



# External 4G/LTE Cellular Modem For KP RMR Collector

Installation Instructions

# OVERVIEW

This External 4G/LTE Cellular Modem Enclosure mitigates the termination of the 3G networks of major cellular carriers.

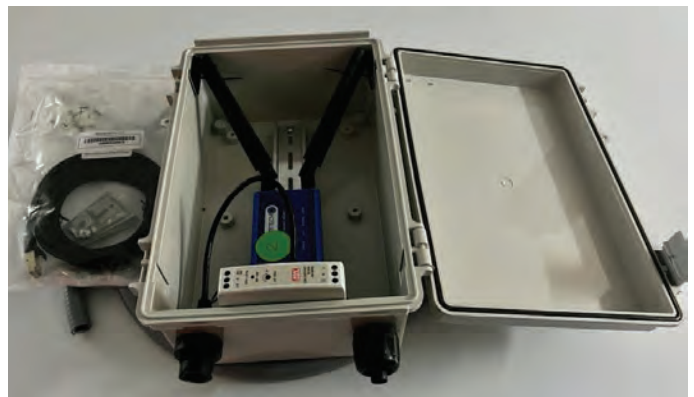
## KIT

External modem enclosure, Electrical wire conduit, Ethernet cable, Mounting hardware



## ENCLOSURE INTERNALS

MultiTech 4G/LTE Cellular to Ethernet Bridge (with SIM installed), 120VAC to 12VDC Power supply



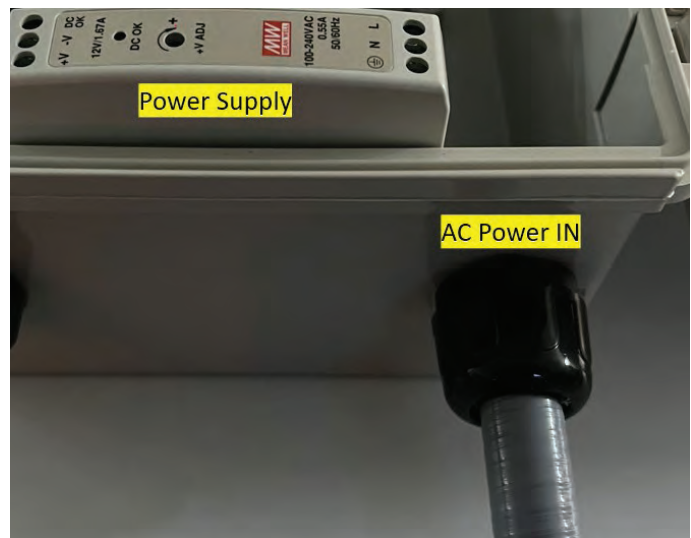
# INSTALLATION INSTRUCTIONS

- Power down the RMR Collector system. It is not necessary to remove AC power.
- Mount the External Cellular Modem Enclosure with the include hardware if required

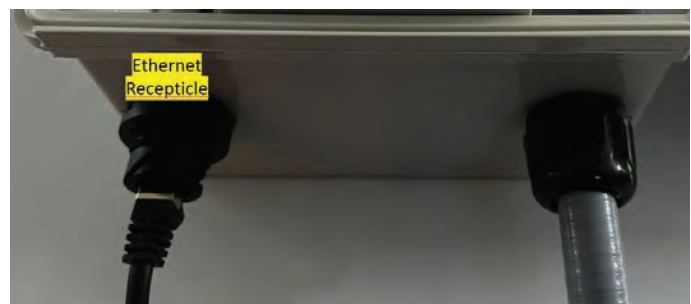


- Using the provided electrical conduit, acquire an Electrician to route wires from a disconnected (via circuit breaker) electrical junction box to the Power Supply inside of the External Cellular Modem enclosure.

