

## Kapsch TrafficCom

# UHF RFID Passive Transponder.

Mounting instructions.

UHF RFID passive transponders are high performance radio frequency identification (RFID) devices that have been specifically designed to be applied to the interior of a vehicle windshield or a vehicle/motor cycle headlamp. When properly installed, UHF RFID passive transponders provide high performance and a long functional life.



#### Choosing a proper mounting location.

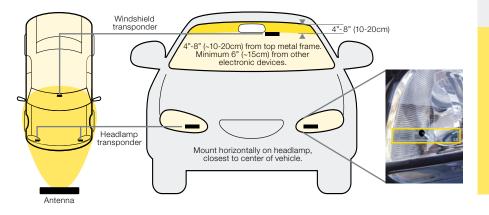
The transponder can only be installed once and cannot be moved without damaging it. Please review all instructions before mounting.

The UHF RFID windshield transponder is designed only to be applied directly to the inside surface of the windshield and must be installed horiziontally closest to the center of the vehicle, but 4"-8" (~10-20cm)

from the top metal frame of the vehicle, 3" (~5cm) from other transponders and 6" (~15cm) away from other electronics.

The UHF RFID headlamp transponder is designed only to be applied directly to the outside surface of the vehicle/motorcycle headlamp and must be installed horizontally closest to the center of the vehicle, either on the left or right headlamp.

The areas described below illustrate the recommended placement of the transponder.



**Note:** Due to the wide variance in windshield design, this document is intended as a general guide and not inclusive of all vehicle makes and models. Please use the following guidelines for choosing a suitable mounting location, as well as proper handling and installation of the transponder.

Transponders are designed to be mounted specially for their purpose. Windshield transponders are to be mounted inside of the windshield and not to be placed on the dashboard or held in the drivers hand. Headlamp transponders are to be mounted externally to the headlamp of the vehicle or motor cycle and not on the windshield (windscreen) or held in the driver/riders hand. Improper mounting will impact the performance of the transponder.

**Cure Time:** Once the transponder has been installed on the vehicle, a period of time is required for the adhesive to cure and the optional "Non-Removable, Non-Transferable" feature to become properly engaged. Cure time may be affected by temperature and humidity conditions. Most applications will experience an 80% cure of the adhesive within one hour after installation and a full adhesive cure within 72 hours of application.

Do not clean interior of the windshield or headlamp or disturb the transponder for 72 hours after installation.

## Choosing a proper mounting location.

Some vehicles have electronic devices such as GPS units, radios, navigational compasses installed in the rear-view mirror, or other car feature behind the rear-view mirror such as rain or speed sensors. These electronics can interfere with the operation of the UHF RFID transponder. UHF RFID windshield transponders must be installed a minimum of 6" (~15 cm) from electronic devices.

# Other Transponders.

Some users my have other transponders already installed on the windshield. These transponders can interfere with the operation of the UHF RFID transponder. UHF RFID windshield transponders must be installed a minimum of 3" (~8cm) from other transponders.

Metallic Windshields.

Some vehicles employ windshields with a high metallic content. This metallic content is used to reduce the amount of brightness, ultra-violet and infra-red radiation from the sun in the interior of the vehicle. Metallic windshields will interfere with the operation of an RFID transponder. Many of these vehicles expose a non-metallic section in the windshield specifically for the placement of an RFID transponder. Please consult the vehicle manufacturer's user guide for additional details. If the vehicle does not expose a non-metallic section in the windshield, an alternative transponder should be selected.



Clearance shown for distance between the metal frame of the vehicle and an electronic device.



Clearance shown for distance between other transponder and electronic device.

# Transponder handling & installation.

Only mount windshield transponders to the inside of the windshield and headlamp transponders externally to the headlamp, closest to the center of the vehicle/motorcycle.



#### Step 1:

Make sure that the intended mounting surface is clean and free of any contaminants.

Note: Handle the transponder with care during installation. Do not excessively bend or distort the transponder when removing it from the liner.



#### Step 2:

Carefully remove the UHF RFID transponder from the liner. If the transponder is a 2-piece model, ensure only to remove the transponder portion with the antenna pattern. Transfer the transponder to the location on the vehicle that you have determined suitable for your application. It is best to handle the transponder by the edges as shown.



#### Step 3:

Smooth out the transponder with a soft edge or finger to ensure complete adhesion and remove any air pockets. Never use a hard or rigid edge (like a credit card) as it will damage the transponder.

**Warning:** Once the transponder has been mounted, do not attempt to remove the transponder. This will damage the transponder.