

SHARP®

MODEL

AL-841

**DIGITAL LASER COPIER/
PRINTER/SCANNER**

PRINTER/SCANNER
OPERATION MANUAL

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This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

WARNING:

FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Shielded cables must be used with this equipment to maintain compliance with FCC regulations.

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This chapter provides basic information for using the SHARP AL-841 and its features.

INTRODUCTION

This manual describes only the printer and scanner features of the AL-841. To get full use of all printer and scanner features, familiarize yourself with this manual.

For quick reference during machine use, keep this manual in a handy location.



Note

For a description of other features, refer to their separate manuals.

Conventions used in this manual

In this manual, the following icons are used to provide the user with information pertinent to the use of the machine.



Caution

Cautions the user that damage to the machine or one of its components may result if the contents of the caution are not properly followed.



Note

Notes provide information relevant to the machine regarding specifications, functions, performance, operation and such, that may be useful to the user.



Note

- When you try to execute printing while copying is being performed, printing will be executed after copying is finished.
- When you try to make a copy while printing is being performed, printing will be interrupted and you can make a copy. Printing will be resumed after copying is finished.

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Making floppy disks from CD-ROM

The driver data in the CD-ROM can be copied to floppy disks.

Windows 95/Windows 98/Windows NT 4.0:

- 1 Insert the installation CD-ROM into the CD-ROM drive.
- 2 Double-click **My Computer**, **AI_841** (CD-ROM), and **Makedisk**.
- 3 Double-click **Makedisk.exe**.
- 4 Follow the on-screen instructions.

Windows 3.1x:

- 1 Insert the installation CD-ROM into the CD-ROM drive.
- 2 Double-click the **File Manager** in the **Main** window of **Program Manager** and select **CD-ROM** and the **Makedisk** directory.
- 3 Double-click **Makedisk.exe**.
- 4 Follow the on-screen instructions.

MAIN FEATURES

① Printing from Windows 3.1x, Windows 95, Windows 98, and Windows NT 4.0 applications

- High-speed and high-quality printing can be performed from Windows 3.1x, Windows 95, Windows 98, and Windows NT 4.0 applications through the SHARP GDI (Graphics Device Interface) system.
- Since print data is processed in the computer, waiting time during printing is short.

② Scanning from Windows 3.1x, Windows 95, Windows 98, and Windows NT 4.0 applications

- The SHARP TWAIN interface software enables the AL-841 to perform high-quality monochrome scanning directly from a TWAIN-compatible application.



Note

TWAIN is an application programme interface (API) standard which is used to scan images from scanners. The SHARP TWAIN interface software supports the TWAIN standard, version 1.6.

CONNECTING THE INTERFACE CABLE

To use the AL-841 as a laser printer or scanner, connect it to your computer using a parallel interface cable.



Note

Use the parallel interface cable included with the AL-841.
For specifications of the parallel interface, see page 26.

1

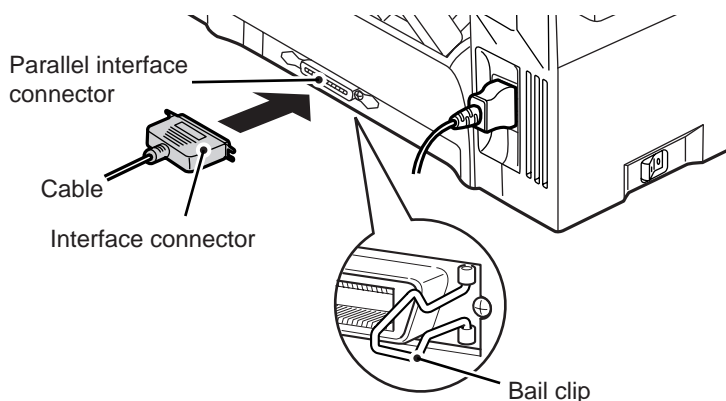
Check that the power switches of both the machine and the computer are in the OFF position.

2

Plug the parallel interface cable into the printer interface connector. Fasten the two bail clips at the side of the printer connector to hold the interface connector in place.

3

Plug the other end of the cable into the parallel interface connector on your computer. (Refer to your computer manual for details.)



