

Windshield Transponder Placement Guide



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Your safety is extremely important. Read and follow all warnings and cautions in this document before handling and operating RFID equipment. You can be seriously injured, and equipment and data can be damaged if you do not follow the safety warnings and cautions.

A caution alerts you to an operating procedure, practice, condition, or statement that must be strictly observed to prevent equipment damage or destruction, or corruption or loss of data.

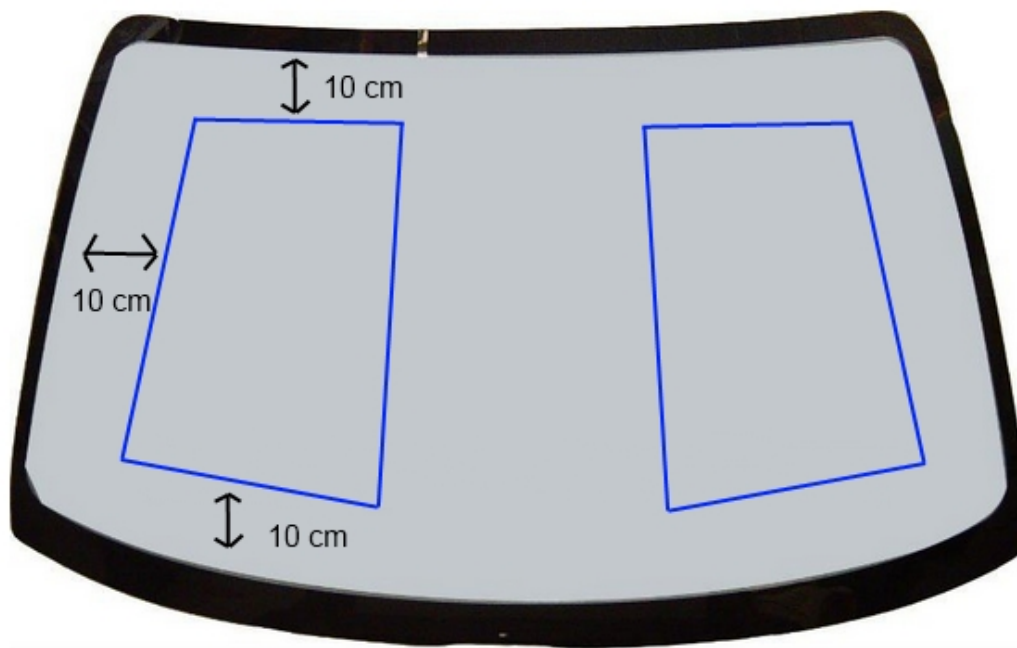
Note: Notes either provide extra information about a topic or contain special instructions for handling a condition or set of circumstances.

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Placement Position



Based on the figure above, areas within the blue lines are the recommended windshield transponder placement location to achieve consistent RFID transponder performance for AVI application. The transponder should be placed below any metal liner in the glass. If the metal liner extends beyond 10 cm from the top OR if the windshield has film with metallic content installed, alternative transponder (e.g. windshield, license plate) should be considered.

Electronic Devices

Many vehicles have electronics such as GPS, radio and compass installed in the rear-view mirror. These electronics can interfere with the operation of the transponder. Vehicles with these electronics should place the windshield transponder at least 10 cm from the rear-view mirror if possible. If there are electronics placed above the dashboard, placement of transponder should also be kept at least 10 cm from them.

Transponder Installation



Make sure the windshield surface is clean and free from contamination. Gently apply pressure to the whole transponder and keep the air out between the windshield and the adhesive. Do **NOT** apply heavy pressure to the chip under the black mark during installation. If the transponder has non-transferable feature, do NOT attempt to remove the transponder and reposition once it has been installed. The non-transferable feature is designed to disable the transponder if it is moved or tampered with.

Multiple Transponders

In cases where multiple transponders are placed on the windshield, each transponder should be kept 10 cm away from each other to avoid interference among the transponders.

Adhesive Cure Time

Once the transponder is properly installed the adhesive will start to cure. Depending on temperature and humidity, the adhesive will generally be 80% cured within the first 24 hours. Most transponders will be 100% cured within 72 hours so please do not disturb the transponder (e.g. car wash) during that period of time.

Important Notes



A. Before installation, please check the headlight surface with the following steps:

1. Place drops of water on several regions of the plastic windshield surface.
2. If the water forms into beads, there is a coating that must be removed. Use a Glass Cleaner or Soft Scrub to remove the coating. Follow the manufacturer's instructions. Return to step 1.
3. If the water does not form into beads, there is no coating that needs to be removed.
4. Now use solvent cleaning method "B".

B. Solvent cleaning method – Isopropyl alcohol (IPA)

1. Saturate a clean paper towel with isopropyl alcohol (IPA).
 - If industrial grade IPA is being used, mix it in a ratio of 2 parts IPA to 1-part water.
 - If rubbing alcohol is being used, do not dilute it.
2. Wipe with a lint-free paper towel before the IPA evaporates from the substrate.
3. Make sure the substrate is completely dry. If necessary, use a heat gun to dry out any retained moisture.
4. Apply RFID tag immediately. Dust and contaminants prevent the adhesive from performing as expected.

Note: Isopropyl alcohol evaporates quickly. One must wipe the substrate before it evaporates. The evaporation rate increases in warm and/or windy environments.

The adhesive dwell time is as follows:

- 72 hours for 100 Strength (80 ounces/inch as per ASTM D3330 standard)
- 24 Hours Minutes for 85% Strength
- 20 Minutes for 65% Strength

C. Applying Temperature

When applying the tag to the surface, it is recommended that the surface temperature should be within the range of 21°C to 38°C (70°F to 100°F). Application is not recommended if the surface temperature is below 10°C (50°F).