



TDM-100/150 TO TDM-200/250
CONVERSION PROCEDURES
(MODEL 9100 ATM)

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TDM-100/150 TO TDM-200/250 CONVERSION PROCEDURES

PURPOSE

This guide covers the steps for replacing your TDM-100 or TDM-150 dispenser in the Model 9100 ATM with a TDM-200 or TDM-250 dispenser. This procedure includes a list of all tools and hardware necessary for the conversion as well as the steps involved.

SCOPE

This procedure applies to all service personnel involved in the process of maintaining or converting Triton ATMs.

APPLICATION

The conversion to TDM-200 or 250 dispensing mechanisms depends on the Model 9100 unit cabinet you currently have and its power supply. The following guidelines will determine the upgradability of your ATM:

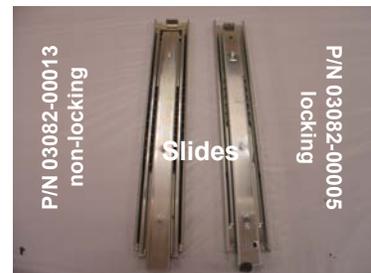
- Rule #1. Units built BEFORE serial number L9100040508827 CANNOT be upgraded (cabinet restrictions).**

- Rule #2. Refers to 9100 units that were shipped with TDM-100 dispensers. The DC power cable harness and the TDM communication cable may be too short. Units that were built BEFORE serial number L9100041129723 will need to have the power cable harness and the TDM communication cable replaced. A new harness and cable are supplied in the applicable kits. Specific instructions for replacing a DC power harness and routing the communication cable are included in this manual.**

TDM-100/150 TO TDM-200/250 CONVERSION PROCEDURES

REQUIRED PARTS AND TOOLS

TOOLS REQUIRED (Magnetic recommended)		
Phillips Screwdriver 1/4", 5/16", and 11/32" Nut Drivers/Socket Set		
TDM-200 UPGRADE KITS	TDM-100 to -200 (P/N 06200-00115) TDM-150 to -200 (P/N 06200-00117)	
TDM-250 UPGRADE KITS	TDM-100 to -250 (P/N 06200-00116) TDM-150 to -250 (P/N 06200-00118)	
PARTS SUPPLIED		
PART NUMBER	DESCRIPTION	QUANTITY
¹ 09005-01200	TDM-200 (w/cassettes short and reject)	1
² 09005-01250	TDM-250 (w/cassettes long and reject)	1
03015-00120	TDM Inverse Tray Assembly with Pivot Handle	1
03011-00680	Slide Tray Mount Bracket (Left)	1
03011-00681	Slide Tray Mount Bracket (Right)	1
³ 03082-00005	Slide 13 inch Assembly	1
³ 03082-00013	13 Inch Non-Locking Slide	1
02054-00048	Screw, Truss Head #8-32 x 3/8"	6
02301-00004	Hex Nut, #8-32	6
02054-00035	Screw, Pan Head (w/tooth washer) #6-32 x 1/4"	6
03072-00015	Ty Wrap, 6"	3
03072-00002	Connector, Plastic Snap-in	1
03072-00009	Clip, Adhesive	1
07102-00053B	TDM-100/150 to TDM-200/250 Conversion Procedures (Model 9100 ATM)	1
³ 09120-00272	Cable Harness, Power Supply	1
³ 09120-00273	TDM Comms Cable	1
³ 02617-00007	Bushing, Snap	1
¹ Included in 06200-00115 and 06200-00117 Upgrade Kits ² Included in 06200-00116 and 06200-00118 Upgrade Kits ³ Included in 06200-00115 and 06200-00116 Upgrade Kits		



Remove the TDM-100 Dispenser

Before proceeding, follow these steps to remove power from the ATM:

Unlock and open the ATM control panel. Turn the power switch to the OFF (0) position. If possible, unplug the ATM power cord at the wall outlet.

1. Open the cabinet vault door. Rotate the dispensing mechanism mounting platform to the service position. To do this, locate the spring-loaded locking pin on the underside of the mounting tray (Figure 1). This pin lets you lock the dispenser's swivel mounting platform into half-turn access positions.

