Description

Detcon SmartWireless® audio-visual alarm stations are easily and economically deployable in both permanent and temporary installations. These devices feature a battery powered audio visual alarm station designed as a wireless cordless system component. They are rated for Class 1; Division 2, Groups B, C, D hazardous areas.

Power is provided by a Detcon designed smart battery pack eliminating the requirement for power or signal cables (line power option available). The standard rechargeable battery packs are capable of delivering enough energy for 5-7 hours of continuous operation in a full alarm condition or 5 months (no alarm condition). The standard rechargeable battery pack continuously reports its charge level and estimated operating time before recharge or replacement is required. An optional solar charging panel can be used to extend operating time and maintain full battery charge levels for virtually any application. An optional disposable “D” cell battery pack is capable of delivering 8-10 hours of continuous operation in a full alarm condition or 9 months (no alarm condition).

The visual and audible devices can be configured to turn on for different types of gas alarms (i.e. LEL and H2S), in sequence (i.e. LEL turns on visual 1 and horn while H2S turns on visual 2 and horn), or in 3 separate conditions (i.e. alarm level 1, level 2 and level 3). The alarm controlling the audible can be configured for acknowledge/silence via operator interface at the SmartWireless CXT Controller.

The SmartWireless® alarm stations use Detcon’s proprietary “Self Healing Mesh” technology which operates at 2.4 GHZ and conforms to non licensed radio frequency appliance usage around the world. Wireless network integrity and security is accomplished using direct sequence spread spectrum DSSS programming topology. Wireless applications can be as simple as a single field device communicating with a host display or any number of field devices forming a network of subscribers. Each device in the network is assigned its unique device identification or a UID. Every device in the network can act as a router and repeater for all other devices in the network. This means that subscribers can “hop” through neighboring devices to communicate with each other thereby widening network access points. This unique and innovative technology is designed to create a robust network that automatically routes around congestion and line-of-sight obstacles while improving throughput as subscriber device density increases.

Features

- Wireless-Cordless®
- Line Power Option Available
- Configurable with Audible & Visual, Two Strobes, or Two Audibles
- 4-6 Hours Continuous Operation in Full Alarm
- Class I, Div II, Groups B, C, D

Applications

- Oil and Gas Drilling Rigs
- Oil and Gas Production Sites
- Wastewater Treatment Plants
- Food and Beverage Processing
- Pulp and Paper Mills
- Refining and Petrochemical
**Model SW-AV2-DV2 • SmartWireless® Alarm Station**

### Alarm Station Specifications
- **Input/Output**: 2.4GHz DSSS radio transmission
- **Electrical Classification**: Class I; Div 2; Groups B, C, D
- **Dimensions**: 33.75”H x 18.3”W x 12.25”D; 857mmH x 464mmW x 311mmD
- **Weight**: 38 lbs.; 17.23 kg
- **Warranty**: 1 year

### Electrical Specifications
- **Power Input**: 6-30 vdc and/or Rechargeable battery pack or Internal “D” size disposable battery pack
- **Power Consumption**: 20mW (Low Power Mode) 100mW (Typical) 9.72W one alarm; 18.84W two alarms; 27.96W three alarms
- **Performance**
  - Transmit Power Output: 18dBm
  - Interface Data Rate: 9,600bps
  - Throughput Data Rate: 19,200bps
  - RF Data Rate: 250,000bps
  - Transceiver Sensitivity: -102dBm
  - Frequency: 2.40-2.48GHz
  - RF Channels: 16, each 5Mz Wide
  - Output Power: 100mW (20.5dBm) EIRP
  - Spread Spectrum: DSSS (Direct Sequence Spread Spectrum)
  - Modulation: 0-QPSK
  - Supported Network Topologies: Mesh, Point-to-Point
- **Antenna**
  - O db 1” Whip with Screw on Radome Antenna Guard
- **I/O Protection**
  - Over-voltage, Miswiring, EMI/RFI Immunity

### Visual Alarm Specifications
- **Output**
  - Intense light; flashing standard, configurable to steady burn
- **Lamp type**
  - LED array
- **Flash rate**
  - 60 flashes per minute
- **Lamp life**
  - 60,000 hours
- **Lens colors**
  - Amber, blue, clear, green, and red

### Audible Alarm Specifications
- **Output**
  - Long Flare: 115dB(A) ± 3dB(A) (tone dependent)
  - Short Flare: 108dB(A) ± 3dB(A) (tone dependent)
- **Tones**
  - 27 User Selectable Tones Available

### Battery Specifications
- **Smart Rechargeable Battery (2)**: 5 months (no alarm condition): 5-7 hours (full alarm)
- **Disposable “D” Cell Battery Pack (2)**: 9 months (no alarm condition) 8-10 hours (full alarm)

### Order Guide
- **Part Number**: 977-2U_ _0W-1P2-_ _0
- **Description**: Model SW-AV2-DV2 Alarm Station (1 horn, 2 strobes)

---

**Environmental Specifications**
- **Operating Temperature**
  - -20°C to +60°C; -4°F to +140°F

**Accessory Options**
- Tripod for Mounting
- Mini Tripod for Mounting
- 7db Gain Antenna
- Solar Charging Panel

Specifications subject to change without notice

---

**Battery Specifications**
- **Smart Rechargeable Battery (2)**: 5 months (no alarm condition): 5-7 hours (full alarm)
- **Charge Temperature**: -20°C to +60°C; -4°F to +140°F discharge temperature.
- **Discharge Temperature**: 3°C intermittent.

- **Disposable “D” Cell Battery Pack (2)**: 9 months (no alarm condition) 8-10 hours (full alarm)
- **Charge Temperature**: -55°C to +85°C; -67°F to +185°F discharge temperature.

---

**Position Guide**
- **Position “6”** select color of strobe 1: __________
- **Position “7”** select color of strobe 2: __________
- **Position “14”** power selection:
  - 1 - External 24 VDC supplied by customer
  - 5 - Smart battery pack
  - 7 - 117/220 VAC line power to DC power supply
  - 9 - 117/220 VAC line power to DC power supply with stand-by battery
  - D - Disposable “D” cell battery pack

---

**Houston • Odessa • Shanghai • Dammam • Del Carmen • Europe**

Tel: 713-559-9200
Toll Free: 888-367-4286
Fax: 281-292-2860
Email: sales@detcon.com
Web: www.detcon.com