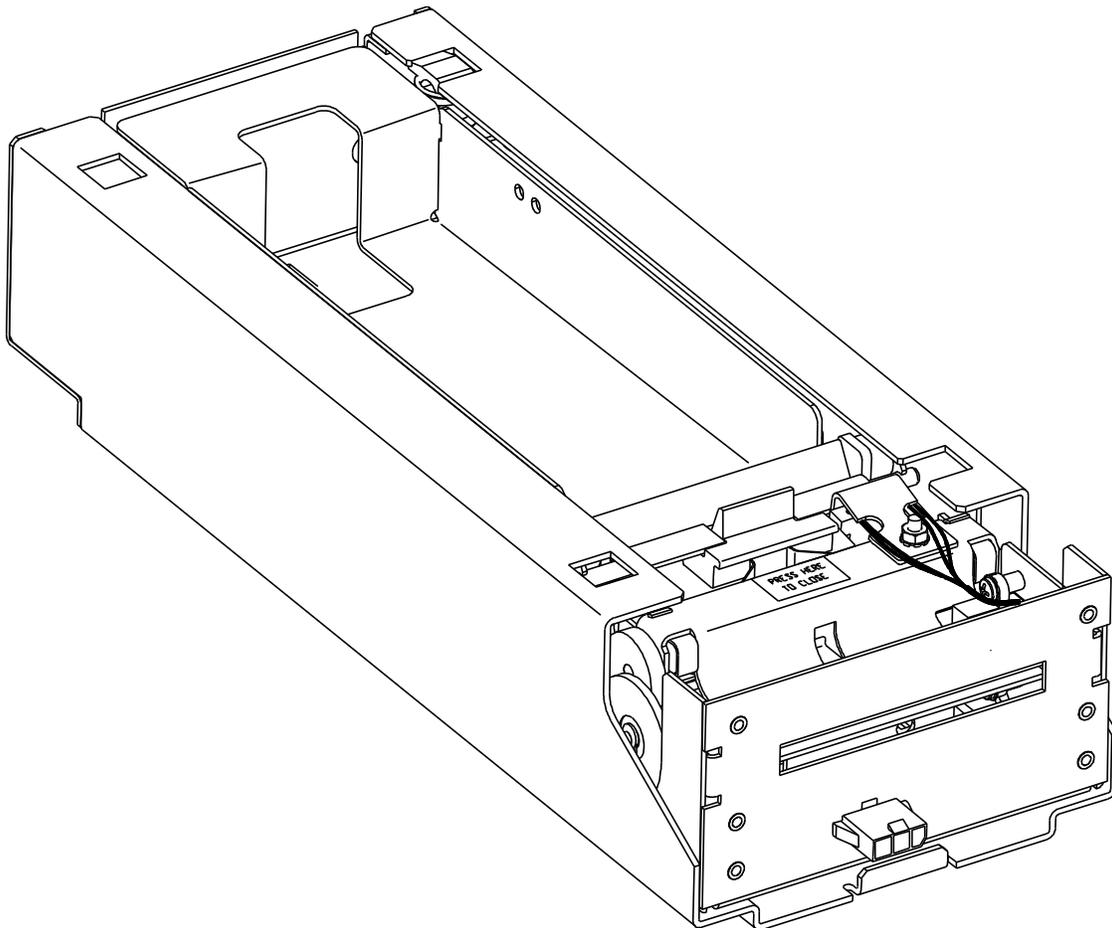


800 Series

Models 850, 860

Maintenance Manual



ithaca
a product of TRANSACT

PN: 85-03670

Rev C

Mar-03

Change History

Rev A Initial Release
Rev B Page 36 added Item #14 (85-04169)
Rev C Updated disclaimer

Important:

Before installing any equipment be sure to consult the specifications in this manual. Failure to do so may cause integration problems. Please confirm any specifications with TransAct's Ithaca Facility's Sales Department. Portions of this manual may be changed without prior notice.

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 800 Series Printer. If this manual contains any questionable information or mistakes please contact TransAct for assistance.

Disclaimer

© 2003 TransAct Technologies, Inc. All rights reserved.

NOTICE TO ALL PERSONS RECEIVING THIS DOCUMENT:

The information in this document is subject to change without notice. No part of this document may be reproduced, stored or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of TransAct Technologies, Inc. ("TransAct"). This document is the property of and contains information that is both confidential and proprietary to TransAct. Recipient shall not disclose any portion of this document to any third party.

TRANSACT DOES NOT ASSUME ANY LIABILITY FOR DAMAGES INCURRED, DIRECTLY OR INDIRECTLY, FROM ANY ERRORS, OMISSIONS OR DISCREPANCIES IN THE INFORMATION CONTAINED IN THIS DOCUMENT.

Some of the product names mentioned herein are used for identification purposes only and may be trademarks and/or registered trademarks of their respective companies.

TransAct, PowerPocket, Magnetec, Insta-Load, POSjet, Ithaca, 50Plus and "Made to Order. Built to Last" are registered trademarks and BANKjet is a trademark of TransAct Technologies, Inc.

Copyright

© 2003 TransAct Technologies, Inc. All rights reserved.

Revision Level C

Mar-03

Printed in USA

Table of Contents

Change History	i
Important:	ii
Note:	ii
Disclaimer	ii
Copyright	ii
Trademarks	Error! Bookmark not defined.
Table of Contents	iii
Figures	v
Tables	v
SERIES 800 GENERAL INFORMATION	1
Who should read this guide?	1
What is included in this guide?	1
Warranty Options	1
Internet Support	1
www.transact-tech.com	1
Service Information	2
Ithaca Product Support Procedure	2
Contacting TransAct's Ithaca Facility	3
SERIES 800 SPECIFICATIONS AND REQUIREMENTS	4
Series 800 Model Functionality Descriptions	4
Standard Features	4
Optional Features	5
Dimensions	6
Interface	6
Printer	6
Printer Environmental Conditions	6
ESD	6
Reliability	7
Power Requirements	7
Test Standards	7
Mechanism Characteristics	7
Printing Specifications	8
Ticket Specifications	8
Ticket Specifications (continued)	9
Design Envelope: Ticket Clearance	9
Print Characteristics	10
Black Dot Position and Presentation Scheme	10
Ticket Stack Orientation	11
MOUNTING REQUIREMENTS	12
Chassis Mounting to Final Product	12
Custom Bezel Specifications and Recommendations	13
SERIES 800 PRINTER SENSORS	14
Paper Low Sensor	14
Top-of-Form Sensor	14

Ticket Taken Sensor	14
Head-Up Switch.....	14
Void and Reprint (Model 860 only).....	14
Open/Close Position Sensor/Audible Alarm.....	15
Printer Status LED	16
ELECTRICAL CONNECTIONS	17
Serial Communications Interface PCB	17
Default Communication Settings	18
Bezel Lamp Connector	18
Printer Block Diagram.....	19
OPERATIONAL PROCEDURES	20
Loading Tickets into Feeding Mechanism	20
Removing Loaded Tickets	21
Cleaning the Print Head	23
CHAPTER 7: ASSEMBLY/DISASSEMBLY	24
Precautions for Disassembly	24
Necessary Tools.....	24
Model 850 OEM Variations Notice.....	24
Racking/Unracking the Printer Mechanism Assembly.....	25
Removing the Ticket Tray from the Main Printer Assembly	26
Remove PCB Cover Plate from Printer Mechanism Assembly.....	27
Remove Print Mechanism from Printer Mechanism Assembly.....	28
Remove Controller PCB Assembly from Printer Mechanism Assembly	29
Remove Interface PCB Assembly from Outer Slide Chassis	30
CHAPTER 8: PARTS LISTS	31

Figures

Figure 1 800 Series Printer Component Overview	4
Figure 2 Series 800 Printer: Dimensions	6
Figure 3 Design Envelope: Ticket Clearance	9
Figure 4 Location of Black Dot/Top of Form Indicator on Back of Ticket.....	10
Figure 5 Ticket Stack Orientation	11
Figure 6 Outer Chassis Mounting to Final Product.....	12
Figure 7 Custom Bezel Mounting and Hardware Requirements.....	13
Figure 8 Sensor Breakdown and Locations	14
Figure 9 Open/Close Position/Audible Alarm	15
Figure 10 Serial Communication PCB Location and Connector Info	17
Figure 11 Bezel Lamp Connector Location and Connector Information	18
Figure 12 Series 800 Electrical Operations Diagram	19
Figure 13 Ticket Loading and Ticket Feed Mechanism.....	20
Figure 14 Actuator latch and platen/cover assembly.....	21
Figure 15 Feed Switch and LED indicator Location	22
Figure 16 Cleaning the Printhead	23
Figure 17 Racking/Unpacking the Printer Mechanism Assembly.....	25

Tables

Table 1 Font Statistics	10
Table 2 Printer Status LED Indication Descriptions	16
Table 3 Serial Communication PCB Pin-Outs.....	17
Table 4 Bezel Power Connector Pin-Outs.....	18

Series 800 General Information

Who should read this guide?

This document is intended for trained service technicians.

What is included in this guide?

This Maintenance Manual covers the proper maintenance procedures for servicing the Series 800 printer. This manual provides an overview of the Series 800 printer specifications, mounting requirements, a description of the printer sensors, overview of the electrical connections, operational procedures, assembly/disassembly procedures, and listing of available spare parts.

Warranty Options

All 800 Series 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 (packed with each new printer).

Internet Support

www.transact-tech.com

TransAct Technologies Incorporated maintains an Internet web site with content devoted to supporting our products. At our Support Services section for our Ithaca brand products you can find documentation for the 800 Series printer including a current copy of the OEM Integration Manual. Our on-line support also includes an option to obtain assistance from a technical support specialist by filling out a e-mail assistance request form. Your e-mail will be received by one of our support specialists and they will contact you via a phone call. The 800 Series printer support pages offer the latest information.

Service Information

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 Ithaca facility's Technical Support Department at (607) 257-8901 or (877) 7ithaca 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
-

Ithaca Product Support Procedure

Monday through Friday, 8A.M. to 5 P.M. (excluding holidays)

To obtain technical support, call TransAct's Ithaca Facility at (607) 257-8901 and ask for Technical Support. When you call, please have the following information at hand:

-
- 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, a Returned Materials Authorization (RMA) number must be issued 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.
-

Contacting TransAct's Ithaca Facility

Contact TransAct's Ithaca facility for general information about integrating 800 Series printers with your system. The Sales and Technical Support Departments will be able to help you with most of your questions. Call the Technical Support Department to receive technical support; order documentation; receive additional information about the 800 Series; or send in a printer for service. To order supplies; receive information about other Ithaca products; or obtain information about your warranty, contact the Sales Department. To receive information on International distribution, look on our web site at www.transact-tech.com

You may reach both the Sales and Technical Support Departments at the following address and telephone or fax numbers:

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

Telephone	(877) 7ithaca or (607) 257-8901
Main fax	(607) 257-8922
Sales fax	(607) 257-3868
Technical Support fax	(607) 257-3911
Web site	http://www.transact-tech.com

Series 800 Specifications and Requirements

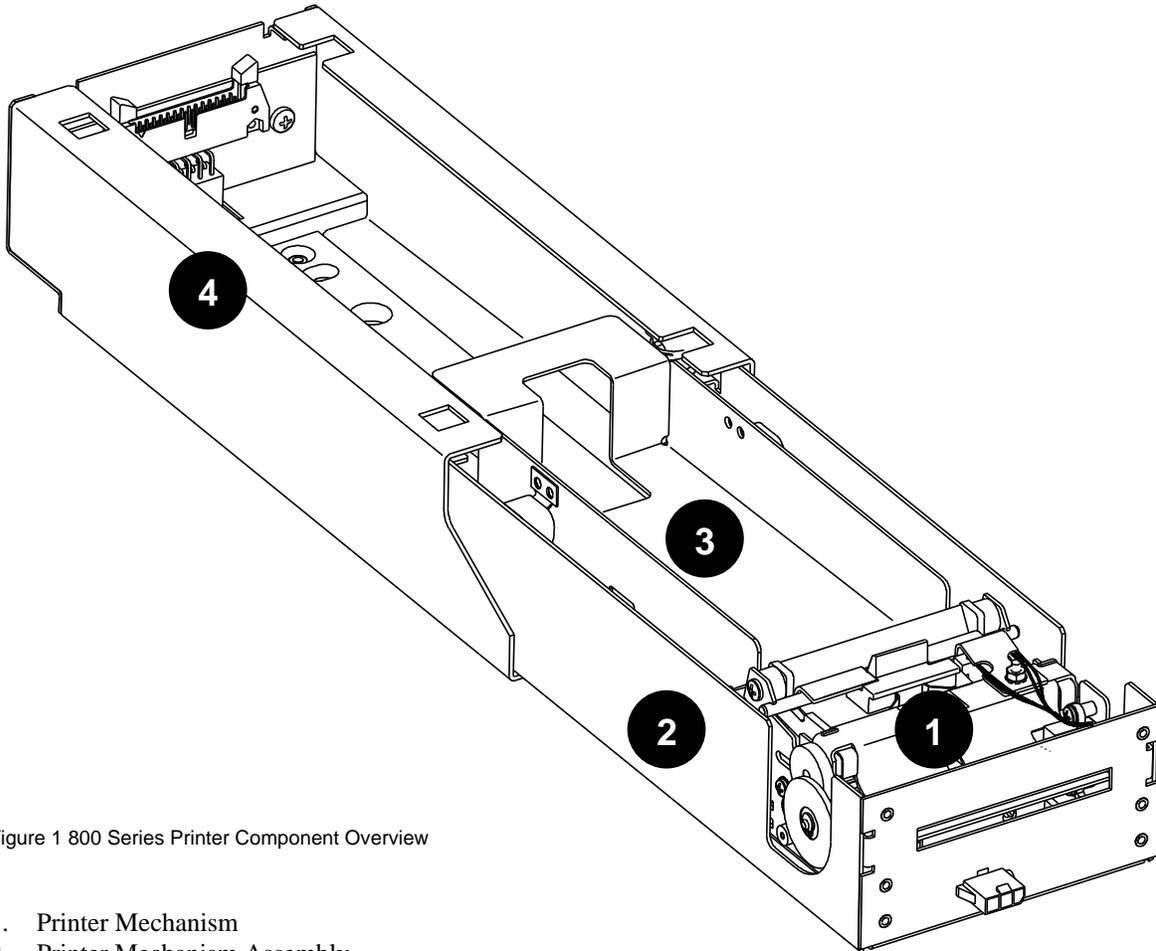


Figure 1 800 Series Printer Component Overview

1. Printer Mechanism
2. Printer Mechanism Assembly
3. Printer Ticket Bucket (200, 400, 600)
4. Outer Slide Chassis

Series 800 Model Functionality Descriptions

There is a specific functional difference between the Model 850 and the Model 860 printers. As an option, the Model 860 incorporates a void and reprint sensor that verifies the integrity of the barcode. The Model 860 can automatically determine if the ticket's barcode is, or is not readable.

