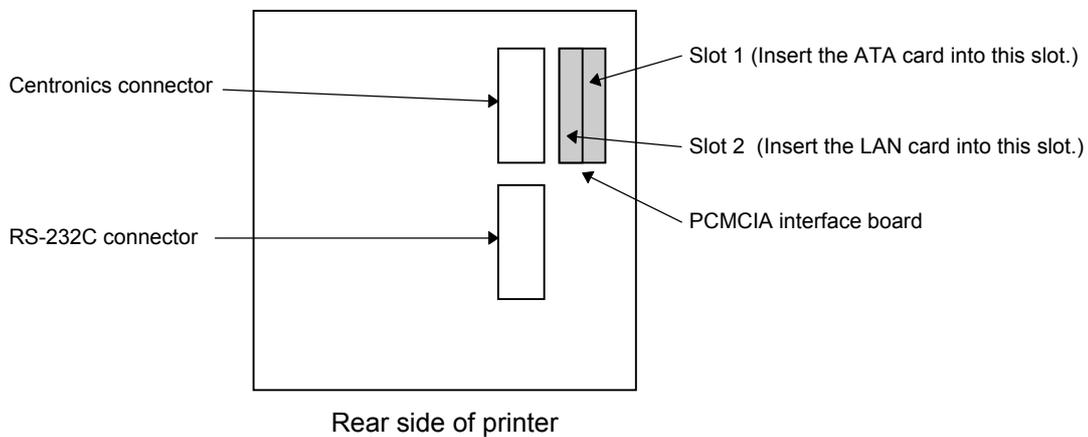
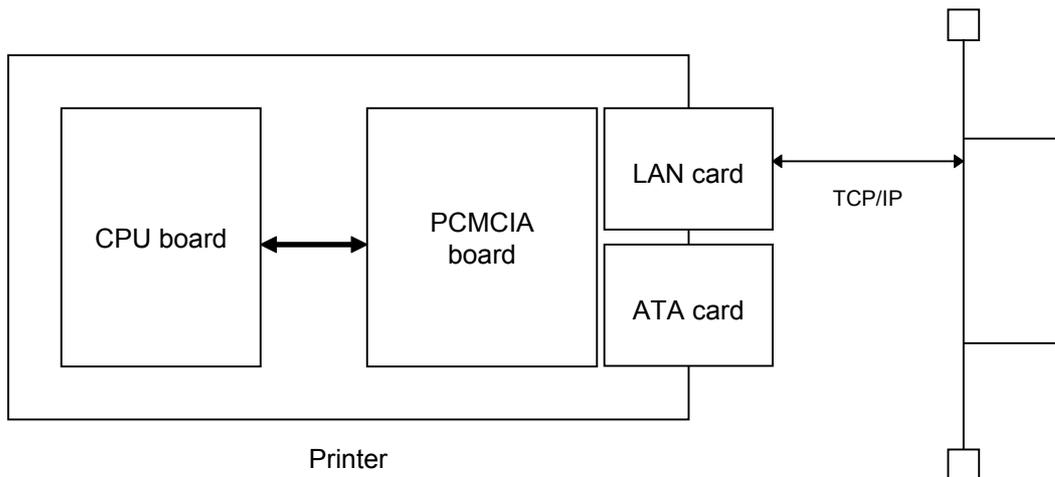
TOSHIBA TEC provides samples of display files (*.htm, *.asp).

Display files (*.htm, *.asp) include the following files.

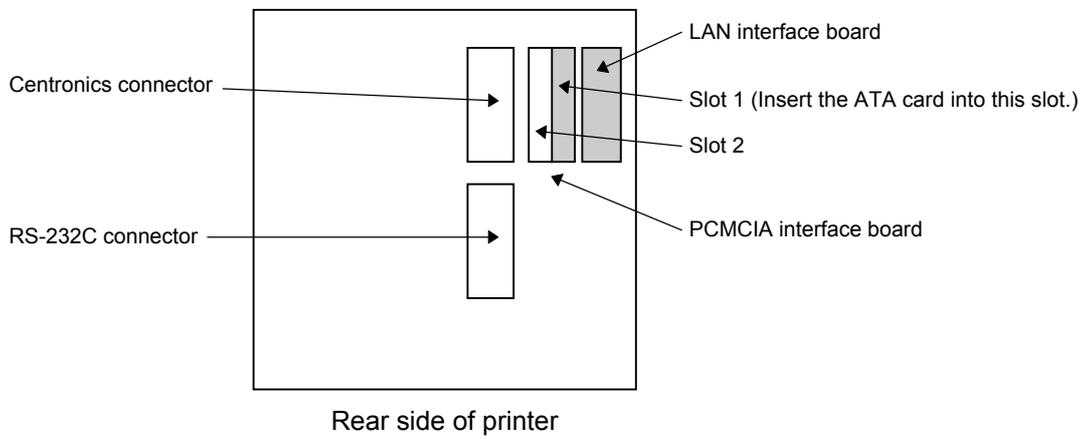
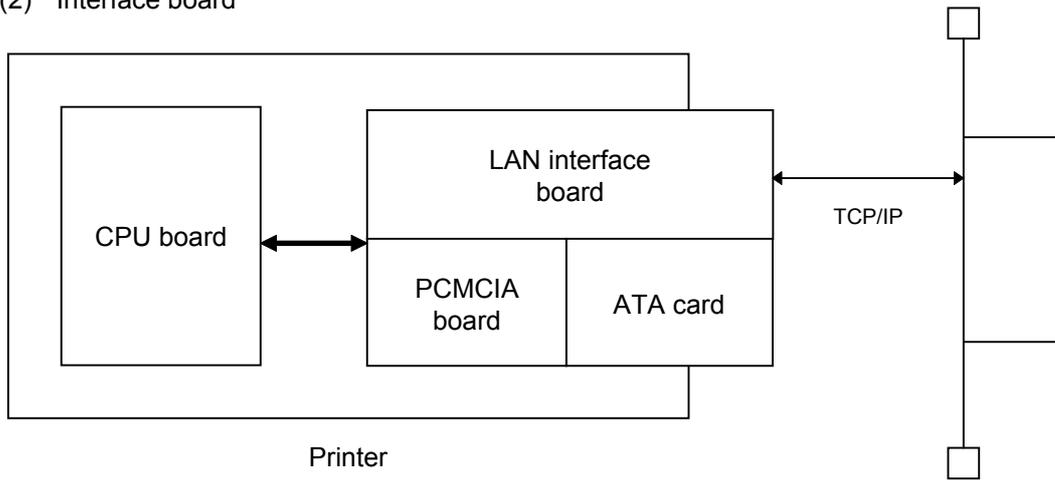
Default.htm
Headsens.htm
Mentctr.htm
Pmemu.htm
Prt_sts.htm
Psensor.htm
Ribbon.htm
Screen.htm
Temper.htm
File.asp
Pdown.asp
String.asp
llogin.htm
Params.htm
Spooler.htm
Overseae.htm

7.3 CONNECTION DIAGRAM

(1) PC card



(2) Interface board



7.4 WEB PRINTER SPECIFICATIONS

This section describes the Web printer specifications using sample display files (*.htm, *.asp).

7.4.1 Setup

- (1) To enable the Web printer function, the HTML files must be installed in the ATA card. The procedure for installation is as follows:
 - ① Insert the ATA card into the PC card slot if the notebook computer is used, or into the PC card adapter if the desktop computer is used.
 - ② After the ATA card is recognized and the drive is assigned, create the "SX_HTM" folder at the root level, and create the folder "TMP" under the level of "SX_HTM".
 - ③ Copy the display files (*.htm, *.asp) into the folder "SX_HTM". There are 16 display files. The "TMP" folder is used to store the temporary files.
 - ④ Confirm that the PC card can be removed safely, and then remove the ATA card.

To install display files, the FTP function is also available. For more details, refer to chapter 9 "FTP SERVER".

- (2) Insert the ATA card and the LAN card into Slot 1 and Slot 2 on the PCMCIA board, respectively.
- (3) Set the web printer function to ON in the system mode. For details on this procedure, refer to the Key Operation Specification (TAA-1379).

NOTE: After the display files (*.htm) are copied into the ATA card, check the file attributes. If "Read-only" is checked, it should be unchecked. If the file attribute is "Read-only", the Web function does not work properly.

7.4.2 Startup

Start up the browser on the PC (A JavaScript-enabled browser such as Internet Explorer or Netscape Navigator should be used.) to connect to the printer.

The "SX_HTM" folder is a root directory.

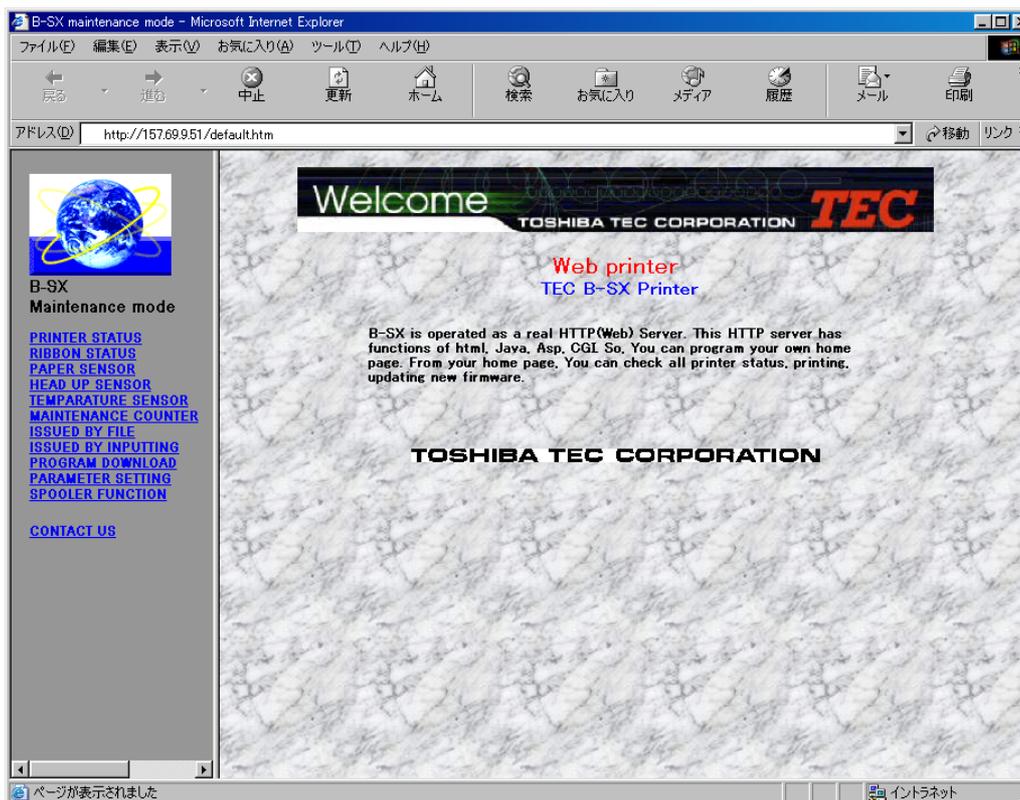
The address is either of the following:

<http://Printer IP address/>

or

<http://Printer IP address/default.htm>

[Top page]



7.4.3 Watching The Printer Status

Select the menu on the left of the window.

- ① **PRINTER STATUS:** Indicates the printer state.
(The display is updated every 3 seconds.)
 - IDLE HEAD CLOSE (The printer is in an idle state, and the head is closed.)
 - IDLE HEAD OPEN (The printer is in an idle state, and the head is opened.)
 - PRINTER WORKING (The printer is operating.)
 - PRINTER PAUSE (The printer is in a pause state.)
 - WAITING FOR PEEL OFF (The printer is waiting for a strip issue.)
 - SYNTAX ERROR (A command syntax error occurred.)
 - COMMUNICATION ERROR (A communication error occurred.)
 - PAPER JAM (A paper jam occurred.)
 - CUTTER ERROR (A cutter error occurred.)
 - NO PAPER (The paper has run out.)
 - NO RIBBON (The ribbon has run out.)
 - HEAD OPEN ERROR (Head open error occurred.)
 - THERMAL HEAD ERROR (Broken dots head error occurred.)
 - EXCESS HEAD TEMPERATURE (The head temperature is excessively high.)
 - RIBBON ERROR (Ribbon error occurred.)
 - REWINDER OVERFLOW (Rewinder overflowed)
 - FLASH SAVE MODE (In the save mode)
 - FLASH WRITE ERROR (A writing error occurred.)
 - FLASH ERASE ERROR (An erasing error occurred.)
 - FLASH MEMORY FULL (The remaining capacity is not sufficient.)
- ② **RIBBON STATUS:** Indicates the length of used ribbon.
(The display is updated every 3 seconds.)
 - RIBBON 1/8 (The used ribbon length is 1/8 of total length.)
 - RIBBON 2/8 (The used ribbon length is 2/8 of total length.)
 - ⋮
 - RIBBON 7/8 (The used ribbon length is 7/8 of total length.)
 - RIBBON 8/8 (The used ribbon length is 8/8 of total length.)
- ③ **PAPER SENSOR:** Indicates the level of the paper sensor.
(The display is updated every 3 seconds.)
 - TRANSMISSIVE SENSOR: *.* V (Input level for the transmissive sensor: 0.0 V to 5.0 V)
 - REFLECTIVE SENSOR: *.* V (Input level for the reflective sensor: 0.0 V to 5.0 V)
- ④ **HEAD UP SENSOR:** Indicates the head up sensor status.
(The display is updated every 3 seconds.)
 - HEAD CLOSED (The head is closed.)
 - HEAD OPEN (The head is opened.)
- ⑤ **TEMPERATURE SENSOR:** Indicates the temperature sensor status.
(The display is updated every 3 seconds.)
 - HEAD TEMPERATURE: ** °C (Head temperature)
 - OUTSIDE TEMPERATURE: ** °C (Outside air temperature)