Caution

This machine sends and receives data bi-directionally and at high speed. Some switch boxes and pass-through devices cannot support high-speed, bi-directional transfer of data, and using them may cause printing errors.

INSTALLING THE PRINTER DRIVER SOFTWARE

Description of the printer driver

The printer driver is the software program which runs the printer. It converts the data in your file into information that the printer can understand. It also controls communication between the printer and computer as the data is printed.

Checking the hardware and software requirements

You will need the following hardware and software in order to install the printer driver.

Computer type	IBM PC/AT or compatible computer equipped with ECP mode-equivalent bi-directional parallel interface and CD-ROM drive
Windows type	Windows 3.1x, Windows 95, Windows 98, Windows NT 4.0
CPU	486DX 66MHz or better
Physical RAM	Windows 95, Windows 3.1x: 8MB (16MB or more is recommended.) Windows NT 4.0: 12MB (16MB or more is recommended.) Windows 98: 16MB (32MB or more is recommended.)
Virtual storage (swap file)	8MB or more
Display	640 x 480 dots (VGA) or better
Hard disk free space	11MB or more



Caution

The printer driver included in this product cannot be used under Windows NT 3.5x, OS/2, pure MS-DOS and other operating systems which are not described above.

Installing the printer driver

The software for your machine is provided on the CD-ROM which was packed with your machine. Before installing the printer driver, be sure to check the following items.

- Is the machine connected properly to the computer?
- Does the machine have paper?
- Is there another GDI printer driver or Windows Printing System printer driver already installed? If installed, change the printer port setting. For instructions on changing the printer port setting, see **USING OTHER INSTALLED DRIVERS** on page 22.



Note

The TWAIN software is automatically installed at the same time you install the printer driver. See page 18.

Windows 95/Windows NT 4.0:

- 1 Load paper into the paper tray of the machine. For instructions on loading paper, see the section **LOADING COPY PAPER** in the copier operation manual.
- 2 Turn on the machine.
- 3 Turn on your computer and start Windows.



Note

Before installing the printer driver, be sure to close all other applications which may be open.

- 4 When using Windows 95 on a personal computer with plug & play*, the “Update Device Driver Wizard” window will appear. Insert the installation CD-ROM into the CD-ROM drive. Click the **Next** button and follow the on-screen instructions. If the “Copying Files” window appears during this operation, enter **R:** (if the CD-ROM is designated as drive R), click the **OK** button and follow the on-screen instructions.



- If you use Windows 95 and the “New Hardware Found” window will appear, select **Driver from Disk Provided by Hardware Manufacturer** and then click the **OK** button. Proceed to step 6.
- If you use Windows 95 and the screen shown above or the “New Hardware Found” window does not appear, proceed to step 5.
- If you use Windows NT 4.0, proceed to step 5.

* Plug & Play

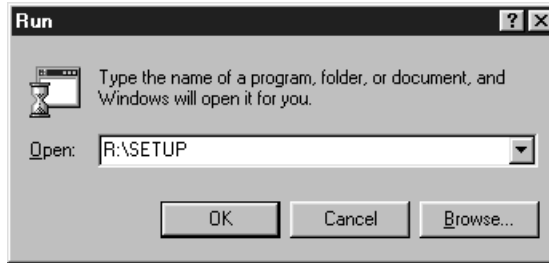
This feature is effective if both the computer and peripheral equipment are equipped with an IEEE 1284 compliant parallel interface.



Note


The screen displayed depends on the version of Windows you are using.

- 5** Insert the installation CD-ROM into the CD-ROM drive. Click the **Start** button and select **Run**. When the screen shown below appears, type **R:\SETUP** (if the CD-ROM is designated as drive R) and click the **OK** button. Follow the on-screen instructions.



- 6** The “Install From Disk” window will appear. Insert the installation CD-ROM into the CD-ROM drive. Type **R:** (if the CD-ROM is designated as drive R) and click the **OK** button. Follow the on-screen instructions.



 **Note** If you have any problem with the test print, see **TROUBLESHOOTING** on page 20 and check the symptoms and solutions. Print the test page again after removing the problem.

Windows 98:

- 1 Load paper into the paper tray of the machine. For instructions on loading paper, see the section **LOADING COPY PAPER** in the copier operation manual.
- 2 Turn on the machine.
- 3 Turn on your computer and start Windows.



