

NetVista Kiosk 4835-120 DBCS Model Printer
Feature



Hardware Service Manual Supplement

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Before you begin to read this supplement, read the *NetVista Kiosk Safety Information, GA27-4294*.

First Edition (October 2001)

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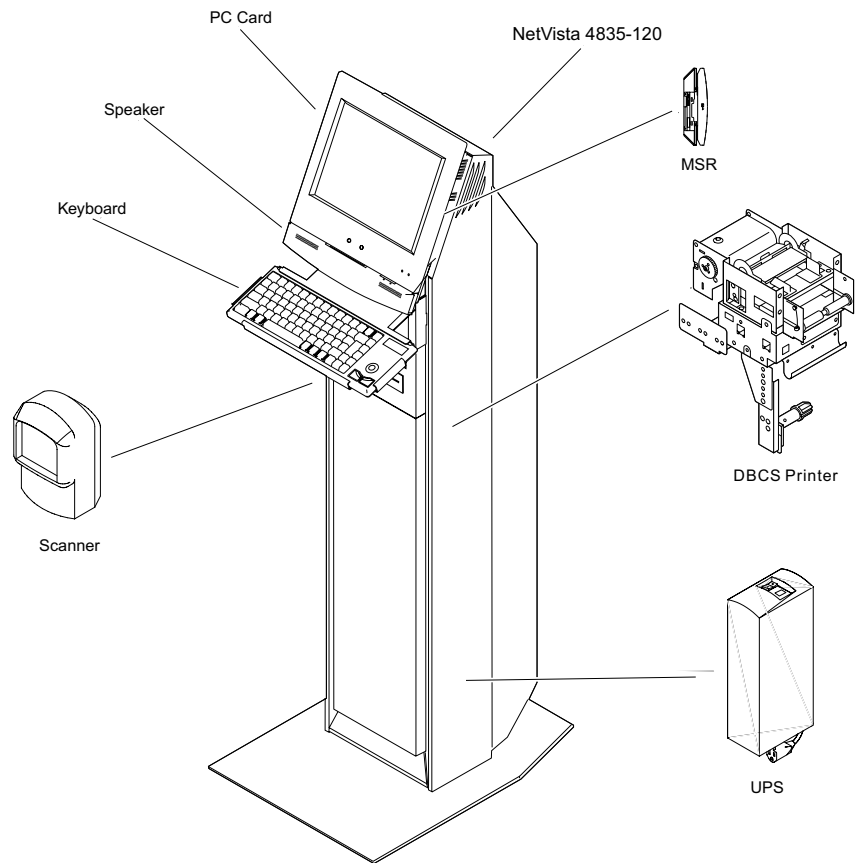
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The NetVista Kiosk-DBCS Model

This manual is a supplement to the *NetVista™ Kiosk 4835 Hardware Service Manual*, GY27-0398 and describes the double-byte character set (DBCS) printer features of the same model. This manual is applicable to the following features:

- F/C 4897 58mm DBCS Printer
- F/C 4898 80mm DBCS Printer
- F/C 4899 112 mm DBCS Printer



Related publications

The following IBM publications are available from the IBM Retail Store Solutions Web site. To access these publications:

1. Go to www.ibm.com/solutions/retail/store/
2. Select **Support** and then select **Publications**.
 - *Safety Information — Read This First*, GA27-4004
 - *NetVista Kiosk Safety Information — Read This First*, GA27-4294
 - *NetVista Kiosk 4835 Installation and Operation Guide*, GA27-4288
 - *NetVista Kiosk 4835 System Reference*, SA27-4289
 - *NetVista Kiosk 4835 Hardware Service Manual*, GY27-0398

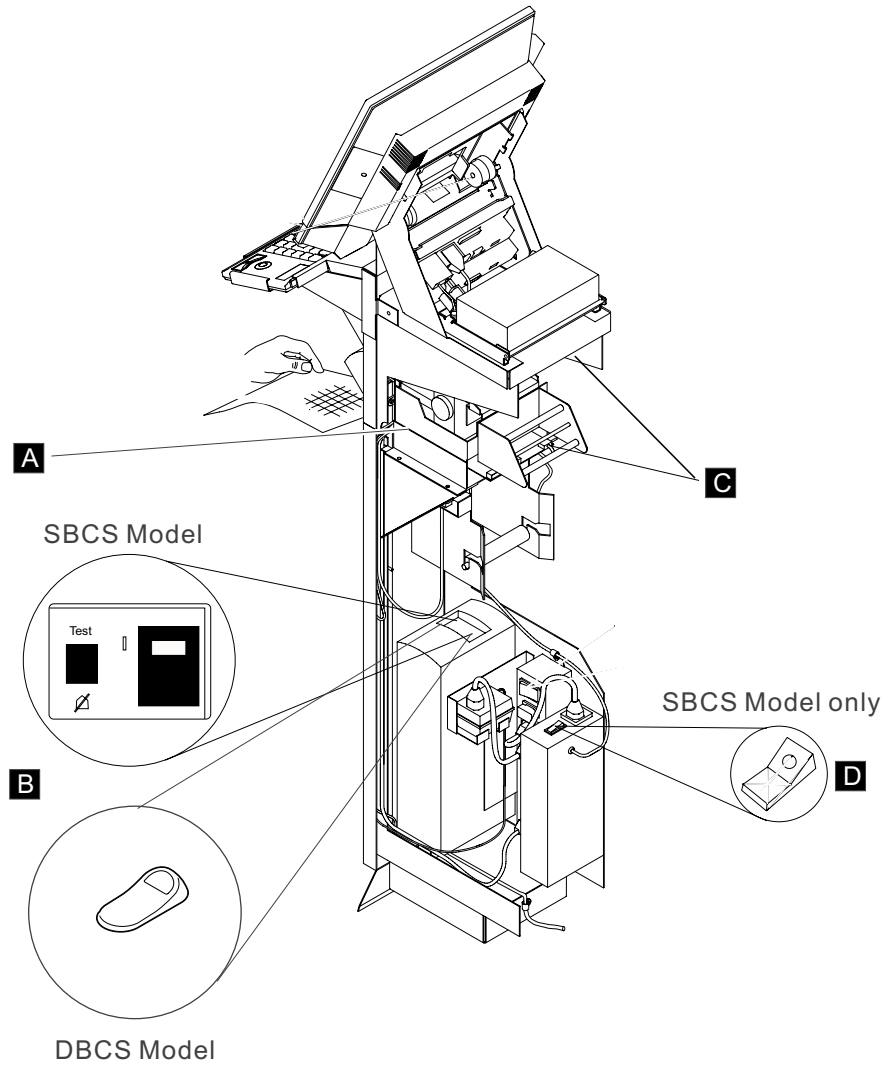
Functional differences

The following table shows the functional differences between the Single-Byte Character Set (SBCS) model and the Double-Byte Character Set (DBCS) model.

