

JANUS EXTERIOR TRANSPONDERS

The High Performance Exterior Transponder for Cars and Trucks.

Overview

MARK IV's family of JANUS Exterior Transponders are an exceptionally flexible solution for IAG-protocol applications where interior-mounted transponders cannot be used. The new JANUS FME (Front Mount Equipment) replaces the ROADCHECK LPT (License Plate Transponder). There are 17 million transponders in service on E-ZPass® supplied by MARK IV.

Scalability

JANUS Exterior Transponders are designed for high performance in both lane-based and open-road toll collection environments, enabling agencies to migrate seamlessly to open road applications as resources permit.

Durability, Longevity & Value

The JANUS FME Transponders deliver optimum life-cycle cost, and can be transferred between vehicles, expanding their usability and allowing for unit recycling.

Multiple Applications

- ✦ Electronic toll collection
- ✦ Parking payment
- ✦ Traffic monitoring
- ✦ Access control
- ✦ Any ITS application enabled by location-based vehicle identification

Reliability

JANUS transponders are designed to deliver unparalleled performance under the most challenging of circumstances:

- ✦ Vehicle speeds up to 100 MPH
- ✦ Multiple lane and open road applications
- ✦ Stop and go bumper to bumper traffic
- ✦ Snow, rain, and fog

Key Benefits

- ✦ IAG interoperable for function and performance
- ✦ Designed for lane-based and open road toll collection
- ✦ Lower lifecycle costs than one-use permanently mounted tags
- ✦ Recyclable to new accounts
- ✦ Portability between vehicles



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Technical Specifications

- Read/write capabilities; fixed and variable data fields
- Half duplex, using the same frequency and modulation for up and down links
- Compatibility with the IAG protocol using active Type II read/write technology
- Information transmitted in 256 bit packets at a nominal rate of 500 kbps
- Operates in NMLMS band (909.75 MHz – 921.75 MHz)
- FCC and Industry Canada approved

JANUS FME (Front Mount Equipment)

Dimensions	20 cm x 4.5 cm x 2.5 cm (Maximum)
Color	Black
Data Capacity	256 bits
Data Format	Manchester Keyed Carrier
Error Checking	16-bit Cyclic Redundancy Check (CRC)
Data Rate	500 kbps ± 10% (uplink/downlink)
Operating Frequency	915 MHz nominal center
Operating Temperature Range	-40 deg C to +85 deg C
Power Source	Internal lithium battery