Note

Before installing the printer driver, be sure to close all other applications which may be open.

- 4 When using Windows 98 on a personal computer with plug & play*, the “Add New Hardware Wizard” window will appear. Click the **Next** button and follow the on-screen instructions.
 - If the “Add New Hardware Wizard” window does not appear, proceed to step 8.
 - * Plug & Play: For plug & play information, see page 6.




- 5 Select **Search for the best driver for your device** and click the **Next** button.
- 6 Insert the installation CD-ROM into the CD-ROM drive. Select **CD-ROM drive** and click the **Next** button.



- 7 Windows driver file search will find the device "SHARP AL-841". Click the **Next** button and follow the on-screen instructions.
- 8 Insert the installation CD-ROM into the CD-ROM drive. Click the **Start** button and select **Run**. When the window shown below appears, type **R:\SETUP** (if the CD-ROM is designated as drive R) and click the **OK** button. Follow the on-screen instructions.



 **Note** If you have any problem with the test print, see **TROUBLESHOOTING** on page 20.

Windows 3.1x:

1 Load paper into the paper tray of the machine. For instructions on loading paper, see the section **LOADING COPY PAPER** in the copier operation manual.

2 Turn on the machine and then start Windows on your computer.



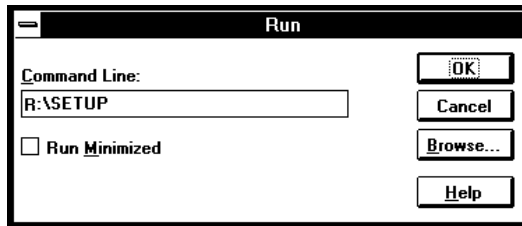
Note

Before installing the printer driver, be sure to close all other applications which may be open.

3 Insert the installation CD-ROM into the CD-ROM drive.

4 Choose **File** from the Menu bar in **Program Manager**, and then choose the **Run...** command.

5 Type **R:\SETUP** (if the CD-ROM is designated as drive R) in the command line box and then click the **OK** button.



6 Follow the on-screen instructions.

“SHARP AL-841” driver group

When the drivers are installed, the SHARP AL-841 driver group will be created. This group allows the following functions to be executed.



DOS Emulation HELP



DOS Emulation Setup

See page 17.



Readme

The latest information on the printer driver and the TWAIN driver is included in this note. Read the Readme first.



Status Monitor HELP



Status Monitor

The printer state and information on current printing are displayed on the status monitor window. When printing starts, the status monitor screen will appear on the computer display.



Uninstall AL-841

The printer driver and the TWAIN driver can be uninstalled.
If the drivers are uninstalled, printing and scanning cannot be performed on the machine.



Note

- Be sure to read “Readme” found in the driver group before starting to print or scan from application programs.
- If you uninstall the printer driver, the TWAIN driver is uninstalled at the same time.

2

PRINTING

PRINTING A PAGE

The printing method is described below. Read the description with the operation manual for the application to be used.



Caution

- Before you can use this machine as a printer, you must install the supplied SHARP printer driver. Once this software has been installed, you can control the printing of your documents from the printer driver which appears on your computer screen. See **INSTALLING THE PRINTER DRIVER SOFTWARE** on page 5.
- When using multiple printers, you must change the printer setting from the control panel to change the printer to be used. This machine cannot be used with other GDI printers and printers that use the Windows Printing System. For details, see **USING OTHER INSTALLED DRIVERS** on page 22.

Executing printing

1

Ensure that paper of the desired size is loaded in the paper tray. (See the section on **LOADING COPY PAPER** in the copier operation manual.)



Note

To print onto special papers such as transparency film, labels, thick paper and envelopes, specify "Manual Feed" as the paper source using the printer driver, and feed it one sheet at a time.

2

Turn on the machine. The ready ((⊕)) indicator will light up.

3

Select the settings for printing such as the number of sets and paper type from the application. See **SETTING PRINT CONDITIONS FROM PRINTER DRIVER** on page 14.



Caution

Before printing, ensure that the AL-841 has been selected as the printer.

4

Print the file from your software application.



