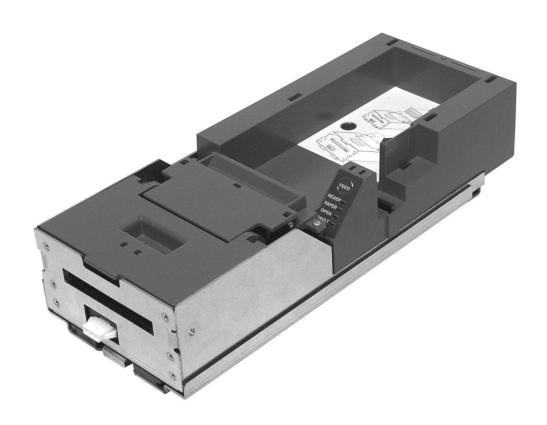
Epic 950TM Spare Parts Guide





Change History

- Rev A Initial release
- Rev B Corrected p/n in item # 18; Pg 22 updated items 2, 3 & 4 p/n's
- Rev C Pg 21 added items #32 & #33
- Rev D Pg 24 updated item #2 p/n
- Rev E Pg 21 updated items #18 & #24 p/n's
- Rev F Pg 22 updated item #1 p/n's; Pg 21 added item #34 & updated item #25 p/n; Pg 23 added item #10 & updated item #1 p/n
- Rev G Pg 23 updated item #10 p/n
- Rev H Pg 22 updated item #11 p/n (Cable)
- Rev J Pg 24 updated qty of item #8; updated from "Ithaca" logo to "Transact" logo
- Rev K Pg Updated Interface PBC option List (R95638)

Disclaimer

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Note:

Losses that can be attributed to improper installation and working procedures are not the responsibility of TransAct Technologies Inc. No part of this manual may be used to recreate any part of the Epic 950^{TM} Printer. This manual is to be used for integration purposes only. If this manual contains any questionable information or mistakes please contact TransAct for assistance.

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About Your Epic 950 Printer

The Ithaca Epic 950TM printer represents the very latest technology for use in gaming ticket printing applications. It features full backward compatibility for previous users of Ithaca Series 800 printers, together with a host of new features designed to improve the performance of your gaming operations, including:

- TicketBurstTM, a unique buffered transport system that prints and bursts the entire ticket internally before presenting it to the operator, solving the problem of premature ticket removal.
- Internal separation of tickets, providing consistently perfect single tickets accurately separated along perforation lines.
- HotSwap QDTTM (Quick Disconnect Technology) lets you remove the printer
 without the need to disconnect power from the unit, incorporating a one-touch hot
 swappable design that lets you remove and replace your printer at the touch of a
 front-mounted latch.
- Expanded status LEDs, giving you immediate visibility on printer, paper and fault status.
- The ability to upgrade your firmware completely via download using the imPortTM download port, with no hardware modification required.
- 2-color ticket printing with user-programmable images and layout, to turn your tickets into a key part of your brand identity and marketing program.

Above all, the Epic 950 is designed for ease of programming and ease of use in your gaming operations. While supporting the full command language and macro features of the Series 800 printer, the Epic 950 introduces a new higher-level command interface which lets you quickly and easily integrate more layout and printing options than ever – while giving you the reliability, durability and uptime you have come to expect from Ithaca printers.



Who Should Read This Guide?

This document is intended for customers ordering spare parts or those requiring information about the basic features and operation of the Epic 950 printer.

What Is Included in This Guide?

This Spare Parts Guide provides a list of available spare parts and diagrams.

Warranty Options

All Epic 950 Printers come with a standard 24-month standard warranty covering both parts and labor that starts upon shipment from the factory. An optional extended warranty, covering both parts and labor for an additional 12 months, may be purchased separately. For more information concerning the warranty options, please contact the Sales Department at TransAct's Ithaca facility. You are responsible for insuring any product returned for service, and you assume the risk of loss during shipment to Ithaca C.O.D. packages are not accepted and warranty repairs are subject to the terms and conditions as stated on the Ithaca warranty policy.