Standard Features

The following features are common to the 800 Series Printers:

-
- Perforated fan folded tickets in a stack of 200 tickets.
 - Barcode and total ticket cash-out capabilities.
 - Horizontal ticket exit.
 - Ticket separation performed by customer.
 - Modular printer mechanism, ticket tray and sliding unit for easy maintenance.
-

-
- Modular Interface PCB.
 - Audible Buzzer
-

Optional Features

- 400 and 600 count ticket trays.
 - Void and Reprint (Model 860 only)
-

 (Dimensions reflect use of 200 unit ticket bucket unless otherwise noted)

Dimensions

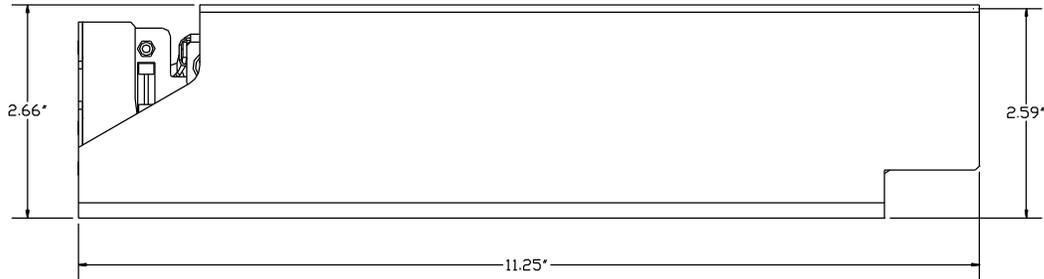


Figure 2 Series 800 Printer: Dimensions

Stationery Module Size: **H:** 2.66" (67.6mm) **W:** 4.46" (113.3 mm) **D:** 11.25" (285.75 mm)

The Series 800 is a stationery module, and is designed to work with either of the three interchangeable Ticket Buckets. Please be sure to specify the desired box size when making your selections.

200 ticket setup: **H:** 2.610" (66.29 mm) **W:** 4.46" (113.3 mm) **D:** 11.25" (285.75 mm)

400 ticket setup: **H:** 4.0" (101.60 mm) **W:** 4.46" (113.3 mm) **D:** 11.25" (285.75 mm)

600 ticket setup: **H:** 5.5" (139.70 mm) **W:** 4.46" (113.3 mm) **D:** 11.25" (285.75 mm)

Weight 5.3 lbs.

Interface

Type Bi-Directional, serial RS-232 using transmit, receive, and ground.
Protocol Ready/Busy or XON/XOFF, 9600 baud, 8 data bits, no parity,
 1 start bit, 1 stop bit.

Printer

Printer Type: Fixed 2.25" linear thermal head.

Printer Environmental Conditions

Operating Temperature Range: 0° ~ 40°C (32° ~ 77°F)
Shipping/Storage Temperature Range: -10° ~ 50°C (14° ~ 122°F)
Operating Humidity Range: 10% ~ 90% Noncondensing only
Shipping/Storage Humidity Range: 5% ~ 90% Noncondensing only

ESD

Ground maintained between printer and product chassis.
40 KV sustained air discharge (door closed).
8 KV sustained current injection (door closed).
15 KV protection for exposed electronics (open, loading position).

Reliability

Printer Life:	20 million print lines.
Mean time between failures:	45,000 hrs. @ 25% duty cycle.
Printer electronics:	250,000 hrs.
Printhead Life:	50Km min.
Flex ribbon (sliding module):	1,500 cycles min.

Power Requirements

24 Vdc \pm 5%.
2.2 Amps max. @ 24 Vdc @ 25% print ratio.

Test Standards

FCC 47CFR, Part 15, Class A.

EN 55022, Class A.

ESD IEC 1000-4-2, 6kv direct discharge and 8kv air discharge.

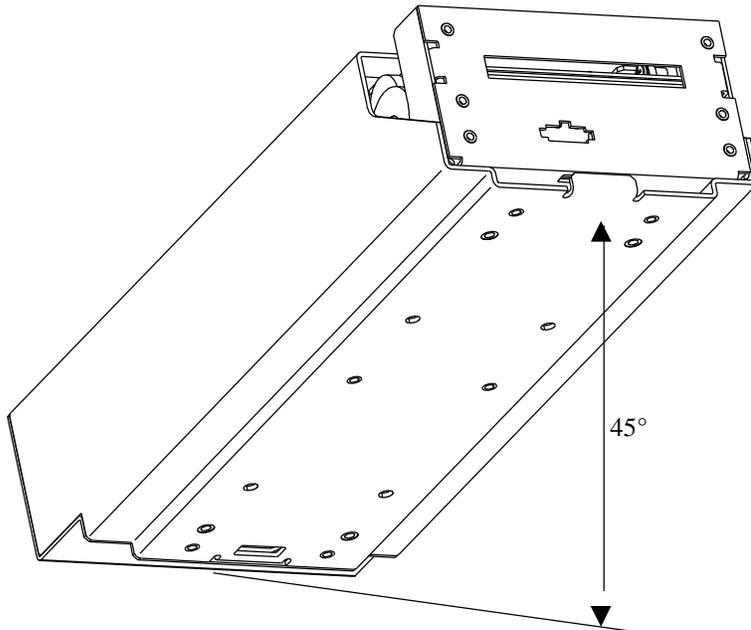
Radiated RF IEC 1000-4-3, 3 v/m from 27 MHz to 1 GHz.

Fast transit (burst) IEC 1000-4-4, 2kv powerline, 1kv I/O lines (level 3, Industrial environment).

Acoustic Noise: **Sound pressure level:** 60 decibels max.
(measured in 10 positions @ operator level with distance of 1 meter).

Mechanism Characteristics

Drawer Slide Force:	2 lbs. max.
Opening Distance:	200mm (8") (approximate)
Drawer Holding Force:	4 lbs. (out of detents)
Mechanism Operating Angle:	Horizontal to 45° inclination (ticket exit slot up).



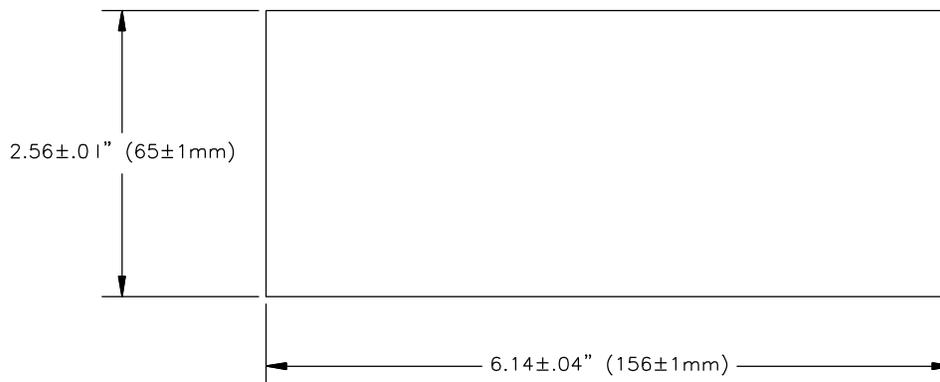
Printing Specifications

Print Method:	Thermal Sensitive Line Dot System.
Ticket Handling:	Straight. Entire path is accessible.
Print Speed:	125 mm/sec. (5" per sec.) max. (in text mode)
Paper advance speed:	125 mm/sec. (5" per sec.) min.

Resolution:	203dpi x 203dpi and 136dpi x 203dpi.
Dot Pitch-Horizontal:	0.125 mm (8 dots/mm)
Dot Pitch-Verticle:	0.125 mm (8 dots/mm)
Line Feed Pitch:	3.2 mm (.125")
Characters per line:	30 min.
No. of Elements:	500 dots in-line
Print Width:	62.5 mm (2.46")
Data Buffer:	8K
Memory:	256K EPROM & 128K RAM

Ticket Specifications

Dimension: (same size as US dollars)



Ticket Width:	$65 \pm .75$ mm ($2.56" \pm .03"$)
Ticket Length:	156 ± 1 mm ($6.14" \pm .04"$) between perforations
Ticket Thickness:	4.5 mils (114 microns)(.0045 inches)
Ticket Weight:	27# (102 g/m^2) Ave.
Reading Code:	Interleaved. 2 of 5
Minimum Bar Width:	0.5 mm min./0.6 max.
W : N Ratio:	3 : 1
Letter Quantity:	6 min./18 max.
PCS Value:	0.6 min.
Printing Ink:	BLACK: (visible light absorbtion: 600 ~ 700 nm)
Optical Reflection Level:	White thick bar: 3.0V min. Black thick bar: 2.0V max.
Amplitude Level:	0.5V (white and black bar).
Waveform Distortion:	0.3V max.
Transmission Level:	Level 1: 1.3V max. Level 2: 0.5V min.

Ticket Specifications (continued)

The 800 Series printer requires the following tickets for proper printing:

Ticket Type: Kanzaki TO-381N or approved equivalent
Thermal sensitive layer facing down.
Thermal sensitive side to be coated for wear characteristics.

Quantities Available: Fan-folded stacks of 200, 400 and 600 tickets.

Design Envelope: Ticket Clearance

A minimum paper clearance distance of .75" is required above the printer's ticket buckets. The minimum clearance for all ticket buckets will vary, but should fall within the .75" minimum clearance measurement.

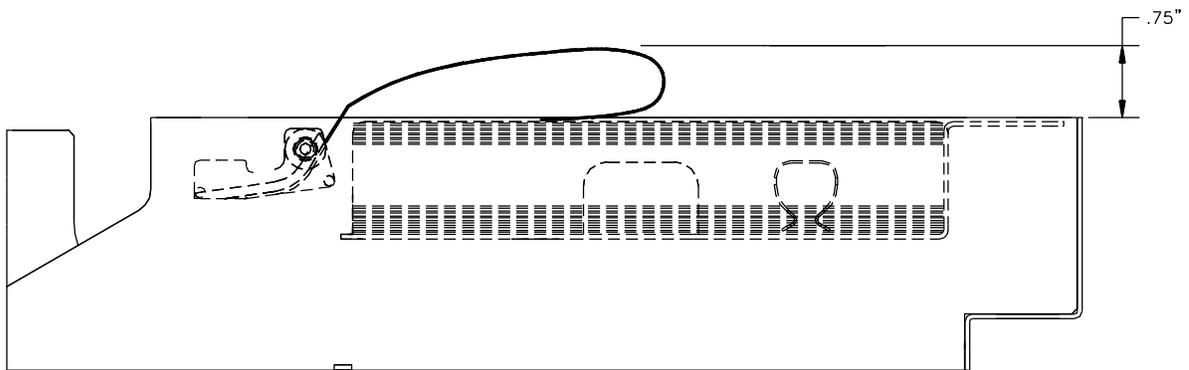


Figure 3 Design Envelope: Ticket Clearance

Print Characteristics

The statistics for the internal fonts the 800 Series Printer supports appear below. Height and width are expressed in terms of dots.

Height	Width	Horizontal cpi	Vertical cpi
24	12	16.9	8.4
32	16	12.7	6.4
32	20	10.2	6.4
56	28	7.3	3.6

Table 1 Font Statistics

Black Dot Position and Presentation Scheme

All graphics preprinted on the ticket must be in thermal paper compatible ink.