SBCS Model	DBCS Model	Affected Pages in the <i>Hardware Service Manual</i>
Selectable thermal printer paper width: <ul style="list-style-type: none"> • 80 mm • 112 mm 	Selectable thermal printer paper width: <ul style="list-style-type: none"> • 58 mm • 80 mm • 120 mm 	2, 3, 25
Supported operating systems: <ul style="list-style-type: none"> • Windows NT 4.0 • Windows 98 Second Edition • Windows 2000 	Supported operating system: <ul style="list-style-type: none"> • Windows 2000 	3, 36
Supported device drivers: <ul style="list-style-type: none"> • CDS • Windows 98 • Windows 2000 	Supported device drivers: <ul style="list-style-type: none"> • Windows 2000/OPOS 	3
APIs <ul style="list-style-type: none"> • Direct hardware • OLE for Retail POS (OPOS) • CDS drivers 	APIs <ul style="list-style-type: none"> • Direct hardware • OLE for Retail POS (OPOS) 	4
Printer test printout	Printer test printout (see "Printer test printout" on page 8.)	62, 63
Default printer and peripheral parameters: <ul style="list-style-type: none"> • 56000 bps • 8 data bits • no parity • 1 stop bit 	Default printer and peripheral parameters: <ul style="list-style-type: none"> • 38400 bps • 8 data bits • no parity • 1 stop bit 	61

Physical differences

The following figure shows the major physical differences between the SBCS Model and the DBCS Model.

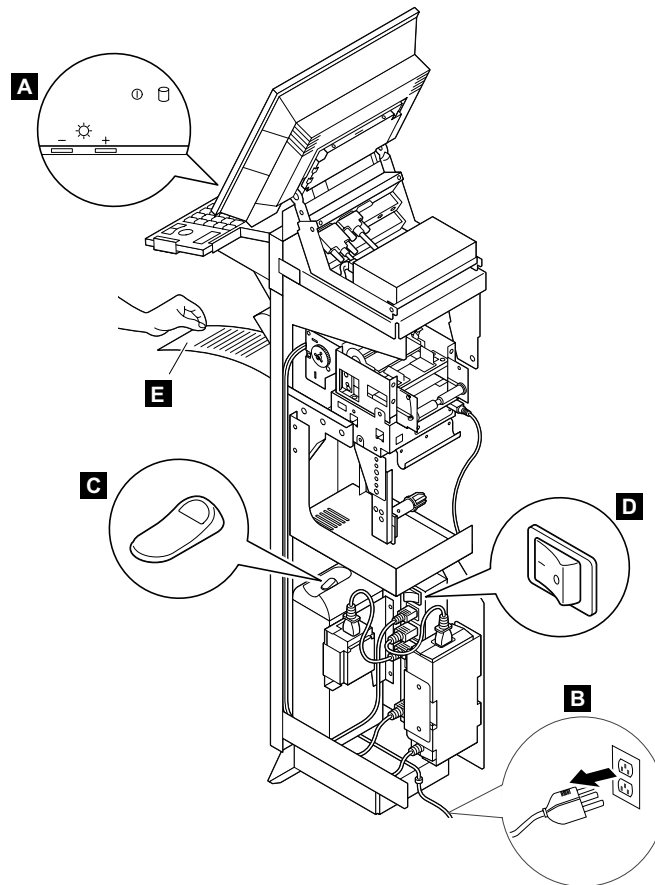


Hardware	Affected pages in the <i>Hardware Service Manual</i>
A Printer	14, 23, 24
B UPS switch	14, 23, 24
C Printer status indicator	23, 24
D Power distribution strip switch	23, 24

Powering off the NetVista Kiosk

Use the following power-off sequence to ensure that the NetVista Kiosk components are powered-off.

1. Switch off the power to the 4835 system by pressing the power button with a paper clip. The power button is located on the front bottom of the 4835 display. The display indication lights **A** will not be lit.
2. Unplug the power cord **B** that runs from the NetVista Kiosk enclosure to the external ac power source.
3. Unlock the enclosure and slide the front of the enclosure forward. See "Opening the enclosure" on page 9 of the *Hardware Service Manual*.
4. Turn off the power switch **C** on the optional UPS (if installed).
5. Switch off the power-distribution strip **D**.
6. Make sure that the scanner is powered off by holding a white sheet of paper at location **E**. No red light pattern will be displayed.



Installing the paper roll

Attention:

1. Establish personal grounding before touching this device. For more information, see "Electrostatic discharge (ESD)" on page 158 of the *Hardware Service Manual*.



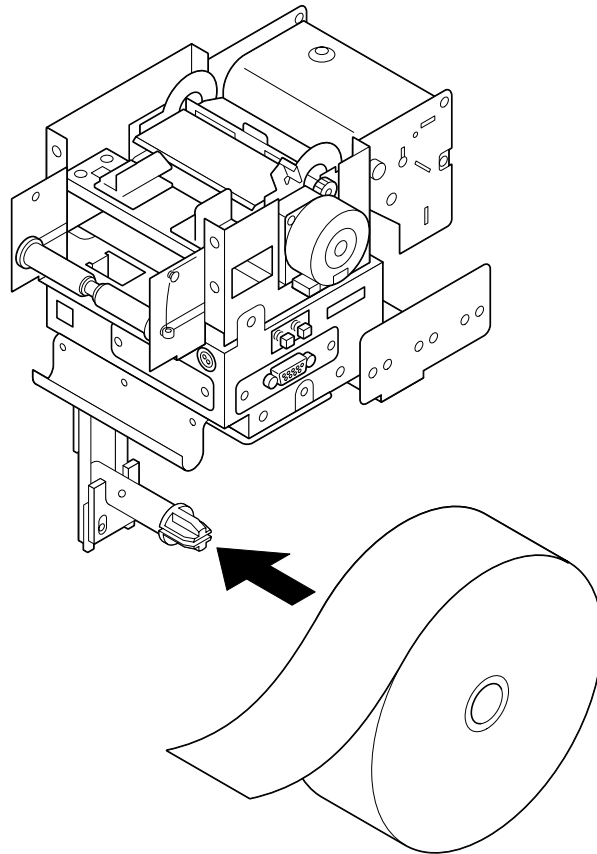
Figure 1. Printer caution label

2. Keep your fingers clear of the paper cutter while pressing the paper advance button or when powering on.
3. Install the paper roll after you verify that your system is powered-on. See "Powering off the NetVista Kiosk" on page 4 for more information.
4. Do not use grade of paper other than that specified for this product. Using an inferior grade paper can affect the print quality and the life of the print head and printer mechanism. The NetVista Kiosk supports the 58-mm, the 80-mm, or the 112-mm thermal printer.