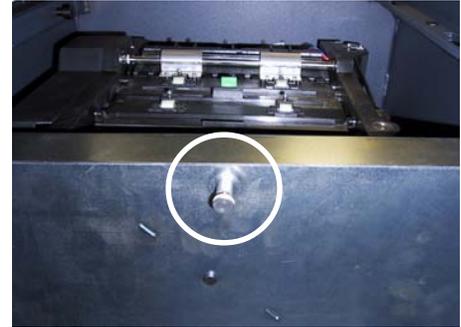


Figure 1. Pull release pin for swivel platform.

2. Pull the pin down to release the swivel mounting platform. Slowly turn the tray clockwise (Figure 2) so that the note and reject cassettes can be accessed from the front. Release the locking pin and move the mounting platform back and forth slightly to ensure the pin snaps back into place, locking the mounting platform into the service position (Figures 3).

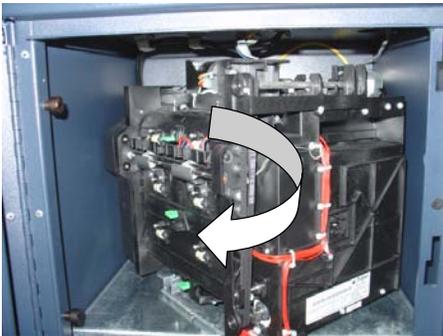


Figure 2. Rotate dispenser clockwise.



Figure 3. Mechanism in service position.

3. Disconnect the power and communication (Comms) cables from the dispenser (Figure 4). Carefully cut any Ty wraps that are securing the cables to the dispenser. Open the ferrite component that surrounds the 2 cables and set aside.
4. Remove the note and reject cassettes. Using a phillips-head screwdriver, remove the four (4) screws that secure the dispenser to the swivel platform (Figure 5, below). Remove the TDM-100 dispenser mechanism.

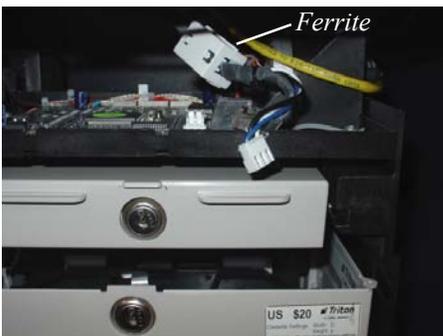


Figure 4. Power and Comm cable disconnected.

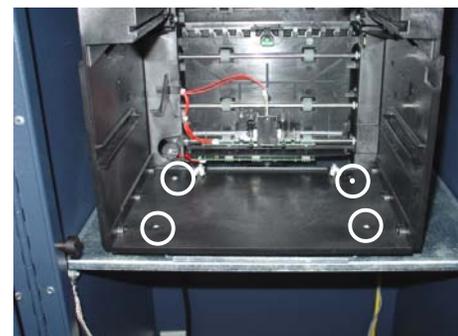


Figure 5. Remove mounting screws.

Remove the Dispenser Tray

1. Remove the hex nut that secures the cabinet grounding strap to the mounting bolt that supports the left-front corner of the dispenser tray (Figure 6). Remove the hex nuts from the remaining mounting bolts (Figure 7). Retain the hex nuts.



Figure 6. Grounding strap secured to dispenser tray mounting bolt.

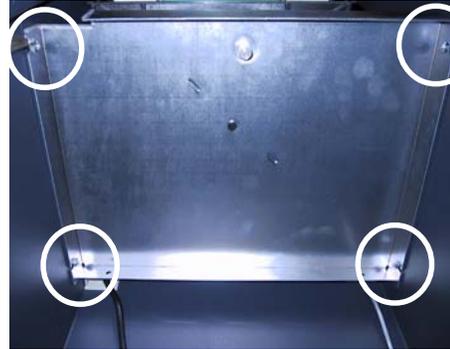


Figure 7. Location of dispenser tray mounting bolts.

2. Lift the tray up and away from the bolts and remove it from the cabinet. You will need to turn the tray slightly to clear the edges of the cabinet opening (Figure 8).



