

MEASURING CABLE REPLACEMENT FOR MTA SERIES

For Models

MTA-3, MTA-5

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MEASURING CABLE REPLACEMENT

1. If measurement cable is still intact, cut cable end off and discard.
2. Mark the end plate pot side (side with electrical wires) relative to the housing with a pen/pencil. A simple line starting on the end bracket and continuing to the edge of the housing will do.
3. Loosen the set screws on the end plate pot side using a 0.050" Allen wrench.
4. Gently remove the end plate pot side and set aside. Be careful not to lose the tiny ball bearings, which will either be on the spool shaft or in the center of the end plate.

IMPORTANT

The spool is now loose. If allowed to, it will fall out and the spring will pop out. Hold the spool to the side plate by pinching the spool and side plate together through step 7. If the spring comes out of the housing use your fingers to rewind the spring back into the housing, being careful not to kink the spring.

5. Loosen the set screws holding the side plate using a 0.050" Allen wrench.
6. Push the spool and side plate out of the housing while holding together.
7. Insert a small flathead screwdriver between the side plate and the spool and gently slide the spring off the spring arbor (the spring arbor is part of the spool). Slide from the spool toward the side plate. Using the screw driver to keep the spring in place in the side plate, separate the spring and side plate. Be careful not to lose the tiny ball bearings either on the spool shaft or in the hollow in the side plate.
8. Remove and discard the cable crimp, which is glued to the spool. It will have be pried off using a screwdriver or other sharp object.
9. Discard any remaining cable.
10. Scrape off any remaining glue left on the spool.
11. Cut new cable kit to length. For a 3 inch MTA the cable should be 3.5 +/- .125. For the 5 inch MTA the cable should be 5.5 +/- .125. This length is measured from the bottom edge of the snubber, (see diagram).
12. String cable through the cable hole in the housing and then through the cable hole in the spool.
13. Once the cable is through BOTH holes fasten the crimp to the cable. Line the crimp up with the end of the cable and crimp completely flat using the flat portion

of the Celesco crimping pliers part number 9610035-0000. Squeeze the pliers until the crimping pliers release to insure a strong crimp.

14. Secure the crimp to the spool using Loctite 401, with the flat portion of the crimp adhered to the spool.
15. If the ball bearings are attached to the spool shaft on the spring arbor side, remove and place the bearings in the hollow in the side plate.
16. Reassemble the side plate and spool by aligning the slit on the spring arbor to the spring. Rest the pin on the side plate, tilt down so the spring is in the arbor slit, and rotate a small amount counter-clockwise to put a small amount of tension on the spring. While maintaining tension, slide the spool until the pin drops into the hole in the center of the ball bearings. Once done keep the spool and the side plate together with the small amount of tension on the spring.
17. Replace the spool/side plate assembly in the housing.
18. Tighten the set screws enough to keep the side plate in place but loose enough it can be rotated.
19. Replace the end plate pot side aligning the marks created during disassembly.
20. Tighten the set screws to keep the end plate pot side in place but loose enough it can be rotated.
21. Insert a pair of needle nose pliers into the two blind holes on the side plate and rotate counterclockwise, reeling the cable into the unit. Keep rotating until the cable snubber rests against the cable exit in the housing (about one full turn).
22. Rotate side plate 3 more turns counterclockwise. This will place initial cable tension on the spool.
23. Tighten the 3 set screws evenly to fasten the side plate.
24. Extend and retract the cable checking for smoothness.
25. Apply 10 volts between the brown (+ in) wire and the orange (- out) wire. Place a voltmeter between the Orange (-) and the red (+ out).
26. The output should be between .030 to .080 volts. If not, rotate the potentiometer side plate using a pair of needle nose pliers via the two blind holes on the cover until the output is correct.
27. Tighten the 3 set screws on the end plate pot side evenly.

28. Remove all set screws one at a time, apply Loctite primer 7649 and loctite adhesive 222 on the threads, and replace.