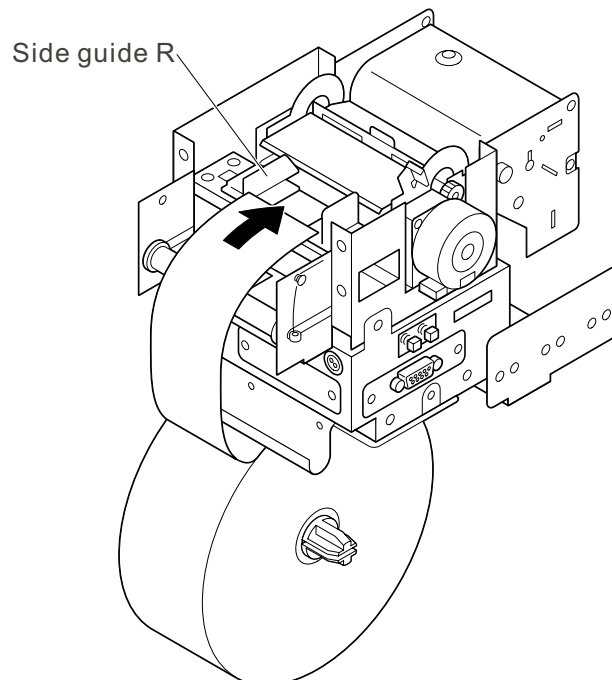
To install the paper roll, do the following:

1. Set the winding direction of the paper roll so that the temperature-sensitive side faces up.
2. Align the core of the paper roll with the movable shaft and insert the paper roll all the way into the shaft. After the insertion make sure that:
 - the extremity of the movable shaft is visible
 - the paper roll is not misaligned with its core
 - the paper roll rotates smoothly

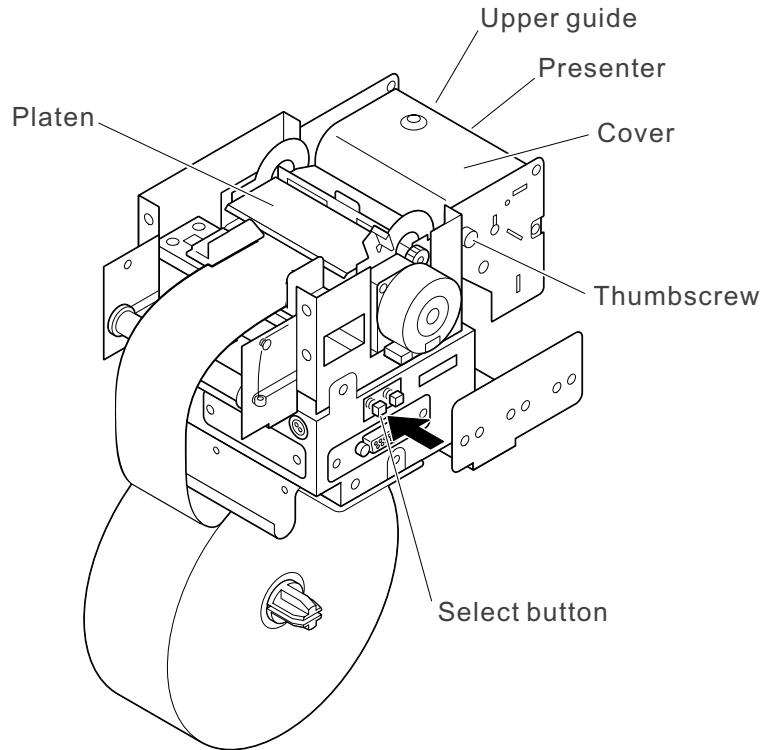
3. Referring to the paper insertion indication label, pass the paper roll over the tension roller so that the printing side and the tension side come into contact.



4. Insert the paper roll into the slit of the side guide R. The paper is automatically fed into the slit for 400 dot lines (approximately 50 mm) and the printer enters the Offline state.



5. Press the Select button to feed out the paper and to place the printer in the online state.



Note: At autoloading, the paper is not automatically fed into the printer under the following conditions:

1. When the platen is open. Be sure to close the platen.
2. When the upper guide on the presenter is open. Be sure to close the upper guide.
3. When paper is left in the presenter. Press the Feed button to remove the paper. Or, loosen the thumbscrew, open the cover, and remove the paper.
4. When a paper-out error is disabled by a command. Reset the paper.

Attention: Observe the following points at autoloading:

1. Cut the edge of the paper so that its angle to the feed direction is between 60° and 90° as shown:

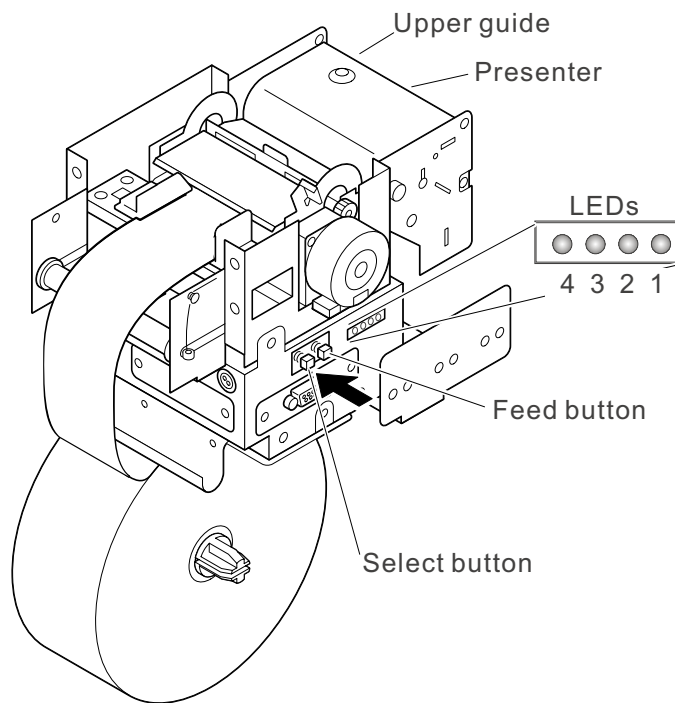


2. When inserting paper, make sure that the platen and the upper guide on the presenter are closed (is a presenter is attached).
3. If the paper is skewed, set the paper straight with the platen open.
4. If the printer unit is left with the platen closed, the thermal print head may stick to the platen, preventing paper to be inserted. Then, open the platen before inserting the paper.

Printer test printout

You can take a test printout which shows the function settings and the special characters you can use. To take a printout, press and hold the Feed button while powering on the printer.

The following figure shows the location of the buttons and the LEDs used for the printer test.