Black Dot Position

The back of the ticket is used for the Black Dot/Top of Form indicator. For the printer to sense when a ticket has been indexed to the printing position, a Black Dot/Top of Form sensor is needed. It must be printed in black, thermal paper compatible, infrared readable ink. The 10.16mm area in line with the Black Dot/Top of Form indicator and the ticket edge (keep-out zone) must remain clear, as the Ticket Out Sensor will read that area while the ticket is printed and presented. The remaining area on the back of the ticket may be used for rules and disclaimer.

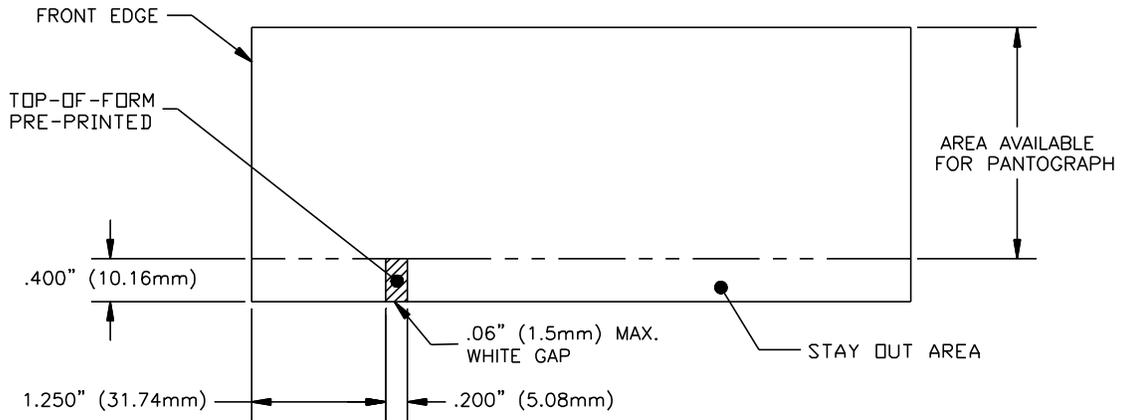


Figure 4 Location of Black Dot/Top of Form Indicator on Back of Ticket

Ticket Stack Orientation

To ensure the ticket is loaded correctly into the printer, the ticket stack must be properly loaded in the ticket box. The stack must be oriented so that the Black Dot/Top of Form mark of the tickets is on the leading edge of the ticket, not near the perforation of the next ticket. If the top ticket on the stack has the back facing upward, the perforation attaching the next ticket will be toward the front of the Ticket Supply Box with the Black Dot/Top of Form indicator in the rear right corner. If the print area is facing upward, the perforation attaching the next ticket will be toward the rear of the Ticket Supply Box. For instructions on inserting the first ticket into the printer, see “Loading Tickets into Feeding Mechanism” on page 20.

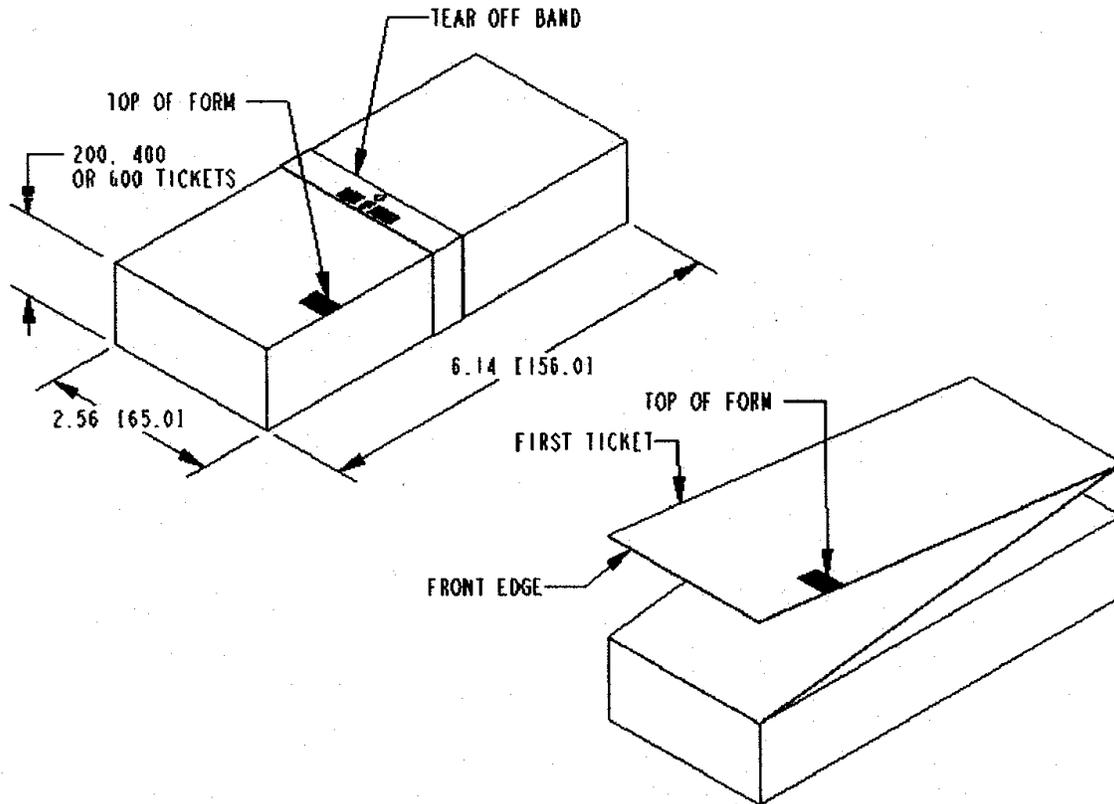


Figure 5 Ticket Stack Orientation

Mounting Requirements

Chassis Mounting to Final Product

Bottom: 4x M4x 0.7 press nuts
 4x .180" thru holes

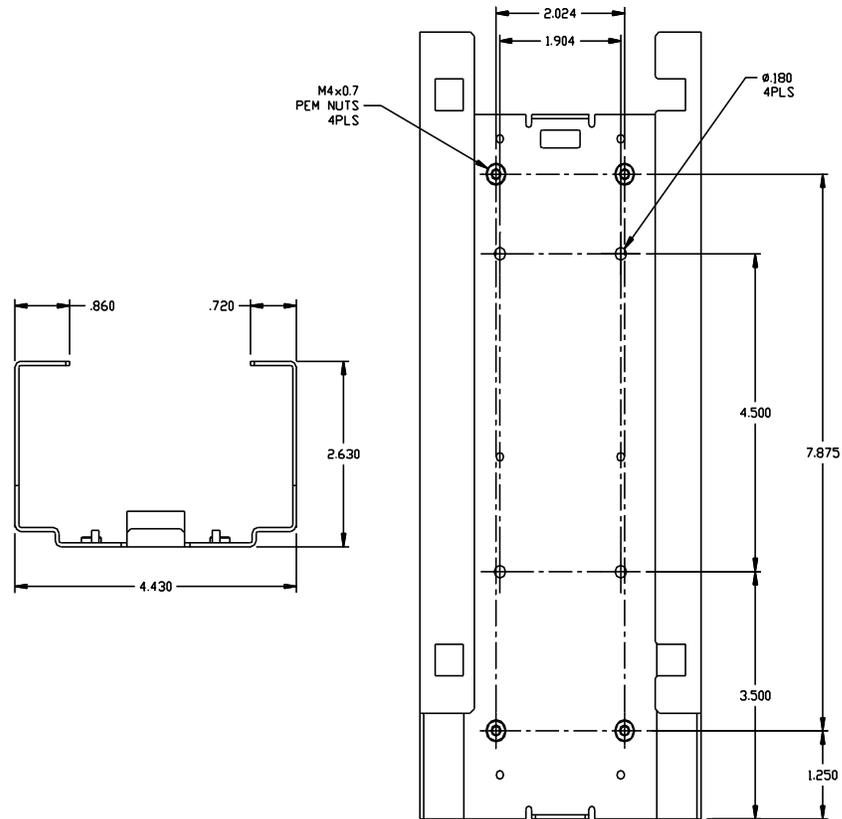


Figure 6 Outer Chassis Mounting to Final Product

Custom Bezel Specifications and Recommendations

Custom Bezel to Printer Mechanism Mounting points

Series 800 printers are designed to accommodate a customer supplied bezel assembly that is mounted following the hardware and mounting dimensions as listed. The following drawing shows the positioning and dimensions of the Series 800 printer's mounting points.

Front: 6x **M3x 0.5** press nuts and interface with custom bezel

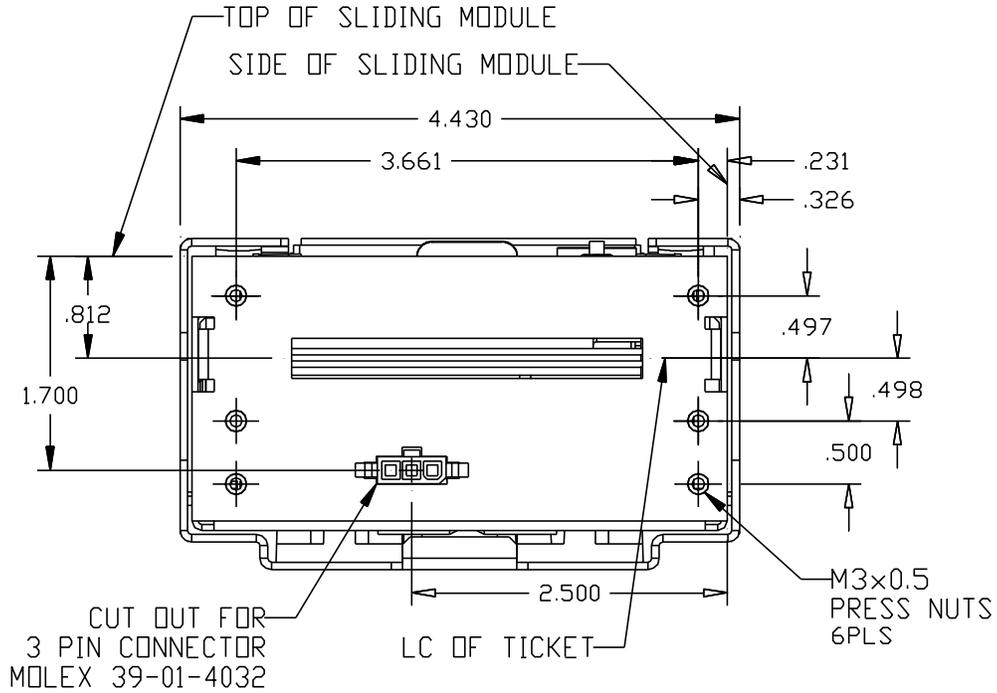


Figure 7 Custom Bezel Mounting and Hardware Requirements

Series 800 Printer Sensors

The Series 800 printers use several sensors to provide feedback to the host system. All power and interface communications are handled by the Communications PCB.

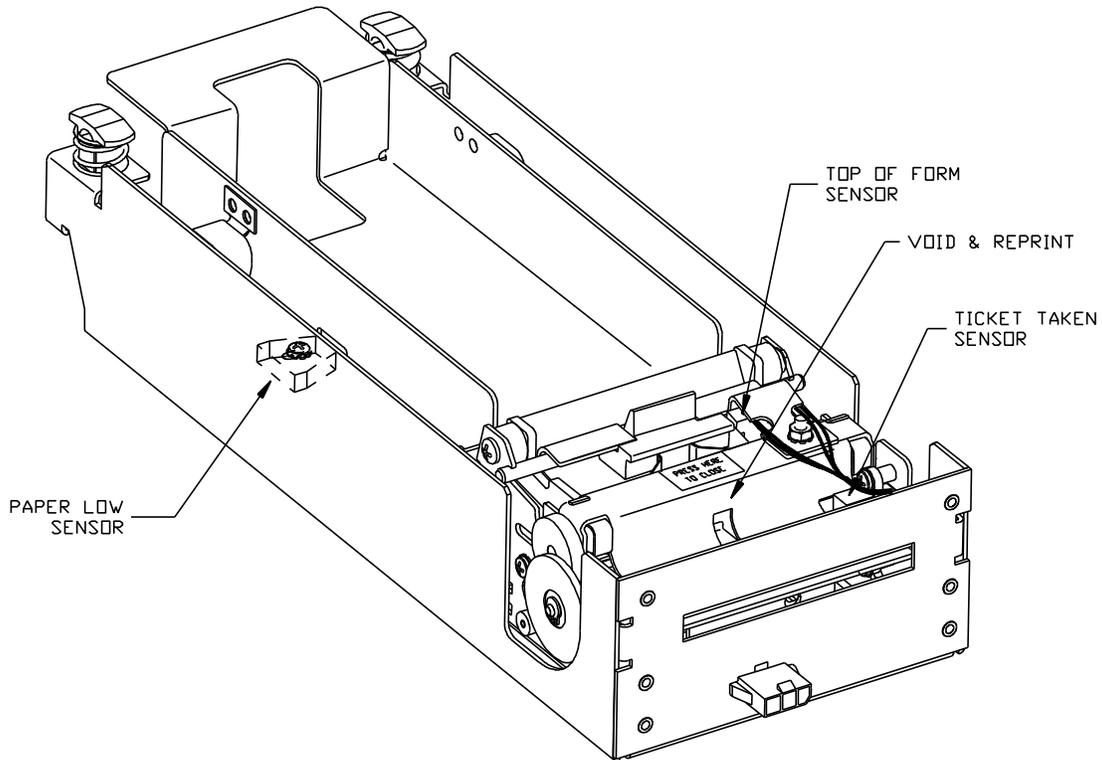


Figure 8 Sensor Breakdown and Locations

Paper Low Sensor

A Paper Low Sensor optically senses the number of tickets remaining in the printer's ticket bucket. The sensor will detect when the number of tickets reaches below 30-35 tickets. The paper low status will be reported on the status byte, when a status requested is issued by the host.