Technical and Sales support

Your Ithaca printer is backed by the resources of TransAct Technologies, a global technology firm with dedicated technical support and sales assistance. Here is how we can help you:

On-line Technical Support

Our web site at www.transact-tech.com is your on-line portal to obtaining technical assistance with your Ithaca printer. Click on the Technical Support link to find documentation for your Epic 950 printer, including the Epic 950 OEM Integration Manual. Our on-line support site also includes a convenient e-mail assistance request form, where you can submit support requests 24 hours a day, and receive a return contact from a TransAct support technician during regular business hours.

Telephone Technical Support

Live telephone support is available Monday through Friday from 8 AM to 8 PM Eastern US time, excluding holidays. We can provide general information about integrating Epic 950 printers with your system, technical support, documentation, or assistance in sending a printer for service. To obtain telephone support, call TransAct at (607) 257-8901 and ask for Technical Support. To help us serve you faster, please have the following information ready when you call:

- The Model Number and Serial Number of the printer
- A list of any other peripheral devices attached to the same port as the printer
- What application software, operating system, and network (if any) you are using
- What happened and what you were doing when the problem occurred
- How you tried to solve the problem

Return Materials Authorization and Return Policies

If the technical support person determines that the printer should be serviced at our facility, and you want to return the printer for repair, we will issue you the Returned Materials Authorization (RMA) number that is required before returning the printer. Repairs are warranted for 90 days from the date of repair or for the balance of the original warranty period, whichever is greater. Please prepare the printer being returned for repair as follows:

- Pack the printer to be returned in the original packing material
- Packing material may be purchased from TransAct's Ithaca Facility
- Do not return any accessories unless asked to do so by a support technician



Write the RMA number clearly on the outside of the box

Service Programs

TransAct Technologies Incorporated has a full service organization to meet your printer service and repair requirements. If your printer needs service, please contact your service provider first. If any problems still persist, you can directly contact the Technical Support Department at (607) 257-8901 or (877) 7-ITHACA for a return authorization. International customers should contact your distributor for services. TransAct offers the following service programs to meet your needs.

- Extended Warranty
- Depot Repair
- Maintenance Contract
- Internet Support

Sales Support

To order supplies, receive information about other Ithaca products, or obtain information about your warranty, contact our Sales Department at the contact telephone or fax numbers listed below. To receive information on International distribution, visit our web site at **www.transact-tech.com**.

Contact Information

TransAct Technologies Incorporated Ithaca Facility 20 Bomax Drive Ithaca, NY 14850 USA

TransAct Technologies
World Gaming Headquarters
& Western Regional Repair Center
6700 Paradise Rd
Suite D
Las Vegas, NV 89119 USA

Telephone (877) 7-ITHACA or (607) 257-8901

Main fax (607) 257-8922 Sales fax (607) 257-3868 Technical Support fax (607) 257-3911

Web site www.transact-tech.com



Epic 950 Specifications and Requirements

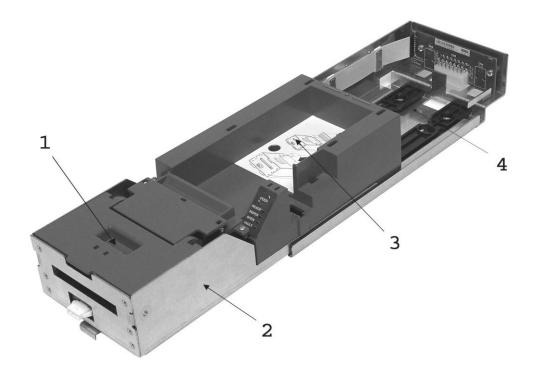


Figure 1: Epic 950 Printer Component Overview

- 1. Printer Mechanism
- 2. Inner Chassis Assembly
- 3. Printer Ticket Supply Bucket Assembly
- 4. Outer Chassis Assembly

Standard Features

The following features are common to the Epic 950 Printers:

Key features:

- Perforated fan folded tickets in a stack of 200, 400 or 600 tickets
- Barcode and total ticket cash-out capabilities
- TicketBurst[™] incorporating print, burst and transport zones, where the ticket is completely printed and burst before transport to operator
- HotSwap QDT[™] (Quick Disconnect Technology), a hot swappable printer mechanism design for easy service



Modular interface PCB

Other standard features:

- Selections of 7.5, 10, 12, 16.5 and 20 characters per inch printing
- Selectable printing of Normal, Double-high, Double-wide and Double-high/Double-wide
- Sensors for Burst Ticket, Ticket Low, Top-of-Form/Ticket Out, Chassis Open, and Ticket Taken
- Cover Open switch
- Modular printer mechanism, ticket supply bucket and sliding unit for easy maintenance
- Open ticket path for ticket jam clearing
- Operator interface: FEED button, status LED's (Ready/Paper/Open/Fault)
- Bezel lamp connection
- imPort[™] firmware and graphics download port
- Print face down
- Page mode printing
- Audible Buzzer

Optional Features

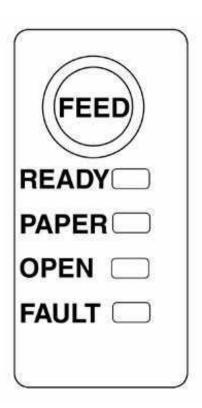
- 600 count ticket capacity using optional extender walls
- Dual port interface capable
- RS-232 interface capable
- USB interface capable
- Bezels (Internal and external)



Printer Status LED

The printer has been outfitted with a LED panel system that provides the condition of the printer by using solid or blinking status LEDs to communicate status information. The following table lists the different LED states for specific conditions within the printer.

Condition	Ready LED	Paper LED	Open LED	Fault LED
Unit Ready	On	Off	Off	Off
Cover Open	On	Off	On	Off
Chassis Open	On	Off	Blink	Off
Ticket Out	On	On	Off	Off
Ticket Low	On	Blink	Off	Off
Temperature Error	Blink	Off	Off	Blink
Paper Jam	On	Off	Off	Blink
Ram Error	2-Blink	Off	Off	On
Checksum Error	4-Blink	Off	Off	On



Racking/Unracking the Inner Chassis

All Epic 950 printers use a slider/detent/latch system with latch arms to retain the Inner Chassis from accidentally being separated from the Outer Chassis. The Epic 950 is opened for service by simply pulling on the ticket cover, pulling the Inner Chassis forward from the Outer Chassis as you would a filing cabinet. If accessible, a front-mounted release lever can also be pulled on to disengage and slide the Inner Chassis.

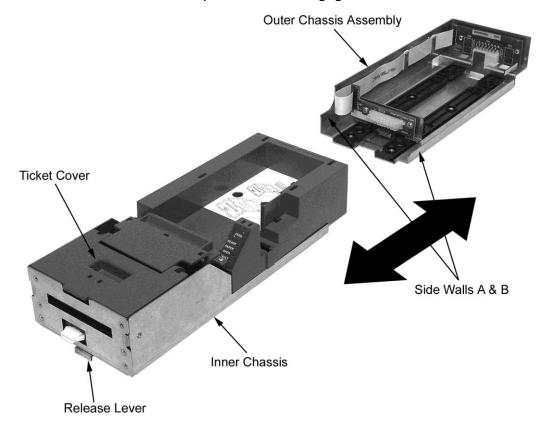


Figure 2: Racking/Unracking the Inner Chassis

To remove the Inner Chassis, perform the following steps:

- Pull on the Ticket Cover to release the rear detents, pulling the Inner Chassis towards you until its latches catch the forward detent slots in the Outer Chassis Slides.
- Pull on the Release Lever and pull forward on the Inner Chassis to disconnect from the Outer Chassis (This assembly incorporates a HotSwap QDT (Quick Disconnect Technology) design, which may be removed while power is still on to the unit.).



To return the Inner Chassis to its base, perform the following steps:

- Align the base of the Inner Chassis with the outer walls of the Outer Chassis, seating it within sidewalls A and B as shown in Figure 2.
- While pulling outwards on the Release Lever, slide the Inner Chassis towards the rear of the Outer Chassis until it latches at the rear of the Outer Chassis

Loading Tickets into Feeding Mechanism

When loading new ticket stacks, be sure that there is power to the printer. The first ticket of the stack must be inserted into the printer by hand. The Epic 950 printers' ticket supply bucket is integrated with a guide to direct the ticket into the printer mechanism. Once the leading ticket enters the Top of Form sensor, the ticket will be automatically fed into the Printer Mechanism.