A test printout like the one shown below is printed.

```

Thermal Printer
KPU-S347 [ Ver.X.XX ]
DD.MMM.YYYY
FLASH ROM [ Ver.Y.YY ]
DD.MMM.YYYY
Copyright(C): SII
*****
* DIP SWITCH 0 *
1)Head drive: Dynamic div
2-3)Drive speed: 128dots
4)Auto cutter: Enable
5)Presenter: Disable
6-8)Character: Graphics
* DIP SWITCH 1 *
1)Paper discharge: Upward
2-4)Print density: 100%
5)Print speed: High
6)Kana font: Standard
7)Driver: Other
8)I/O reset: Disable
* DIP SWITCH 2 *
1-3)Paper width: 58mm
4-6)Paper type: TF50KS-E2C
7)Paper mark: Non mark
8)Option
* DIP SWITCH 3 *
1)Busy: Full/Offline
2)Auto LF: Enable
3)Status: Enable
4-8)Option
* KANJI: Enable
* Extend RAM: Enable

* TEST PRINT *
!"#$%&'()*+,-./0123456789:
;<=>?@ABCDEFGHIJKLMNPOQRSTUVWXYZ
VWXYZ[\]^_`abcdefghijklmnp
qrstuvwxyz{|}~Çüéäääåçèëïí
îËÄÅæÀáòóÔÛÜÖ×¥℞ƒÀíóñŊaQ
ó-¼½i《》■|+|=|||¶|||¶
|+|=|||¶|+|=|||¶|+|=|||¶
■αβΓπΣσμτϑθΩδ∞φΕΠ≡±≥≤∫∫÷≈°
.-ˆ^n°°

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The printer returns to the Online state after the test printout is printed.

Note: Do not turn off the printer when you have pressed both the Feed and the Select buttons. Doing so may damage the hardware.

Troubleshooting

This section describes how to resolve a DBCS printer problem.

To solve a problem, do as follows:

1. Go to "Preliminary checklist" below and do the steps. If you cannot solve the problem there, then...
2. Go to "Resolving problems through LED" below and try to solve the problem there. If you cannot solve the problem, then...
3. Go to "Diagnostics" on page 12 and try to solve the problem there.

Preliminary checklist

When you power on the NetVista Kiosk, it performs a Power-On Self-Test (POST). The system indicates a successful POST with a single beep. The scanner may beep four times during a power-on. If the system displays an error message or beeps more than once, see either "POST error codes" on page 38 or "POST beep codes" on page 40 of the *Hardware Service Manual*.

Otherwise, perform the following steps to diagnose the problem.

1. Verify that the power strip, in the Kiosk enclosure, is plugged in the UPS and is powered-on.
2. Make sure that the unit is connected to an ac power source and that all the power lights are on.
3. Make sure that all cables and I/O devices are connected correctly and securely.
4. Make sure that the contrast and brightness controls are properly set. Use a pin to adjust these controls located at the bottom right of the display.
5. Record any error messages or symptoms for troubleshooting.

If you do not observe a specific error indication, continue with the problem solving at "Resolving problems through LED".

Notes:

1. You can use the Service Diskette for internal-option-related or peripheral-device-related problems. See "Service diskette, device drivers, and diagnostic information" on page x of the *Installation and Operation Guide*.
2. Some devices that attach to the system have test instructions. Refer to those instructions when testing those devices.
3. If you are using a specific application, you may receive application-unique error messages. Refer to the software manual shipped with the software.

Resolving problems through LED

This section describes how to resolve printer operational problems and how to diagnose printer hardware failures using the LED.



Printer status	Error Recov-ery	LED4	LED3	LED2	LED1
----------------	--------------------	------	------	------	------

Power Off		Off	Off	Off	Off	
Initialize	1	On	On	On	On	
Hardware error	2	Blink	Blink	Blink	Blink	
Online	Paper: Yes	Normal Operation	On	On	Off	Off
	Near end	12	On	On	Blink	Off
Off line	Paper: Yes	3	On	Off	Off	Off
	Near end	3, 12	On	Off	Blink	On
Head temperature error	4	On	Blink	Off	On	
Motor temperature error	5					
Paper in presenter	6					
Platen open	7	On	Off	On	On	
Cutter error	8					
Presenter upper guide error	9					
Presenter jam error	10					
Paper-out	11	On	Off	On	On	

Go to the corresponding error recovery **No.** and follow the recovery method as described.

No.	Description	Recovery methods
1	Initialize	During the initialization process. The printer unit starts initialization just after powering ON and resetting. After initialization, it enters the ONLINE state. When an error occurs during initialization, the printer unit goes to hardware error.
2	Hardware error	The printer mechanism and/or board are abnormal. Not recoverable. Make a request for analysis or repair.
3	Offline	The printer unit enters Offline after pressing the Select button and removing the error. Press the Select button.
4	Head temperature error	The head temperature is -10°C or less, or 80°C or more. When the head temperature is -5 to 75°C , the printer unit enters the Offline state.
5	Motor temperature error	When the motor runs for more than 10 minutes, a printer error occurs. Stop the printer operation for a while, it will then enter the Online state.
6	Paper in presenter	Paper exists in the presenter. When paper is removed from the presenter, the printer enters the Online state.