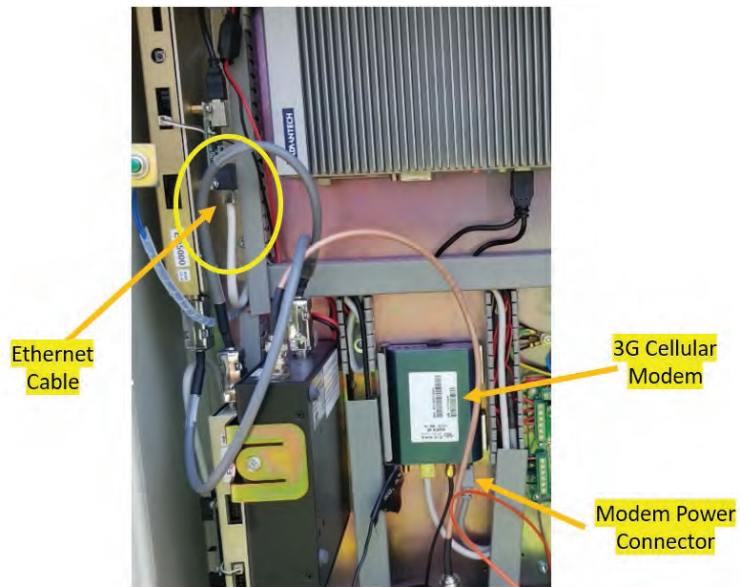
**Note: that there is no power switch for the External Modem Enclosure.**



- Plug in the provided Ethernet cable into the enclosure's Ethernet receptacle.
- As with any electrical connections to our externally mounted product please follow the weatherproofing procedure in the **Appendix** section below.



- Inside of the RMR Collector enclosure, unplug the old Ethernet cable that connects the old 3G modem to the system.
- The new Ethernet cable, where one end is already connected to the External Cellular Modem Enclosure, feed it through the RMR's external ports and plug it into the same location where you removed the old Ethernet cable.
- Unplug the power connector from the old 3G Modem (remove the modem entirely if you so choose).
- Turn on power to the External Modem Enclosure, via electrical junction box circuit breaker
- Power up the RMR system.



Example of RMR internal configuration

## VERIFICATION OF CELLULAR CONNECTIVITY

Inside of the External Cellular Modem Enclosure, all 4 LED will be on. This may take several minutes from powering up.



# APPENDIX: WEATHERPROOFING CONNECTIONS

If mounting the collector outdoors or anywhere moisture may be present, weatherproof the connections for the AMI network antenna and cellular modem antenna.

To protect signal integrity and general functionality, weatherproofing should be applied to connections subject to water or moisture. After a connection has been made and tested to verify that it is functioning correctly, use multiple layers to seal it.

Recommended layers: an initial layer of UL-approved electrical tape, another layer of butyl mastic tape, and finally a layer of vinyl tape, see figure A2-1.

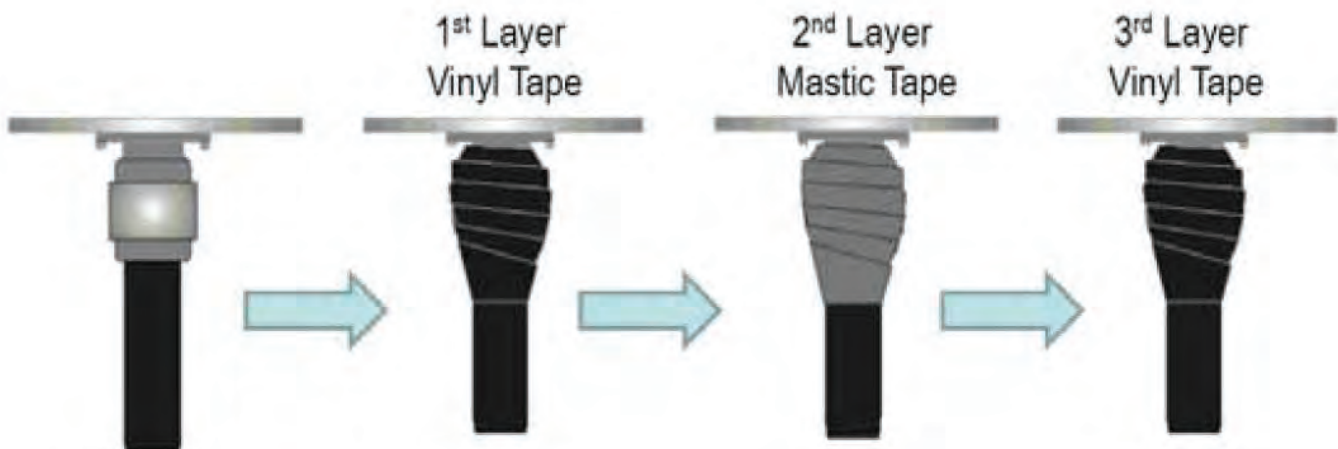
At each connection, begin by wrapping electrical tape to cover the connector and a portion of the cable. Stretch the tape a little as you wind it around the cable and the connector. As you wrap the tape, cover about half of the previous wrap. Keep the wraps neat and as smooth as possible.