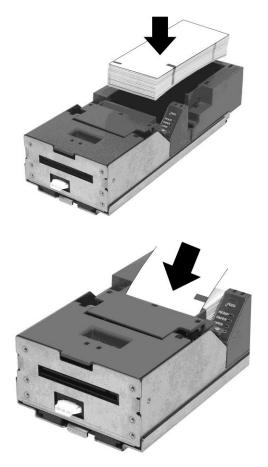


Figure 3: Ticket Loading and Ticket Feed Mechanism



Loading tickets into the ticket supply bucket: (Refer to the label on printer)

- Load tickets into the ticket supply bucket, making sure that the Black Dot is positioned as shown in Figure 3.
- Orient the tickets so that the Black Dot is towards the leading edge of the ticket.

Feeding tickets into the Printer Mechanism: (Refer to the label on printer)

- Check to ensure that the tickets have been placed in the ticket supply bucket with the proper black dot orientation.
- Insert the leading ticket into the Printer Mechanism's insertion guide area. The ticket should be inserted about a ½" into the mechanism; at this time, the machine automatically completes the feeding process.
- If printer has been slid out from rack, make sure that the printer is closed.
- The printer is ready to receive information.



Removing Loaded Tickets

The Epic 950 printers have two ways to remove unused tickets from the printer mechanism:

- The first way is to release the Ticket Cover by lifting and rotating backward, this
 will relieve pressure to the platen and tickets can be removed. This also will allow
 an opening that provides space to check the printer for ticket jams, or prepare the
 paper path for ticket replenishing.
- The second way is to use the feed button, which will feed out tickets from within the printer mechanism.

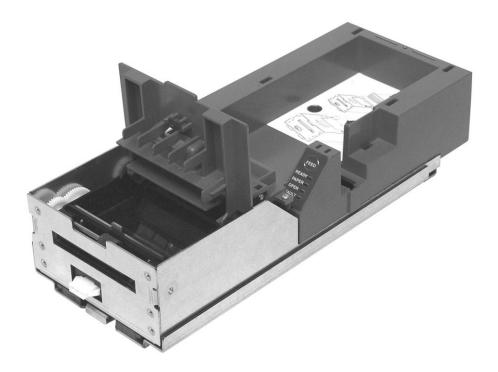


Figure 4: Ticket Cover Shown Open for Ticket Removal

Unloading Tickets from the Printer by opening the Ticket Cover

- 1. Pull Inner Chassis away from the Outer Chassis until it stops in the open position.
- 2. Lift and rotate the Ticket Cover backwards, towards the rear of the printer.
- 3. Remove all tickets from the ticket path and check for any debris.
- 4. Remove any remaining tickets from the ticket supply bucket.
- 5. Rotate the Ticket Cover into its original closed and latched (Magnetic) position.



Cleaning the Print Head

Two kinds of periodic cleaning operations will ensure continued high print quality from your Epic 950 printer:

- **1. Paper dust removal**. Use a soft brush to clean the paper dust from inside the printer and chassis area. The paper dust should also be removed from the sensor optics.
- **2. Cleaning thermal print head**. If streaking on the printed ticket is evident, the thermal print head may need to be cleaned. This can be done by inserting a thermal printer cleaning card, as shown in the instructions below:

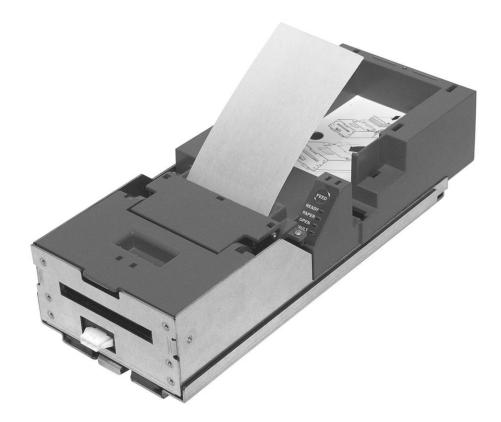


Figure 5: Cleaning the Print Head

Detailed instructions

- 1. Open the cover and remove all tickets from ticket feed path.
- 2. Close the cover.
- 3. Open cleaning card pouch and remove cleaning card.
- 4. Insert cleaning card into feed path.
- 5. The cleaning card will automatically be drawn into the feed path.
- 6. Open the cover and then remove the cleaning card by gently pulling it back.
- 7. Repeat process if necessary.



8. Properly dispose of used cleaning card.

Purchasing Cleaning Cards

Cleaning cards are available through TransAct – consult Chapter 1 for contact information by telephone or the Internet. Cards can also be purchased direct from Enefco International Ltd. at (888) 578-0141.

