P-55

DISC LABEL PRINTER

TEAC

*This manual applies to [Model P-55-110/111/120/121]

SECTION 1: Table of Contents

SECTION 2: IMPORTANT SAFETY INSTRUCTIONS

1) Read these instructions.

2) Keep these instructions.

3) Heed all warnings.

4) Follow all instructions.

5) Do not use this apparatus near water.

6) Clean only with dry cloth.

7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11) Only use attachments/accessories specified by the manufacturer.

12) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13) Unplug this apparatus during lightning storms or when unused for long periods of time.

14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

- Do not expose this apparatus to drips or splashes.

- Do not place any objects filled with liquids, such as vases, on the apparatus.

- Do not install this apparatus in a confined space such as a bookcase or similar unit.

- The apparatus draws nominal non-operating power from the AC outlet with its POWER switch in the off position.

⚠ The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

This appliance has a serial number located on the rear panel. Please record the model number and serial number and retain them for your records.
Model number_____
Serial number_____

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

SECTION 3: IMPORTANT SAFETY INSTRUCTIONS

For U.S.A

TO THE USER
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

CAUTION
Changes or modifications to this equipment not expressly approved by TEAC CORPORATION for compliance could void the user's authority to operate this equipment.

For the consumers in Europe
WARNING
This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Pour les utilisateurs en Europe
AVERTISSEMENT
Il s'agit d'un produit de Classe A. Dans un environnement domestique, cet appareil peut provoquer des interférences radio, dans ce cas l'utilisateur peut être amené à prendre des mesures appropriées.

Für Kunden in Europa
Warnung
Dies is eine Einrichtung, welche die Funk-Entstörung nach Klasse A besitzt. Diese Einrichtung kann im Wohnbereich Funkstörungen versursachen ; in diesem Fall kann vom Betrieber verlang werden, angemessene Maßnahmen durchzuführen und dafür aufzukommen.

For Canada

Industry Canada's Compliance Statement:
This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

CAUTION

[Shut-off Timing After Printing]
If you turn off the printer within 10 seconds after a print operation is completed, the thermal head may not be moved back in place.
With the thermal head not in place, you cannot remove the ribbon cartridges from the printer.
If you try too hard to remove them with such a condition, the printer may be damaged.
Before you turn the unit off, make sure that you keep it running **more than 10 seconds after the print operation is completed**.

Thank you for purchasing the TEAC P-55.
The P-55 is a label printer suited to printing a high quality of label on a moderate amount of CD or DVD.
This manual provides information on installing the P-55, connecting it to your PC, loading ribbons, etc.
When necessary, please refer to your PC's manual, too.
Please read this manual in full before using your P-55 to take a maximum advantage of its capabilities.

1   P-55 Features
- Full-color, high-quality print
- Photo-quality print with full color 256 gradation levels per color offered by re-transfer printing
- 400dpi high precision and high definition image quality ensured

- Two printing methods available
  With the P-55, you can print image using either PHOTO ribbon for dye-sublimation printing or COLOR
  ribbon for thermo-fusible printing depending on the image type or purposes.
   - If you want to reproduce subtle tonal gradations as seen in photos,
     Use PHOTO ribbon, which is excellent in gradation reproductivity.
   - If you want to print text on black background,
     Use COLOR ribbon, which is best suited to expressing color tone differences.

  The P-55 automatically identifies the type of ribbons loaded (*1) and the print setting for the ribbon is
  configured.

  *1   You must load a correct combination of ink and transfer ribbons into the P-55. If you load a wrong
       combination of ribbons, an error message is displayed on the front panel.

- Protective coating applied during print process
  The P-55's overcoating capability produces glossy prints free from blurriness and outstanding in
  resistance against moisture and scratch.
  Excellent weatherproofness and scratchproofness followed by high durability;
  Clear coating applied over the surface of the disc printed with the P-55 prevents scratch, moisture and
  UV damage, and thus keeps glossy prints free from blurriness and color fade-out with the years.

- Best also for barcode prints (using COLOR ribbon)
  When printing bar codes on the label surface, your concern may be with water resistance and durability,
  as well as with fine black and white precision prints. The P-55 produces delicate, high-precision black
  and white prints provided with durability and resistance against water thanks to its COLOR ribbon print
  and overcoating capabilities.

- Printable area from inner edge to outer circular edge
  The P-55 can print on the disc surface from the outside edge of the clear inner hub to the outer edge of
  a disc (*2) without losing any of the content you want to print.

  *2   It is not guaranteed that the P-55 can print a disc from edge to edge. Print performance depends
       on the print range that each media manufacturer recommends.

- [Optional ribbons]
  COLOR (+P) ribbon is another type of COLOR ribbon available. It can be used for ink jet printable discs
  and the like other than our recommended thermal printable discs: (*3) (*4).

  *3   This ribbon does not support all kinds of discs.
       Neither printing nor recording performance is supported if a disc that is not any of our
       recommended thermal printable discs is used for the P-55. You need to check in advance on your
       own on what discs the P-55 can print. (For details, contact our sales team.)

  *4   To use the COLOR (+P) ribbon, the firmware on the P-55 must be ver.52.00 or later or you need
       the utility software ver.2.0.0.10 or later. The COLOR (+P) ribbon is not supported if you use any
       version of the firmware or software older than the above versions.

2   PC Requirements

PC:	One running Windows 2000 or Windows XP
Memory:	256MB; 100MB or more space on your hard disk drive
	(An appropriate space for storing image data is required)
Operating System:	Windows 2000/Windows XP

USB or parallel port on PC required.

3   Features of PHOTO Ribbon and COLOR Ribbon

PHOTO ribbons work the best for high-resolution prints such as photos.
COLOR ribbons are suitable for general-purpose prints including text and illustrations.
Labels printed with the P-55 using PHOTO or COLOR ribbon are highly weatherproofed.


NOTE

**Keep in mind the following when storing ribbons.**
1)   **Store ribbons as they were packed.**
2)   **Avoid high temperature, high humidity and direct sunlight.**
     (allowable temperature range: 5-30°C, allowable humidity range: 20-80%)
     *Operating the P-55 outside the specified temperature range may cause trouble with the system.
3)   **No condensation is allowed.**
4)   **For high print quality, it is recommended ribbons be used up within 6 months of first opening the packs.**
5)   **Avoid dust after opening the package.**
6)   **Do not apply any shock to the product unpacked. Applying shock to the product may misalign the spools of ribbons, resulting in improper printing.**

The package contains the following items as well as the P-55 main unit. Please make certain that all the items are present. If anything is missing or damaged, contact your local dealer.

Accessories for P-55	
"Before Getting Started" x1 	Utility Software CD-ROM x1 (including Operation Manual, Printer Driver and Disc Label Editor) Printed by P-55 (PHOTO)
Ribbon set x1 (Set of ink ribbon and transfer ribbon) 	Label print sample Printed by P-55 (COLOR)
Blank media (CD-R) 10-pack of discs x1 	Printer cable x1, USB cable x1
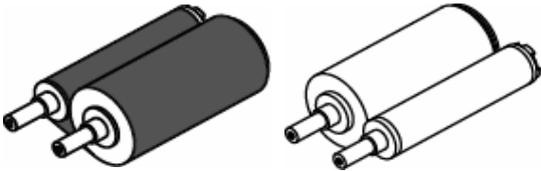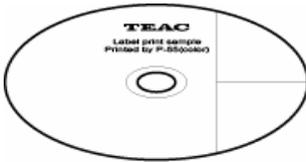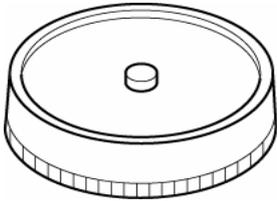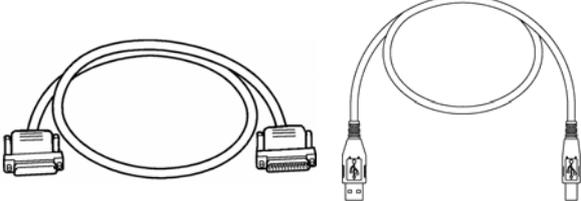
AC power cable
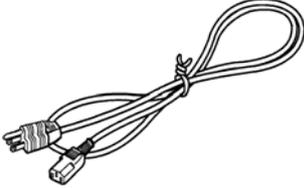
(For U.S.A. and Canada) 	(For Europe)
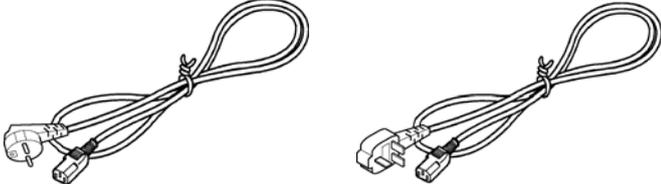
Cleaning kit   x1
*Note

*Note: The cleaning kit is optional.

SECTION 6: Identifying Parts
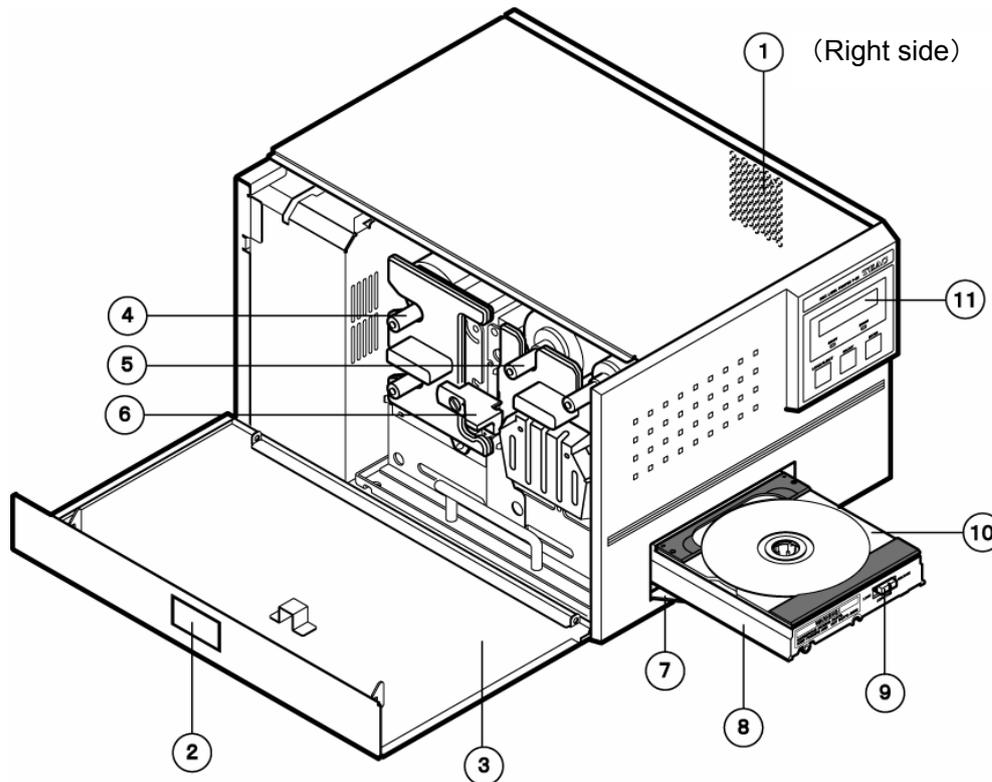
（Right side）

1 Exhaust Fan (on the right side)

This is an air outlet for dropping the temperature inside the unit. Do not block this opening with foreign objects or insert them into the unit through the opening. Failure to follow these instructions may result in damage to the unit and injury to the operator. Place the unit in an adequate location. See **SECTION 7:Choosing Adequate Location**.

2 Side Door Unlocking Button

Pressing this button opens the side door. The side door is locked when the unit is turned on.
(For how to unlock the lock when the unit is turned on, see **SECTION 15: Loading Ribbons**.)

3 Side Door

You need to open this door when removing the cartridges to replace ink and transfer ribbons or perform maintenance work. Keep this door closed when the unit is in operation.

4 Ink Ribbon Cartridge

This is a cartridge for ink ribbon.
(As shipped from the factory, the cartridge does not contain any ink ribbon.)

5 Transfer Ribbon Cartridge

This is a cartridge for transfer ribbon.
(As shipped from the factory, the cartridge does not contain any transfer ribbon.)

**6** Lock Lever

This is for locking the ribbon cartridges in place.

7 Tray Door

The tray slides out. Do not place any objects in front of this door.

8 Tray

9 Tray Adapter Lock Switch

10 Tray Adapter

11 Control Panel

(LCD, indicators and buttons explained in **SECTION 12: Control Panel** Features.)

12 STATUS AUX Connector (optional)

This connector allows connection of the P-55 to an external device for the combined use with the robotics system.

*Please contact us before use. (See **SECTION 23: Contact Information**.)

13 Parallel Port Multi-connector

This provides a parallel interface between your PC's printer port and the P-55 over the supplied printer cable.

14 Intake Fan (with filter)

This opening is for dropping the temperature inside the unit. Do not block the opening with foreign objects or insert them into the unit through the opening. Failure to follow these instructions may result in damage to the unit and injury to the operator. Place the unit in an adequate location.

15 Power Switch

This rocker switch turns power to the unit on and off. To turn on the unit/printer, press the " **|** " end of the switch. of the switch. To turn off the unit/printer, press the " ⏻ " end.
(**The internal cooling fan stops only in about 10-20 minutes after the unit switches into the Standby mode.**)

16 AC Power Input Socket

Plug in here the power cable. (To drop the temperature inside the unit, the fan continues to revolve for about 10 to 20 minutes after the power is shut off to the unit. For this interval of time, do not unplug the power cable.)

17 Heater Voltage Selector Switch

This selects the voltage to supply to the internal heater.
Selecting a wrong voltage may cause the printer to malfunction.

For U.S.A. and Canada
The Heater Voltage Selector Switch is preset to "100-120V" at the factory.
For Europe
The Heater Voltage Selector Switch is preset to "220-240V" at the factory.

18 USB 2.0 Compatible Connector (Hi-Speed support)

(*Note) USB 2.0 interface is compatible with USB 1.1.
To take advantage of the USB 2.0 high speeds, your PC needs to have USB 2.0 capability.

SECTION 7: Choosing Adequate Location

- The P-55 is a precision machine. Be careful not to drop or expose the unit to severe impact (it weighs more than 22 kg).
- The P-55 has been shipped with some internal parts fixed in place with special materials to prevent the unit from being damaged during transportation. Be sure to remove all shipping materials before use by referring to **SECTION 8: Installing and Removing Shipping** Protection Materials.
- The Heater Voltage Selector Switch is preset at the factory according to the sales region. **Selecting a wrong voltage may cause the printer to malfunction.**

  For U.S.A. and Canada: The Heater Voltage Selector Switch is preset to "100-120V" at the factory.
  For Europe: The Heater Voltage Selector Switch is preset to "220-240V" at the factory.
- Avoid placing objects in front of the disc tray, or they might cause damage to the tray driving mechanism.
- Ambient temperatures should be between 15 °C and 30 °C and humidity should be between 30% and 70%.
- Inside the P-55 there are components that cause heat buildup (such as thermal print head and heat roller). So you should be concerned with air circulation.

⚠️ **CAUTION**

Do not block the lateral exhaust opening and the rear intake opening with walls or other objects (a free space of more than 10cm/4 inches is a must). Heat trapped inside the unit might result in injury to yourself or others as well as damage to the unit and degradation of print quality.

- Place the P-55 on a stable, horizontal surface free from mechanical vibration or shock.
- To maintain consistent print quality, avoid places where temperatures sharply change because of the direct sunlight or nearby heating apparatuses.
- Avoid dusty places, or the print quality might deteriorate or the printer might suffer failures.
- Never install the P-55 close to windows through which rain droplets can sneak in, which might cause malfunctioning.

⚠️ **WARNING**

Areas indicated by hazardous heat warning labels are very hot while the power is turned on or just after the power is turned off.
The temperature of the ribbon cartridges reaches about 30 °C to 35 °C while the printer is running or right after the power is shut off. On such conditions, the heat cover is at a temperature of about 74 °C to 80 °C. Touching the heat cover or around the cover may burn your skin or injure you.
(To cool the printer to 30 °C or below, leave it as it is for about 40 minutes after the power is shut off to the unit.)
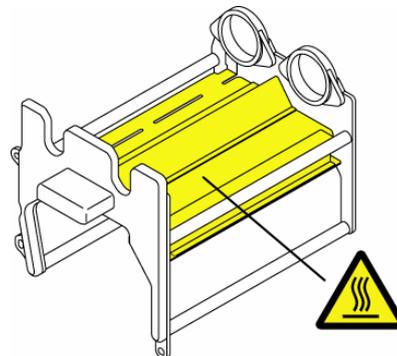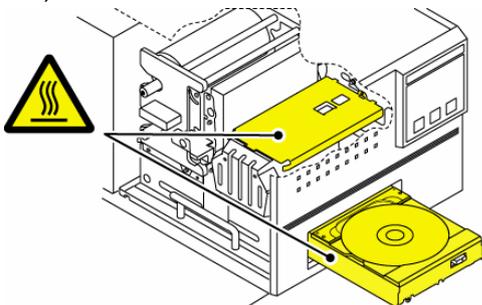
⚠️ **WARNING**

Keep your fingers or clothes such as sleeves away from the tray while it is opening or closing. Failure to follow this instruction may cause your fingers or part of your body to get caught in the tray and injured.

⚠️ **CAUTION**

DO NOT turn on the P-55 without removing shipping protection materials. Failure to follow the instruction may cause the unit to malfunction.

-A metallic piece and cushions have been installed in the unit to prevent the unit from being damaged and secure the internal parts to the unit during shipment. Make sure that you refer to this manual and remove all shipping materials before use. For future shipments, keep the metallic piece and cushions (3 types) in the packaging box with packaging materials.

-To prevent the product from being damaged during shipment, install all shipping protection materials back in the unit by reversing the order of the removal procedure for future shipments.

NOTE

-The P-55 is a precision machine. Be careful not to drop or expose the unit to severe impact (it weighs more than 22 kg).

-This product internally reaches a high temperature when in use. Before installing all shipping materials in the unit, first leave it turned off for a while (1 hour) to cool it off completely and be sure to remove the ink ribbon and transfer ribbon as well.
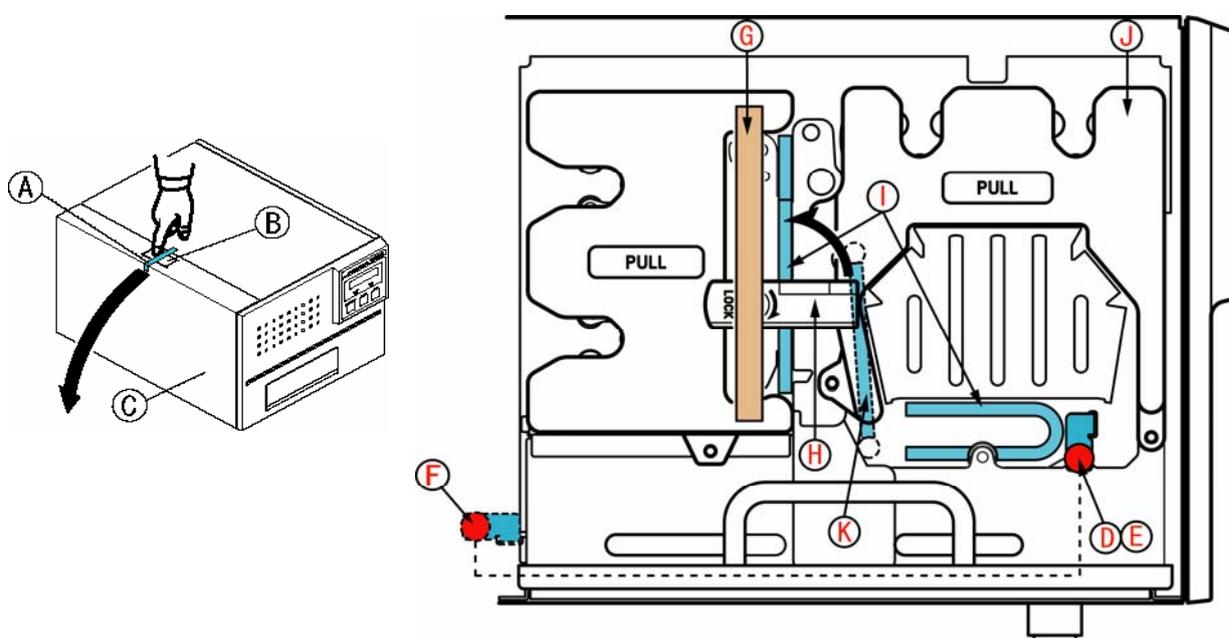
1. Peel off adhesive tape **A** from the top left of the unit, press unlocking button **B** and open side door **C**.

2. Loosen the screw **D** and pull out the metallic bar **E**. Insert the removed metallic bar into position marked **F** to keep it for future use.

3. Peel off adhesive tape G, flip up lock lever H to unlock the ribbon cartridge and remove two cushions **I** by pulling them toward you.

4. Pull out ribbon cartridge **J**, remove cushion **K** and then put back the ribbon cartridge to its place for the moment. (You may want to keep the cartridge removed to load ribbons as discussed later, in **SECTION 15: Loading Ribbons**.)

5. Flip down lock lever **H** to lock the ribbon cartridge in place and lift up the side door until it locks.

CAUTION

Do not try to forcibly close the side door without flipping down the lock lever, or the side door may be damaged.

SECTION 9: Setting Parallel Interface Mode on PC

To run the P-55 using a parallel port on your computer, you need to set the P-55 to ECP mode.

   ***ECP mode** (Extended Capabilities Port)

You can make the setting on the BIOS setup screen. For the setup details, refer to your computer's manual.

SECTION 10: Installing Disc Label Editor

NOTE   To reinstall the Disc Label Editor, first you must follow the instructions in [15. Removing Label Editor and Printer Driver] before following the instructions in this section.

Insert the supplied Utility Software CD-ROM into your PC's DVD/CD-ROM drive and an installation wizard will automatically start.

If the installation wizard does not start automatically, click **Start** --> **My Computer** --> **CD-ROM** --> **SETUP**.

The window Choose Setup Language comes up.
Select **English** and click **OK**.

The window InstallShield Wizard comes up.
Click **Next**.
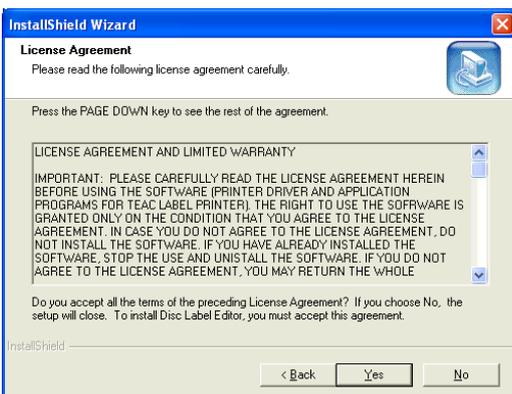
The window License Agreement comes up.
Click **Yes**.

SECTION 10: Installing Disc Label Editor
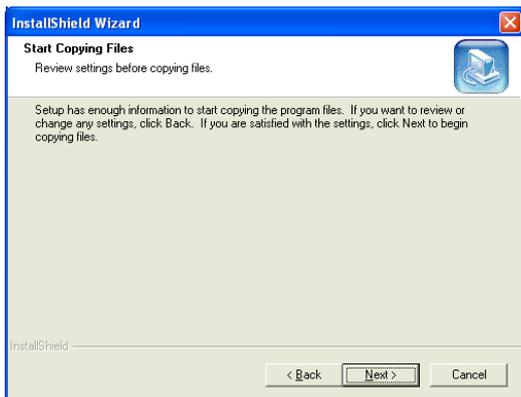
The window Start Copying Files comes up.
Click **Next**.

