

## UHF Tags Installation recommendations

### General:

The highly advanced UHF Tag label allows vehicle recognition from a distance. The label is attached to the inner side of the windshield. The reader scans the label to determine if the user is certified to enter or leave the premises.

The UHF Tag is a small label that functions as an identifier. Using a reader, the vehicle is identified and the system responds accordingly



### Determining UHF Label Location

It is important to maintain a line of sight between the reader and the label, and the label to be within the magnetic field of the reader. Usually up to a distance of about 6 meters between the reader and the label is allowed, when using Rosslare AY-U915BT UHF-Smart Long-Range reader, and up to 12 meters when using Rosslare AY-U920BT UHF-Smart Long-Range reader.

The location and positioning of the UHF label is determined according to the position of the reader relative to the vehicle, when the vehicle is near the gate.

If the reader is on the side of the vehicle, affix the UHF label on the windshield at the side closest to the reader, and if the reader is in the front, above the vehicle, the tag should be pasted in the center of the windshield, close to the top.

In any case, the top edge of the label shall not be lower than 7 cm from the car roofline.

The label should be placed under any metal liner in the glass and must not be placed within a range of 30 cm of another tag in the vehicle (if there is any).



### **Test before permanent placement**

The UHF label is for a single use, after its permanent affixing, its removal will completely destroy it.

So before sticking the tag to its permanent place, it is recommended to first perform a reception test in order to find the ideal place on the windshield.

The vehicle must first be placed where it should be when the reader is expected to recognize and read the tag. Temporarily stick the tag with Scotch tape, without peeling off the plastic sheet in order to check the ideal position on the windshield for good reception according to the instructions described here.

During the test, it is best to move the tag to different positions, up and down and to the sides to find the best reception point, and only then to perform the permanent sticking.

### **Metallic Coating on the windshield**

Some vehicles may have a metallic coating on the windshield that impairs the performance of the identification scheme and reduces the reading range.

These windshields usually have one area where there is no coating and which is intended for affixing RFID tags, commonly referred to as "RF Cutout".

This area is usually located in the upper middle of the windshield, behind the rearview mirror (It is recommended to read the car owner's manual in order to locate this area in the windshield for any specific car.) The TAG should be placed in this area.



### **Sticking the UHF tag to its permanent place**

Once the location of the tag affix has been decided, the car windshield should be thoroughly cleaned in that area designated for affixing the tag (alcohol spray is recommended) and the area should be dried with a paper towel. The paper backing should be removed from the tag and tag pasted on the inside of the windshield. The tag must be firmly attached to the windshield and flattened smoothly, so no air bubbles are formed.

Be careful not to bend the tag while peeling and affixing it to the windshield, bending can damage the processor or antenna and disable the tag.