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2-Installation

(1) Provide Installation Drivers

Support OS : ML-85

- MS WINDOWS3.1

- MS WINDOWS95

- DOS 3.3 or Higher Version

- NET-WORK :WINDOWS for Workgroup 3.11 /Wdows 95/
WINDOWS NT 4.0(PCL5E)

ML-85G (Not supported in WINDOWS NT, not supported in PCL4.0 DOS)

- MS WINDOWS3.1

- MS WINDOWS95

Provided Driver(Free)

ML-85:

- WINDOWS PRINTING SYSTEM DRIVER & PCL5E ----- 1/2,2/2 DISKETTE

- PRINTER CONTROL PANEL

& STAYUS MONITOR DOS UTILITY -----1/1 DISKETTE

- PCL5E DRIVER for MS WINDOWS NT4.0 -----1/1 DISKETTE

ML-85G : WINDOWS PRINTING SYSTEM DRIVER & PCL4.0

---- 1/3,2/3,3/3 DISKETTE

2-(2)Preparation Before Installation

1)PRINTER CABLE :

IEEE1284 Printer Cabel Used

=> Since printer cables are default, they are not provided by the manufacturers. Users must purchase them separately. When using printer cables of previous models, make sure it satisfies IEEE11284 standard. Printer error may occur if non-standard cables are used(longer than 2m).

Especially in WPS MODE, dual direction communication occur between PC and PRINTER. It must satisfy the standard.

In PCL PRINT MODE, it can operate with single direction cable.

2) Applicable Basic PC Standards

1)ML_-85:

- Micro Process:IBM or compatible with 386 or higher processor
- Memory:4M RAM memory
- Free disk space of at least 4Mb

2)ML-85G

- Micro Process:IBM or compatible with 386 or higher processor(16MHz)
- Memory:8M RAM memory
- Free disk space of at least 4Mb

=> In WIN95 application, it is advised to have spare 100Mb since printer error may occur with small HDD memory.

To print #600 DPI, it does not demand too much memory. 486SX 25MHz 16M RAM should be sufficient.

• DEVE Cartridge Installation:

- When removing the seal on the developer cartridge, take cautions so that the remainders from the cartridge would not get on the clothes.

=> At this time, shake the developer assembly from left and right before inserting in the printer.

- Insert the correct size paper fitting the CASSETTE.

=> Support A4/LETTER/LEGAL/EXECUTIVE according to paper sizes to enable setting.

• Connecting Order

PRINTER CABEL(SENTRONICS) Connect -> PRINTER POWER CABLE Connect->
PC POWER Input Voltage ->PC Booting (Start WIN95)

3-Driver Installation

(1)WPS & PCL5E

“ç Driver Installation

=>When WIN95 is on, ML-85plus Model finds the printer “SAMSUNG ML” according to PLUG & PLAY.

(ML-85G : "SAMSUNG ML85G") According to the direction given by the provided INSTALL DRIVER, insert the install driver in the A or B driver of PC and begin automatic installation. Insert it in the driver then press the enter KEY. It will automatically begin installation.

“è Characteristics

=> ML-85 automatically installs WPS & PCL5E DIVER simultaneously without asking additional unnecessary questions. Thorough instructions are given in the Installation Guide, which enables users easy installation.

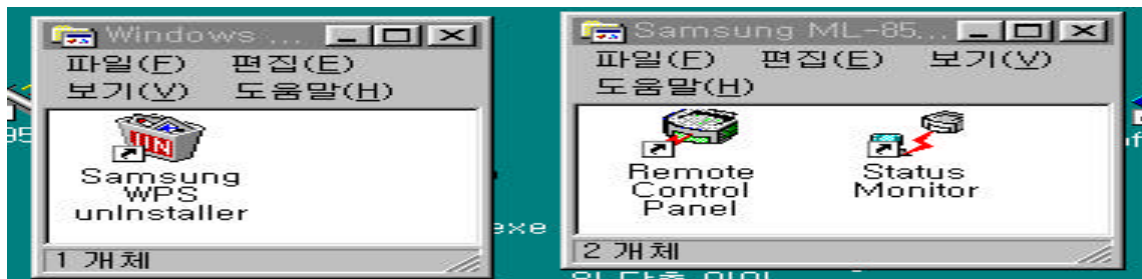
“é Upon the Completion of Installation

2 WIN95 PROGRAM Folders are added.

=>- "Samsung WPS uninstall" icon is created within the WINDOWS PRINTING SYSTEM.

-SAMSUNG ML-85 & 85 PLUS RCP & SM³»¿ì ì°Remote Control Panelì±

ì°Status Monitor" icon is created.