The window InstallShield Wizard Complete comes up.
Click **Finish**.
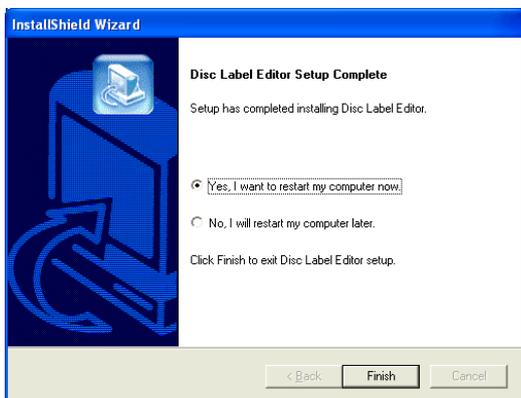
The window Disc Label Editor Setup Complete comes up. Place a check beside **Yes, I want to restart my computer now**, remove the CD-ROM from the DVD/CD-ROM drive and click **Finish**.

The P-55 is now ready to be used after once restarted.

■ **Connecting PC to P-55**

The heater voltage selector switch is preset at the factory as follows.
100-120V for U.S.A. and Canada and 220-240V for Europe
Selecting a wrong voltage may cause the printer to malfunction.
Making sure that the shipping protection materials (3 cushions and one heat roller fixing bar) have been removed, plug the end of the power-supply cable into a wall outlet.

CAUTION

DO NOT turn on the P-55 without removing shipping protection materials. Failure to follow the instruction may cause the unit to malfunction. U.S.A. and Canada

Printer cable

USB cable

Power supply code set
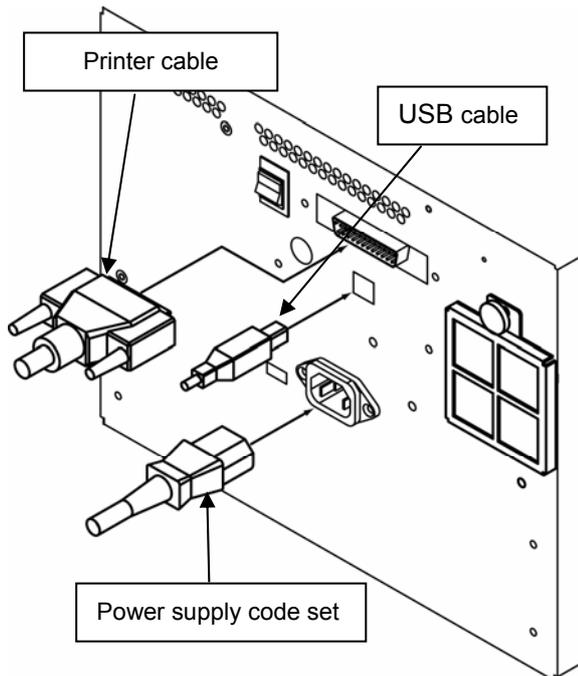
*NOTE

*Plug either the printer cable or the USB cable into the appropriate connector on the unit.

CAUTION To plug in the product, make sure you select the power plug that fits into your wall outlet from among the provided power plugs. Using any power plug that does not fit into your outlet may cause the product to malfunction or cause fire.

Press the power switch on the rear panel of the P-55 to turn it on.
The LCD on the front control panel will change as follows:

```
Initial  RAM
```
↓
```
TEAC        P-55
            RevXX.XX
```
↓
```
Initial
Warming  up
```
↓
```
Ready
```
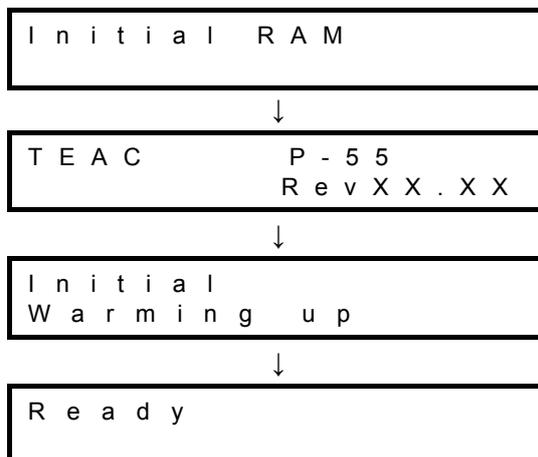
With the above message indicated, the printer is ready for use.

SECTION 12: Control Panel Features
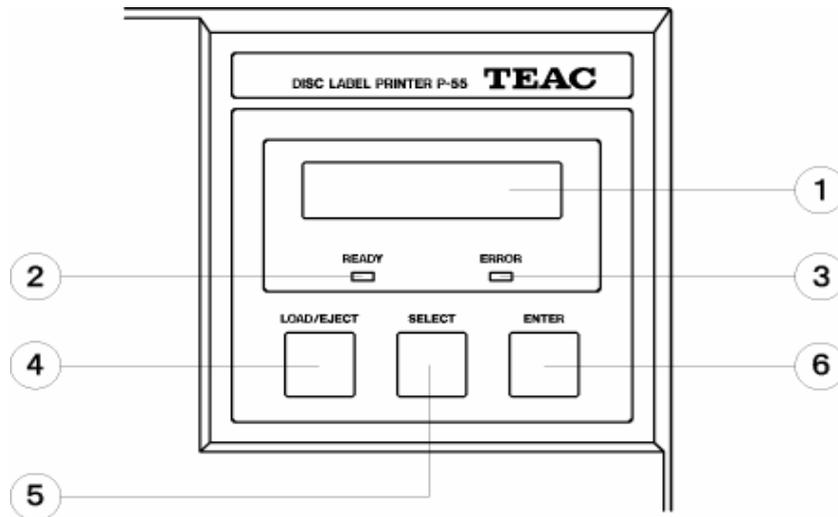
1   Display (or "LCD"): reports status information, etc.

2   READY lamp: lights up to show that the printer is ready and can start printing.

A circle (o) is displayed in the upper right corner of the LCD to indicate that the disc tray holds a print medium.

3   ERROR lamp: lights up when an error develops.

A brief error message is displayed on the LCD. For details on error messages, refer to **SECTION 14: Error Messages Explained**.

4   LOAD/EJECT button

Lets the tray slide out and in. This button is inactive while the printer is in operation indicating "Busy" on the LCD.

5   SELECT button: rotates the function through the following:

1	Data Clear:	clears all image data read from the PC.
2	Unlock Door:	unlocks the side door.
3	Ink Remain:	shows the remaining amounts of ink and transfer ribbons.
4	Printed No.:	shows the total amount of discs printed so far. When the indication exceeds 10,000, this is a time to replace the thermal print head (and the halogen lamp), so contact our customer service representative.
5	Test Print:	runs the printer in test print mode. When "Test Print" is selected and you press the **ENTER** button, the display reads "Set Up Disc" and the tray slides out. Then you can put one of the supplied blank disc (CD-R) on the tray and press the **ENTER** button again. The tray will slide in and the printing process will start. For how to set up a medium on the tray, refer to **SECTION 16: Loading Print Media**.
		When the disc tray slides out and you press the **ENTER** button, the tray slides in and the P-55 switches back into the Ready mode.
6	Interface:	displays the port selected: USB or parallel port. (preset to USB)

6   ENTER button: initiates a function selected with the SELECT button.

After a function is completed, you can wait for several seconds or press the **ENTER** button again to get back to "Ready."

NOTE

The SELECT button is inactive while the printer is in operation indicating Busy on the LCD.

SECTION 12: Control Panel Features

1   Choosing between USB Port and Parallel Port

1. Make sure the LCD on the control panel displays Ready.

```
R e a d y
```

2. Press the **SELECT** button to set the mode to **6 Interface**.

```
6   I n t e r f a c e
      U S B
```

3. Press the **ENTER** button to set the mode to **Select I/F**.

```
S e L e c t   I / F
U S B
```

4. Until the desired port, USB or parallel port, is displayed on the LCD, keep pressing the **SELECT** button.

```
S e l e c t     I / F
U S B ( P a r a l l e l )
```
<--Press the **SELECT** button to switch between **USB** and **Parallel**.

5. Press the **ENTER** button to enable the port you have selected.

```
S e l e c t     I / F
P a r a l l e l
```
<-- e.g. Parallel port selected

6. After the message appears as shown, turn off the power using the **Power Switch** on the backside of the printer.

```
P l e a s e   S h u t   D o w n
a n d   R e s t a r t
```

7. After a second, press the **Power Switch** on the backside to turn on the power. Make sure the LCD displays Ready. Then, the printer is ready.

```
R e a d y
```

2 Indicating Operation State

BUSY: shows the printer is in operation.

While colors are being printed on the transfer ribbon, the following messages are displayed on the LCD. (The LCD displays the messages as shown below with PHOTO ink installed. With COLOR ink installed, the printer prints black, cyan, magenta, and then yellow.)

```
B U S Y                    O
P r i n t i n g   B l a c k
```

↓

```
B U S Y                    O
P r i n t i n g   Y e l l o w
```

↓

```
B U S Y                    O
P r i n t i n g   M a g e n t a
```

↓

```
B U S Y                    O
P r i n t i n g   C y a n
```

↓

```
B U S Y                    O
D i s c   T r a n s f e r
```

The above message is displayed while the image printed on the transfer ribbon is being transferred to a medium.

Busy is also displayed for operations other than printing

[Preprocessing image to be printed]

```
B U S Y                    O
I m a g e   C a l c u l a t e
```

[Preheating heatroller]

```
B U S Y                    O
A d j u s t i n g   T e m p
```

*The above message is displayed and no other operations are performed until the heatroller reaches the specified temperature.
When the temperature gets high enough, the printer starts a transfer operation.

[Cooling thermal printhead]

```
B U S Y                    O
H e a d   C o o l   D o w n
```

*As the printhead exceeds a certain temperature, the P-55 stops print-related operations indicating the above message. The P-55 is automatically return to operation as the printhead goes down to the right temperature.

* When a print medium is loaded, a circle (○) is displayed in the upper right corner of the LCD.

SECTION 13: Installing Printer Driver

If both the PC and P-55 are on before installing the driver, turn off the PC first and then the P-55. Then, turn on the P-55 first and then the PC again.

The window Found New Hardware Wizard appears on the screen.

If you are asked, "Can Windows connect to Windows update to search for software?" select **No, not at this time** and then click **Next**.
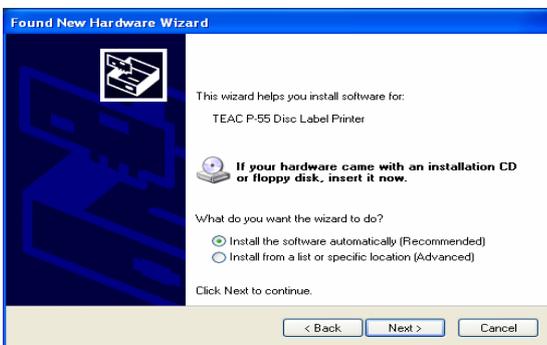

Select **Install the software automatically (Recommended)** and click **Next**.

The window Hardware Installation appears on the screen. Click **Continue Anyway**.
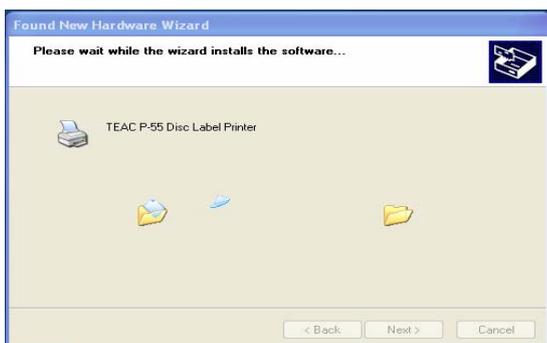
The window **Please wait while the wizard installs the software** appears on the screen. Wait until the window appears indicating the wizard is completed.

19

SECTION 13: Installing Printer Driver

The message indicates the software has been installed successfully. Click **Finish**.

*In Windows, click **Start**, select **Printers and Faxes**, and make sure the icon representing TEAC P-55 Disc Label Printer is displayed on the screen.

To restart the computer, in Windows, click **Start** and then **Shut Down**. Select **Restart** from the pull-down menu, and click **OK**.

NOTE

[Printer driver operation modes]
The P-55 printer driver has the two modes.
1. [Standard Mode]
    Allows the P-55 to print when the P-55 is online or connected to your Windows computer.
    The computer communicates with the P-55 to obtain the information such as ribbon type, remaining ribbon amount and operation status.

2. [Remote Mode]
    Allows the P-55 to create PRN files (*Note1) when the P-55 is offline or not connected to your Windows computer.
    You need to specify the ribbon type you want to use in Printing Preferences as the P-55 does not communicate directly with your PC for the information.

To switch the P-55 printer driver between standard mode and remote mode, execute the application tool setmode.exe. To locate the tool, double-click the icon for the attached CD-ROM "P-55 UTILITY SOFTWARE" to open. Double-click the folder "Support" and then "SetMode."
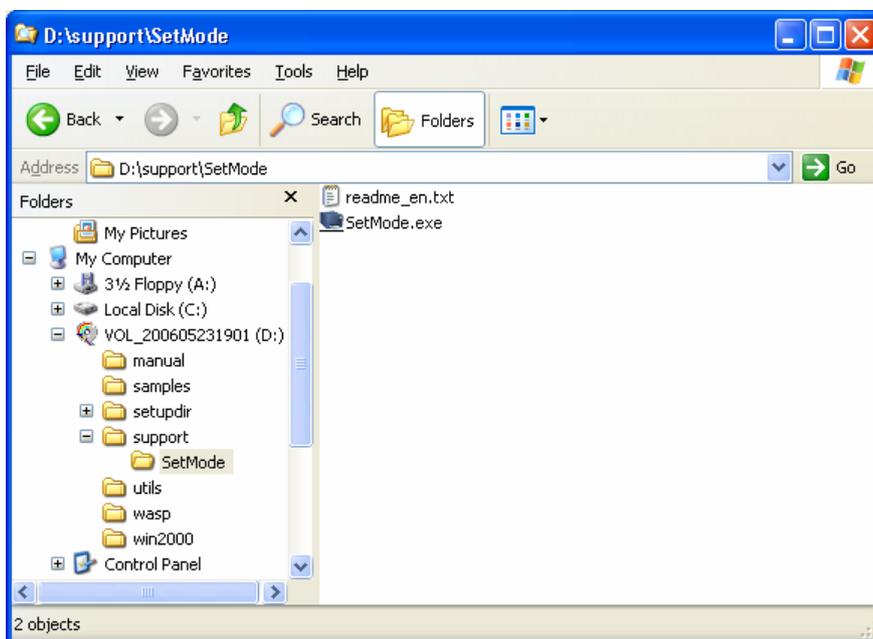
* For instruction details, read the file readme_en.txt found in the same folder as the application tool.

*NOTE1: [PRN file]

The PRN file is image data for which settings including the ribbon type, size of disc to be printed, correction method, and color balance been effective. For details, see **10)** of **SECTION 17: Getting Label Print Job Started**

SECTION 14: Error Messages Explained

When an error develops, the ERROR lamp on the control panel lights up and the LCD shows an error message.

Error Message	Description	Corrective Action
ERROR Door Open	The side door is open.	Shut the side door.
ERROR No INK Cartridge	No ink ribbon cartridge is loaded.	Load an ink ribbon cartridge by referring to **SECTION 15: Loading Ribbons**.
ERROR No INK Ribbon	The ink ribbon is fully consumed or no ink ribbon is loaded.	Load a new or usable ink ribbon. For installation details, refer to **SECTION 15: Loading Ribbons** *Also follow **Note 2-1)** in this section.
ERROR INK Ribbon Jam	The ink ribbon is stuck.	Open the side door and rotate the lower take-up shaft clockwise to recover from jam. If the take-up shaft does not rotate, try rotating the upper supply shaft a bit counterclockwise then rotating the take-up shaft clockwise.
ERROR No TFR Cartridge	No transfer ribbon cartridge is loaded.	Load a transfer ribbon cartridge by referring to **SECTION 15: Loading Ribbons**.
ERROR No TFR Ribbon	a. The transfer ribbon is fully consumed or no transfer ribbon is loaded. b. Deformed transfer ribbon overloads the motor drive.	a. Change the transfer ribbon by referring to **SECTION 15: Loading Ribbons** or load a usable transfer ribbon. *Also follow **Note 2-1), 2-2), and 2-3)** in this section. b. Check the transfer ribbon. *Follow **Note 2-4)** in this section. *If the above action does not improve the situation, the error may result from dirt on the platen roller. For details, see **SECTION 19: Maintenance**.
ERROR TFR Ribbon Jam	a. The transfer ribbon is stuck. b. Deformed transfer ribbon overloads the motor drive. c. Area of ribbon at print position is already used.	a. Open the side door and rotate the right-hand take-up shaft counterclockwise. If the take-up shaft does not rotate, try rotating the left-hand supply shaft a bit clockwise then rotating the take-up shaft counterclockwise. b. Check the transfer ribbon. *Follow **Note 2-4)** in this section. *If the above action does not improve the situation, the error may result from dirt on the platen roller. For details, see **SECTION 19: Maintenance**. c. Wind the ribbon forward till a new printable area starts to appear. Then, load the ribbon back into the cartridge and the ribbon-installed cartridge into the unit.
ERROR Wrong Ribbon Set	a. Types of ink and transfer ribbons do not match. b. Dirt is on the flange of the ink/transfer ribbon shaft.	a. You can identify the type of ribbon by checking its shaft color. - PHOTO ink/transfer ribbon shaft is white. - COLOR ink/transfer ribbon shaft is black. Install ink and transfer ribbons that have the same shaft color. b. * Follow **Note 3-1)** in this section.
ERROR No Disc Adapter	The disc adapter has been removed.	Put the disc adapter back to its original place. Be sure to set the slide switch on the front of the tray drawer to the LOCK position *Follow **Note 3-2)** in this section.
ERROR Emergency Stop	A command from the PC forcibly stopped the printer.	You need to reset the printer. To do this, open the side door, and then close it again.
ERROR Hardware		Write down the number displayed on the LCD and contact us for support. (See **SECTION 23: Contact Information**.)

SECTION 14: Error Messages Explained

Error Message	Description	Corrective Action
ERROR RBN-IMG Mismatch (*1)	The type of ribbon installed in theP-55 is different from the type of ribbon specified in the print data (*2) sent from your computer.	Replace the current ribbon with the same type of ribbon as the one specified in the print data (*2) and try printing again.
ERROR IMG Type too Old (*1)	Print data (*2) with unidentifiable ribbon type have been sent to the P-55.	Create print data (*2) using the latest printer driver.
ERROR Invalid Setdata (*1)	Error occurred in the setdata that had been internally looked up during the printer startup.	You need to resend setdata to your P-55. For assistance, contact our service. (**See SECTION 23 Contact Information**.) To clear the error message, open and then close the side door. The printer is back in "Ready."
ERROR Mismatched data (*4)	Neither setdata nor printer driver is the latest version.	If a print operation is performed while the printer driver and the setdata applied to the printer do not match, the printer stops the print operation displaying this message. For detailed information on the setdata appropriate for the printer driver, contact your local dealer.

(*1)--- This error is indicated by the firmware Ver51.34 or later versions only.
(*2)--- Print data is the file (PRN file (*3)) created using the function "Print to file" or the data to be output to a printer.
(*3)--- For details on PRN file, see **10)** "**Print to file**" of **SECTION 17: Getting Label Print Job Started**.
(*4)--- The setdata applied to your printer must match the printer driver to be used for creating print data. If print data are sent to the printer while setdata that do not match the print data is applied, an error occurs.

Note 1
The printer driver automatically creates an error log when an error occurs.
Please note that we may ask you to obtain a log if the unit fails to recover from an error or if an unknown error occurs. Follow the steps below to obtain a copy of a log file.

To obtain a copy from the folder storing log files
- A log file is created in the following folder (logdir).
Log stored folder: [C:¥Program Files¥TEAC(C)¥Disc Label Ditor¥logdir]
File name: [p55log_SNxxxxxxx_yyyy-mm-dd_hh-mm-ss_8xxx.B5L]
  *File name information

- SNxxxxxx	Serial number	- hh	Hour
- yyyy	Year (Western calendar)	- mm	Minute
- mm	Month	- ss	Second
- dd	Day	- 8xxx	Error code

- A file is created every time an error occurs. Check the time and date when the file was created to make sure that the file you select to copy is the most recently created file.

*You can access the log folder through shortcuts on Start menu as follows.
 In Windows XP, click **Start**, point to **All programs** and **TEAC(C)**, and click **P-55 Log**.
 In Windows 2000, click **Start**, point to **Programs** and **TEAC(C)**, and click **P-55 Log**.

Note 2

2-1) When "No INK Ribbon" or "No TFR Ribbon" is displayed and you find the corresponding ribbon is fully consumed, be sure to change it.
(Attention: Do not close the side door without changing a fully consumed ribbon, or a tape that holds the ribbon shaft and the ribbon itself in place would be peeled off and thus the ribbon might get stuck in the mechanism, likely causing the printer to go out of order.)

2-2) If you load a transfer ribbon rewound by the length of more than one disc (Figure 1), "ERROR TFR Ribbon End" is displayed even when the end of the ribbon is not in the print position.
If this is the case, perform the following (refer to **SECTION 15: Loading Ribbons** when necessary):

   Step 1.　　Open the side door.
   Step 2.　　Unlock the ribbon cartridge by flipping up the lock lever and take out the transfer ribbon.
   Step 3.　　Wind forward the ribbon to get the dyes transferred portion passed by, as shown in Figure 2.
   　　　　　　(If there is no unused portion remained, replace the ribbon.)
   Step 4.　　Put the transfer ribbon cartridge back to its place and flip down the lock lever.
   Step 5.　　Close the side door.

Figure 1　　　　　　　　　　　　　　　Figure 2

2-3) "ERROR No TFR Ribbon" is also displayed when you load an ink ribbon in the transfer ribbon cartridge. Load a transfer ribbon by referring to **SECTION 15: Loading Ribbons**.

2-4) Dropping the transfer ribbon or other causes may protrude erroneously the transfer ribbon shaft, resulting in overloads between the transfer ribbon cartridge and drive motor, followed by indication of errors **[ERROR No TFR Ribbon]** or **[ERROR TFR Ribbon Jam]**.
To fix such an error, check the transfer ribbon supply and take-up shafts.

*If the shaft is erroneously protruding, place the ribbon with the shaft perpendicular to the level plane and push it down until there is no more protrusion observed, as indicated by the arrows in the right image.

Check the areas indicated by the arrows for protrusion.

