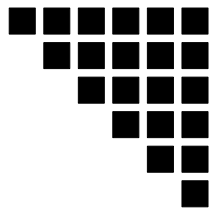


Utility Relay News

Fall, 2002



Introducing
the

LCI

Local
Communications
Interface



Communication
has never been
easier.

Page 2



OUTSTANDING GROWTH COMPANY

AC-PRO gets a new Lithium Battery

URC has recently enhanced the AC-PRO trip unit by including a new long-life 9-volt style lithium/manganese dioxide battery. The new lithium battery is now being supplied on all new AC-PRO trip units. The new trip units are identified with a triangular yellow label in the upper right-hand corner of the front of the trip unit which reads "With 9V Lithium Long-Life Battery".

Q. Why did URC change the battery design?

A. The battery was changed to eliminate the need to maintain a charge on the original nickel/metal hydride (NiMH) rechargeable style battery. Since charging only occurs while there is current flowing through the CTs, the NiMH battery would discharge in a matter of months if the trip unit was not in service, such as on a spare breaker. Although this does not impact the protective features or settings in the trip unit, this situation can sometimes be inconvenient when the spare trip unit needs to be commissioned or reprogrammed.

Q. What is the battery used for?

A. The battery is designed to provide two functions: 1.) Allow the user to commission (program) the trip unit without using the auxiliary power pack. 2.) Recall Last Trip Data when the breaker is open and no power is being supplied from the CTs.

Pressing the REVIEW button will turn on the trip unit under battery power. When on battery, the trip unit will automatically shut off after 30 seconds to conserve battery energy.

Q. Will the trip unit operate if the battery dies or is removed from the trip unit?

A. YES. The battery is NOT involved in the protective

functions of the trip unit. While in service, all power for the trip unit is provided by the CTs. The trip unit will provide protection even if the battery is removed. All trip settings are stored in non-volatile memory and do not rely on the battery to be maintained.



Q. What about my older style AC-PRO trip units?

A. The original AC-PRO is still considered one of the finest trip units available. It contains the same features and functions available on the new AC-PRO. The only difference is that auxiliary AC power may be

required to commission or reprogram a trip unit that has a discharged battery before going into service.

Q. How long will the battery last?

A. The battery has a rated shelf life of ten (10) year and the battery's 1200mAh capacity allows the review of Last Trip Data and settings over 1500 times. Since the battery is not used for protective functions, no battery energy is used when the trip unit is in normal service.

Q. Can I put a new Lithium battery in an older style AC-PRO trip unit?

A. NO. The new lithium battery is NOT interchangeable with the 9-volt style nickel/metal hydride rechargeable battery in older style trip units. Older trip units contain a charging circuit that will damage a lithium battery. Only a rechargeable battery can be used in an older style trip unit.

Q. Can I upgrade an older style AC-PRO trip unit to one that uses the new lithium battery?

A. YES. Contact Utility Relay Company for details and applicable upgrade charges.

URC

Utility Relay Company

Chagrin Falls, OH
U.S.A.



LCI • Local Communications Interface

- Substation Monitoring
- Ethernet Gateway
- Web Enabled
- MODBUS Compatible

Easy Access to Information

When the current of a particular trip unit of interest is being displayed, the **HOLD** button can be pressed to cause the LCI to continuously display the real-time current from that trip unit only. Additional trip unit information can be displayed by pressing the **VOLTS**, **POWER**, **LAST TRIP**, **LOG**, or **SET POINTS** buttons.

Built-In Ethernet Port

The built-in ethernet port allows easy connection to a corporate intranet (LAN). Once connected to the LAN, all of the trip units connected to the LCI's RS-485 port will be addressable across the LAN using standard MODBUS protocol. This allows easy integration to most graphical MMI software packages with a MODBUS driver.

Web Enabled

Critical up-to-the-second data can be viewed on the corporate intranet by simply entering the LCI's IP Address in to a web browser. This provides a snapshot of data to quickly identify Overload and Alarm conditions that may exist.

Application Overview

The LCI is a substation monitor that continuously monitors up to 32 AC-PRO and/or ZERO-Hertz trip units connected to its RS-485 port. Information from the trip units is displayed on the LCI's front panel.

Features

- 4-Line X 20-Character Display
- Rugged NEMA 4X Enclosure
- RS-485 Port
- Support up to 32 trip units simultaneously
- 10Base-T Ethernet Port
- Programmable IP Address
- WEB Enabled
- 2-year limited warranty.

Local Substation Metering

Pressing the **SCAN** button on the front panel will cause the LCI to display the current on each trip unit sequentially according to each trip unit's COMM Address (1 thru 32).