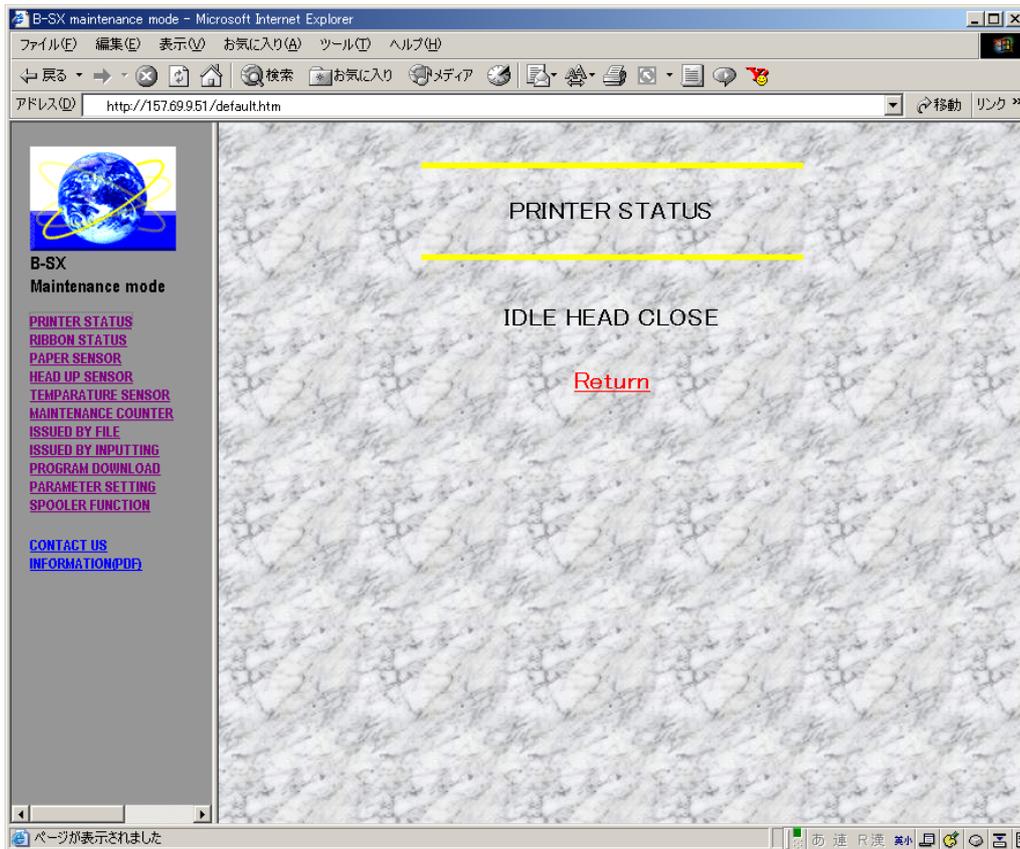
© MAINTENANCE COUNTER: Indicates the values for various counters such as the label distance covered. (The display is updated every 3 seconds.)

- TOTAL FEED: *.* km (Total label distance covered)
- FEED: *.* km (Label distance covered)
- PRINT: *.* km (Print distance)
- CUT COUNT: **** (Cut count)
- HEAD UP/DOWN COUNT: **** (Head up/down count)
- RIBBON WORK TIME: **h (Ribbon motor drive time)
- SOLENOID WORK TIME: **h (Head-up solenoid drive time)
- RS-232C ERROR COUNT: **** (RS-232C communication error count)
- SYSTEM ERROR COUNT **** (System error count)
- POWER FAILURE COUNT: **** (Momentary power interruption count)

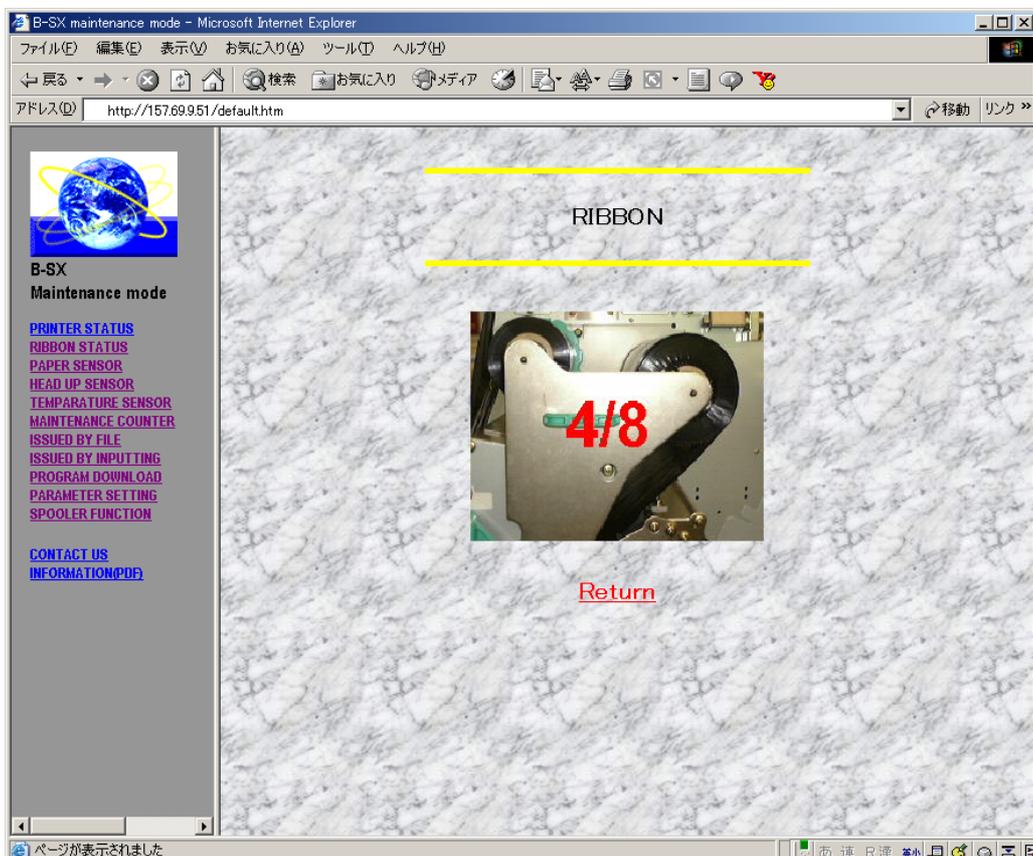
Examples for status display are shown on the following pages.

[Display Examples]

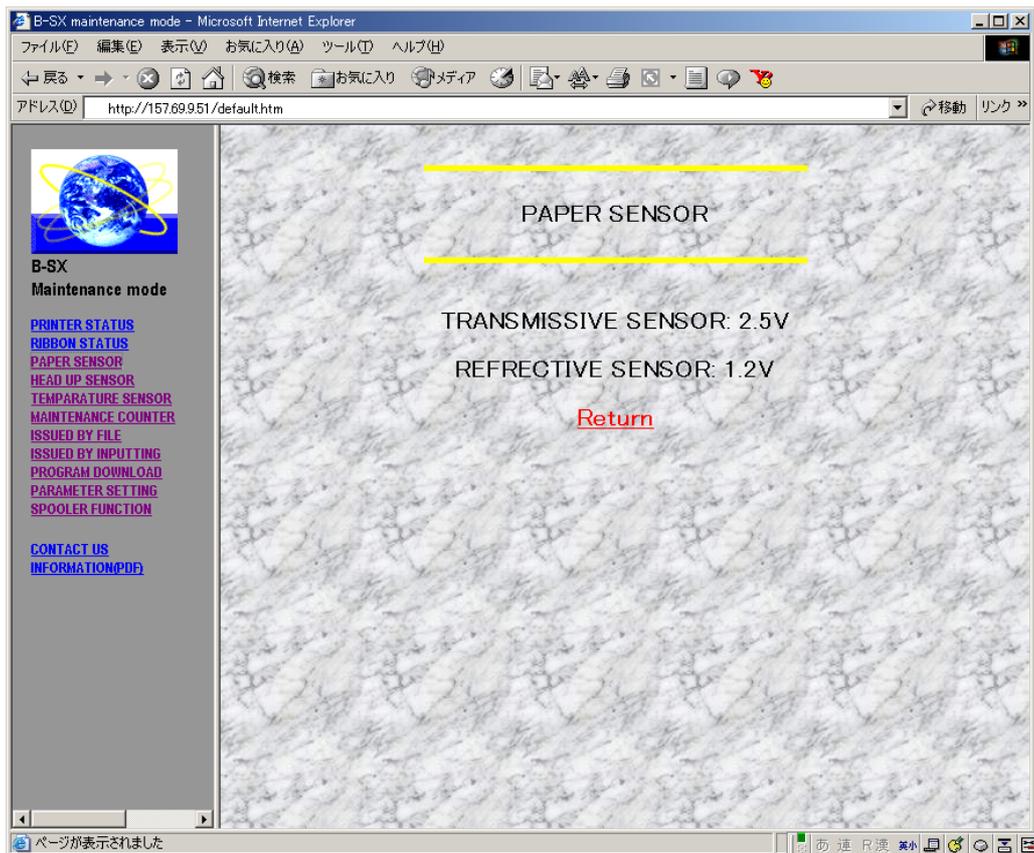
PRINTER STATUS (The printer is in an idle state and the head is closed.)



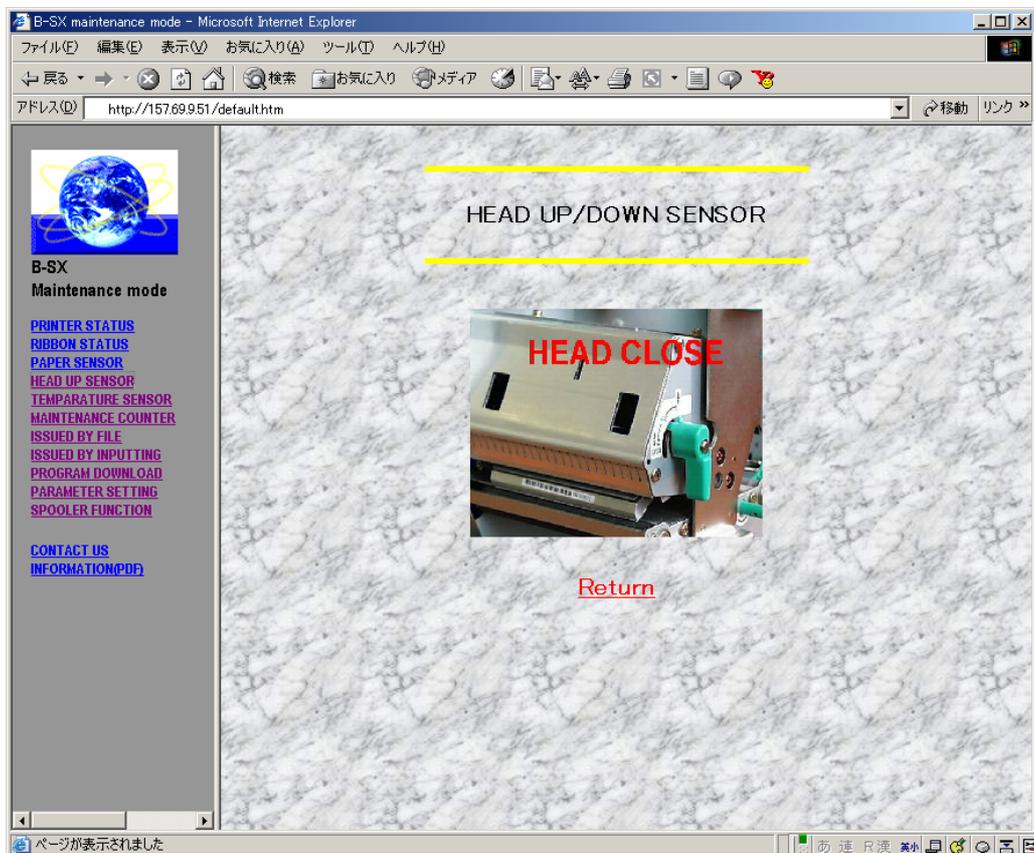
RIBBON STATUS (The used ribbon length is 4/8 of the total length.)



PAPER SENSOR (Transmissive sensor: 2.5 V/Reflective sensor: 1.2 V)



HEAD UP SENSOR (The head is closed.)