Acceptable

Not acceptable
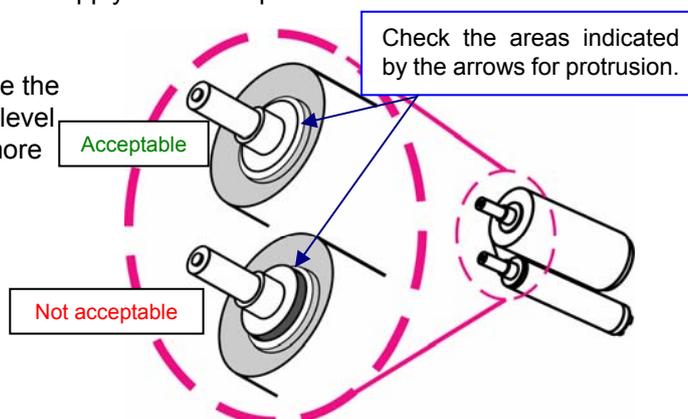
Note 3

3-1) The COLOR and PHOTO ribbon shafts are of different colors so that the printer can identify the two ribbons. Since the PHOTO ink/transfer ribbon has a white shaft, you may see some dirt on its flange depending on the environment. If that is the case, the printer may identify such a ribbon as COLOR ribbon by mistaking the dirt for black from a COLOR ribbon shaft. If the message "ERROR Wrong Ribbon Set" is displayed when the correct set of PHOTO ink and transfer ribbons are loaded, check the flange at the protrusion of the ribbon shaft for dirt.

<u>If you see any dirt on the protrusion, wipe it off.</u>
   <u>*Do not use petroleum ether, paint thinner, alcohol, or other flammable solvents.</u>

> Check the shaft flange for dirt.
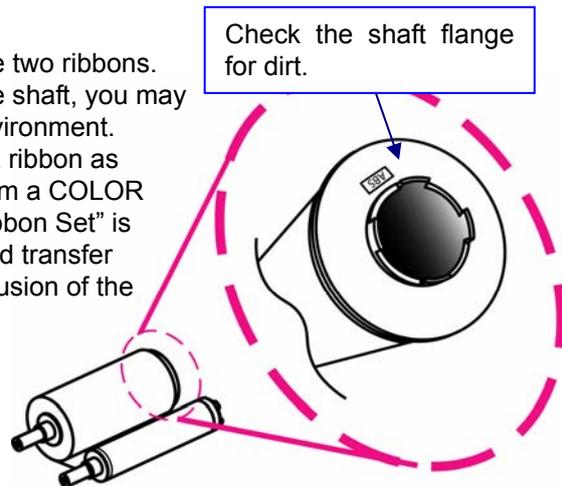
3-2) How to mount the disc adapter
   1) Set the slide switch on the front of the tray drawer to the RELEASE position.
   2) Snap the protrusion of the adapter into the cut-out in the tray, as shown below.
   3) Make sure that the adapter firmly sits on the table and then lock the adapter in place by setting the slide switch to the LOCK position.

Mounting Disc Adapter-1

Protrusion

Disc adapter

Cut-out

Tray

LOCK   RELEASE

ADAPTOR
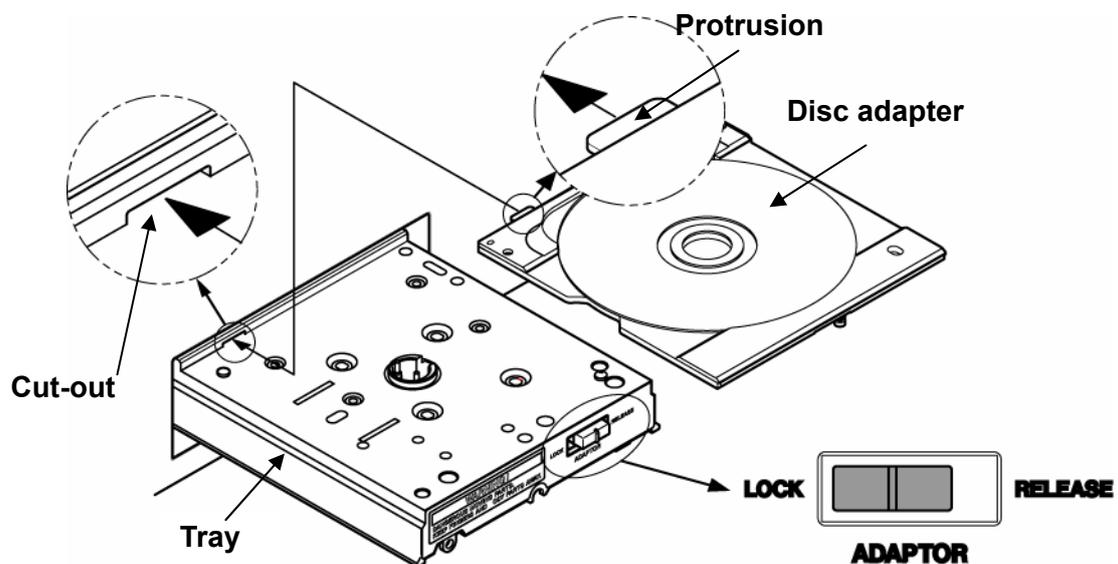
Mounting Disc Adapter-2

SECTION 15: Loading Ribbons

1   Opening Side Door

*If the P-55 is not turned on, skip to step **3)**.

| 2 U n l o c k   D o o r ⭕ | 1) Press the **SELECT** button as many times as necessary for "Unlock Door" to show on the LCD. |

⬇

| 2 R e a d y   t o   O p e n ⭕ | 2) Press the **ENTER** button. The display will change to read "Ready to Open". |

(If you leave the P-55 alone for 20 seconds or so, the side door will automatically lock again and the display will get back to "Ready".)

WARNING ⚠

If you are going to complete the following steps with the P-55 turned on, never touch anywhere indicated by the hazardous heat warning label. There is a risk of burn.
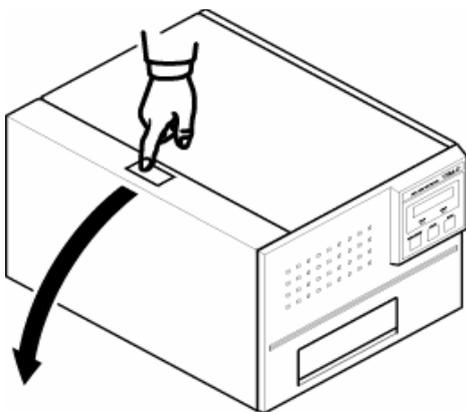
3) Press the button on the top left of the unit and slowly open the hinged door down.

CAUTION

If you turn off the printer within 10 seconds after a print operation is completed, the thermal head may not be moved back in place. With the thermal head not in place, you cannot remove the ribbon cartridges from the printer. If you try too hard to remove them with such a condition, the printer may be damaged. Before you turn the unit off, make sure that you keep it running more than 10 seconds after the print operation is completed.

2   Loading Ink Ribbon

Ink Ribbon Cartridge
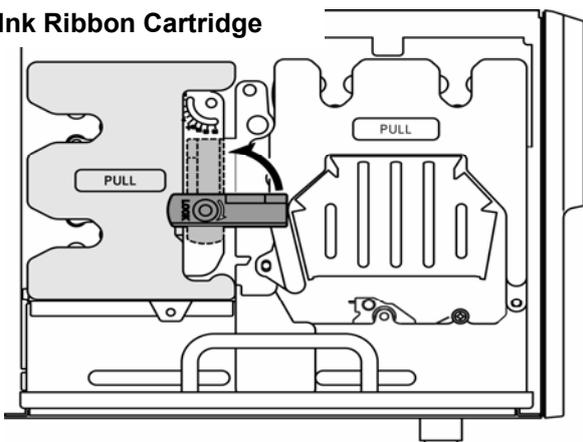
1) Flip up the lock lever that holds the Ink ribbon cartridge in place.
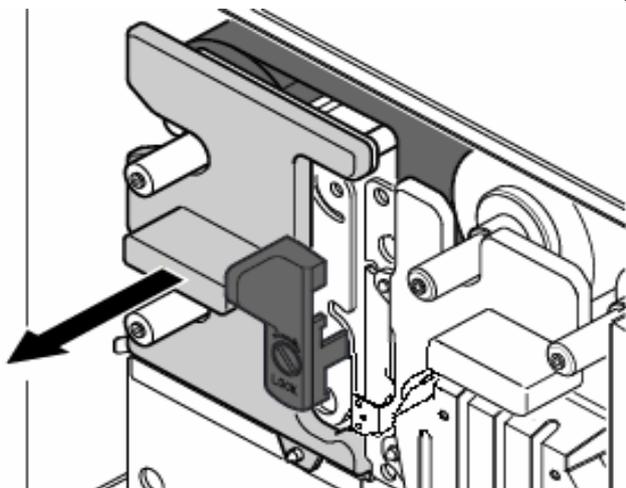

2) Take out the ink ribbon cartridge by pulling it toward you.
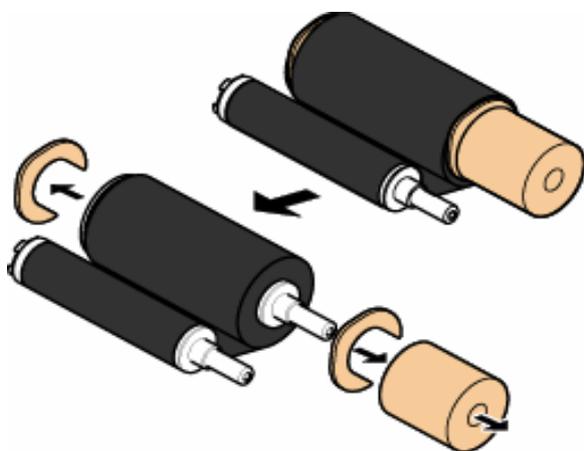
3) Take the ink ribbon out from the package and remove all the pads from the ribbon as shown on the left.
    *Ribbon specifications and appearance are subject to change for Improvement without notice.

26
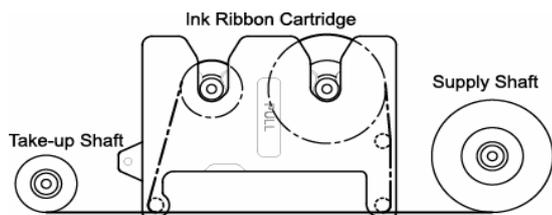
4) Place the ink ribbon with the take-up shaft on the left and the supply shaft on the right, and their protrusions facing you and their openings facing away from you.

Take up ribbon slack by turning the shaft on which the ribbon is wound.
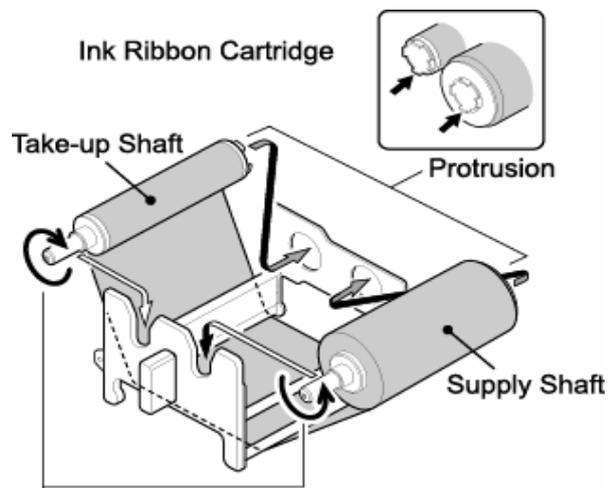
5) Insert the open end of the take-up shaft into the hole provided in the cartridge (for ease of work, we recommend holding the shaft by inserting your index finger into its open end), and snap the protrusion at the other end of the shaft into the cut-off in the cartridge.

6) In a similar way, put the supply shaft into the ink ribbon cartridge.

7) Turn the take-up shaft clockwise to take up ribbon slack.

*You may see some dust on the cartridge guide roller or guide plate when replacing an ink ribbon. See **3**. of **SECTION 19: Maintenance** for details.

CAUTION

If you perform the next step without taking up ribbon slack, there is a chance that the ribbon might be broken.
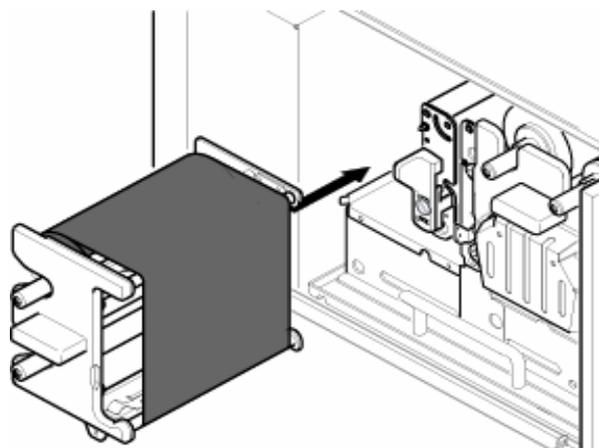
8) Mount the ink ribbon cartridge in the P-55 unit.

   When mounting the ribbon cartridge, push it directly and slowly. If you try to force it in slantwise, there is a chance that the ribbon might be broken. If the ribbon clogs somewhere, take out the cartridge, take up ribbon slack again, and slowly re-insert the cartridge.

3   Loading Transfer Ribbon

Transfer Ribbon Cartridge
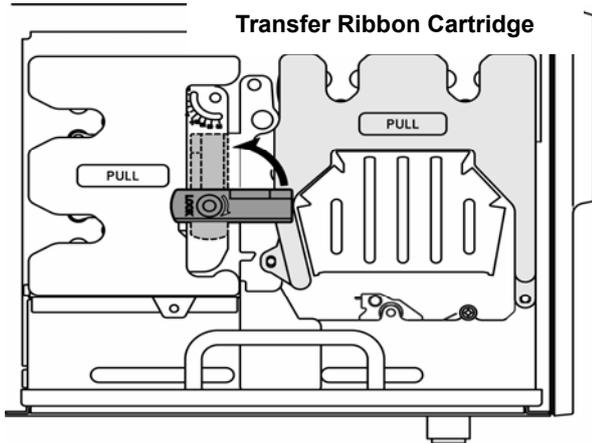
1) Flip up the lock lever that holds the transfer ribbon cartridge in place.
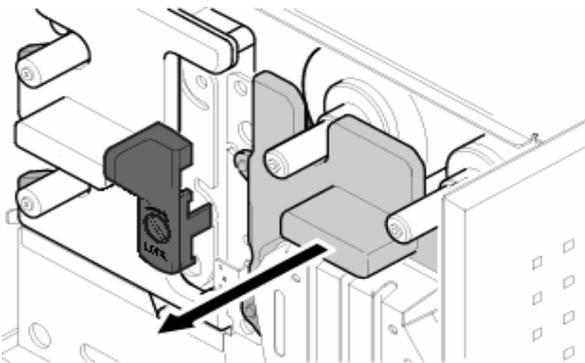
2) Take out the transfer ribbon cartridge by pulling it toward you.
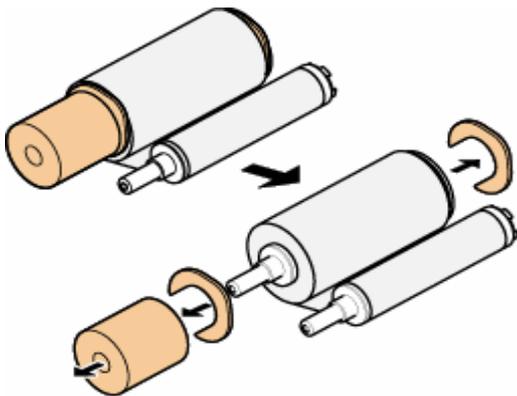

3) Take the transfer ribbon out from the package and remove all the pads from the ribbon as shown on the left.
   *Ribbon specifications and appearance are subject to change for improvement without notice.

28
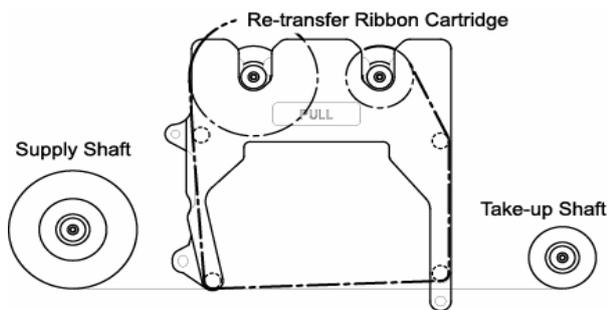
4) Place the transfer ribbon with the supply shaft on the left and the take-up shaft on the right, and their protrusions facing you and their openings facing away from you.

Take up ribbon slack by turning the shaft on which the ribbon is wound.
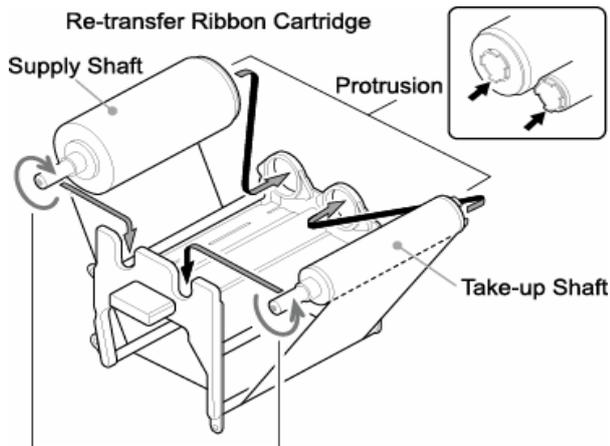
5) Insert the open end of the take-up shaft into the hole provided in the cartridge (for ease of work, we recommend holding the shaft by inserting your index finger into its open end), and snap the protrusion at the other end of the shaft into the cut-off in the cartridge.

6) In a similar way, put the supply shaft into the transfer ribbon cartridge.

7) Turn the take-up shaft clockwise to take up ribbon slack.

CAUTION

If you perform the next step without taking up ribbon slack, there is a chance that the ribbon might be broken.
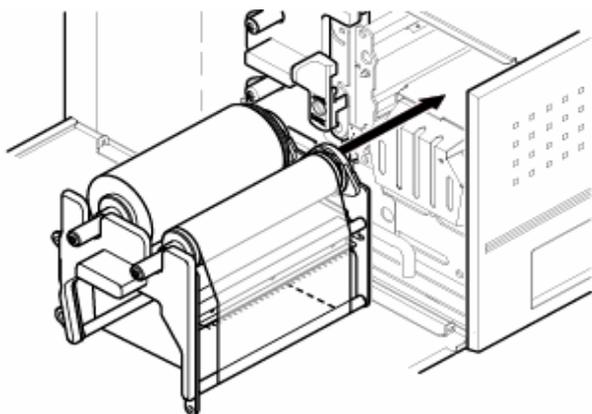
8) Mount the transfer ribbon cartridge in the P-55 unit.

When mounting the ribbon cartridge, push it directly and slowly. If you try to force it in slantwise, there is a chance that the ribbon might be broken. If the ribbon clogs somewhere, take out the cartridge, take up ribbon slack again, and slowly re-insert the cartridge.
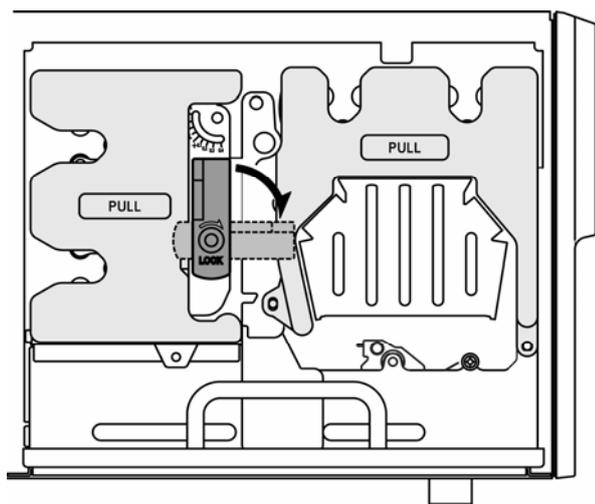
9) Once both the ink ribbon cartridge and the transfer ribbon cartridge have been mounted, lock them in place by flipping down the lock lever.
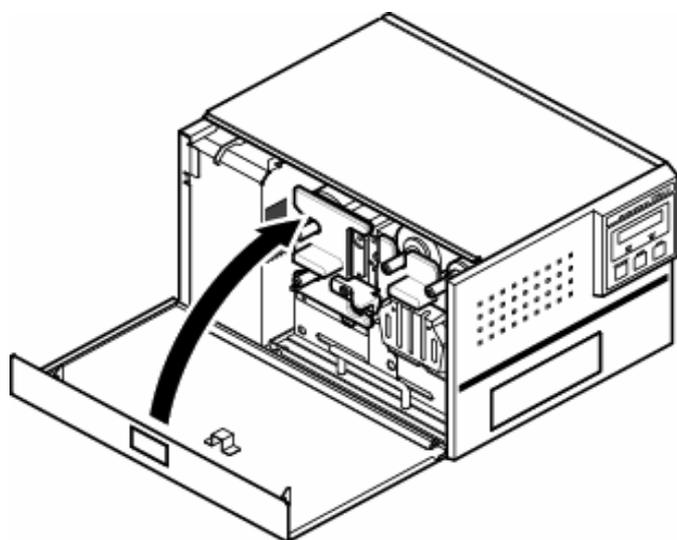
10) After locking the ribbon cartridge in place, make sure that ribbon slack has been removed before closing the side door.

<div style="background:orange">**CAUTION**</div>

- **The side door is designed so as not to close unless you lock the ribbon cartridges in place with the lock lever. If you try to forcibly close the side door, there is a chance that the side door might be damaged.**
- **Caution in ribbon replacement: It is imperative to take out the cartridge from the P-55. If you try to force the ribbon replacement with the cartridge mounted, there is a chance that the ribbon or components involved might be damaged.**
- **Be sure to change a ribbon when it is fully consumed, which yields the error message "No INK Ribbon" or "No TFR Ribbon". (If you open and close the side door without changing a fully consumed ribbon, a tape that holds the ribbon shaft and the ribbon itself in place may be peeled off and thus the ribbon may get stuck in the mechanism, likely causing the printer to go out of order).**
- **Avoid dust to store a ribbon installed in the ribbon cartridge.**

4   Checking Remaining Ribbon Amount

```
3  I n k   R e m a i n        ○
```

When the P-55 is Ready as the LCD indicates, press the **SELECT** button as many times as necessary for "Ink Remain" to appear on the LCD, and then press the **ENTER** button.

```
3   T R F            9 9 %    ○
    I N K            9 9 %
```

The transfer ribbon's remaining amount is indicated on the upper line and the ink ribbon's remaining amount on the lower line, expressed as a percentage.

(The remaining ribbon amount shown on the LCD is not absolute but just a rough "barometer".)

 *The P-55 displays the remaining ink level for the ink ribbon as "INK   FF%" if no single print operation is performed after the P-55 is turned on.
 Once a print operation is performed, the display changes to a numerical value "INK   nn%" indicating an estimate of the remaining ink in the ribbon.

SECTION 16: Loading Print Media

- The P-55 supports a standard medium (12-cm diameter) only. Mini media (8-cm diameter) and odd-shaped media are not supported.

- With the P-55 you need to use the TEAC-specified media exclusively. Use of commercially available media for inkjet printers might inevitably result in poor quality output.
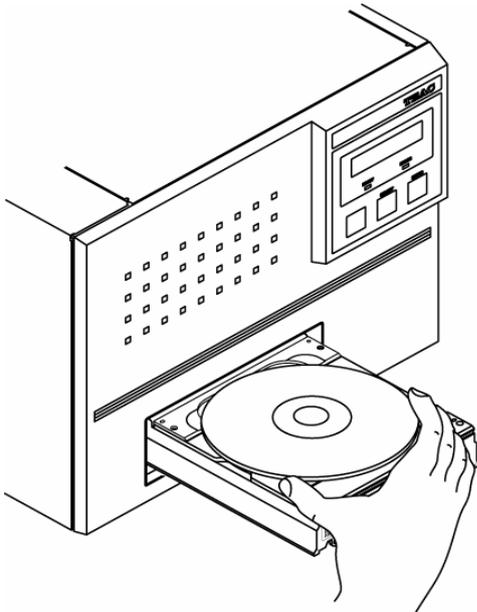
9) Press the **LOAD/EJECT** button to let the disc tray slide out.
10) Place a medium on the tray, label print side up, data committing side down.
11) Making sure that the medium is correctly placed on the tray, press the **LOAD/EJECT** button to let the tray slide in.
12) When the tray has fully slid in, the READY lamp will light up. Then, let the printing process start through graphics software in use.