Top-of-Form Sensor

A Top of Form Sensor is used to control ticket loading and printing.

Ticket Taken Sensor

A Ticket Taken Sensor is used to determine when customers have actually taken the printed ticket.

Head-Up Switch

A Head Up Switch signals when the thermal printhead assembly has been opened. The Head Up Switch is located under the printhead and is not visible from the top view.

Void and Reprint (Model 860 only)

The Void and Reprint Sensor verifies the integrity of the ticket barcode.

Open/Close Position Sensor/Audible Alarm

The printer has an OPEN/CLOSE POSITION sensor to determine if the Printer Mechanism Assembly is in the full-racked position. If the Printer Mechanism Assembly is not in the fully racked position, then the printer status LED will blink indicating the printer is not ready.

1. **Open/Close Position Sensor** (Sliding Module).
2. **Audible Alarm Buzzer** (PIEZO - game controlled).

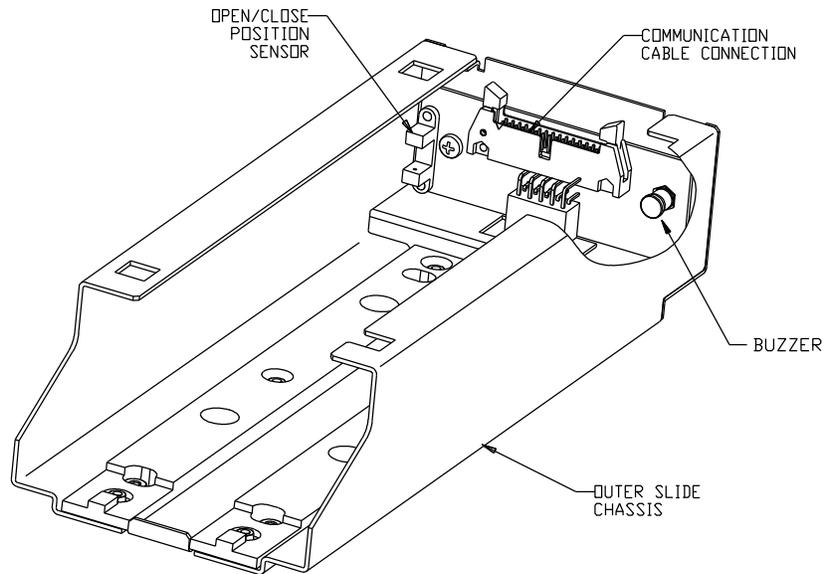


Figure 9 Open/Close Position/Audible Alarm

Printer Status LED

The printer has been outfitted with a LED indicator system that provides the condition of the printer by using a series of blinks to communicate the status of the printer. If a customer supplied Bezel is installed, the status of the Bezel will be identical to the LED

The following table lists the different LED indications and provides a brief description.

Condition	Status LED/Bezel
Unit Ready	On
Head Up	Med Blink
Door Open	Med Blink
Paper Out	Slow Blink
Temperature Error	Fast Blink
Paper Jam	4 Blinks Pause
Ram Error	2 Blinks Pause
Checksum Error	5 Blinks Pause

Table 2 Printer Status LED Indication Descriptions

Electrical Connections

Serial Communications Interface PCB

All power and communications are supplied through the Serial Communications PCB located at the rear of the printer. The interface connector is a 14 position Molex Minifit Jr®, part number 39-30-1400, and will mate with Molex part number 39-01-2140 or equivalent . Refer to Table 3 for pin connections.

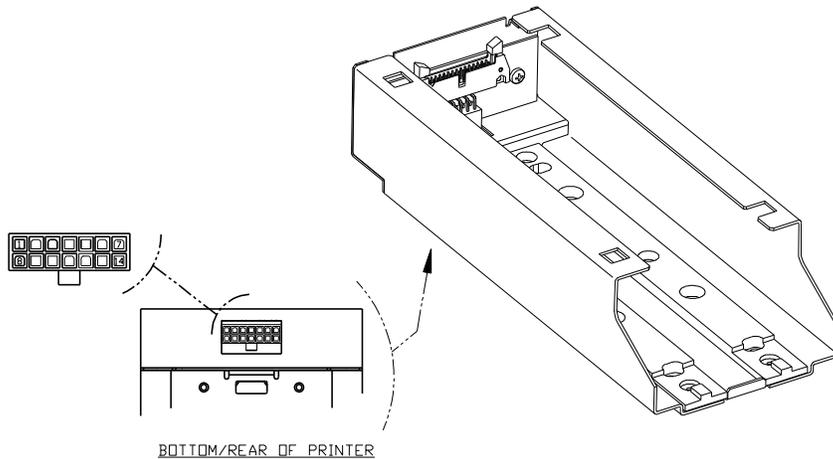


Figure 10 Serial Communication PCB Location and Connector Info

Serial Communication PCB Pin-Outs		
PIN #	FUNCTION	I/O
1	MRESET	I
2	Not Connected	N/C
3	+12 VDC	I
4	Not Connected	N/C
5	GND	-
6	+24VDC	-
7	GND	-
8	+24VDC	-
9	Bezel Lamp – Switched +24VDC	O
10	GND	-
11	RS232 RXD	I
12	RS232 TXD	O
13	DTR	O
14	RTS	O

Table 3 Serial Communication PCB Pin-Outs

Default Communication Settings

The RS-232C interface default configuration settings are:

Baud Rate: 9600 BPS
 Data Bits: 8 Bits
 Parity: None
 Stop Bits: 1
 Handshaking: XON/XOF
 Receive Error: Prints '?'
 Input Buffer 8,192 bytes

These communications settings may be altered only through the use of special printer configuration software. Contact TransAct for availability.

Bezel Lamp Connector

The bezel connector is a Molex Minifit Jr®, part number 39-01-4032 and will mate with a Molex part number 39-01-4030 or equivalent.

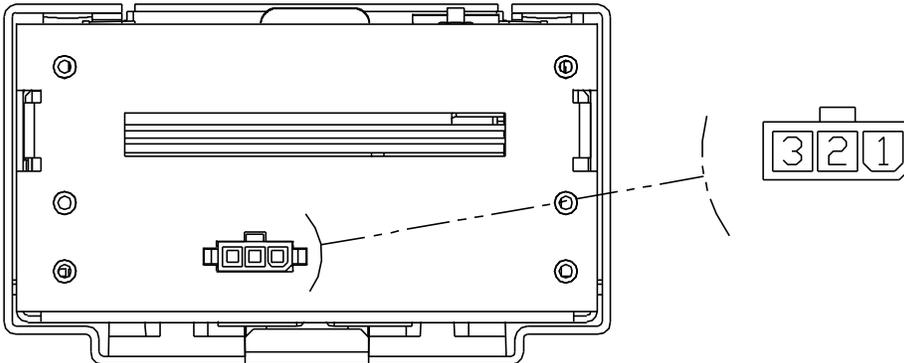


Figure 11 Bezel Lamp Connector Location and Connector Information

Bezel Lamp Connector Pin-Outs	
PIN #	FUNCTION
1	Modulated +24VDC
2	Not Connected
3	GND

Table 4 Bezel Power Connector Pin-Outs

Printer Block Diagram

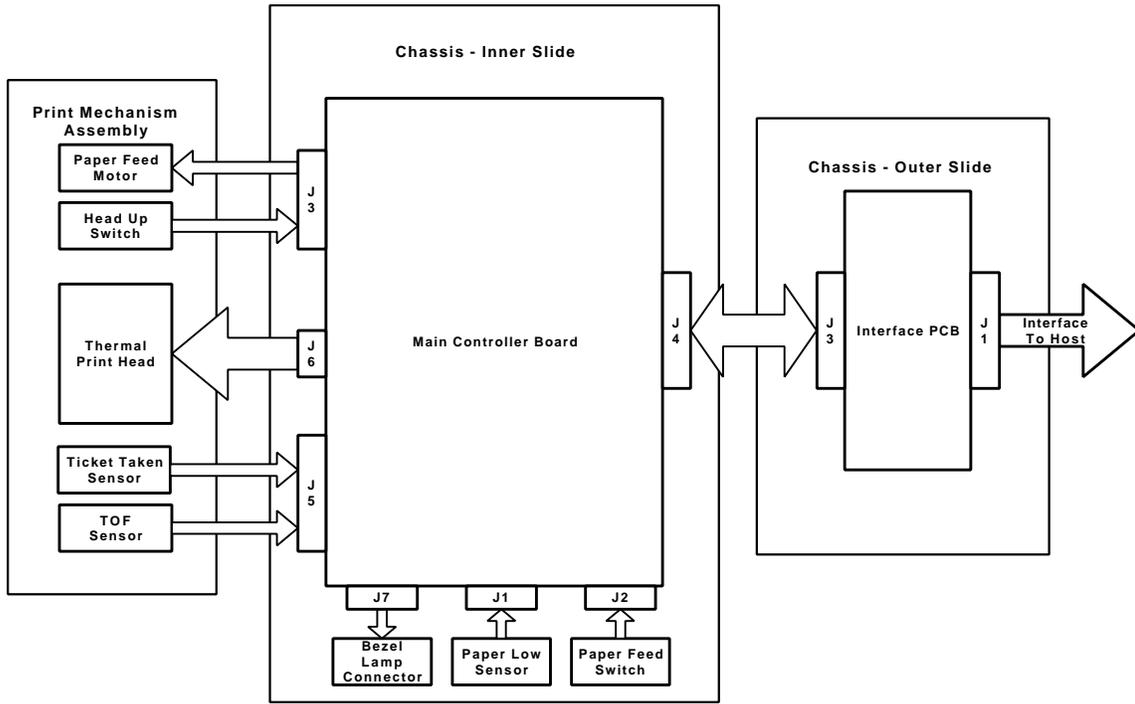


Figure 12 Series 800 Electrical Operations Diagram

Operational Procedures

Loading Tickets into Feeding Mechanism

When loading new ticket stacks, be sure that the printer mechanism assembly has been unseated from the outer slide chassis's racking retainers, and there is power to the printer. The first ticket of the stack must be inserted into the printer by hand. The Series 800 Printers' Ticket Supply Box 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 Assembly.

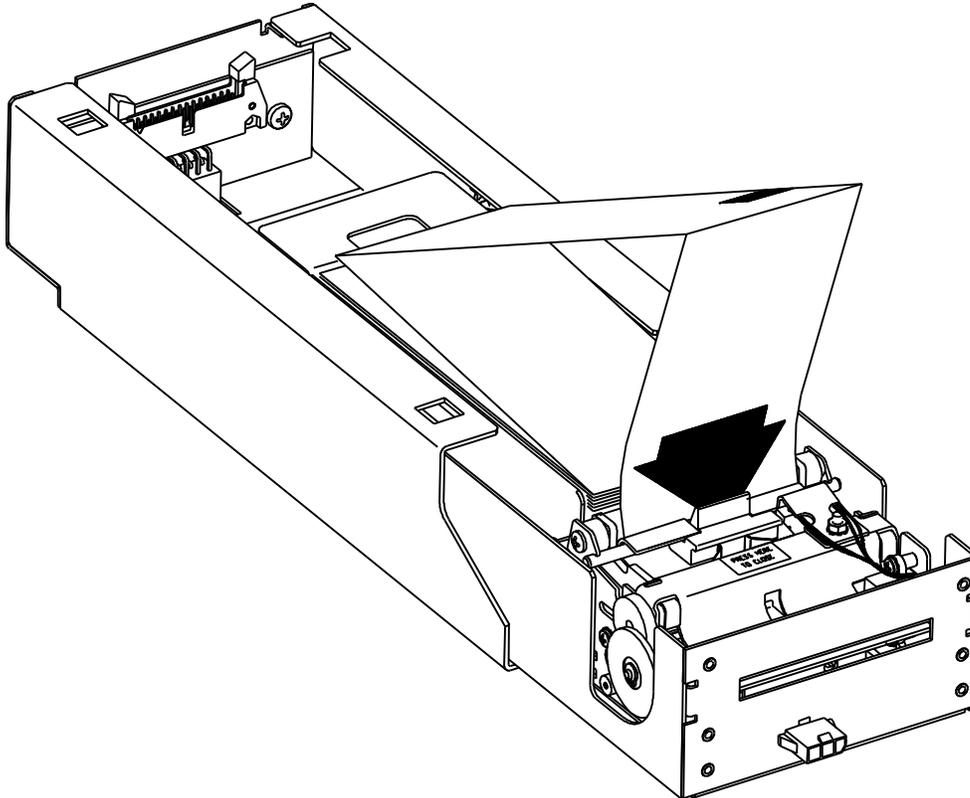


Figure 13 Ticket Loading and Ticket Feed Mechanism

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

- Load tickets into the ticket supply box sensitized side down (make sure Black Dot is facing you).
- Orientate the tickets so that the Black Dot is towards the leading edge of the ticket.

