

User Manual



ET550

AFCI/GFCI and Circuit Load Tester

1. General Specifications

- The instrument is an electrical outlet tester that tests the wiring condition at an electrical outlet, and inspects GFCI and AFCI devices.
- It is designed for use with North American 120V electrical outlets.

2. Safety

- ! WARNINGS:** To ensure safe operation and service of the tester, follow these instructions, failure to observe these warnings can result in severe injury or death.
- The instrument is designed for use with North American 120V electrical outlets, do not connect to higher voltage electrical supplies.
 - Prior to use, always verify tester operation by testing on a known live and correctly wired electrical outlet.
 - Do not attempt an AFCI testing event on a circuit with powered ON equipment or devices, remove or power OFF prior to testing.
 - Do not use if the tester appears damaged in any way.
 - The tester is intended for indoor use only.
 - Other equipment or devices attached to the circuit being tested could interfere with the tester, clear the circuit before testing.
 - This tester only detects common wiring problems, always consult a qualified electrician to resolve wiring problems.
 - Do not attempt AFCI, GFCI or 30mA ground fault testing on an incorrectly wired outlet, consult a qualified electrician to resolve wiring problems.

3. Specifications

Operating Altitude	2000m (6562ft.)
Relative Humidity	<85% Non-condensing
Operating Temp	0 to 50°C (32 to 122°F)
Storage Temp	-20 to 60°C (-4 to 140°F)
Dimensions	188 x 58 x 32mm (7.4 x 2.3 x 1.3in)
Weight	241g (8.5oz.) including batteries
Battery Type	3 x 1.5V AAA Alkaline

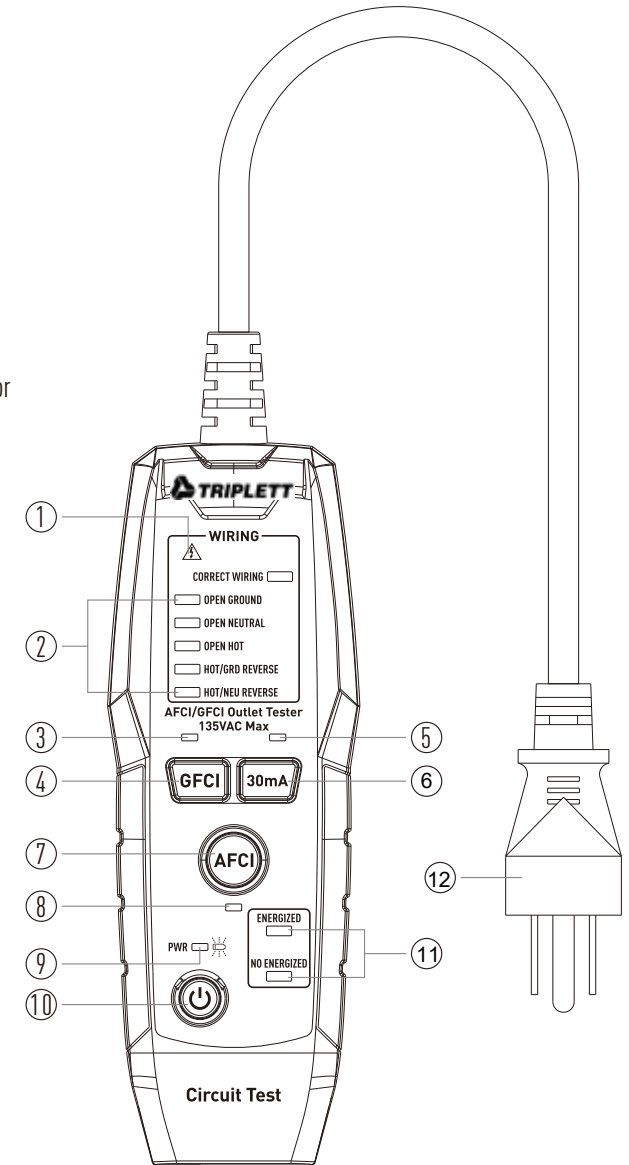
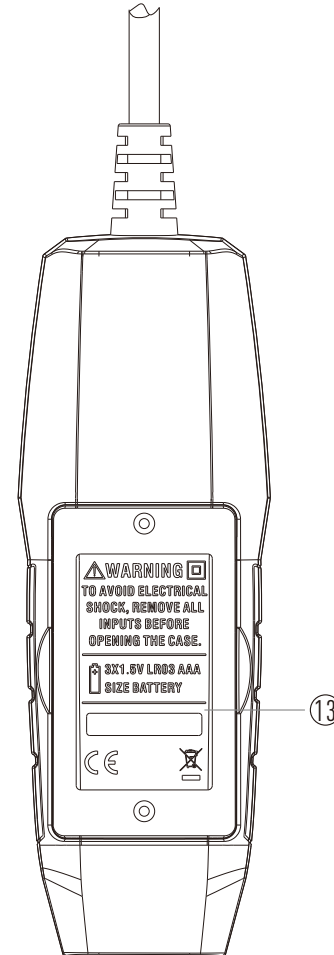
Pollution Degree	2
Drop Protection	2m (6.6ft.)
Ingress Protection	IP40 Dust Resistant
Safety Rating	CAT III 135V
CAT III	Measurement category III is applicable to test and measuring circuits connected to the distribution part of the building's low-voltage MAINS installation; Specifications subject to change.