Figure 8. Turn tray to clear door edges.

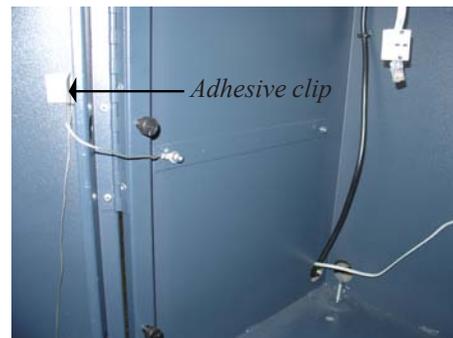


Figure 9. Move hex nuts to lower mounting bolts. Connect ground wire.

3. Start the four (4) hex nuts previously removed in Step 1 on the **lower** mounting bolts shown in Figure 9. Reconnect the cabinet grounding strap to the left-front corner mounting bolt. **DO NOT TIGHTEN** nuts at this time. Use the adhesive cable clip to secure excess ground wire to the cabinet door shown in Figure 9.

Remove the TDM-150 Dispenser

Before proceeding, follow these steps to remove power from the ATM:

Unlock and open the ATM control panel. Turn the power switch to the OFF (0) position. If possible, unplug the ATM power cord at the wall outlet.

1. Open the cabinet vault door. Release the locking slide rail and fully extend the dispenser from the cabinet (Figure 1). Rotate the dispensing mechanism mounting platform to the service position. To do this, locate the spring-loaded locking pin on the underside of the mounting tray (Figure 2). This pin lets you lock the dispenser's swivel mounting platform into half-turn access positions.



Figure 1. Dispenser fully extended.

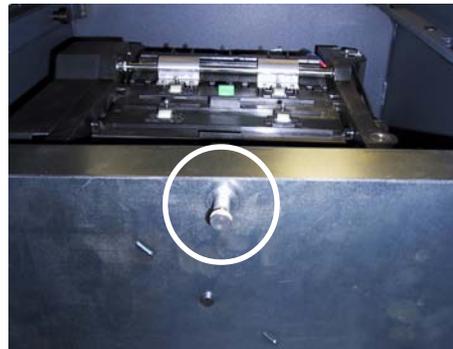


Figure 2. Pull release pin for swivel platform.

2. Pull the pin down to release the swivel mounting platform. Slowly turn the tray clockwise (Figure 3) so that the note and reject cassettes can be accessed from the front. Release the locking pin and move the mounting platform back and forth slightly to ensure the pin snaps back into place, locking the mounting platform into the "Service" position (Figures 4).



Figure 3. Rotate mechanism to service position (clockwise).



Figure 4. Mechanism in "Service" position.

3. Disconnect the power and communication (Comms) cables from the dispenser (Figure 5). Carefully cut any Ty wraps that are securing the cables to the dispenser. Open the ferrite component that surrounds the 2 cables and set aside.

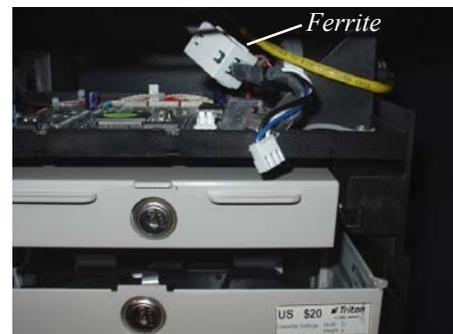


Figure 5. Power and Comm cable disconnected.

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4. Remove the note and reject cassettes. Using a phillips-head screwdriver, remove the six (6) mounting screws that secure the dispenser to the swivel platform (Figure 6). Remove the TDM-150 dispenser mechanism.

Remove the Dispenser Slide Tray Hardware

1. Slide the tray to its fully extended position. Using an 11/32" nut driver, remove the six (6) nuts that secure the slide tray to the slide rails (nuts located under tray). Remove the tray.
2. Next, remove the four (4) hex nuts (2 on each side) that secure the angle brackets (Figure 7) to the mounting brackets. Lift the brackets off the bolts and remove them from the cabinet. Place the angle brackets on a level surface. Retain the hex nuts.
3. Remove the six (6) truss head phillips screws (3 on each rail) that secure the slide rails to the angle brackets (Figure 8). Set the rails aside. They will be used with the upgrade kit. Retain the truss head screws.