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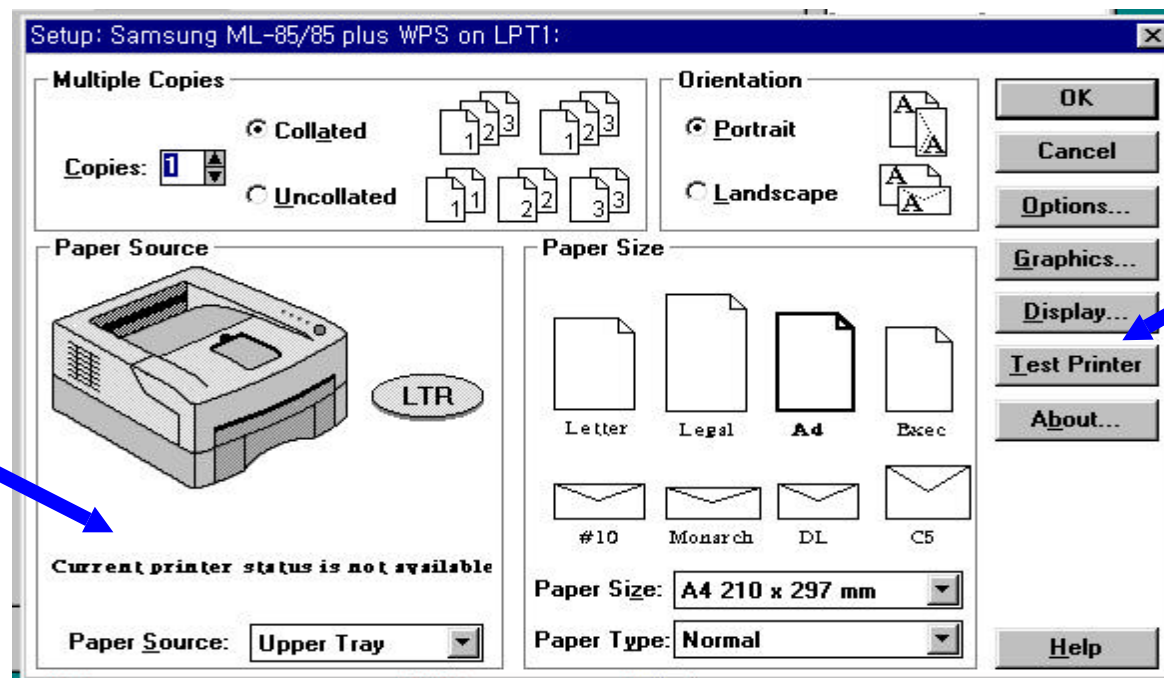
••ê TEST PRINTING

WON95 START ->SETTING ->PRINTERS -> Select SAMSUNG ML85 PLUS (Click right mouse key)

-> PROPERTIES ->DETAILS -> Select SETUP

WPS SETUP DIALOG BOX will show up.

PRINTER status
Messag check



=> Check if WPS DRIVER is installed correctly after the installation is completed and window is rebooted. Check the message on the PRINTER status, then press the Test Printer Key.

Checklist for Test Printing

1)Play Sound

2)Printer Animation

3)Printing

=> If sound is installed, the voice message of "printing start" will sound and the printer animation will show up while printing.

