

## Auto Alignment - Aeroflex 3920

How do you use the Auto-Align function on a 3920? Connect a cable, press "Test and Align," and you are free to do more important things. This application is self-contained within the 3920 and automatically performs the functions of radio alignment and verification to ensure optimal radio performance. The alignment software replaces the manual process of aligning the radio using a computer coupled with tuner software and an experienced operator.

### Radio Aligning

On the Receive side, the application resolves simple radio alignments such as Reference Oscillator, High Power, Mid Power, Low

Power, Deviation Balance, Deviation Limiting, Front End, Performance Tests, P25 Modulation Fidelity, P25 Symbol Deviation and P25 RX BER.

### Test Results

A summary of test results are displayed at the end of the test to clearly indicate the pass/fail status of all tests. Test results can be automatically saved to the 3920's internal hard drive and/or printed to a local or network printer. File



Auto-Alignment

names are automatically generated from the model/serial number information that is read from the radio coupled with a time/date stamp. Radio software versions and feature set information are also read and archived with the test result information automatically.

Automation is only valuable when based on accurate measurements. The 3920 offers unsurpassed measurement accuracy for all of the primary alignments of Power, Frequency and Deviation. This ability to accurately profile digital performance characteristics ensures the end result will be a radio that has been optimized and will operate at peak performance.  $\Omega$

## Narda Tri-Band Power Divider

For commercial applications that do not require the stringent environmental performance of our heritage power divider products, Narda has a low cost line that delivers outstanding RF performance. Featured are tri-band de-

vices (2, 3, 4, and 6-way divider/ combiners) with SMA Female or N Female connectors covering the frequency range of 0.8 to 2.5 GHz.

Each unit is typically usable 200-300 MHz above

and below the specified band edges with minimal performance degradation.

In a split-band configuration (1900-2500 MHz or 800-1000 MHz), Narda offers 8- and 16-way power divider/ combiners.  $\Omega$

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## Relm VHF P25 Trunking is HERE!

REL M Wireless will again be demonstrating the VHF, KNG-P150 Trunking portable and KNG-M150 Mobile radio at APCO in Houston.

These are the same units that were demonstrated at IWCE. Since IWCE, REL M has added many new features including RSSI based roaming. The units work on P25 Conventional and Trunking Systems.

### State Testing

The REL M team has spent considerable time on multi-

ple P25 Trunking systems validating the KNG's ability to plug and play in each respective state system. VHF and UHF system testing has been underway since Spring. 700/800 MHz system testing is planned for the third quarter, 2010.

### Compliance Test

The KNG Series mobiles and portables passed the Project 25 Compliance Assessment Program (CAP) testing at Motorola in March, 2010.

### Taking Orders

REL M has already received orders from customers who have seen the KNG working on their system. Commercial shipment of the KNG-P150, KNG-P400 and KNG-P500 portables and KNG-M150 mobiles will begin in August 2010. Shipment of the KNG-P800 portables and KNG-M400 and KNG-M500 mobiles should commence prior to the end of 2010. Ω



Relm Wireless Trunking  
KNGP150 Portable

## Times T-RAD - Mine Approved

T-RAD-600-FR-MSHA (AA-9572) is an MSHA approved leaky cable ideal for use in communications systems in mines and tunnels.

Compared to corrugated copper radiating cables, T-RAD-600 provides comparable coupling loss and attenuation, but is more flexible and rugged allowing for easier installation and more

reliable performance.

### T-RAD 600

T-RAD-600 is also low cost and light weight. By using splitters RF coverage can be achieved over networks of tunnels to provide an efficient and safe work environment.

T-RAD-600 can also be used to provide RF cover-

age in buildings, parking garages and other enclosed areas.

### Seeing/Believing

Our dealer network has had great success in selling T-RAD 600 and 900 into lot of applications. We would like to send you a sample of either 600 or 900. Please call me to arrange. Ω

*Times Microwave T-RAD 600 is now approved for use in mines. Making it ideal for your tunnel or interior project.*

## Grounding/Lightning Protection

So, you have a concern about grounding and lightning protection. We would ask you to check out the grounding and lightning information available from **Lyncole** [www.lyncole.com](http://www.lyncole.com) and **Times Microwave** [www.timesmicrowave.com](http://www.timesmicrowave.com). Each website includes lots of downloadable informa-

tion that practical and useful.

### Lyncole

Check out "Services" on the Lyncole site and learn how you can determine your own grounding needs or pay them to visit your site(s) and help you protect all of your equipment.