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

1. Check to ensure that the tickets have been placed in the ticket supply box with the proper black dot orientation.
2. Insert the leading ticket into the Printer Mechanism Assembly's insertion guide area. The ticket should be fed about a 1/2" into the mechanism; at this time, the machine automatically completes the feeding process.

3. Slide the printer mechanism assembly back into the closed position, making sure that the assembly's slide plungers snap into the racking retainers within the outer slide chassis.
4. The printer is ready to receive information.

Removing Loaded Tickets

The Series 800 printers have two ways to remove unused tickets from the printer mechanism assembly. The first way is to release the plastic actuator latch to release tickets from within the printer mechanism assembly. After the actuator latch is pulled toward the front of the printer, the platen/cover assembly can be rotated up towards the front of the printer. This will allow an opening that provides space to clean the printhead, check the printer for ticket jams, or prepare the paper path for ticket replenishing. The second way is to use the feed button, it will feed out tickets from within the printer mechanism assembly.

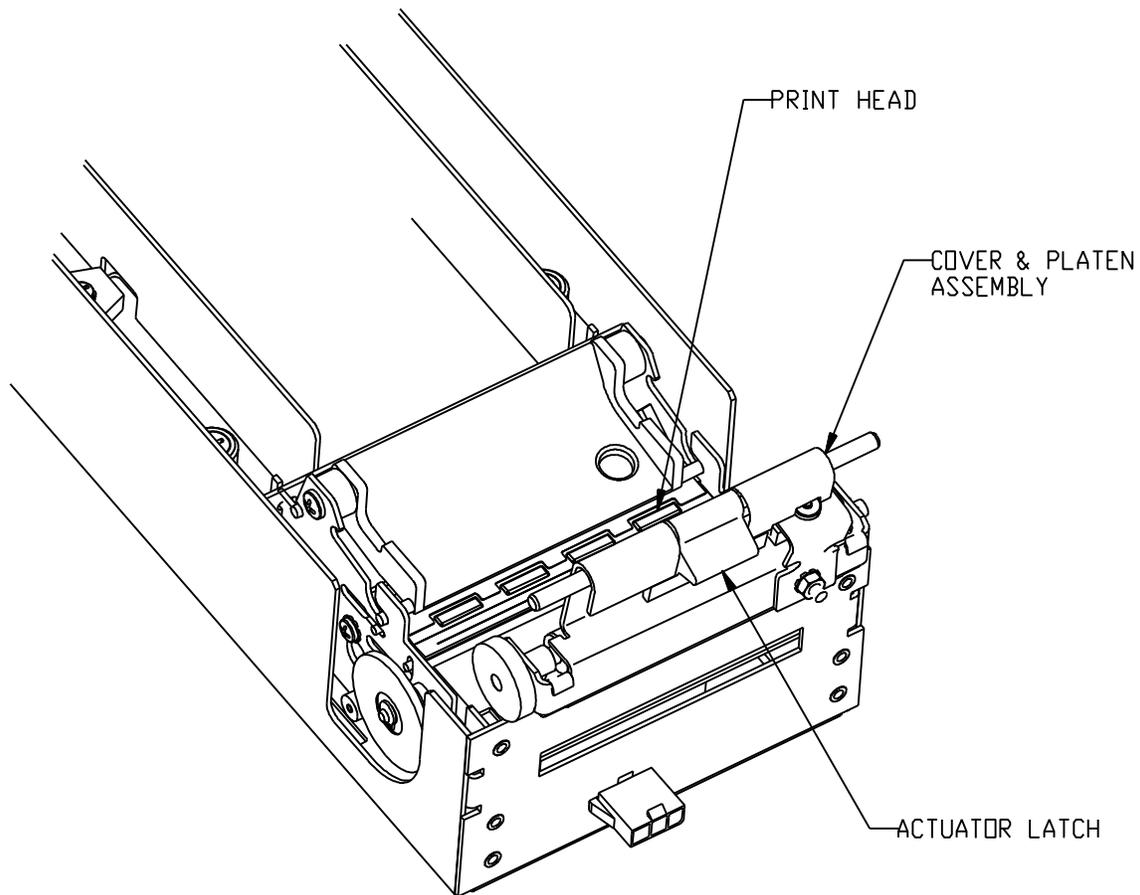


Figure 14 Actuator latch and platen/cover assembly

Unloading Tickets from the Printer by opening the Platen/Cover assembly

1. Pull printer mechanism assembly out of the slide chassis until it stops in the open position.
2. Pull the plastic actuator latch towards the front of the printer.
3. Swing the platen/cover assembly up and towards the front of the printer.
4. Remove all tickets from the ticket path and check for any debris.
5. Press the green label to relatch the platen assembly.
6. Proceed with ticket loading procedure.

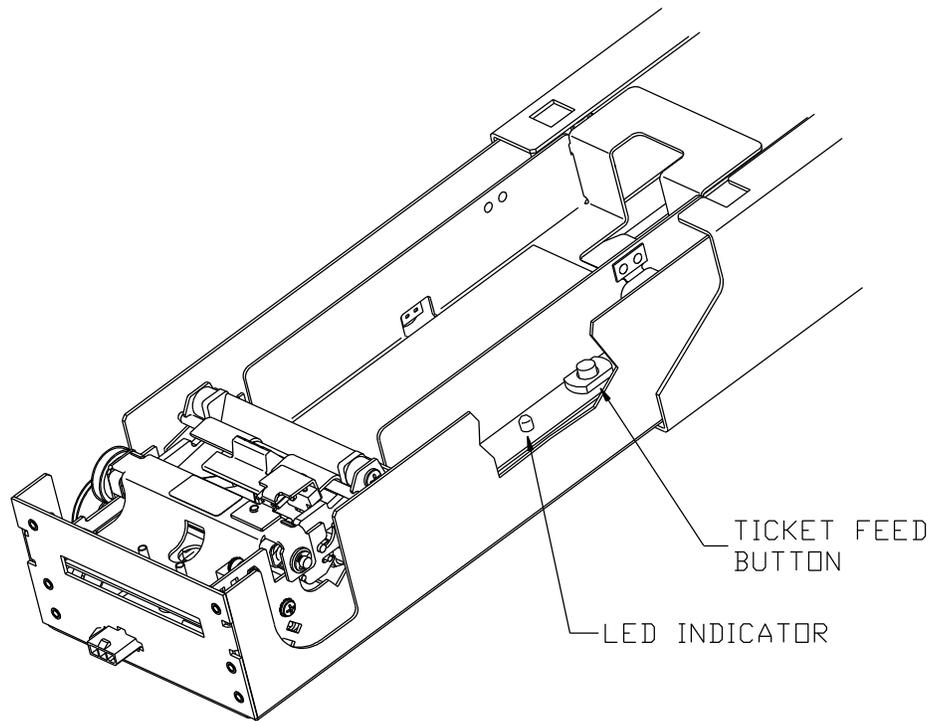


Figure 15 Feed Switch and LED indicator Location

Unloading Tickets from the Printer using the feed button

1. Pull printer mechanism assembly out of the slide chassis until it stops in the open position.
2. Separate ticket currently loaded in the platen assembly from the ticket bundle.
3. Press the feed button to eject the ticket.
4. Remove any remaining tickets from the ticket supply box.
5. Proceed with ticket loading procedure.

Cleaning the Print Head

Once the unit is opened, the ticket path is accessible for cleaning or clearing tickets. 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. 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.

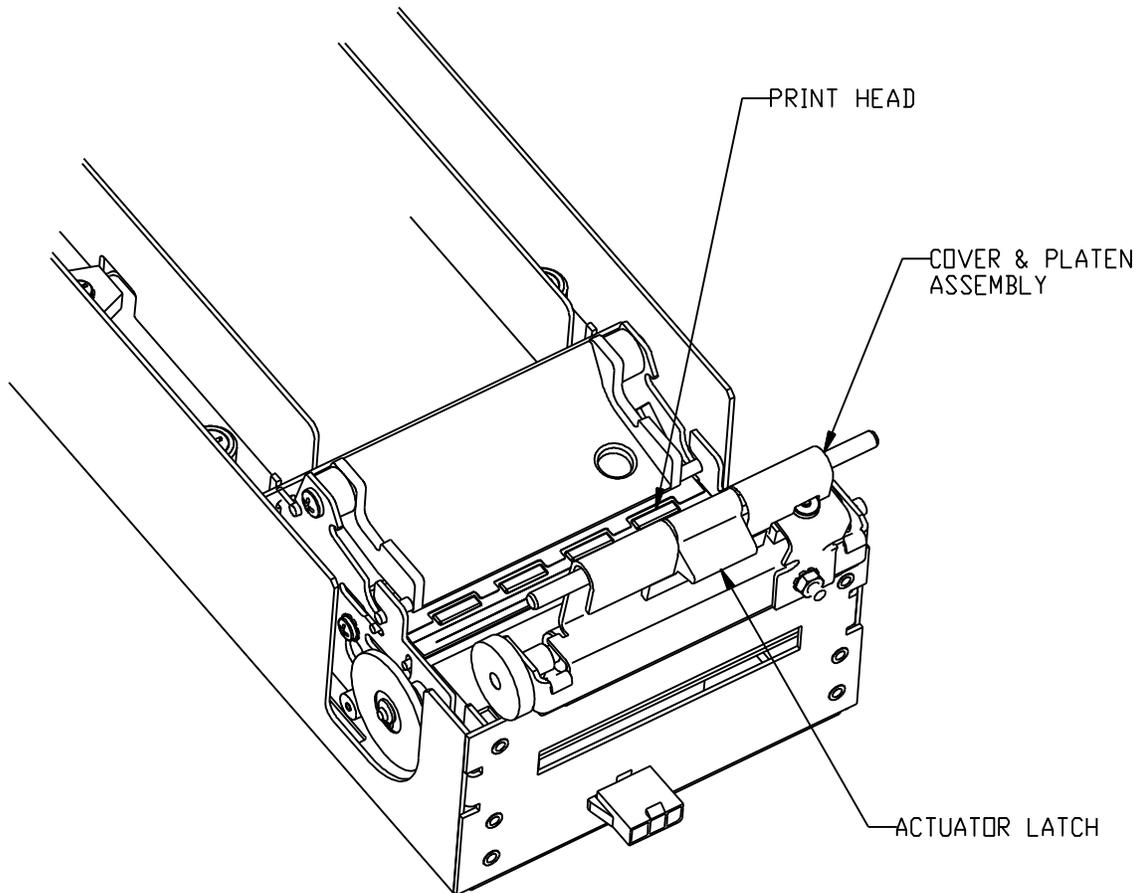


Figure 16 Cleaning the Printhead

1. Press the feed button, or open the plastic actuator latch and remove all tickets from ticket feed path to expose the print head.
2. Press the green label to relatch the platen assembly.
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. Repeat process if necessary.
7. Properly dispose of used cleaning card.

Cleaning cards are available through TransAct or 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)

Chapter 7: Assembly/Disassembly

Precautions for Disassembly

Before disassembling any part of the printer, be sure the power is turned off. The Controller Board and the Interface 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.

Necessary Tools

The M850 printer is designed to be disassembled into its major sub-assemblies without the need for any tools.

- Use a #2 Phillips Screwdriver to disassemble the Interface PCB.

Model 850 OEM Variations Notice

This Model 850 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. All of the content of this manual, is reflective of the TransAct Series 800 Printer including all of its available options. TransAct does not assume support responsibility for parts other than what is shown in this manual.

Racking/Unracking the Printer Mechanism Assembly

All Series 800 printers use a slider/detent system with springs to retain the Printer Mechanism Assembly from accidentally being separated from the Outer Chassis. The Series 800 is opened for service by simply pulling the Printer Mechanism Assembly out of the Outer Chassis as you would a filing cabinet.