- Do not place any objects other than the right print media.

- Load only one medium. Loading multiple media might produce trouble.

- Load a medium only when the tray fully slides out and stops.

- Make sure that the medium does not sit on the guide pins.

Guide Pins
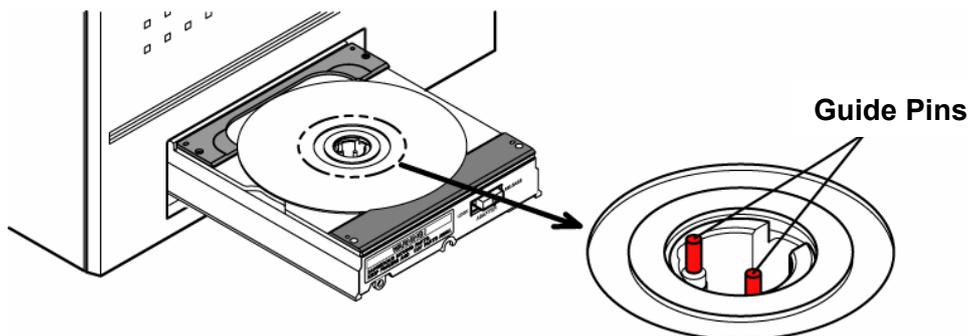
- Clean dust off the medium surface before printing.

  (Printing on the medium with dust attached on the surface may deteriorate the original print quality.)

- Do not touch the die-cast alloy part of the tray, which causes heat buildup.

- Keep your fingers or clothes such as sleeves away from the tray while it is opening or closing. Failure to follow this instruction may cause your fingers or part of your body to get caught in the tray and injured.

SECTION 17: Getting Label Print Job Started

1   Getting Label Print Job Started
    Load a medium on the P-55 printer. (To do this, refer to **SECTION 16: Loading Print Media**.)

1) In Windows, point to **Start** and select **Disc Label Editor**. Then, in the File menu of the Disc Label Editor, click **Open**. Select an image file you want to print. The image is loaded.

    *You need to have the label print program Disc Label Editor installed on your PC to follow the steps in this section. For installation of the program, refer to **SECTION 10: Installing Disc Label Editor**.

    *For operation details of the Disc Label Editor, refer to the manual in the following location.
        Win XP   : Start --> All programs --> TEAC (C) --> Disc Label Editor Program Manual
        Win 2000 : Start --> programs --> TEAC (C) --> Disc Label Editor Program Manual

2) Click **Print** in the File menu of the Editor.

3) Select **TEAC P-55 Disc Label Printer** from the Name box, and then click **Property**.
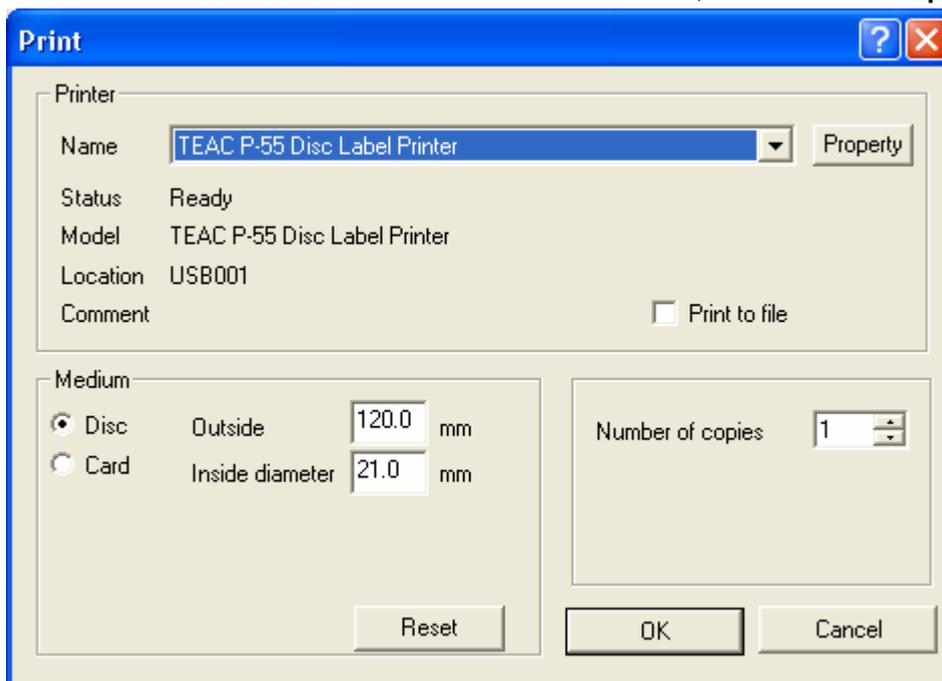
4) Click the **Standard** tab in the properties to display and specify the following settings.

  4)-1 Specifies the outside and inside diameters of the medium to be printed.

   The default setting is120 mm for outside diameter and 21mm for inside diameter.

   If you want to keep for future use a new setting you have specified for **Size**, **Method**, or **Option For Creating PRN Files**, type a new name for the setting in the box on the upper left side of the Standard tab, and then click **Save** next to the box. The setting is saved and you can select it from the **Standard** tab from next time.
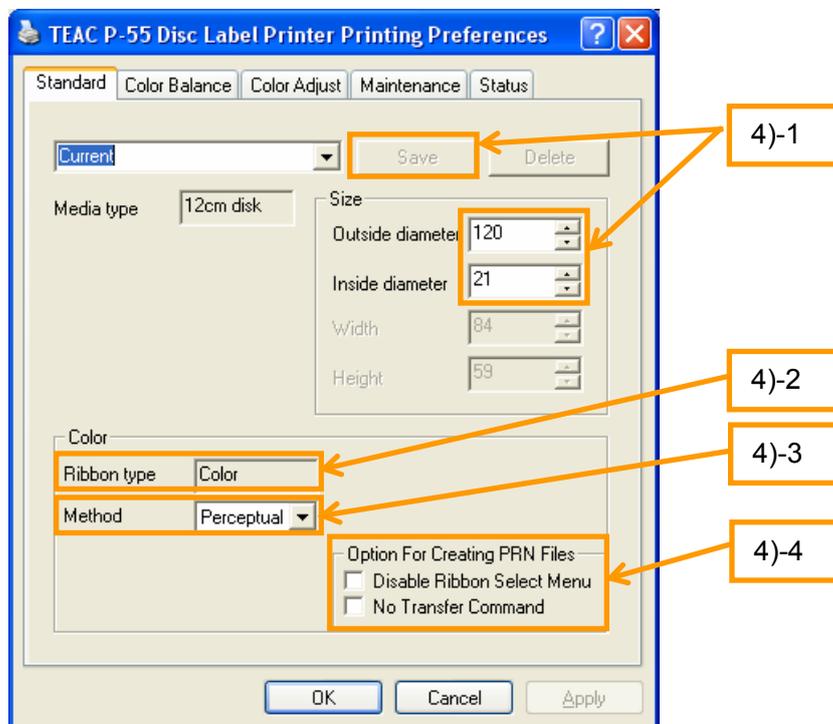
  4)-2 **Ribbon type**

   Displays the type of ribbon currently installed in the P-55.

   *If the optional ribbon "Color(+P) ribbon" is installed in the printer, the Transfer Speed box appears below the Method box.

    (See **4)-5** on **page 35** for details.)

  4)-3 **Method**

   Allows you to choose from the following settings depending on the type of data to be printed.

   -Perceptual: Suitable for photographs

   -Relative: Suitable for maintaining color accuracy for company logo and the like

   -Saturation: Suitable for business graphics

   -Non: No color management to be performed by the printer driver. (*Note1)

  (*Note1)--- Select this setting if the print application performs color management.

  4)-4 **Option For Creating PRN Files**

   Disable Ribbon Select Menu (*Note2)

   Disables the fileout option window that normally appears when a PRN file is saved.

   Check the checkbox and press **OK**.

   No Transfer Command

   No transfer command is included in a PRN file when it is saved. (*Note2)

   Check the checkbox and press **OK**.

  (*Note2)--- For detailed information about PRN file, see **10)** "**Print to file**" in this section.

4)-5 **Transfer Speed** (Supported with Color(+P) ribbon installed)
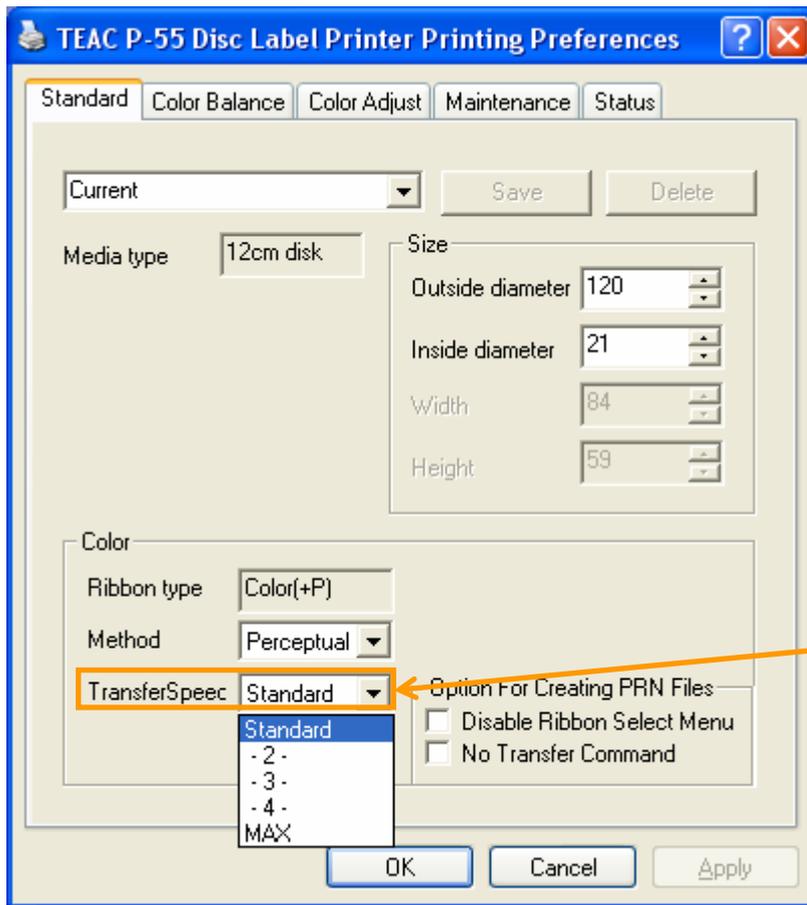
If you use Color(+P) ribbon, you can change transfer speed to improve printing efficiency.
You have a choice of 5 speed settings: Standard, 2, 3, 4, or MAX.

ATTENTION: Changing transfer speed

Transferability can vary depending on the disc you choose. After you have changed the transfer speed, make sure that you first print a test image several times using the same disc as you are going to use, check whether the image has been well transferred into the discs, and then determine the appropriate speed setting to specify.

*We only support transferring image to the thermal printable discs we recommend at the **Standard** speed. (For details, contact our sales team.)

5) **Color Balance**

Click the **Color Balance** tab in the properties to open the setting dialog and fine-adjust the density of each CMY(K) for data to be printed.
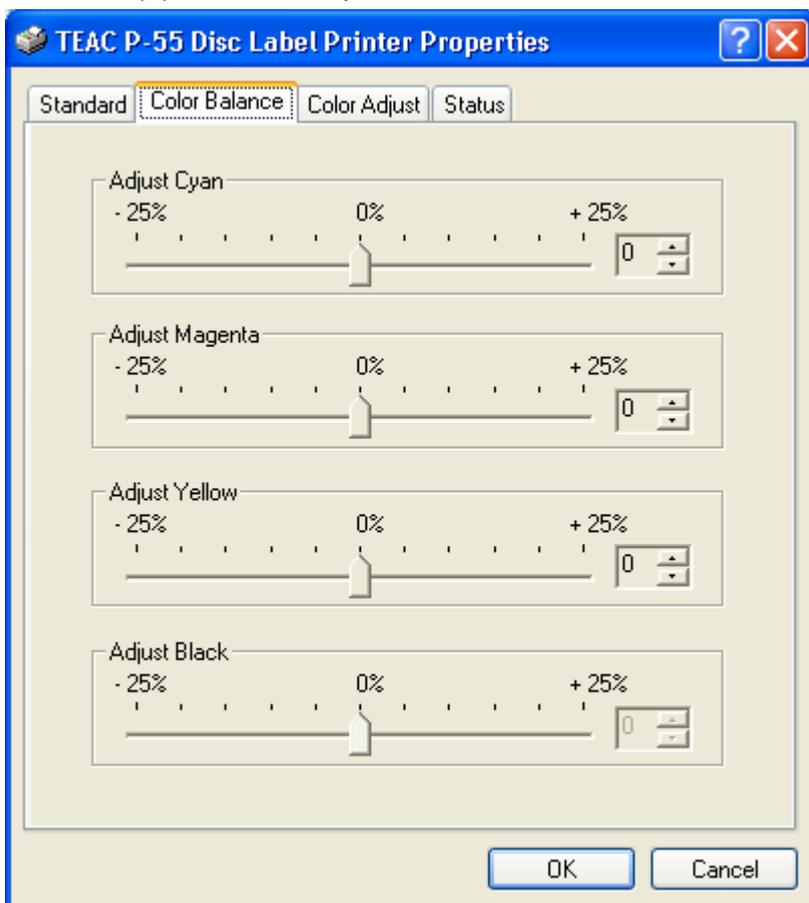
For PHOTO and COLOR ribbons, you can increase or decrease the density of each CMY by up to plus or minus 25%. Once changes have been made to the settings, they are kept until you change them again. Click **OK** after the settings are completed.

6) **Status**

Displays the current information on the unit.
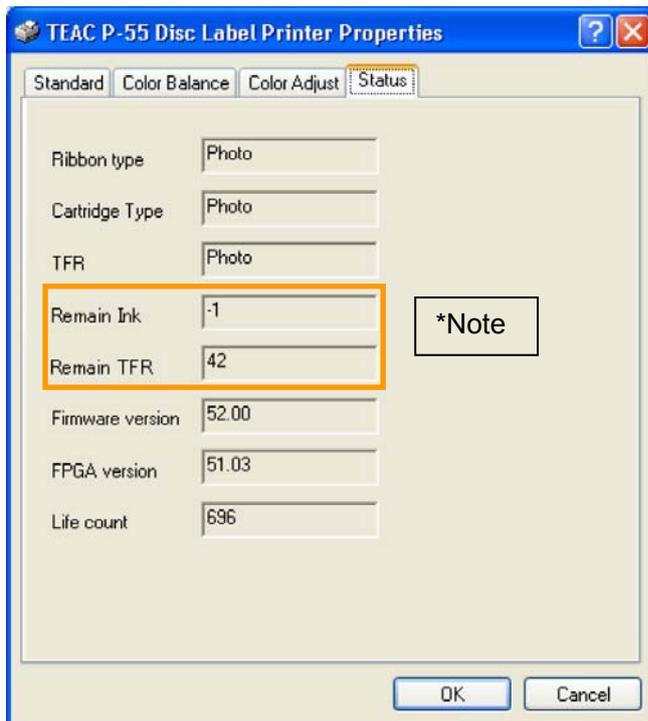
*Note: The remaining amount of ink ribbon is displayed as "-1" if no single print operation is performed after the P-55 is turned on.

The values for the ink and transfer ribbons are not accurate readings but numerical references for estimating how many more can be printed in each ribbon.

7) Enter the number of copies you want to print into the Number of copies box.
8) Enter the outside and inside diameters into the Outside and Inside diameter boxes to define the print area. (The outside diameter defaults to 120mm and the inside diameter to 21mm.)
9) Click **OK** and the printing process starts.
   The operation state (*Note) is displayed on the P-55 LCD during a print operation. The tray is ejected as the print operation is completed.
   (*Note: See **Indicating Operation State** of **SECTION 12: Control Panel** Features.)
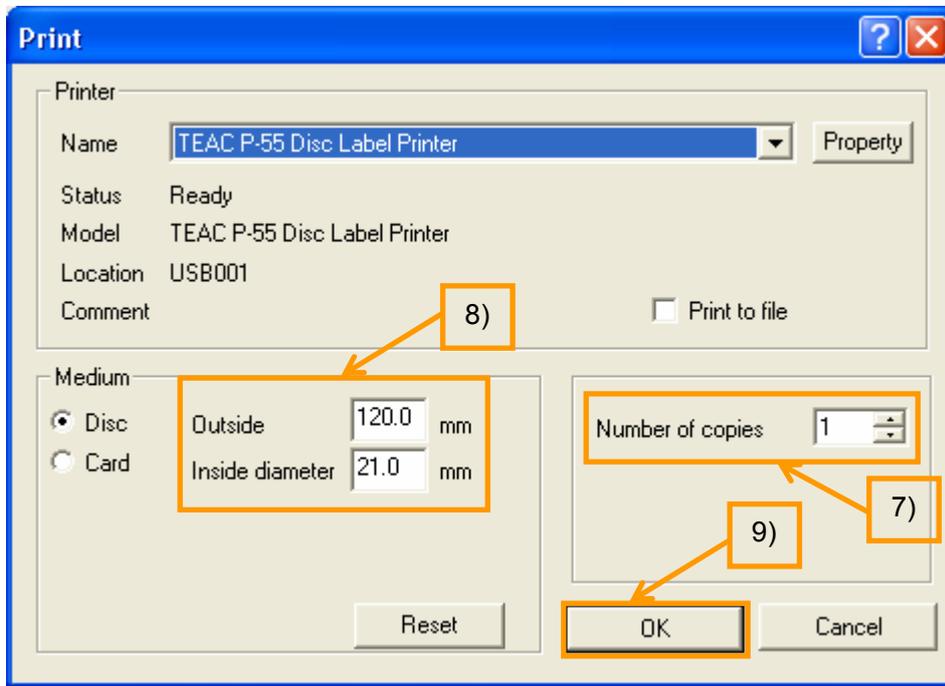
*To print on multiple media, take out the medium from the tray, load another medium and click **OK**.

10) **Print to file**

Check the box for **Print to file** as circled above and click **OK**. The image you have selected to print is printed to a file (referred to as <u>PRN file</u>) instead of directly to the P-55.

PRN files to be created by the printer driver contain the ribbon type setting and image data with disc size, correction method, and color balance settings.

ATTENTION
This function is designed for users that have built an automated printing system using the P-55. This is not required for normal use (*Note) (Note: Normal use refers to printing using a single P-55 unit and the provided software "Disc label Editor".)

1) Check the checkbox for "Print to file" as shown below.
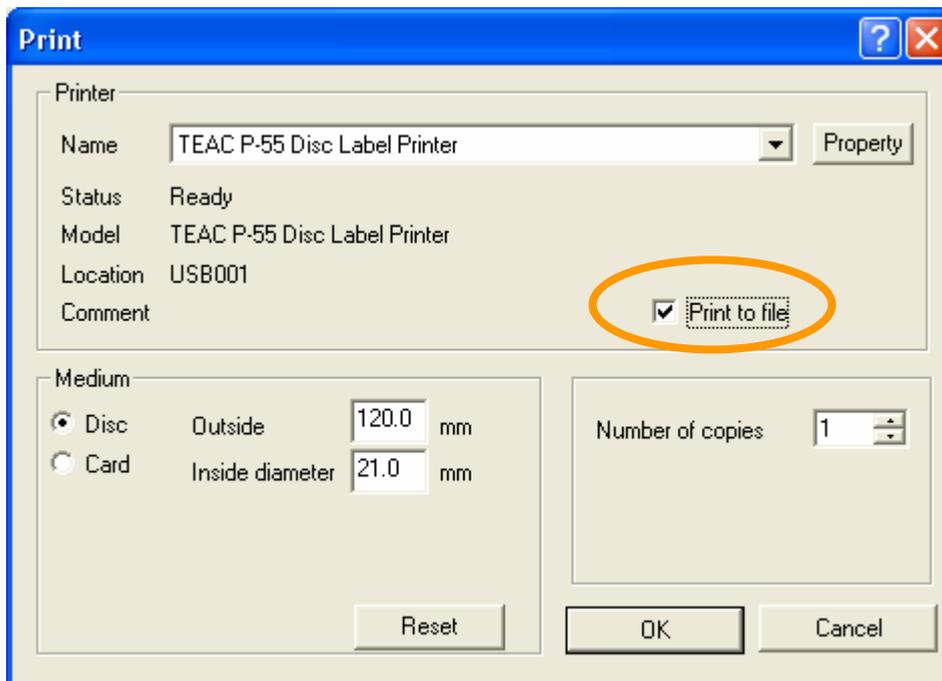
2) Press **OK**. The window "Save As" appears on the screen as shown below. Choose from the drop-down box "Save in" to specify the location where you want to save your image, type the name of the file you want to save in the filed for "File name", and press **Save**.
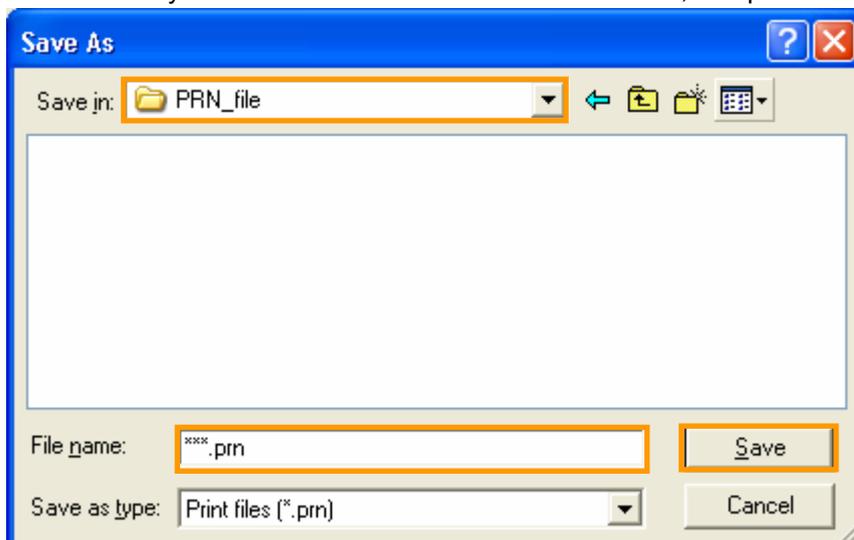
3) Before your image is printed to a file, the window "TEAC P-55 "PRN" FILEOUT OPTION" appears on the screen as shown in Fig. A. Select the type of ribbon you want to use to print as shown in Fig. B and the transfer command you want to use as shown in Fig. C and select **OK**.
   *If you do not want to change the current ribbon or transfer command settings, press **OK** to move on to the next step.
   *If you want to keep the window "TEAC P-55 "PRN" FILEOUT OPTION" from appearing, check the box "Don't show me this message again."
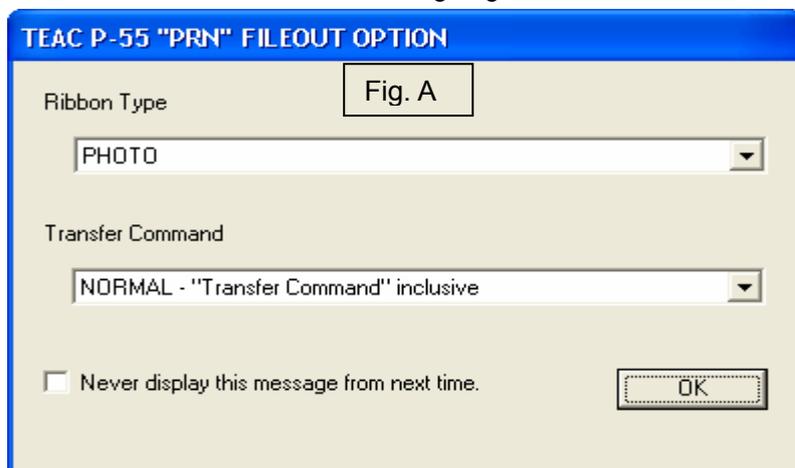
4) Select the type of ribbon (PHOTO/COLOR/MONOCHROME/COLOR(+P)) from the list box as shown in Fig. B.
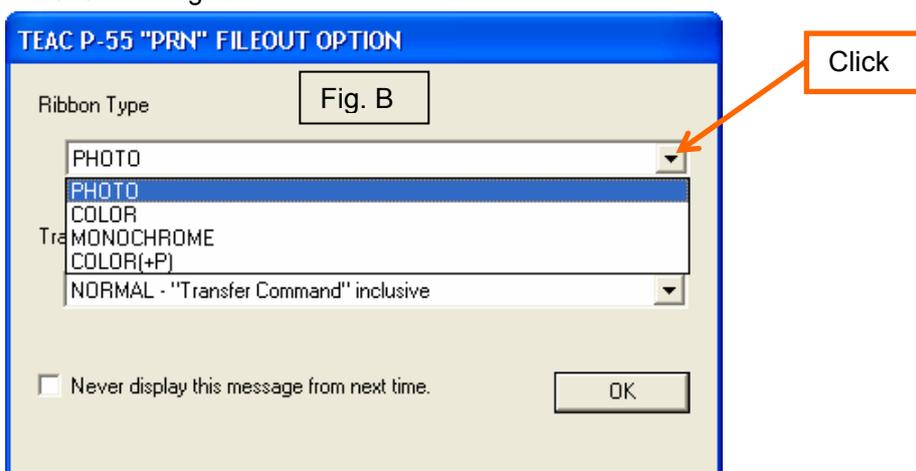
5) Click the list box as shown in Fig. C and choose between NORMAL and SPECIAL.
   - NORMAL: PRN file including the transfer command
   - SPECIAL: PRN file not including the transfer command
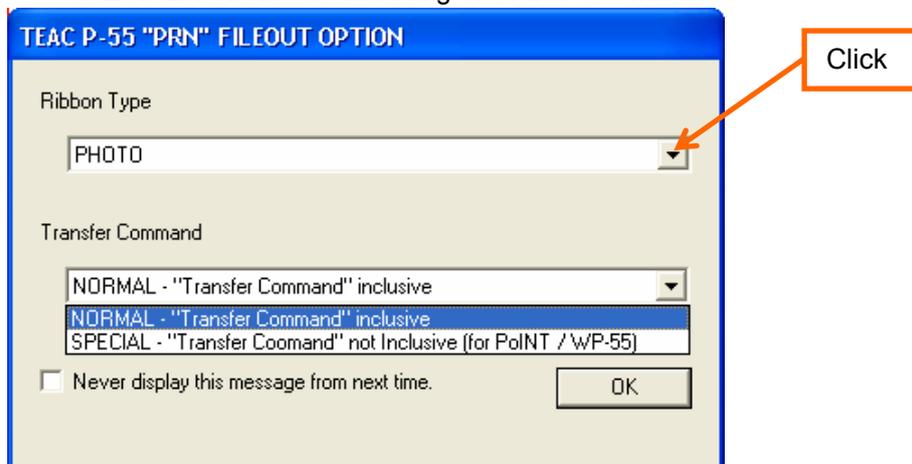
6) Press **OK** to save the file as a PRN file.

