

Magika

Installation Guide

Vacuum sensors "Réductofuites"

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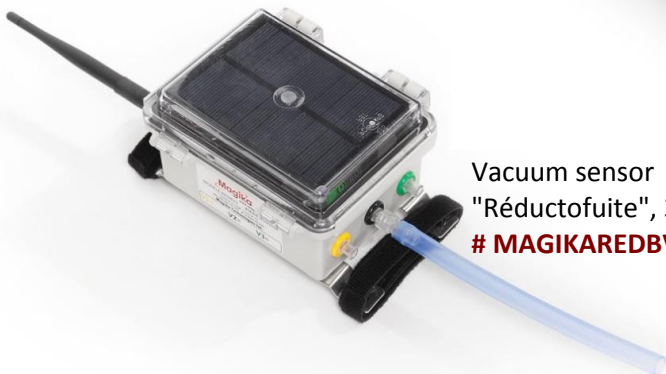


Vacuum sensor REPEATER
"Réductofuite", radio signal repeater
MAGIKAREDBP

Vacuum sensor
"Réductofuite", 1 main line (vacuum)
MAGIKAREDBV1



Vacuum sensor
"Réductofuite", 3 main lines (vacuums)
MAGIKAREDBV3



Included contents

There are 3 models of vacuum sensor modules: REDBV1 (one vacuum sensor), REDBV3 (three vacuum sensors), and REDREP (repeater only).

Each module comes with:

- 2 UV protected Velcro straps to tie the unit.
- 1 primary lithium battery, 3.7V, 19A
- 1 li-ion battery, 3.7V, 2.8A. Automatically recharged via the integrated solar panel.
- Adapter(s) to connect the vacuum ports to 5/16" tubing.

Installation

Steps to follow for the installation of your Réductofuite

- 1. Choosing the right place**
- 2. Activating the unit**
- 3. Placing the unit**

Step 1:

Choosing the right place

Master the fundamentals!

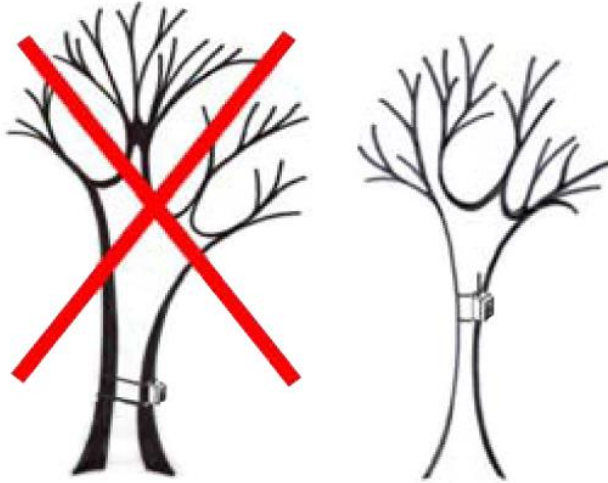
Metal, water, and the soil are barriers to radio waves.

- Waves does not pass through mountains, hills, snow banks, and storage tanks.
- Wave propagation is also strongly reduced by sheet metal wall panels.

Ensure that your unit is positioned high enough to account for snow accumulation and soil elevations.

