

SLUGGISH BREAKER® DETECTION

AC-PRO-II® & AC-PRO-MP® TRIP UNITS

SLUGGISH BREAKER DETECTION

The patented Sluggish Breaker Detection feature captures the breaker clearing time when a trip occurs that was initiated by the trip unit. If the breaker clearing time is in excess of the Sluggish Breaker clearing time setting an alarm message will appear, and if programmed, the alarm relay will operate.

When the trip unit sends a trip pulse to the breaker actuator, the Sluggish Breaker timer starts. The trip unit determines the breaker clearing time by one of two methods:

Zero Current Method:

The trip unit will record the breaker clearing time by monitoring the current values. The Sluggish Breaker timer stops when the current is zero. The AC-PRO-II and AC-PRO-MP support this method.

Breaker Contact Method:

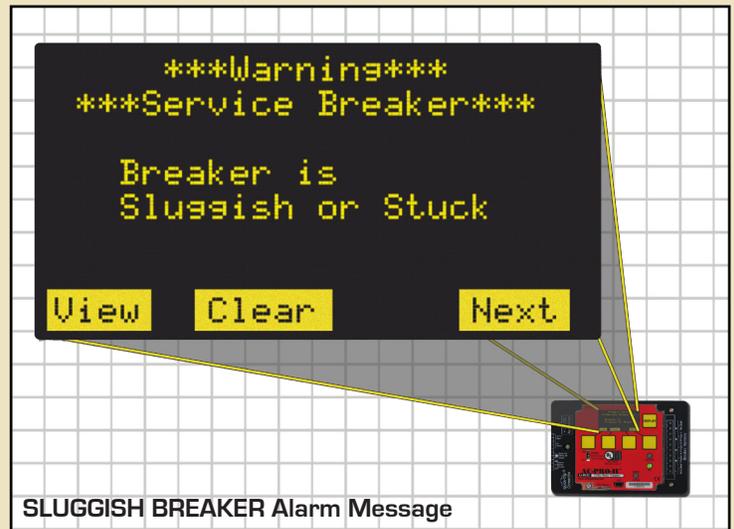
The trip unit will record the breaker clearing time based on the change in state of the auxiliary breaker contact that is wired into the trip unit. This method allows the clearing time to be recorded even if current was not flowing at the time of the trip. The Sluggish Breaker timer stops when the contact changes state. The AC-PRO-II supports this method.

NOTE: A user setting in the AC-PRO-II determines which method will be used.

Compatible URC Products

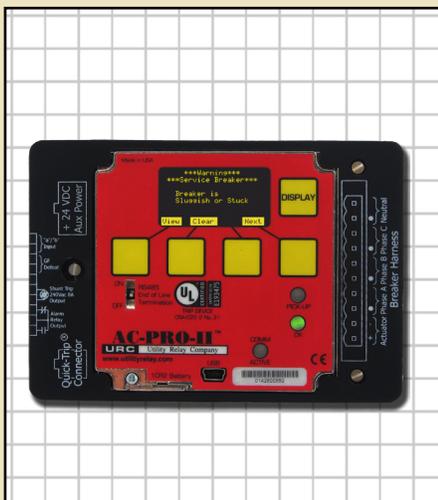
The following products are compatible with the Sluggish Breaker detection system.

Patented method for documenting the condition of the breaker mechanism



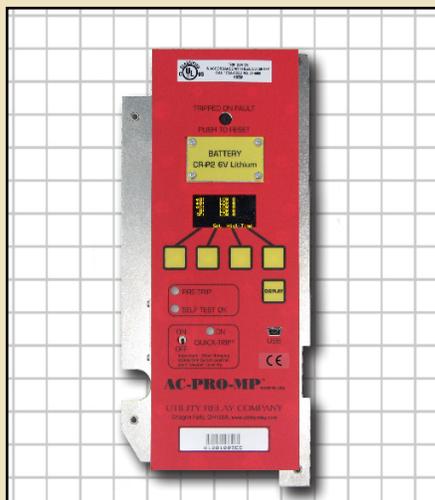
SLUGGISH BREAKER Alarm Message

- Patented Sluggish Breaker® Detection is included as part of the firmware of the newer trip units from URC
- Measures the breakers opening speed on every trip operation including the critical first operation
- Provides before and after values for the breaker service test report
- For AC-PRO-II, the Sluggish Breaker threshold is user programmable from 20-80 milliseconds
- For AC-PRO-MP, the Sluggish Breaker threshold is fixed at 33 milliseconds



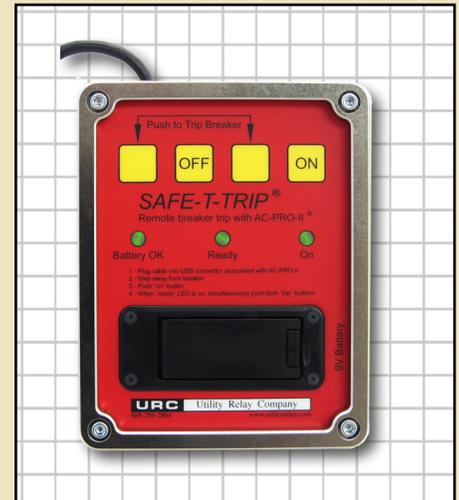
AC-PRO-II®

The AC-PRO-II is a state of the art, micro-controller based trip unit for use on three phase, 600 Volt class, AC circuit breakers on 50 Hertz or 60 Hertz systems



AC-PRO-MP®

The AC-PRO-MP is a plug-in, direct replacement trip unit for Merlin Gerin & Square D Masterpact MP, IEC or UL rated breakers.



SAFE-T-TRIP®

The hand-held SAFE-T-TRIP device provides a means for an operator to safely trip a breaker without having to stand directly in front of the switchgear.