TEMPERATURE SENSOR (Head temperature: 24 °C/Outside air temperature: 24 °C)

B-SX maintenance mode - Microsoft Internet Explorer
ファイル(F) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)
戻る 進む 検索 お気に入り メディア 印刷 設定 移動 リンク

アドレス(D) http://157.69.9.51/default.htm


B-SX
Maintenance mode

[PRINTER STATUS](#)
[RIBBON STATUS](#)
[PAPER SENSOR](#)
[HEAD UP SENSOR](#)
[TEMPERATURE SENSOR](#)
[MAINTENANCE COUNTER](#)
[ISSUED BY FILE](#)
[ISSUED BY INPUTTING](#)
[PROGRAM DOWNLOAD](#)
[PARAMETER SETTING](#)
[SPOOLER FUNCTION](#)

[CONTACT US](#)
[INFORMATION\(PDF\)](#)

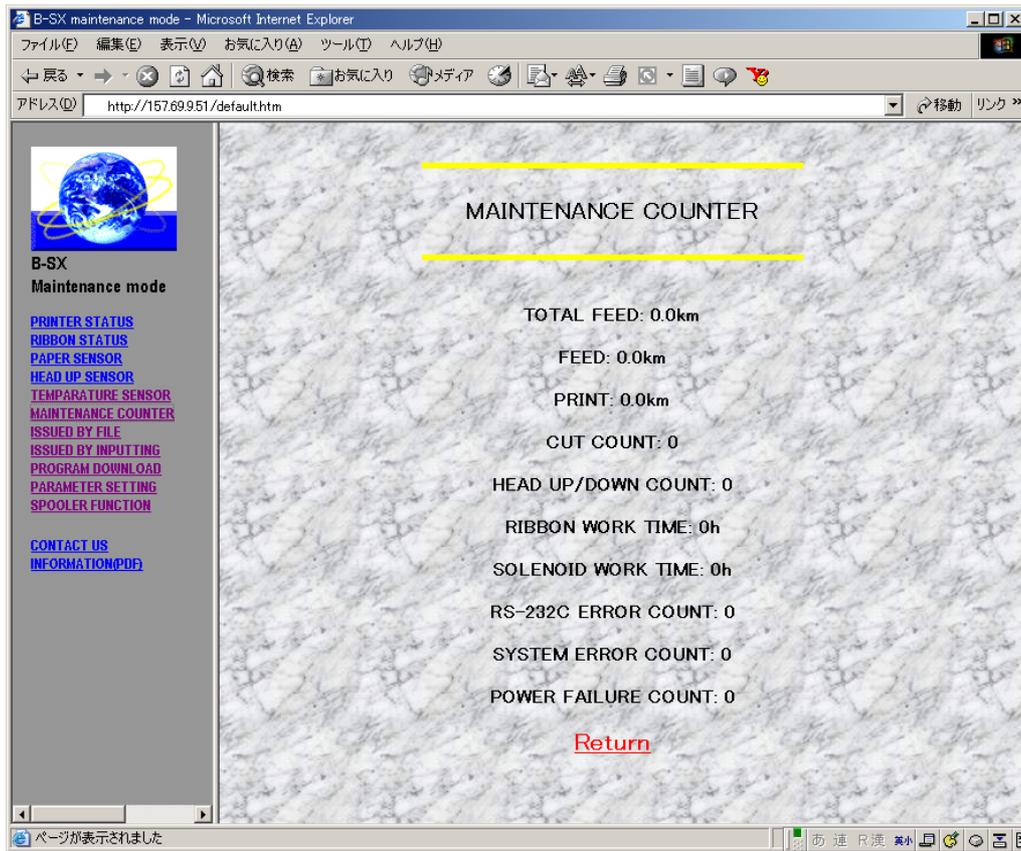
TEMPERATURE SENSOR

HEAD TEMPERATURE: 24°C
OUTSIDE TEMPERATURE: 24°C

[Return](#)

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MAINTENANCE COUNTER



B-SX maintenance mode - Microsoft Internet Explorer

アドレス(D) http://157.69.9.51/default.htm

B-SX
Maintenance mode

[PRINTER STATUS](#)
[RIBBON STATUS](#)
[PAPER SENSOR](#)
[HEAD UP SENSOR](#)
[TEMPERATURE SENSOR](#)
[MAINTENANCE COUNTER](#)
[ISSUED BY FILE](#)
[ISSUED BY INPUTTING](#)
[PROGRAM DOWNLOAD](#)
[PARAMETER SETTING](#)
[SPOOLER FUNCTION](#)

[CONTACT US](#)
[INFORMATION/PDF](#)

MAINTENANCE COUNTER

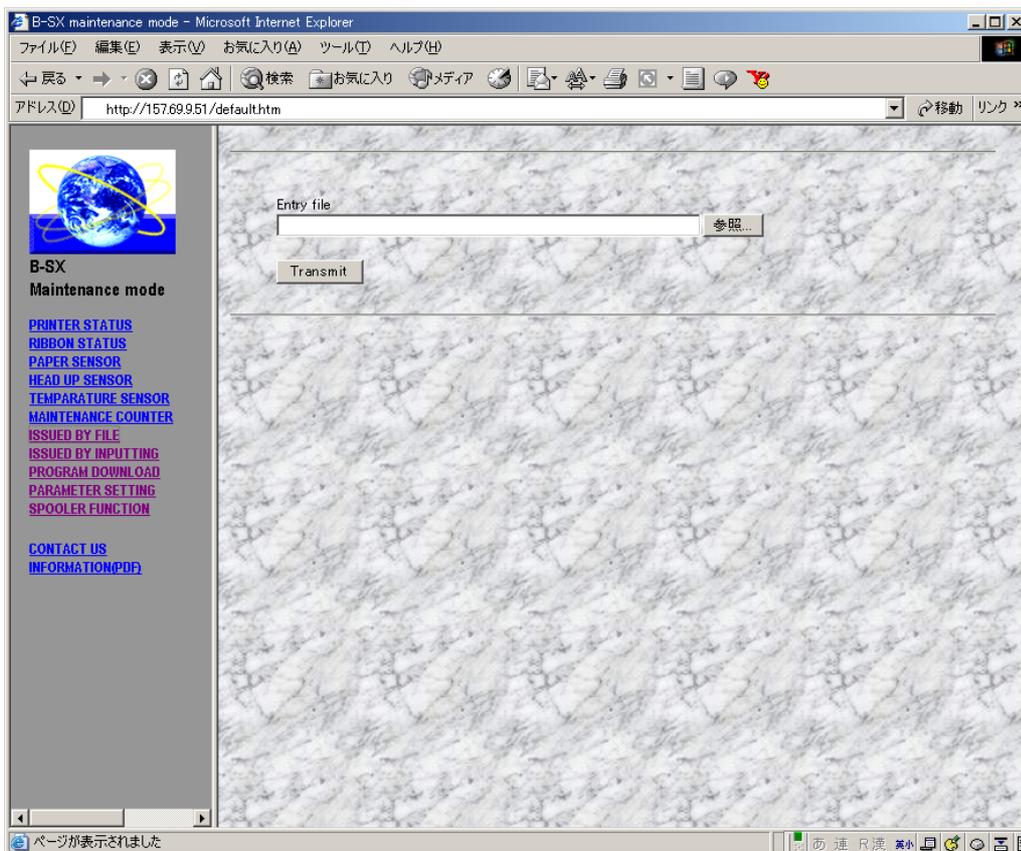
TOTAL FEED: 0.0km
FEED: 0.0km
PRINT: 0.0km
CUT COUNT: 0
HEAD UP/DOWN COUNT: 0
RIBBON WORK TIME: 0h
SOLENOID WORK TIME: 0h
RS-232C ERROR COUNT: 0
SYSTEM ERROR COUNT: 0
POWER FAILURE COUNT: 0

[Return](#)

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7.4.4 Issuing Labels

- (1) Select "ISSUED BY FILE" from the menu at the left of the window.



Select the file to be transmitted, then click on the [Transmit] button.

The file to be transmitted is a text file in which commands are described.

When the Issue Command is described in this file, an issue is performed.

NOTE: The ATA card must have free space greater than the size of the file to be transmitted to the ATA card, since temporary files are created in the ATA card.

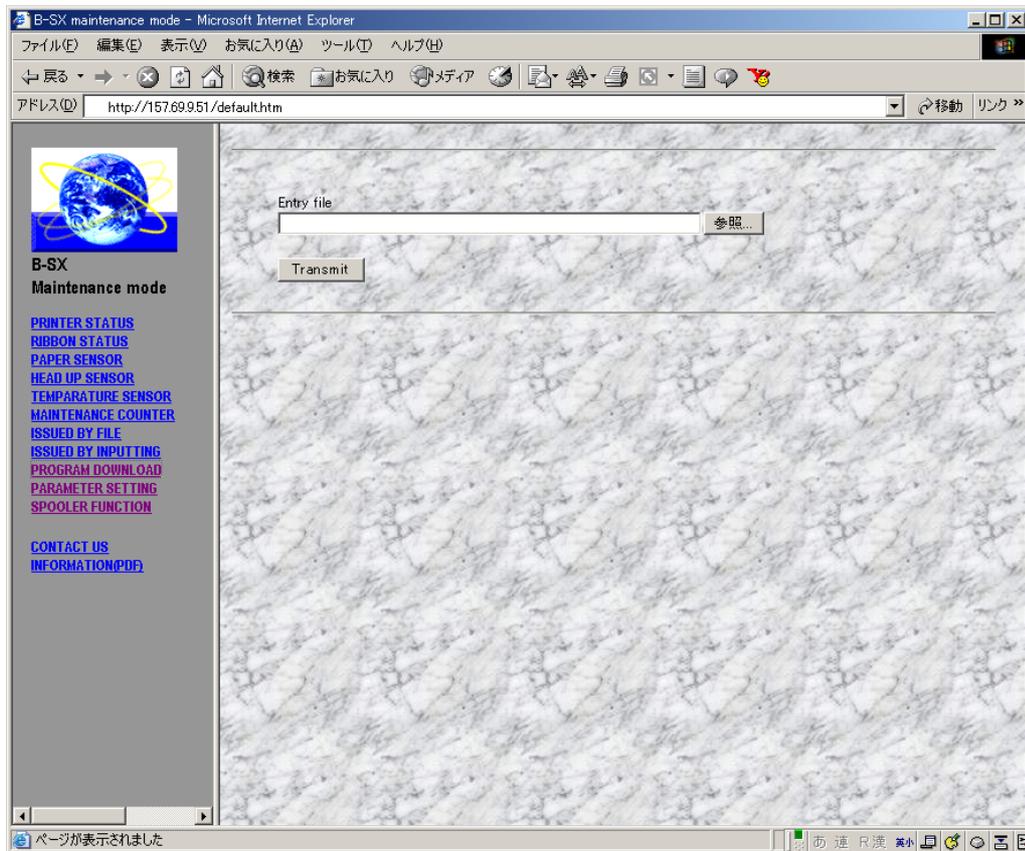
(2) Select "ISSUED BY INPUTTING" from the menu at the left of the window.

Input data in each item field, and then click on the [Issue] button. Data is printed in the specified format.

NOTE: The ATA card must have free space greater than the size of the file to be transmitted to the ATA card, since temporary files are created in the ATA card.

7.4.5 Downloading Firmware Files

- (1) Select "PROGRAM DOWNLOAD" from the menu at the left of the window.



Select the firmware file to be downloaded, then click on the [Transmit] button.

There is a difference between the firmware file format that is transmitted here and that which is transmitted by the program downloader (for a Centronics/RS-232C).

The firmware used by the program downloader is a binary file of the program file itself.

However, for the file to be used here, the Loading Prepare Command and the Program Data Command should be attached before the firmware file for the program downloader.

(Example)

When the size of the firmware file for the program downloader is 1280 Kbytes, the following command should be attached before it.

```
[ESC]LD;0x00 0x0A 0x00 0x00,0x05 0x00[LF][NUL][ESC]LP;
```

Indicates the firmware size (KB) in hex.
1280 (KB) = 0x0500

Indicates the address where the firmware files are downloaded.

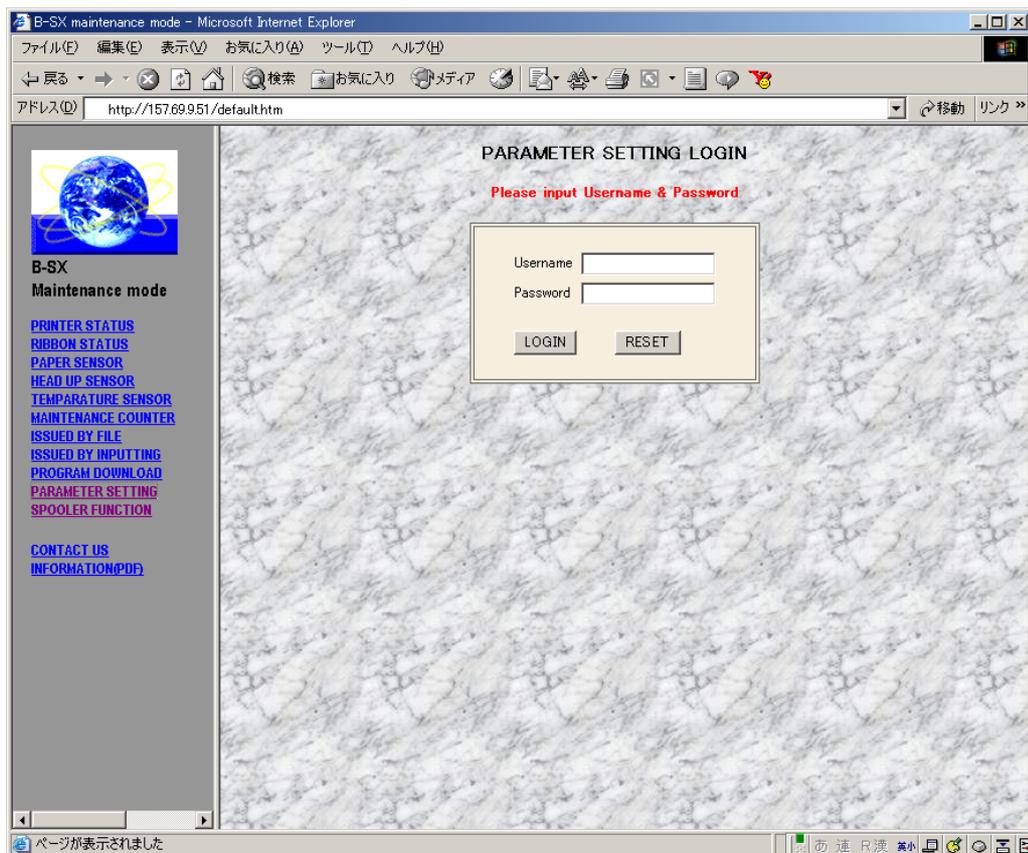
Address: 0x000A0000

If the proper Loading Prepare Command and the Program Data Command are not attached, the message "LOADING ERROR" is displayed on the LCD. The firmware file is not downloaded.