Description:

2.5" x 6" Thermal Cleaning Card (box of 25) 2.5" x 6" Thermal Cleaning Card (box of 25)

Part Number:

100-03322 (TransAct) GTP250PB (Enefco)

Printing a Self-test Ticket

The Epic 950 printer has the ability to print a pre-defined self-test ticket, to test the normal printing functionality of the unit, and create a printout of the current printer configuration. To print a self-test ticket, perform the following steps:

- 1. Unrack the Inner Chassis.
- 2. Open the Ticket Cover. Do not remove the currently loaded ticket.
- 3. Press and hold the feed button until the Open LED goes out, then release this button
- 4. Now close the Ticket Cover, and the self-test ticket will then print.
- 5. Close the Inner Chassis to resume normal operation.

Figure 6 (below) shows an example of the information printed on a Self-test ticket. Your printer may print more or less information, depending on the version and revision of the printer.



INSERT THIS SIDE UP

Model : Epic 950TM Firmware : S00102 Date : Jul 22 2004 S/N Baud Rate: 9600 BPS 8 Bit No Parity 1 Stop Bit Handshaking : XON/XOFF Receive Error : Prints '?' : 437 Code Page Smoothing : Enabled. Bar Code Width: 3 Line Spacing : 6.3 LPI Mono Paper : Custom Black Gray Eo : 0.12 mJ/sq.mm Black Eo : 0.24 mJ/sq.mm Color Paper : Custom Color Color : Black/Red Color Eo : 0.18 mJ/sq.mm Black Eo : 0.38 mJ/sq.mm Density: 0 PreHeat: Off

INSERT THIS SIDE UP

Figure 6: Sample self-test ticket



Precautions for Disassembly

Before disassembling any part of the printer, be sure the power is turned off. The Controller Board, Interface Board, and Slider Board can be damaged by static electricity. Observe ESD precautions. Wear a grounded wrist strap, and use a static mat or other protected work surface.

If installed within a game, this printer should be removed from the game prior to commencing any disassembly operations. Consult the Operating Procedures chapter of this manual for detailed instructions on how to unrack your Epic 950 printer.

Necessary Tools

The Epic 950 printer is designed to be disassembled into its major sub-assemblies with the use of a #2 Phillips Screwdriver.

Epic 950 OEM Variations Notice

This Epic 950 has most likely been incorporated into another Original Equipment Manufacturer's product. Due to this, your unit's design may vary from the specifications and options shown here. The content of this manual is reflective of the Ithaca Epic 950 Printer, including all of its available options. TransAct does not assume support responsibility for parts other than what is shown in this manual.



Remove Ticket Supply Bucket from Inner Chassis

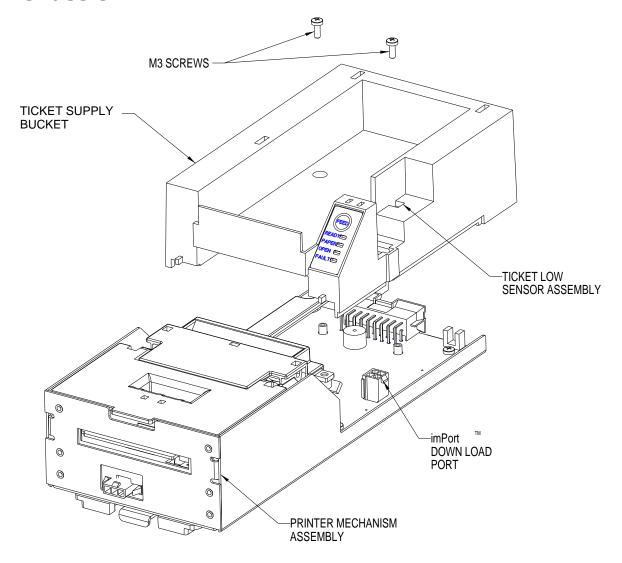


Figure 7: Remove Ticket Supply Bucket from the Inner Chassis

- Loosen completely the two (2) M3 screws that retain the ticket supply bucket to the Outer Chassis.
- Lift the Ticket Supply Bucket away from the Inner Chassis.
- Unplug the Ticket Low Sensor Assembly and the Keypad Flex harness form the Main Controller PCB.
- Repeat the steps in reverse to re-install the Ticket Supply Bucket.