4)Test Page Print Information

- Printer Configuration

Check: Tray paper size information and total printer page

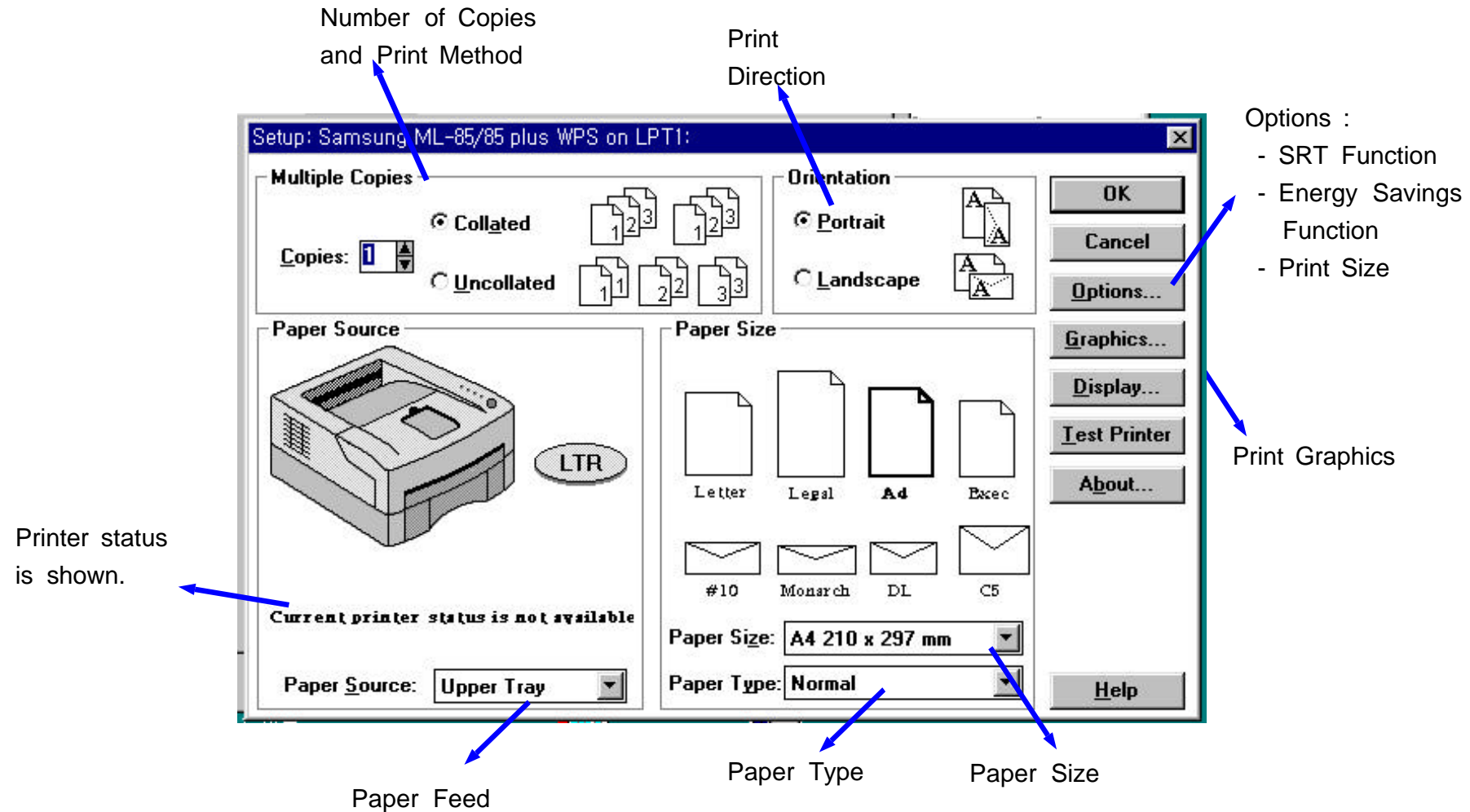
- PC configuration will be displayed.

Check: WPS version, play sound information and etc.

=> For more information, refer to the manual.

WPS SETUP DIALOG BOX OPTIONS

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For more information, refer to the user manual.

⚠ Cautions for Manual Feeding

1. Make sure when the paper is insterted, the printer is on READY mode.
(Motor is stopped)
=> If paper is fed while the motor is running, the paper is forced out of the printer.
2. During manual feeding of paper, first, insert the paper into the manual feed guide, then begin sending data.
3. If manual feeding material(OHP, label,envelopes, and etc.)s are fed through cassette (automatic paper feed device) the printer will recognize as normal paper even if it was printed in THICK MODE.
Therefore, in order to create high quality print image, paper must be fed through manual guide.
=> When selecting THICK MODE, the attraction of toner on OPC DRUM becomes stronger.
4. Envelopes must be fed horizontally. Otherwise, paper jam may occur.

⚠ Paper Size Sensing Method of ML Printer

ML PRINTER does not have PAPER SIZE detecting SENSOR, therefore, the paper size is sensed by calculating the time length from PAPER FEED SENSOR to EXIT SESOR.

The paper size is automatically sensed if the paper size is unchanged in the factory default mode.