The second step is to wrap a second layer of butyl mastic tape over the electrical tape, but wrap it at a 90-degree angle to the first layer. This is a putty-like layer and should be manually squeezed/compressed onto the initial layer to form a tight bonded assembly.

The last step is to wrap a layer of vinyl tape covering the first two layers.

Any connections subjected to water or humidity should be waterproofed.

**NOTE: When weatherproofing the remote fiberglass antenna, ensure it is mounted upright, and take care NOT to cover the weep holes that allow moisture to escape from the base of the antenna. Covering the holes will cause the unit to fill with water, and eventually short out the antenna element.**



# ABOUT MUELLER SYSTEMS

## WHERE INTELLIGENCE MEETS INFRASTRUCTURE®

Mueller Systems provides Smart Metering solutions to optimize the delivery and use of water and energy. Municipalities that supply water, electricity or gas — or any combination of the three services — need innovative ways to increase efficiencies, reduce costs, conserve water and energy, and improve customer service. The Mi.Net® Mueller Infrastructure Network for Utilities from Mueller Systems meets that need.

Mueller Systems develops meters and metering systems that are a Smart Move™ for the most demanding applications including residential, commercial and fire-line meters, advanced metering infrastructure (AMI)/automated meter reading (AMR) systems and related products. We provide utilities with infrastructure technology—including the water industry’s first AMI system with 2-way mesh network configuration—that enables them to access the intelligent, actionable data needed to increase efficiencies, reduce costs, conserve water and energy, and improve customer service.

Mueller Systems is part of Mueller Water Products, Inc., a leading manufacturer and marketer of products and services used in the transmission, distribution and measurement of water.

### **Mueller Systems - Sales**

10210 Statesville Boulevard  
Cleveland, NC 27013  
Office: (704) 278-2221  
Toll Free: (800) 323-8584

### **Mueller Systems- Quotations, Bids and RFPs**

Email: [marketing@muellersystems.com](mailto:marketing@muellersystems.com)

### **Administration and Research & Development**

1200 Abernathy Rd NE  
Suite 1200  
Atlanta, Georgia 30328  
Office: (800) 423 1323

## CONTACT

Customer Support

Monday – Friday 8am – 7pm ET

(800) 323-8584

[CustomerCare@MuellerSystems.com](mailto:CustomerCare@MuellerSystems.com)

[Support@MuellerSystems.com](mailto:Support@MuellerSystems.com)



***For more information about Mueller or to view our full line of water products, please visit [muellewp.com](http://muellewp.com) or call Mueller customer service at 1.800.423.1323.***

Mueller refers to one or more of Mueller Water Products, Inc. (MWP), a Delaware corporation, and its subsidiaries. MWP and each of its subsidiaries are legally separate and independent entities when providing products and services. MWP does not provide products or services to third parties. MWP and each of its subsidiaries are liable only for their own acts and omissions and not those of each other. Mueller brands include Mueller®, Echologics®, Hydro Gate®, Hydro-Guard®, HYMAX®, i2O®, Jones®, Krausz®, Mi.Net®, Milliken®, Pratt®, Pratt Industrial®, Singer®, and U.S. Pipe Valve & Hydrant. Please see [muellewp.com/brands](http://muellewp.com/brands) to learn more.

© 2022 Mueller, LLC. All Rights Reserved. The trademarks, logos and service marks displayed in this document are the property of Mueller, LLC., its affiliates or other third parties. Products above marked with a section symbol (§) are subject to patents or patent applications. For details, visit [www.mwppat.com](http://www.mwppat.com). These products are intended for use in potable water applications. Please contact your Mueller Sales or Customer Service Representative concerning any other application(s).

