



**Subject: Genesis Bill Acceptor Hinge**

**Overview**

There have been ongoing reports of the Bill Acceptor Hinge coming loose and sometimes breaking, even with the improved hinge (reference PSB-08-015).

**Problem**

After extensive testing of various scenarios (in both lab and field), it has been found this is a ‘compounding’ issue. The hinge breaking is caused by the hinge mounting screws coming loose putting excess stress on the hinge itself. The screws coming loose is caused because during production and subsequent field replacement, the hinge mounting screws are not being properly torqued and the screws used did not have a locking compound.

**Solution**

For the field, 2 new kits have been released. One kit is used if the hinge is broken/damaged and needs to be replaced. The other is for units that the hinge is not damaged but is loose or continuously loosens with use/time.

Each kit also includes detailed installation instructions (attached here for reference).

Below are the available kits with Bill of Material for each (for reference only).

<b>11001206F10</b>	<b>FIELD KIT, Torque Hinge Replacement, Bill Acceptor, Genesis</b>	<b>Qty</b>
11002317	HINGE, Friction, TorqMaster	1
11002378	SCREW, Socket Head Cap, w/ Nylon Patch, Stainless Steel, M4 X 0.7 X 10mm	2
11002163	NUT, Hex, KEPS, Zinc-Tri Plated, M4	4
11002506	PAD, Alcohol Wipe, 70%, 1" X 2-1/2"	1
D900000512	DOC, Field Upgrade Instructions, Torque Hinge Replacement, Genesis	1

<b>11001206F11</b>	<b>FIELD KIT, Screws Only, Torque Hinge, Bill Acceptor, Genesis</b>	<b>Qty</b>
11002378	SCREW, Socket Head Cap, w/ Nylon Patch, Stainless Steel, M4 X 0.7 X 10mm	2
11002163	NUT, Hex, KEPS, Zinc-Tri Plated, M4	4
11002506	PAD, Alcohol Wipe, 70%, 1" X 2-1/2"	1
D900000512	DOC, Field Upgrade Instructions, Torque Hinge Replacement, Genesis	1

**Tools**

- #2 Phillips Screwdriver
- 3mm & 4mm Allen Key
- M4 Nut Driver
- Torque Screwdriver set to 5Nm (44.28 In/lb)      Highly Recommended but not required  
Example of Torque Screwdriver from Wiha #28554 - <http://www.wihatools.com/200seri/285blades.htm>

**Impact**

- Production      Beginning in January 2013, all production will have the screws properly installed and torqued.
- Installed Units      Fit-On-Fail, or during periodic/preventive maintenance.
- Repair Center      None.
- Service Spares      None.

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# Bill Acceptor Hinge Replacement

This is document number D900000512, Version 1.0.

Failures of the hinge that connects the Bill Acceptor bracket to the Genesis Customer Station casing have been reported from the field. This document describes how to replace a broken or loose Bill Acceptor hinge.

## Required Tools:

- Phillips #2 screwdriver
- 3mm and 4 mm Allen keys
- Torque screwdriver recommended
- M4 nut driver

## Components

### Use kit 11001216F10 if the hinge is broken

Components (Kit: 11001206F10)	Qty.	Part No.
TorqMaster friction hinge	1	11002317
M4 x 0.7 x 10 mm socket head cap screws	2	11002378
M4 Keps hex nut	4	11002163
70% alcohol pad wipe (1" x 2.5")	1	11002506
This manual	1	D900000512

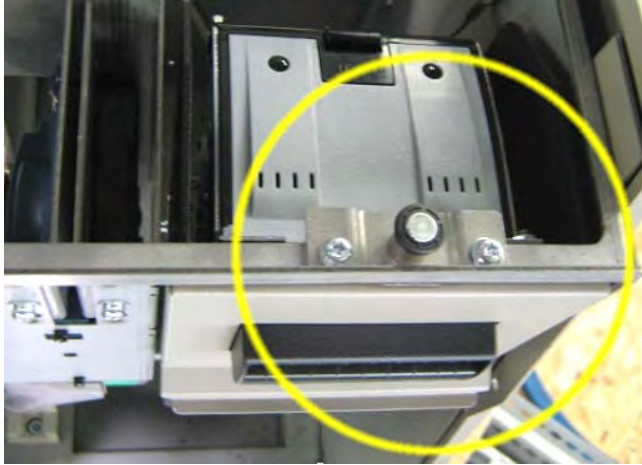
### Use kit 11001216F11 if the hinge is NOT broken

Components (Kit: 11001206F11)	Qty.	Part No.
M4 x 0.7 x 10 mm socket head cap screws	2	11002378
M4 Keps hex nut	4	11002163
70% alcohol pad wipe (1" x 2.5")	1	11002506
This manual	1	D900000512

**NOTE:** *For safety reasons, shut down and power off the station before performing the following tasks.*

# Remove the Bill Acceptor Bracket

1. Shut down and power off the Customer Station that has a broken Bill Acceptor hinge.
2. Unlock and open the upper door of the station.
3. Disengage the Bill Acceptor lock and carefully lower the bracket assembly.