Note

- If copying is being performed when printing is started, copying will continue. After copying is complete, printing will be executed when the clear ((⊙)) key is pressed twice or approximately 60 seconds (auto clear time)* has elapsed.
* The auto clear time varies with a user program setting. See the copier operation manual.
- Preheat mode and auto power shut-off mode will be canceled when printing is started.

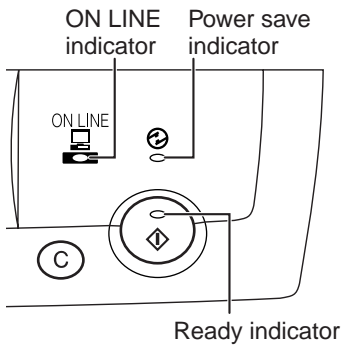


Note

- If the paper size specified from the software application is larger than the paper size in the machine, the image may be printed onto two sheets of paper.
- If the paper size specified from the software application is larger than the paper size in the machine, part of the image that is not transferred to the paper may remain on the surface of the drum. In this case, the other side of the paper may become dirty. If this occurs, change to the correct size paper and print two or three pages to clean the image.

Indicators on the operation panel

The ON LINE indicator and the ready (⊕) indicator indicate the state of the machine.



Ready indicator

- On: Indicates the machine is ready for printing or scanning (online), or printing is being performed.
- Off: Indicates copying is being performed, scanner data is being read, or the machine is in the auto power shut-off mode.

ON LINE indicator

- On: Indicates the machine is ready for printing or scanning (online), printing is being performed, or scanner data is being read.
- Blinking: Indicates a copy job has interrupted a print job.
- Off: Indicates copying is being performed.

Power save indicator

- On: Indicates the machine is in a power save mode.

SETTING PRINT CONDITIONS FROM PRINTER DRIVER

The setting method for items in the printer driver are described below.

Also refer to the printer driver help for more information.

Before setting the printer driver, check the following items.

- The AL-841 printer driver has been installed in the computer to be used. If not, see **INSTALLING THE PRINTER DRIVER SOFTWARE** on page 5.
- The AL-841 has been selected as the default printer on the computer to be used.

Windows 95/Windows 98/Windows NT 4.0:

1 Click the **Start** button of the computer and then select **Printers** from **Settings**.

2 If you use Windows 95/Windows 98, right-click the **SHARP AL-841** icon in the Printer folder and select **Properties** in the menu.
If you use Windows NT 4.0, right-click the **SHARP AL-841** icon in the Printer folder and select **Document Defaults** in the menu.



Note

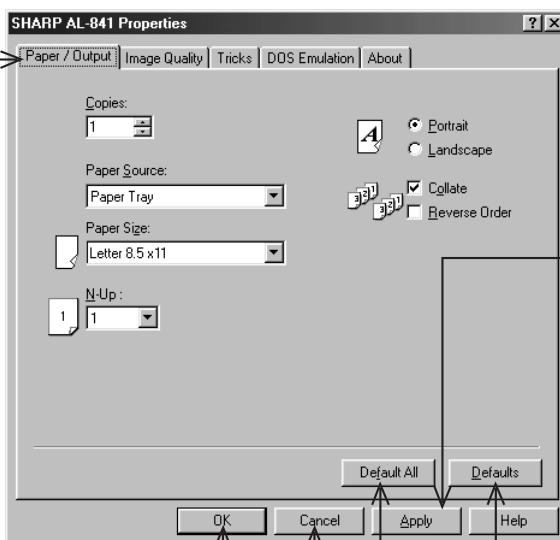
For this description, it is assumed that the mouse is configured for right hand operation.

- 3 The properties of the SHARP AL-841 printer driver will be displayed. If you use Windows 95/Windows 98, click the **Driver Setup** tab to display the following screen.

* Screen on Windows 95

Driver Setup tabs

By selecting a different tab other driver settings can be changed.
Example: Resolution changes can be made by selecting the Image Quality tab.



Apply button

The settings which have been selected by each tab will be saved.
*This button is not displayed on Windows NT4.0.

OK button

All driver settings which have been selected by each tab will be saved and the properties will be terminated.

Cancel button

The settings which have been selected by each tab will be canceled and the properties will be terminated.
However, the settings which have been saved will not be canceled.

Defaults button

The settings which have been selected by each tab will be returned to their default state.