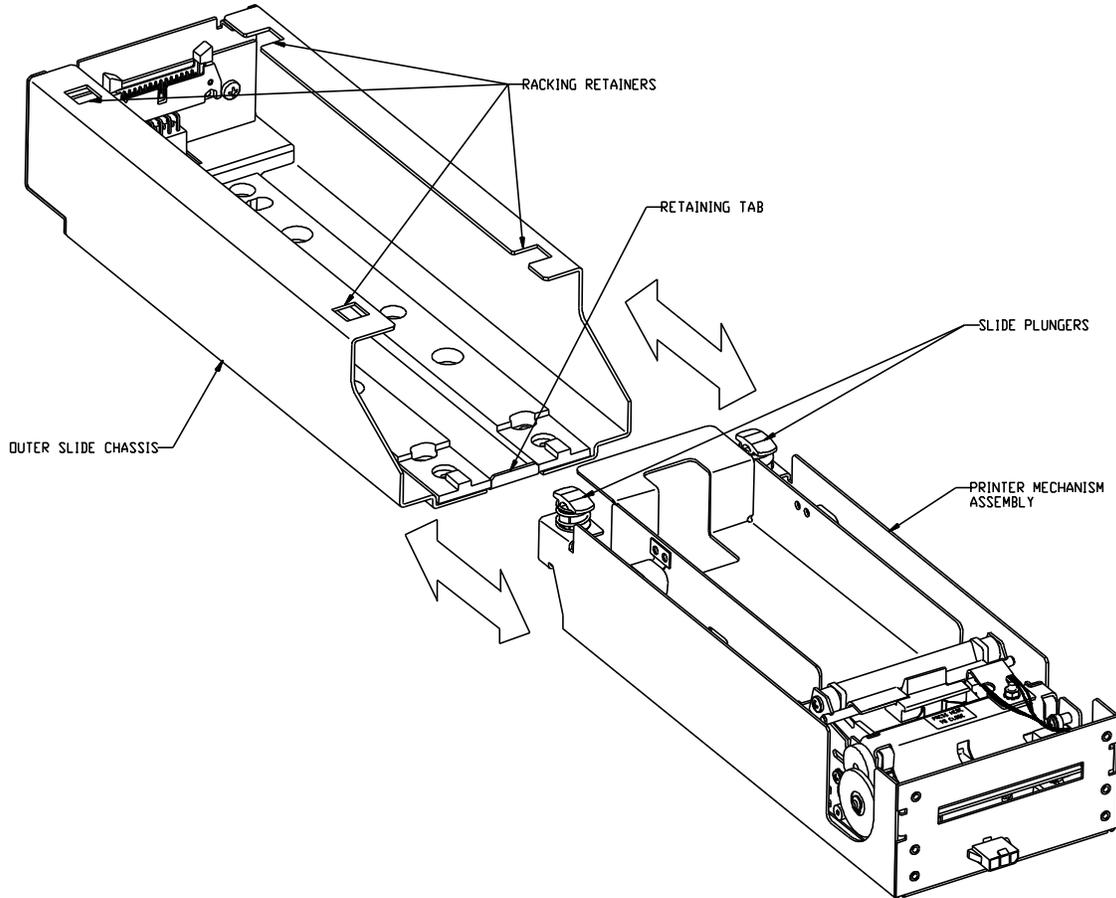


Figure 17 Racking/Unpacking the Printer Mechanism Assembly

1. If the Printer Mechanism Assembly is removed from the Outer Slide Chassis, the 30-pin cable joining the printer Serial Communication Board and the printer's Main Controller Board must be disconnected.
2. Pull the Printer Mechanism Assembly towards you until the slide plungers fit into the front racking retainers (detents) of the Outer Slide Chassis.
3. Lift the front end of the Printer Mechanism Assembly up until it is free of the retaining tab located on the front, inside area of the Outer Chassis

Removing the Ticket Tray from the Main Printer Assembly

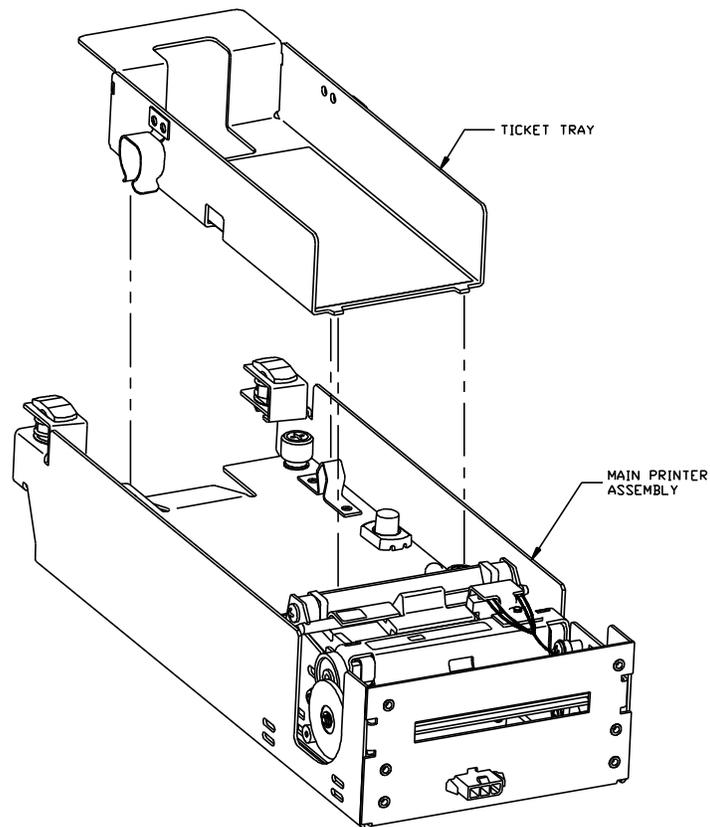


Figure 18: Removing Ticket Tray

1. Lift on back of Ticket Tray to remove it. It will unsnap from the printer without the need for tools.
2. To re-install the Ticket Tray, insert the two front tabs of the Ticket Tray into the provided slots, and rotate the rear end of the tray, and re-sanp it back into place.

Remove PCB Cover Plate from Printer Mechanism Assembly

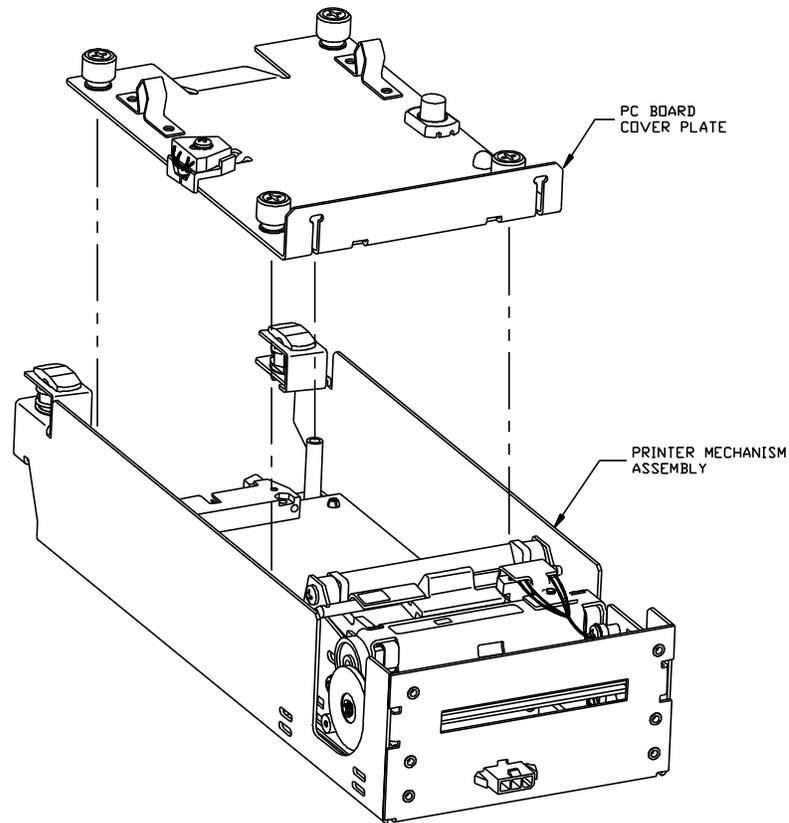
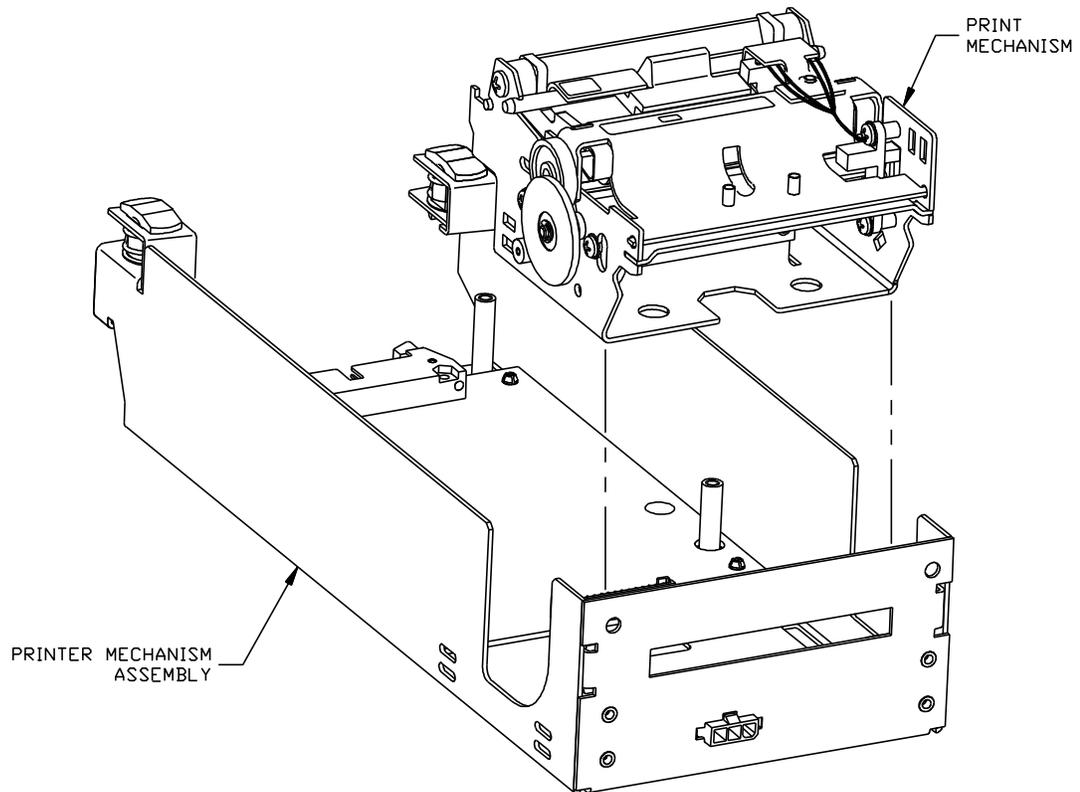


Figure 19; Remove PCB Cover Plate

1. Loosen completely the four (4) thumbscrews that retain the PCB Cover Plate.
2. Lift the PCB Cover Plate away from the Printer Mechanism Assembly.
3. Unplug the Ticket Low Sensor Assembly from the Main Controller PCB.
4. Repeat the steps in reverse to re-install the PCB Cover Plate.

Remove Print Mechanism from Printer Mechanism Assembly

Figure 20: Remove Print Mechanism



1. Unplug all Print Mechanism connectors from the Controller PCB Assembly.
2. Firmly grasp the sides of the Print Mechanism, and rotate it towards the rear of the Print Mechanism Assembly. It will unsnap from two (2) leaf springs holding it in place.
3. To re-install the Print mechanism, re-install all connectors to the Controller PCB Assembly.
4. Locate the rear slot of the Print Mechanism on the centered locating tab, and rock the front of the Print Mechanism downward, re-snapping it back into place.

Remove Controller PCB Assembly from Printer Mechanism Assembly

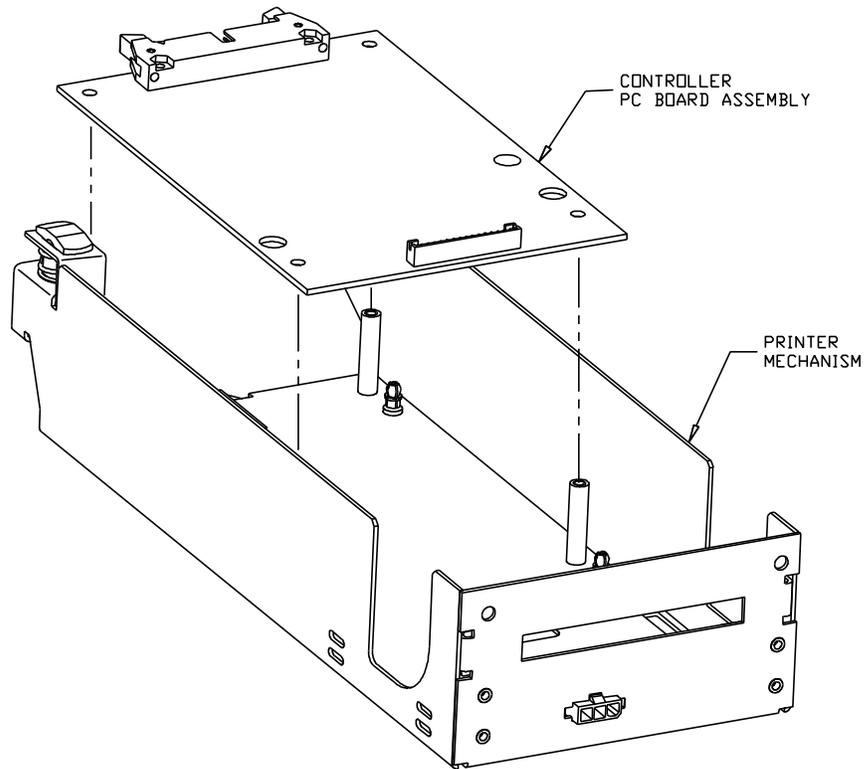


Figure 21: Removing Controller PCB Assembly

1. Remove/install Controller PCB Assembly by unsnapping/snapping it from/onto the four (4) stand-offs that hold the board in position.
2. Unplug Bezel Harness from Controller PCB Assembly.