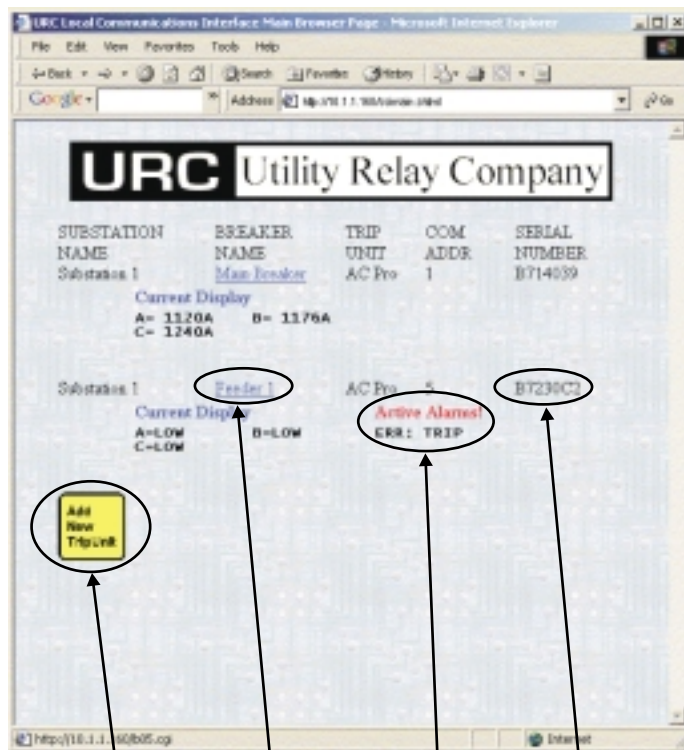
Web Monitoring

Once connected to a corporate Intranet, the LCI can be accessed by using a standard web browser to get an instant status check on your substation. Entering the LCI's unique IP address, assigned by the LAN System Administrator, will display the LCI's Main Screen on the browser. This provides a "snapshot" of information from the LCI. Information can be updated by pressing the "Refresh" button on the browser.

Main Screen Information Includes:

- Substation Name
- Individual Breaker Names, COM Addresses and Serial Numbers
- Current Display of all connected Trip Units
- Active Alarms
- Ability to Add new Trip Units to the System

Main Page



Opens *Edit Trip Unit* page to add new trip units.

Opens *Edit Trip Unit* page to edit current trip unit.

Displays active alarms.

Trip Unit Serial Number. This will display "Offline" if communications is lost.

Edit Trip Unit Page

This page can be accessed in two ways: 1.) by clicking on the "Add New Trip Unit" button on the *Main Page*, or 2.) by clicking on a specific "Breaker Name"

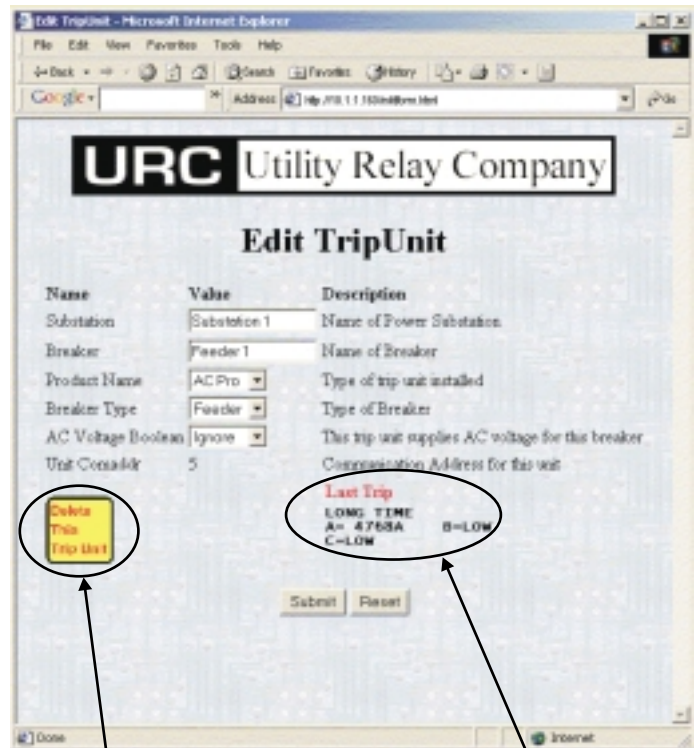
Adding New Trip Units

Clicking on the "Add New Trip Unit" button on the *Main Page* will cause the *Edit Trip Unit Page* to appear. By default, the next available (unused) COM Address appears. The COM Address can be changed and the appropriate Breaker Name and Substation Name can be entered. This will cause the new trip unit's information to appear on the LCI's 4 X 20 character display

Editing Existing Trip Units

Clicking on a specific "Breaker Name" on the *Main Page* will also cause the *Edit Trip Unit Page* to appear. Trip Unit information can now be edited, the trip unit can be deleted (data no longer available on the LCI's 4 X 20 character display), and any active alarms can viewed.

Edit Trip Unit Page



Removes Existing Trip Unit from LCI Display.

Detailed Display of Active Alarms.

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Utility Relay News

Look inside and see what's
new at URC:

- **AC-PRO gets new Lithium Battery.**
 - **LCI makes MODBUS Communications even easier.**
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