Default All button

All settings which have been selected by all tabs will be returned to their default state.

Windows 3.1x:

- 1 Double-click the **Print Manager** icon in the **Main** window of **Program Manager**.
- 2 Select **Options** in the **Print Manager** and then select **Printer Setup**.
- 3 Select **SHARP AL-841** in the **Installed Printers:** and click the **Setup** button.
- 4 The properties of the SHARP AL-841 will be displayed.

PRINTING FROM AN MS-DOS APPLICATION

You can execute printing from an MS-DOS application which has been executed from the MS-DOS prompt in Windows.



This machine can only print from applications run from the MS-DOS prompt in Windows. It cannot print when running in native MS-DOS mode.

Print setting from the MS-DOS prompt

Windows 95/Windows 98 has the item, "Spool MS-DOS print jobs" in the port settings. If this setting is not selected, the machine will not operate properly. Use the following procedure to check the setting.

1

Click the **Start** button.

2

Select **Settings** and then click **Printers**.

3

Right-click the **AL-841** icon in the printer dialog box and click **Properties**.



For this description, it is assumed that the mouse is configured for right hand operation.

4

Click the **Details** tab in the Properties dialog box.

5

Click the **Port Settings** button.

6

Check that "**Spool MS-DOS print jobs**" is checked in the port setting dialog box.

Settings on the front panel

Paper size, tray selection, and other options are set from the front panel. Use the following procedure to start the front panel.

Windows 95/Windows 98/Windows NT 4.0:

- 1 Click **Start, Program, SHARP AL-841, and DOS Emulation Setup.**

Windows 3.1x:

- 1 Double-click the **DOS Emulation Setup** icon in the **SHARP AL-841 in Program Manager.**

Software printer setting

Set your MS-DOS application to use the following model printer.

HP LaserJet Series II (PCL4)

If this printer is not listed on the application's printer setup, choose a PCL4 compatible printer.

3

SCANNING

SCANNING AN IMAGE

Before you can scan images using the AL-841 from a TWAIN-compatible application, you must install the supplied SHARP TWAIN interface software. This software is automatically installed at the same time you install the SHARP printer driver provided on CD-ROM. See **INSTALLING THE PRINTER DRIVER SOFTWARE** on page 5.

3

Scanning



Caution

- Be sure to read “Readme” in the driver group before scanning images from application programs.
- When using the AL-841 as a scanner, you must make sure that your computer Printer Port is configured for ECP mode. If the computer is set to a mode other than ECP mode, change the mode to ECP mode. The method for setting ECP mode differs depending on your computer. Refer to the documentation for your computer.



Note

- Refer to the TWAIN help for more information.
- For information about the state of operation panel indicators when using the scanner function, see **Indicators on the operation panel** on page 13.
- Preheat mode and auto power shut-off mode will be canceled when scanning is started.

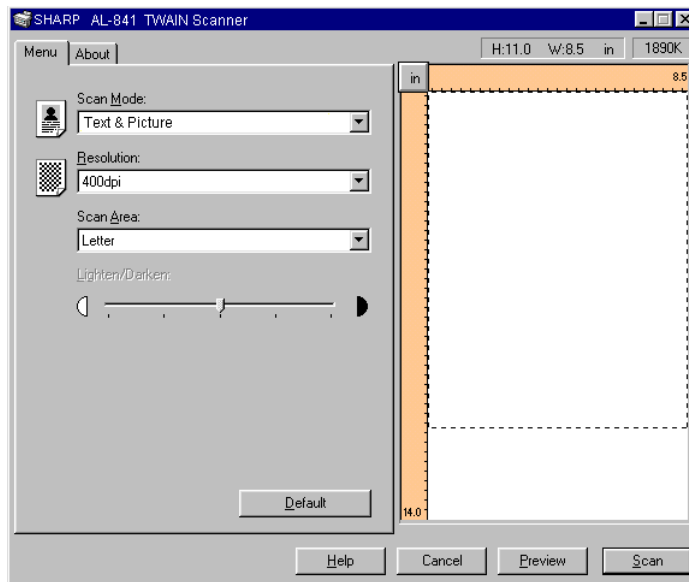
Scanning from a TWAIN-compatible application



Note

Menu names and their options are different for each application.