ATTENTION: Creating PRN files

From the window "TEAC P-55 "PRN" FILEOUT OPTION, select the type of ribbon that is appropriate for the type of ribbon installed.
* See 4) of 10) in this section.

If the type of ribbon installed and the information on the type of ribbon included in a PRN file do not match, the message "ERROR RBN-IMG Mismatch" appears. (See **SECTION 14: Error Messages Explained**.)

If a PRN file created using any of the older drivers (P-55 Utility Software Ver.1.0.17 or older) is sent to the printer, the message "ERROR IMG Type too Old" appears. (See **SECTION 14: Error Messages Explained**.)

If you try to print while the printer driver and the setdata applied to the printer do not match, the printer stops the print operation displaying the message "ERROR Mismatched data". (See **SECTION 14: Error Messages Explained**.)

This function is designed to prevent ribbon cut and other similar errors that can be caused by performing a print operation using a PRN file for a different type of ribbon.

Note that this function is supported by the latest version of the printer firmware.
To use this function, you must update the firmware to the latest version.

*For detailed information on the setdata appropriate for the printer driver, contact your local dealer.

[NOTE]
Make sure that the name of each PRN file you create reflects the type of ribbon and the version of printer driver to be specified in the file so that you can easily remember the details specified in the file.
e.g. PRN file name: "Image_v2.00.xx_Photo.prn"
- Image (Name for the image or text being printed)
- v2.00.xx (Version of the printer driver)
- PHOTO (Type of ribbon specified)

2   Correcting Displacement and Hue Shift Between Colors
With the P-55 you can correct for displacement of boundaries and hue shift between colors. These corrections are made by first printing test patterns and then reading and entering necessary corrective values from the printed patterns.

1. Correcting displacement
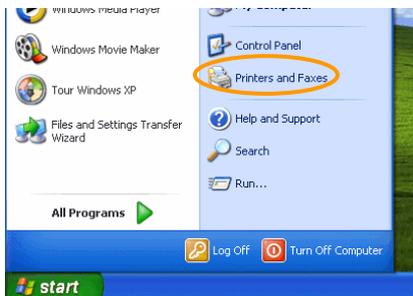
1) Select **Printers & Faxes** from **Start**. (In Windows 2000, select **Start** --> **Settings** --> **Printers**.)

ATTENTION
If more than one P-55 unit is connected to the computer you use, you are unable to correct displacement, hue shift between colors, or aspect ratio for all of the P-55 units at the same time. Correct settings for them one by one.
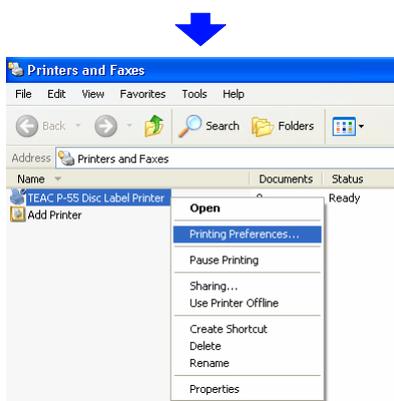
2) Right-click the icon for **TEAC P-55 Disc Label Printer** and select **Printing Preferences**.

If more than one P-55 unit is connected to the computer you use, you are unable to correct displacement, hue shift between colors, or aspect ratio for all of the P-55 units at the same time. Correct settings for them one by one.
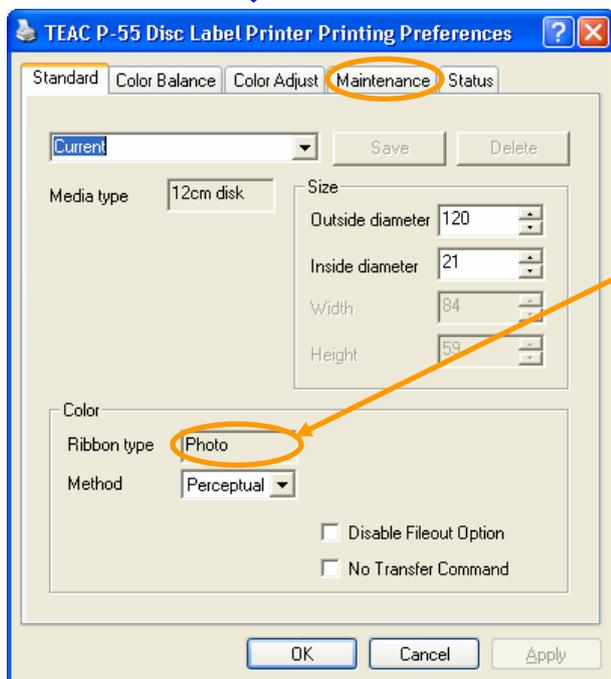
3) Click the **Maintenance** tab.

NOTE	To correct displacement and hue shift between colors

***Please restart the host computer if the [Maintenance] tab is not displayed.**

Correction values are specified for PHOTO and COLOR (*1) ribbons each. The type of ribbon displayed on the **Standard** tab is the type of ribbon installed in your P-55.(*2)
If the type of ribbon displayed is different from the type of ribbon installed, close the **Printing Preferences** window and then open it again.

If, with the Printing Preferences window open, you replace the current ribbon with a ribbon of a different type and correct displacement and hue shift between colors, the settings take effect for the ribbon that was installed before replacement, not the ribbon currently installed.

Make sure you close the **Printing Preferences window first** before replacing the ribbon with a ribbon of another type and correcting displacement and hue shift between colors. Then, replace ribbons, open **Printing Preferences** again, and change the correction settings.

(*1)--- The same values as for COLOR ribbon take effect for black ribbon.
(*2)--- The type of ribbon is displayed in the field for Ribbon type circled as shown in the left-hand image.
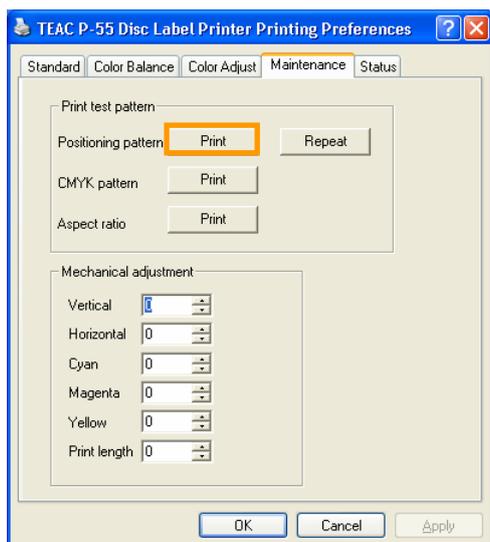
4) Place a print medium into the P-55 and click **Print** next to **Positioning pattern** on the **Maintenance** tab.
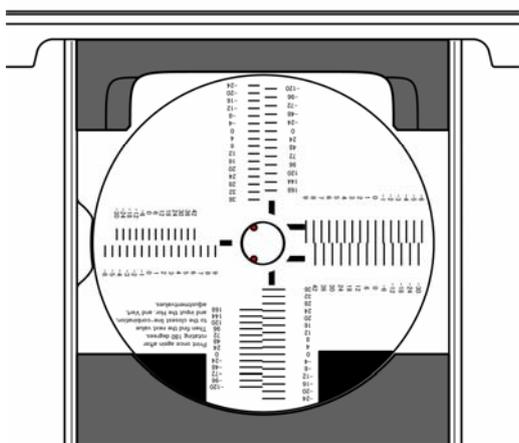
5) The P-55 starts printing the first test pattern.
   *The **first** test pattern is printed as shown on the left.
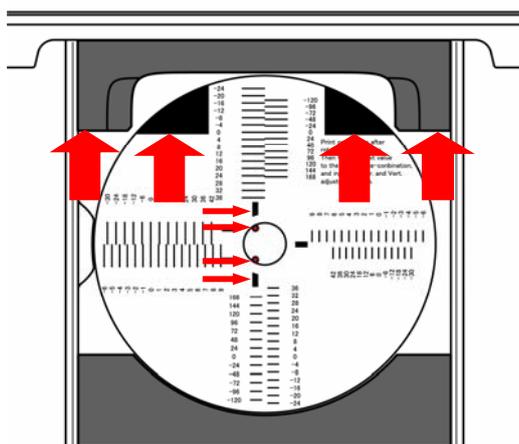
6) Take out the medium from the tray. Then, with the medium rotated by 180 degrees, place the medium back into the tray so that the two black printed areas on the medium are set toward the printer side and aligned horizontally as shown by the thick arrows.
   *Move the medium to the right as shown by the red thin arrows to bring the hold pins located in the center of the tray into contact with the left side of the center spindle hole of the medium so that the hold pins and the black bars marked on the medium are aligned vertically as shown.

7) Click **Repeat** on the **Maintenance** tab.
   *The **second** test pattern is printed as shown on the left.

43
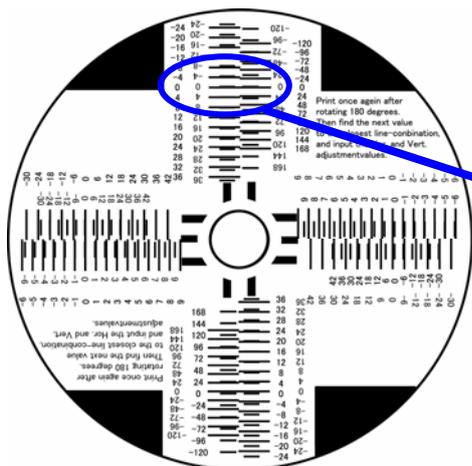
8) After the second pattern has been printed, take out the medium.
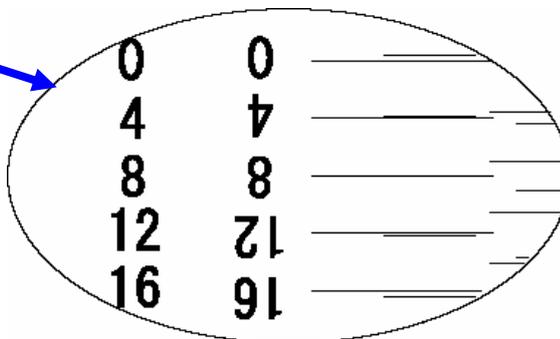
- **The upper and lower test patterns relative to the center hole are the same, and so are the left and right test patterns.**
- **The upper and lower scales relate to vertical adjustment and the left and right scales relate to horizontal adjustment.**
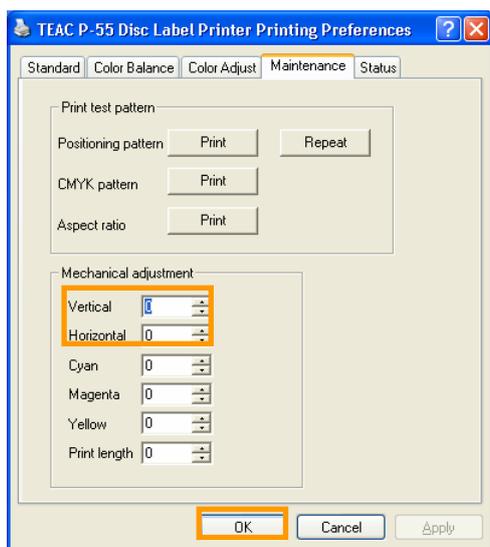
9) Pairs of longer and shorter lines are printed along the vertical and horizontal scales. Determine which pair of longer and shorter lines is aligned (or which pair of lines has the slightest displacement between), enter the corresponding values in the Horizontal and Vertical boxes on the Maintenance tab, and click **OK**. (In our example, you need to enter 8 in the Vertical box.)

*When you click **OK**, the data specified are loaded into the P-55 and the following message is displayed during the data loading.

Do not turn off the P-55 while the message is displayed.

44

2. Correcting hue shift between colors
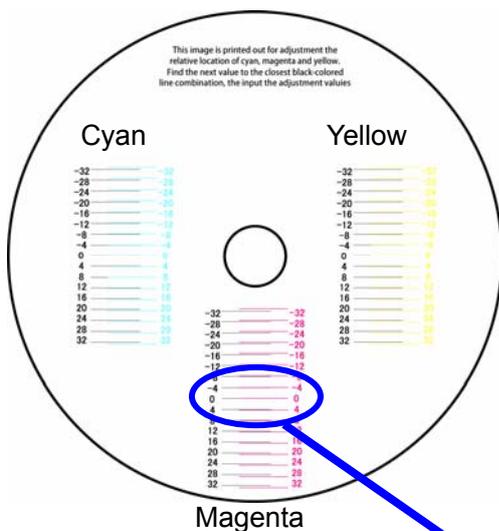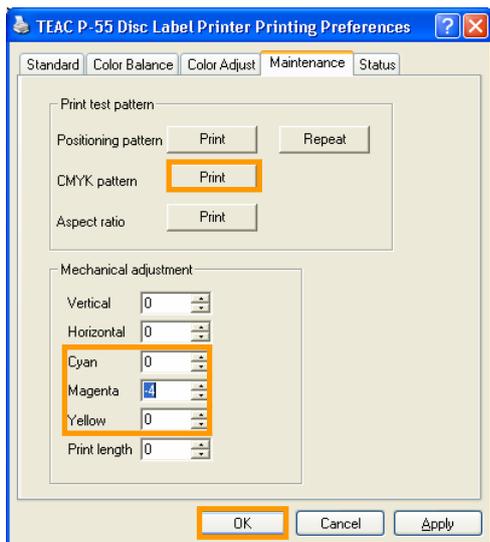
1) Place a new medium on the tray and click **Print** next to "CMYK pattern."

2) After the test pattern has been printed, take out the medium from the tray, and determine which pair of black and colored lines is aligned (or which pair of lines has the slightest displacement between) per Cyan, Magenta, and Yellow. Then, enter the corrective values in the Cyan, Magenta, and Yellow boxes on the **Maintenance** tab, and click **OK**. (In our example, you need to enter -4 in the Magenta box.)

*When you click **OK**, the data specified are loaded into the P-55 and the following message is displayed during the data loading.

Do not turn off the P-55 while the message is displayed.

45
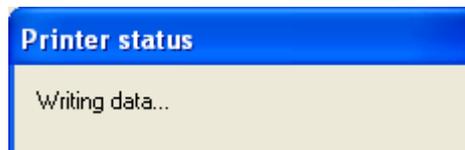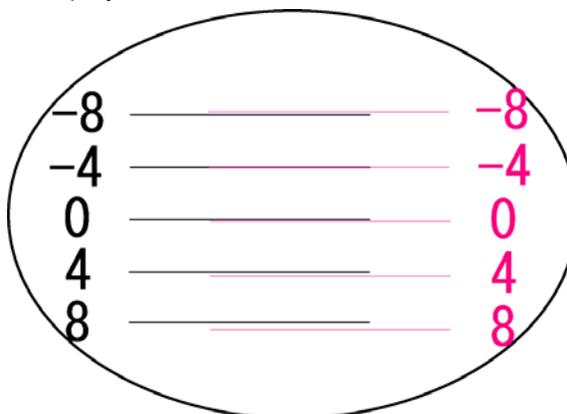
3. Correcting aspect ratio
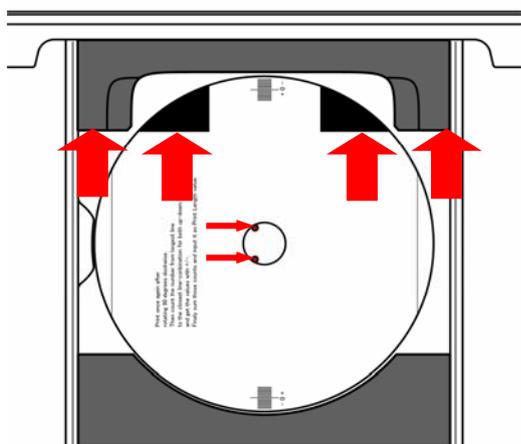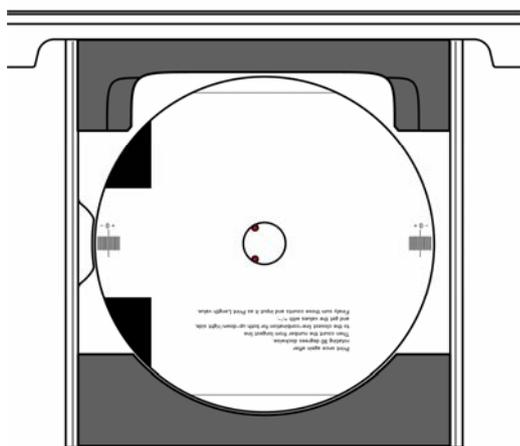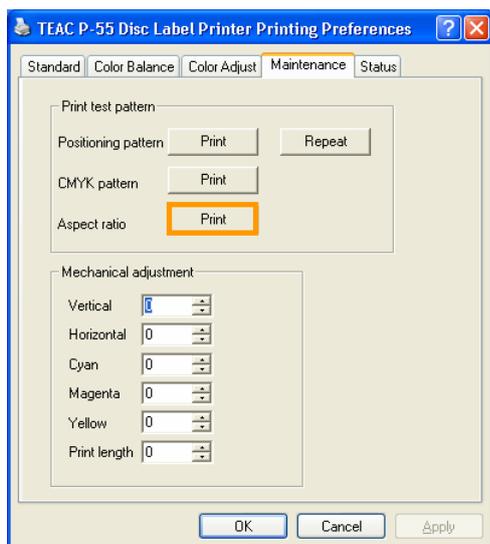
1) Place a medium on the tray and click **Print** next to **Aspect ratio** on the **Maintenance** tab.

2) The P-55 starts printing the first test pattern.

   *The first test pattern is printed as shown on the left.

3) Take out the medium from the disc tray. Then, with the medium rotated counterclockwise by 90 degrees, place the medium back into the tray so that the two black printed areas on the medium are set toward the printer side and aligned horizontally as shown by the arrows.
   *Move the medium to the right as shown by the red thin arrows to bring the hold pins located into the center of the tray into contact with the left side of the center spindle hole of the medium.

4) Click **Repeat** on the **Maintenance** tab.

5) After the second test pattern has been printed, take out the medium from the disc tray.