❶ Checklist for Printer Failure

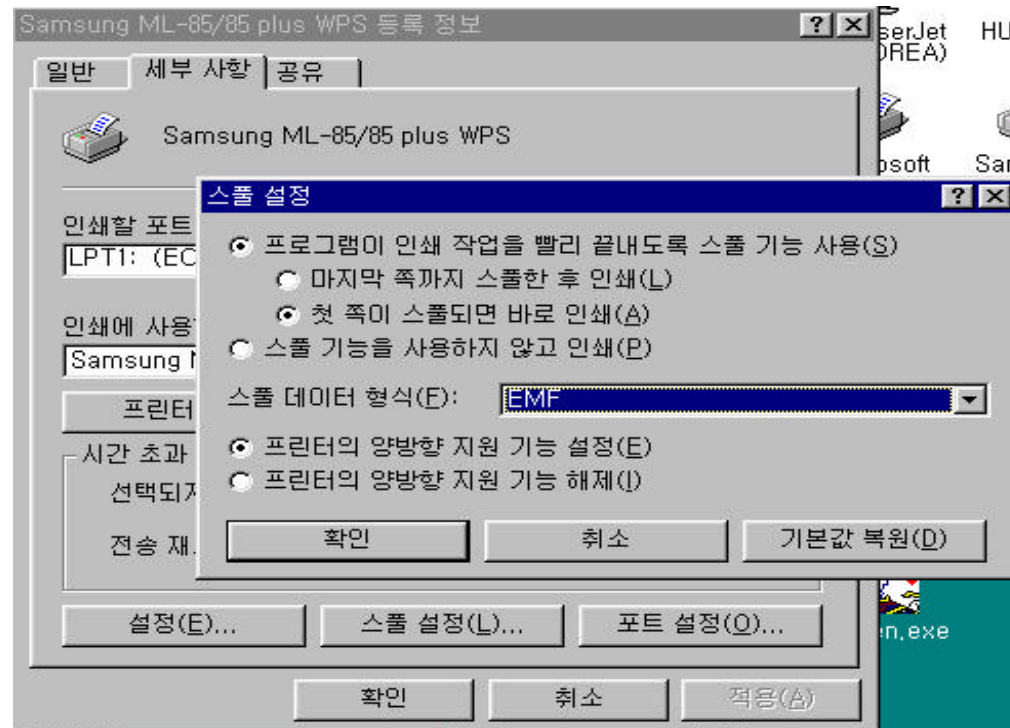
1) Check the printer's installation status.

WIN95 START ->SETTING ->PRINTERS ->SAMSUNG ML85 PLUS(DNC Left Mouse Key)

-> PROPERTIES ->DETAILS ->SPOOL SETTING~

If the spool data is "RAW", the bidirectional communication is not applicable. Therefore, convert to "EMF".

If it fails to convert, check the PC CMOS SETUP.



2) PC CMOS SETUP

If LPT mode is on "OUTPUT ONLY", bidirectional communication is not applicable and will not print.

¡Ÿ SAMSUNG PC CMOS SETUP

Since C-MOS SETUP methods are different for each PC manufacturers, when booting into the computer, refer to the instruction on the screen.

F2; æ MAIN; æ Configuration

Enter into the Integrated I/O Ports

Parallel Port [378 IRQ7] and COMPAQ use 3BC and 378

Parallel Port Mode[Centronics TM]

[ECP&EPP 1.9&DMA1]

[ECP&EPP 1.9&DMA3]

[Bi-Directional EPP 1.7]

[Bi-Directional EPP 1.9]

[Bi-Directional]

Exit

"Save Changes" and "Exit" saves the changed value.

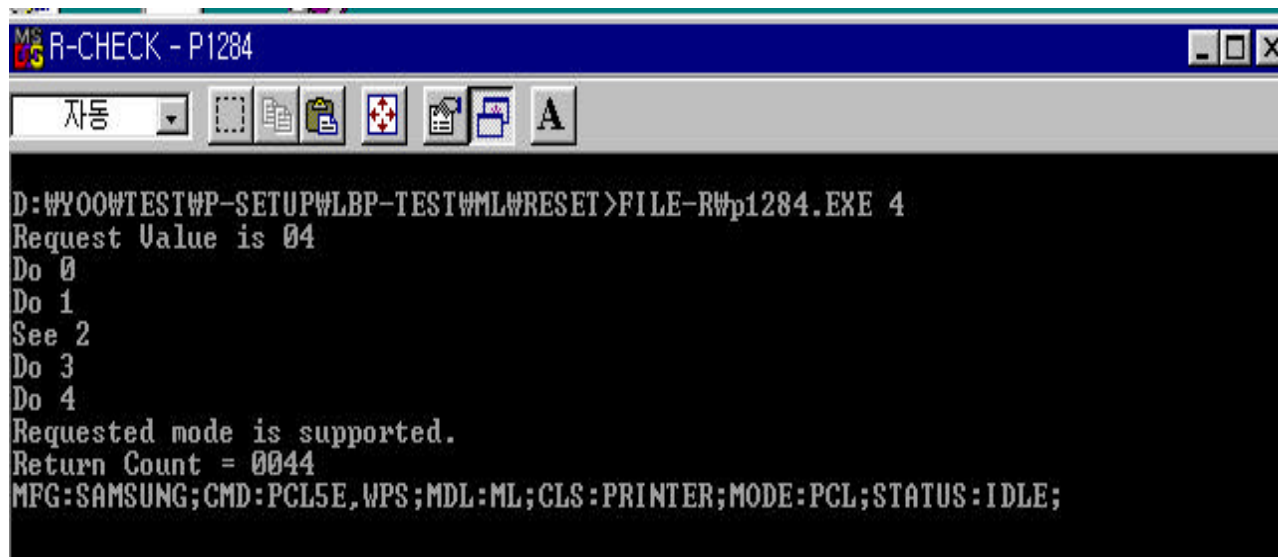
Change the CMOS SETUP. Erase the installed DRIVER by selecting UNINSTAL ICON, then reinstall.

