

Product:

Radios and antennas.

Family:

Industrial & enterprise applications

Tech Tip

1

Installation and Maintenance Tips for Wireless Devices in Outdoor Installations.

The fine tuning of antennas and wireless systems require certain details and care, which, despite being very simple and easy, make a big difference between a durable and reliable installation and a flimsy and unreliable one.

LanPro clients, heirs of experiences on cellular telephony and rural telecommunications, have given us simple guidelines that improve the long-term scenario of the installations. We are going to transmit these experiences here for the benefit of our customers.

LanPro outdoor equipment has an important degree of protection against harsh environmental factors; hence the physical maintenance of these devices mainly focuses on the connections to the radio, the anchor or support structure, and the location appropriateness where they are going to be installed.

The following is a to-do list to be carried out for the installation and maintenance of the radios in outdoor environments:

1) Play clean!!! Keeping hand and tools clean makes the final installed product not only more aesthetic, but it also prevents pollution of the connections and other parts.

2) It is suggested to varnish all the metallic parts exposed to the environment, as well as the screws holding the protective case of the equipment and the anchor kit parts by using a small brush or paintbrush. This avoids the long-term rusting of the parts and increases durability. Isolate them from air avoid or delay galvanic corrosion inevitable in outdoor environments, especially in polluted cities.

3) The waterproof connector of the RJ45 ODU, the RF connectors, or any other connection to the radio or the antenna must be protected by a coating. Put a layer of self-vulcanizing rubber tape to seal any openings where humidity can filter. This self-vulcanizing tape, also called stretch tape or rubber tape, must be put in a correct and sufficient way. A small amount or a big one is completely useless.

4) It is possible that the vulcanizing rubber tape cracks because of the sun exposure over the time. It is recommended to change the coating when it looks deteriorated in periodical maintenance inspections.



5) All LanPro wireless devices for outdoors use a network port to connect to the telecommunication equipment of the internal network. This connection through the network port of the wireless device must be protected by the plastic "waterproof connector". Similarly, the network cable must be coated for the outdoor installation. In case this cable wears down over the time, it must be replaced.

6) The external unit must be cleaned from dirt, because this contributes to the heating of the device and it also can seal the membrane that avoids the humidity formation inside the equipment.

7) Verify that the rubber gasket around the slot of the unit is not worn; otherwise, it must be replaced for a new one.

8) Make transmission tests of the device. To do this, proceed to isolate the data network unit or units (in case of a point to point or point to multi-point link). Measurement programs, such as IPERF, LAN_Speed, among others, can be used.

9) LanPro has several outdoor network cables, double jacket, highly robust, shielded and unshielded, which enliven the project and avoid disconnections due to abuse or vandalism. For further information, please visit lanpro.com.

10) LanPro has wireless industrial enterprise products ranging from 450 MHz to 7 GHz.

LanPro has been selected by worldwide recognized companies and organizations, such as the UN, PDVSA, General Motors, Petroecuador, etc.

LanPro outdoor equipment is among the most robust and reliable world-renowned products. You can find them in salt mines in Australia, oil fields in Ecuador, radiation measurement points in the Antarctic, and point to point links in a highly populated city.