Reference mark

Reading (N1): +2

Longest line

Reading (N2): -3
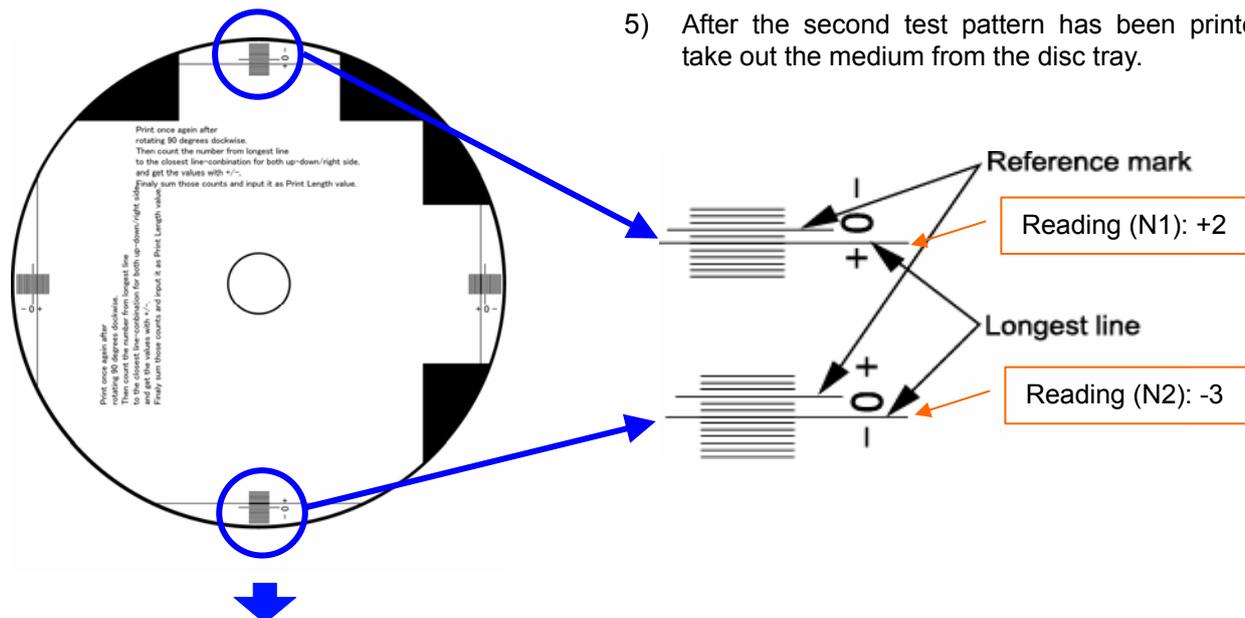
6) Find out the longest line that is aligned with, or is least displaced with respect to, a scale mark. (You can use either the upper and lower scales or the left and right scales.) In the above example, you can get a value of +2 on the upper scale and a value of -3 on the lower scale. Add the two numbers and you get -1. Enter this -1 in the Print Length box on the **Maintenance** tab and click **OK**.

*When you click **OK**, the data specified are loaded into the P-55 and the following message is displayed during the data loading.
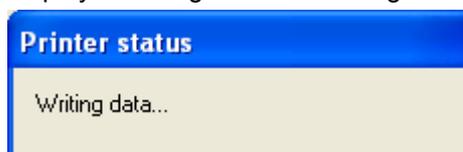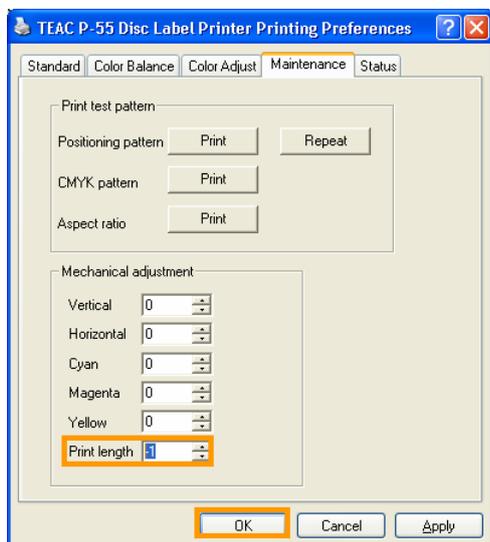
Do not turn off the P-55 while the message is displayed.

3   Correcting Colors

Each P-55 unit has its own tone characteristic (or gamma characteristic). Because of that, differences in print quality, especially in tone, can be produced when the same image is printed on more than one P-55. To compensate for such differences, the P-55 offers the function of color balance or gamma correction. If you use more than one P-55, minimizing differences across units using the function is recommended.

-The following "gamma characteristic" curves show how input images can be output by the P-55.
  *Color depth is represented in a scale of values ranging from 0 to 255.
  *The closer the value is to 0 the whiter the color is, and the closer the value is to 255 the blacker the color is.
-Fig.1 shows the curve with reference values for gamma characteristic (1.00 for gamma, 0% for gain).
-Fig.2 shows the curve with a gamma deviation of 1.15 and a gain deviation of +8%.
  *If you print using the printer with the settings shown in Fig.2, the reference color and the sample color blend together best in the area where the gamma -0.15 and the gain -8% are shown on the disc.
-Fig.3 shows the gain-corrected curve where the highlight tonal range has been adjusted. *Note1
-Fig.4 shows the gamma-corrected curve where the shadow tonal range has been adjusted. *Note1
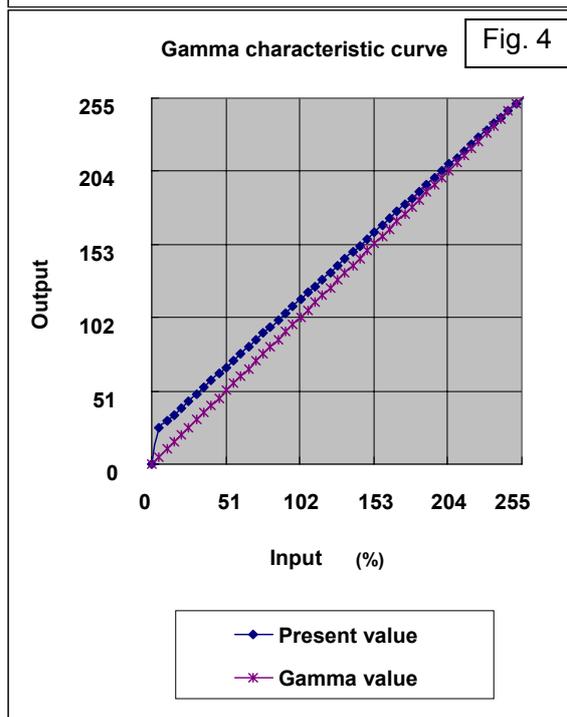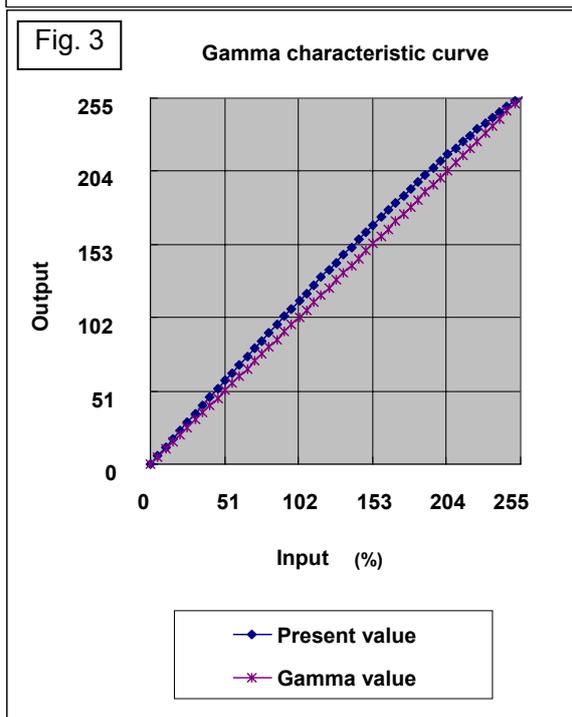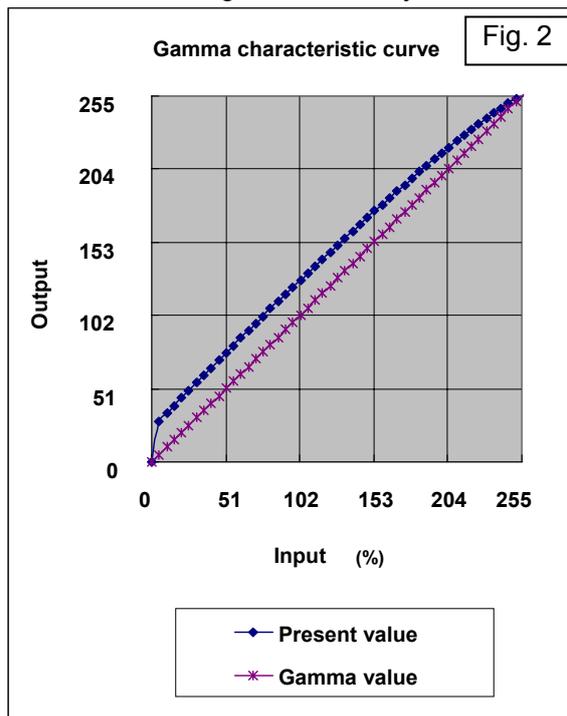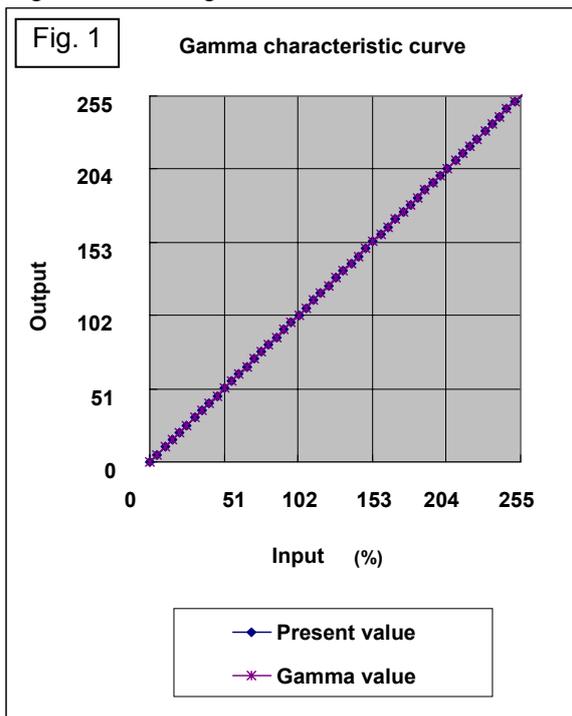
*Note1: These curves are just images and not intended to suggest that color correction always makes input and output images match as shown in Fig.1. Color correction minimizes differences in print quality across units.

ATTENTION
1. Please be aware that what the P-55 offers for color correction is the function of minimizing differences that can be observed in printed results across units and not the function of eliminating all such differences.
2. You must specify color correction settings for each ink ribbon type. There are two types of ink ribbons available: PHOTO and COLOR.
3. Make sure that you perform color corrections every time you replace the printer head.

Follow the steps below.

1) To check the current state of the unit first, print cyan, magenta, yellow, and black (*Note) each without entering correction values.
    *Note: You do not need to perform color correction to black if you use a PHOTO or COLOR(+P) ribbon.
        You need to perform color correction to black as well if you use a COLOR or black ribbon.
    Place a disc in the appropriate stacker, select a color you want to print from the color correction dialog, and click **Print** right under **Adjust pattern**. (See below)
    *Cyan is printed in the following example.
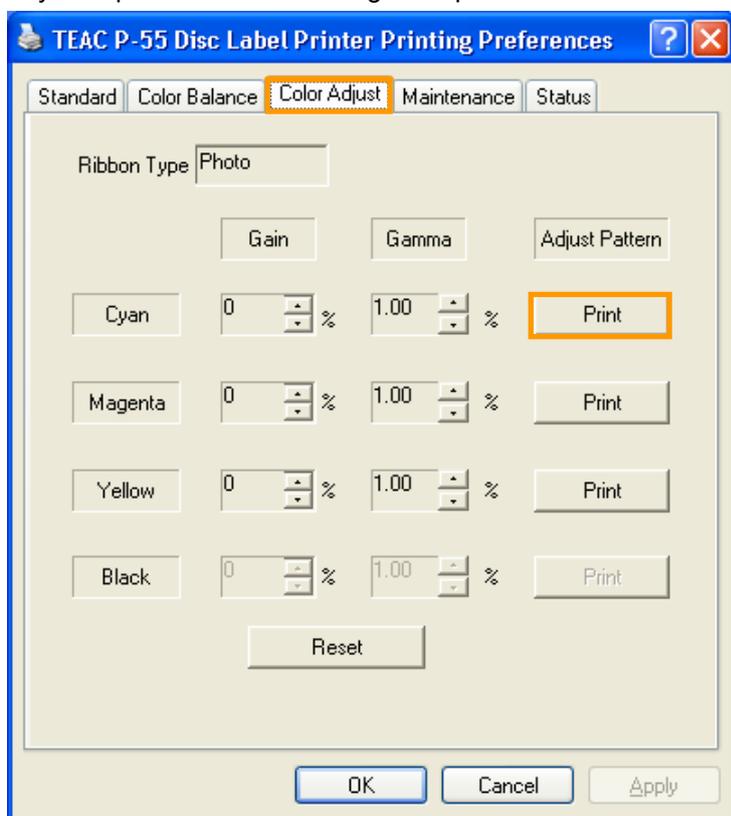
- The following adjustment can be performed using color correction.

Gamma correction	mainly adjust highlights of colors.
Gain correction	mainly adjust shadows of colors.

(The gamma and gain values are preset to 0% and 1.00 respectively at the factory.)

ATTENTION
If more than one P-55 unit is connected to the computer you use, you are unable to make color corrections for those P-55 units at the same time. Perform color corrections for them one by one.

2) After the print operation is completed, the unit ejects a cyan printed disc.
A reference color and a sample color being used for correction are printed for gamma and gain settings each. (See below)

IMPORTANT

You need to match a sample color and a reference color for each of the colors, cyan, magenta, and yellow when performing color correction in the P-55 (one or more than one unit). **Make sure that <u>the color matching is always performed by the same one person</u>** as how colors are perceived varies from person to person.

Gain reference color

Gamma reference color

A sample gauge is marked with dotted line that indicates the boundary between reference color and sample color.
*Dotted lines are not printed on actual discs.

Sample color
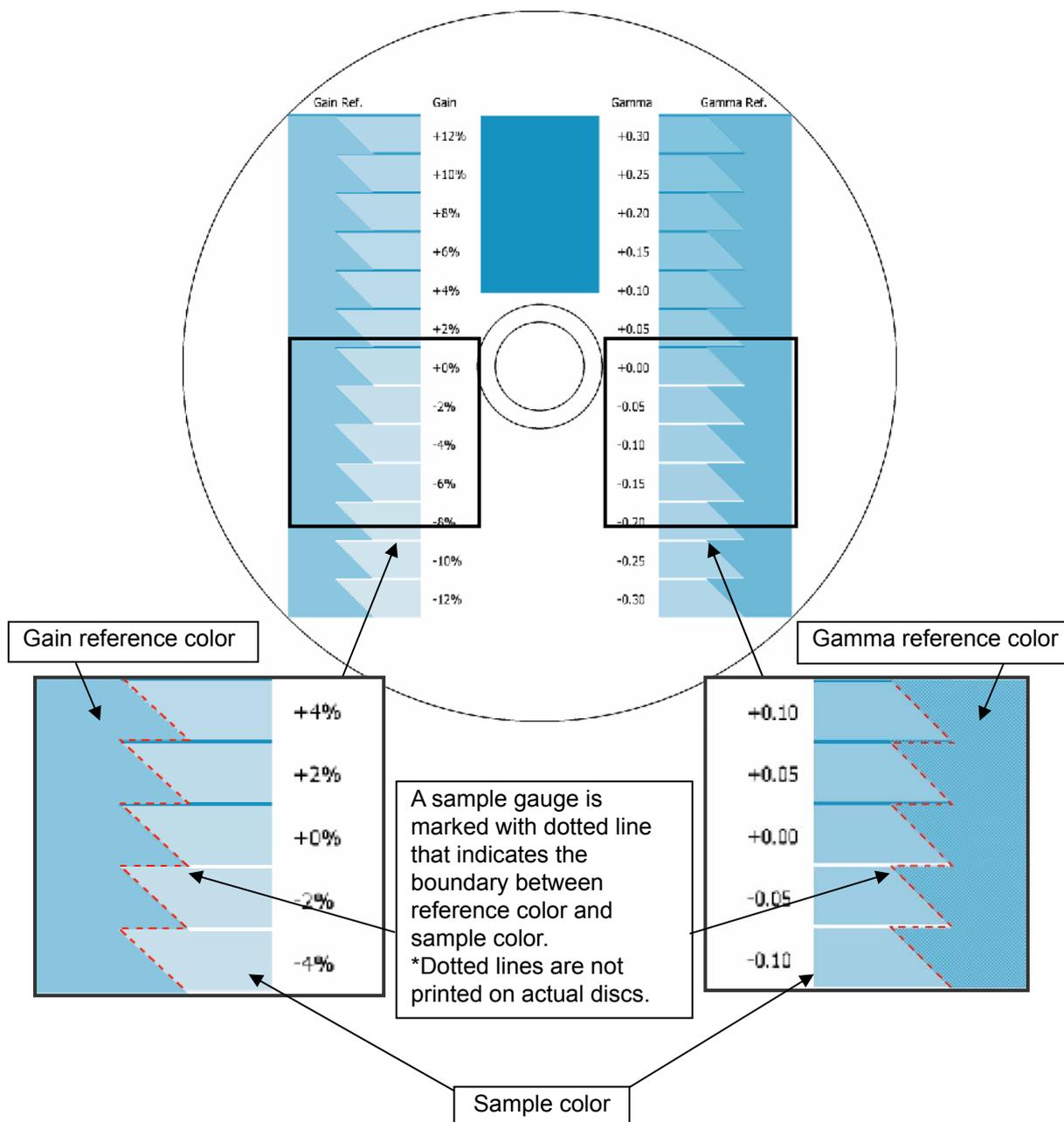
3) Take out the printed disc from the tray. Referring to the image below, read off the gamma and gain values on the disc surface.

  -The gamma scale has values ranging from -0.30 (0.7) to +0.30 (1.30) to show the deviation of a reading from the gamma reference value 1.00 that may need correcting.

  -The gain scale has values ranging from -12% to +12% to show the deviation of a reading from the gain reference value 0% that may need correcting.

- Checking current gamma and gain values on sample gauge

  Place the image-printed disc on a white sheet of paper so that the gamma reference color is close to you as shown in Fig. B. Incline the disc at about 45° to the paper. From about 65-80° to the paper, looking at the sample gauge (boundary) in order of decreasing color depth, from most positive to most negative, read off the value at which the reference color and the sample color blend together best.

  Next, looking at the sample gauge (boundary) in order of increasing color depth from most negative to most positive, read off the value at which the reference color and the sample color blend together best.

  Then, take the intermediate value between the first and second readings.

 *If you read off the gamma value of +0.10 when looking at the sample gauge in order of decreasing color depth and then +0.00 when looking at the gauge in order of increasing color depth, then the intermediate value should be +0.05.

Reference color

Fig. A

Sample gauge
Looking at the sample gauge (boundary) in order of decreasing color depth, from most positive to most negative, and then in order of increasing color depth, from most negative to most positive, read off each value at which the reference color and the sample color blend together best, and take the intermediate value between the two readings you have just made.
*Check both gamma and gain values.
  (Shown in the left image is the gamma value image.)
*The color becomes lighter as the value gets larger in the negative direction.
*The color becomes darker as the value gets larger in the positive direction.

Sample color

Lighter   Darker

Fig. B

White paper

Approx. 65-80°

Approx. 45°

*The markings on the sample gauges can serve as reference for estimating the deviation of the current gamma and gain settings from the gamma reference value of 1.00 and the gain reference value of 0%. (*the values you read off on the sample gauge are referred to as "readings".)
The ideal gamma and gain readings are 0.00 and 0% respectively.
Color correction is not required if the gamma and gain readings respectively fall within the ranges of -0.05 to +0.05 and -2% to +2% for cyan, magenta, yellow, and black. (If desired, correct the settings so that the gamma and gain readings can be closer to the ideal values of 0.00 and 0% respectively on the sample gauge.)
Color correction is recommended if there is any color for which the gamma and gain readings fall outside the acceptable ranges above.

Read before applying color correction

Adjusting one setting also affects the setting of the other for gamma and gain corrections.
For example, you may see the gamma reading is 0.00 when you print a color using "Image Print" and you want to keep the value as it is. After you correct the gain setting, however, you may realize that the gamma setting has also been adjusted. Or you see the gain setting has been adjusted by the correction of the gamma setting even though you wanted to keep the gain value of 0%.

If you increase the gain value in the positive direction to darken highlights, shadows that are usually adjusted by the gamma correction are also darkened.

If the gain reading is more than +4% or less than -4%, you need to add an adjustment value ranging from ±0.05 to ±0.15 to the gamma reading, referring to Table A, to prevent the color from being excessively darkened. If the gamma reading is more than +0.10 or less than -0.10, add an adjustment value ranging from ±4% to ±12% to the gain reading, referring to Table B.
Those values calculated as shown above are called correction values.

*Note that the sign for the adjustment value should be plus when the reading is a minus value and that the sign for the adjustment value should be minus when the reading is a plus value.

Table A: Gamma adjustment values

Gain reading (on sample gauge)	[+4% to +6%] or [-4% to -6%]	[+8% to +10%] or [+8% to -10%]	[+12%] or [-12%]
Gamma adjustment value	[±0.05]	[±0.10]	[±0.15]

Example: If gain and gamma readings on a sample gauge are ＋8% and -0.10…
      *The gamma adjustment value is -0.10 for the gain reading of +8%, as shown in Table A.
      *Calculate the gamma correction value according to the formula below.

gamma reference value 1.00 + gamma reading + gamma adjustment value = gamma correction value
1.00 + (-0.10) + (-0.10) = 0.80
*Apply the gamma correction value of 0.80 to the unit.

Table B: Gain adjustment values

Gamma reading (on sample gauge)	[+0.10 to +0.15] or [-0.10 to -0.15]	[+0.20 to +0.25] or [-0.20 to -0.25]	[-0.30] or [+0.30]
Gain adjustment value	[±4%]	[±8%]	[±12%]

Example: If gain and gamma readings on a sample gauge are +8% and -0.10…
      *The gain adjustment value is +4% for the gamma reading of -0.10, as shown in Table B.
      *Calculate the gain correction value according to the formula below.

gain reading + gain adjustment value = gain correction value
+8% + +4% = +12%
*Apply the gain correction value of 12% to the unit.

After applying correction values to the unit, perform "Image Print" and check the sample gauge again.
If the gamma and gain readings fall within the gamma range of -0.05 to +0.05 and the gain range of -2% to +2%, color correction is completed.

IMPORTANT

The final gamma and gain correction values are determined by repeating the above steps.
Applying a gain correction value that is too high affects the tone characteristic of a device.
If you want to correct the gain setting when the gamma reading is "0.00", add a value ranging from -0.05 to +0.05 to the gamma correction value to decrease the final gain correction value as much as possible.
Decreasing the gain correction value ensures well-balanced color correction.

- Entering correction values after checking gamma and gain settings
  Calculate each correction value based on the readings on the sample gauge taken at step 3).
    *The gamma scale has values ranging from -0.30 (0.7) to +0.30 (1.30) to show the deviation of a reading from the gamma reference value 1.00 that may need correcting.
    *The gain scale has values ranging from -12% to +12% to show the deviation of a reading from the gain reference value 0% that may need correcting.

4) Gamma correction steps
   "Example: gain and gamma readings of -8% and -0.15 for cyan"
   Referring to Table A, you lean that the gamma adjustment value is +0.10 for the gain reading of -8%. Add the gamma reference value 1.00 and the gamma adjustment value to the gamma reading as calculated below.
   *gamma reference value 1.00 + gamma reading -0.15 + gamma adjustment value +0.10
   = gamma correction value +0.95.