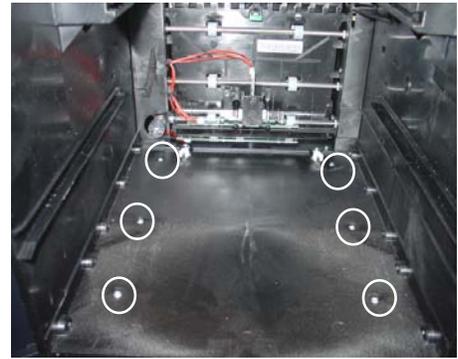


Figure 6. Remove mounting screws.



Figure 7. Remove nuts from mounting bracket.



Figure 8. Remove screws from angle bracket.

4. Remove the four (4) hex nuts (2 on each side) that secure the mounting brackets to the cabinet (Figure 9). Remove the brackets from the cabinet. Retain the hex nuts.
5. Start the four (4) hex nuts previously removed in Step 4 on the lower mounting bolts shown in Figure 10. Reconnect the cabinet grounding strap to the left-front corner mounting bolt. **DO NOT TIGHTEN** nuts at this time. Use the adhesive cable clip to secure excess ground wire to the cabinet door shown in Figure 10.



Figure 9. Remove nuts from mounting bracket.

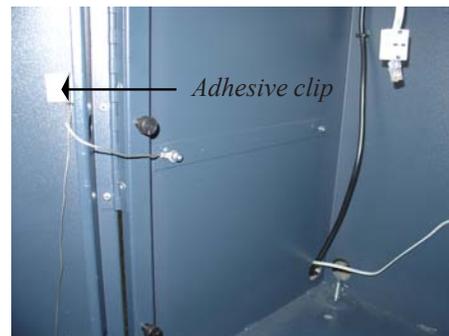


Figure 10. Move hex nuts to lower mounting bolts. Connect ground wire.

Install the Slide Tray Assembly (for TDM-200/250)

1. Slide the tray mount brackets [P/N 03011-00680 (L) and 03011-00681(R)] fully over the **lower** mounting bolts (Figure 1). Ensure the grounding strap is connected and tighten all the hex nuts with an 11/32" nut driver. Make sure the mounting brackets are seated fully on the mounting bolts.

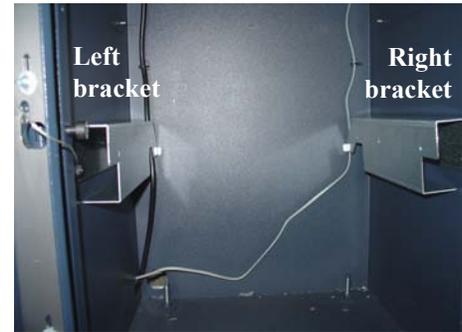


Figure 1. Mount brackets to cabinet.

*** Important ***
Route the AC power cable and communication line (phone, TCP/IP) **behind** the mounting brackets against the rear wall (see insert).



2. This step involves assembling the slide rails to the tray mounting brackets. There are 2 different slide rails: **locking** (mounted on right side) and **non-locking** (mounted on left side). Figure 2 shows the **locking** slide rail. To assemble, slide the rail out fully as shown in Figure 2. Align the mounting bracket with the three (3) holes pictured (Figure 3) and secure them together using three (3) truss head phillip screws (P/N 02054-00048). Repeat for the other slide rail/bracket.



Figure 2. Locking slide rail.



Figure 3. Slide rail - screw hole locations.

3. Extend the slide rails fully. There are three (3) screws protruding from each slide rail shown in Figure 2. The slide tray will mount on these screws.
4. With the tray orientated as shown in Figure 4, align the slide tray slots (Figure 5) with the slide rail screws and secure with the hex nuts using an 11/32 " nut driver. Ensure tray is seated fully on rail screws.



Figure 4. Slide tray orientation.