NOTE: The ATA card must have free space greater than the size of the file to be transmitted to the ATA card, since temporary files are created in the ATA card.

7.4.6 Changing Parameters

- (1) Select “PARAMETER SETTING” from the menu at the left of the window.



Enter the user name and the password in the PARAMETER SETTING LOGIN display.

If they are entered correctly, the parameter setting display appears.

The user name and the password to be entered here must be the same as the administrator name and password described in the “\pass\pass.txt” file (/ATA0/PASS/PASS.TXT).

For details on how to describe the password file, refer to section 9.4 “FTP Server Specifications”.

The current parameter settings are displayed.

To change the setting, change a value, then click on the [SUBMIT] button.

The printer is then restarted to make the changes take effect.

| | | | | | | | |
|---------------------|-------------------------------------|----|------|---------------------|-------------------------------------|----|------|
| FEED ADJUST: | 0 | UP | DOWN | CUT ADJUST: | 0 | UP | DOWN |
| BACK ADJUST: | 0 | UP | DOWN | X ADJUST: | 0 | UP | DOWN |
| TONE ADJUST(T): | 0 | UP | DOWN | TONE ADJUST(D): | 0 | UP | DOWN |
| FONT CODE: | PC-850 | | | ZERO FONT SLASH: | <input type="checkbox"/> | | |
| SPEED: | 9600bps | | | DATA LENGTH: | 8bits | | |
| STOP BIT: | 1bit | | | PARITY: | NONE | | |
| CONTROL: | XON+READY AUTO | | | MESSAGE: | ENGLISH | | |
| FORWARD WAIT: | <input checked="" type="checkbox"/> | | | FORWARD WAIT POS: | 0 | UP | DOWN |
| HEAD UP CUT: | <input type="checkbox"/> | | | RIBBON SAVE: | <input type="checkbox"/> | | |
| CODE : | AUTO | | | CODE1: | 1B | UP | DOWN |
| CODE2: | 0A | UP | DOWN | CODE3: | 00 | UP | DOWN |
| RIBBON ADJUST (FW): | 0 | UP | DOWN | RIBBON ADJUST (BK): | 0 | UP | DOWN |
| STATUS: | TYPE 1 | | | FEED KEY: | FEED | | |
| THRESHOLD (R): | 1 | UP | DOWN | THRESHOLD(T): | 1.4 | UP | DOWN |
| KANJI CODE: | TYPE 1 | | | EURO CODE: | B0 | UP | DOWN |
| AUTO HEAD CHECK: | <input type="checkbox"/> | | | ACK/BUSY: | TYPE 1 | | |
| WEB PRINTER: | <input checked="" type="checkbox"/> | | | INPUT PRIME: | <input checked="" type="checkbox"/> | | |
| RBN NEAR END: | OFF | | | EXP. IO: | TYPE 1 | | |
| CENTRO | SPP | | | PLUG & PLAY: | <input checked="" type="checkbox"/> | | |

- NOTES:**
- Only when the control code is set to “Auto” or “{ | }”, this function is available.
 - When the BASIC interpreter function is ON, the parameter setting function is unavailable.

7.4.7 Spooler Function

(1) About the spooler function

This function enables to display files stored in the specified folder of the ATA card as print jobs. This function also enables to request to issue, delete, and reissue a print job, and to issue or delete all print jobs from a browser.

Print jobs can be stored in the ATA card, using the FTP function or the mail function. There are three types of print jobs, a real-time print job, a spooled print job, and a completed job. A real-time print job is printed immediately when it is stored in the ATA card. If a spooled print job is stored in the ATA card, it is not printed until printing is requested from the browser. For both print job types, after print data is transferred, the print job is stored in the ATA card as a completed job.

(2) Setup

1) To store print jobs, create three folders in the ATA card.

- PRTDATA folder (/ATA0/PRTDATA).....for storing real-time print jobs
- PRTPOOL folder (/ATA0/PRTPOOL).....for storing spooled print jobs
- PRTEND folder (/ATA0/PRTEND).....for storing completed jobs

2) Describe the update interval for the spooler function screen on the setup file. The setup file should be saved as "http.ini" in the "http" folder on the ATA card.

How to describe the interval on the setup file is as follows:

- Update interval for the spooler function screen

| |
|--------|
| Format |
|--------|

 INTERVAL=5

Set the update interval (sec.) for the spooler function screen.

An interval within the 0- to 32767- sec. range (approximately 9 hours) can be set.

Setup file example:

\\http\http.ini (/ATA0/HTTP/HTTP.INI)

A line starting with # means a comment line and is not processed.

INTERVAL=5

In this case, the spooler function screen is updated every 5 seconds.

NOTES: • If there is no "http" folder or "http.ini" file on the ATA card, the spooler function screen is updated every 5 seconds.

• If the interval value is set to "0", the spooler function screen is not updated.

(3) Operation

The printer performs the following operation:

- 1) The printer always monitors the PRTDATA folder. Files stored in the PRTDATA folder are recognized as real-time print jobs. The moment when a file is stored in the PRTDATA, the printer:
 1. Transfers the print data.
 2. After transferring the print data, moves the file from the PRTDATA folder to the PRTEND folder as a completed job.

If there are two or more files in the PRTDATA folder, the printer transfers print data of them in succession, by repeating steps 1 and 2.

- 2) When receiving a request to delete a real-time print job, which is sent from the browser, the printer deletes the file from the PRTDATA folder.
- 3) Files stored in the PRTPOOL folder are recognized as spooled print jobs. They are stored in the PRTPOOL folder until the printer receives a request to print from the browser. When receiving a request to print, the printer moves the file from the PRTPOOL folder to the PRTDATA folder as a real-time print job, and performs the operation as in 1 above.
- 4) When receiving a request to delete a spooled print job, which is sent from the browser, the printer deletes the file from the PRTPOOL folder.
- 5) Files in the PRTEND folder are recognized as completed jobs, and are stored in the PRTEND folder. When receiving a request to reprint a completed job, the printer moves the file from the PRTEND folder to the PRTDATA folder as a real-time print job, and performs the operation as in 1 above.
- 6) When receiving a request to delete a completed job, which is sent from the browser, the printer deletes the file from the PRTEND folder.
- 7) When receiving a request to print all print jobs, which is sent from the browser, the printer moves all spooled print jobs from the PRTPOOL folder to the PRTDATA folder as real-time print jobs, and performs the operation as in 1 above repeatedly to print all spooled print jobs.
- 8) When receiving a request to delete all print jobs, the printer deletes all files from the PRTPOOL and PRTEND folders.
- 9) The spooler function screen is always updated at intervals of seconds specified in the "http.ini" file. The spooler function screen displays the printer status, the remaining number of print data to be transferred, the remaining memory capacity of the ATA card, print jobs, the [All Issue] button, and the [All Delete] button.

(4) How to store print jobs

To store a real-time print job, write a file into the PRTDATA folder in the ATA card. To store a spooled print job, write a file into the PRTPOOL folder in the ATA card.

NOTE: Specify the print job name (file name) with a maximum of 8 and 3 alphanumeric characters for a file name and an extension, respectively.

File name format: ○○○○○○○○.□□□
Job name (File name) Extension

If the same print job name (file name) as the existing file is used, new data will overwrite.

- Using the FTP function

Connect to the printer via FTP. To store a real-time print job, copy a file into the PRTDATA folder in the ATA card. To store a spooled print job, copy a file into the PRTPOOL folder in the ATA card. For details on the FTP functions, see chapter 9 “FTP SERVER”.

- Using the mail function

Attach a file to be stored as a print job to e-mail, and input the printer’s mail address. Then, send e-mail to the printer.

To store a file as a real-time print job, the subject should include “PRTDATA:”. To store a file as a spooled print job, the subject should include “PRTPOOL:”. For details on the mail functions, see chapter 10 “MAIL FUNCTION”.

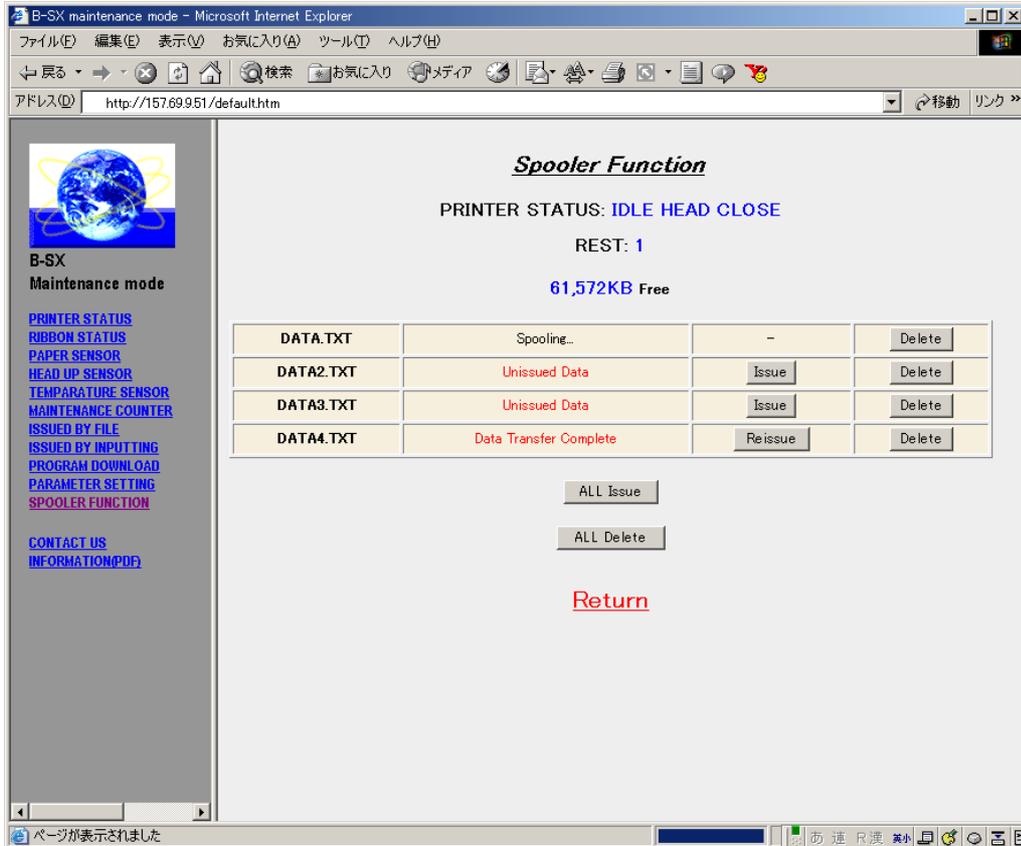
NOTES: • *If any subject other than “PRTDATA:” and “PRTPOOL:” is described, the printer prints an attached file immediately when receiving e-mail. The file is not stored on the ATA card as a print job.*

- *When a print job is stored by sending a file by e-mail, a temporary file is created on the ATA card. Therefore, the ATA card requires 4-times larger free space than the file size to be sent. If the ATA card does not have enough free space, the printer does not receive e-mail. The e-mail is not deleted from the mail server, but remains there.*

(5) Spooler function screen

Select “SPOOLER FUNCTION” from the menu at the left of the window.

Example:



“PRINTER STATUS:” indicates the current print status. “REST:” indicates the remaining number of print jobs to be transferred. “**, ** KB Free” indicates the free memory capacity of the ATA card. According to the above screen, the printer is working. The remaining number of print jobs to be transferred is “1”. The free memory capacity of the ATA card is 61,572 KB.

The print jobs are listed below these items. From the left, job (file) names, job statuses, the [Issue] button or the [Reissue] button, and the [Delete] button are placed. The print jobs are listed in the order from real-time print jobs (stored in the PRTDATA folder and are being transferred currently), spooled print jobs (stored in the PRTPOOL folder), and completed jobs (stored in the PRTEND folder).

The status of the currently transferred jobs is shown as “Spooling...”. The status of the spooled print job and the completed job are shown as “Unissued Data” and “Data Transfer Complete”, respectively. According to the above screen, “DATA.TXT” is a job which is being transferred currently. “DATA2.TXT” and “DATA3.TXT” are spooled print jobs. “DATA4.TXT” is a completed job.

To print all spooled print jobs, click on the [All Issue] button. To delete all spooled print jobs and completed jobs, click on the [All delete] button.

- (6) Operation example **NOTE:** *For explanations about the screen, refer to the screen on the previous page. Descriptions inside the parentheses indicate job statuses.*

When the [Delete] button placed on the right of "DATA.TXT" is clicked, "DATA.TXT" is deleted.

When the [Issue] button placed on the right of "DATA2.TXT" is clicked, the print data of "DATA2.TXT" is transferred (Spooling...). After being transferred, "DATA2.TXT" becomes a completed job (Data Transfer Complete).

When the [Delete] button placed on the right of "DATA2.TXT" is clicked, "DATA2.TXT" is deleted.

When the [Reissue] button placed on the right of "DATA4.TXT" is clicked, the print data of "DATA4.TXT" is transferred (Spooling...). After being transferred, "DATA4.TXT" becomes a completed job again (Data Transfer Complete).

