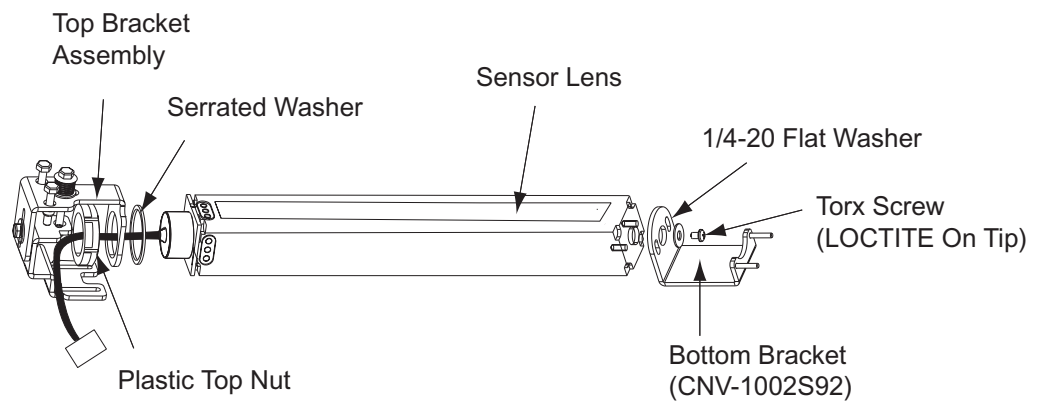

U-Scan Max Single Station - BANNER Arch Sensor Field Replacement Procedure

The installation brackets for the BANNER arch sensor have changed in newer U-Scan Max Single Station casings. Follow the steps below to replace the BANNER arch sensor on site in these new casings.

Requirements:

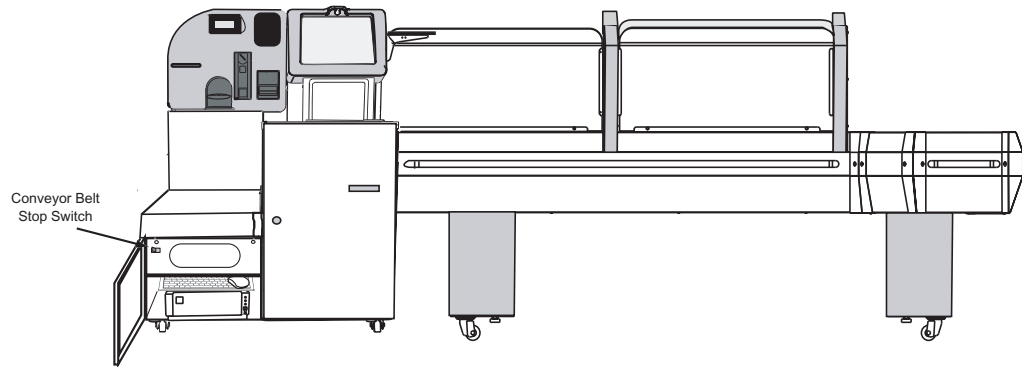
- Two test shims (9000100 and 9000101 - Engineering drawings included at end of document)
- 5/16 wrench
- 11-32 nut driver
- T-20 TORX screwdriver
- Flat-head screwdriver
- Blue LOCTITE
- Replacement BANNER sensor (90001536) or emitter (90001536) stick

Overview of Replacement



1. Shut Down the U-Scan Max Single Station

1. Unlock and open the bottom compartment.
2. Turn off the power switch on the controller board.



2. Remove the Faulty BANNER Stick

NOTE: Set all hardware (brackets and fasteners) aside to be re-used when you install the new BANNER stick.

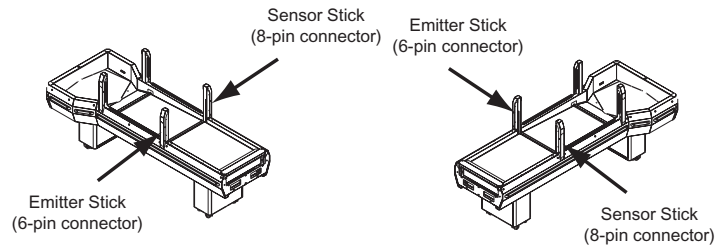
1. Remove the Plexiglas guards.
2. Remove the sensor faceplate(s).
3. Disconnect the sensor array cable (MOLEX-type connector).
4. Use an 11-32 nut driver to remove the two 8-32 nuts on the back bracket.
5. Carefully lift and remove the stick and brackets from the sensor arm.
6. Remove the front screw, and compression spring, and two flat washers from the front bracket.
7. Unscrew the plastic top nut from the BANNER stick.
8. Remove the serrated washer from the BANNER stick.
9. Use a T-20 Torx screwdriver to remove the single screw and flat washer securing the bottom bracket to the bottom of the BANNER stick.

