



# **EXAMPLES OF APPLICATIONS FOR THE FIRST TRIP MONITORING**

# First trip monitoring

- Zensol provides a wide set of accessories that , coupled with the CBA-32P, allow to execute measurements tests for: pressure, voltage, current, etc.
- **FIRST TRIP MONITORING:** This module has been designed to measure the circuit breaker's contact opening times while connected.
- In other words, it allows the execution of **ON-LINE TESTS** with the consequent minimization of outages times and connected costs.



# Real test in Alabama

- ⦿ A real test of First Trip Monitoring has been executed in Alabama.
- ⦿ Goal: To show that the CBA-32P is able to do on-line testing of a breaker first trip.



Control cabinet

# Real test in Alabama

- ⦿ When doing first trip monitoring, the breaker is always on line, which means that the breaker is not isolated during the test. Connecting the contacts is impossible because the current circulating is too high (thousands of amps).



**No need to open the selector to isolate the breaker**

# Real test in Alabama

- The first trip test is performed by a current transducer that will be connected to one of the analog inputs of the CBA-32P. The results of the test will be visualized with the CbaWin software.

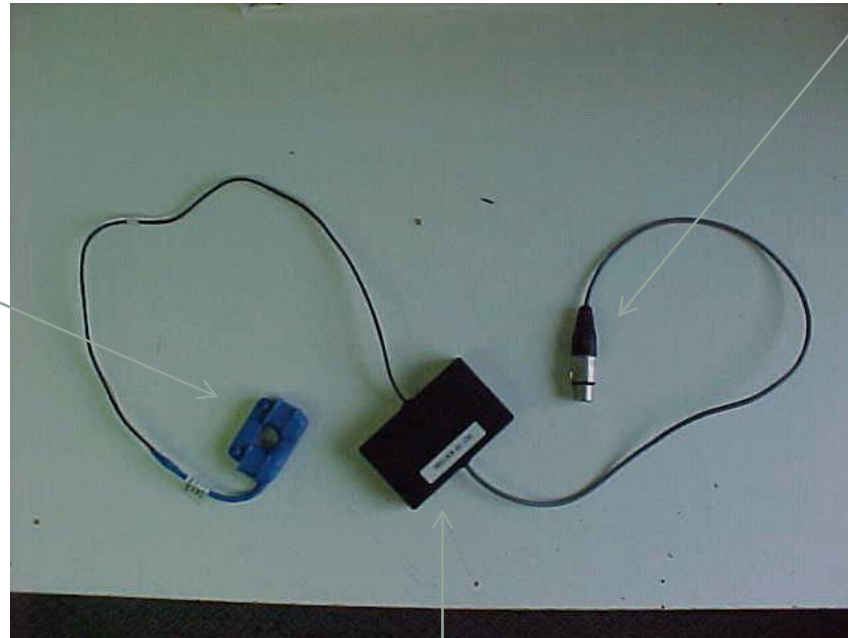


**0-10VCC Analog Inputs**

# The first trip monitoring kit : KIT-Z-FT

Connected to one of the analog inputs of the CBA-32P

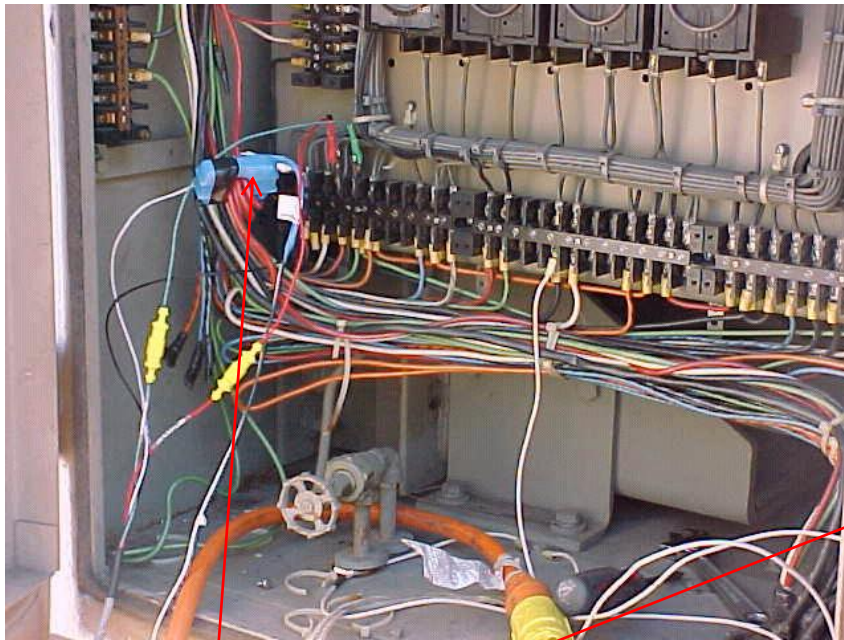
Current transducer



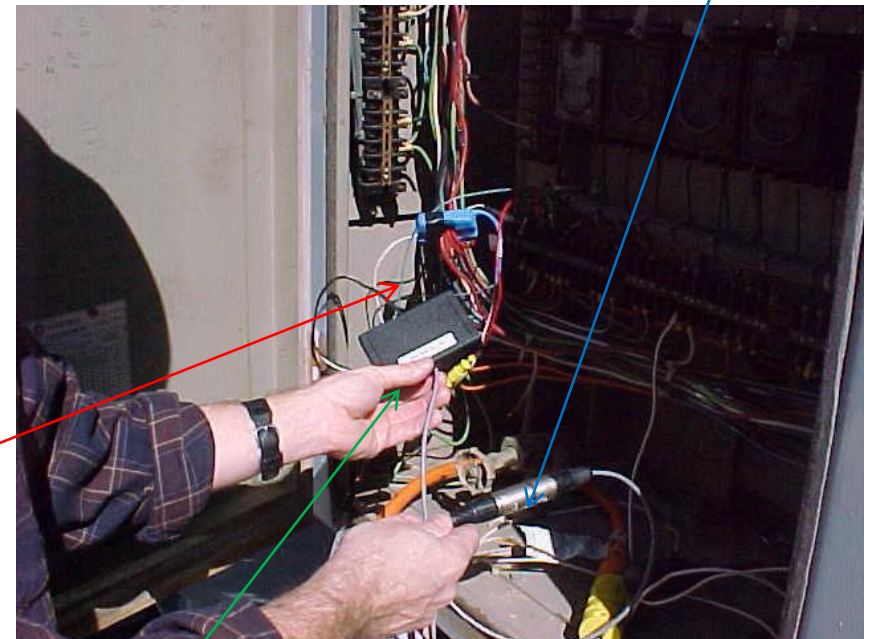
Interface

# Installation of the current transducer

Extension to connect the transducer to the CBA-32P



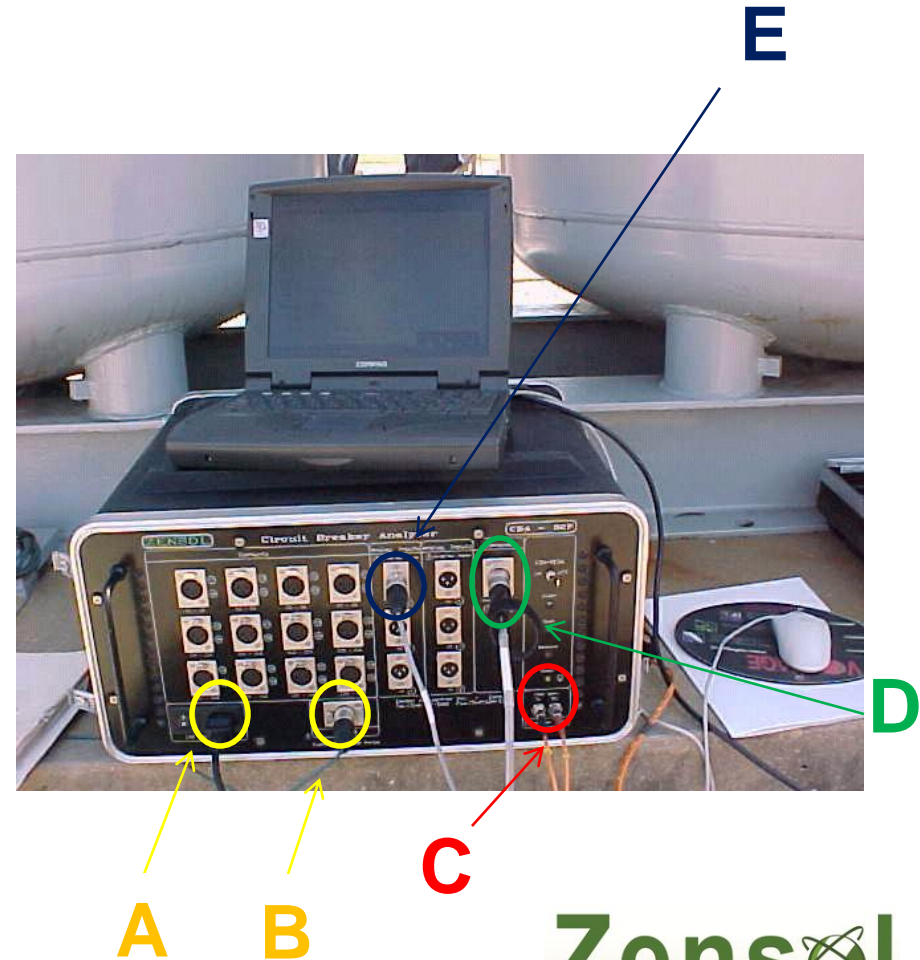
Current transducers



Interface

# How to connect the cables?

- Connect the CBA-32P to the Ground and to the Power (A, B)
- Connect the optic fiber link (C)
- Connect the command cable and the current transducer onto the control cabinet (D)
- Connect the current transducer to the analog inputs of the CBA-32P (E)
- Turn on the CBA-32P and the CbaWIN software





# Results of the First trip test

- In this example only 1 current transducer has been used which measures 1 phase.
- It is possible to measure the three phases simultaneously, in “one simple click of the mouse”, by connecting three current transducers.