When the [Delete] button placed on the right of "DATA4.TXT" is clicked, "DATA4.TXT" is deleted.

When the [All Issue] button is clicked, all spooled print jobs are printed. According to the screen, "DATA2.TXT" and "DATA3.TXT" are printed. The print data of "DATA2.TXT" and "DATA3.TXT" are transferred in succession (Spooling...). After being transferred, "DATA2.TXT" and "DATA3.TXT" become completed jobs (Data Transfer Complete).

If there are two or more spooled print jobs when the [All Issue] button is clicked, the print data of spooled print jobs is transferred in succession (Spooling...). After being transferred, print jobs become completed jobs in the order in which the print data is transferred (Data Transfer Complete).

When the [All Delete] button is clicked, all spooled print jobs and completed jobs are deleted. According to the screen, three jobs "DATA2.TXT", "DATA3.TXT", and "DATA4.TXT" are deleted.

Immediately when a print job is stored in the PRTRDATA folder, "Spooling..." is displayed as the job status.

Immediately when a print job is stored in the PRTRPOOL folder, "Unissued Data" is displayed as the job status.

- NOTES:**
1. The printer updates the spooler function screen at intervals of seconds specified in the "http.ini" file. If the timing of updating the screen is off when printing is attempted, the printer status, "Data Transfer Complete" may be displayed without displaying "Spooling...". This is because the data has already been transferred when the spooler function screen was updated.

Even if the timing of updating the screen is off when data transfer is completed, the printer status, "Spooling..." may be displayed, not "Data Transfer Complete". This is because the spooler function screen was not yet updated, even though the data had already been transferred.

2. The printer updates the spooler function screen at intervals of seconds specified in the "http.ini" file. Therefore, if the timing of updating the screen is off, the spooler function screen may not display the latest information. In this case, if you click the button on the browser, the printer may not work properly, because there is no applicable file on the printer, even though it is displayed on the browser. See an example below:

Example: Update interval = 10,

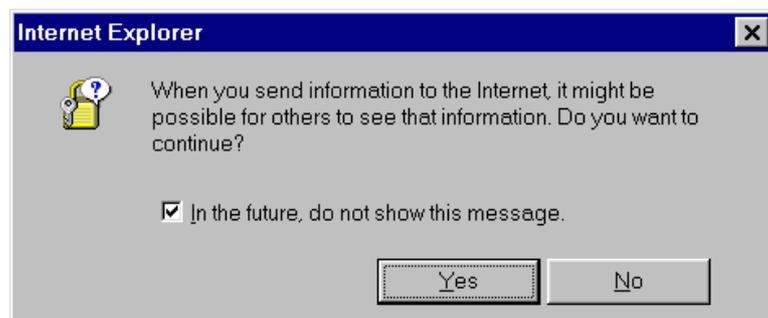
The "DATA.TXT" file is stored in the PRTPOOL folder.

1. The spooler function screen is updated. The "DATA.TXT" file is displayed as a spooled print job.
(Since the update interval is 10, the spool function screen is not updated until 10 seconds have elapsed.)
2. During the 10 seconds until the spooler function screen is updated, the "DATA.TXT" file is deleted by using the FTP function. At this time, the spool function screen is not yet updated. Therefore, the "DATA.TXT" file is still displayed as a spooled print job.
3. Then, if you click on the [Issue] button on the browser to print the "DATA.TXT" file before the screen is updated, the printer does not print it, since there is no "DATA.TXT" file.

When the update interval is set to a large number of seconds on the "http.ini" file, such case may happen. It is preferable that the spooler function screen is manually updated, before clicking on a button on the browser.

3. If the security level of Internet Explorer is set to "High", the message below appears and operations for the spooler function screen are not performed properly.

Example: When clicking on a button on the spooler function screen, the dialog below appears.



7.5 CUSTOMIZATION OF HTML FILE

The sample display file can be edited and customized. However, the scripts before "Please do not change above script" described below must not be changed.

(Ex.) Prt_sts.htm

```
<META HTTP-EQUIV="Refresh" CONTENT="3">
<META HTTP-EQUIV="Pragma" CONTENT="no-cache">
<SCRIPT LANGUAGE="JAVASCRIPT">
<!--
sts= 1; ←———— The value for sts will be changed by the printer any time.
// -->
</SCRIPT>
<! sts = 1 : idle head close          >
<! sts = 2 : idle head open          >
<! sts = 3 : printer working         >
<! sts = 4 : pause                   >
<! sts = 5 : wait for peel off       >
<! sts = 6 : syntax error            >
<! sts = 7 : communication error     >
<! sts = 8 : paper jam               >
<! sts = 9 : cutter error            >
<! sts = 10 : no label               >
<! sts = 11 : no ribbon              >
<! sts = 12 : head open error        >
<! sts = 13 : thermal head error     >
<! sts = 14 : excess head temperature >
<! sts = 15 : ribbon error           >
<! sts = 16 : rewinder overflow      >
<! sts = 17 : saving mode            >
<! sts = 18 : flash write error      >
<! sts = 19 : flash erase error      >
<! sts = 20 : flash memory full     >
<!------- Please do not change above script ----->
<TITLE> idle head down </TITLE>
</HEAD>
<BODY>
<BODY LINK="#0000ff" VLINK="#800080" BACKGROUND="Image19.jpg">
<BR>
<HR SIZE="5"WIDTH="50%"ALIGN="center"COLOR="YELLOW">
<P>
<CENTER>
<H1>PRINTER STATUS</H1>
</CENTER>
<HR SIZE="5"WIDTH="50%"ALIGN="center"COLOR="YELLOW">
<P>
<BR>
<CENTER>
<H1>
<SCRIPT LANGUAGE="JAVASCRIPT">
<!--
```

These lines must not be changed.

```
if (sts == 1){
pstatus = "IDLE HEAD CLOSE";
}
if (sts == 2){
pstatus = "IDLE HEAD OPEN";
}
if (sts == 3){
pstatus = "PRINTER WORKING";
}
if (sts == 4){
pstatus = "PRINTER PAUSE";
}
if (sts == 5){
pstatus = "WAITING FOR PEEL OFF";
}
if (sts == 6){
pstatus = "SYNTAX ERROR";
}
if (sts == 7){
pstatus = "COMMUNICATION ERROR";
}
if (sts == 8){
pstatus = "PAPER JAM";
}
if (sts == 9){
pstatus = "CUTTER ERROR";
}
if (sts == 10){
pstatus = "NO PAPER";
}
if (sts == 11){
pstatus = "NO RIBBON";
}
if (sts == 12){
pstatus = "HEAD OPEN ERROR";
}
if (sts == 13){
pstatus = "THERMAL HEAD ERROR";
}
if (sts == 14){
pstatus = "EXCESS HEAD TEMPERATURE";
}
if (sts == 15){
pstatus = "RIBBON ERROR";
}
if (sts == 16){
pstatus = "REWINDER OVERFLOW";
}
if (sts == 17){
pstatus = "FLASH SAVE MODE";
```

```

}
if (sts == 18){
pstatus = "FLASH WRITE ERROR";
}
if (sts == 19){
pstatus = "FLASH ERASE ERROR";
}
if (sts == 20){
pstatus = "FLASH MEMORY FULL";
}
document.write (pstatus) ;
// -->
</SCRIPT>

</H1>
</CENTER>
<P>
<BR>
<A HREF="default.htm"target="_top">
<B><FONT COLOR="#FF0000"><H1><P ALIGN="center">Return</P></H1></FONT></B>
</A>
</BODY>
</HTML>

```

In the file (*.asp) for a label issue or for the firmware download, the scripts specifying that the transmission will be performed in the binary mode, must not be changed.

(Ex.) File.asp

```

<HTML><HEAD><TITLE>Issue by file transmisson</TITLE></HEAD>
<BODY LINK="#0000ff" VLINK="#800080" BACKGROUND="Image19.jpg">
  <HR>
  <BLOCKQUOTE>
    <BR>
    <FORM action=/form/formFile method=POST ENCTYPE=multipart/form-data>
      Entry file<BR>
      <INPUT NAME="filename" TYPE="file" SIZE=70><P>
      <INPUT TYPE="submit" VALUE="Transmit"><P>
    </FORM>
  </BLOCKQUOTE>
  <HR>
</BODY></HTML>

```

8. SOCKET COMMUNICATION

If the LAN connection environment has been provided and the socket communication is enabled when the power is turned on, this printer starts up the socket communication server task.

8.1 REQUIREMENTS

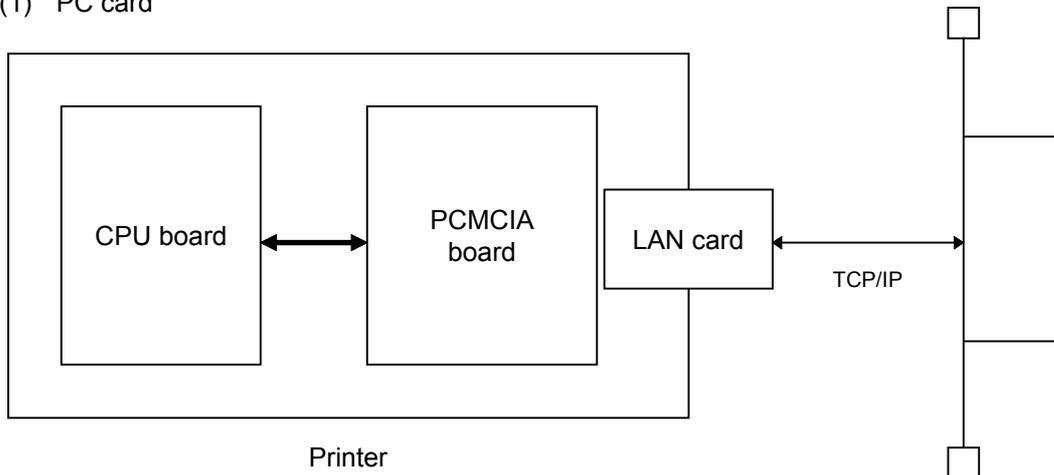
- LAN connection environment

Either 1) or 2) is required for LAN connection.

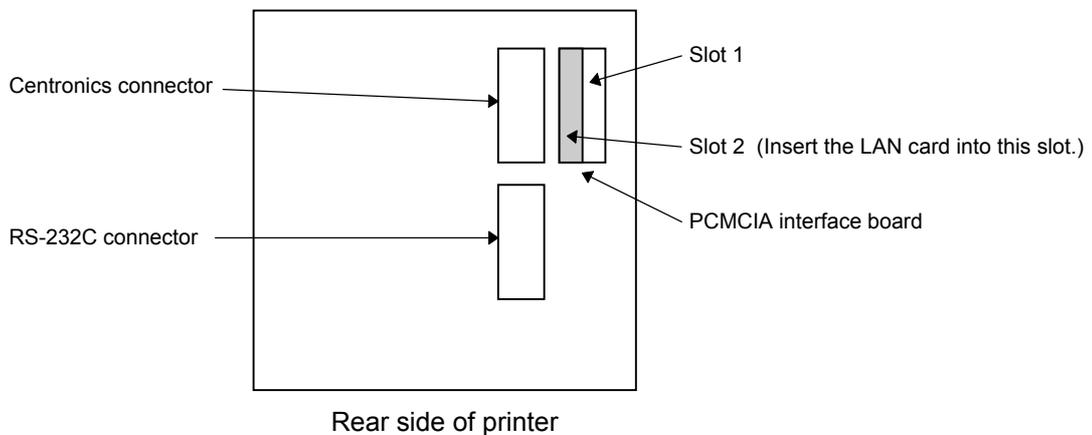
- 1) PC card
 - PCMCIA board (B-9700-PCM-QM)
 - LAN PC card (3CCE589ET manufactured by 3COM)
- 2) Interface board
 - LAN interface board (B-9700-LAN-QM)

8.2 CONNECTION DIAGRAM

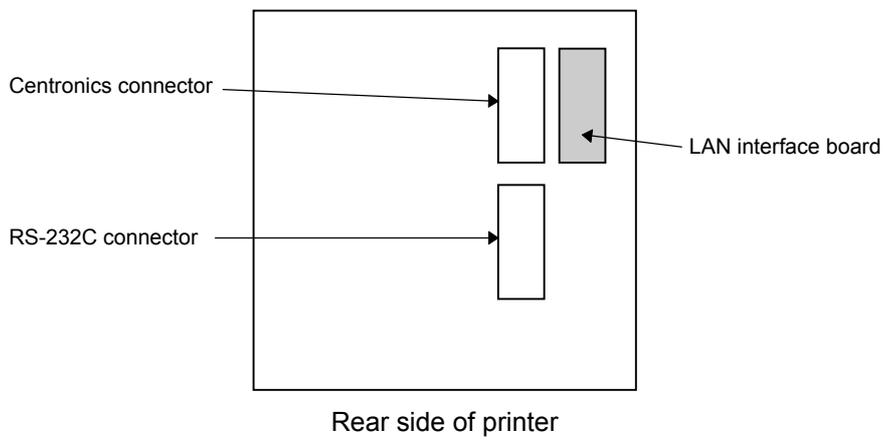
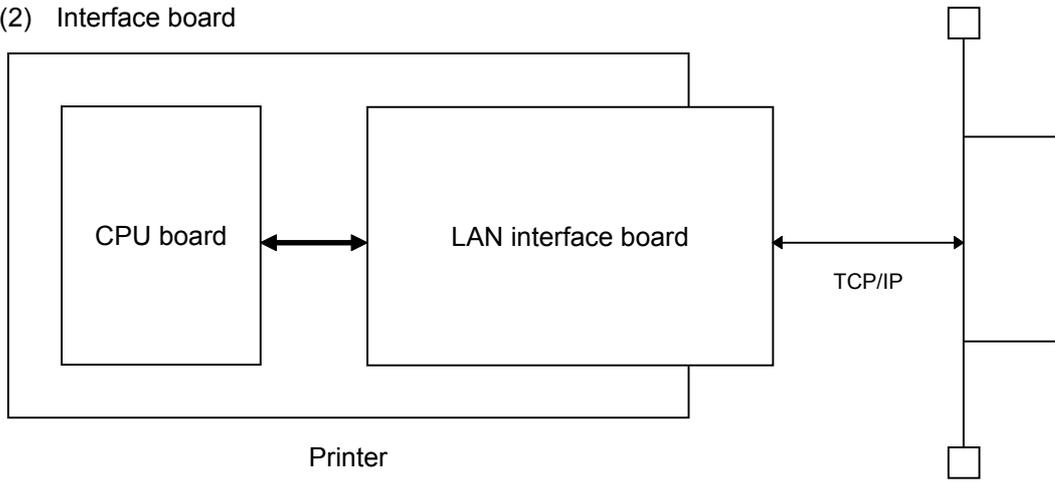
(1) PC card



There are 2 slots (Slot 1 and Slot 2) for PC cards on the PCMCIA board. Insert the LAN card into Slot 2. If it is inserted into Slot 1, it does not work.



