

### INSIDE THIS ISSUE:

#### 2007 YEAR IN REVIEW

#### LINE TRACING with the HARMONIC LOCATOR PROBE

#### NEW EQUIPMENT CASES

#### NEW TALAN™ FIRMWARE

#### In The News...TSCM Related Headlines & News

#### REI Training Calendar

#### Shipping Equipment to REI



## 2007, A Phenomenal Year In Review

**NEW PRODUCTS** 2007 marked the official production release of the **TALAN™** Telephone and Line Analyzer, triggering customer responses beyond our expectations. There were also new releases of the **OSCOR OPC** software providing enhanced trace analysis and recording capabilities.

**NEW TRAINING COURSES** REI implemented two New Training Classes: the **TCC-110 Telephone Security Countermeasures** course and **DTC-210 Digital Telephone Security** course. Additionally, REI conducted two **TSE-101 Technical Security Equipment** courses in Spanish as part of our expanding training offerings.

**BUILDING EXPANSION** During the past couple of years, REI has experienced continued steady growth, and we continue to add personnel and new equipment to manage this growth. However, once again we have outgrown our current facility, and thus have broken ground to expand our current location. The new addition will essentially double the size of our current facility, providing much needed space and increased capacity for manufacturing, engineering, training, and administration departments. This expansion will also allow REI to continue to improve quality and design of TSCM products and ultimately provide better service for our customers. The new building expansion is scheduled to be completed in 2008.

Overall, it has been a wonderful year for REI, and we thank our customers, partners and friends for the support. We look forward to serving you in 2008.



## Line Tracing with the TALAN™ Harmonic Locator Probe

Line tracing sounds simple enough, however it can be a cumbersome task. Confirming that your equipment is set up correctly can greatly enhance the results. Below are some instructions and tips for using the TALAN's Harmonic Locator Probe (HLP) for line tracing.

### Calibration

First, the TALAN's Harmonic Locator Probe (HLP) must be properly calibrated. The HLP automatically calibrates itself every time it is turned on, however the probe must be installed on the end of the HLP before turning the HLP on to properly calibrate. Therefore, install the probe and place the HLP antenna probe in a suspected RF quiet space BEFORE turning the HLP on.

Continued on page 3.



## New Equipment Cases

REI has upgraded the hard shell case for the **CPM-700, VPC-64 Pole Camera, and MDC Microwave Down Converter** with a more rugged case similar to the TALAN™ case. This case (shown at right with the CPM-700) is essentially the same size as the previous case, however it offers a stronger shell, better latches, and an overall improved design.



Additionally, REI is also offering **Large TSCM Kit Cases** to make transportation of your TSCM equipment easier, as well as protecting your equipment. The Large TSCM Kit Case will hold four (4) REI equipment cases (i.e. one (1) OSCOR, one (1) MDC, one (1) ORION, and one (1) CPM Deluxe), and has wheels and a retractable extension handle. They work very well for transporting or shipping multiple pieces of equipment, and are very rugged and durable, protecting your TSCM equipment.

Contact REI if you would like more information on TSCM cases: [sales@reiusa.net](mailto:sales@reiusa.net)



## New TALAN™ Firmware Available

**NEW TALAN firmware version 071130 now available.** This version adds comparison functionality, allowing the user to compare test results from one line/wire to another. The comparison feature can also be very useful for doing historical comparisons.

This release also provides the user with selectable wiring order, as well as some additional minor fixes.

To upgrade your TALAN™ firmware, download the update from REI's web site, load the update to a thumbdrive, and then plug the thumbdrive into your TALAN™.

For more information, or to download the update please see the link below:  
<http://www.reiusa.net/quick/TALAN>  
 (see update notice at bottom of web page)



## Line Tracing... with the TALAN™ (...continued from page 1)

### Which wire?

Next, consider which wires (or conductors) within a line that should be connected to the TALAN to perform the trace (i.e. if a line has 8 wires, which wire should be connected to the TALAN). Obviously, if an anomaly is detected on a specific wire/conductor with one of the other TALAN tests (i.e. NLJD or FDR), then you will likely want to trace that specific wire/conductor. However, when connecting the TALAN to the line, you will also want to select another wire/conductor that is NOT balanced (twisted) with the suspect wire/conductor. Balanced (twisted) pairs have very little leakage due to the coupling between the twisted pairs. Since the ability to trace the wire is based on detecting a signal leaking from the wire, you will want to use *unbalanced* pairs. Alternatively, you could use one of the wire conductors and the ground plane of the building as one of the conductors to create an unbalanced pair.

### Step by Step Instructions

Connecting unbalanced wires to the TALAN for wire tracing can be accomplished using the TALAN's Internal Switching Matrix or through the Banana Jacks on the TALAN.

#### To use the TALAN's Internal Switching Matrix...

1. Select F3 (manual tests) then select line tracer.
2. Once you are in the line tracer mode, select one conductor from the pair of concern and one conductor from a separate pair so that the tracing path is an unbalanced pair.
3. Once you have selected two unbalanced conductors, then apply an ample amount of power and click start.
4. Test the response of the HLP near the connection of the wire to the TALAN, increasing power if needed.
5. Trace the wire while monitoring the "Trace" level on the HLP (green).