7	Platen up error	The platen is in the up position. Move the platen down. The printer enters the Online state immediately.
8	Cutter error	An error occurs in the cutter unit. Turn the power off to remove paper caught in the cutter unit. When the power is turned ON, the printer enters the Online state.
9	Presenter upper guide error	The upper guide of the presenter unit is open. Close the upper guide of the presenter unit. When the upper guide is closed, the printer unit enters the Offline state.

10	Presenter jam error	The paper is jammed in the presenter. Open the upper guide of the presenter to remove any paper. When the upper guide is closed, the printer unit enters the Offline state.
11	Paper-out error	Out-of-paper. Set the paper. When the paper is set, the printer enters the Offline state.

Diagnostics

This section lists the symptoms of the printer errors, their possible causes, and the corrective actions to be taken.

	Error symptom	Reference page
1	No power	12
2	The power is ON but the functions are disabled.	13
3	The motor of the printer unit does not rotate.	13
4	The motor of the presenter does not rotate.	14
5	Paper is fed out from the presenter.	15
6	The cutter unit does not work.	15
7	"Platen open" is detected.	15
8	"Upper guide open" is detected.	16
9	"Paper-out" is not detected.	16
10	"Mark position" is not detected.	16
11	Remains near end.	17
12	Missing print dots.	17
13	Incorrect print density.	17
14	Uneven paper feed pitch.	19
15	An abnormal sound.	19
16	Transmission cannot be performed.	20

1. No power

Symptom:

Power is supplied to the printer unit, but the printer unit does not start and the LED does not go on.

Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action

Defective board frame unit	—	Short circuit	Replace the printer unit.
Poor connector contact	Measure the power supply output voltage with a tester.	24V±5%	
Vcc circuit failure	Measure the voltage between Vcc and GND of the ICs on the board.	5V±5%	

Symptom:

Power is supplied to the printer unit and the printer unit starts, but the LED does not go on.

Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action
Defective board frame unit	—	Short-circuit	Replace the printer unit.

2. The power is ON but the functions are disabled.

Symptom:

The LEDs 1 to 4 remain ON.

Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action
Defective board frame unit	—	—	Replace the printer unit.

Symptom:

The LEDs 1 to 3 continue to blink.

Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action
Poor connector contact	Measure the power supply output voltage with a tester.	24 V±5%	Replace the power unit.
Incorrect printer unit resistance	—	—	Replace the printer unit.
Defective board frame unit	—	—	

3. The motor of the printer unit does not work.

Symptom:

The Feed button was pressed but the motor does not run.

Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action

Poor motor connector contact	Visually check the connector.	—	Reinsert the connector properly.
Platen open sensor failure	Check the continuity of the platen sensor with a tester.	Short-circuit	Replace the printer unit.
Defective Feed button	Check the continuity of the Feed button with a tester.	Short-circuit	
Motor lead wire disconnection or defective motor	Remove the connector in the printer unit that corresponds to CN301 on the board frame unit. Next, measure the resistance between pins 1 and 3, and pins 2 and 4 with a tester.	$7.0 \pm 0.77 \Omega$	
Abnormal motor drive circuit	Measure the motor phases and the ground voltage with an oscilloscope.	Pulse waveform (Wave height: approximately 24V)	

4. The presenter's motor does not work.

Symptom:

The Feed button is pressed, but the motor does not run.

Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action
Upper guide is open	Make sure that the screw holding the presenter to the upper guide is securely fastened.	—	Fasten the screw tightly.
Poor motor connector contact	Visually check the connector.	—	Reinsert the connector correctly.

A defective upper guide switch	Check the continuity of the upper guide switch with a tester.	Short-circuit	Replace the printer unit.
Motor lead wire disconnection or a defective motor	Remove the connector in the presenter that corresponds to CN501 on the board frame unit. Next, measure the resistance between pins 1 and 3, and pins 2 and 4 with a tester.	40±4.4Ω	
An abnormal motor drive circuit	Measure the motor phases and ground voltage with an oscilloscope.	Pulse waveform (Wave height: approximately 24V)	

5. Paper is not fed out from the presenter.

Symptom:

An error occurs during printing or when paper is being fed out from the presenter.

Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action
Poor presenter connector contact	Visually check the connectors	—	Reinsert the connectors correctly.
Defective presenter sensor	Measure the voltage of the connection points.	Paper: 4.0±1.0V No paper: 0.2±0.2V	Replace the printer.
Defective board frame unit	—	—	

6. The cutter does not work.

Symptom:

