



**TELEDYNE DETCON**  
Everywhere you look™

**SkotFire**  
AND SAFETY TECHNOLOGY

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## SW-AV2-DV2

SmartWireless® Alarm Station



### 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 self-certified 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 hours of continuous operation in a full alarm condition or 4 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 hours of continuous operation in a full alarm condition or 8 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.



# SW-AV2-DV2

SmartWireless® Alarm Station

## 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

## 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

## 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

RF	Outdoor RF Line of Sight (with standard antenna): 1 Mile 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: O-QPSK Supported Network Topologies: Mesh, Point-to-Point
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Antenna	O db 1" Whip with Screw on Radome Antenna Guard
I/O Protection	Over-voltage, Miswiring, EMI/RFI Immunity

## Audible Alarm Specifications

Output	Long Flare: 115dB(A) $\pm$ 3dB(A) (tone dependent) Short Flare: 108dB(A) $\pm$ 3dB(A) (tone dependent)
Tones	27 User Selectable Tones Available

## Environmental Specifications

Operating Temperature	-20°C to +60°C; -4°F to +140°F
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## Battery Specifications

**Smart Rechargeable Battery (2):** 4 months (no alarm condition); 5 hours (full alarm) (-20°C to +60°C; -4°F to +140°F discharge temperature; -30°C intermittent).

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

## Accessory Options

Tripod for Mounting  
Mini Tripod for Mounting  
7db Gain Antenna  
Solar Charging Panel

Specifications subject to change without notice

## Order Guide

**Part Number**  
977-2U\_\_0W-1P2-\_\_0

**Part Number**  
Model SW-AV2-DV2 Alarm Station (1 horn, 2 strobes )

See legend below to complete the part number.

**Position “6” select color of strobe 1:**

**Position “7” select color of strobe 2:**

2 - Red  
4 - Amber  
5 - Green  
6 - Blue  
7 - Magenta  
9 - Clear

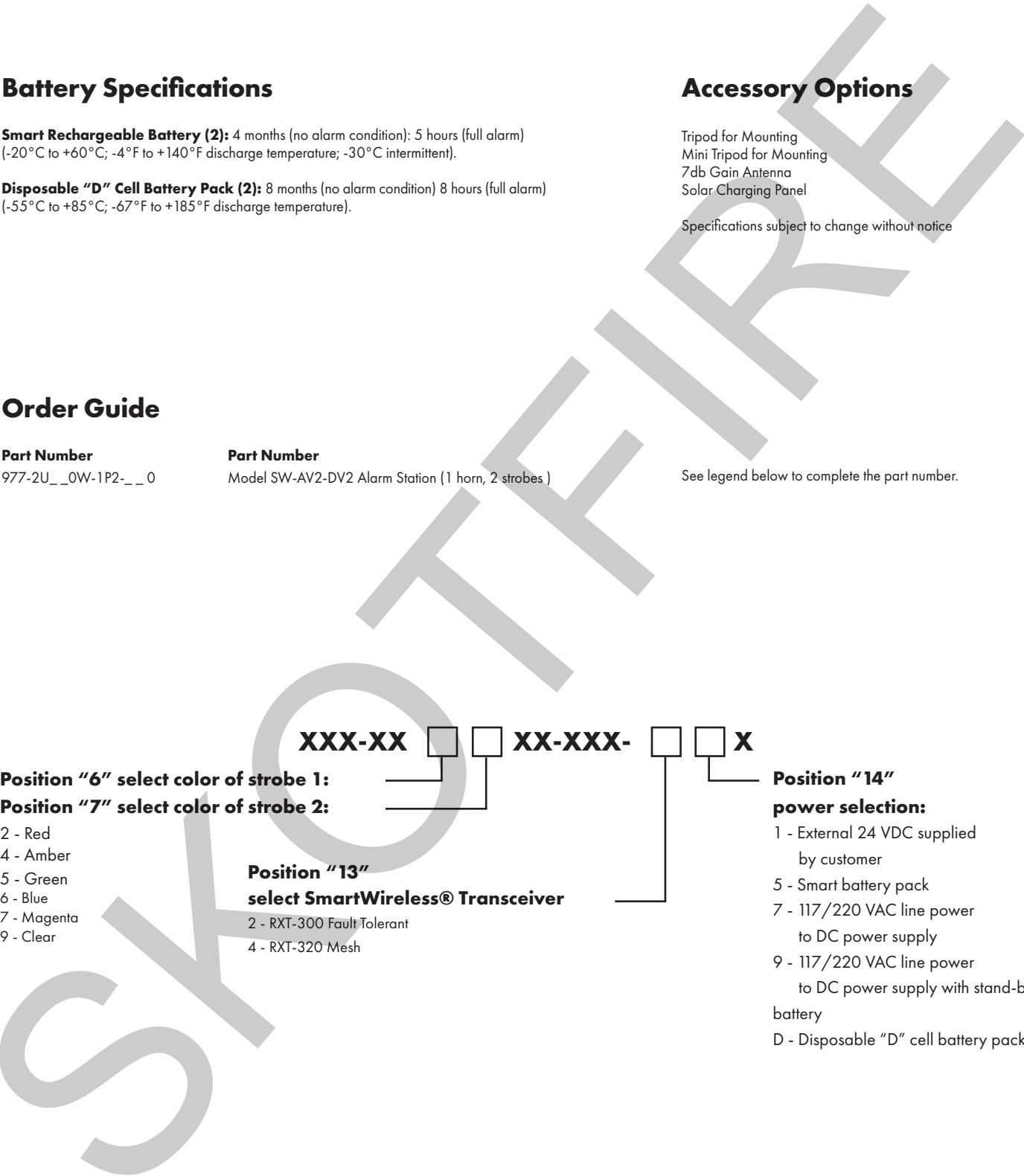
**Position “13”  
select SmartWireless® Transceiver**

2 - RXT-300 Fault Tolerant  
4 - RXT-320 Mesh

**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

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**TELEDYNE**  
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