(2) Interface board



8.3 SOCKET COMMUNICATION SPECIFICATIONS

8.3.1 Communication Procedure

- (1) Using the port number set by the printer, make the socket connection from the client PC to the printer.
- (2) Send a command from the client PC to the printer.
- (3) If the automatic status transmission is specified, the printer sends back a status to the client PC.

NOTES:

1. For details on the status response of the printer, refer to chapter 9 “STATUS RESPONSE” in the External Equipment Interface Specification (TAA-1380).
2. For the parameter setting for the automatic status transmission, refer to section 6.3.14 “Issue Command” in the External Equipment Interface Specification (TAA-1380).

8.3.2 Communication Specifications

Socket communication supports multiple clients. Multiple client PCs can connect to the printer simultaneously. However, if the printer has connected to another session, when a new session is connected, the printer can receive data sent from the new session after the previous session is disconnected. The printer makes a status response only to the oldest session among sessions connected.

- (1) Up to 5 client PCs can be connected to the printer at the same time. If the number of client PCs exceeds the maximum, the printer refuses connections to excess client PCs.
- (2) When the printer does not receive any communication packets for 120 minutes or more, the printer carries out the connection test to the connection. If the connecting state is not found between the printer and a client PC, the printer automatically disconnects the connection.
- (3) If multiple client PCs send the printer command at the same time, the printer commands are not mixed, since the printer receives only the printer command sent from the oldest session among sessions connected. Therefore, the print failure caused by the mixed printer commands may not occur.

9. FTP SERVER

9.1 FTP SERVER FUNCTION

This is the function that files can be read/written from/to the ATA card installed on the printer, using the standard protocol, FTP (File Transfer Protocol). Users are divided into two types, administrator and user. The administrator has access to all files. Users other than the administrator are restricted the access. Print jobs can be stored in the ATA card by sending the command file to the printer via FTP.

9.2 REQUIREMENTS

- LAN connection environment

Either 1) or 2) is required for LAN connection.

1) PC card

- PCMCIA board (B-9700-PCM-QM)
- LAN PC card (3CCE589ET manufactured by 3COM)

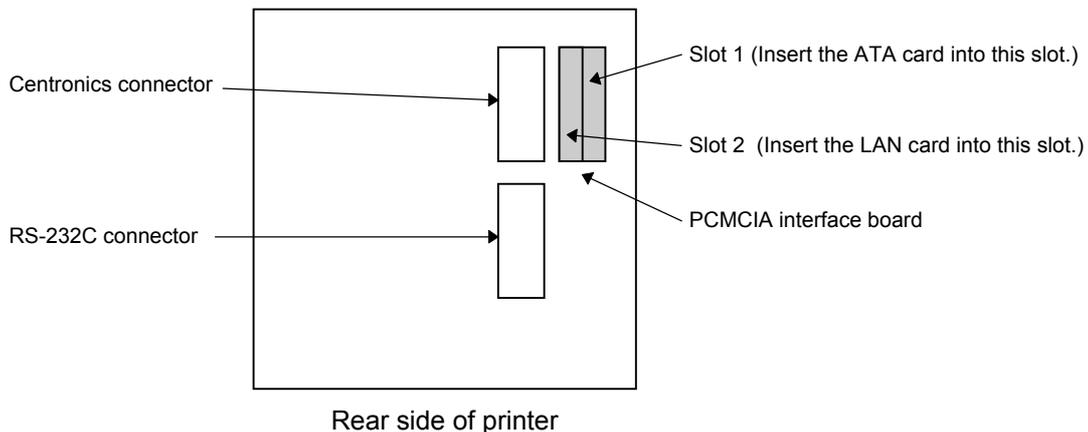
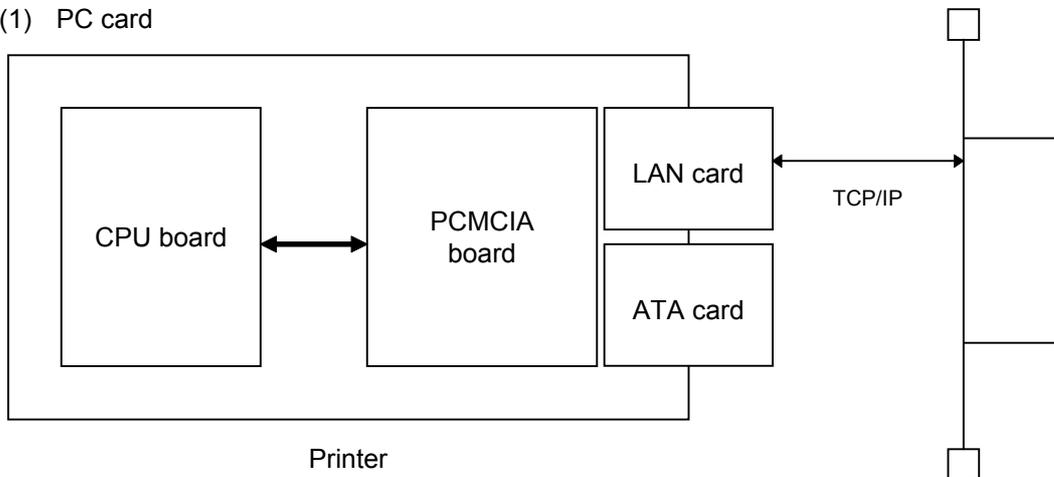
2) Interface board

- LAN interface board (B-9700-LAN-QM)

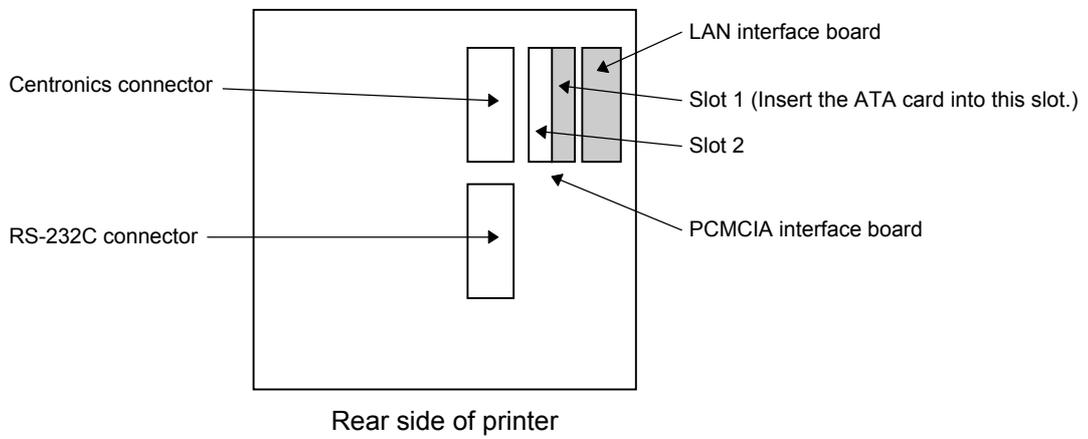
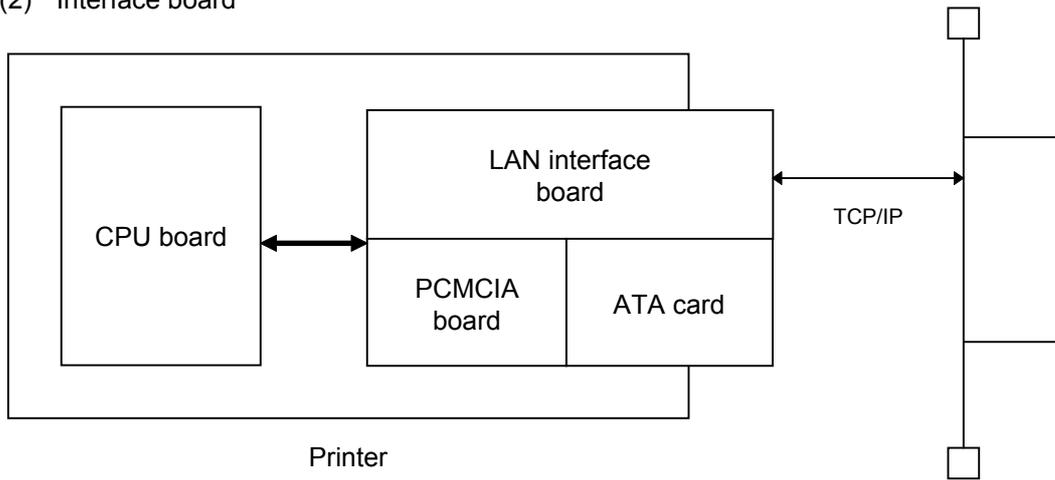
- ATA card (Conforming to the PC CARD ATA Standard)
- Password file “\pass\pass.txt” (/ATA0/PASS/PASS.TXT)

9.3 CONNECTION DIAGRAM

(1) PC card



(2) Interface board



9.4 FTP SERVER SPECIFICATIONS

9.4.1 Setup

To connect to the printer from the client PC via FTP, the user name and the password must be entered. The user name and the password must be stored in the ATA card as the password file. The password file should be saved as "pass.txt" in the "pass" folder in the ATA card. The format for the password is as follows:

- Administrator's password

Format ADMINUSR=root,ADMINPASS=barcode

Set the user name of the administrator and the password, following "ADMINUSR=" and "ADMINPASS=", respectively.

Up to 15 characters are available for the user name of the administrator. Up to 10 characters are available for the password.

- User's password

Format USR=toshiba,PASS=tec

Set the user name and the password, following "USR=" and "PASS=", respectively.

Up to 15 characters are available for the user name. Up to 10 characters are available for the password.

The administrator has access to all files including the "pass.txt" file in the ATA card. Users other than the administrator have access to folders, except the "SX_HTM", "HTTP", "PASS", "MAIL", and "XML" folders.

NOTE: If there is no "pass" folder or "pass.txt" file on the ATA card, a client PC is connected to the printer as the administrator.

9.4.2 Connection

Log on to the printer from the client PC, using the user name and the password described in the "pass.txt" file. When the client PC is connected to the printer, the root folder to be used in the ATA card is "/ATA0/".

9.4.3 Storing Print Jobs

When a file is transferred into the "PRTDATA" folder (/ATA0/PRTDATA) via FTP, it is stored as a real-time print job. When a file is transferred into the "PRTPPOOL" folder (/ATA0/PRTPPOOL), it is stored as a spooled print job. For details on the spooler function, refer to section 7.4.7.

NOTE: If the same print job name (file name) as the existing file is used, the new data will overwrite.

9.4.4 Example of Setup File

"\pass\pass.txt" file (/ATA0/PASS/PASS.TXT)

A line starting with # means a comment line and is not processed.

ADMINUSR=root,ADMINPASS=barcode

ADMINUSR=tec,ADMINPASS=taro

USR=suzuki,PASS=abcxyz

USR=test,PASS=abcdef

10. MAIL FUNCTION

10.1 MAIL FUNCTION

The printer has a function of automatically sending and receiving mails. Therefore, the printer can inform the client PCs of the printer status by sending mail, can execute a printer command such as a print request included in the mail sent from the client PCs, and can store print jobs. SMTP is used for mail transmission. POP3 is used for mail reception. To use this function, the mail server which supports both SMTP and POP3 is required on the network where the printer can access through LAN.

10.2 REQUIREMENTS

- LAN connection environment

Either 1) or 2) is required for LAN connection.