The cutter does not work during test printing.

Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action
Poor cutter connector contact	Visually check the connectors	—	Reinsert the connectors correctly.
Damaged cutter	—	—	Replace the printer.
Defective board frame unit	—	—	

7. A platen open state is not detected.

Symptom:

A platen open state is not detected by the sensor and the printer unit is not Offline.

Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action
An open platen switch	Check the continuity of the platen switch with a tester.	Platen open: Open	Replace the printer unit.
Defective board frame unit	—	—	

8. The upper guide open state is not detected.

Symptom:

The upper guide is open but the printer unit is not Offline.

Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action
A defective upper guide switch	Check the continuity of the upper guide with a tester.	Upper guide open: Open	Replace the printer unit.
A defective frame unit	—	—	

9. An out-of-paper state is not detected.

Symptom:

The printer unit does not show Offline even in the out-of-paper state.

Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action
Poor paper detector connector contact	Visually check the connector	—	Reinsert the connector correctly.
Defective paper detector	Measure the voltage of the connection points.	Paper: 4.0±1.0V No paper: 0.2±0.2V	Replace the printer unit.
Poor optional sensor connector contact	Visually check the connector.	—	Reinsert the connector correctly.
Defective optional sensor	Measure the voltage of the connection points.	Paper: 4.0±1.0V No paper: 0.2±0.2V	Replace the printer unit.
Defective board frame unit	—	—	

10. A marked position is not detected.

Symptom:

The printer unit does not stop in the marked position.

Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action
Poor optional sensor connector contact	Visually check the connector	—	Reinsert the connector correctly.
Defective optional sensor	Measure the voltage of the connection points.	Paper: 4.0±1.0V No paper: 0.2±0.2V	Replace the printer unit.
Damaged board frame unit	—	—	

11. The printer unit continues to be in the paper-out-near-end state.

Symptom:

The LED2 blinks even if the paper roll diameter is sufficient.

Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action
Wrong paper width setting in the paper roll holder	Visually check the paper width setting in the paper roll holder.	—	Match the paper width setting in the paper roll holder to the paper roll.
Poor near-end sensor connector contact	Visually check the connector.	—	Reinsert the connector correctly.
Defective near end sensor	Measure the voltage of the connection points.	Paper: 4.0±1.0V No paper: 0.2±0.2V	Replace the printer unit.
Damaged board frame unit	—	—	

12. Missing print dots.

Symptom:

Some dots are not printed.

Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action
Foreign matter on the thermal head	Visually check the thermal head surface for foreign matter.	—	Remove any foreign matter with a cotton swab moistened with a little ethyl alcohol.
Defective thermal head	Perform a test print and visually check whether all dots are printed.	—	If the problem continues, replace the printer unit.

13. Incorrect print density.

Symptom:

All dots are thin or blurred.

Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action
Foreign matter on the thermal head	Visually check the thermal head surface for foreign matter.	—	Remove any foreign matter with a cotton swab moistened with a little ethyl alcohol.
Defective head block due to high thermal head resistance	—	—	Replace the printer unit.

Symptom:

Some dots are thin or blurred.

Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action
Damaged or dented platen surface, or a foreign matter exists on the thermal head	Visually check the platen surface.	—	If the platen is damaged or dented, replace the printer unit. If there is any foreign matter, remove it.
Poor thermal head connector contact	Visually check the connection.	—	Reinsert the connector correctly.
A foreign matter is on the thermal head	Visually check the thermal head surface for foreign matter.	—	Remove any foreign matter with a cotton swab moistened with a little ethyl alcohol.

Symptom:

The entire printout is thick.

Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action
Defective thermistor	Remove the connector in the head that corresponds to board frame unit CN403, and measure the resistance between the head connectors No. 6 and No. 7.	Around 30Ω(25°C) (It changes depending on the temperature.)	Replace the printer unit.
Wrong paper setting	Print the test pattern.	—	Set the paper correctly in the function setting.

Symptom:

The print density is uneven.

Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action
Damaged or dented platen surface, existence of a foreign matter, or a defective platen	Visually check the platen surface.	—	If the platen is damaged or dented, replace the platen block. If any foreign matter exists on the platen, remove it.

