

Installation Instructions

Credentials for LR-2000/3000-Series UHF Readers

The tags and cards for AWID's LR-2000, LR-2200, LR-3000 and UA-612 Readers are easily mounted using the following instructions. It is important that the installer follows these suggestions. Contact AWID's Technical Support for applications and installation advice. For best performance, mount the reader 8 feet high or more.

GUIDELINES ➔ READ BEFORE ATTACHING TAGS

1. See AWID's product sheet "Credentials for UHF Readers" for rated reading distance between credentials and reader.
2. Check that the space between the reader and the credentials' location on vehicles is **clear of all material** (the vehicle's windshield is OK) – no wall close beside the reader – for a "balloon" 30 feet long and 18 feet diameter.
3. When the tags are at the reading distance from the reader, **align the tags and the reader**. They should face each other head-on and be approximately parallel to each other. Be **consistent** – tags on all vehicles in similar location.
4. Before attaching a tag to the vehicle, test the reader by holding the tag in your fingertips in front of the reader. Keep your fingers and hand away from the credential's antenna. Test one tag at a time, watching code input in the system.
5. If the tags' face can't be parallel to the reader, orient the tags with a **long edge** closest to the reader, not a short end.
6. Locate tags and cards inside vehicles where the windshield wipers keep the windshield free of water or snow.
7. If the windshield has embedded or coated metal, see Technical Reference "Alternatives for 'Difficult' Cars".
8. Give instructions for tag or card installation to the end user's technical person. Ask AWID's Tech Support for help.

WS-UHF-0-0 WINDSHIELD TAG

1. Move the vehicle so that the windshield is at the reading distance. Press the plastic-film side of the WS-UHF tag flat against the inside of the windshield. Use a hand-sized block of flexible plastic foam, about 4 inches thick, to press the tag.
2. Test the tag at different locations inside the windshield. Try high and low, several inches from the vehicle's door pillar, in "portrait" and "landscape" orientation. Avoid embedded wires, metal coating and RF emitting devices.
3. If metal in or on the windshield reduces tag performance, test the tag at the top center of the windshield, where the glass may be clear to accommodate toll highway tags.
4. Peel off the plastic sheet to expose the adhesive. Press the tag's adhesive flat against the inside of the windshield. This is a **one-time application**. The tag will not work after it is pulled from its original position. The tag cannot be moved between vehicles.
5. WS-UHF tag is not designed to be held in the fingers, or carried, or taped, or inserted into a card punch. It must be adhered permanently inside the windshield glass.
6. This tag can be installed on a *side* window if (a) the reader is at the side, facing the tag, and (b) the window is unmovable so that the tag is always visible to the reader.



RV-UHF-0-0 REARVIEW MIRROR TAG

1. Select the best location on the mirror's shell for the RV-UHF tag – where the tag faces the reader. Tape the tag to the shell for test reading. The tag should fit smoothly on the mirror's shell.
2. Peel off the plastic sheet to expose the adhesive. Attach the tag firmly to the mirror's shell. The tag's black side faces the reader through the windshield.



VT-UHF-0-0 SUNVISOR TAG

1. The most convenient location for the tag is on the driver's sun visor. This requires the reader to be at the left side of the lane, or above the driver.
2. With the visor raised, clip the tag over the upper edge of the visor. The tag lies flat against the visor, facing the driver.
3. As the vehicle approaches the reading area, lower the visor so that the tag faces the reader through the windshield. The tag should then be about parallel to the reader.
4. When the gate or door operation starts, swing the visor back to its raised position.

**HT-UHF-0-0 HANG TAG**

1. For a hanging tag, the reader should be over the center of the vehicle. For a hand-held tag, the reader should be at the left side of the lane.
2. Hook the hangtag over the stem of the inside rearview mirror. Either side of the hangtag may face the windshield. Turn the tag by your fingers to face the reader.
3. The hangtag may be read either by leaving the tag hanging from the mirror's stem, or by holding the tag between the fingers at the hook-end of the tag, with tag facing the reader.

**MT-UHF-0-0 METAL-MOUNT TAG**

1. The MT-UHF tag reads best when it is mounted on a large flat area of metal.
2. Locate the tag so that it faces the reader directly at the reading area. The MT-UHF is directional, so the reader must be in front of the tag when reading.
3. Fasten the tag using screws whose heads fit inside the space molded at the ends of the tag, or pop-rivets, or the tag's adhesive. Use fasteners only at the ends of tag.
4. For testing, squeeze between fingers at one end of the tag, or use tape or wire ties.
5. Try both "portrait" and "landscape" orientation. On the side of vehicles, vertical orientation may give most consistent reading.
6. When permanent installation is complete, snap the screw-hole plugs in place.
7. The MT-UHF tag is *not* a "license plate" tag. Some states do not allow any part of the registration plate to be covered. The tag and the reader must face each other.

**ST-UHF-0-0 SUPERTAG**

1. This passive tag may be installed directly on a metal surface, or on other material, or "free-standing" in air, with exceptional range.
2. For testing, use tape over the screw-holes at the corners of the tag. Or use double-sided adhesive tape or adhesive magnets behind the tag.
3. For permanent fastening, use stainless or Nylon fasteners in the 4 screw-holes. Use 4 fasteners only when the mounting surface is flat.

**CS-UHF-0-0 CLAMSHELL BADGE and GR-UHF-0-0 GRAPHICS CARD**

1. The card must be squeezed between fingertips so that the hand is behind the card (away from the reader) and the fingers do not block the front of the card.
2. The card may be held facing the reader through the windshield or a side window. Best reading may result from holding the card outside the window, facing the reader.

