

PCN: V11-001-476103-OA

Product Change Notice

Issue Date: 4-Jan-2011

Change Type:

- Incorporated 3 changes for AEDx-8xxx product to improve overall product robustness towards application
- 1) AEDx-8xxx hub under-cut design to eliminate excessive flashes / debris from hub fabrication materials.
 - 2) AEDx-8xxx hub Set Screw material change to withstand higher tightening torque.
 - 3) AEDx-8xxx housing Allen-key hole redesign for ease of mounting to motor assembly.
 - 4) AEDx-8xxx packing Tray redesign to ensure Allen-key and set screw stay intact inside tray during shipment.

Parts Affected:

AEDX-8XXX modules: Please refer to attached table.

Product Number			
AEDS-8001-A11	AEDS-8101-E11	AEDT-8011-E01	AEDT-8111-E11
AEDS-8001-A14	AEDS-8101-E14	AEDT-8011-E02	AEDT-8111-E14
AEDS-8001-E11	AEDS-8101-H11	AEDT-8011-E11	AEDT-8111-H01
AEDS-8001-E14	AEDS-8101-H14	AEDT-8011-E14	AEDT-8111-H02
AEDS-8001-H11	AEDS-8111-A11	AEDT-8011-H01	AEDT-8111-H11
AEDS-8001-H14	AEDS-8111-A14	AEDT-8011-H02	AEDT-8111-H14
AEDS-8011-A01	AEDS-8111-E11	AEDT-8011-H11	
AEDS-8011-A02	AEDS-8111-E14	AEDT-8011-H14	
AEDS-8011-A11	AEDS-8111-H11	AEDT-8101-A11	
AEDS-8011-A14	AEDS-8111-H14	AEDT-8101-A14	
AEDS-8011-E01	AEDT-8001-A11	AEDT-8101-E11	
AEDS-8011-E02	AEDT-8001-A14	AEDT-8101-E14	
AEDS-8011-E11	AEDT-8001-E11	AEDT-8101-H11	
AEDS-8011-E14	AEDT-8001-E14	AEDT-8101-H14	
AEDS-8011-H01	AEDT-8001-H11	AEDT-8111-A01	
AEDS-8011-H02	AEDT-8001-H14	AEDT-8111-A02	
AEDS-8011-H11	AEDT-8011-A01	AEDT-8111-A11	
AEDS-8011-H14	AEDT-8011-A02	AEDT-8111-A14	
AEDS-8101-A11	AEDT-8011-A11	AEDT-8111-E01	
AEDS-8101-A14	AEDT-8011-A14	AEDT-8111-E02	

Description and Extent of Change:

- 1) AEDx-8xxx hub under-cut proposal to eliminate excessive flashes / debris from hub fabrication materials.
- 2) AEDx-8xxx hub Set Screw material change from SUS304 to 4 Series Alloy Steel M2 to withstand higher tightening torque.
- 3) AEDx-8xxx housing Allen-key hole redesign from Tapered slotted hole to Straight circular hole for ease of mounting to motor assembly.
- 4) AEDx-8xxx packing Tray redesign to ensure Allen-key and set screw stay intact inside tray during shipment.

Reasons for Change:

- 1) AEDx-8xxx hub under-cut proposal to eliminate excessive flashes / debris from hub fabrication materials.
It serves as relief for machining burrs, secondary process burrs and to eliminate motor shaft stuck during assembly.
- 2) AEDx-8xxx hub Set Screw material change from SUS304 to 4 Series Alloy Steel M2 to withstand 0.13Nm tightening torque without major wearing at socket compared to SUS304 due to higher material hardness.
- 3) AEDx-8xxx housing, Allen-key hole redesign from Tapered slotted hole to Straight circular hole to prevent Allen-key jamming issue after mounting and also ease of mounting to motor assembly.
- 4) AEDx-8xxx packing tray redesign, preventing Allen-key disengaged, set screw protrusion and FG jumble up within shipping tray.

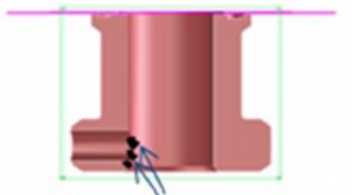
After Change:

1) AEDx-8xxx hub under-cut

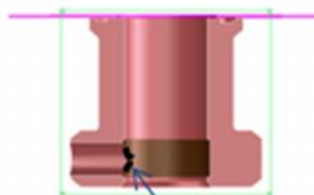
HUB ID	Old HUB		New HUB	
	Hub ID	GO Gauge	Hub ID	GO Gauge
4mm	4.000 -0.000, +0.010mm	3.998mm	4.002 -0.000, +0.010mm	3.998/4.000mm
5mm	5.000 -0.000, +0.010mm	4.998mm	5.002 -0.000, +0.010mm	4.998/5.000mm

Why Undercut?

