

## Quick Installation & Start Guide

The UgMO UG1000R-A Repeater is part of the UG1000 family of products. The Repeater extends range and helps form a multihop above ground mesh network between controllers, bridges and other repeaters of the UG1000 product family.



- Remote configuration and alert reporting
- Software upgradeable to allow for future feature expansion

# UG1000 Wireless Repeater

The UG1000R-A Wireless Repeater serves as a range extender. This device is able to join an above ground multihop mesh network which then allows signals from underground sensors to travel above ground and reach controllers (UG1000C-A), other repeaters and Bridges (UG1000B or UG1000B-A).

The UG1000R-A is typically installed outdoors and is wall mounted. The Repeater is powered using a wall wart that is supplied with the unit. The external power supply is connected to the repeater per the following diagram.



Figure 1 Wiring Diagram for the Repeater

A repeater after powering up joins an existing above ground Unet. This implies a controller or bridge must already be present in the network for the repeater to be able to join the network.

Once powered, a red LED on the front of the Repeater will illuminate followed by a series of Green LEDs as the bridge searches the area for any existing hardware or networks. The LEDs are very helpful in determining the current state and operation of the bridge.

DRAFT

# Regulatory Notices

FCC ID: YVAUG1000RA; IC ID: 10216A-UG1000RA

M/N: UG1000R-A

This device complied with Part 15 of the FCC Rules and Industry Canada License Exempt RSS Standard(s). Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for Class B Digital Device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

- This device may only be used with the approved internal antenna that is shipped with the unit and installed per installation instructions. The use of any other antennas will invalidate the unit's FCC Part 15 certification.
- To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that permitted for successful communication. Operating the device with the supplied antenna will ensure that this requirement is met.

This equipment generates and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. A separation distance of 20 cm should be observed to maintain compliance with the FCC's RF exposure guidelines set out in OET Bulletin 65.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.