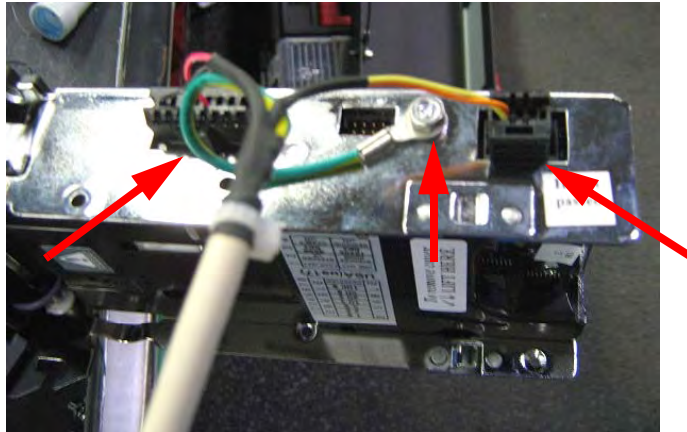
4. Remove the vault from the bracket by squeezing the metal loop clips together and lifting the vault up off the Bill Acceptor.



5. Using a Philips screwdriver, disconnect the lanyard from the side of the Bill Acceptor bracket. It is secured by an M4 screw and spacer.



6. If necessary, disconnect the power, communications, and ground cables from the Bill Acceptor.



7. Hold the Bill Acceptor bracket up slightly to reduce pressure on the connection and use an Allen key to remove the two M4 screws that secure the bracket hinge to the shelf of the Customer Station casing.



8. Remove the Bill Acceptor bracket assembly from the station.
9. Clean the shelf surface with the supplied alcohol wipe.



10. Inspect the screw holes in the shelf to ensure that they have not been damaged.

# Replace the Hinge if Necessary

**Important:** Carefully inspect the existing hinge for cracks or other apparent damage. Always replace a damaged hinge with the new hinge and hardware supplied in kit 11001216F10.

**Important:** If you can confirm that the hinge is not damaged, cracked, or broken, use kit 11001216F11 and replace only the screws.

1. Place the Bill Acceptor bracket on a flat surface and use a nut driver to remove the four M4 Keps nuts that secure the hinge to the bracket.
2. Locate the Bill Acceptor hinge kit, which contains a replacement hinge with four M4 Keps nuts and two M4 screws.



3. Assemble the hinge onto the Bill Acceptor bracket, oriented as shown in the photograph shown below.
4. Secure the hinge to the Bill Acceptor bracket with the four supplied M4 nuts.



# Re-Install the Bill Acceptor Bracket

1. Making sure to cradle the Bill Acceptor bracket assembly in your hand as shown below, secure the hinge to the Customer Station casing shelf with the two supplied screws.



**Important: Do not allow the bracket to hang loosely while tightening the screws.**



**CORRECT (Supported)**



**INCORRECT (Unsupported)**

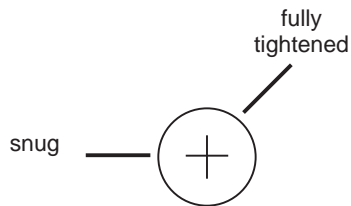
2. Tighten until the screws are hand tight, so that the hinge is firmly clamped to the metal shelf. There should not be any play when you move the Bill Acceptor up and down.

**Important: In the following steps, use a torque screwdriver set to 5 Nm (44.28 inch pounds) to ensure the effectiveness of this upgrade procedure.**

- a. Locate a torque screw driver if possible, and ensure that it is adjusted to the proper force: 5 Nm (44.28 inch pounds).



- b. Rule of thumb if no torque wrench is available: give a 3/8 turn with a screwdriver once the bolt is snug.



3. Hold the Bill Acceptor bracket assembly up slightly to provide enough slack to install the lanyard. Secure the lanyard to the Bill Acceptor bracket using the M4 screw and spacer you removed earlier.



4. Replace the Bill Acceptor vault.
5. Test the hinge action by moving the Bill Acceptor bracket up and down. Ensure that there is no play and that the bracket works as expected.
6. Raise the Bill Acceptor into its operating position and engage the Bill Acceptor lock.
7. Close and lock the upper door.
8. Re-connect the cables if applicable.

The replacement procedure is complete.