- **Relief for Machining burrs.**
- **Relief for secondary process burrs (after gone through testing).**
- **To eliminate motor shaft stuck during assembly.**



Burrs stick around the hole causing shaft jams



Burrs stick around the relief undercut not blocking the shaft

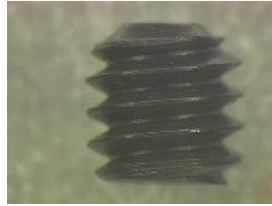
2) AEDx-8xxx hub set screw change:

Comparison between SUS304 to 4 Series Alloy Steel M2 set screw

Screw Type	M2 (Old)	M2 (New)
Set Screw Thread	M2 X 0.35	M2 X 0.35
Material Used	SUS 304	4 series Alloy Steel
Finishing	No Finishing	Black Oxide
Hardness	Rockwell B82 (Softer)	Rockwell C40-60 (Harder)
Cleaning	Degrease and corrosion free	Degrease and corrosion free
Hexagon Depth	1.09 mm	1.22mm



Current Set Screw

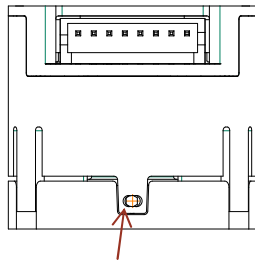


New Set Screw

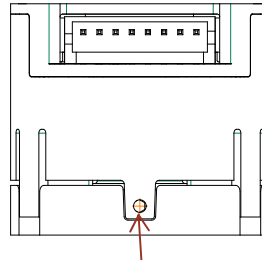
- Hardness of material: Hardness of 4 series alloy steel set screw is much higher than SUS 304
- Wear resistance at socket : Physical parts testing showed that 4 series alloy steel could withstand 0.13Nm tightening torque without major wearing at socket compared to SUS 304.

3) AEDx-8xxx Allen-key hole redesign:

Allen-key hole is redesigned to prevent Allen-key jamming after set screw tightening process. The new design involved the changes of hole's shape and size. The shape from **Slotted taper hole** to Straight circular hole (Zero draft on tooling) to get rid of Allen key locking effect.



Existing design-Taper slotted hole



New design-Straight circular hole

4) AEDx-8xxx packing tray redesign:

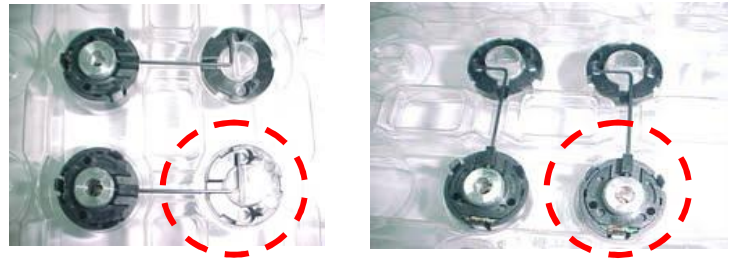
- a) Semi-circle protrusion new bottom tray – to keep Allen-key in position, intact with set screw
- b) V-cut on new Bottom & Top cover - to guide the Allen-key and clamp to hold.
- c) Reinforcement on 4-side of bottom & Top cover – to keep the tray rigid and not being flimsy.

Current Bottom Tray Design

Current Bottom Tray design without Allen key stopper. Allen Key has potential to slightly move aside.



New Design Bottom Tray



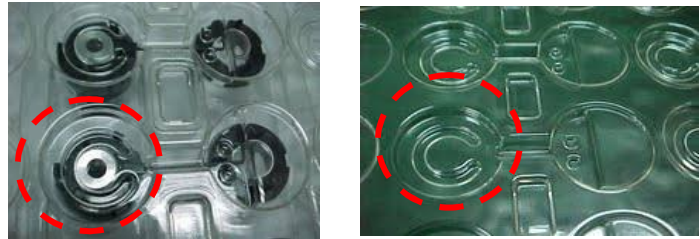
Current Top Tray

Current Top Tray design didn't have Allen key holder.



Allen key can move slightly inside the tray without tape

New Design Top Tray cover



Effect of Change on Fit, Form, Function, Quality, or Reliability:

There will be no impact to product performance and the changes made are meant for overall product robustness improvement towards customer application conditions.

Effective Date of Change:

Product shipment using this change will commence from 27th Feb'2011 and may vary depending on depletion of current inventory.

Qualification Data:

The validation data on the above improvements will be shared upon request.

These changes have been reviewed and approved by Avago Technologies engineers and managers per Avago Technologies procedure: Change Control and Customer Notification, A-5962-6052-80.

Please contact your Avago Technologies field sales engineer or Contact Center (<http://www.avagotech.com/contact/>) for any questions or support requirements. Please return any response as soon as possible, but not to exceed 30 days.