Micromax Pty Ltd
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TT-200 — Full Technical Specification & Features

Overview

- The TT-200 is a **2-channel inductive-loop traffic detector / counter**, suited for one- or two-lane installations (i.e. two loop inputs). Diamond Traffic+1
- Designed for **very low power consumption**, compatible with standard or custom loops — can detect vehicular traffic including cars, bikes, trucks. Diamond Traffic+1
- Provides **real-time counts** on a built-in **LCD display** (8-digit), and uses **LED indicators** to show channel status, detections, sensor / loop connection state, and current frequency/sensitivity settings. Diamond Traffic
- Configurable via a simple front-panel interface; selectable frequency and sensitivity ranges for each channel independently; automatic sensor tuning on power-up (adjusts to connected loops). Diamond Traffic+1
- Optional: can be equipped with a **real-time data logger** to store timestamped loop activation events — enabling post-processing for count/classification, potentially speed, direction, length analysis depending on loop layout. Diamond Traffic+1
- The unit is **standalone** — does not require external software or hardware to operate (though adding the data-logger requires software to retrieve and analyze data). Diamond Traffic+1

🛠 Physical & Power Specifications

Parameter	Value / Description
Power Supply	8 × "D"-cell alkaline batteries, 12 V DC Diamond Traffic+1
Power Draw	Typical ~ 380 μA @ 12 V; Max ~ 780 μA; Min ~ 210 μA @ 12 V Diamond Traffic
Battery Life (typical)	~ 2 years (low-demand, standard configuration) Diamond Traffic
Battery Life (high-sensitivity)	~ 1 year at highest sensitivity/detection settings Diamond Traffic
Display	8-digit solid-state LCD (visible through a window without opening the case) Diamond Traffic+1
Interface	Front panel with buttons, plus LED channel indicators for status / detection / settings Diamond Traffic
Housing / Case	Polypropylene-moulded, watertight, with O-ring seal, sealed sensor inputs, carry handle. Crush- and impact-resistant. Diamond Traffic+1

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Parameter	Value / Description
Ingress Protection	IP67 (watertight) Diamond Traffic+1
Dimensions	4.29" H × 7.8" W × 9.44" L → 10.9 cm × 19.8 cm × 24.0 cm Diamond Traffic
Weight (without batteries)	~ 3 lbs → ~ 1.3 kg Diamond Traffic+1
Operating Temperature Range	–40 °F to +165 °F → –40 °C to +72 °C Diamond Traffic+1

☑ Key Features

- **Watertight, rugged design** — suitable for outdoor roadside or embedded-loop environments, even harsh weather. Diamond Traffic+1
- **Ultra-low power consumption** — long battery life makes it ideal for temporary or remote installations without external power supply. Diamond Traffic+1
- **Automatic loop tuning** — on startup, the detector auto-tunes to connected loops; but manual tuning via keypad is also available, useful for high-sensitivity or bicycle-detection scenarios. Diamond Traffic+1
- **Dual-loop (two-channel) support** — allows counting on two lanes simultaneously (or two separate loops), useful for multi-lane traffic. Diamond Traffic+1
- **Standalone operation** — LCD and LEDs give real-time counts without need for external data retrieval. Diamond Traffic+1
- **Optional timestamped data-logging** — when fitted with the logger, can record activation events (loop triggers) for advanced post-processing (counts, classification, speed/direction/vehicle-length analysis depending on loop setup). Memory supports **up to 120 million events**. Diamond Traffic+1
- **Writable user-labels / fields** — the front panel inside the case includes erasable fields for marking Site ID, last read/reset date/time, battery change dates — helps avoid confusion in field surveys. Diamond Traffic
- **Standard external loop inputs** — uses a standard mil-spec terminal connector for loops; optional plug available for external relay outputs (e.g. to trigger external devices on loop activation). Diamond Traffic
- **Comprehensive warranty** — backed by Diamond's standard 1-year warranty. Diamond Traffic

Typical Applications / Use Cases

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- **Vehicle counting & traffic surveys** — single or dual-lane counting for cars, bikes, trucks; suitable for road traffic studies, temporary traffic counts, traffic flow monitoring.
- **Portable or remote installations** — battery-powered, rugged, weather-proof — good for remote sites without external power.
- **Long-term data collection (with data logger)** — with timestamped loop events, suitable for detailed traffic analysis: volume, classification, speed/direction (if using dual loops), vehicle-length estimation (with proper loop spacing), etc.
- **Mixed traffic (vehicle + bicycle)** — loop tuning and sensitivity adjustment allow reliable detection of smaller targets like bicycles (assuming appropriate loop design).
- **Temporary or permanent loop installations** — loops already installed in pavement/roadway; TT-200 can be connected to those existing loops.