Quick Start

Installation

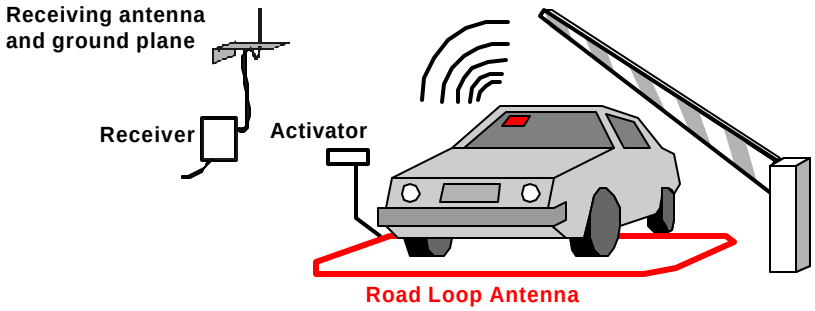
A

Road Loop Antenna

Road Loop Antenna

Installation Overview

Basic Installation



The **Road Loop Antenna** is designed for vehicle applications. Road Loop Antenna wire is available in lengths that will accommodate roadways or gate entrances up to 36-feet in width.

For antennas wider than 36 feet, contact AXCESS Inc. Customer Support at 800.577.6080.

Installing Road Loop Antenna

AXCESS recommends contracting an experienced concrete cutter.

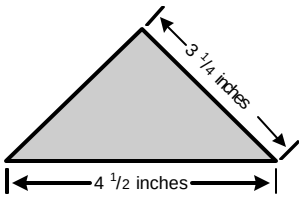
Normal antenna installation using a walk-behind concrete saw:

Blade Type	Blade Size	Blade Qty.
Abrasive	1/8" (spacer req.)	2
Diamond Cut	1/8" (spacer req.)	2

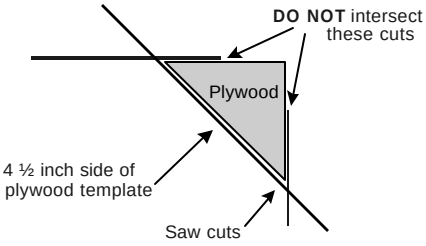
1 Marking Corners & Cutting Groove

Step 1: Confirm that the loop is correctly marked on the road surface.

Step 2: Lay out 45 degree corner cuts. A template like the one shown below is helpful.



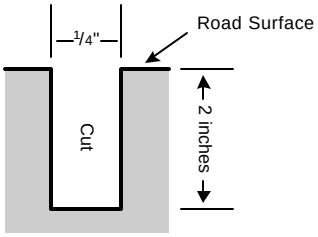
Plywood corner template



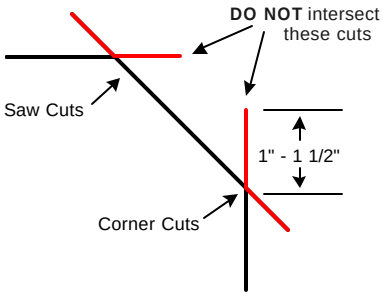
Using template to mark corner cuts

Step 3: At the corner closest to the Activator, mark a lead-in cut.

Step 4: Cut a groove that is at least a 1/4" wide with the concrete saw. Set the cutting depth to a minimum of 2" deep.



Do Not let the corners intersect when sawing. You could cut out a chunk of pavement.



When sawing the corner cuts, cut approximately 1" to 1 1/2" past the loop sides. This will maintain the saw cut depth at the 45 degree turn.

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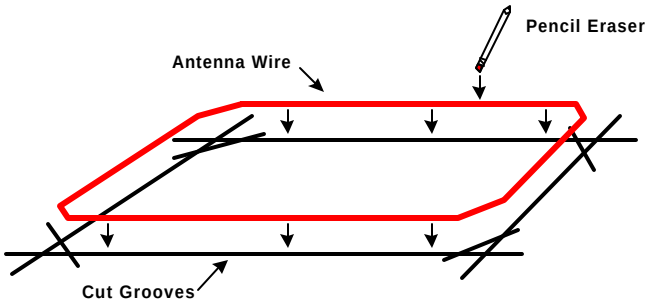
Road Loop Antenna

2 Inserting Loop

Step 1: Thoroughly clean out the groove with a vacuum or compressed air.

Step 2: Insert loop and lead-in into the cut grooves.



Do Not use a metal object to push the antenna loop into the cut as it may damage the wire.

A tongue depressor or a pencil eraser works well.

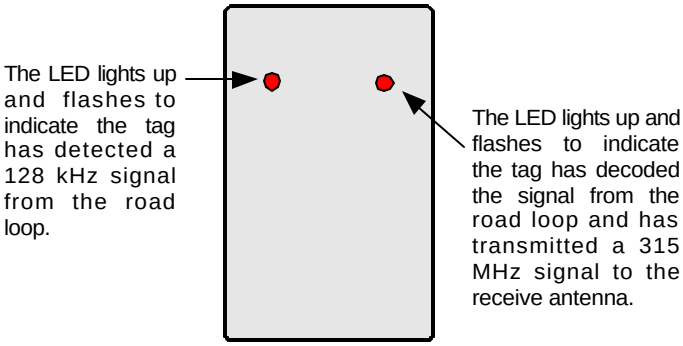
Step 3: Cycle the power of the Activator in order for the antenna's auto-tune feature to function.

Step 4: Check the strength of the TX Output LEDs located on the front panel of the Activator. A minimum of 4 lit LEDs is desired.

3 Testing the System & Sealing

Step 1: Test the system by positioning the LED Test Tag at strategic points to ensure complete coverage. It will light up and flash when it is within the field.

Also see "Tips and Common Mistakes"



Step 6: Seal the cut with an antenna loop sealant. Bondo Flexible Embedding Sealer, 3M Detector Loop Sealant or Q-Seal sealant.

It takes about a gallon of "Bondo" to seal the cuts for a 16 foot antenna.

Step 5: Dress and/or tie-wrap all cables and seal all exterior BNC connections with rubber silicone sealant.

Tips and Common Mistakes

- Ensure the activation field will not go into any areas (i.e. other lanes) when the tag is mounted on a vehicle. **Do not** run this test in open air. In open air the tag works at least ten feet from the loop but in a vehicle the range is drastically reduced.
- When adjusting the wake-up field, do so with the LED tag and a vehicle parked on or near the loop. **Do not** adjust the field with the tag in open air.
- All of the equipment should be installed in a NEMA 4 enclosure for outdoor use.
- Ensure the whip antenna is located within 35 feet of where the tag is activated by the road loop.
- The Whip antenna should be placed at slightly higher level than the tag is mounted on the windshield of the vehicle. The whip antenna and attached ground plane should be on the side of the road closest to the mounting position of the tag in the vehicle.

Refer to the **Configuration Guide** for detailed placement and mounting instructions and options.