



*For more information, contact Dean Wolf at [dwolf@ara.com](mailto:dwolf@ara.com) or phone 717-691-7625.*

## **SCOUT Automated Traffic Recorder (ATR) Specifications**

- 20-channel modular traffic recorder
- Supports inductive loop and piezoelectric sensors
- Battery backed RAM
- Rack mount design
- True multi-tasking system performs multiple traffic studies simultaneously
- Virtual channel assignment
- Advanced monitoring capabilities
- Solar or AC powered
- One-year warranty

### **Housing**

- Rugged powder-coated aluminum casing
- Environmentally protected, twist on, AMP connectors
- Electronic boards are removable and interchangeable

### **Environmental**

- Operating temperature range is -40 to +80°C (-40 to +176°F)
- Operating humidity range is 0 to 98% relative humidity
- Electronic boards are conformal coated to protect against the effects of humidity
- Built-in temperature sensor to facilitate battery charger compensation

### **Power**

- 12V DC powered system with internal 12V, 7amp hour battery
- AC power adapter included
- On-off toggle switch for unit power control
- Internal battery charger that uses temperature to compensate charging rate in order to increase battery life
- Solar power adapter cable (optional)

### **Communications**

- RS232 port capable of 300 to 19200 baud rates
- Automatically matches baud rate of calling computer
- Remote communications via phone line or wireless and direct communication from computer via RS232 cable

#### **TRANSPORTATION SECTOR**

**7184 TROY HILL DRIVE, SUITE N ELKRIDGE, MD 21075-7056**

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## **Sensor Support**

### *Inductive Loops*

- Supports inductive range from 50 to 300 micro Henries
- User-selectable frequency adjustments to tune out crosstalk
- Eight inductive loop power sensitivity adjustments from 50 to 100%
- Supports up to 20 loop inputs (4 loop inputs per board)
- Loop board has its own microprocessor
- Built-in static and neon based surge protection and low power mode

### *Piezoelectric Axle Sensors*

- Supports up to 20 piezoelectric inputs (4 piezoelectric inputs per board)
- User-selectable sensor output thresholds range from 40 millivolts to 2.96 volts
- Piezoelectric board has its own microprocessor
- Built-in static and surge protection and low power mode

***\*All sensor input boards support virtual channel assignments so loop and piezoelectric boards can function in any card slot. User is not limited to mandatory channel to wire assignments.***

## **Microprocessor**

- Motorola 32-bit running at 16MHz with integrated low power management for power savings to extend battery usage
- Uses an operating system, similar to a personal computer, that provides system with more power and a user with more control

## **Memory**

- Battery-backed RAM; 256K standard
- Additional memory upgrades available

## **Clock/Calendar**

- Battery-backed internal real-time clock and calendar
- Supports user-selectable daylight savings time changes in accordance with the Energy Policy Act of 2005 (usage beginning in March 2007)

## **Traffic Data Recordings**

- Traffic data can be stored using binned, vehicle (PVR), and event formats
- Cyclical data storage incorporating first in, first to be overwritten record storage

## **Traffic Studies**

- Supports volume, speed, axle classification, length classification, gap, and headway
- Speed, length, gap, and headway bins are user-definable
- Axle classification follows FHWA scheme and can be modified to accommodate custom applications

## **Monitoring Traffic**

- Data can be monitored at the sensor and vehicle level
- Includes onboard LED lights to verify sensor inputs
- Vehicle characteristics, sensor inputs, and events can be monitored via a computer
- Vehicle characteristics and events can be monitored simultaneously to provide advanced troubleshooting capabilities

## **Diagnostics**

- Automatic board and system level diagnostics performed at power-up
- Visual and audio feedback to user during power-up diagnostics
- User-selectable and definable diagnostic commands and features

## **Engineering**

- All system and board level engineering design, development, manufacturing, and firmware and software development is performed in-house by ARA
- All service and support functions are also provided in-house by ARA