- 1 When multiple sources are available, choose a command to select a scanning device from the application's menu and select **SHARP AL841 TWAIN_xx**.
- 2 Choose a command to acquire image from the application's menu. AL-841 TWAIN software starts.



- 3 Place the original and press the **Preview** button.
- 4 Set scanning parameters as necessary.
- 5 Press the **Scan** button.
You exit from AL-841 TWAIN software and the scanned image appears in the application's window.

Exiting from AL-841 TWAIN software

To terminate AL-841 TWAIN software, click on the close box while AL-841 TWAIN window is active.

4

TROUBLE?

TROUBLESHOOTING

Some problems are common to the copier, printer and scanner features, so also check **TROUBLESHOOTING** of the copier operation manual.



Note

“Copier” in the column “See page:” indicates the description is in the copier operation manual.

Problem	Possible cause	Solution	See page:
Printer driver cannot be installed.	Hard disk free space is not sufficient for installation of the printer driver.	Delete unnecessary files and application software to increase hard disk free space. (The driver requires at least 11MB free space.)	5
	The operating system is not proper.	Use Windows 3.1x, Windows 95, Windows 98 or Windows NT 4.0.	5
Paper does not feed into the machine.	Paper is not set correctly.	Insert the paper correctly.	Copier*1
	Too much paper in the paper tray.	Remove excessive paper from the paper tray. For envelopes, transparency film, and labels, feed one sheet at a time.	Copier*1
The machine does not print.	The interface cable might not be connected properly.	Check the interface connection.	4
	The interface cable is defective.	Check the cable with a computer and printer which you know work. If printing is still not possible, the interface cable is defective.	—
	The port setting is incorrect.	Check the printer settings in the Windows Control panel to make sure that the print job is being sent to the correct port (for example, LPT1).	—
	The TD cartridge or drum cartridge is not installed properly.	Ensure that the TD cartridge and drum cartridge are installed properly.	Copier*2 Copier*3
	The machine may be configured incorrectly.	Check the application to make sure that all the print settings are correct.	—
	The printer driver may be incorrectly installed.	Reinstall the printer driver software and try printing a test page.	5

Problem	Possible cause	Solution	See page:
The machine prints wrong data or incorrect characters.	The interface cable might not be connected properly.	Check the interface cable connection.	4
	The interface cable is not IEEE-1284 compliant or a switch box / pass-through device does not respond to high speed data transfer.	Use the interface cable included with the AL-841. Remove any switch box / pass-through device connected between the computer and the AL-841. See the parallel interface specifications.	4, 26
Printing is too slow.	If using Windows 3.1x, Print Manager may be disabled.	Double-click the Printers icon in Control Panel and check the Use Print Manager box.	–
	There may be too many applications open.	Close all unnecessary applications before printing.	–
	The resolution is set to 600dpi.	Set the resolution to 300dpi.	14
	The computer may have insufficient random-access memory (RAM).	Install more random-access memory (RAM) in your computer.	5
The machine does not print the full image.	The page layout is too complex.	Simplify the page layout.	–
	Resolution is set to 600dpi.	Set resolution to 300dpi.	14
	Page orientation setting may be incorrect.	Change the page orientation with the printer driver.	14
	There may be too many applications open.	Close all unnecessary applications before printing.	–
	The paper in the machine may be larger than the paper size specified in your application or printer driver.	Load the correct paper into the machine.	–
	The interface cable is not IEEE-1284 compliant or a switch box / pass-through device does not respond to high speed data transfer.	Use the interface cable included with the AL-841. Remove any switch box / pass-through device connected between the computer and the AL-841. See the parallel interface specifications.	4, 26
	The CPU specifications may be incorrect.	Check that the CPU of your computer is 486DX 66MHz or better.	5
	The computer may have insufficient random-access memory (RAM).	Install more random-access memory (RAM) in your computer.	5
The machine does not scan.	The interface cable might not be connected properly.	Check the interface connection.	4

*1 See the section on **LOADING COPY PAPER**.

*2 See the section on **TD CARTRIDGE REPLACEMENT**.

*3 See the section on **DRUM CARTRIDGE REPLACEMENT**.

