

# JANUS Driver Feedback Transponder. 915 MHz.



The Kapsch JANUS® Driver Feedback Transponder, designed to work with the JANUS family of readers, delivers the same high performance as the JANUS Interior Transponder. It provides the power of both audio and visual feedback to drivers passing under a toll gantry. As the toll industry evolves into more All Electronic Tolling (AET), the Feedback Transponder conveys important information\* directly to the driver about successful toll transactions, as well as the status of their account. It has the added benefit of being removable for the convenience of being shared among vehicles. There are over 26 million Kapsch transponders in active use today in North America, which includes E-ZPass®, the world's largest interoperable toll system.

**Flexibility.**

JANUS Driver Feedback 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 and Value.**

Feedback Transponders are designed as durable, compact units to ensure a superior, consistent user experience. Transponders can be shared among vehicles for expanded usability.

**Reliability.**

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

- Vehicle speeds over 100 mph
- Multi-lane, open road applications
- Stop and go, bumper to bumper traffic
- Extreme temperature performance from -40°F to +185°F



**\* Toll system must be configured to support this feature.**

## Multiple Applications.

- Electronic Toll Collection, especially suited to All Electronic Tolling (AET)
- Parking payment
- Traffic monitoring
- Access control
- Any ITS application enabled by location-based vehicle identification

Technical Specifications	
Operating Frequency	■ 915 MHz nominal center
Dimensions (WxHxD)	■ 3.7 x 1.9 x 0.9 in. / 9.40 x 4.83 x 2.29 cm
Weight	■ 1.87 oz. / 53 g
Color	■ Front (facing driver): Black Translucent (smoke) ■ Rear (facing windshield): Black Translucent (smoke) ■ Rear optional: Pearl White, Blue, Orange, Yellow, Green
Driver Feedback*	■ Visual: Green, Amber, Red LEDs ■ Audio: Audible tones
Data Format	■ Manchester Keyed Carrier
Data Capacity	■ 256 bits (including control bits for driver feedback)
Data Rate	■ 500 kbps
Error Checking	■ 16-bit Cyclic Redundancy Check (CRC)
Operating/Storage Temperature	■ -40 °F to +185 °F / -40 °C to +85 °C
Humidity	■ 5% to 95% non-condensing
Vibration	■ SAE J1211 (Nov '78), Para. 4.7.3, 1.5 G <sub>rms</sub> (5 - 1000 Hz)
Shock	■ SAE J1211 (Nov '78), Para. 4.8.2, 4ft.
Power Source	■ Internal sealed lithium battery
Mounting	■ Interior, windshield (removable)
Regulatory	■ FCC Part 90 and Part 15, Industry Canada RSS-137
Compatibility	■ TDM protocol

**\* Toll system must be configured to support this feature.**

## Kapsch TrafficCom.

Kapsch TrafficCom is a provider of intelligent transportation systems (ITS) in the application fields of road user charging, urban access and parking, road safety enforcement, commercial vehicle operations, electronic vehicle registration, traffic management and V2X cooperative systems. We cover the entire value creation chain of our customers with end-to-end solutions. From components and subsystems to their integration and operation. Our core business is to design, build, and operate electronic toll collection systems for multi-lane free-flow traffic.

## Kapsch Group.

Kapsch is one of Austria's most successful technology corporations, specialized in the future-oriented market segments of Intelligent Transportation Systems (ITS), Railway and Public Operator Telecommunications as well as Information and Communications Technology (ICT). Kapsch. Always one step ahead.