

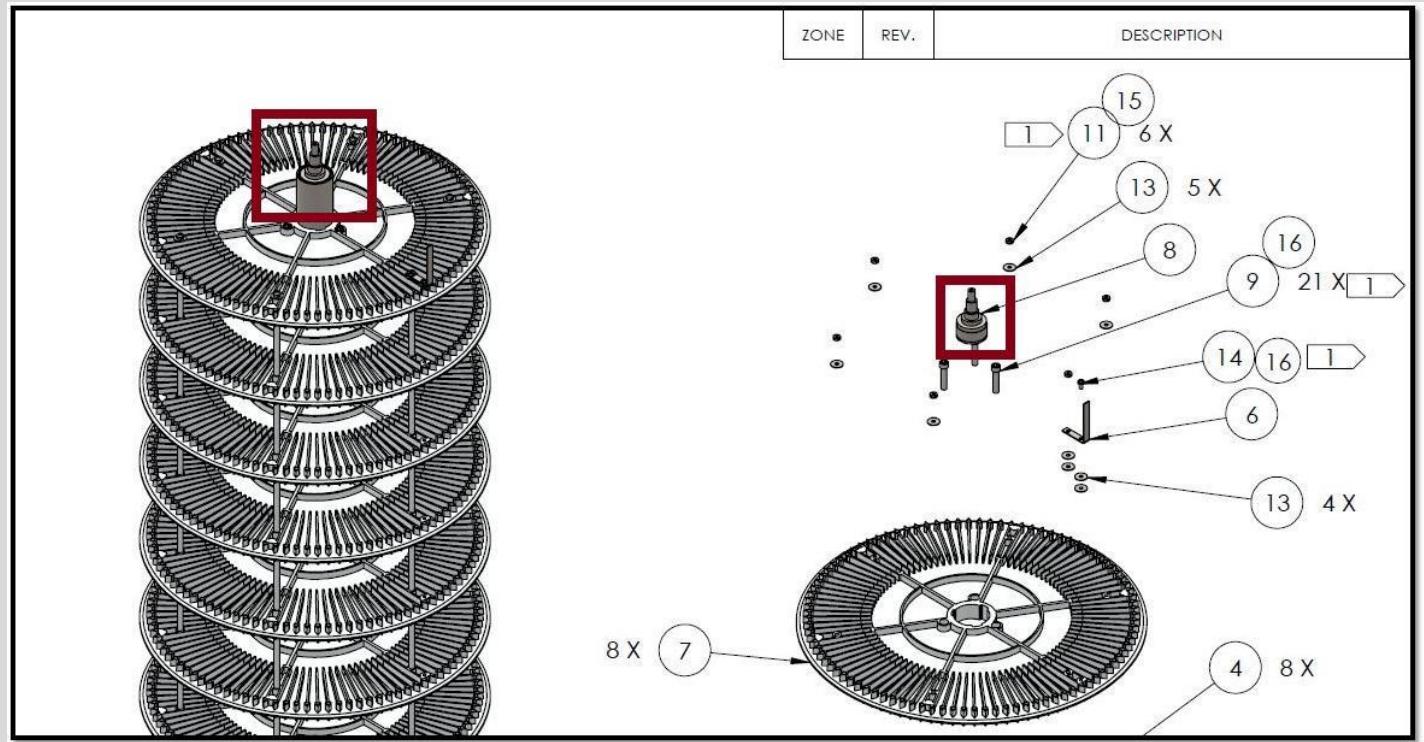
# Drum Shaft to Encoder Mount Slip

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**Date Updated:** Revision Date

**Bulletin #:** TSBOX-000XX

**Description:** This document is a step by step guide to repair encoder mount slip in drum shaft.



## 1. Inspect:

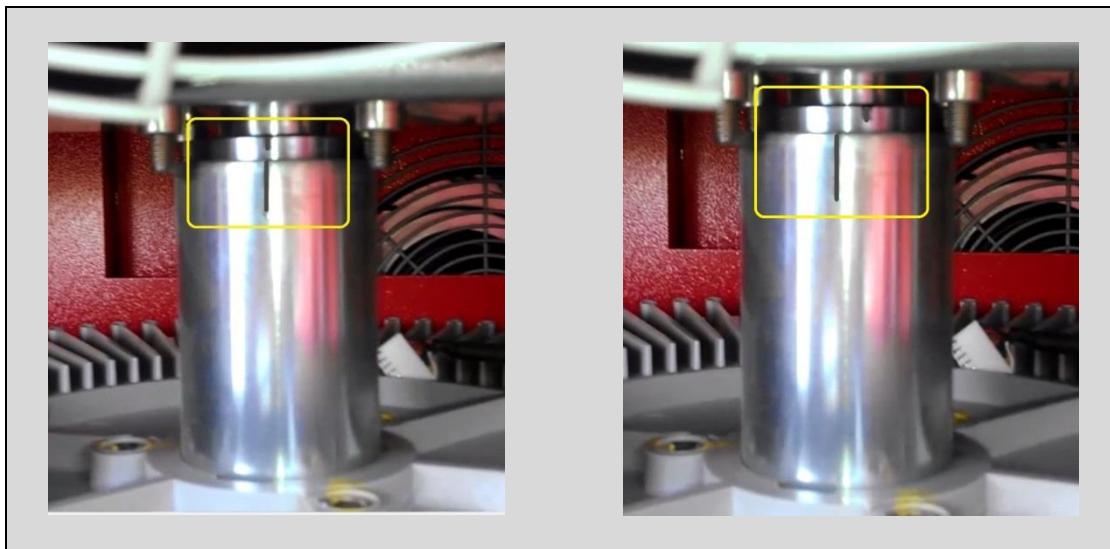
Fully seat the Encoder Mount into Drum Shaft.