2) When WIN95 Plug & Play Does Not Execute (Device ID is not found)

The WIN95 device ID can be checked by the Samsung provided P1284.exe file.

The P1284.exe file also checks the dual direction communication between the printer and PC parallel port.

If "P1284.EXE 4" is executed in DOS, the following will appear.



```
R-CHECK - P1284
자동
D:\WYOO\TEST\WP-SETUP\MLBP-TEST\ML\WRESET>FILE-R\p1284.EXE 4
Request Value is 04
Do 0
Do 1
See 2
Do 3
Do 4
Requested mode is supported.
Return Count = 0044
MFG:SAMSUNG;CMD:PCL5E,WPS;MDL:ML;CLS:PRINTER;MODE:PCL;STATUS:IDLE;
```

"ML" is the printer ID located where the arrows are.

If the screen does not display as shown above, there may be an error with the printer ID, which may appear as printer error.

ML Printer Device ID

1) WIN95 Device ID Creation:

Connect the PRINTER and PC. Then, execute "MLPLUS.EXE" file in Dos mode. When the ready LED starts to blink, device ID can be saved in the controller's EEEP-ROM.

=>If device ID error occurs, the printer will automatically print out the message of printer status is unknown in 5 languages.

2) P1284.EXE :

WIN95 device ID and the printer's device ID value can be checked by executing Option 4 (P1284.EXE 4) file.

#ML-PLUS.EXE and P1284.EXE are purchased separately.

The device ID of ML-85G is not saved to separate software. It is saved in the EEP-Rom within the controller during the manufacturer's shipment. Therefore, separate ID saving method is unnecessary. (EEP-Rom is replaced when defects occur.)

3) Collision Occurrence between Old & New Printer Driver

;ü Models most likely to have collision

CANON 460(WPS) =>ML same

OKI 4W(WPS) => ML same

SHARP (Most of GDI)