14. Uneven paper feed pitch.

Symptom:

Paper feed does not perform correctly.

Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action
Broken motor lead or defective motor	Remove the connector in the printer unit that corresponds to the board frame unit CN301, and measure the resistance between the printer unit connector pins 1 and 3, and 2 and 4 with a tester.	$7.0 \pm 0.77 \Omega$	Replace the printer unit. Replace the printer unit.
Abnormal motor drive voltage	Measure the motor phases and ground voltage with an oscilloscope.	Pulse waveform (Wave height: approximately 24V)	
Damaged motor gear or foreign matter.	Visually check for damaged motor gears or foreign matter.	—	If there is any foreign matter on the gears, remove it. Or, remove the printer unit.
Excessive load during paper feed	Visually check the paper setting.	—	Reset the paper correctly.

15. Abnormal sound

Symptom:

Abnormal sound is heard in the printer unit or presenter unit during a paper feed.

Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action
----------------	-----------------------	----------------------------------	-------------------

Damaged motor gear or foreign matter	Visually check for damaged motor gears or foreign matter.	—	Replace the printer unit.
Defective motor	Set and feed paper, and check the sound of the motor.	—	

16. Transmission cannot be performed.

Symptom:

Transmission cannot be selected.

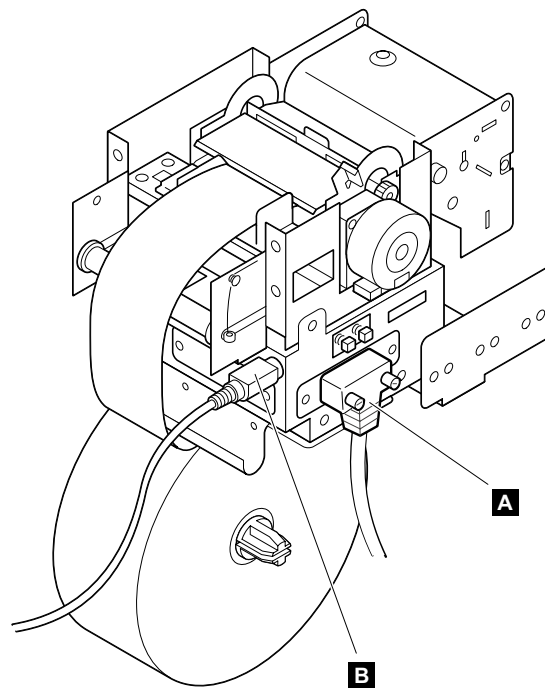
Possible cause	Checkpoint and method	Evaluation criteria and standard	Corrective action
Defective board frame unit	—	—	Replace the printer unit.

Printer unit—removing and replacing

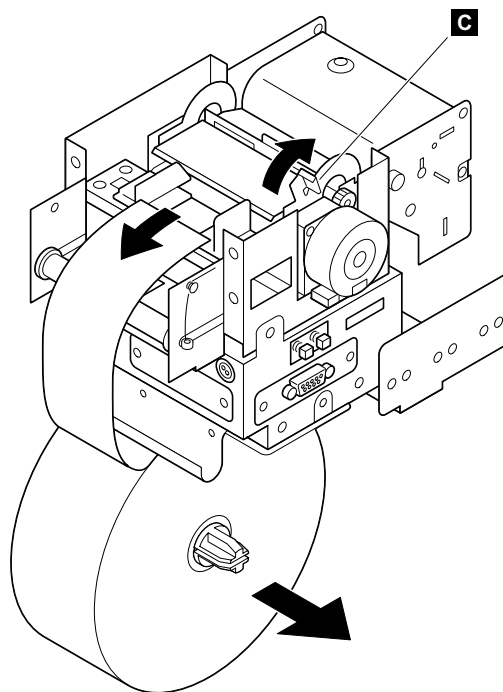
Follow these steps to remove or replace the printer unit.

Attention: Establish personal grounding before touching this device. For more information, see the section on "Electrostatic discharge (ESD)" on page 158 of the *Hardware Service Manual*.

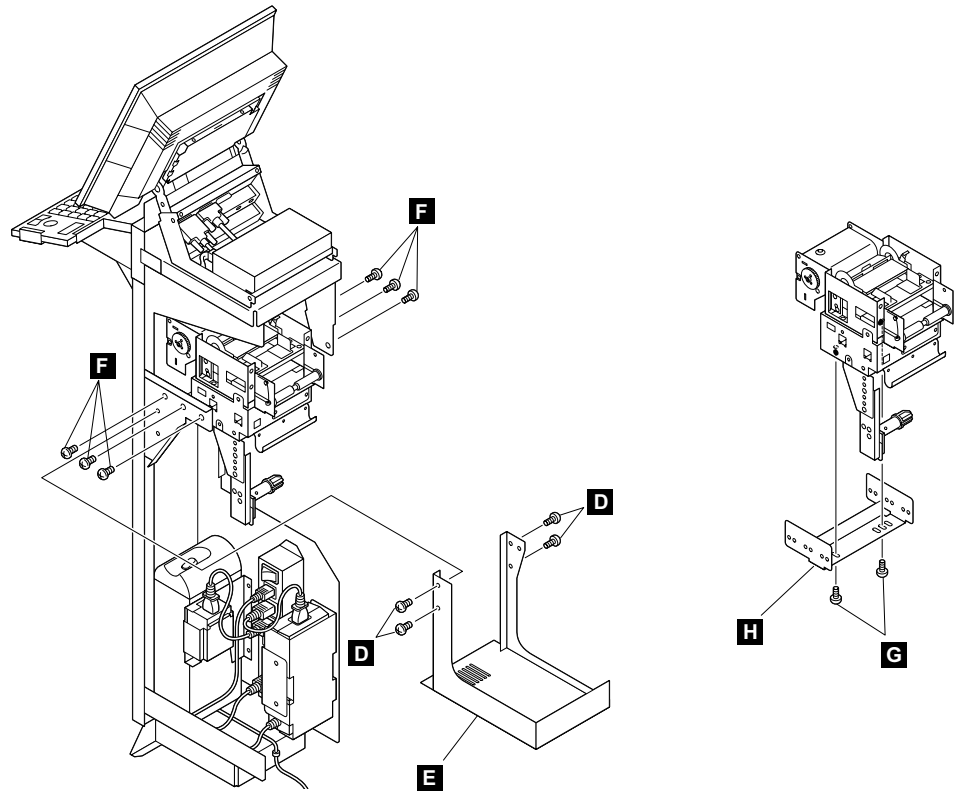
1. Before removing the printer, backup the customer's printer parameters to a diskette using the Backup/Restore Printer Parameters option located on the Utilities menu on the Service Diskette. See "System diagnostics and troubleshooting" in *Hardware Service Manual*.
2. Power off the NetVista Kiosk. See "Powering off the NetVista Kiosk" on page 4. Make sure that the 4835, printer scanner, power distribution switch, and the UPS are powered off.
3. Unplug the power cord from the customer's external ac power source going to the Kiosk enclosure.
4. Unplug the printer power cord from the power strip.
5. Unplug the RS-232 cable **A** from the printer unit.
6. Unplug the 24V dc power-supply cable **B** from the power connector on the printer.



7. Tear the paper or move the print head lever **C** forward, pull the paper out of the print head mechanism, and remove the paper roll.



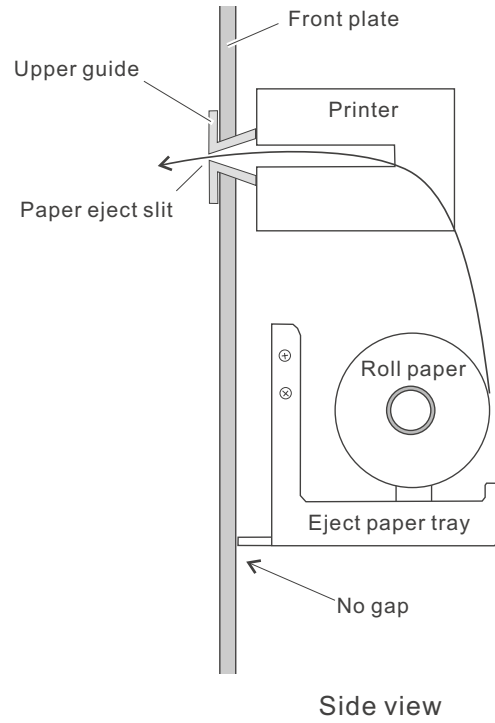
8. Remove the four screws **D** and remove the eject paper tray **E**.
9. Remove the six screws **F** and carefully remove the printer from the enclosure.
10. Remove the two screws **G** and remove the bracket **H** from the printer unit.



11. To replace the printer, reverse this procedure
12. Restore the customer's printer parameters to a diskette using the Backup/Restore Printer Parameters option located on the Utilities menu on the Service Diskette. See "System diagnostics and troubleshooting" in the *Hardware Service Manual*.

13. Make sure that:

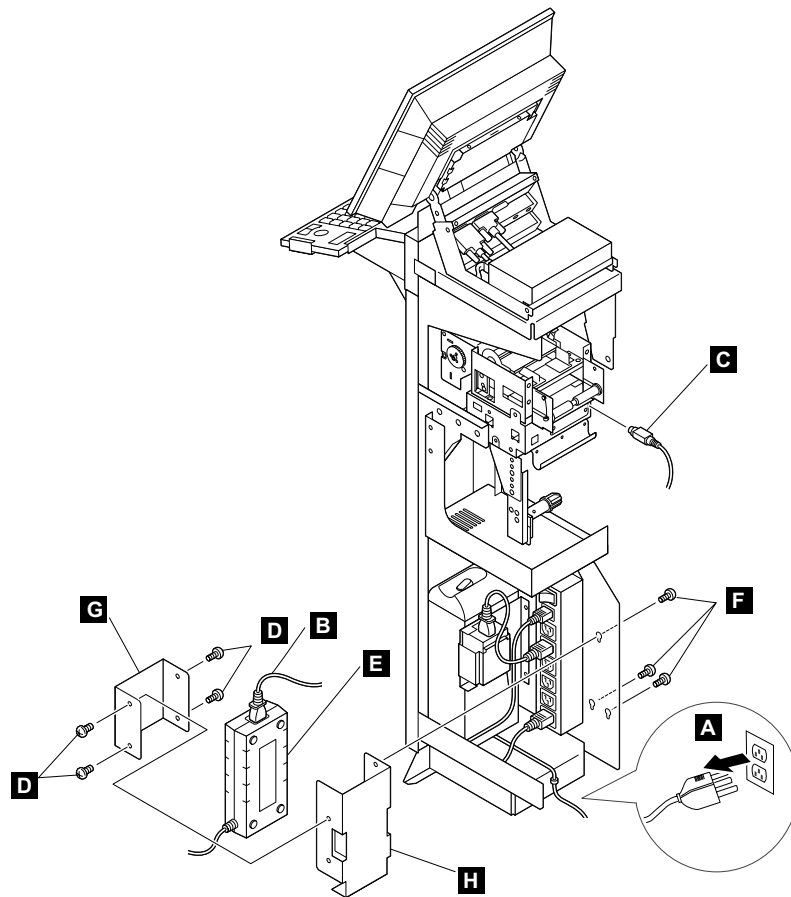
- you align the upper guide of the printer with the paper eject slit on the front plate
- there is no gap between the front plate and the eject paper tray.



Printer power supply—removing and replacing

Follow these steps to remove or replace the printer power supply.

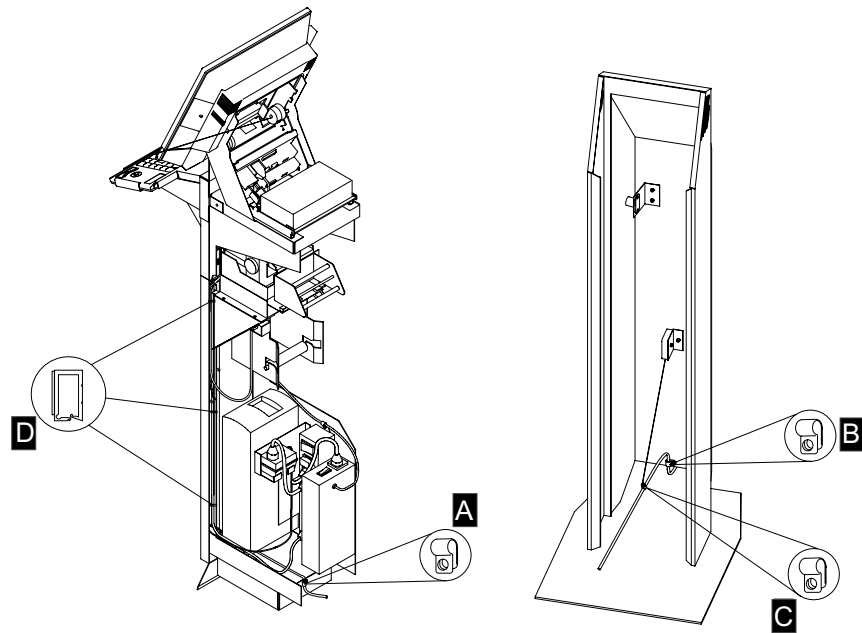
1. Power off the NetVista Kiosk. See “Powering off the NetVista Kiosk” on page 4. Make sure that the 4835, printer, scanner, power distribution switch, and the UPS are powered off.
2. Unplug the power cord **A** from the external ac power source going to the Kiosk enclosure.
3. Unplug the printer power supply power cord **B** from the power distribution strip.
4. Unplug the 24V dc power-supply cable from the power connector **C** on the printer. Remove the cable retainer so it is free from the enclosure.
5. Remove the four screws **D** on the printer power supply **E**.
6. Loosen the three screws **F** of the power supply **E**, and the front **G** and rear **H** brackets.
7. To restore the printer, do the above procedure in reverse.



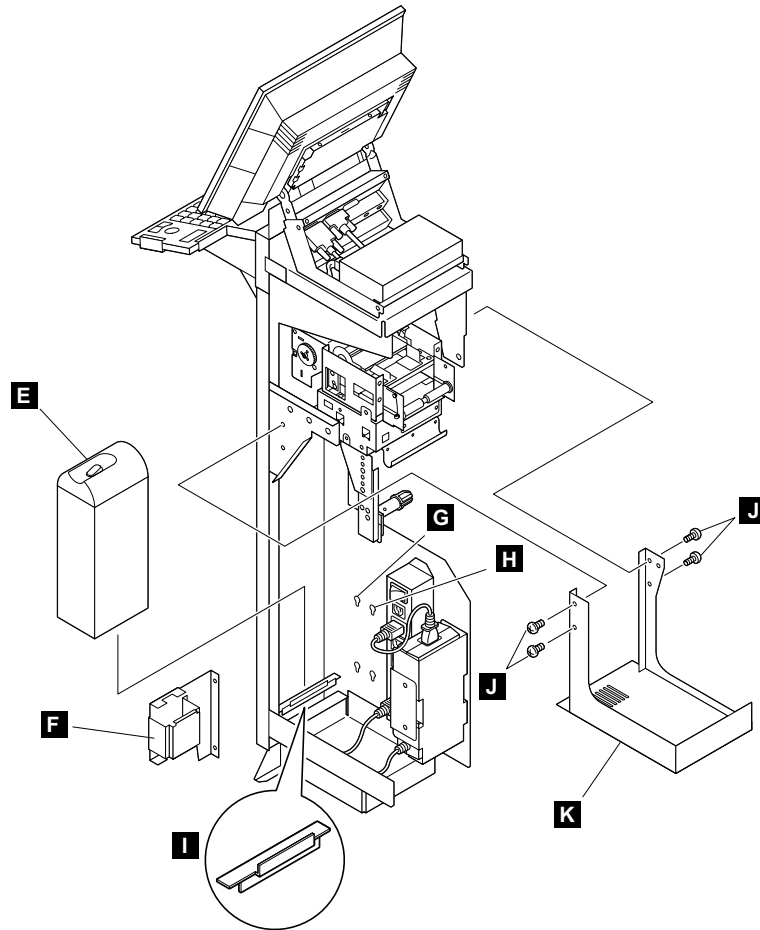
UPS—removing and replacing

Follow these steps to remove or replace the UPS:

1. Power off the NetVista Kiosk. See “Powering off the NetVista Kiosk” on page 4. Make sure that the 4835, printer, scanner, power distribution switch, and the UPS are powered off.
2. Unplug the power cord from the external ac power source going to the Kiosk enclosure.
3. Remove the four screws **J** and the eject paper tray **K**. See the illustration on page 27.