Remove Interface PCB Assembly from Outer Slide Chassis

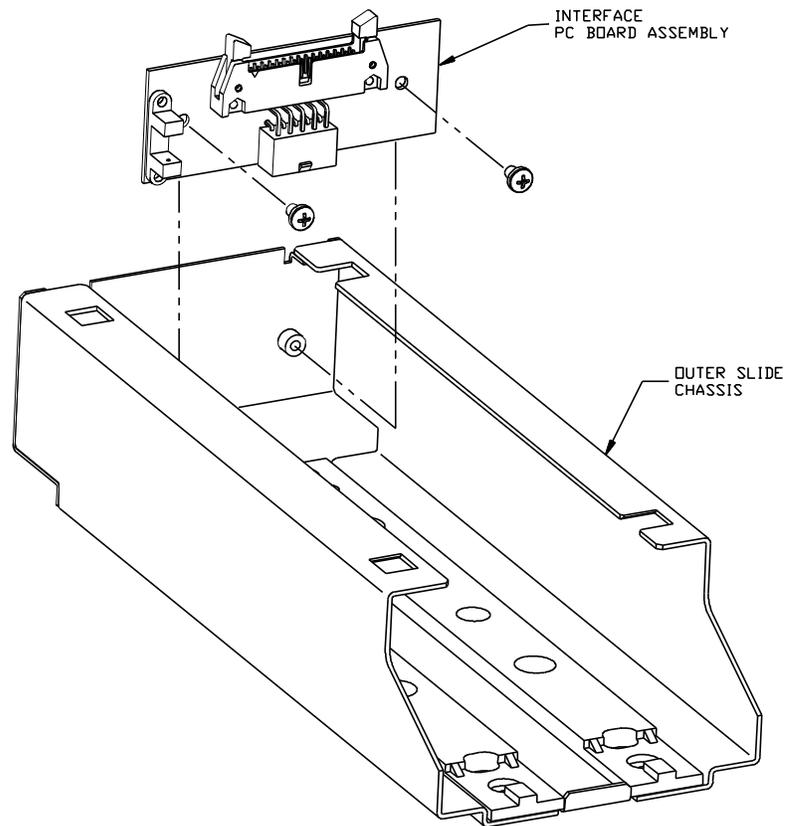
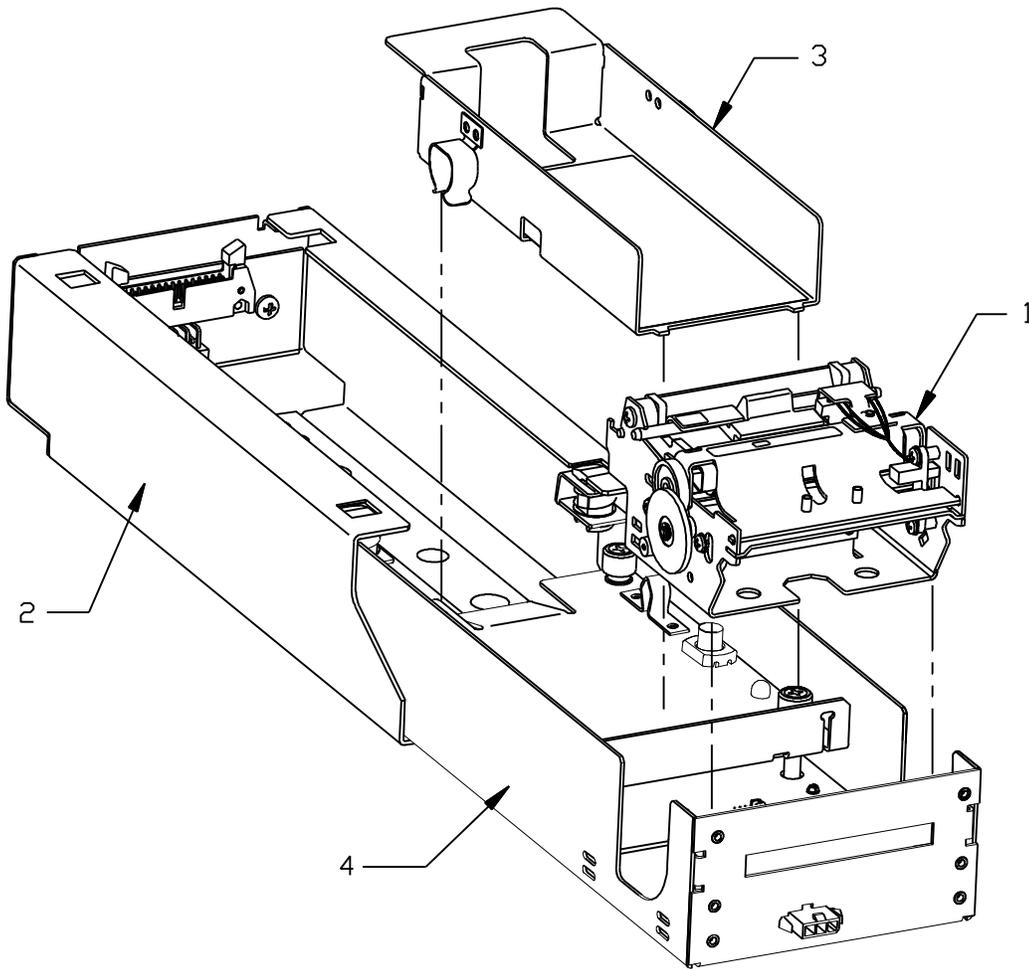


Figure 22: Remove Interface PCB Assembly

1. Remove Interface PCB Assembly from Outer Slide Chassis by removing two (2) M4 Screws with a #2 Phillips Head Screwdriver.

Chapter 8: Parts Lists

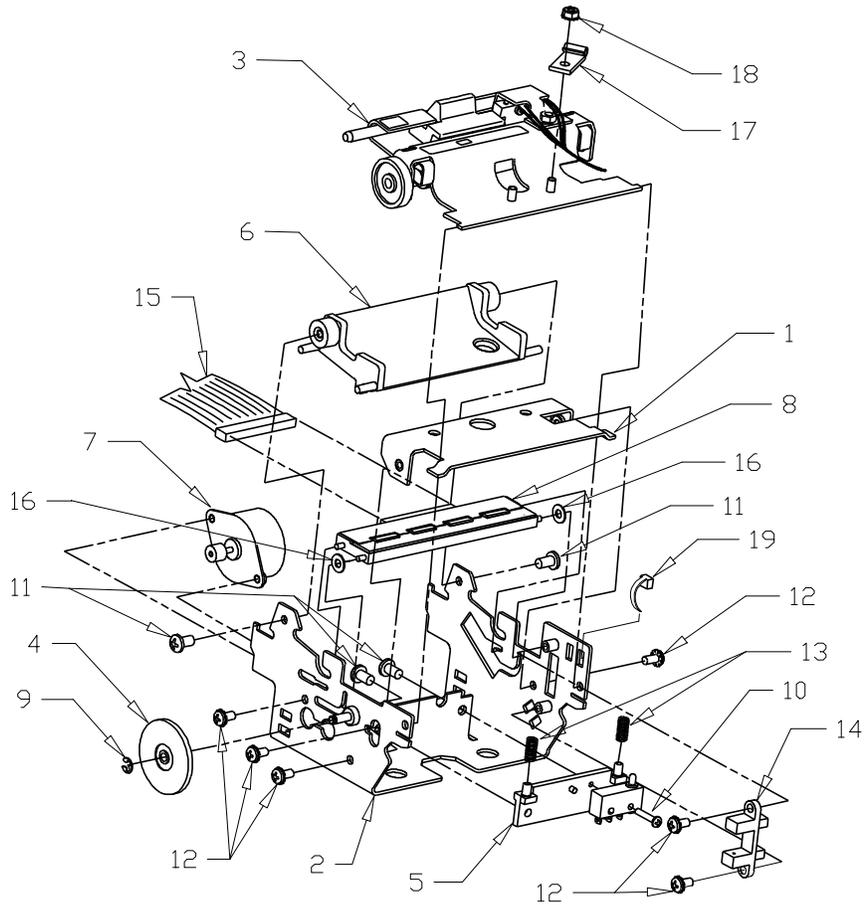
Complete 850 Assembly



No.	Description (standard parts)	Part No. (History)
1	Print Mech Assy-STD	RM034647-01
1	Print Mech Assy-RAP	R85-00525
2	Assy-Serial Outer Slide	R85-00524
2	Assy-Netplex Outer Slide	RM034648-01
3	Tray-200 Ticket w/Label	85-03672
3	Tray-400 Ticket w/Label	85-03673
3	Tray-600 Ticket w/Label	85-03674
4	Assy-Inner Slide	85-03675*

* Not available as a spare part

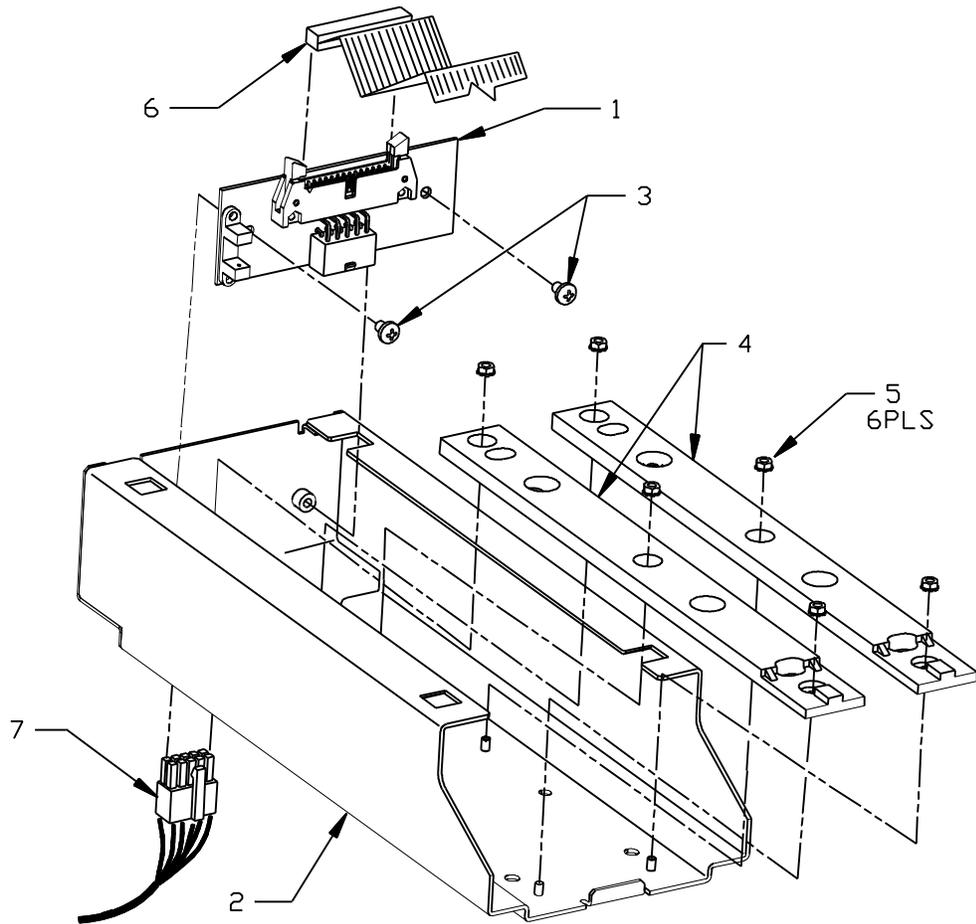
Print Mechanism Assembly



No.	Description (standard parts)	Part No. (History)
1	Bracket-Front Lower-Paper	M068278-02
2	Chassis-Printhead	M068266-02
3	Cover & Platen Assembly	RM034656-01
4	Gear-54/16 Tooth	M068272-01
5	Guide-Printhead Spring	M068271-01
6	Guide-Rear-Paper	M068312-02
7	Harness Assy-Motor and Switch	RM034654-01
8	Printhead-Thermal	M067832-03
9	Ring-Retaining	520-9800002
10	Screw-2-28X7/16 Ph Phl Selftap	M067908-01
11	Screw-6-18X1/4 Ph Phl Selftap	M067883-03
12	Screw-M3X0.5X6 Ph Phl Sem	98-02215
13	Spring-Compression-Printhead	M068279-01
14	Switch Assy-Ticket Taken	RM034659-01
15	Harness Assy-16 Pos.	M034650-01
16	Spacer-Pivot Pin	09-1283
17	Clip-Wire Harness WHC-125-01	98-03559
18	Nut-M3 Hex w/Lockwasher	98-0621
19	Tywrap	98-0941

