



# How to assemble the **3D Level Scanner** neck extension

***BINMASTER***



1. Start by removing the back plate from the electronic enclosure by undoing four screws with a 5/32" allen wrench.



2. Inside the enclosure, you will disconnect the 10-pin connector from the electronic card and pull out the cable strain relief.



3. On the front of the enclosure loosen the lock nut with a 1/2-inch wrench and unscrew the hex set screw with a 5/32" allen wrench (do not remove completely).



4. The electronic enclosure will now come off. Be sure the 10-pin connector does not get caught up when removing the enclosure.

5. Next remove the neck nut.





3D after neck nut has been removed



6. The first piece that goes on is the bottom adapter.



7. It simply screws onto the neck of the scanner. Snug the adapter to the transducer using a 24-inch pipe wrench.

8. Insert the hex set screw and snug with a 5/32" allen wrench.



9. Then take the extension cable and hook it up so the locking mechanism connects, making sure the locking tab connects.





10. To ensure the connection stays together, put a few wraps of electrical tape around the connector.



11. Prepare the extension pipe with about three wraps of Teflon tape on each of the threaded ends.



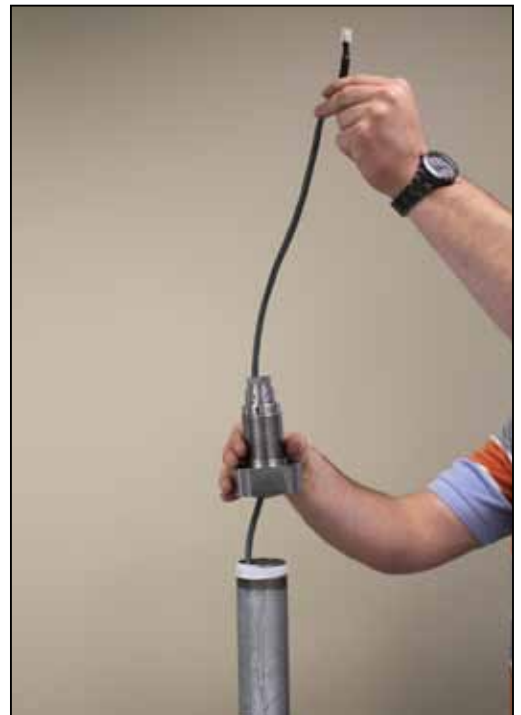
12. The next step is to fish the cable through the extension pipe.
13. Then thread the extension pipe onto the bottom adapter.



14. To tighten, we use the two 24" pipe wrenches – one backing up the adapter and one tightening the pipe until it is snug.



15. After the bottom assembly is tightened, install the top adapter.





16. Once again, tighten using two 24" pipe wrenches, one backing up the pipe and the other tightening the adapter.



17. Insert the remaining cable into the pipe by twisting and pushing the cable down into the extension until there is about 3" of cable exposed.



18. Now it is important to note the placement of the lead transducer. There are two markings that are used to identify the lead transducer, one is on the widest part of the transducer body in the form of a raised line, and the other is a notch just above the threads on the neck of the transducer.



19. Visually follow the mark up the extension and make a mark above the threads on the top adapter. (Get it as close as you can.)



20. Then apply the o-rings and the mounting plate.





21. The neck nut is then installed on top of the mounting plate.



22. Next, the electronic enclosure is ready to go back on; it can be installed in 45 degree increments.



23. Tighten the hex set screw with a 5/32" allen wrench and secure the lock nut with a 1/2-inch wrench.

24. Replace the cable strain relief and insert the 10-pin connector into the electronic card (locking tab up).



25. Then, the enclosure back plate is installed by tightening the four screws with the 5/32" allen wrench.
26. The assembly is now ready to go into your silo.
27. After installing the extended scanner, align the mark you made on the top adapter to the center of the silo and tighten the neck nut.



# Tools needed to assemble the **3DLevelScanner** neck extension