- Make sure encoder block is properly mounted & mounting bolts are properly tight.
  - [https://collab.outerwall.com/sites/RBOpsMerch/TechTraining/MobileApp/index.html#/sites/RBOpsMerch/TechTraining/Kiosk\\_TopNew/TSB-Encoder%20Replacement.html](https://collab.outerwall.com/sites/RBOpsMerch/TechTraining/MobileApp/index.html#/sites/RBOpsMerch/TechTraining/Kiosk_TopNew/TSB-Encoder%20Replacement.html)
- Make sure the shaft is not slipped down far enough that drum is hitting lower support beam.

**Mark straight line with thin tip sharpie marker on both Drum shaft & Encoder mount.**

Rotate drum back & forth couple of times either manually by turning power off OR using HAL tester (sometimes it has to be left for days to see the drift).

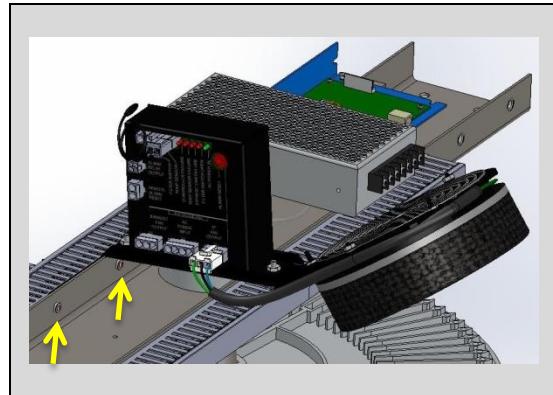
Once confirmed that the encoder mount is slipping in the shaft, move to following recommended repair steps...



## 2. Step by Step Instructions:

Power off the Kiosk from UPS & Pull Air Exchanger plug from bottom outlet,

Remove the 6" Air Exchanger fan & control box mounted on top cross beam (If this is outdoor kiosk with Air Exchanger)



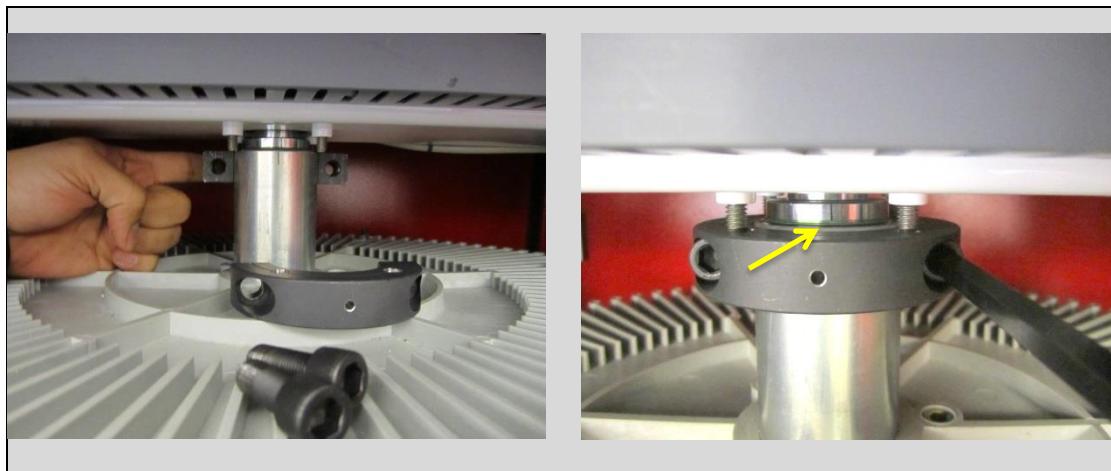
**Steps to Drill & tap a hole on the shaft through both external & internal shafts & put a screw to hold both together.  
For this approach you need...**



Mount collar jig around the drum shaft with top of the jig lining up to top of drum shaft such that the 4 screw studs from the encoder block are lined up & nested in the clearance hole of the collar jig.