1) PC card

- PCMCIA board (B-9700-PCM-QM)
- LAN PC card (3CCE589ET manufactured by 3COM)

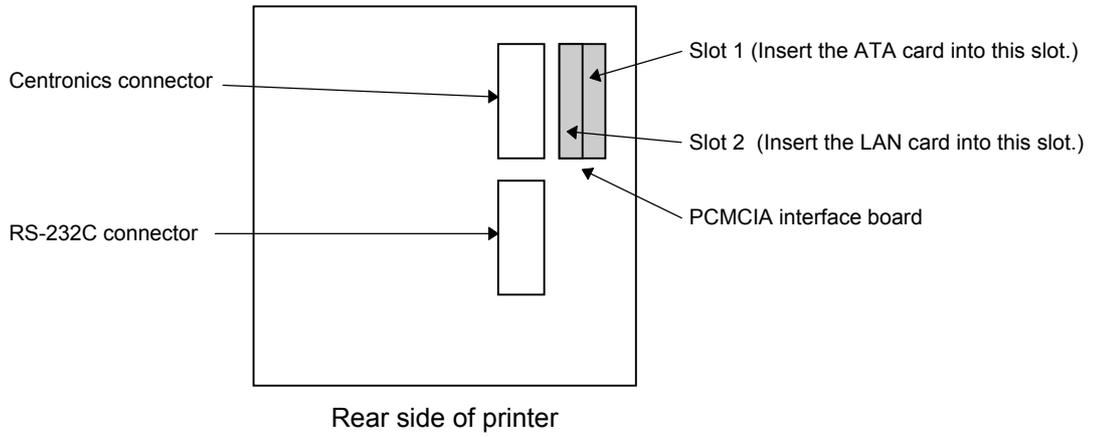
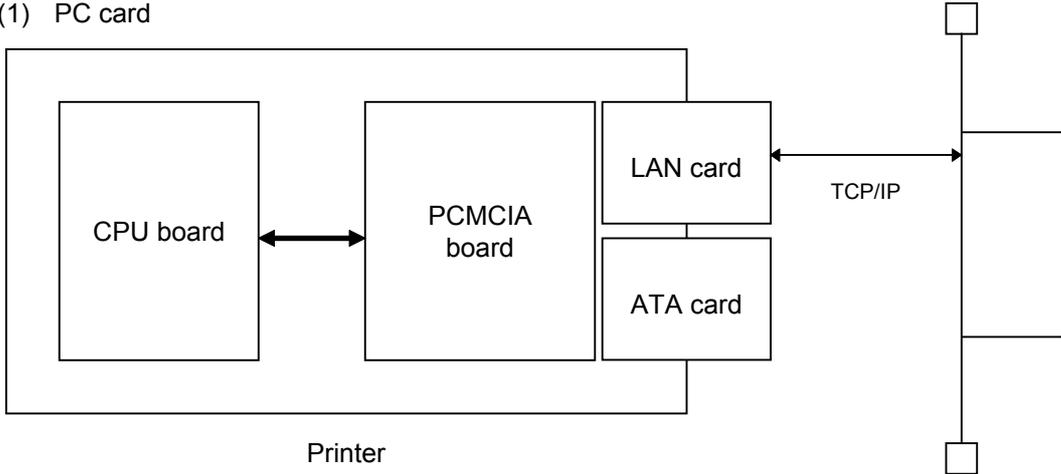
2) Interface board

- LAN interface board (B-9700-LAN-QM)

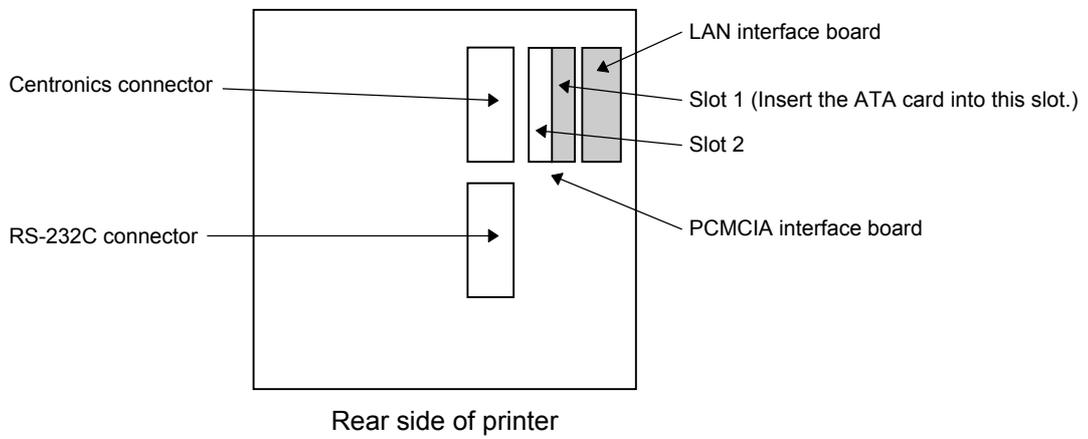
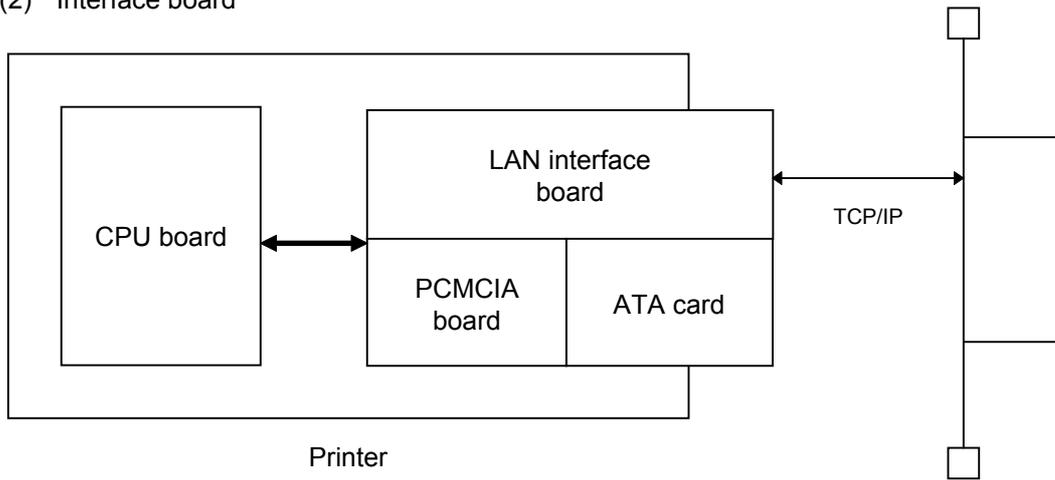
- ATA card (Conforming to the PC CARD ATA Standard)
- Setup file for mail transmission \mail\smtp.ini (/ATA0/MAIL/SMTP.INI)
- Setup file for mail reception \mail\pop3.ini (/ATA0/MAIL/POP3.TXT)
- Message of mail to be transmitted (Example) \mail\text\sts00.txt (/ATA0/MAIL/TEXT/STS00.TXT)
- External mail server (It must support both SMTP and POP3.)

10.3 CONNECTION DIAGRAM

(1) PC card



(2) Interface board



10.4 MAIL TRANSMISSION SPECIFICATIONS

10.4.1 Setup

(1) Register the printer account in the mail server.

(2) Describe the required information for mail transmission in the setup file.

The setup file should be saved as "smtp.ini" in the "mail" folder in the ATA card.

How to describe the setup file is as follows:

- IP address setting of the mail server

Format HOST_IP=123.456.789.012

Set the IP address of the mail server.

- Mail address of the printer

Format FROM_USR=bsx@foo.toshibatec.co.jp

Set the mail address of the printer. Max. 256 characters are available.

- Port for SMTP

Format PORT=25

Set the port to be used for SMTP. Normally, "25" should be set.

- Status transmission setting

Format RESMAIL=1

If this parameter is set to "1" and a print request is sent to the printer by e-mail, the printer automatically returns a status report to the sender when printing is completed normally.

- Address setting for sending e-mail according to the status type

Mail transmission, the address where mail is to be sent, and the message text can be set for each status type.

Format ENABLEaa=1

When this parameter is set to "1", mail transmission is enabled. When this parameter is set to "0", mail transmission is disabled.

Format TO_USERaa=foo@foo.toshibatec.co.jp

Set the address where mail is to be sent. Multiple users' addresses can be set, delimiting each address with a comma. Up to 20 addresses can be set within 1000 characters.

| |
|--------|
| Format |
|--------|

 TEXT_BODYaa=/ATA0/MAIL/TEXT/STS00.TXT

The location of mail messages is specified by the file.

In the previously described 3 formats, "aa" should be set in the range from "00" to "54". The meaning of each value is described below:

- 00: Head close
- 01: Head open
- 06: Command error
- 07: Serial port error
- 11: Paper jam
- 12: Cutter error
- 13: No paper
- 14: No ribbon
- 15: Feed while head open
- 17: Head error
- 18: Head temp error
- 21: Ribbon sensor error
- 22: Rewinder full
- 40: Issue complete
- 41: Feed complete
- 50: Flash write error
- 51: Flash format error
- 54: Flash full

Example) ENABLE00=1
TO_USR00=abcdefg@foo.toshibatec.co.jp
TEXT_BODY00=/ATA0/MAIL/TEXT/STS00.TXT

- (3) When "TEXT_BODYaa" specifies a file in the setup file, the specified file is required.

Example) /ATA0/MAIL/TEXT/STS00.TXT
SUBJECT:Head Close
Head Close

If the specified file does not exist in the ATA card, the printer automatically generates a status message and sends it.

If "SUBJECT:?????" is specified on the 1st line, the subject of the mail to be sent is "?????".

10.4.2 Operation

When the printer status changes, the printer automatically sends e-mail to the address where the status message is to be sent, according to the settings in the "SMTP.INI" file.

If "RESMAIL" is set to "1" in the "SMTP.INI" file, when the printer status changes during printing for a print request sent by e-mail, the printer also sends a status message to the sender of e-mail.

- NOTES:**
1. Even if two or more Issue Commands are described in one file, only one status is sent back to the client PC. Therefore, it is preferable that one file includes only one Issue Command.
 2. If two or more files are attached to one e-mail, each e-mail indicating each attached file's status is sent back to a client PC. For example, when 3 files are attached to one e-mail, three e-mails indicating their status are sent back.

10.4.3 Example of Setup File

- (1) “\mail\smtp.ini” file (/ATA0/MAIL/SMTP.INI)

A line starting with # means a comment line and is not processed.

```
# IP address of mail server
HOST_IP=123.456.789.012
# mail address of B-SX printer
FROM_USR=bcpbsxa@foo.toshibatec.co.jp
# SMTP port default=25
PORT=25
# Send back response mail to sender
RESMAIL=1
# Head close
ENABLE00=1
TO_USR00=abc@foo.toshibatec.co.jp
TEXT_BODY00=/ATA0/MAIL/TEXT/STS00.TXT
# Head open
ENABLE01=1
TO_USR01=abc@foo.toshibatec.co.jp
TEXT_BODY01=/ATA0/MAIL/TEXT/STS01.TXT
# Command error
ENABLE06=1
TO_USR06=abc@foo.toshibatec.co.jp
TEXT_BODY06=/ATA0/MAIL/TEXT/STS06.TXT
# Serial port error
ENABLE07=1
TO_USR07=abc@foo.toshibatec.co.jp
TEXT_BODY07=/ATA0/MAIL/TEXT/STS07.TXT
# Paper jam
ENABLE11=1
TO_USR11=abc@foo.toshibatec.co.jp
TEXT_BODY11=/ATA0/MAIL/TEXT/STS11.TXT
# Cutter error
ENABLE12=1
TO_USR12=abc@foo.toshibatec.co.jp
TEXT_BODY12=/ATA0/MAIL/TEXT/STS12.TXT
# No paper
ENABLE13=1
TO_USR13=abc@foo.toshibatec.co.jp
TEXT_BODY13=/ATA0/MAIL/TEXT/STS13.TXT
# No ribbon
ENABLE14=1
TO_USR14=abc@foo.toshibatec.co.jp
TEXT_BODY14=/ATA0/MAIL/TEXT/STS14.TXT
# Feed while head open
ENABLE15=1
TO_USR15=abc@foo.toshibatec.co.jp
TEXT_BODY15=/ATA0/MAIL/TEXT/STS15.TXT
# Head error
```

ENABLE17=1
TO_USR17=abc@foo.toshibatec.co.jp
TEXT_BODY17=/ATA0/MAIL/TEXT/STS17.TXT
Head temp error
ENABLE18=1
TO_USR18=abc@foo.toshibatec.co.jp
TEXT_BODY18=/ATA0/MAIL/TEXT/STS18.TXT
Ribbon sensor error
ENABLE21=1
TO_USR21=abc@foo.toshibatec.co.jp
TEXT_BODY21=/ATA0/MAIL/TEXT/STS21.TXT
Rewinder full
ENABLE22=1
TO_USR22=abc@foo.toshibatec.co.jp
TEXT_BODY22=/ATA0/MAIL/TEXT/STS22.TXT
Issue complete
ENABLE40=1
TO_USR40=abc@foo.toshibatec.co.jp
TEXT_BODY40=/ATA0/MAIL/TEXT/STS40.TXT
Feed complete
ENABLE41=1
TO_USR41=abc@foo.toshibatec.co.jp
TEXT_BODY41=/ATA0/MAIL/TEXT/STS41.TXT
Flash write error
ENABLE50=1
TO_USR50=abc@foo.toshibatec.co.jp
TEXT_BODY50=/ATA0/MAIL/TEXT/STS50.TXT
Flash format error
ENABLE51=1
TO_USR51=abc@foo.toshibatec.co.jp
TEXT_BODY51=/ATA0/MAIL/TEXT/STS51.TXT
Flash full
ENABLE54=1
TO_USR54=abc@foo.toshibatec.co.jp
TEXT_BODY54=/ATA0/MAIL/TEXT/STS54.TXT

(2) "\mail\text\sts00.txt" file (/ATA0/MAIL/TEXT/STS00.TXT)

SUBJECT:Head Close
Head Close
Status No.00

10.5 MAIL RECEPTION SPECIFICATIONS

10.5.1 Setup

(1) Register the printer account in the mail server.

(2) Describe the required information for mail reception in the setup file.

The setup file should be saved as "pop3.ini" in the "mail" folder in the ATA card.