HPLJ 5L/6L

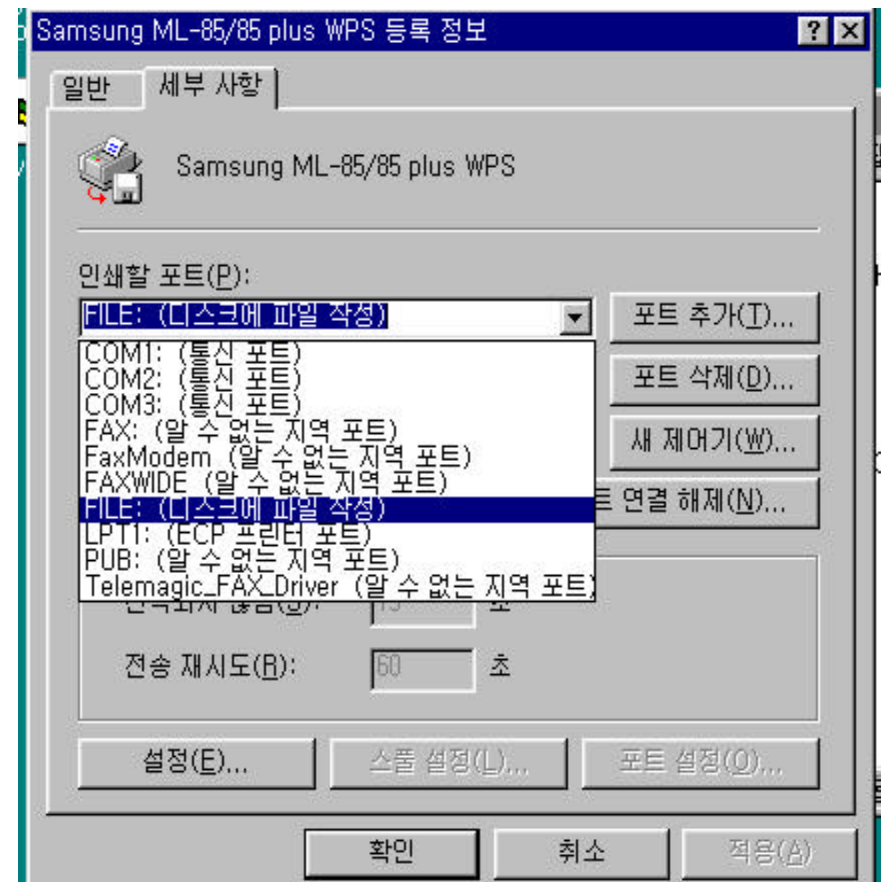
Most ink-jet printer models

;ü If there is a printer driver already installed, deleting it will prevent the collision between the printer ports.

;ü From the models listed above, the models similar to ML printer may not execute after the installation is complete.

=> Same files are used.

;ü If the desires the installed driver to remain, convert LPT mode to "file". But, if conversion does not go through, it is better to delete the driver.



4) Error Occurrence after the ML Printer Installation

Error occurs in the user utility after the ML driver has been successfully installed.

1) Cause:

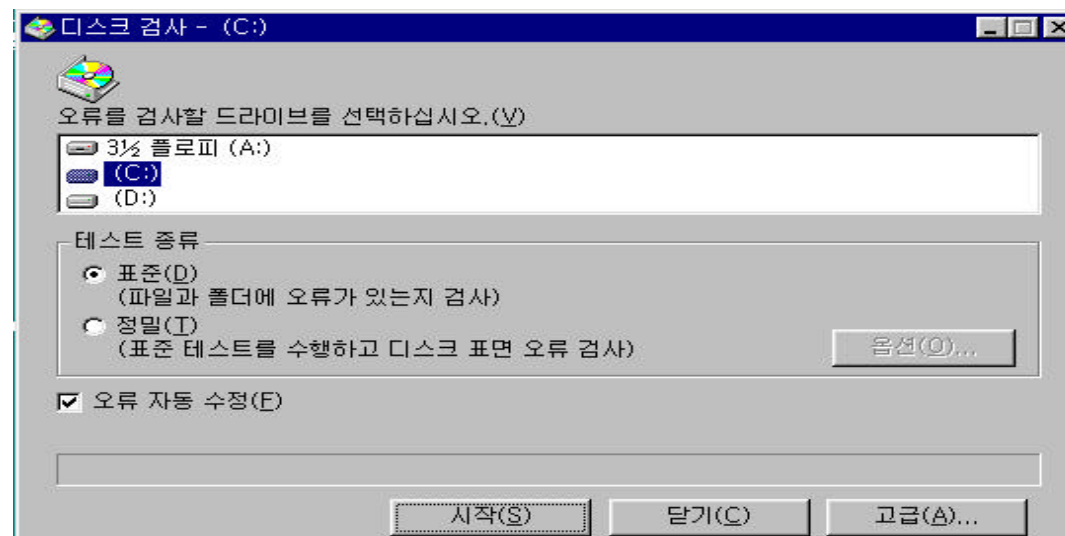
Error may occur since the MS installation driver is over 4Mbytes and user utility may be transferred to defective HDD sector.

2) Solution:

Apply WIN95 "SCANDSKW.exe" to USER HDD before use.