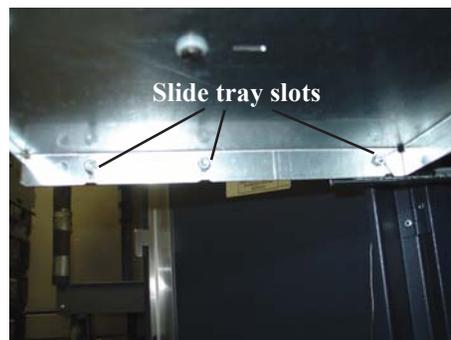


Figure 5. Slide tray slots.

Install the TDM-200/250 Dispensing Mechanism

1. Extend the mounting tray assembly fully. Pull the release pin down (Figure 6) and rotate the turntable 180° clockwise (Figure 7). Release the pin and lock the turntable in the “Service position” (Figure 8).

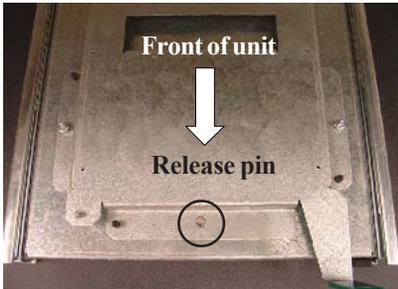


Figure 6. Pull release pin.

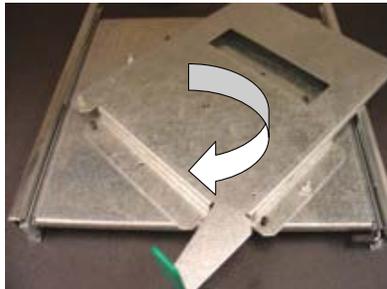


Figure 7. Rotate turntable 180°.

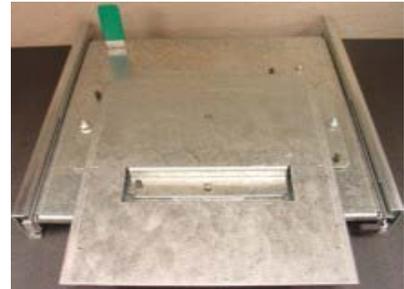


Figure 8. Turntable in “Service” position.

2. Remove the note and reject cassettes from the dispenser. Mount the dispenser on the turntable. Align the screw holes on the dispenser bottom frame (Figure 9 or Figure 10) with the threaded holes on the turntable (Figure 11). Install the pan-head phillips screws w/tooth washers and secure the dispenser to the turntable. Figure 12 shows the dispenser installed.

*** Note ***
The TDM-200 requires four (4) screws secured to the turntable.
The TDM-250 requires six (6) screws. Refer to Figure 11 for the applicable dispenser placement and hole locations for each.

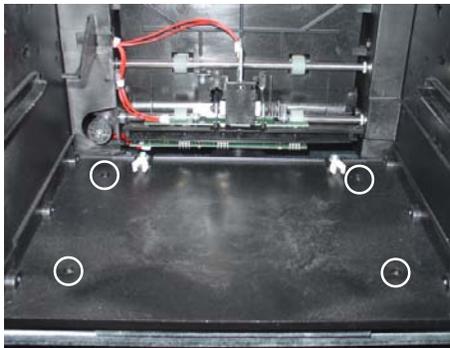


Figure 9. Dispenser hole location (TDM-200).

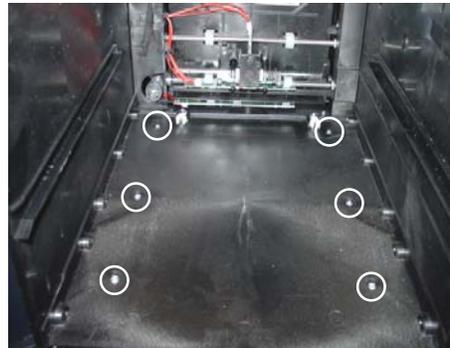


Figure 10. Dispenser hole location (TDM-250).