How to describe the setup file is as follows:

- IP address setting of the mail server

Format HOST_IP=123.456.789.012

Set the IP address of the mail server.

- Port for POP3

Format PORT=110

Set the port to be used for POP3. Normally, "110" should be set.

- Mail account of the printer

Format USER=bsx

Set the mail address of the printer. Max. 300 bytes are available.

- Password for the mail account of the printer

Format PASSWORD=barcode

Set the password for the mail account of the printer. Max. 300 bytes are available.

- Mail check interval

Format CHECKINTERVAL=10

Set the interval that the printer checks for new e-mail every what seconds

Range: 0 to 42,949,672 sec. (= Approximately 12,000 hours)

10.5.2 Operation

The printer is connected to the mail server and checks for new e-mail at the specified mail check interval. If e-mail for the printer exists in the mail server, the printer receives it. When the received mail includes file attachments and the file subjects do not include "PRTDATA:" or "PRTPOOL:", the printer reconstructs the attached files and executes them as commands. If the file subject includes "PRTDATA:" or "PRTPOOL:", attached files are stored as print jobs. If there are no file attachments, the printer recognizes the mail itself as a command, and executes it. For storing print jobs, see section 10.6.

- NOTES:**
1. *Some mailers automatically enter line feed codes in the message text of mail. However, if line feed codes are entered in the command descriptions, the command will not be executed properly.*
 2. *Three encoding methods for file attachments are supported: Base64, QuotedPrintable, and 7-bit.*
 3. *When printing is performed according to a print request by e-mail, "{}" should be used as the control code, because some mailers automatically delete null data ([NUL] of [ESC] [LF] [NUL]).*
 4. *If "HTML" is selected for the mail sending format on a mailer, the printer is not properly operated.*
 5. *When printing is performed or a print job is stored by sending e-mail with file attachments, a temporary file is created on the ATA card. Therefore, the ATA card requires 4-times larger free space than the file size to be sent. If the ATA card does not have enough free space, the printer does not receive e-mail. The e-mail is not deleted from the mail server, but remains there.*

10.5.3 Example of Setup File

(1) "\mail\pop3.ini" file (/ATA0/MAIL/POP3.INI)

A line starting with # means a comment line and is not processed.

```
# IP address of mail server
HOST_IP=123.456.789.012
# SMTP port default=110
PORT=110
# User name
USER= bcpbsxa
# Password
PASSWORD= barcode
# Check Mail Every (sec.)
CHECKINTERVAL= 10
```

10.6 STORING PRINT JOBS

To store a file as a real-time print job, attach a file to be stored as a print job to e-mail, input the subject including "PRTDATA:", then send e-mail to the printer. When receiving e-mail, the printer stores the attached file as a real-time print job.

To store a file as a spooled print job, attach a file to be stored as a print job to e-mail, input the subject including "PRTPOOL:", then send e-mail to the printer. When receiving e-mail, the printer stores the attached file as a spooled print job.

For the spooler function, see section 7.4.7.

- NOTES:**
- 1. If any subject other than "PRTDATA:" and "PRTPOOL:" is described, the printer prints an attached file immediately when receiving e-mail. The file is not stored in the ATA card as a print job. For more details on the spooler function, refer to section 7.4.7.*
 - 2. If the same print job name (file name) as the existing file is used, the new data will overwrite.*
 - 3. When "PRTDATA:" or "PRTPOOL:" is included in a subject, be sure to place "PRTDATA:" or "PRTPOOL:" at the beginning of the subject.*

11. DHCP CLIENT FUNCTION

11.1 ABOUT DHCP CLIENT FUNCTION

This function dynamically acquires the IP address, which is usually set on the printer, from the DHCP server when the printer is turned on. If this function is used, there is no need to set the IP address on the printer in the system mode.

11.2 REQUIREMENTS

- LAN connection environment

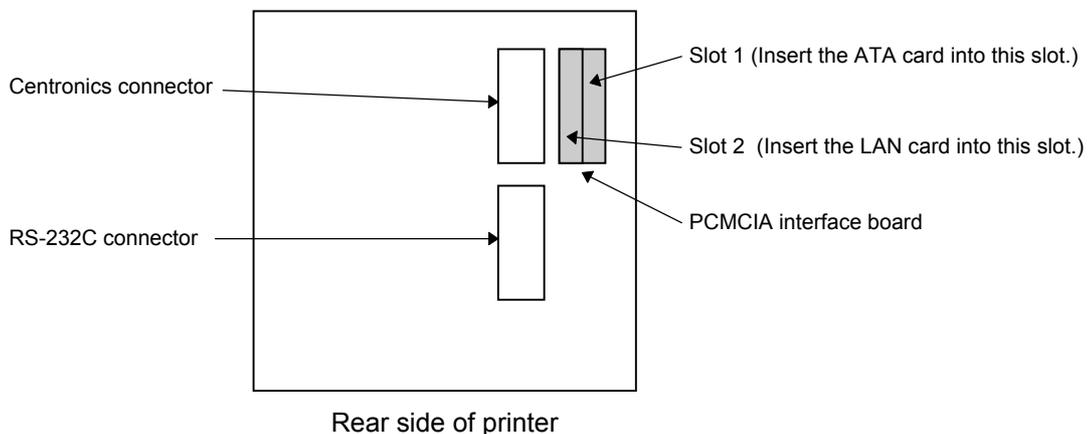
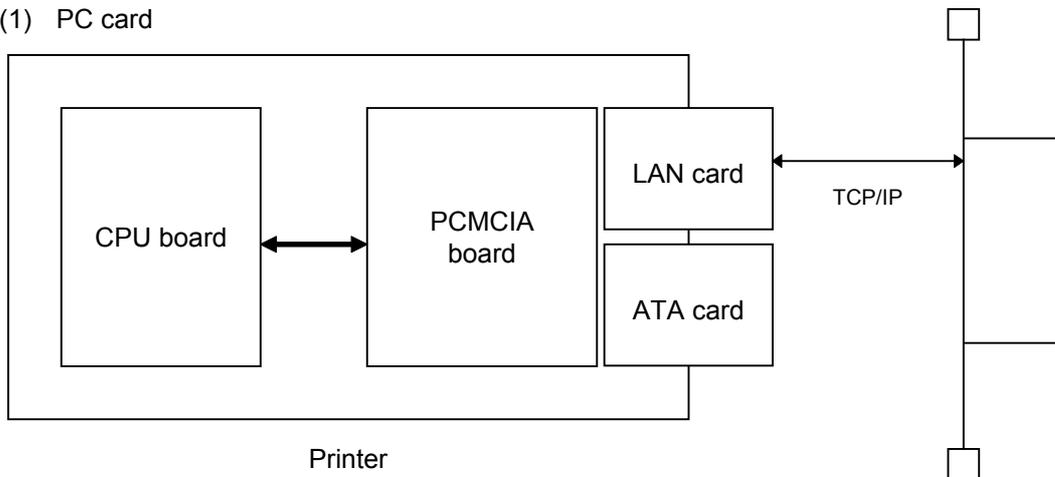
Either 1) or 2) is required for LAN connection.

- 1) PC card
 - PCMCIA board (B-9700-PCM-QM)
 - LAN PC card (3CCE589ET manufactured by 3COM)
- 2) Interface board
 - LAN interface board (B-9700-LAN-QM)

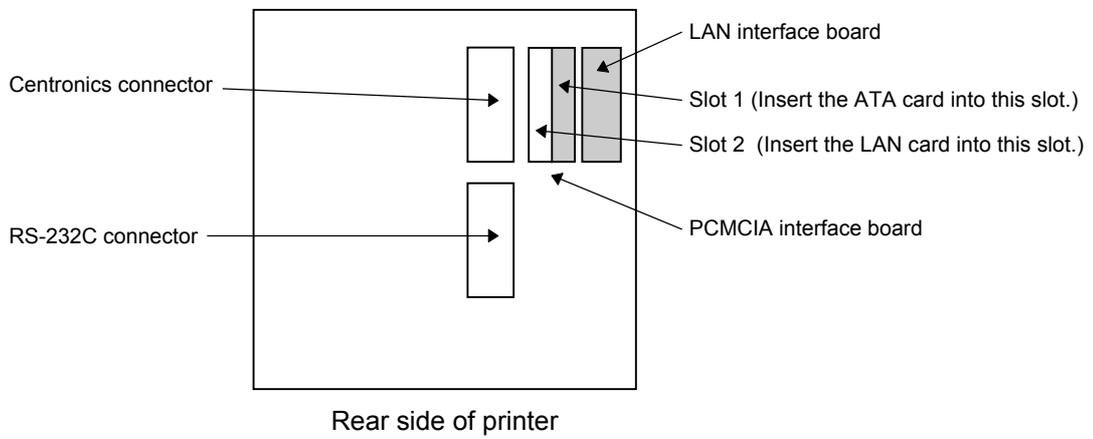
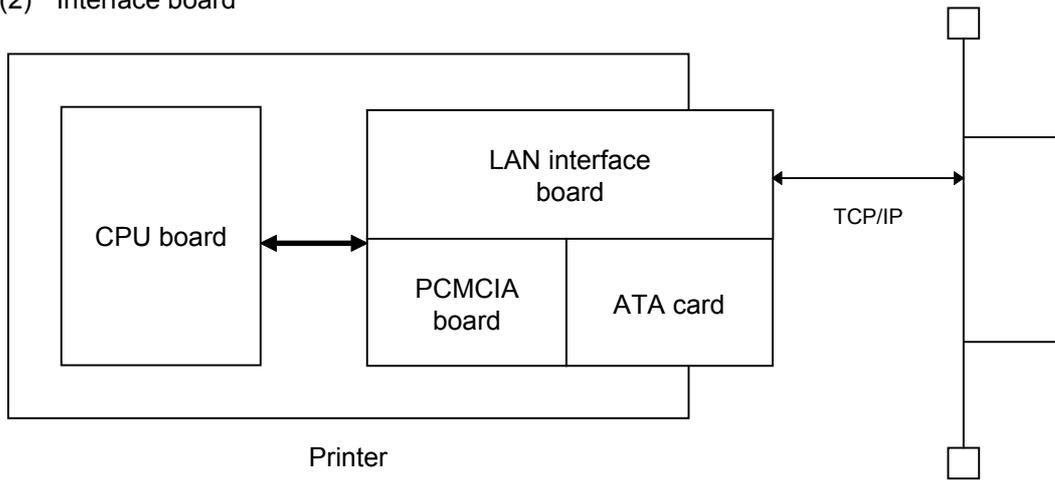
- DHCP server

11.3 CONNECTION DIAGRAM

(1) PC card



(2) Interface board



11.4 DHCP CLIENT SPECIFICATIONS

(1) Lease period

The default value for the lease period is 30 minutes. If the lease period is not specified on the DHCP server, the lease period is the default value of 30 minutes. Before the lease period is expired, the printer automatically extends the lease period.

(2) Startup time

It takes approximately 30 seconds to acquire the lease period from the DHCP server. Therefore, when the DHCP client function is used, it takes approximately 30 seconds for the printer to start up, after the printer is powered on.

The timeout of acquiring the lease period is approximately 2 minutes. If the lease period cannot be acquired from the DHCP server within 2 minutes, the printer starts up after 2 minutes, using the IP address, which has been set on the printer in the system mode. (The IP address cannot be acquired from the DHCP server.)

(3) DHCP ID

The DHCP ID can be set in the system mode or by the Parameter Set Command. The DHCP ID can be used for checking, which IP address is leased to which client on the DHCP server.

If the DHCP IP is not set, the server is notified of the MAC address of the network device, such as LAN card and the LAN board as the DHCP ID.

The 16-byte character strings can be set as the DHCP ID. However, "FFH (in hex)" must not be used since it is recognized as an end-of-data character.

If "FFH (in hex)" is set as the first byte of the DHCP ID, it assumes that the DHCP ID has not been set.

12. NOTES ON USING NETWORK FUNCTION

12.1 PROTECTION OF DATA IN ATA CARD

Before turning the printer OFF, press the [PAUSE] key of the printer. Check if the printer is in a pause state and the "ON LINE" LED goes off, then turn the printer off.

In the network function using the ATA card (FTP, HTTPD, e-mail), if the printer is turned OFF while it is writing data to a file, the file system on the ATA card will be damaged, and data may be lost. Therefore, when the printer does not access any files, the printer should be turned OFF.

By pressing the [PAUSE] key of the printer, the printer enters a pause state and the "ON LINE" LED goes off. Until the printer enters the online mode again, the printer does not access any files.

If the [PAUSE] key is pressed while the printer is accessing files, the "ON LINE" LED does not go off until the printer completes accessing files. If a large sized e-mail (approx. 300 KB) is sent to the printer when the printer's mail function is set to ON, the "ON LINE" LED may not go off after 30 or more seconds have elapsed. Pay attention to the timing when turning the printer OFF.

12.2 REMAINING FREE SPACE ON ATA CARD

In the Web printer function, if a print job is sent when the ATA card does not have enough remaining free space, an error message will be displayed. If the ATA card has no remaining free space (0 byte), the CGI itself does not work, and an error message, which indicates the Web page cannot be displayed on the Web browser, is displayed. (The message may not be displayed depending on the Web browser setting.) In this case, the [Delete] button on the spooler function screen cannot work either. To delete a file from the ATA card, use the FTP function.

12.3 COPYING FILES TO ATA CARD

A client PC equipped with the PCMCIA interface, can be used for writing/reading files to/from the ATA card. However, when the ATA card is checked on the printer, there may be damaged files, depending on the model. When damaged files are found, the FTP function should be used for writing/reading files to/from the ATA card.