   -Keep clicking the button "▲" or "▼" for the cyan gamma setting on **the color correction dialog** until the gamma value "0.95" appears, as shown below.
     *You can set the gamma value to +0.05 to +3.00.
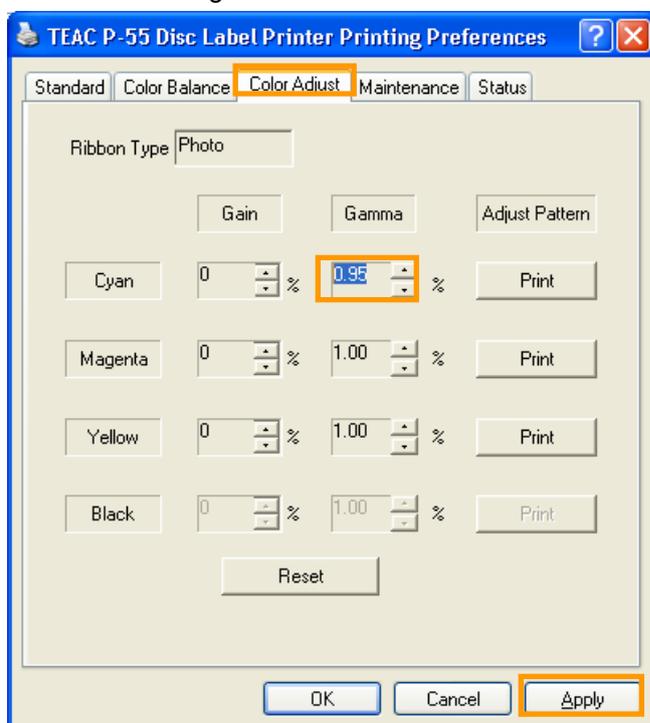
- Press **Apply** after you have completed the entry.
* To cancel the setting, press **Cancel**.
Next, enter a gain correction value.

* If you want to quit the color correction setting without correcting a gain setting, follow the steps 1) to 3) to print cyan after you have pressed **Apply** above.

- Take out the printed disc from the tray and check if the gamma and gain readings on the sample gauge fall within the acceptable ranges below.
  Color correction is not required if the gamma and gain readings respectively fall within the ranges of -0.05 to +0.05 and -2% to +2%.
  (If desired, correct the settings so that the gamma and gain readings can be closer to the ideal values of 0.00 and 0% respectively on the sample gauge.)

If no further correction is needed, the color correction to cyan is completed.

* If you want to correct colors other than cyan now, go back to step 1) and select a color you want to print on **the color correction dialog**.

5) Gain correction steps

"Example: gain and gamma readings of -8% and -0.15 for cyan"

Referring to Table B, you learn that the gain adjustment value is +4 for the gamma reading of -0.15. Add the adjustment value to the gain reading as calculated below.

*gain reading -8% + gain adjustment value +4% = gain correction value -4%

Keep clicking the button "▲" or "▼" for the cyan gain setting on **the color correction dialog** until the gain value "-4%" appears, as shown below.

*You can set the gain value to -50% to 50%.
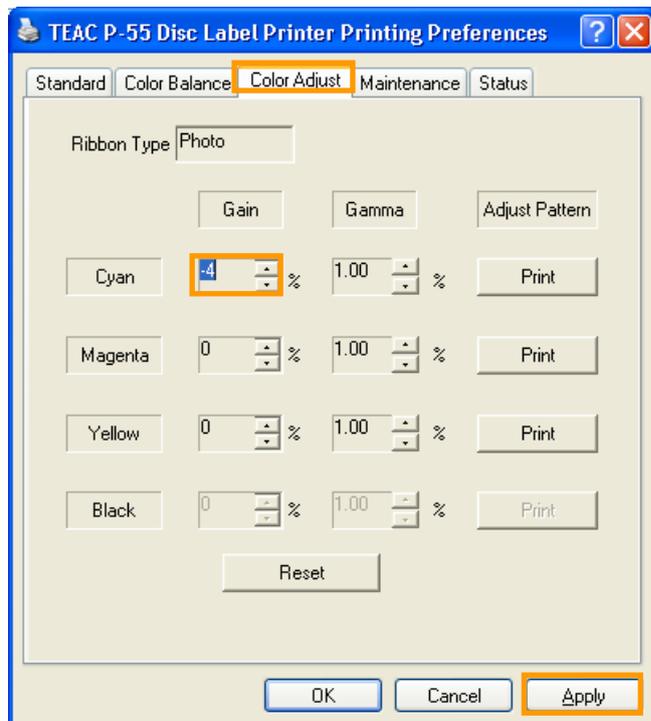
- Press **Apply** after you have completed the entry.
* To cancel the setting, press **Cancel**.

To check if the gamma and gain settings to which you have just applied correction values fall within their acceptable ranges, print cyan following the steps 1) to 3) again.

-Take out the printed disc from the tray and check if the gamma and gain readings on the sample gauge fall within the acceptable ranges below.
Color correction is not required if the gamma and gain readings respectively fall within the ranges of -0.05 to +0.05 and -2% to +2%.
(If desired, correct the settings so that the gamma and gain readings can be closer to the ideal values of 0.00 and 0% respectively on the sample gauge.)

If no further correction is needed, the color correction to cyan is completed.

* If you want to correct colors other than cyan now, go back to step 1) and select a color you want to print on **the color correction dialog**.

-When you complete correcting of all colors, press **OK** to close the color correction window.

4   Beware

1) Printing direction

When you successively print on multiple media an image in which linear elements are dominant and they run horizontally relative to the direction in which the disc tray slides out (Figure 1), there are occasions where the print head retains these linear image elements after completing the print session and, when you start the next print session using another image, this residual image is also output. (This is because localized energy is applied to the print head over and over again and this causes its uniformity in resistivity to lose and thus producing a residual image. This is due to the inherent characteristics of the print heads available and inevitable.)

To lessen the residual image effect, we recommend setting the image direction in graphics software so that the linear elements run vertically relative to the direction in which the disc tray slides out, as shown in Figure 2.

Also, when you use an image in which crossed linear elements are dominant as shown in Figure 3, we recommend setting the image direction in graphics software so that these elements run at an angle of 45 degrees relative to the direction in which the disc tray slides out, as shown in Figure 4.
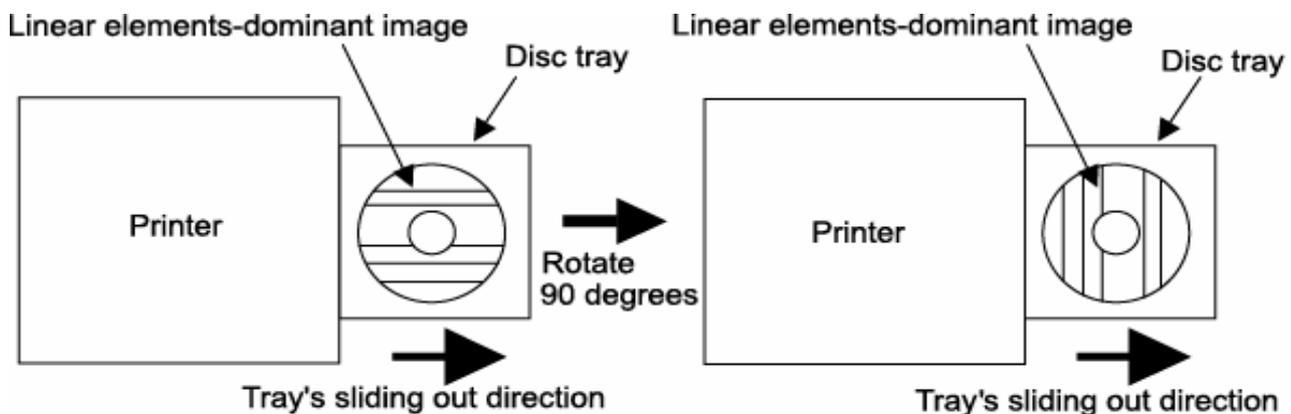
Figure 1

Figure 2
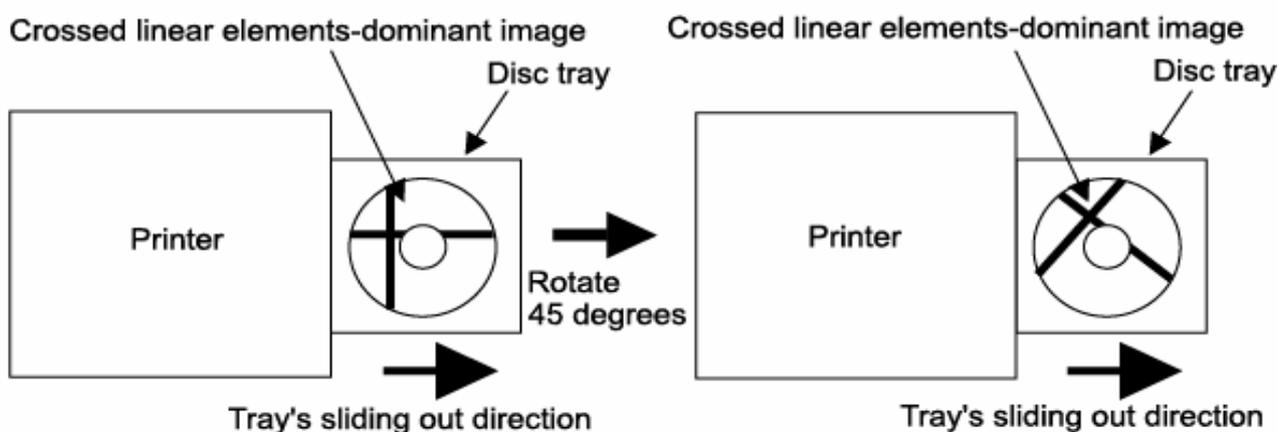
Figure 3

Figure 4

2) Color profile setting

The P-55 uses its specific color profile to management colors.
For that reason, do not switch from the default setting **Automatic** to **Manual** on the **Color Management** tab of "TEAC P-55 Disc Label Printer Properties" on your computer. (See below).
The P-55 device driver automatically identifies the type of ribbon installed in the unit and selects the appropriate color profile (P).
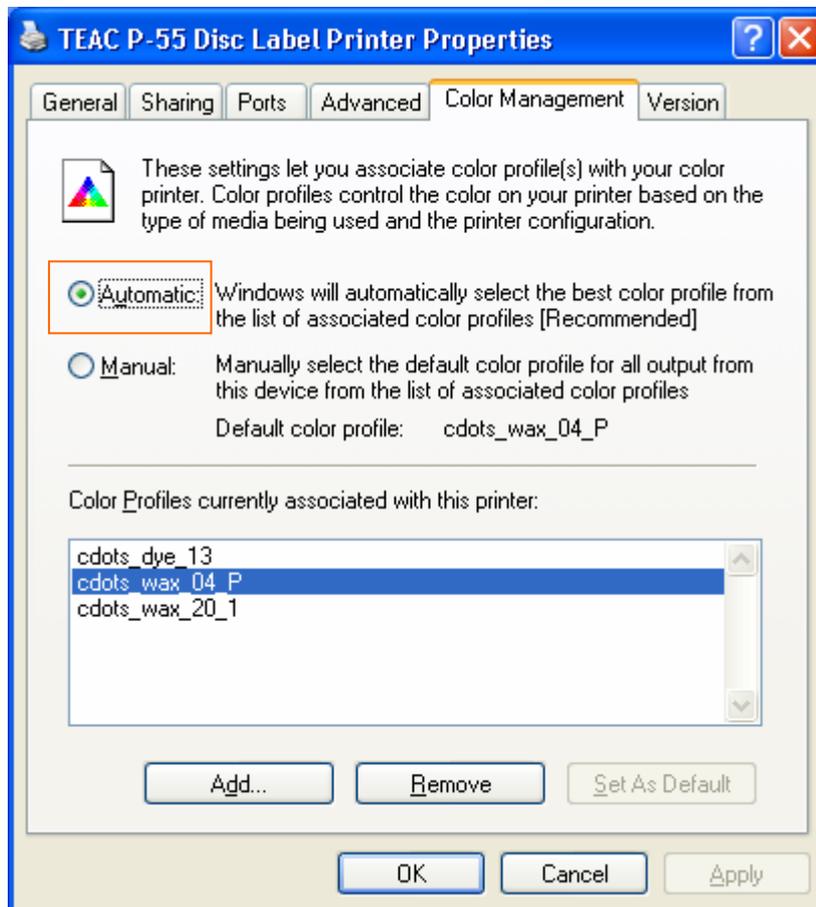
DO NOT add or remove any color profiles on the **Color Management** tab.
If you delete any of the listed color profiles by mistake, delete and reinstall the P-55 printer driver.
*For detailed information about deleting the driver, see SECTION 18: Removing Disc Label Editor and Printer Driver.
*For detailed information about installing the driver, see SECTION 13: Installing Printer Driver.

SECTION 18: Removing Disc Label Editor and Printer Driver

IMPORTANT

* Read before removing P-55 printer icon*

If you delete the icon for a P-55 printer driver, the following settings you configured for the corresponding printer return to their default values.
- "(media) Size" and "Method" on the "Standard" tab
- "Gamma" and "Gain" on the "Color Adjust" tab
- "CMY(K)" on the "Color Balance" tab
We recommend that you make a note of the values you entered for the above settings to prevent them from being inaccessible before re-installing the printer driver, having the printer repaired, using a different computer, or performing any action that deletes your P-55 printer icon.

*You must follow the instructions below in this section to remove the Disc Label Editor and printer driver.
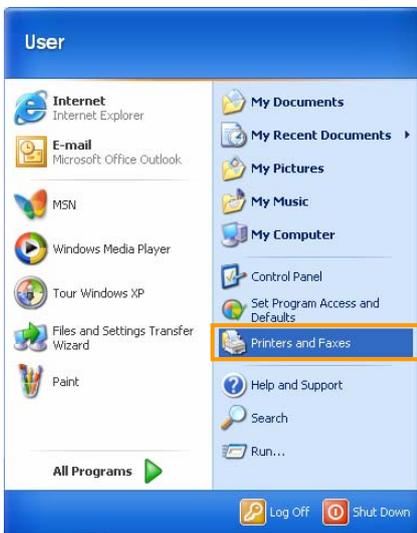
For Windows XP users,
   Point to **Start** and **Printers and Faxes**.

For Windows 2000 users,
   Point to **Start**, **Settings** and then **Printers**.
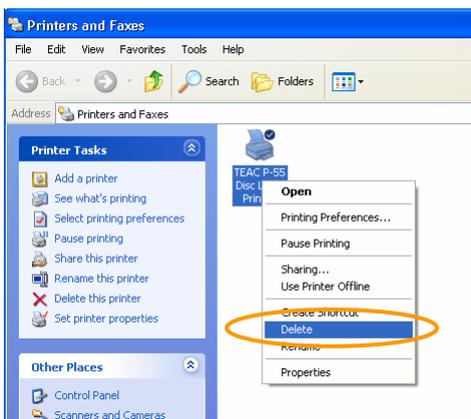
Right-click the icon for "TEAC P-55 Disc Label Printer" and select **Delete** from the menu that appears on the screen.

CAUTION

If you delete the icon for a P-55 printer driver, the following settings you configured for the printer driver return to their default values.
- "(media) size" and "Method" on the "Standard" tab,
- "Gamma" and "Gain" on "Color Adjust" tab
- "CMY(K)" on the "Color Balance" tab

We recommend that you make a note of the values you entered for the above settings before removing the P-55 printer icon to prevent them from being inaccessible.
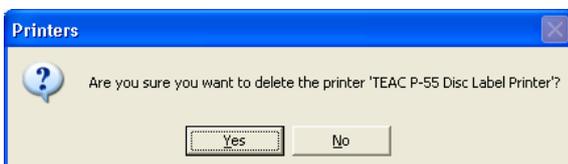
The message "Are you sure you want to delete the printer 'TEAC P-55 Disc Label Printer'?" appears on the screen. Click **Yes**.
Then, the icon is deleted from **Printers and Faxes**.
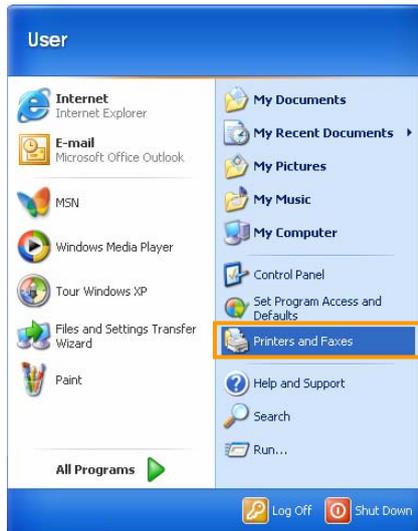
For Windows XP users,
    Point to **Start** and **Printers and Faxes**.

For Windows 2000 users,
   Point to **Start**, **Settings** and then **Printers**.

For Windows XP users,
    Select **File** and then **Server Properties**.

For Windows 2000 users,
    Select **File** and then **Server Properties**.
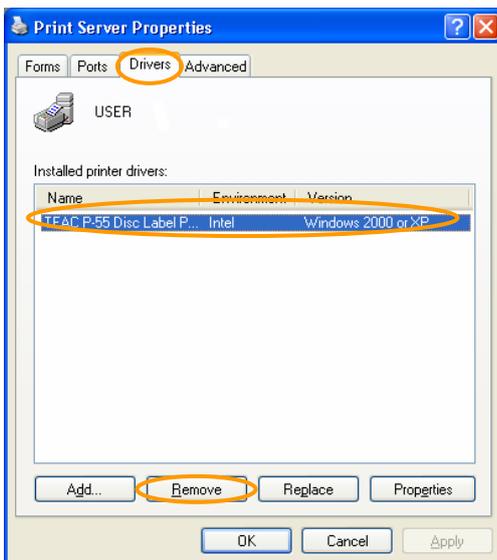
Select the tab **Drivers** from **Print Server Properties**. Then, select "TEAC P-55 Disc Label Printer" from **Installed printer drivers** and click **Remove**.

58

SECTION 18: Removing Disc Label Editor and Printer Driver
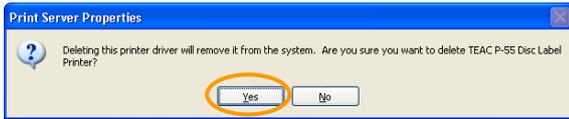
The warning message "Deleting this printer driver will remove it from the system. Are you sure you want to delete TEAC P-55 Disc Label Printer?" appears on the screen. Click **Yes**.
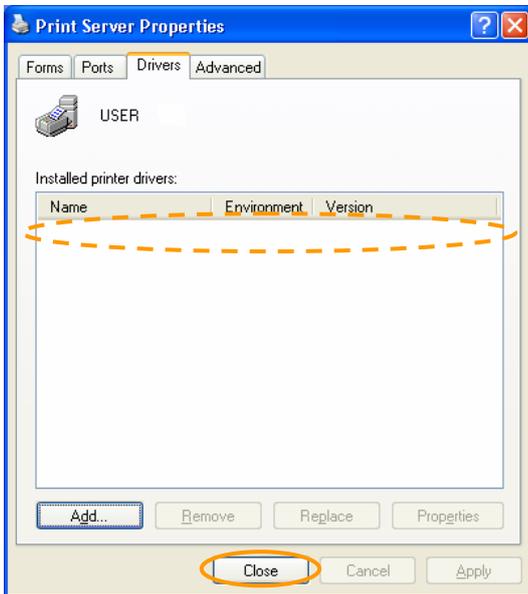
Make sure that "TEAC P-55 Disc Label Printer" is removed from the **Installed printer drivers**. Then, click **Close**.

59
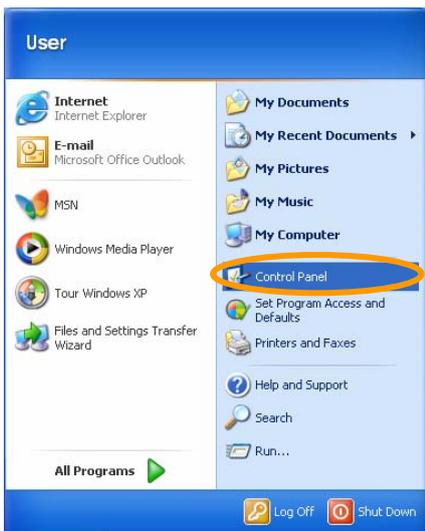
Point to **Start** and then **Control Panel**.

For Windows XP users,
   Select **Add or Remove Programs**.

For Windows 2000 users,
   Select **Add/Remove Programs**.

Select **Disc Label Editor** from **Currently installed programs**.
Click **Change/Remove**.

The dialog "Choose Setup Language" appears on the screen. Select a language and click **OK**.

The "InstallShiled Wizard" starts.

SECTION 18: Removing Disc Label Editor and Printer Driver

Select **Remove** and click **Next >**.
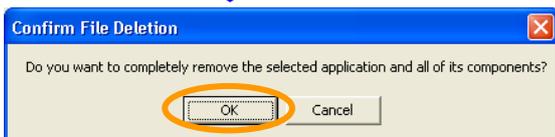
The confirmation file deletion dialog appears on the screen. Click **OK**.
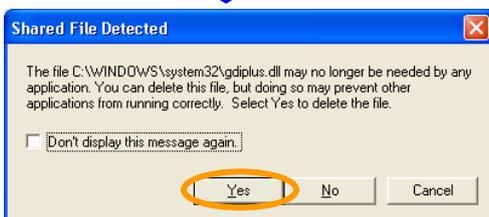
If the message "Shared File Detected" appears during the file deletion process, always click **Yes**.

The window appears on the screen. Click **Finish**.
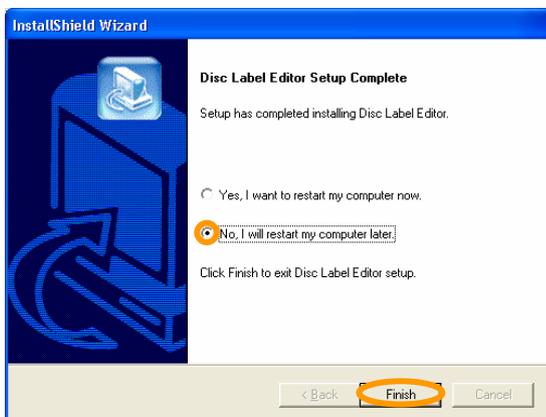
The dialog appears on the screen. Select "No, I will restart my computer later."
Then, click **Finish** again.

*For the uninstallation procedures, you can also refer to the slip "Before Getting Started" included with your package.

SECTION 18: Removing Disc Label Editor and Printer Driver

■ **Uninstalling P-55 Related Information**

To remove the P-55 related information completely from your computer, you need to use our removal tool. Insert the attached P-55 UTILITY SOFTWARE CD-ROM into a DVD/CD-ROM drive of your computer and then execute "RemoveP55inf.exe."

The "InstallShield Wizard" starts automatically. Click **Cancel** to cancel the installation.
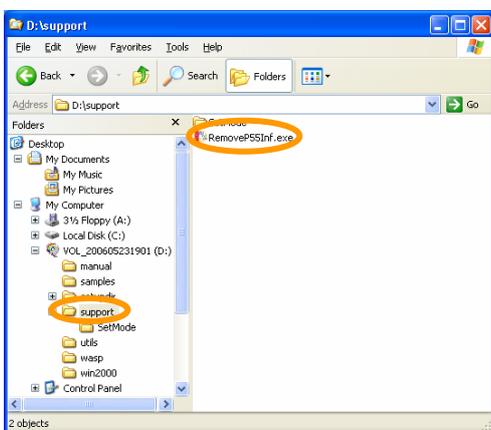
Double-click the icon for "P-55 UTILITY SOFTWARE CD-ROM" and the folder "Support."
Then, double-click "RemoveP-55inf.exe."
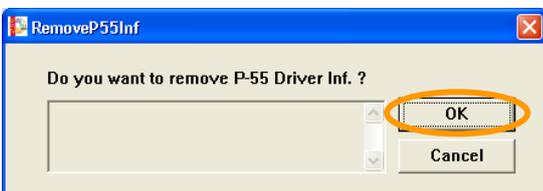
The dialog "Do you want to remove P-55 Driver Inf.?" appears on the screen. Click **OK**.
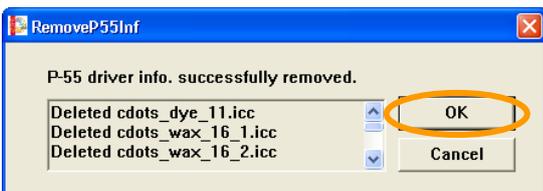
The message "P-55 driver info. successfully removed." appears on the screen. Click **OK** to finish the removal procedures.