* Not available as a spare part

Outer Slide Assembly

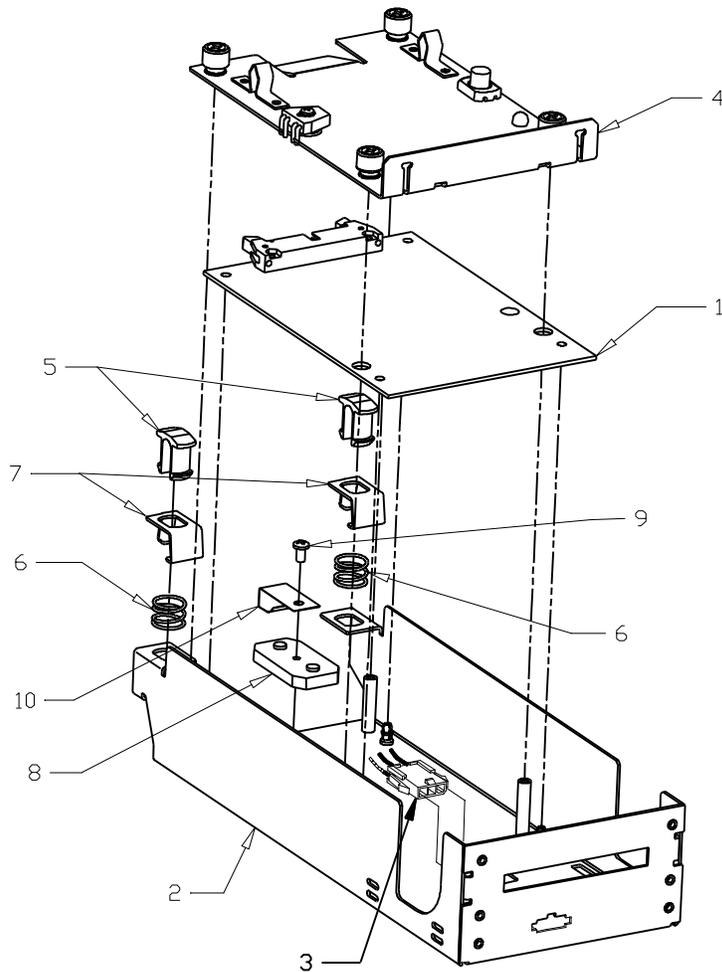


No.	Description (standard parts)	Part No. (History)
1	Assy-RS232 Interface PCB	85-03526
1	Assy-Netplex Interface PCB	E030062-01**
2	Chassis-Outer	M068258-01
3	Screw-M4X0.7X6 Ph	M066711-04FLRX
4	Guide-Slide Rail	M068275-01
5	Nut-M3 Hex w/Lockwasher	98-0621
6	Assy-Harness 30 Pos.	85-03510
7	Assy-Interface Cable (Netplex)	M034655-01**

* Not available as a spare part

** Sales of these parts restricted to approved customers only

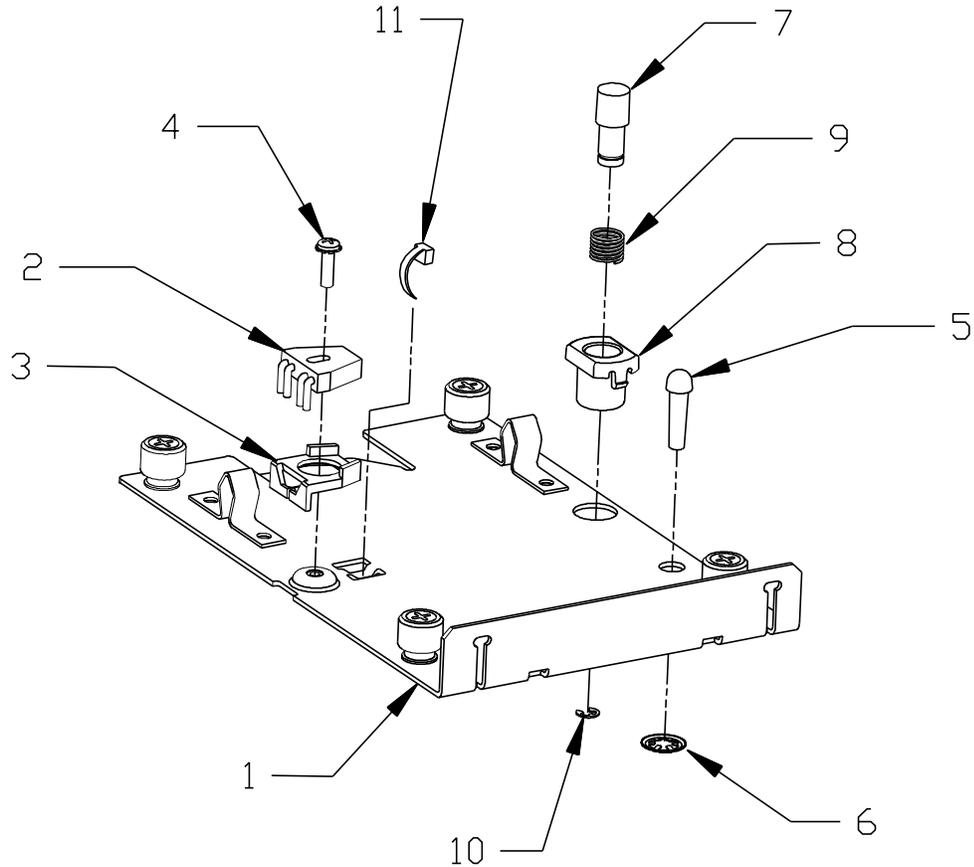
Inner Slide Assembly



No.	Description (standard parts)	Part No. (History)
1	Assy-Controller PCB	E030063-01
2	Chassis-Inner Slide	M068259-02
3	Harness Assy-3/3 Straight	M034653-01
4	Assy-PCB Cover Plate	R85-03677
5	Plunger-Slide	M068262-01
6	Spring-Compression-Plunger	85-03552
7	Shield-Plunger Guide	85-03532
8	Stop-Slide Block	M068274-01
9	Screw-6-18X1/4 Ph Selftap	M067883-03
10	Strap-Ground Slide	M068323-01

* Not available as a spare part

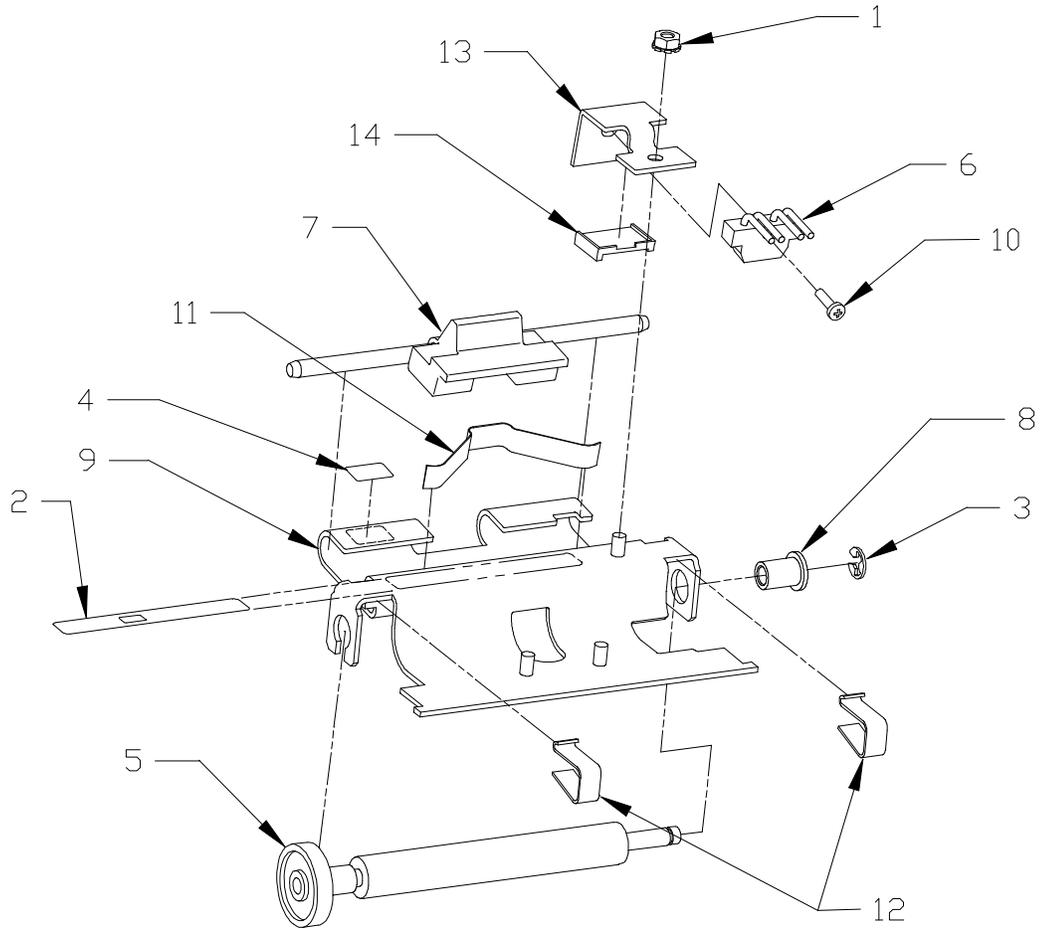
PCB Cover Plate Assembly



No.	Description (standard parts)	Part No. (History)
1	Plate-PCB Cover	M068261-01
2	Sensor Assembly-Paper Low	RM034658-01
3	Nest-Sensor	85-03531
4	Screw-M3X0.5X10MM Ph Phl Sems	M067831-02*
5	Window-LED	M068326-01
6	Ring-.187 dia. Push on Retaining	M068334-01
7	Button-Dark Gray	M067906-01
8	Mount-Switch Button	M068327-01
9	Spring-Compression	M067865-02
10	Retainer-'E' Ring	520-9800006*
11	Ty-Wrap	98-0941*

* Not available as a spare part

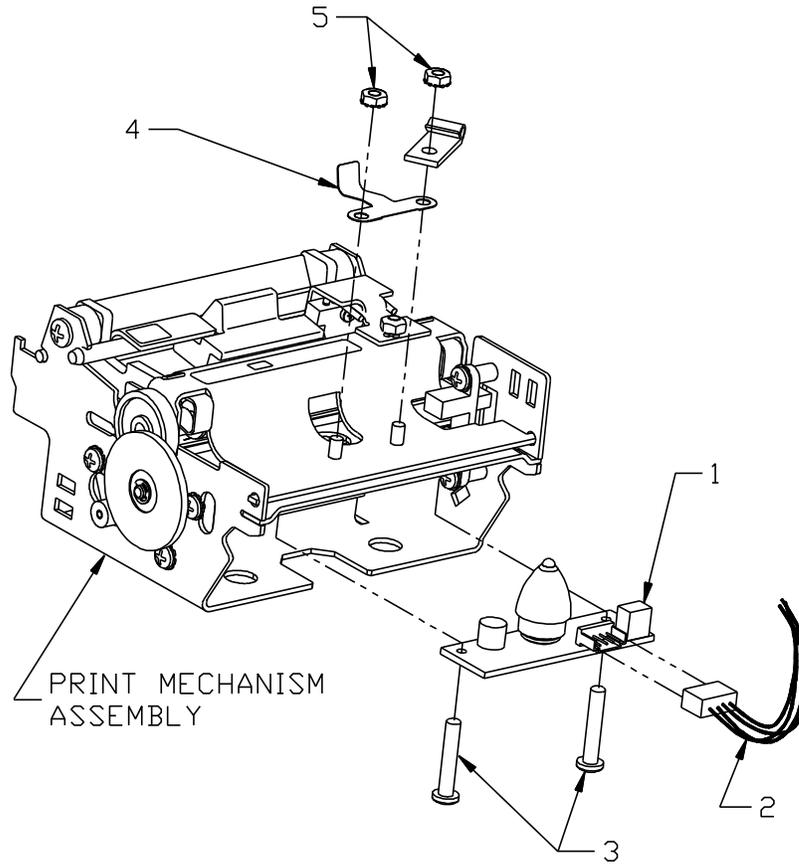
Cover and Platen Assembly



No.	Description (standard parts)	Part No. (History)
1	Nut-M3 Hex	98-0621*
2	Label-Press To Open	85-00549*
3	Retainer-'E' Ring	520-9800003
4	Label-Green Dot	85-00550*
5	Assy-Platen and Gear	RM034651-01
6	Assy-Top of Form Sensor	RM034657-01
7	Assy-Latch Shaft	M034660-01
8	Bearing-platen	M068263-01
9	Bracket-Pivot	M068270-03*
10	Screw-M2X8MM Ph	M068306-01*
11	Spring-Leaf Latch	M068316-01
12	Clip-Spring	M068317-01
13	Bracket-Top of Form	M068318-01*
14	Locator-Sensor	85-04169

* Not available as a spare part

Read After Print (RAP) Option



No.	Description (standard parts)	Part No. (History)
1	Assy-RAP Sensor/Tip	R85-03499
2	Assy-RAP PCB Harness	R85-00533
3	Screw-M3X16MM	98-2034
4	Spring-RAP	M068333-02
5	Nut-M3 Hex w/Lockwasher	98-0621

* Not available as a spare part