



UgMO



ProHomeTM

soil-sensor-system

WIRELESS

**WIRELESS REPEATER
PH100WR**

Installation Manual



Wireless Repeater Installation Manual

INTRODUCTION

The UgMo ProHome Wireless Soil-Sensor-System has been designed to deliver wireless range up to 600 feet from the base station to its sensors.

However, there will be situations when a base station cannot establish a connection with a sensor within that distance. This can be caused by many factors that may not be within the control of the installer.

There may be other times when additional range is required due to the size of a property.

The UgMO ProHome PH100WR Repeater has been developed to provide both improved and extended range between UgMO PH100WS Soil Sensors and UgMO PH100BS Base Stations. .

The PH100WR Repeater is compatible with all generations of UgMO Sensors and Base Stations.

EASY INSTALLATION

No pairing, programing or other set-up is required. Just position the Repeater and simply plug in the provided 12V AC/DC transformer. The Repeater will automatically forward any sensor packets it is able to receive.

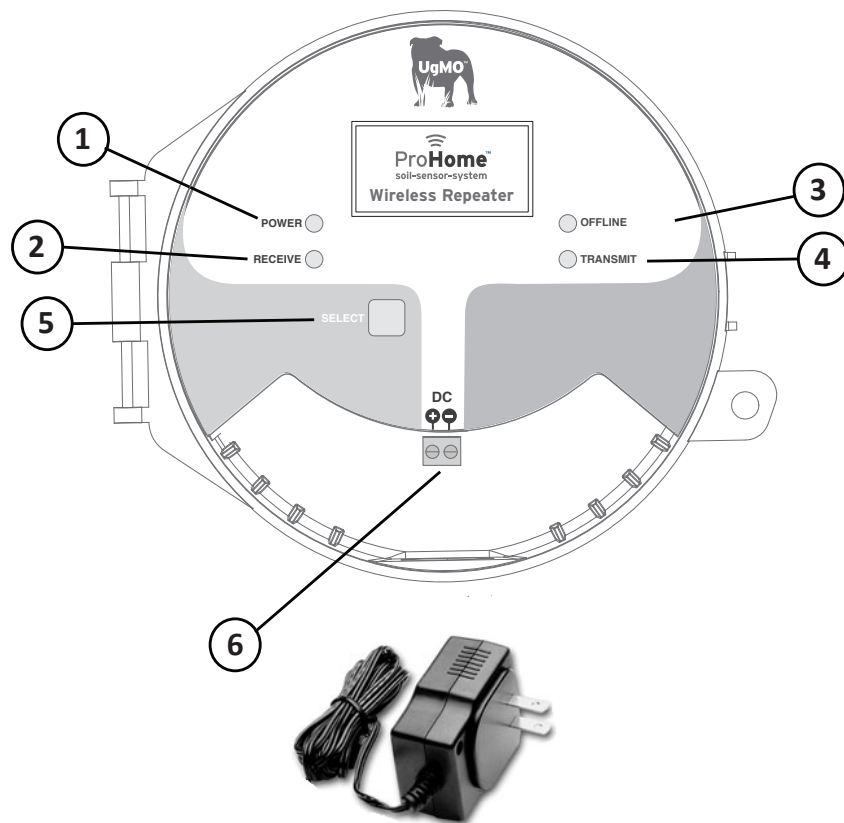
Install a Repeater mid-way between Sensors and Base Stations to enhance range.

Repeaters are suitable for mounted both inside or outside provided the AC outlet provides proper protection for the AC/DC transformer from the elements.

The AC adaptor can be placed up to 300' away from the Repeater by splicing suitable wire.

For long distances, multiple repeaters may be used to "hop" the signal from the sensors to the base station.

Components



- ① Power indicator
- ② Receive
(Blinks when a sensor packet is received)
- ③ Offline
(Repeater will not transmit when lit)
- ④ Transmit
(Blinks when a sensor packet is transmitted)
- ⑤ Select Button
(Pressing the Select button for 3 seconds stops the repeater from transmitting)
- ⑥ DC Terminals
(Terminals for attaching wires from AC/DC Transformer)