Remove the "P-55 UTILITY SOFTWARE CD-ROM" from the DVD/CD-ROM of your computer.
In Windows XP, point to **Start**, **Shut Down**, and **Restart**. Then, click **OK** to restart your computer.
In Windows 2000, point to **Start**, **Shut Down**, and **Restart**. Then, click **OK** to restart your computer.

All the removal procedures of P-55 Disc Label Editor and drivers are completed.

Daily Cleaning Maintenance

Wipe the dirt off the surface of the printer with a soft cloth.

If it is too dirty, wipe it with a cloth dipped in a solution of a neutral detergent and water and wrung out well. Make sure that no detergents or solutions enter the unit. Failure to follow this instruction may cause serious damage to the unit or cause electric shock or fire.

Make sure that the power is shut off to the unit before you apply a detergent.

Do not use paint thinner, petroleum ether, or other flammable solvents. Note that a household or industrial chemical cleaner may also damage the coating of the case.

Clean the following parts on a daily basis in order to maintain print quality:

    (1) Thermal head (at ribbon replacement time)
    (2) Platen roller (at ribbon replacement time)
    (3) Ink cartridge guide roller and guide plate (at ink ribbon replacement time)
    (4) Cooling fan filter (every half year)

ATTENTION: Using cleaning kit

-To clean the platen roller and thermal head, use our cleaning kit. (*Note1)
  (Cleaning kit includes 2 cleaning plates and 1 cleaning agent.)
-Put a few drops of the cleaning agent onto the sponge of a cleaning plate.
  (Putting an excessive amount of the agent may cause the sponge to come off from the plate and cause damage to the unit eventually.)
-Be sure to use absolute ethanol we provide in a cleaning kit.
  (Using a cleaning agent other than the designated agent may cause damage to the printer.)
-Areas indicated by hazardous heat warning labels are very hot while the power is turned on or just after the power is turned off.
Note1: Cleaning kit is available as an optional item.
     For purchase, see **SECTION 23: Contact Information.**

WARNING ⚠   **Attention to heat buildup**
You must be extremely careful when you perform maintenance work with the power on; areas indicated by hazardous heat warning labels are very hot while the power is turned on or just after the power is turned off. The temperature of the ribbon cartridges reaches about 30 °C to 35 °C while the printer is running or right after the power is shut off. On such conditions, the heat cover is at a temperature of about 74 °C to 80 °C. Touching the heat cover or around the cover may burn your skin or injure you. (To cool the printer to 30 °C or below, leave it as it is for about 40 minutes after the power is shut off to the unit.)
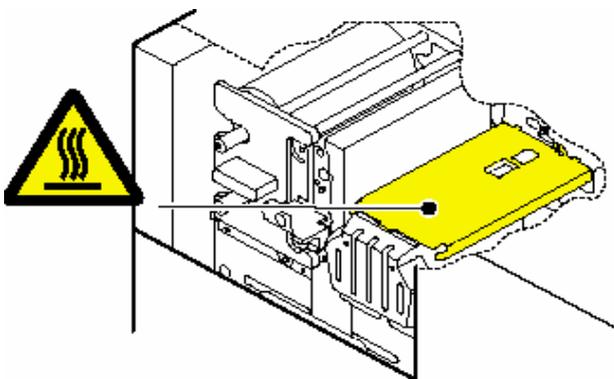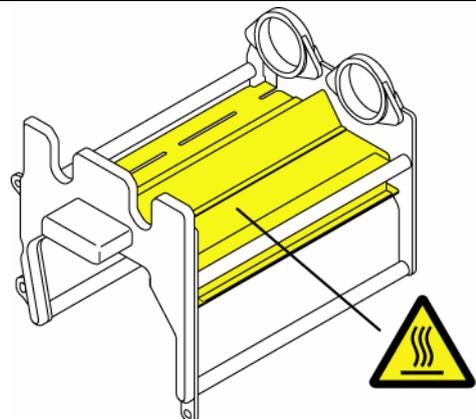
| Heat cover | Ribbon cartridge |

SECTION 19: Maintenance

1. Cleaning thermal head (when replacing each ribbon, perform the following with power off)

WARNING	⚠	**HOT! Areas indicated by hazardous heat warning labels are very hot while the power is turned on or just after the power is turned off.**

Press the Side door unlocking button on the top left of the unit and open the side door.
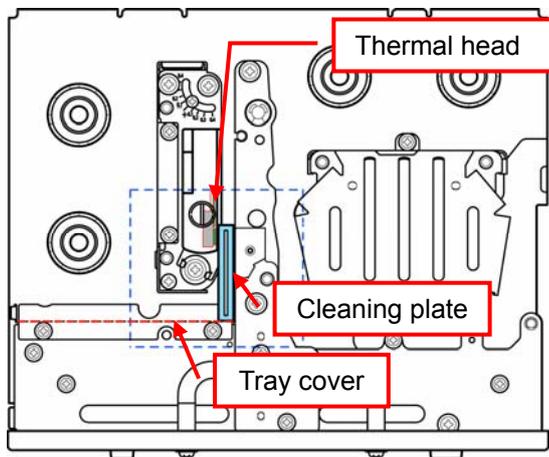
Printer engine

1. Flip up the lock lever to unlock the ribbon cartridges.

2. Pull out the ribbon cartridges.

3. Put **a few drops of the cleaning agent** onto a cleaning plate, and insert the plate while the long edge of the plate is brought into contact with the tray cover (See Fig. A). Slide the plate in and out slowly several times to wipe the dirt off (See Fig. B).

4. Install the ribbon cartridges back in the printer and close the side door.

* Maximum number of times a cleaning plate can be used (for reference)
- 10 for thermal head (5 for each side)

Fig. A

Bring the long edge of the cleaning plate into contact with the tray cover.

With the long edge of the plate brought into contact with the tray cover, slide the plate in and out slowly several times to wipe the dirt off.
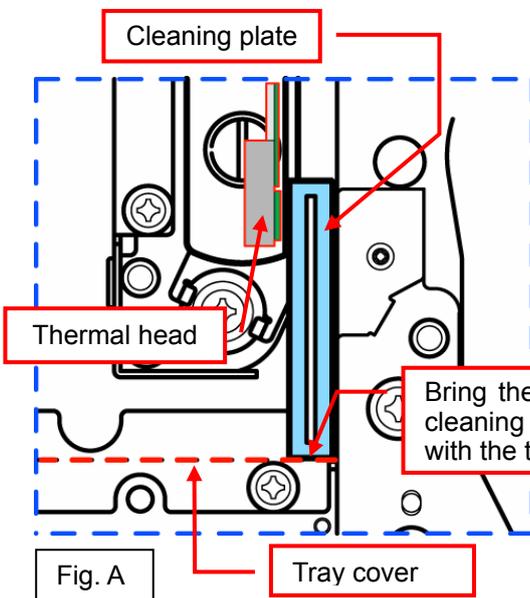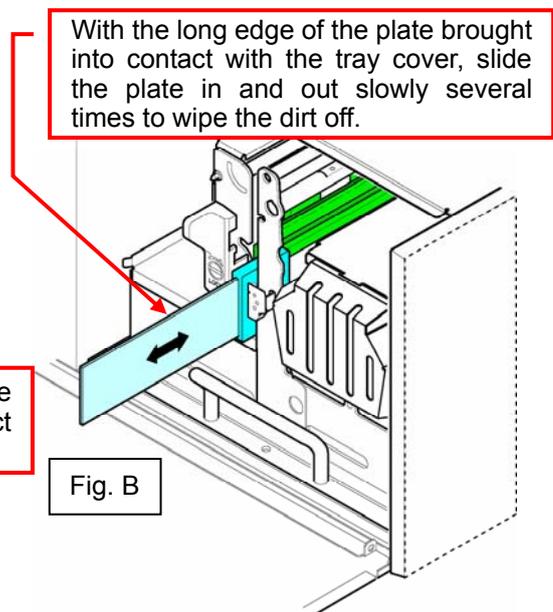
Fig. B

* Always use a clean surface of a cleaning plate for cleaning. Applying an unclean surface of a plate to the printer results in printer failure or poor print quality.

* Do not use any cleaning plates that have cracks or flaking in the sponge. Using such a plate results in printer failure or poor print quality.

2. Cleaning platen roller (when replacing each ribbon, perform the following with power off)

WARNING	⚠	HOT! Areas indicated by hazardous heat warning labels are very hot while the power is turned on or just after the power is turned off.

Platen roller

Cleaning plate

Printer engine
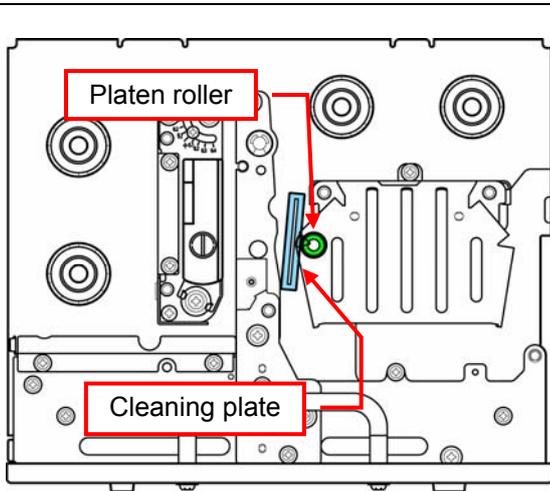
* Maximum number of times a cleaning plate can be used (for reference)
  - 10 for platen roller (5 for each side)

1. Press the **SELECT** button on the control panel as many times as necessary for "Unlock Door" to show on the LCD and press the **ENTER** button.
2. Press the button on the top left of the printer and open the side door.
3. Flip up the lock lever to unlock the ribbon cartridges.
4. Pull out the ribbon cartridges.
5. With the ribbon cartridge removed, flip down the lock lever to lock the cartridges.
6. Press the **SELECT** button on the control panel to display "Clean Up Mode" on the LCD.
7. To rotate the platen roller, press and hold down the **ENTER** button with "Clean Up Mode" displayed.
8. Apply a cleaning plate moistened with **a few drops of the cleaning agent** to the rotating platen roller (Fig. A) and slide the plate in and out slowly several times to wipe the dirt off (Fig. B).
9. Install the ribbon cartridges back in the printer and close the side door.

Press a cleaning plate lightly against the platen roller.

Platen roller

Cleaning plate

Fig. A

Fig. B

With the plate pressed lightly against the platen roller, slide it in and out slowly several times to wipe the dirt off.

* The cleaning plate that was once used for cleaning the platen roller should be used for the platen roller only; do not use the same plate for cleaning the thermal head. Applying the same plate both to the platen roller and thermal head results in printer failure or poor print quality.

* Do not use any cleaning plates that have cracks or flaking in the sponge. Using such a plate results in printer failure or poor print quality.

3. **Cleaning ink cartridge guide roller/guide plate (when replacing ink ribbon, perform the following.)**
   There may be some dirt such as powdery white dust stuck on the ink cartridge guide roller or guide plate as shown in the area colored red below.
   If you find any dirt on the guide plate when replacing an ink ribbon, wipe it from the guide plate using our cleaning plate or some other commercial wiping paper moistened with our specified cleaning agent.

Ink ribbon dust may be stuck here.
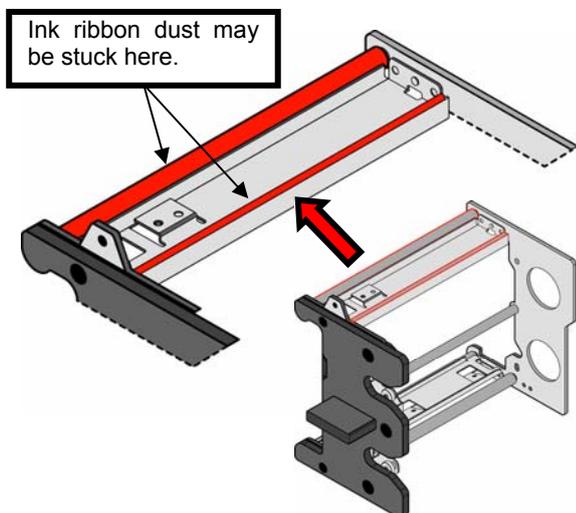
* Once a cleaning plate is used for the guide roller/guide plate, do not use the same plate for cleaning the thermal head. Applying the same plate both to guide roller/guide plate and thermal head results in printer failure or poor print quality.

* Notice the guide roller/guide plate to be cleaned is the one installed in the take-up side of the ink ribbon.

4. **Cleaning the cooling fan filter (every half year)**
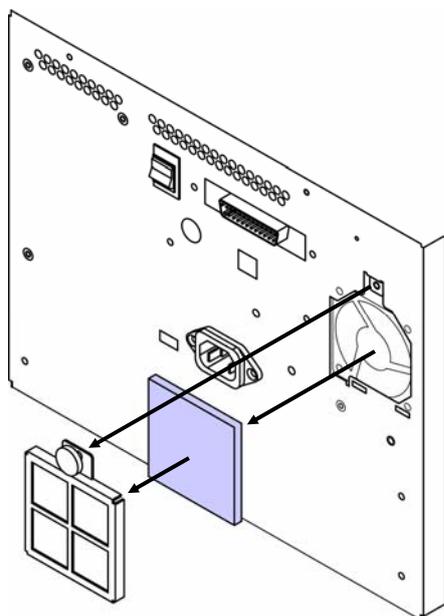
Remove a large screw that holds the grid in place, remove the grid, take out the filter from the grid, wash the filer with water, let it fully dry, and then replace the grid and filter.

Cleaning the tray
Use an appropriate brush or toothbrush to sweep the tray clean.

WARNING ⚠

Before you attempt to clean the filter, it is imperative to shut down the P-55, wait for the cooling fan to stop and unplug the power cord.
(To drop the temperature inside the unit, the fan continues to revolve for about 10 to 20 minutes after the power is shut off to the unit.)

WARNING ⚠

Areas indicated by the hazardous heat warning labels are very hot while the power is turned on or just after the power is turned off.

5. **Periodic Checks and Maintenance by Service Personnel**
   It is recommended that the inside of the unit be checked and consumable parts be replaced on a regular basis so that print quality consistency can be maintained. For information about maintenance or repairs, contact our customer representative.

SECTION 20: Shipping

When you need to ship the P-55, first replace the shipping materials in reverse order of removal by referring to **SECTION 8: Installing and Removing Shipping** Protection Materials. Thereafter, pack the printer by referring to the illustration below.

CAUTION

-For future shipments, keep a metallic piece and cushions (3 types) in the packaging box along with packaging materials.
-Shipping the P-55 without shipping protection materials installed in place might result in damage to its internal parts.
-This product internally reaches a high temperature when in use. Before installing the shipping protection materials in the unit, first leave it turned off for a while (1 hour) to cool it off completely and be sure to remove the ink ribbon and transfer ribbon as well.
-Do not apply shock to either the unit or ribbons in shipment.

AC power cable (For U.S.A. and Canada)

AC power cable (For Europe)

Utility Software CD-ROM and Label print sample

Blank media (CD-R)

Printer cable

"Before Getting Started"

Ribbon set

*Note Cleaning Kit

P-55
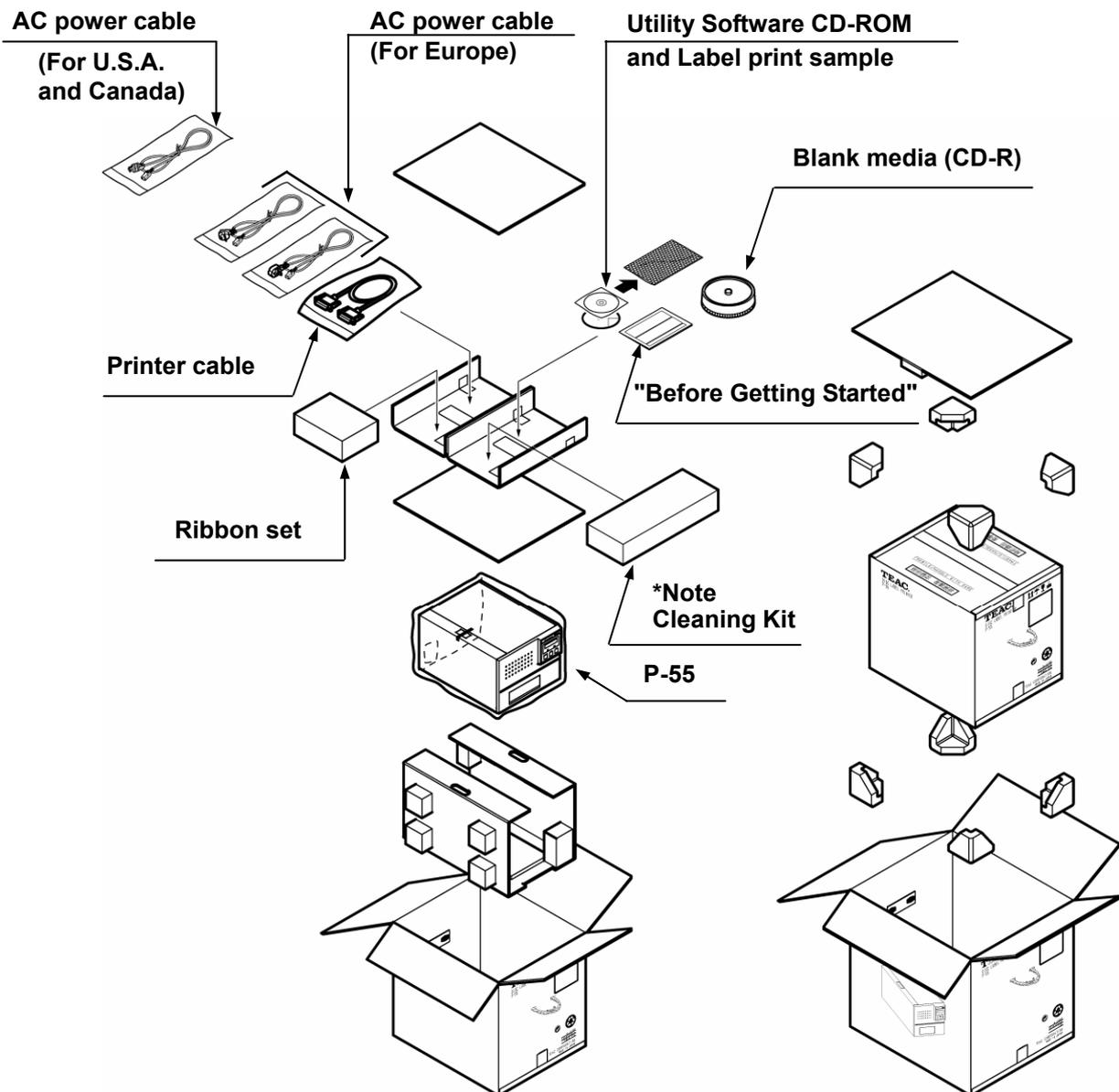
*Note: The cleaning kit is optional.

SECTION 21: Specifications

1   Printer

Printing Method:	Thermal re-transfer printing
Print Resolution:	400 dpi
Minimum Dot Diameter:	15-25 microns (variable dot technology)
Tone:	24-bit full color
	256 gradation levels per color, CMY
	PHOTO ribbon: Continuous-tone method
	COLOR ribbon: Halftone-dot method
	(Auto switch between PHOTO ribbon and COLOR ribbon tonal processing)
Ribbon Capacity:	PHOTO ink ribbon (CMY): About 500 discs/ribbon
	(PHOTO transfer ribbon: About 500 discs/ribbon)
	COLOR ink ribbon (CMY): About 500 discs/ribbon
	Black ink ribbon: About 2000 discs/ribbon
	(COLOR transfer ribbon: About 500 discs/ribbon)
Compatible Media:	TEAC-specified thermal printable discs
Printable Image Size:	12-cm CD (1890* 1890 pixels)
Image Loading Capacity:	One (1) image
Image Format:	TEAC-exclusive format
Media Loading:	Tray Driving
Interface:	USB 2.0 compliant (Hi-Speed Support) 1 port
	Parallel interface (ECP-ready) conforming to IEEE1284 1 port
	*ECP (Extended Capabilities Port) mode

2   General

|	
Power Requirements:	100-120VAC /220-240VAC, 50/60 Hz
Power Consumption:	About 500 Watts (max.) at operating time
External Dimensions (excluding protrusions):	
	302mm (W) x 242 mm (H including feet) x 400mm (D)
Weight:	About 22 kg (including ribbons)
Operating Environment:	Temperature: 15-30°C
	Humidity: 30-70% (no condensation)

3   External Dimensions

SECTION 22: Options

1 Ink and Transfer Ribbons

PHOTO Ribbon Set   Part No.: 19610050-1X
(including 1 x ink ribbon and 1x transfer ribbon)

COLOR Ribbon Set   Part No.: 19610050-0X
(including 1 x ink ribbon and 1 x transfer ribbon)

COLOR (+P) Ink Ribbon Set   Part No.: 19610050-4X
(including 1 x ink ribbon (+P) and 1 x transfer ribbon)
*COLOR (+P) ink ribbon cartridge required.

Black Ink Ribbon   Part No.: 19610010-2X
*Black ink ribbon cartridge required.

Transfer Ribbon Set   Part No.: 19610050-3X
(including 2 x transfer ribbon for black ink ribbon)
* The same ribbon as the transfer ribbon included with each COLOR ribbon set above.

2 Ribbon Cartridges

COLOR Ink Ribbon Cartridge   Part No.: 19610060-0X
(for COLOR/PHOTO ribbon)

COLOR (+P) Ink Ribbon Cartridge   Part No.: 19610060-3X
(for COLOR (+P) ink ribbon)

Black Ink Ribbon Cartridge   Part No.: 19610060-2X
(for black ink ribbon)

Transfer Ribbon Cartridge   Part No.: 19610060-1X
(for all listed transfer ribbons)

3 Authorized Media

Sony thermal printable media

Taiyo Yuden thermal printable media

Verbatim thermal printable media

* Recommended media have their specific part numbers. For details, please contact our sales team.

4 Miscellaneous

Cleaning Kit   Part No.: M024402-00

Product numbers and product names are subject to change without prior notice.

For purchase of optional items, contact your nearest office shown in SECTION 23: Contact Information.

SECTION 23: Contact Information

■ **Product Information**
TEAC America, Inc.
7733 Telegraph Rd. Montebello, CA. 90640.USA
URL: http://www.teac.com/DSPD/
e-mail: webmaster@teac.com

TEAC Europe GmbH
DSPD
Bahnstrasse 12, D-65205 Wiesbaden-Erbenheim, Germany
Phone: +49 (0) 611 7158 658
Fax: +49 (0) 611 7158 666
e-mail: info@teac-roboflex.de
         sales@teac-roboflex.de
URL: www.teac-roboflex.de

■ **Technical Support**
TEAC America, Inc.
DSPD Technical Support
Phone: (323) 727-4860
Fax: (323) 869-8751
e-mail: dspdtsg@teac.com

TEAC Deutchland GmbH
Bahnstrasse 12, D-65205 Wiesbaden-Erbenheim, Germany
e-mail: support@teac-roboflex.de

P/N: D008982-00F