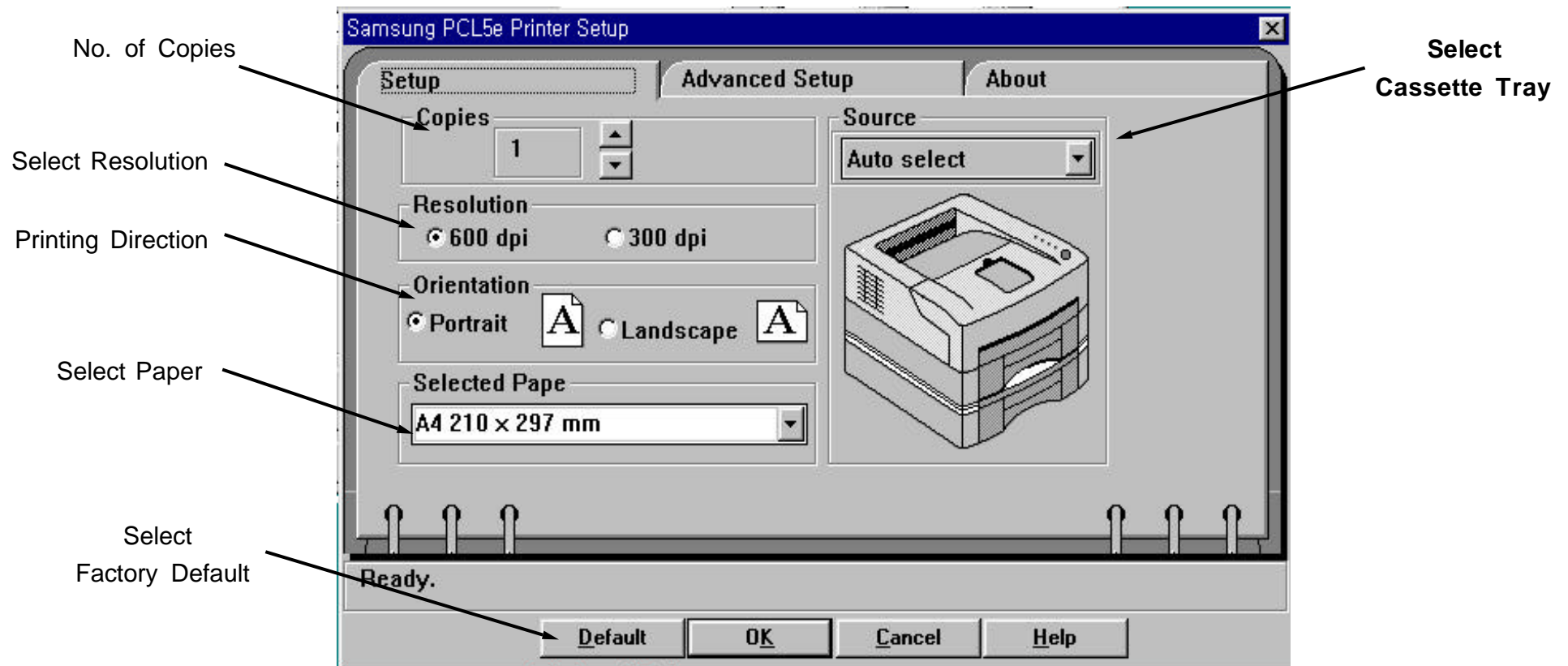
(When errors occur, delete the printer driver then reinstall)

It is advised to use
WIN95 "SCANDSKW.exe"
function to prepare
HDD to it's optimal
condition.



(2) PCL5E

PCL5E setup dialog box will appear by selecting the following in consecutive order. WIN95 START -> SETTING -> PRINTERS -> SAMSUNG ML85 PCL5E (left mouse key) -> PROPERTIES -> DETAILS -> SETUP



Select graphic mode for general text file printing.

Prints window. (at slow speed)

Select memory.

Assign Graphic Mode
For graphic printing, select raster.

Graphic Quality :
Excellent resolution at "High" mode, but slow printing speed.

The screenshot shows the 'Samsung PCL5e Printer Setup' dialog box with the 'Advanced Setup' tab selected. The 'Graphic Mode' section has two radio buttons: 'HP-GL/2' (selected) and 'Raster'. The 'True Type' section has three radio buttons: 'Download as True type' (selected), 'Download as Bitmap', and 'Truetype as Graphics'. The 'Printer Memory' section has a dropdown menu set to '2' MB. The 'Gray Scale' section has three radio buttons: 'Photographic' (selected), 'Line Art', and 'Scanned Image'. The 'Graphic Quality' section has three radio buttons: 'High' (selected), 'Medium', and 'Low'. At the bottom, there are buttons for 'Default', 'OK', 'Cancel', and 'Help'. A message at the bottom states 'You can print several graphic scales.'

❏ Reference

WPS mode enables the printing as appeared in the monitor, but the PCL mode may print out in different font since it uses the font rom within the controller. PCL mode chooses the font closest to the controller's..

(3) WIDOWS RCP Application Method

Status monitor will appear by selecting the following in consecutive order.

WIN95 START -> PROGRAM -> SAMSUNG ML-85/ML-85plus RCP & SM ->
REMOTE CONTROL PANEL

Main Functions of Windows RCP

Printer Job

Page Set-Up

Font Set- Up

Quality

Test => Supports Modes

=> For detailed information refer to **P2-1** of manual.

(4) ML-85 DOS RCP Installation

- Minimum installation environment requires over 250Kbytes of Dos memory. (Execute DOS memory to check, larger memory is impossible to use.)
- This driver is for dos users only. It's functions are same as Window RCP. Installation is as following.

Insert the third discket to A or B

Execute C:\>XCOPY A:*. * C:\DOSUTIL

For detailed information refer to P2-11 of manual.

(5) Installation of ML-85 Windows NT4.0 (PCL5E)

Select WIN95 → add printer → of printer folder and follow the instructions.