The small center hole on collar jig should be facing you & used as drilling guide

**NOTE: Tighten the screws enough that collar jig does not shift during drilling.**



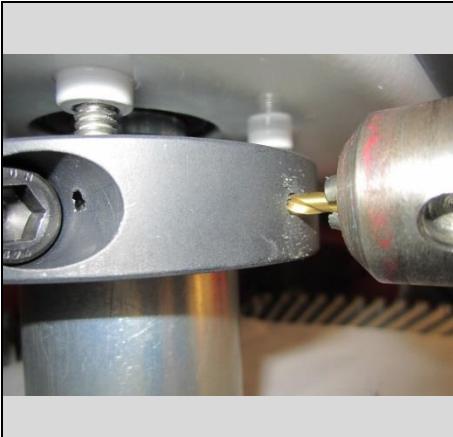


Use # 29 drill bit to make the hole, Drill hole through the smaller center hole on collar jig to line up with shaft.

For ease, make sure drum flag is not in way or even opposite side of you for second hole to be drilled @ 180° later on...

**NOTE:**

- **Keep clearing the drill for metal shavings by backing it.**
  - No more than .125" progress before pulling back.
- **Make sure you have something to collect metal shavings.**
  - Clean the metal shavings afterwards with hand vac (if available).



Drill upto 1.75" of total length including collar jig to completion.

- This will leave 1" deep hole into the shaft.



Remove Collar Jig & clean up the shaft.

**NOTE:**

**To hold alignment do not move drum after removing collar Jig till hole is tapped & screw is secured in place**



Use 8-32 Tap handle provided in the kit to tap the hole.

**NOTE:**

- Make sure you tap slowly.
- For easier tapping keep the tapping ratchet locked in middle setting.
- Make sure to rotate clockwise to tap & than counter-clockwise to pull out.



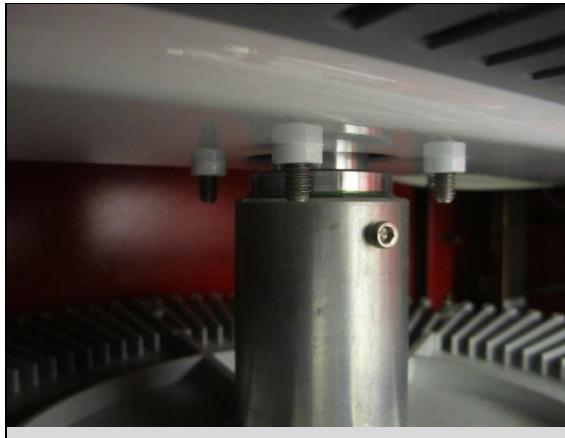
Tap the threads to 0.75"; you can mark the tap with sharpie to make sure.

- Run in 3 turns
- Turn backward 1 turn to clear chips
- Repeat

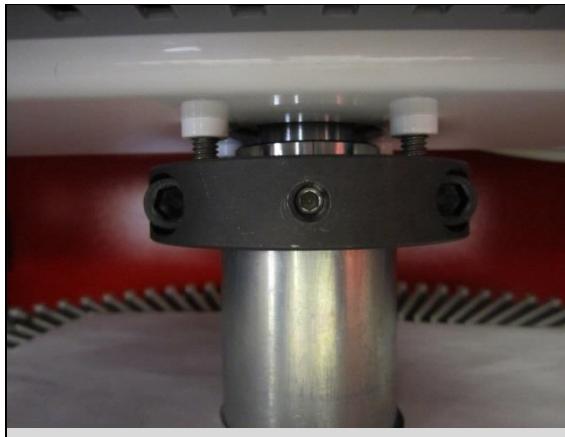
**NOTE:** These are general guidelines, If you think tap is getting tight backup so that you do not break tap bit.



Make sure threads are clean throughout & after the process.



Apply Loctite 243 provided with kit onto 8-32 screw & Insert 8-32 screw to secure both Drum shaft & Encoder Mount.



Repeat process to opposite side of the drum.

Manually turn the drum 180°

The large hole in the collar should be installed over the head of the screw installed in the first tapped hole. Reinstall the collar and repeat the drilling and tapping for the second hole. Remove the collar and install the second screw using Loctite

**NOTE: Before rotating make sure first screw is properly tight otherwise the alignment can shift on previously drilled hole.**

### **3. Appendix:**

#### **Safety Concerns:**

- i. Use Safety Glasses
- ii. Use a metal shaving collector
- iii. Perform the operation with kiosk turned off or Safety switch pulled out except when removing collar jig.

**Tools/Parts Needed:** (Example tool/parts list)

Drill (not included in Kit)	1	
5/16 & 9/64 Allen Key (not included in kit)	1	RDBX80743
Shaving collector/Hand Vac (not included in kit)	1	
Kit – Drill Jig Anti-Rotation Shaft Fix	1	256874

## Contains:

Drill bit	1	256791
Tap bit	1	256792
Tap Handle	1	259050
8-32 Screw	1	12933
Loctite 242	1	RDBX00091
Collar Jig	1	256786

**Associated TSB's:** TSB- Encoder Replacement*Sign off**Approved by*

Machine Support	MS will manage
Learning & Development	L&D will manage
Engineering	Brian Fitzpatrick

*Owner**Department*

Created by: Haroon Zafar	Engineering	
Published by: Haroon Zafar	Engineering	
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0.0.2	04/28/2016	Initial Release