### Times-Protect

Find the Times-Protect area of the Times site and you can download an application guide and cross reference sheet that will really help you protect your RF equipment. Please call me for more information. Ω



LP Series Times-Protect  
Lightning Arrestors



## 1.6 MHz to 3.6 MHz SignalHawk

The **SH-36 Series, SignalHawk™** line of Spectrum Analyzers and VNA's is the most user-friendly and accurate hand-held test solution available for installing, maintaining and troubleshooting all segments of RF communication systems.

Field engineers, technicians, wireless equipment manufacturers, service providers, contractors, tower erectors and military field personnel alike have come to trust the efficiency and

precision results of SignalHawk.

### 2-Port VNA

**Vector Network Analyzer (VNA):** The 2-Port VNA sweeps antennas (VSWR/return loss dB vs. frequency) and provides cable distance-to-fault. As well as test insertion loss and amplifier gain.

**Power Meter Option:** The SignalHawk is compatible with Models 5010B, 5010T, 5011, 5011-

EF, 5012A, 5015 and 5017 external power sensors. These sensors provide ± 5% (± 0.2 dB) accuracy.

### Rackmount

Bird also has the Rackmount version set up so you can control it from your computer. Call me and we will give you the Internet address and codes so you can actually play with one - at your convenience. We think you will be impressed! Ω



**Remote Control Rackmount Hawk**

## Daniels - Low Standby Current

Daniels Electronics is known for their high spec, low current draw, modular rackmount base station and repeater products. Wouldn't you like to know exactly what the standby current is on an 8 watt repeater?

### 189.5 mA!

That's right, 189.5 milliamps with a breakdown as

follows:

SR-39 Subrack - 3 mA

SM-3 Monitor - 3 mA

VT-4E TX - 75 mA

VR-4E RX - 105 mA

CI-CR-RL Card - 3.5 mA

For either analog or P25 digital, that's it!

### Less Than 3 A TX

The other side of this is transmit draw. With a cur-

rent draw of 3 amps or less, you get about 8 watts out of the transmitter! Again, this is either analog or P25 digital.

When you have a remote access radio site and power consumption is critical, it is really Daniels or nothing.

Please let me provide a quotation for you next project. Ω

*Daniels Electronics provides low current draw modules for remote site RF needs*

## SitePro I MaxGround Bars/Lugs

Site Pro I, a division of Valmont Structures, has a variety of grounding supplies to help protect your RF and electrical equipment.

### MaxGround Bars

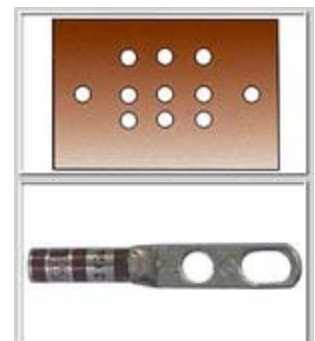
The 1/4 X 4 X 6 MaxGround Ground Bars Sec-

tor 6 accepts 3/8" lugs with 9 holes that allow up to 3 runs with two hole lugs to be connected to the bar. The Universal hole pattern accepts two hole lugs with .750", .815" or 1" spacing.

For \$26.45, the kits include insulators & Stainless Steel brackets.

### 1 And 2 Hole Lugs

When you are grounding equipment at the site, don't forget that Site Pro I has several varieties of grounding lugs, plates and other accessories. These include the universal lug with a slot/hole. Call me for more information. Ω



**MaxGround and Lug**



## Raytheon - Interoperability And A Full P25Net System

Raytheon has a variety of communication solutions to help you, from Interoperability to a full P25 system.

### Interoperability

Their Interoperability product (beginning as JPS) has become the standard for audio bridged, multi-agency, multi-band radio communications. It has now grown from just a rack mounted, analog only product, to a rugged portable (ACU-T), nice mobile unit (ACU-M) to an Internet based unit (ACU-2000). Now they have software products for Wide Area Interoperability System (WAIS).

### P25Net System

If you need to move your radio system from Analog to P25 and need

to do it within your own budget, the P25net solution eases the migration to P25.

It delivers a robust and affordable P25 IP Network-Based radio system to homeland security professionals, public safety, private industry and military personnel. With interoperability at its core, the P25net system is fully compatible with all P25 radios. Ω



ACU-M Mobile Unit

### ACES 2010

We will be holding ACES on October 5/6/7, 2010 so mark your calendars for the first full week of October when we will be in:

**Boise, ID - Tue 10-5**

**Helena, MT - Wed 10-6**

**Spokane, WA - Thru 10-7**

Our two technical tracks will be on grounding/lightning protection and P25 radio systems. We will show new products in the exhibit area and have a free lunch and lots of door prizes. So, come to learn and have a chance to win.

You will enjoy yourself at ACES meeting your colleagues and learning something new. Ω



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