USING OTHER INSTALLED DRIVERS

If you use another GDI printer or Windows Printing Systems printer, interference between printers may occur and printing may not be performed properly. To use another GDI printer or a Windows Printing System printer, you must change the port setting of the printer driver using the following procedure.



Note

If another printer does not operate properly when the AL-841 printer driver is set to "FILE", uninstall the AL-841 printer driver. To uninstall the driver, see **UNINSTALLING DRIVERS** on page 23. If after uninstalling the AL-841 printer driver, the printer still does not operate properly, reinstall the printer driver you are using.

Windows 95/Windows 98/Windows NT 4.0:

4

Trouble?

1

Click the **Start** button.

2

Select **Settings** and then click **Printers**.

3

Right-click the **AL-841** icon in the printer dialog box and then click **Properties**.



Note

For this description, it is assumed that the mouse is configured for right hand operation.

4

Click the **Details** tab (**Ports** tab – on Windows NT4.0) in the Properties dialog box, select **FILE:** in the Print to the following port list box, and click the **OK** button.

5

Right-click the icon of the printer to be used and click **Properties**.

6

Click the **Details** tab (**Ports** tab – on Windows NT4.0) in the Properties window, select **LPT1** (or the currently used port), and click the **OK** button.



Note

To use the AL-841 again, perform the same procedure but select the port to be used (for example, LPT1) in step 4.

Windows 3.1x:

- 1** Double-click the **Control Panel** icon in the **Main** window of **Program Manager**.
- 2** Double-click the **Printers** icon. The Printers window will then open.
- 3** Select **AL-841**, and then click the **Connect** button.
- 4** Select **File** from the list of options in the Ports window, and then click the **OK** button.
- 5** Select the new printer you would like to use from the list in the Installed Printers window, and then click the **Connect** button.
- 6** Select the printer port to use for the new printer, and then click the **OK** button.
- 7** Click the **Set As Default Printer** button, and then click the **Close** button.



Note

To use the AL-841 again, perform the same procedure but select the port to be used (for example, LPT1) in step 4.

UNINSTALLING DRIVERS

If the printer driver and TWAIN driver are not installed correctly or if you no longer use this machine, uninstall the printer driver and TWAIN driver from your computer using the following procedure.

- 1** If using Windows 95/Windows 98/Windows NT 4.0, click **Start, Program, SHARP AL-841**, and **Uninstall AL-841**.
If using Windows 3.1x, double-click the **SHARP AL-841** icon in Program Manager and double-click the **Uninstall AL-841** icon.
- 2** When the "Confirm File Deletion" window appears, click the **Yes** button.
- 3** When the "Remove Programs From Your Computer" window appears, click the **OK** button.



Note

The printer driver and the TWAIN driver are uninstalled at the same time.

5

APPENDIX

PRINTER SPECIFICATIONS

Resolution	600dpi or 300dpi can be selected
Page description language	SHARP GDI
Page orientation	Portrait or landscape
First print time	Approx. 20 seconds*
Print speed	Max. 8 pages per minute (letter or A4)
Interface port	Bi-directional parallel interface (IEEE 1284 compliant)
Memory	6MB

* First print time may differ depending on operating conditions, such as power-supply voltage and room temperature.
Also the time may differ depending on data quantity to be printed and applications.



Note

As a part of our policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

SCANNER SPECIFICATIONS

Scanning method	Flatbed scanner with moving scanning head
Light source	Fluorescent lamps
Sensor	CCD
Scanning range	Max. 8.3inch (W) x 13.8inch (H)
Resolution	300dpi, 400dpi (standard) or 600dpi (pseudo-resolution) can be selected
Output data	1bit
Scanning speed	0.85ms/line (Data transfer time is not included.)
Interface	IEEE 1284 compliant parallel interface (ECP mode only)



Note

As a part of our policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

PARALLEL INTERFACE

This machine uses a bi-directional parallel interface. Use the interface cable attached to the AL-841.



Caution

- For specifications of the parallel interface of your computer, see its operation manual.
- Use the parallel interface cable specified by SHARP for prevention of external radio wave interference. For details, contact your SHARP dealer.

