

THROUGH-THE-LID ANTENNA (TTL-A) THROUGH-THE-LID HANGER (TTL-H)

Field Installation Guide For Metal, Plastic and Concrete Lids

INTRODUCTION

The Mueller Systems through-the-lid antenna (TTL-A) is designed to maximize the performance of the Mi.Node radio module by minimizing the effects of signal attenuation and deterioration caused by the meter box, ground and humidity.

The TTL-A is normally installed in meter boxes with cast iron or concrete lids to propagate the radio frequency signal outside the meter box. the TTL-H is normally installed in meter boxes with polymer and radio frequency friendly materials.

This installation guide describes the recommended installation procedure for both the TTL-A and TTL-H products on meter box lids made of various materials.

The TTL-A provides an Aluminum and black plastic assembly, while the TTL-H provides a black plastic assembly as seen to the right. Both options install through the pit lid and affix to the Mi.NET radio via a threaded connection.

TTL-A



TTL-H



INSTALLATION TO PIT LIDS

1. Remove the protective cap from the Node Top.



2. Insert the TTL-A or TTL-H body into the hole of the pit lid. The locking nut and rubber washer affix to the bottom of the TTL-A & TTL-H unit underneath the lid.



3. Place the rubber washer onto the TTL-A or TTL-H threaded stem and secure the assembly loosely with the locking nut. Loosely tighten the locking nut:



4. Holding the Mi.Net Radio steady, thread the TTL-A or TTL-H body into the radio. Do this by twisting the top of the TTL-A or TTL-H, not the radio. This will keep the radio wires from twisting.



5. Tighten the nut to the lid With the Mi.Node unit pointed down, place the lid onto the meter box. Be sure to verify that you have sufficient clearance for the Mi.Node to extend into the meter box without interference from the setter or meter body. Failure to do so can result in damage to the Mi.Node or TTL device.



IMPORTANT INSTALLATION INFORMATION

IMPORTANT: The register cable coming out of the Mi.Node module (as for any radio module) should be extended away **for at least 8 inches** in any direction from the radio module and should not be wrapped around the module, contain a coil, or be wrapped.



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