Remove Printer Mechanism from the Inner Chassis

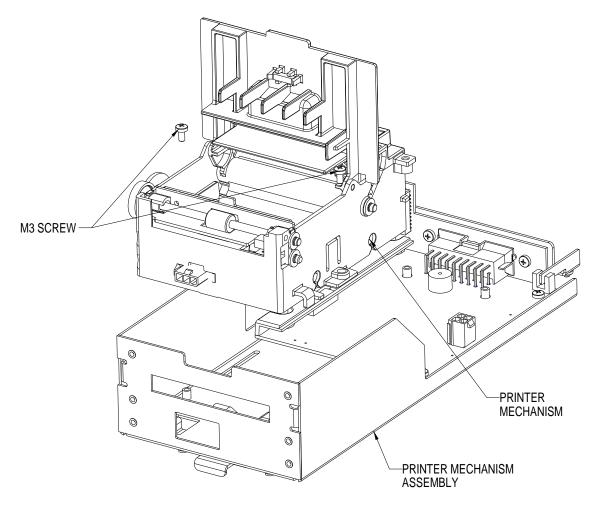


Figure 8: Remove Print Mechanism from the Inner Chassis

- Unplug all Printer Mechanism connectors from the Controller PCB Assembly.
- Remove the two (2) M3 screws on each side of the Print Mechanism and remove.
- To re-install the Printer Mechanism, re-install all connectors to the Controller PCB Assembly.
- Move Print Mechanism back into place and tighten M3 screws.



Firmware Download Port

The Epic 950 printer features an imPort[™] firmware and graphics download port, as shown in the figure below. This port uses a 4-pin Molex connector with an RS-232 interface. For further details on this use of this proprietary download port, please contact TransAct Technical Support.



Note that the imPortTM firmware and graphics download port is NOT a power connection port. Attempting to supply power to the unit through this port may result in damage to the unit.

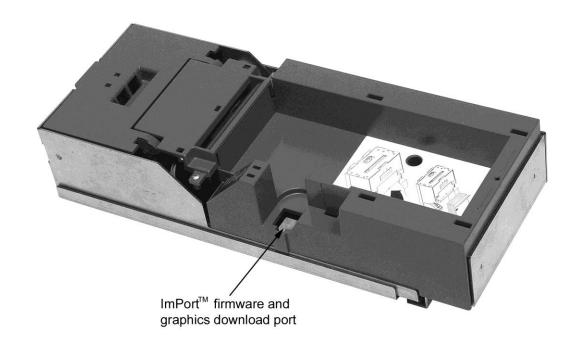
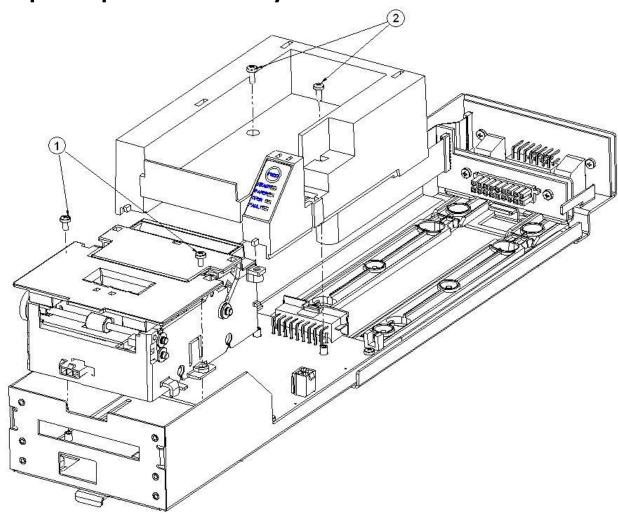