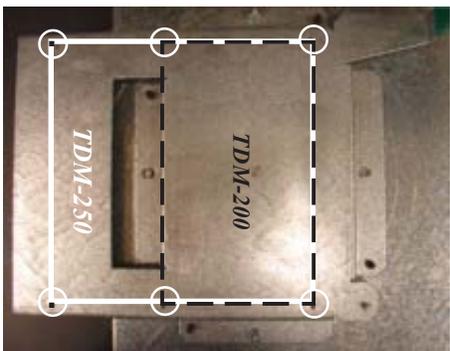


Figure 11. Turntable hole locations.

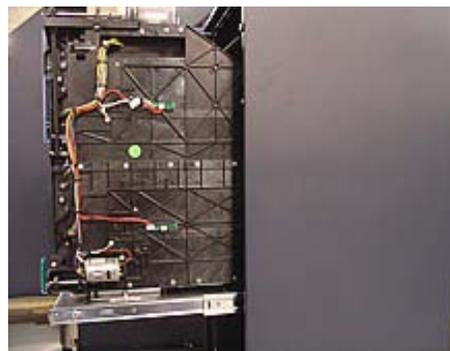


Figure 12. TDM-250 dispenser installed on tray.

TDM-100/150 TO TDM-200/250 CONVERSION PROCEDURES

*** NOTE ***

Some 9100's shipped with a TDM-100 may require replacement of the TDM communication cable because it is too short. The following procedures will include proper routing of the TDM communication cable.

3. Make sure the Comms cable is clipped securely into the lower rear facing connector just above the power plug on the mainboard. Route the dispenser power and Comms cable through the snap cable clip shown in Figure 12 (A clip is included in kit if your unit has none affixed).
4. Route the dispenser power and Comms cable through the Ty wrap provided and connect cables to the dispenser (Figure 13). Tighten Ty wrap to secure.
5. Install the note and reject cassettes. Rotate the dispenser 180° counter-clockwise to the "Operate" position. Slide the dispenser back into the cabinet. Installation complete.

**** Caution ****

When rotating the turntable AND/OR sliding the dispensing mechanism into the cabinet, check to ensure the cables are not stressed or binding on the dispenser before closing the cabinet door.

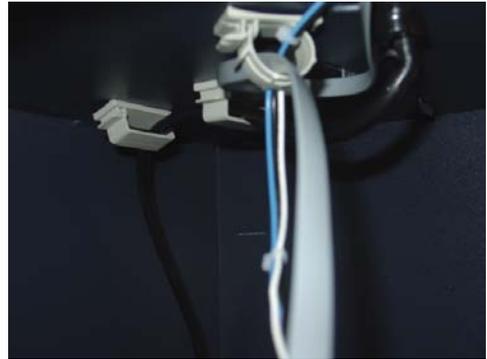


Figure 12. Route cable through clip.

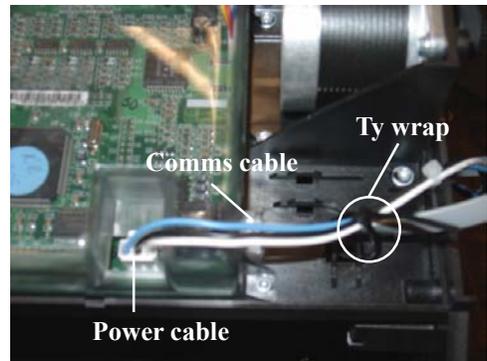


Figure 13. Route/connect cables.

Replacement of Power Supply DC Cable Harness

*** NOTE ***

Some 9100's shipped with a TDM-100 may need to replace the power supplies DC cable harness due to the length of the dispensers power cable (short) in the harness. The following procedures describe how to replace the DC cable harness for the power supply.

*** Helpful Hint***

Before disconnecting wires, cables, etc., either tag or draw a diagram of where connections were orientated to help you when reconnecting.

Before proceeding, follow these steps to remove power from the ATM: Unlock and open the ATM control panel. Turn the power switch to the OFF (0) position. If possible, unplug the ATM power cord at the wall outlet.

The DC cable harness connects to the power supply and provides power to the dispenser, main board, and printer controller board.