Placement of a Repeater

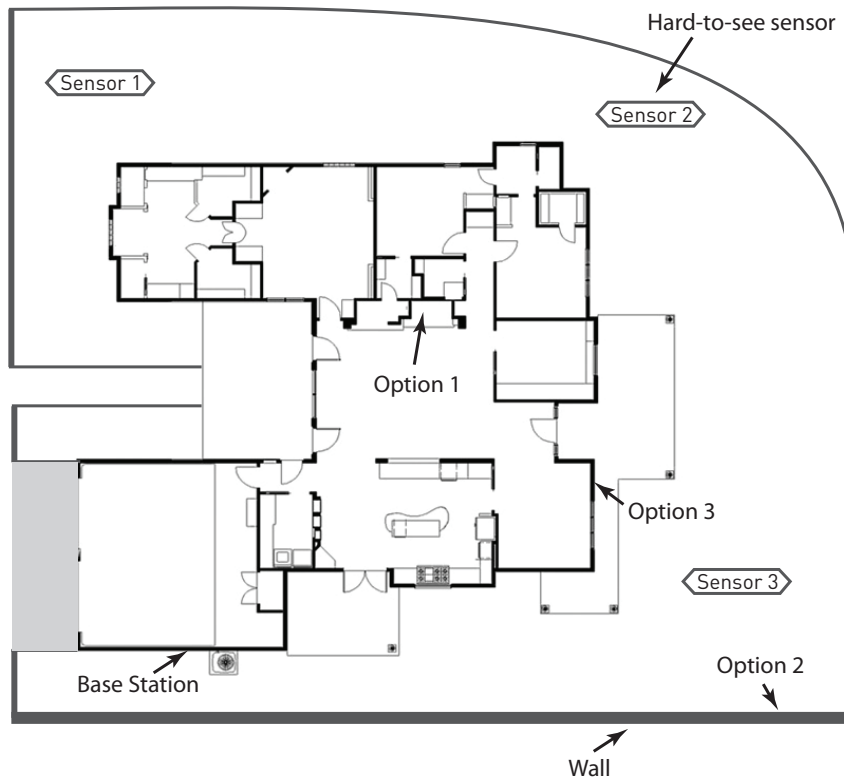
The optimal location of a repeater is half-way between the base station and the hard-to-see sensor (Sensor 2) at least 5 feet above the ground.

The repeater may be placed inside the building if a suitable location can be found. It is OK to locate it within a closet provided AC power is available. (Option 1)

Alternatively, the repeater may be positioned outside in a location with few obstructions between it and the sensor and base station. (Option 2) Up to 300 ft of low voltage buriable wire may be spliced onto the transformer wire to extend placement if the AC outlet is not conveniently located at this position.

Should Option 1 or 2 not be available, a location on the outside of the building near an AC outlet may be used. (Option 3)

Placement may require some trial and error until a reliable signal is established between the sensor and the base station.



Checking signal strength

The top screen to the right is accessible on the ProHome Base Station.
(See page 27 -28 of the user manual)

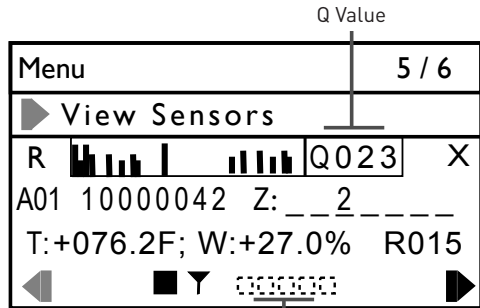
Q-Value: This number represents the percent of the expected transmissions received from a sensor over the past four days or since the Base Station was last restarted - whichever is shorter. This value is "0" until the first 90 minute interval has passed.

If the Q-Value, is below 40%, a Repeater may be advisable.
In this example, the Q-Value is 23%.

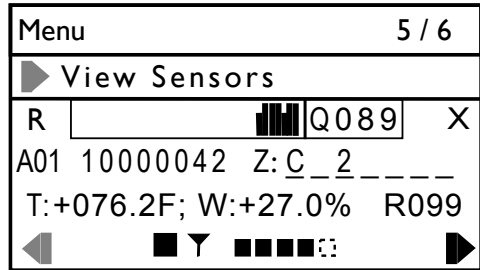
Short-Term Signal Quality Indicator: At the bottom of the screen, a series of dashes and/or boxes will appear when a sensor has been paired to the Base Station. This indicator displays the number of transmissions it has received from the sensor over the past 60 minutes. The indicator draws a box on the right while waiting for a transmission. Each time an expected transmission is received a solid box is drawn to the left. If a transmission is not received with the expected time period, an empty box is drawn.

Repeater Properly Installed: The same view sensor screen for the hard-to-see sensor should look similar to the bottom screen to the right when the repeater is properly installed. The short-term indicator shows solid boxes and the Q-Value should be above 60%. (Remember that the Q-Value takes 90 minutes to populate)

View Sensor Screen on Base Station



Short-term Signal
Strength Indicator
POOR RECEPTION FROM SENSOR



GOOD RECEPTION FROM SENSOR THROUGH REPEATER

Customer Service:

Please visit UgMO.com or call 877-500-UgMO for customer service.

This product should not be used for anything other than what is described in this document. This product should only be serviced by trained and authorized personnel.

FCC Notice: This device complies with Part 15 of the FCC Rules. 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 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.