NOTE: The screw is secured with blue (non-permanent) LOCTITE and may be difficult to remove. A new screw will be provided in the replacement stick, so the screw can be stripped during removal.

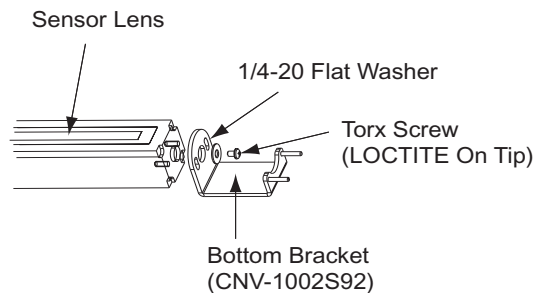
10. Remove the bottom bracket.

3. Install the Replacement BANNER Stick

1. Locate the replacement BANNER stick. Ensure that you have the proper stick (sensor or emitter) based on the sensor housing in which it was installed or the number of pins on the connector.



2. Use a T-20 Torx screwdriver to remove the screw from the bottom of the new BANNER stick.
3. Position the bottom bracket (CNV-1002S92) on the bottom of the BANNER stick. Ensure that the curved top of the bracket is facing the same direction as the sensor lens, as shown below.
4. Thread a 1/4-20 flat washer onto the Torx screw you removed from the bottom of the BANNER stick.

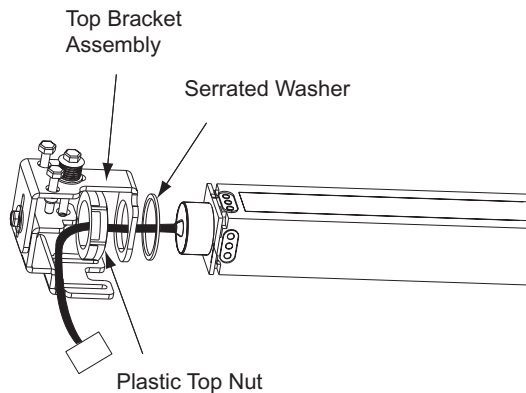


5. Place a drop of blue LOCTITE on the tip of the Torx screw.
6. Fasten the screw to secure the bottom bracket to the BANNER stick until the screw is snug, then torque it 1/4 of a turn further.
7. **Allow the LOCTITE to cure for at least 60 minutes without moving the BANNER stick.**
8. After the curing time has elapsed, twist the bottom bracket back and forth several times to ensure that bracket and stick rotate smoothly and independently of each other. **Ensure that the bottom screw does not turn as you twist the bracket.**

NOTES: *Failure to perform the step above can prevent you from properly adjusting the BANNER sensor array once it is installed.*

There may be some resistance when you first try to twist the bracket and some force may be required.

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9. Thread the serrated washer onto the cable connector and BANNER stick.



10. Thread the cable connector through the top bracket assembly as shown above. Ensure that BANNER sensor lens is facing front.
11. Thread the cable connector through plastic top nut. Tighten the plastic top nut to secure the BANNER stick to the top bracket assembly.
12. Position the BANNER stick in the casing so that the sensor lens is facing out.
13. Align the slots on the back of the top bracket assembly with the studs in the sensor housing.
14. Raise the BANNER stick so that the bottom of the yellow triangle is above the belt.
NOTE: *The yellow triangle marks the start of the sensor beam. It is meant only as a guideline and the height of the stick may need to be adjusted further.*
15. Fasten an 8-32 Keps nut on each stud to secure the stick inside the sensor housing.
16. Connect the BANNER cable.
17. Use a flat-head screwdriver to push the cable into the sensor housing alongside the BANNER stick.

4. Adjust the BANNER Sensor Array

1. Press the power switch on the controller board panel.
2. Refer to the instructions in the **SBU_BANNERAdjustment.pdf** file. This file is available from National Tech Support.