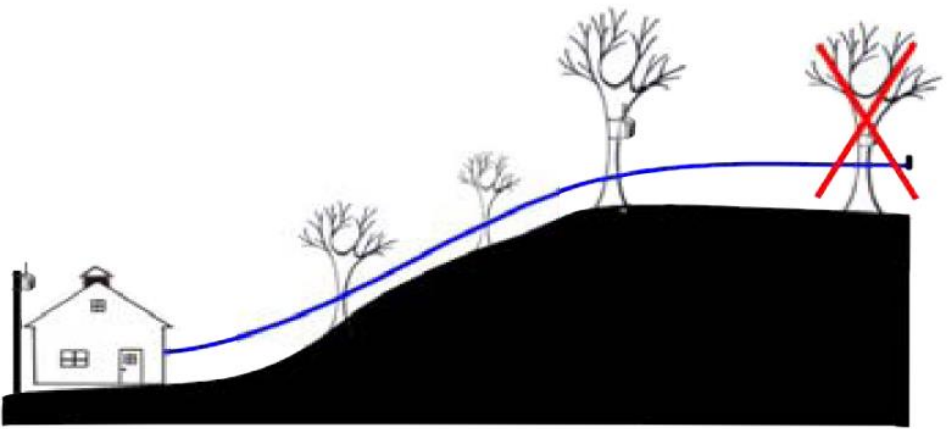
Position your unit so that it faces South. The solar panel will be more efficient this way.

The right tree



1. Choose a healthy tree with a diameter between 3" and 6".
2. Plan to install the unit at a minimum height of 10'.
3. Make sure that there is no obstruction on the South side of the tree that could prevent the Sun from reaching the solar panel.

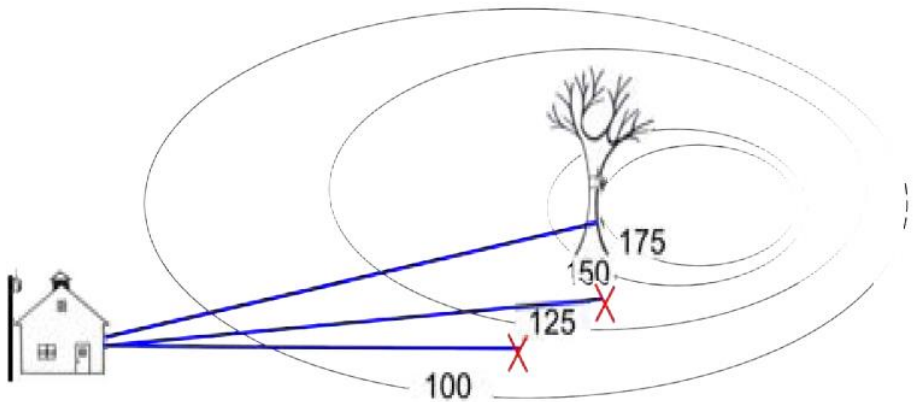
Near a cliff



There are two possible solutions for a plateau on top of a cliff:

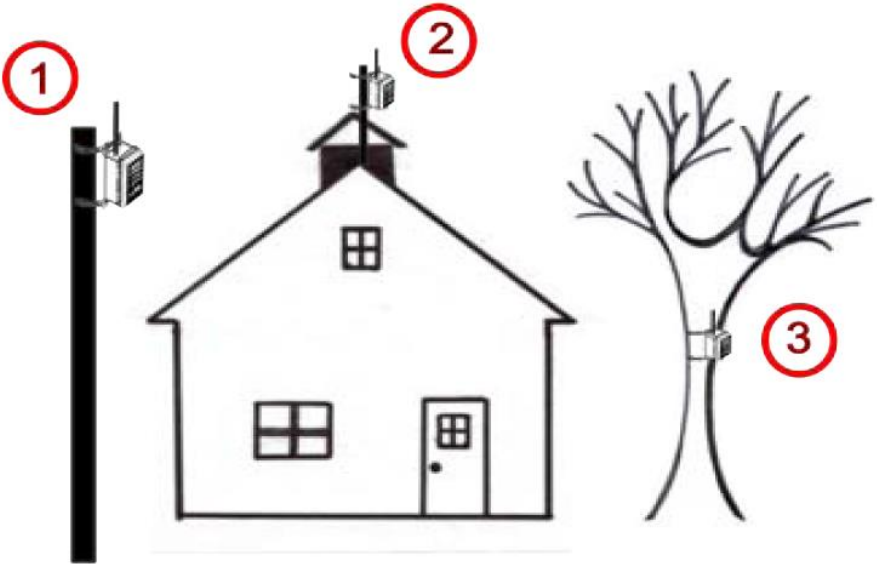
1. Install your Réductofuite on a tree near the top of the cliff and run a 5/16" towards the end of the mainline.
2. If the length of the plateau is greater than 200', place a repeater (REDREP) at the top of the cliff to allow communications with the unit at the end of the mainline.