1. Open the control panel. Disconnect the following:
 - A. The AC input/output cables located on the power supply.
 - B. DC power cable connectors from the Main board assembly and printer controller board.Open the vault cabinet door. Slide and/or rotate the dispenser and disconnect the dispenser power cable.

Note: You may have to cut any Ty wraps that secure these cables. Also, open the ferrite component that houses the power and data cable and set aside (if applicable).

2. Feed the dispenser power cable up into the control panel area Leave the dispenser Comms data cable (Figure 1).
3. Remove the screw that secures the power supply and ground wire harness using a 1/4" nut driver (Figure 2). Do not discard the screw.
4. Slide the power supply slightly forward and lift to remove (There are 2 grommets holding the AC input cable and phone line respectively. You may have to move these to slide the power supply forward.)
5. Remove the power supply with its attached cable harness. The phone line and ground harness remain, so separate them out from the black tubing (if applicable). Figure 3 shows the control panel with the power supply removed.



Figure 1. DC power cables disconnected..



Figure 2. Remove screw.



Figure 3. Power supply removed.

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- Place the power supply assembly upside down on a flat surface. Disconnect the cable harness and ground wire shown in Figure 4. Remove the cable harness.

Note: Cables are secured to the enclosure inside a plastic snap bushing. To remove, push the bushing “out” of the enclosure and then slide the cables out of the slot (see insert, Figure 4).

- Install the new cable harness (P/N 09120-00272) using the above procedure in reverse (a new bushing is supplied). Connect the cable harness and ground wire (Figure 5).

Note: The harness connector must be orientated so that the metal test points (on the connector - see insert, Figure 5) are facing out to the enclosure wall.

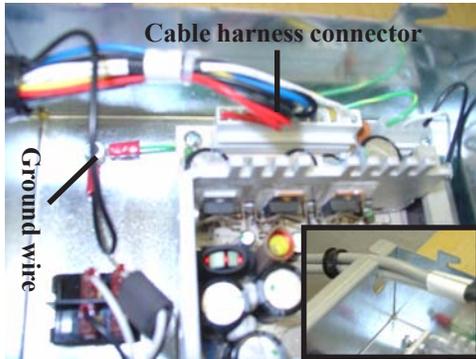


Figure 4. Disconnect cable harness and ground wire.

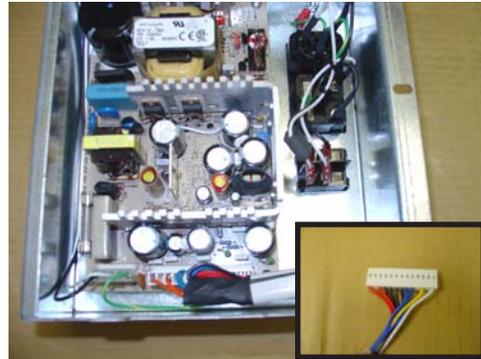


Figure 5. Install new harness and ground.

- Reinstall the power supply in the control panel. Secure assembly and ground wire harness with screw removed in Step 3.
- Route the dispenser DC power cable through the cable entry opening down to the lower vault cabinet area. Route cable through the cable clip located on underside of cabinet (Figure 6).
- Connect the dispenser power cable to the mechanism. Secure both cables (power/comms) to the dispenser with a Ty wrap provided (Figure 7).



Figure 6. Route cables through clip.

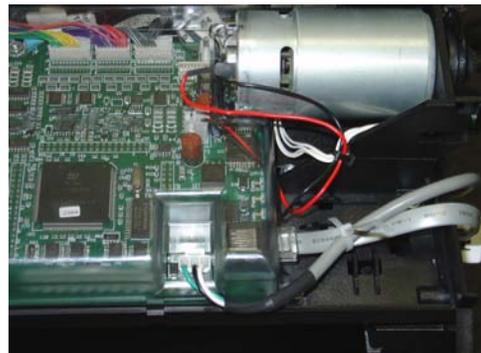


Figure 7. Connect and secure dispenser power and data cable.

- Connect the Main board and printer controller board power cables. Secure all cables to existing cables using the remaining Ty wraps.