

Customer

A large retail chain in the U.S.

Customer Requirements

Cost-effective, minimally intrusive vehicle detection system for drive-up service retrofit

Banner Solution

M-GAGE™ Q7LMEB Flat-Pak sensors

Why Banner?

Cost – Compact, magnetic field detection sensors were a fraction of the cost and far less intrusive than inductive loop sensors

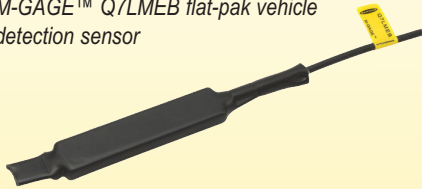
Ease of Installation – A narrow 1" wide, 3" deep trench was cut into the drive-up lane, sensor was placed and covered with sealant

Weather Resistance – Encapsulated circuit board housing is sealed in an adhesive-lined heat shrink sleeve

Customer Benefits

Performance Assessment – Drive-up data helped the company improve processes and make informed investment decisions

M-GAGE™ Q7LMEB flat-pak vehicle detection sensor



M-GAGE Q7LMEB Features

- Compact, one-piece, self-contained sensor requires no external controller
- Installs in a fraction of time required to repair or replace failed inductive loops
- Designed for indoor or outdoor applications, above or below grade
- Reliably detects large metal objects

Learn More

Visit www.bannerengineering.com for product information and to locate a distributor

- [M-GAGE Q7LMEB product overview](#)

All-Weather Sensors Improve Transaction Times at Retail Drive-Up Windows



Buried in a shallow trench, Banner's M-GAGE™ Q7LMEB detects vehicle presence at a drive-up window, triggering a timer and an alert to store staff

Background

Drive-up service facilitates quick, convenient transactions for retail stores and their customers. Installations may be as simple as a call button and a single drive-up window. Others may be more complex with two-way audio/video communication systems, multiple customer kiosks, pneumatic tubes and vehicle detection systems.

Challenges

A large retail chain wanted to improve customer transaction times by retrofitting their drive-up systems with automated vehicle detection. Additionally, the company wanted performance metrics, such as visit count and duration to determine where, how and whether to invest in additional or upgraded drive-up stations and staff.

The system they would choose needed to be easy to install to minimize drive-up downtime and cost-effective for a large deployment. It would have to withstand common outdoor challenges, like dirt, wind, precipitation and temperature extremes.

Solution

Banner's M-GAGE™ Q7LMEB Flat-Pak sensors provided the company with discrete vehicle detection. Like an inductive loop deployment, the M-GAGE sensors were buried in the drive-up lane. However, their small size required only a shallow, narrow trench and a small amount of pavement sealer, minimizing cost and service downtime. To protect against moisture and other environmental challenges, Banner encapsulated the sensors in sealed, adhesive-lined heat shrink epoxy sleeves.

Each sensor measures magnetic field changes, making them immune to challenges common to outdoor deployments. A vehicle entering the detection area will alter the local magnetic field, triggering an alert to notify staff and a timer to record the visit duration, enabling the company to monitor drive-up performance. The M-GAGE is configured to trigger only when alterations to the local magnetic field are sufficient to be caused by a vehicle, minimizing false alerts.