Figure 9: Firmware Download Port



Spare Parts lists

Complete Epic 950 Assembly

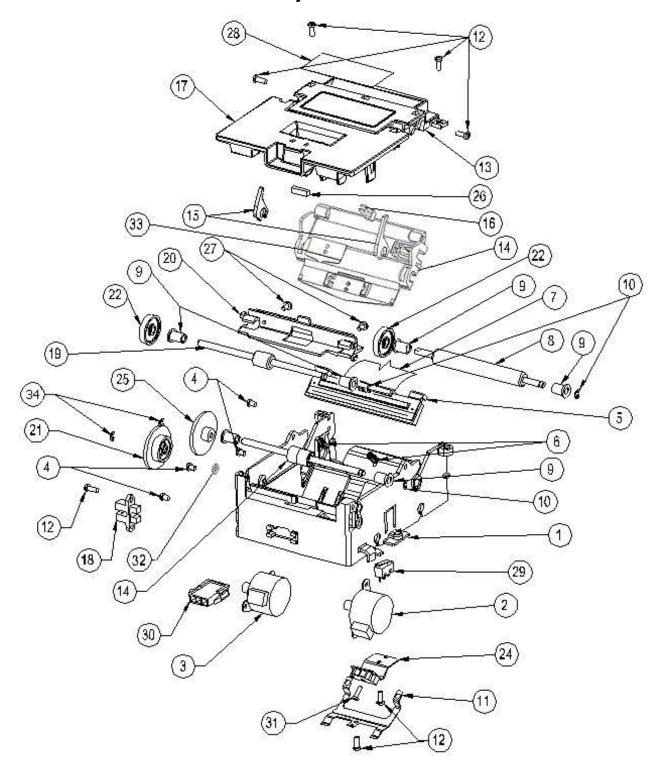


No.	Description (standard parts)	Part No. (History)
1	Screw M3 x 0.5 Phillips Panhead	98-0611
2	Screw M3 X 8mm Phillips Panhead	98-0897
3	Assy-400 Ct Extension/Label (not shown)	95-06384 (95-05614)
3	Assy-600 Ct Extension/Label (not shown)	95-06385 (95-05615)

^{*} Not available as a spare part



Printer Mechanism Assembly



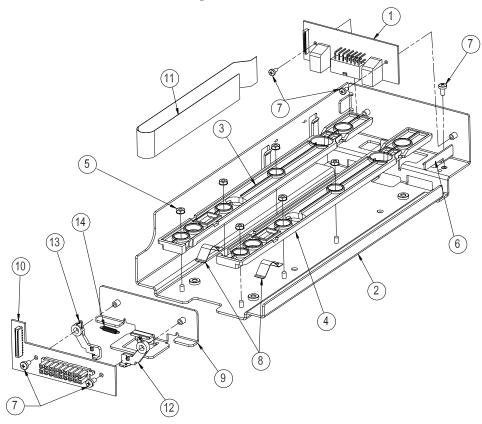


No.	Description (standard parts)	Part No. (History)
1	Frame Assembly	95-05694 (95-04978, 95-04961)
2	Motor Assemble - Feed	98-04312
3	Motor Assembly - Transport	98-04312
4	Screw –M2.5x5.6mm Phps Phd (sems)	98-04991 (M068161-01)
5	Heatsink Assembly	R95-04974 (95-04950)
6	Spring – Compression (Print head)	M068279-01
7	Cable - Printhead	28-04036L (28-04036)
8	Platen	95-04901
9	Bearing	95-04963 (M068263-03)
10	Ring-Retaining	520-9800003
11	Ground-ESD	95-04985 (95-04945)
12	Screw-Tapping #4-24	98-7608
13	Guide-Upper Entrance	95-04967
14	Cover-Platen	95-04979 (95-04905)
15	Lever-Platen Release	95-05881 (95-05837, 95-04915)
16	Sensor-Top of Form	95-05473 (95-05149)
17	Ticket Cover	95-05924 (95-04962, 95-04981,95-04980)
18	Sensor Assembly-Ticket Taken	95-05152L (95-05152)
19	Drive Shaft Assembly	95-04903
20	Guide-Ticket Exit	95-04965
21	Gear-Idler (Transport)	95-04936
22	Gear-Drive	95-06326 (95-04949)
23	Roller Assembly-Idler	95-04914
24	Sensor Assembly-Burst	95-05150L (95-05150)
25	Gear-Idler Drive	95-05776 (M068272-01)
26	Magnet	98-6473
27	Screw-Tapping #4-24	98-04997
28	Label – Epic 950	95-05277
29	Switch-Cover Open	95-05153
30	Assy-3/3 pos harness	95-05154
31	Screw-M2x6	M068306-01
32	Washer-Spring	98-6084
33	Bracket-Burster	95-04972
34	Ring-Retaining	520-9800002

