ENGLISH

Section 4—Testing Micrologic Trip Units

This chapter describes the test interface for Micrologic trip units.

Trip Unit Checks

A 24 Vdc power supply is necessary for carrying out local checks on a trip unit. Checks can also be done using the test interface.

Table 58: Testing Micrologic Trip Units

Test Interface	Availability
24 Vdc external power supply	□
Pocket Tester for Micrologic	■
Stand-alone UTA Tester	■
UTA Tester connected to a computer with RSU software	■
UTA Tester connected to a computer with LTU software	■

■ = Possible for all Micrologic trip units
□ = Possible for Micrologic 5 and 6 trip units

Table 59: Functions of the Test Interfaces

Test Interface	Setting	Checking	Testing	Saving Settings
24 Vdc external power supply	□	□	—	—
Pocket Tester for Micrologic	■	□	—	—
Stand-alone UTA Tester	■	□	X	—
UTA Tester connected to a computer with RSU software	■	■	X	■
UTA Tester connected to a computer with LTU software	■	■	■	■

■ = Possible for all Micrologic trip units
□ = Possible for Micrologic 5 and 6 trip units
X = Only on tripping using the UTA push-to-trip button

Precautions before Checking, Tests, or Setting

Before Checking

Checking the settings does not require any particular precautions. However, all checks must be done by a qualified person.

Before Testing

When testing circuit breaker trip mechanisms, the necessary precautions must be taken:

- To not disrupt operations
- To not trip inappropriate alarms or actions

⚠CAUTION

HAZARD OF NUISANCE TRIPPING

Protection tests must be done only by trained electrical personnel.

Failure to follow these instructions can result in injury or equipment damage.

Before Setting

Modifying settings requires a thorough knowledge of the installation and safety rules.

⚠ CAUTION

HAZARD OF NUISANCE TRIPPING OR FAILURE TO TRIP

Adjusting protection settings must be done only by trained electrical personnel.

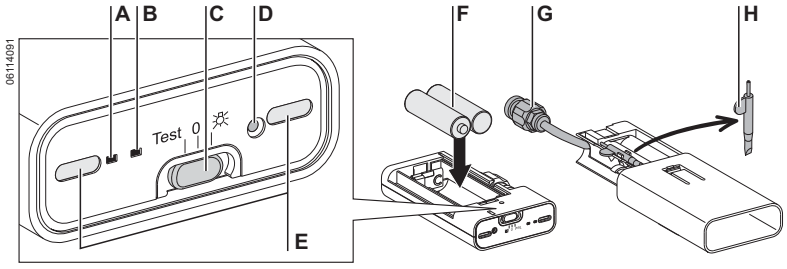
Failure to follow these instructions can result in injury or equipment damage.

Pocket Tester

Use the Pocket Tester for the local inspection and testing of Micrologic trip units.

The Pocket Tester contains two batteries which connect to the test port on Micrologic electronic trip units.

Figure 58: Pocket Tester



A. Green LED for checking battery status
B. Yellow LED for checking thermal memory inhibition
C. 3-position slide switch: Left = Test position; Center = OFF; Right = pocket flashlight
D. Inhibit thermal memory button
E. Two illumination LEDs
F. Two 1.5 V AA batteries (not supplied)
G. Connector for connecting to the test port on the Micrologic trip unit
H. Stylus/screwdriver (supplied)

Pocket Flashlight Function

To use the module as a pocket flashlight, move the slide switch to the pocket flashlight position (C, above).

Preparing the Equipment

To prepare the equipment before carrying out maintenance:

1. Slide open the protective cover to access the trip unit connector.
2. Click the Pocket Tester connector into the test port on the Micrologic trip unit.
3. Move the slide switch to the Test position (C, above).
4. Check the battery status: the green LED must be on.

Inspection and Checking

To check trip unit after preparing the equipment, check that the green Ready LED on the trip unit is blinking. This means that all the functions of the Micrologic trip unit are in a satisfactory operational state (internal self test).

To check the setting values on the display unit (for Micrologic 5 and 6 trip units):

1. Use the navigation buttons to display the Reading protection parameters mode (see “Micrologic 5 (LSI) and 6 (LSIG) Electronic Trip Units” on page 62).
2. Scroll down and check the values of the different settings. For example, for the Micrologic 5 trip unit:
   - — I_r (A)
   - — I_N (A) (if present) long time
   - — t_r (s)
   - — I_{sd} (A)
   - — I_N (A) (if present) short time
   - — t_{sd} (ms) with/without I^2t
   - — I_i (A)

   NOTE: Settings can be modified.

The screen backlighting is not activated to optimize battery life (four hours).

Inhibit Thermal Memory Function (Maintenance Level IV)

The “Inhibit thermal memory” button temporarily cancels the thermal memory. This inhibition is necessary to obtain a true measurement of the long-time protection time delay t_r during tripping tests by primary current injection. This operation forms part of maintenance level IV, and requires a specialist maintenance service (see “Maintaining the Circuit Breaker During Operation” on page 89).

To carry out the test after preparing the equipment:

1. Switch the circuit breaker to the I (ON) position.
2. Move the slide switch to the OFF position (center).
3. Inhibiting the thermal memory
   a. Use the stylus to press the button for inhibiting the thermal memory.
   b. The yellow confirmation LED and the green LED light up. The thermal memory on the trip unit is inhibited for 15 minutes.
4. Canceling thermal memory inhibition (before 15 minutes)
   a. Press the button for inhibiting the thermal memory again.
   b. The yellow confirmation LED and the green LED go out. The thermal memory on the trip unit is reactivated.

NOTE: Thermal memory inhibition is canceled (the yellow confirmation LED goes out) if, in the course of running the test:

- The slide switch is moved to another position
- The Pocket Tester is disconnected from the test port

Stand-alone UTA Tester

Use the stand-alone UTA Tester for:

- Trip unit checks and inspections
- Tripping tests
- The inhibition functions required for tripping tests by primary current injection (maintenance level IV)