

ProTrip™ Trip Unit Target Module

ProTrip™ Conversion Kits

Introduction

ProTrip™ Trip Units are equipped with a Target Module. This unit indicates whether a breaker trip was caused by a short circuit, an overload, or a ground fault. The Target Module is shown in Figure 1. The catalog number is TARGET02P.

Note that the Target Modules do not provide the ground-fault protection function. Ground-fault protection is provided by the Rating Plug.

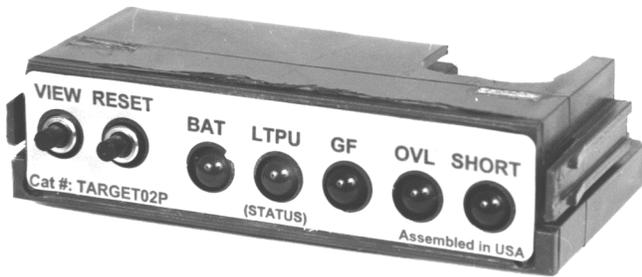


Figure 1. Power+ Target Module.

Functions

The front of the Target Module contains two push buttons and five LEDs. The following functions are provided by the Target Module.

Trip Targets

To determine the condition causing a breaker trip, press the VIEW button. One of the three target LEDs will light, as follows:

- SC – Short circuit (instantaneous or short-time trip).
- OVL – Overload (long-time trip).
- GF – Ground.

The RESET button clears the trip target indication.

Long-Time Pickup Status

Whenever the circuit breaker is carrying at least 95% of the long-time pickup current (C), the LTPU Status LED begins to blink. Above 100% of the long-time pickup current, the LED is lit continuously, indicating an imminent overload trip.

Battery Test

If the breaker has not tripped or if the trip target has been cleared, pressing the VIEW button performs a battery test. The BAT LED will light if the batteries are okay. If the BAT LED is dim or does not light, replace the batteries as described below. Note that the only function of the Target Module batteries is to power the LEDs; they have no effect on Trip Unit operation and are not required to store targets for any protection functions.

Health Monitor

The Trip Unit can be tested for proper functioning if the Trip Unit is powered by one of the following sources:

- A Test Kit (catalog number TVRMS2) is plugged into the jack on the front of the Rating Plug.
- The breaker is carrying a load current of at least 20% of its current sensor rating.
- External +24 Vdc control power, if connected.

Press and hold the VIEW button for at least five seconds. If the Trip Unit is operating properly, the LTPU LED will blink slowly. Note that if the Trip Unit is not powered by one of the above sources, this test will not give a true indication of Trip Unit functioning.

Installation

To install a Target Module in a ProTrip Trip Unit, remove the existing module by following the removal instructions below. Hold the Target Module between the thumb and forefinger, then push it into the Trip Unit. Proper engagement is verified by a click.

Removal

An installed Target Module is seated firmly in the Trip Unit. As shown in Figure 1, there are tabs at the sides of the Target Module for removal. A Rating Plug Removal Tool, catalog number TRTOOL, also known as an integrated circuit (DIP) extractor, is required to remove the Target Module. Grasp the tabs of the module with the tool, as shown in Figure 2. Be careful to hold the tabs and not the front cover, as the Target Module could be damaged otherwise. Gently pry the Target Module out by pulling away from the Trip Unit. A gentle left-right wriggling motion assists the removal. Insure that the tabs are held securely until the Target Module is completely removed.



Figure 2. Target Module removal.

Battery Replacement

To replace the two batteries in the Target Module, remove the module from the Trip Unit as described above. Slide the old batteries out from the battery compartment at the rear of the Target Module. It may help to pry them out with a small screwdriver blade in the cutout on top of the module. Slide the new batteries into the battery compartment. Be careful not to short out the batteries during removal or installation. Recommended replacement batteries are Panasonic CR1616, Eveready E-CR1616BP, and Duracell DC1616B.

WARNING: Replace the batteries with Panasonic CR1616, Eveready E-CR1616BP, or Duracell DC1616B only. Use of a different battery may present risk of fire, explosion, or damage to equipment. Observe proper battery polarity when installing in the battery compartment.

AVERTISSEMENT: Remplacer la batterie avec uniquement des Panasonic CR1616, Eveready E-CR1616BP, ou Duracell DC1616B. L'utilisation d'autres batteries peut présenter un risque de feu, d'explosion ou d'endommagement du matériel. Respecter la polarité de la batterie en l'installant dans son logement.

WARNING: The batteries may explode if mistreated. Do not recharge, disassemble, or dispose of in fire. Keep the battery away from children and dispose of the used battery promptly.

AVERTISSEMENT: La batterie peut exploser en cas de mauvaise utilisation. Ne pas la recharger, l'ouvrir ou la jeter dans un feu. Doit être gardé hors de portée des enfants. Une fois usée, la batterie doit être jeté rapidement.

These instructions do not cover all details or variations in equipment nor do they provide for every possible contingency that may be met in connection with installation, operation, or maintenance. Should further information be desired or should particular problems arise that are not covered sufficiently for the purchaser's purposes, the matter should be referred to the GE Company.

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GE Industrial Systems

General Electric Company
41 Woodford Ave., Plainville, CT 06062