(6) Installation of ML-85G WPS & PCL4.0

- The INSTALL WPS & PCL4.0 driver is composed of 3 diskettes and the installation is same as ML-85.

(7)ML-85G Controller Method

¡á HOST-BASED PRINTER

The major differences between PC and intelligent printer (CPU and ROM of ML-85 is in the controller) environment are the memory and excution.

Host-Based printer uses PC's virtual memory and when it is not in use, the memory should be released by software. Depending on the PC environment, errors may occur during the execution of complex files.

Theory :

The command from ML-85G´Â Windows application program is not converted to different printer language. It is directly converted to image and saved (condensed) in the PC memory. Then, it is transferred through the printer controller to the printer engine to be printed. The printing speed depends on the PC's speed(capacity).

Reference :

Since ML-85G does not contain CPU, it cannot cound pages and the controller cannot obtain printer information.

4. Deleting Driver

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(1) Use Uninstall Driver

Open program manager and double click "~Uninstalleer" then delete.

(2) Deleting Method Within The System

Deleting can be done by WIN95 WPS Reinstall.

If icon is deleted or the deleting does not go through do the following.

• Delete Printer Folder to "ML-85 or ML-85 Plus"

• C:\WINDOWS\SYSTEM => DEL WPS*.*

• C:\WINDOWS\ => DEL WPS.INI

• C:\WINDOWS\ => Delete Directory "~WPS_TP"

• SYSEDIT.EXE => WIN.INI to Wps_testpage=1 Delete after save

• REGEDIT.EXE => HKEY_LOCAL_MACHINE\ENUMLPTENUM "install id" delete

WIN3.1 Reinstallation

• Go control panel -> go printers -> select all printer drivers you installed -> click connector

-> change LPT1 to file -> click OK -> and then -> go windows printing system

-> De install Click

• C:\WINDOWS\SYSTEM => DEL WPS*.*

• C:\WINDOWS\ => DEL WPS.INI

When using manual methods, take cautions so that the other files are not deleted during the process.

5. Question & Answer

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Q1) CLEANING

Cause: Developer stained with toner

Solution: (ML-85)

Press ON/OFF LINE KEY for 10 seconds to clean the developer.

(ML-85G)

Click brush icon for cleaning on status window.

Q2) RESTRAINTS ON USER ENVIRONMENT

(WPS)

ML-85G: PC does not operate on the version lower than INTEL 486 PC which has smaller memory than 8MB. Does not operate under pure dos.

ML-85 : Window NT4.0 driver is provided separately for printing.

ML-85G : Does not operate under Windows NT.

Q3) INSTALLATION FAILS

(WPS)

1. Collision between existing WPS and GDI printer.

Cause : Upon the installation of ML-85G, the printer driver port is converted to file and this creates port sharing problems since they cannot be used simultaneously.

Solution : If the printer driver is other than WPS or GDI:

=> Convert port to file.

If the printer driver is WPS or GDI:
=> Deinstall ML-85G, then reinstall WPS.
=> Deinstall ML-85, then reinstall ML-85.

2. Bidirectional Communication Fails

Cause : The parallel port is on "output only" mode in the PC's CMOS setup.

Solution : Change from CMOS setup to bidirectional communication

Example) Bidirectional, SPP

Q4) ZIP DRIVER USING SAME LPT PORT FAILS TO OPERATE

(ML-85/85G: WPS)

Cause : Printing status is unknown when accessing the zip driver during printing.

Solution : Refrain from simultaneous accessing.

Q5) LIMITED MEMORY DOES NOT ALLOW 600 DPI PRINTING (600 DPI Printing Error)

(WPS)

ML-85G: Printer memory cannot be increased. PC memory should be increased.

Pressing the "play button" will enable 600 x 300 DPI print out.

ML-85: For complex documents, resolution automatically shuts down or the message of memory shortage appears.

=> Increase the printer memory.

Q6) DELETE ML-85 WPS DRIVER

Solution : First, click "start" in Win95. Second, select "program". Third, select "ML WPS Deinstaller". This will restart Win95 and complete the deleting.

Q7) NEVER USE JOINTER

(ML-85/85G: WPS)

ML-85G: Never use jointer. Sharing the printer under network is recommended.

Cleaning mode is applied to clean up image stains and black spots in the intervals given below.

OPC DRUM 94.2mm CHARGE ROLLER 37.7mm

DEVELOPING ROLLER 25.8mm

SUPPLY ROLLER 21.3mm

PRESSURE ROLLER 56.5mm

TRANSFER ROLLER 47.1mm

