

# Ultra II D-TEK

VEHICLE LOOP DETECTOR

## Applications

The Ultra II D-TEK was designed to be a more compact, energy efficient, cost effective and reliable detector that is easier to install and setup.

Sensitivity selection is simplified by the ULTRAMETER™ display that indicates the appropriate sensitivity setting to detect the vehicle positioned on the loop.

The 10 sensitivity settings allow for finer adjustment of the detection level, while the 4 frequency settings provide greater flexibility in preventing crosstalk in multi-loop applications.

# D-TEK



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## Indicators & Controls

- **Dip Switch** 4 positions that control frequency, ASB (automatic sensitivity boost) and Pulse/Presence (provides for reducing noise interference)
- **Sensitivity** Rotary switch is used to fine tune adjustment of loop detection height.
- **Output LED** The Red LED indicates the detection output status
- **Ultrameterm** Visual indicator of optimum loop sensitivity setting
- **Power LED** During operation, the Green LED permanently ON indicates a normal operating condition; blinking indicates a loop failure condition.
- **Frequency Count Switch** Momentary push button to check operating frequency of the loop. (indicated by the Red LED blinking at 10 kHz per blink). May also be used to hard re-set the Ultra DTEK



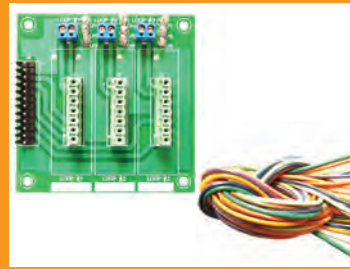
The ULTRAMETER™ display makes installation, set-up and troubleshooting easy. Each time a vehicle is moved onto the loop, the display indicates the sensitivity necessary to detect vehicle. Simply set the sensitivity to the value displayed to detect the vehicle. Interference or crosstalk from adjacent loops or other sources are displayed as a constantly varying number on the ULTRAMETER™. This condition may be avoided by maintaining a minimum of 5 kHz separation in multi-loop applications.



PR-XX (light preformed loop with lighting protection)



LD-7P 7 position plug terminal for wiring (included)



ULTRA II-MB (Ultra II Motherboard)



130-10020316

## Technical Data

**Power Supply**  
**Current Draw**  
**Dimensions**  
**Weight**  
**Loop Inductance**  
**Environmental Tracking**  
**Operating Environment**  
**Housing Material**  
**Connection**  
**Loop Compensation**  
**Loop Frequency**  
**Surge Protection**  
**ULTRAMETER Display**  
**Output**  
**Power/Loop Fault Indicator**  
**Detect/Frequency Count Indicator**  
**Frequency Count**  
**Pulse/Presence**  
**Sensitivity**  
**ASB (Automatic Sensitivity Boost)**

12-30 VDC and 24 VAC (reverse polarity protected)  
 18 mA max.  
 L= 3.0in (76mm) W= 0.9in (22mm) H= 2.75in (70mm)  
 0.15 lbs. (68g)  
 20...2000µH (Q factor > 5)  
 Automatic Compensation  
 -40° C...82° C (-40°F...180° F) 0...95% relative humidity  
 PVC (Green)  
 Plug-in 7 Position screw terminal to aid in wiring.  
 Isolation transformer allows operation with poor quality loops  
 4 settings (low, med-low, med-hi, high)  
 Loop circuitry protected by surge suppressors  
 Indicates optimum sensitivity level, 0-9 Diagnostic aid  
 Relay 1A@24VDC Common, Normally Open, Normally Closed  
 Green LED  
 Red LED  
 To aid in detector set up and prevention of cross-talk  
 Allows the relay output to send either a pulse output or have constant presence.  
 10 levels 0-9  
 Increases sensitivity after initial detection to prevent dropout due to high bed vehicles

## Ordering Information

- ULTRA II D-TEK 12 – 24 V DC and 24 V AC. I = 18 mA max.
- PR-XX EMX Lite Preformed Loop XX =size
- LD-7P 7 position pluggable screw terminal adaptor to aid in wiring connections.
- HAR-12-2 12 position wiring harness.
- ULTRA II-MB Ultra II Motherboard.



WARRANTY EMX INC. the product described herein for a period of 2 years under normal use and service from the date of sale to our customer. The product will be free from defects in material and workmanship. This warranty does not cover ordinary wear and tear, abuse, misuse, overloading, altered products, or damage caused by the purchaser from incorrect connections, or lightning damage. There is no warranty of merchantability. There are no warranties expressed, implied or any affirmation of fact or representation which extend beyond the description set forth herein. EMX Inc. sole responsibility and liability, and purchaser's exclusive remedy shall be limited to the repair or replacement at EMX's option of a part or parts not so conforming to the warranty. In no event shall EMX Inc. be liable for damages of any nature, including incidental or consequential damages, including but, not limited to any damages resulting from non-conformity defect in material or workmanship. Rev 2.1 07/09/08

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