*Note: For long runs of wire, it may be necessary to increase transmit power as you trace farther and farther from the main TALAN unit.*

#### To use the TALAN's Banana Jacks...

1. Select F3 (manual tests) then select line tracer.
2. Once you are in the line tracer mode, select 'C' for connections and select the red connector and the black connector.
3. Attach the red connector to one conductor of the suspect pair and the black connector to a separate conductor from an unbalanced pair. (Alternatively, you may also use the green connector and use the ground plane of the building for an unbalanced pair. To do this, under the Connection menu select the black and green connectors, then attach the black connector to the suspect conductor and the green to building ground.)
4. Set the power and select start and trace the wire.
5. Test the response of the HLP near the connection of the wire to the TALAN, increasing power if needed (see note above about long runs of wire and power levels).
6. Trace the wire while monitoring the "Trace" level on the HLP (green).



TALAN Line Trace Screen

*WARNING: The tracing function should only be performed on a completely isolated line. It is possible that the transmit power could possibly damage a telephone switch or telephone; additionally, the switch could potentially interfere with line detection.*

*WARNING: Care should be taken when tracing wires to ensure that the Locator Probe never comes in contact with high voltage wiring.*

For more information on using the TALAN's wire trace function and HLP modes, see the TALAN Operator manual (page 42-49):

[http://www.reiusa.net/system/products/DPA-7000/TALAN\\_%20Manual.pdf](http://www.reiusa.net/system/products/DPA-7000/TALAN_%20Manual.pdf)

For more information on the TALAN or Telephone Countermeasure Training courses, visit [www.reiusa.net](http://www.reiusa.net) or contact [sales@reiusa.net](mailto:sales@reiusa.net).

## 2008 REI TRAINING CALENDAR

### TCC 110

Telephone Security Countermeasures Course  
January 29 - February 1

### TSCM 201

Technical Surveillance Countermeasures Course  
February 4 - 8

### DTC 210

Digital Telephone Security  
February 4 - 8

### ECC 240

Equipment Certification  
February 11 - 15

### TSE 101

Technical Security Equipment Course  
March 4 - 7

### TCC 110

Telephone Security Countermeasures Course  
March 4 - 7

### TSCM 201

Technical Surveillance Countermeasures  
March 10 - 14

### DTC 210

Digital Telephone Security  
March 10 - 14

### TSE 101

Technical Security Equipment Course  
April 8 - April 11

### TCC 110

Telephone Security Countermeasures Course  
April 8 - April 11

### TSCM 201

Technical Surveillance Countermeasures  
April 14 - 18

### DTC 210

Digital Telephone Security  
April 14 - 18

Questions, comments, or to add someone to the REI Quarterly Newsletter mailing list, please e-mail: [newsletter@reiusa.net](mailto:newsletter@reiusa.net)

## IN THE NEWS

### RENAULT FACE F1 SPYING CHARGES...

CNN.com

Source: [www.cnn.com](http://www.cnn.com)

Article: <http://www.cnn.com/2007/SPORT/11/08/renault.spying/index.html>

### BONDSMAN SENTENCED IN ILLEGAL WIRETAPPING...

Springfield News – Leader

Source: [www.news-leader.com](http://www.news-leader.com)

Article: <http://www.news-leader.com/apps/pbcs.dll/article?AID=/20071218/BREAKING01/71218032>

### "TO GET THE INSIDE DOPE ON RIVALS, FIRMS WILL PAY" ...

Minneapolis – St. Paul Star Tribune

Source: [www.startribune.com](http://www.startribune.com)

Article: <http://www.startribune.com/business/12840366.html>

### PROFESSIONAL SURVEILLANCE...

Lawrence Journal – World and News

Source: [www.ljworld.com](http://www.ljworld.com)

Article: [http://www2.ljworld.com/news/2007/dec/31/professional\\_surveillance/](http://www2.ljworld.com/news/2007/dec/31/professional_surveillance/)

### FBI FINDS COMMISSION ROOM BUGGED

The Moulton Advertiser (Alabama Newspaper)

Source: [www.moultonadvertiser.com](http://www.moultonadvertiser.com)

Article: [www.moultonadvertiser.com/news/2007/0919/Front\\_page/001.html](http://www.moultonadvertiser.com/news/2007/0919/Front_page/001.html)

## Shipping Equipment to REI: Return Authorization Procedure

**Import/export issues sometimes arise with equipment that has been shipped to REI for upgrade or repair.** Sometimes unnecessary tariffs, customs duties, or simple delays occur because of missing paperwork or mislabeled product information. Should you need to return equipment to REI (Domestic or International), please review the following steps with hopes to minimize potential unnecessary delays or unnecessary fees:

- Contact REI to obtain a Return Authorization Number *BEFORE* shipping any equipment to REI.
- Clearly write the Return Authorization Number on the outside of the returned package.
- Include with the returned equipment a letter with the following:
  1. The name and contact information of the person returning the equipment,
  2. The Return Authorization Number,
  3. How you would like to be contacted for approval of any non-warranty repairs or upgrades,
  4. Shipping instructions and where the upgraded/repared equipment should be returned,
  5. Payment details for any upgrades, repairs, and shipping payment,
  6. A commercial invoice stating the following:
 

**"This enclosed equipment is U.S. Goods being returned for repair,"**
- Send a copy of the commercial invoice and shipment details to your sales person (or [sales@reiusa.net](mailto:sales@reiusa.net)).

This is crucial for international shipments to minimize unnecessary tariffs, fees, or customs delays which are out of REI's control. Please note that any excess charges will be invoiced to you.

Please contact REI if you have any questions, or if you need to obtain an RMA (Return Authorization Number): [sales@reiusa.net](mailto:sales@reiusa.net).



Research Electronics International  
455 Security Place • Algood, TN 38506 USA  
TEL +1 931.537.6032 • FAX +1 931.537.6089  
[www.reiusa.net](http://www.reiusa.net)