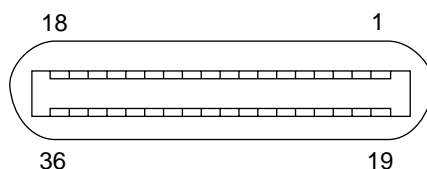
Connector

36-pin DDK 57LE-40360-730B (D29) female connector or equivalent connector

Cable

Shielded type bi-directional parallel interface

For best results, use a printer interface cable which is IEEE 1284 compliant.



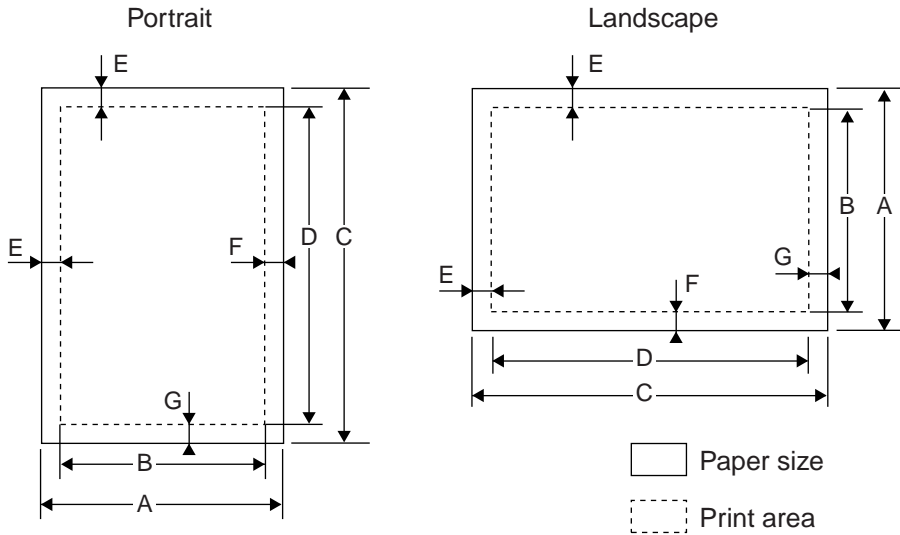
Pin configuration

The pin numbers and signal names are listed in the following table.

Pin No.	Signal name	Pin No.	Signal name
1	$\overline{\text{STB}}$	19	GND ($\overline{\text{STB}}$ RET)
2	DATA1	20	GND (DATA1 RET)
3	DATA2	21	GND (DATA2 RET)
4	DATA3	22	GND (DATA3 RET)
5	DATA4	23	GND (DATA4 RET)
6	DATA5	24	GND (DATA5 RET)
7	DATA6	25	GND (DATA6 RET)
8	DATA7	26	GND (DATA7 RET)
9	DATA8	27	GND (DATA8 RET)
10	$\overline{\text{ACKNLG}}$	28	GND ($\overline{\text{ACKNLG}}$ RET)
11	BUSY	29	GND (BUSY RET)
12	PE (Paper End)	30	GND (PE RET)
13	SLTC	31	INPRM
14	$\overline{\text{AUTO LF}}$	32	$\overline{\text{FAULT}}$
15	(NC)	33	(NC)
16	GND (0 V)	34	(NC)
17	FG	35	+5V
18	+5V	36	SLTC IN

PRINT AREA

The print area of this machine is shown below.



600 dpi

Paper size	Dots						
	A	B	C	D	E	F	G
Letter	5100	4904	6600	6400	100	96	100
Legal	5100	4904	8400	8200	100	96	100
Invoice	3300	3104	5100	4900	100	96	100
A4	4960	4760	7015	6815	100	100	100
A5	3496	3296	4960	4760	100	100	100
B5	4299	4104	6070	5870	100	95	100
Folio	5100	4904	7800	7600	100	96	100
Foolscap	5100	4904	7440	7240	100	96	100

300 dpi

Paper size	Dots						
	A	B	C	D	E	F	G
Letter	2550	2456	3300	3200	50	44	50
Legal	2550	2456	4200	4100	50	44	50
Invoice	1650	1552	2550	2450	50	48	50
A4	2480	2384	3507	3407	50	46	50
A5	1748	1648	2480	2380	50	50	50
B5	2149	2056	3035	2935	50	43	50
Folio	2550	2456	3900	3800	50	44	50
Foolscap	2550	2456	3720	3620	50	44	50

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