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4. Feature Details

- 1-Hazardous Voltage Warning
- 2-Wiring Condition Indicators
- 3-GFCI Indicator
- 4-GFCI Test Button
- 5-30mA Indicator
- 6-30mA Ground Fault Test Button
- 7-AFCI Test Button
- 8-AFCI Indicator
- 9-Power ON/Low Battery Indicator
- 10-Power Button
- 11-Circuit Energized/Not Energized Indicator
- 12-Plug
- 13-Battery Cover



5. Operating Instructions

5-1. Power ON/OFF

- Press the **Power** Button to power ON/OFF the tester.
- When the tester is powered ON, the Power ON indicator will be illuminated.
- The tester will automatically power OFF after 2 minutes of inactivity to conserve battery life.

Note: Always power ON the tester before inserting the plug into an electrical outlet.

5-2. Wiring Condition

- Prior to use, always verify tester operation by testing on a known live and correctly wired electrical outlet.
- With the tester powered ON and inserted into the outlet, the wiring condition will be indicated by the wiring condition indicators.
- If the outlet is energized, the Hazardous Voltage Warning and the Energized Indicator will be illuminated.
- If the tester indicates that the outlet is not wired correctly, consult a qualified electrician.
- The wiring condition will be communicated as detailed in the table below.

Wiring Condition	Indicator								
	Correct Wiring	Open Ground	Open Neutral	Open Hot	Hot/Ground Reversed	Hot/Neutral Reversed	Circuit Energized	Circuit Not Energized	Hazardous Voltage Warning
Wired Correctly	●	○	○	○	○	○	●	○	●
Open Ground	○	●	○	○	○	○	●	○	●
Open Neutral	○	○	●	○	○	○	●	○	●
Open Hot	○	○	○	●	○	○	○	●	○
Dual Open (Neutral And Ground)	○	●	●	○	○	○	●	○	☼
Reversed Hot/ Neutral	○	○	○	○	○	●	●	○	●
Reversed Hot/ Ground	○	○	○	○	●	○	●	○	●

● Indicator illuminated ○ Indicator not illuminated ☼ Indicator blinking

Note: Conditions not indicated include, but are not limited to, quality of ground, multiple hot wires, reversal of neutral and ground conductors, and combinations of defects other than dual open neutral and ground.

Note: All appliances or equipment on the circuit being tested should be unplugged to help reduce the possibility of erroneous readings.

5-3. GFCI, AFCI and 30mA Ground Fault Functions

Note: Check the GFCI, AFCI or 30mA Ground Fault devices' user manual for information on how the specific device operates prior to using this tester.

1. Power ON the tester and insert the plug into the outlet on the circuit under test, noting the wiring condition.
2. The Wiring Condition indicator should indicate Correctly Wired, the Hazardous Voltage Warning indicator should be illuminated, and the circuit status indicator should indicate Energized.

Note: If the tester indicates that the outlet is not wired correctly, do not attempt to initiate an electrical testing event, consult a qualified electrician.

3. Press the **GFCI** Button, **AFCI** Button or the **30mA Ground Fault** Button to initiate the relevant electrical fault event.
4. If the Not Energized indicator is illuminated and the Hazardous Voltage Warning indicator is not illuminated, reset the GFCI, AFCI or 30mA Ground Fault device by pressing its reset button.
5. After reset, the Hazardous Voltage Warning should illuminate, the wiring condition should indicate Correctly Wired and the circuit status should indicate Energized, the device appears to be functioning correctly.
6. If the circuit remains Energized, or any other condition is indicated other than Not Energized, the device being tested may be miswired, may not be installed correctly, or may not be functioning appropriately, consult a qualified electrician.

Note: The AFCI button will be deactivated if the tester detects that the electrical outlet is not wired correctly.

Note: Allow 20 seconds between successive AFCI testing events.

Note: If the AFCI indicator is blinking following an AFCI testing event, a successive AFCI test cannot be initiated, wait for indicator to turn OFF prior to attempting the next AFCI testing event.

6. Maintenance

6-1. Battery Replacement

When the Power On/Low Battery Indicator indicator is blinking, the batteries must be replaced.

1. Loosen screw from battery door.
2. Replace 3 x AAA batteries (Note proper polarity).
3. Replace battery door and fasten securely with screw.

WARNINGS: To avoid risk of electric shock, unplug from any voltage source before removing battery door.

WARNINGS: To avoid risk of electric shock, do not operate tester while battery door is removed.

Warranty

Triplet / Jewell Instruments extends the following warranty to the original purchaser of these goods for use. Triplet warrants to the original purchaser for use that the products sold by it will be free from defects in workmanship and material for a period of (1) one year from the date of purchase. This warranty does not apply to any of our products which have been repaired or altered by unauthorized persons in any way or purchased from unauthorized distributors so as, in our sole judgment, to injure their stability or reliability, or which have been subject to misuse, abuse, misapplication, negligence, accident or which have had the serial numbers altered, defaced, or removed. Accessories, including batteries are not covered by this warranty.

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