^{*} Not available as a spare part



Outer Chassis Assembly



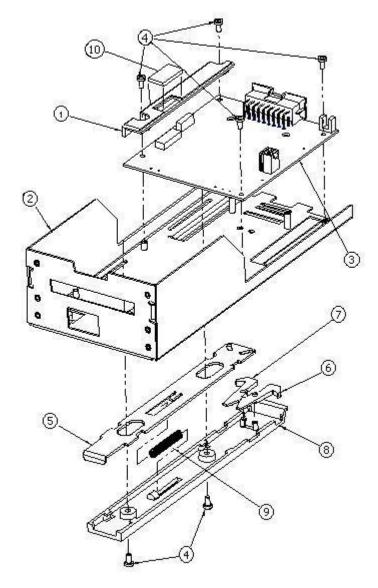
No.	Description (standard parts)	Part No. (History)
1	Assy-RS232 Interface PCB RoHs Assy-Netplex Interface PCB RoHs Assy-Dual Port RS232 Interface PCB Assy-Dual Port Netplex PCB Assy-USB/Netplex PCB RoHs Assy-USB/Netplex IGT I/F PCB RoHs Assy-USB WMS I/F PCB ROHs	95-04998L (95-04998) 95-05001L (95-05001) 95-05018L (95-05018) 95-05022L (95-05022) 95-05472L (95-05007) 95-08327L 95-07133L
2	Outer Chassis	95-04894 (95-04856)
3	Rail-Slide (Left)	95-04895 (95-04883)
4	Rail-Slide (Right)	95-04896 (95-04884)
5	Nut-M3 Hex w/Lockwasher	98-0621
6	Bracket-Sensor Flag	95-04872
7	Screw-M3 x 0.5 PH	98-0611
8	Ground-Chassis	95-04879
9	Slide Intermediate	95-04857
10	Connector PCB	95-04995
11	Cable-Flex 1MM 20 Conductor	98-06499L (98-05024L, 98-05024)
12	Latch-Slider (right)	95-05636L (95-04881)
13	Latch-Slider (left)	95-05637L (95-04882)
14	Spring-Extension	95-05638L

^{*} Not available as a spare part



** Sales of these parts restricted to approved customers only

Inner Chassis Assembly



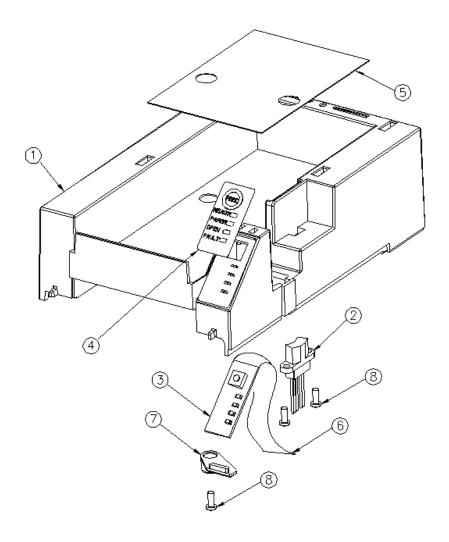
No.	Description (standard parts)	Part No. (History)
1	Assy-PCB Cover	95-04863 (95-05765, 95-04863)
2	Chassis-Inner	95-04885
3	Assy-Controller PCB	95-04992
4	Screw-M3 x 0.5 PH	98-0611
5	Lever-Release	95-04866
6	Latch-Release (right)	95-04891 (95-04873)
7	Latch-Release (left)	95-04890 (95-04868)
8	Housing-Release	95-04867
9	Spring-Compression	95-04870



10	Cover-Dip Switch	95-06695 (95-04889)
----	------------------	---------------------

^{*} Not available as a spare part

Ticket Supply Bucket Assembly



No.	Description (standard parts)	Part No. (History)
1	Bucket-Ticket Supply (200)	95-06347 (95-04849)
2	Sensor Assembly-Paper Low	95-05151L (95-05151)
3	Assy-Keypad PCB	95-05015
4	Overlay-Keypad	95-04862
5	Label-Ticket Loading	95-04880
6	Cable-Flex	98-05023L (98-05023)
7	Holder-Keypad	95-06334
8	Screw-#4 Plastic Thread Forming	98-7608



* Not available as a spare part