The highest point (REDBV3)



When installing a unit with tree vacuum sensors (REDBV3), make sure that Réductofuite is connected near the highest mainline. This will allow the 5/16" to drain toward the mainlines.

Buildings



A repeater is required outside of buildings to insure a strong link between the master or controller and the other modules. Please install this repeater on:

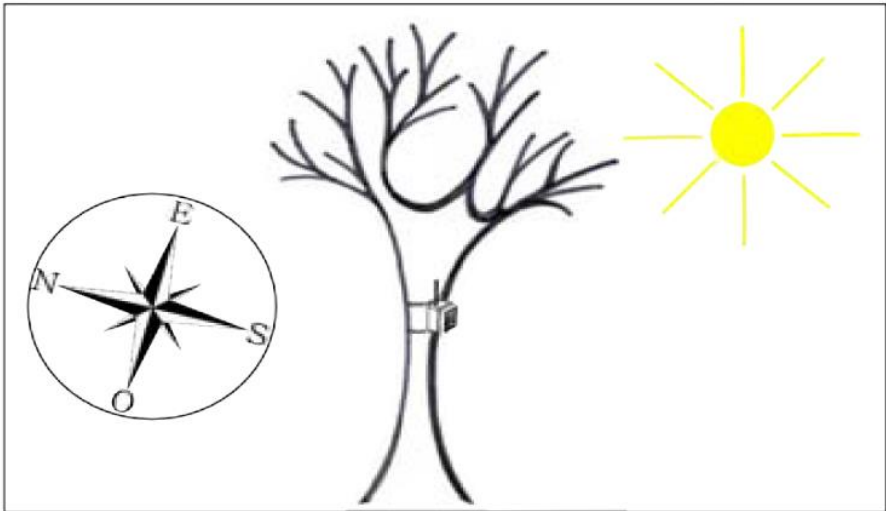
1. an existing pole, or
2. a pole attached on the roof, or
3. a tree nearby (less than about 100').

Thick forest



One or more repeaters could be required to create a strong link through conifers and dense wood. When installing a module in conifers, please ensure that the Sun can reach the solar panel of the module.

The Sun



Direct sunlight is essential. Here are some tricks to make sure that your rechargeable battery works perfectly:

1. Position your unit so that its solar panel faces the South.
2. Ensure that the unit is not oriented downward.
3. Again, make sure that no obstruction prevent the Sun from reaching the unit.

Step 2:

Activating the unit

Turn your batteries on

Once you are ready to install the module, open the module's cover. Then:

- Remove the red guitar picks from both battery holders
- Slightly turn each battery to ensure proper contacts between the battery and the battery holder's terminals

In case you need to remove a battery, please pay attention to polarity! The positive terminal is on the left hand side when facing the unit with the cover opened.

Verify your device with a Mobile master

If you own a mobile master, you can use it now to confirm that your new module is responding. You can also use your Mobile master to confirm communications with nearby module(s).

For more information, see the User guide for the Mobile master.

Step 3:

Placing the unit

1. Cut a 10' drop of 5/16" tubing
2. Connect the drop to the adapter
3. Connect the adapter with the unit. Turn 1/4 rotation clockwise to secure the adapter
4. Tie your unit on the tree with your 2 Velcro straps
5. Install a new lateral line from the mainline to the tree where the module is installed. Terminate this 5/16" line using an end of line adapter with a port for a drop.
6. Connect the end of line adapter to the drop.
7. On a sheet of paper, note the serial number of the module, vacuum port (V1, V2, or V3), and your mainline id. You can also perform this step using your Mobile master.