4. Detach the three UPS power cord cable retainers **A**, **B**, and **C**.
5. Release the UPS RS-232 interface cable from the cable clamps **D**.



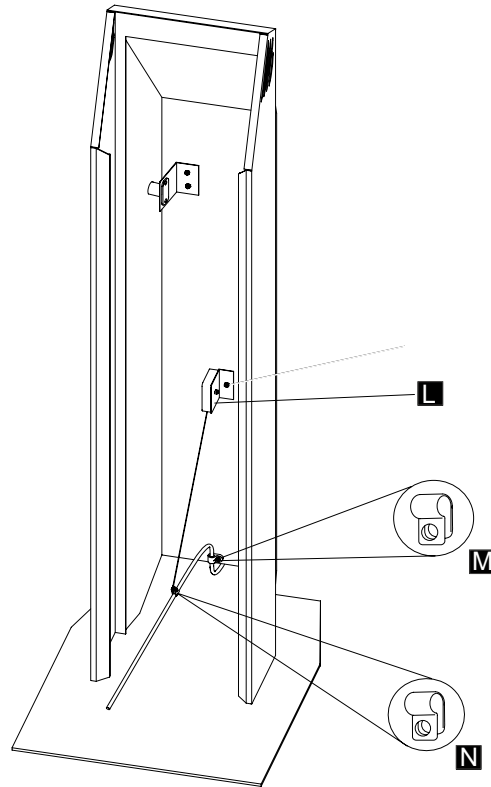
6. Unplug the power-distribution strip power cord going to the UPS.
7. Remove the UPS bracket **F**.
 - a. Loosen the two screws **G** (for a BK500 series UPS) or **H** (for a BK650 UPS) and secure the UPS bracket to the metal support on the front inside of the enclosure.
 - b. Lift the UPS bracket **F** up and out of the metal support **I**.



8. Attach the following cables to the UPS.
 - a. Connect the RS-232 interface cable to the rear panel of the UPS.

Note: This connection enables the NetVista Kiosk to monitor the life of the backup battery.
 - b. Plug the power distribution strip power cord into the black outlet located at the rear of the UPS.
9. Route the UPS power cable out the back of the enclosure or through the center of the floor-mount plate to an ac power outlet location.
10. Insert the UPS **E** into the front of the enclosure with the cable end on the bottom and the UPS feet against the inside wall. Guide the UPS down onto the metal support **I** located close to the bottom front of the enclosure.
11. Reinstall the UPS bracket **F** and tighten the two screws **G** or **H** on the bracket.

12. Reinstall the eject paper tray **K** and tighten the four screws **J**.



13. Refer to the above figure. Secure the UPS power cord to the cable retainer as follows:
- Locate the take-up spool **L** on the inside-back of the enclosure. Attach the take-up spool to the UPS power cord using the cable retainer **N** which is attached to the end of the take-up spool cable.
 - Locate the cable retainer **M** attached to the bottom of the enclosure. Attach this cable retainer to the UPS power cord.
14. Route and then secure the UPS RS-232 interface cable using the cable clamps. Refer to **D** in the figure on page 26 for the location of these clamps.
15. Connect the cable to the rear tailgate connector of the NetVista Kiosk 4835.
16. To install the UPS, do the sequence in reverse.

Note: Make sure that you align the upper guide of the printer with the paper eject slit on the front plate properly and that there is no gap between the front plate and the eject paper tray. See 13 on page 24 for details.

Parts Assembly

Asm Index	Part Number	Units	Description
4-			Enclosure FRUs
-1	10J1216	1	Panel 1 — Printer and scanner
-1	10J1217	1	Panel 2 — No printer, scanner
-1	10J1218	1	Panel 3 — Printer, no scanner
-1	10J1219	1	Panel 4 — No printer, no scanner
-2	10J1222	1	Keyboard tray kit
-3	10J1223	1	Keylock with one key
-4	10J1381	1	Enclosure drawer slide (one only)
-5	10J1383	1	Take-up spool
-	10J1405	1	Key for keylock assembly (not illustrated)
-	10J1510	1	Fastener kit (all screws, nuts, washers, and cable clamps) (not illustrated)
			System unit FRUs
-6	10J1379	1	Button cover for speaker unit
-6	10J1380	1	Button cover for no-speaker unit
-	10J1432	1	Cover plate, keyboard cable (not illustrated)
-7	10J1511	1	HDD cover (if tilt restrictions are used)
-7	20P3954	1	HDD cover (if NO tilt restrictions are used)
-8	10J1406	1	PC card cover
-	10J1511	1	System unit parts kit (gasket, drip shield, HDD cover, tilt restrictors) (not illustrated)
-	05K2844	1	External diskette drive cable (not illustrated)
-	15K2025	1	Y-cable, keyboard (not illustrated)
-	34G0239	1	System unit power cord (Worldwide, except for Japan) (not illustrated)
-	34G0242	1	System unit power cord (Japan only) (not illustrated)
			Printer FRUs
-9	57P4283	1	FRU AP 58mm DBCS Printer Korea
-9	57P4284	1	FRU AP 58mm DBCS Printer Simplified Chinese
-9	57P4285	1	FRU AP 58mm DBCS Printer Traditional Chinese
-9	57P4286	1	FRU AP 80mm DBCS Printer Korea
-9	57P4287	1	FRU AP 80mm DBCS Printer Simplified Chinese
-9	57P4288	1	FRU AP 80mm DBCS Printer Traditional Chinese
-9	57P4289	1	FRU AP 112mm DBCS Printer Korea
-9	57P4290	1	FRU AP 112mm DBCS Printer Simplified Chinese
-9	57P4291	1	FRU AP 112mm DBCS Printer Traditional Chinese
-9	57P4241	1	FRU AP 58mm DBCS Printer Japan
-9	57P4131	1	FRU AP 112mm DBCS Printer Japan
-9	57P4132	1	FRU AP 80mm DBCS Printer Japan
-10	57P4133	1	FRU Power Printer SII

-	57P4136	1	FRU RS232C Cable
-	57P4249	1	FRU Eject Paper Tray ASM
			Keyboard FRUs
-12	10J1276	1	Keyboard, US English
-12	10J1279	1	Keyboard, Spanish
-12	10J1282	1	Keyboard, Canadian-French
-12	10J1285	1	Keyboard, Italian
-12	10J1288	1	Keyboard, German
-12	10J1291	1	Keyboard, Brazilian-Portuguese
-12	10J1294	1	Keyboard, French
-12	10J1318	1	Keyboard, UK English
			UPS FRUs
-13	10J1263	1	UPS, APC BK500MC (low voltage, except for Japan)
-13	10J1266	1	UPS, APC BK650MI (high voltage)
-13	10J1269	1	UPS, APC BK500JS (Japan only)
-	10J1367	1	UPS replacement battery, APC RBC2 (low voltage) (not illustrated)
-	10J1368	1	UPS replacement battery, APC RBC4 (high voltage) (not illustrated)
-		1	UPS power cord. (not illustrated)



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