

# RCD / GFCI / ELCB TESTER



The 2712EL is a **Compact Hand Held** Residual Current Detector or Earth Leakage Circuit Breaker or Ground Fault Circuit Interruptor **Tester** (designation could be different from country to country), designed to meet international standards of performance and safety. **This model is a quality instrument used by professionals to obtain Accurate values of the Protection Disconnection Time while a selectable fault current is injected to Earth (Ground).**

It operate on 240V systems (L-E), 230, 220Vac or 110Vac (A,B,C or D version). The 2712EL has been designed for ease of operation while still maintaining safety, reliability and accuracy.

It **Measure the Trip Time** at which the breaker disconnected while a earth (ground) fault is being injected. The Trip time can be measured to a maximum of 3.000 Seconds, while the **fault TEST current can be set at** a rating of **3, 5, 10, 15, 20, 30, 50, 100, 150, 250, 300 and 500mA**. Once test is completed, the operator can view the results and the circuit voltage percentage error or current error (from the nominal voltage). The disconnection time and the polarity at which the breaker opened is displayed on the liquid crystal display.

This instrument generate a current via the selected power resistors. These power resistors are continuously monitored by temperature sensors and the tester will shut down automatically, announcing the cause to the user. Voltage fluctuation are taken into account by the microprocessor and the percentage error current will be the same as the voltage fluctuation shown on the display. 2712EL is suitable to test domestic systems where the voltage supply is sinusoidal.

The 2712EL offers three tests:

- 1- **Wiring Check**
- 2- **Voltage Line (Hot) to Earth (Ground)**
- 3- **Tripping Time (S, mS).**

The 2712EL is "menu driven" and easy to use.

This tester is equipped with a **"LEDs Wiring Check"** which displays the actual status of the electrical connections between the Line (Hot) to Neutral, the Line (Hot) to Earth (Ground) and between Neutral and Earth (Ground). Should the LED Neutral - Earth lit, then a faulty wiring is being detected. When this instrument is testing with two wires (L-E), wiring check can be disregarded.

Once correctness of the wiring has been ascertained, testing can begin.

The phase selection at the start of the test (**0° or 180°**) is selected and the Test current **can be selected on the rotary switch**. The instrument detects the voltage presence and will automatically start and stop testing.

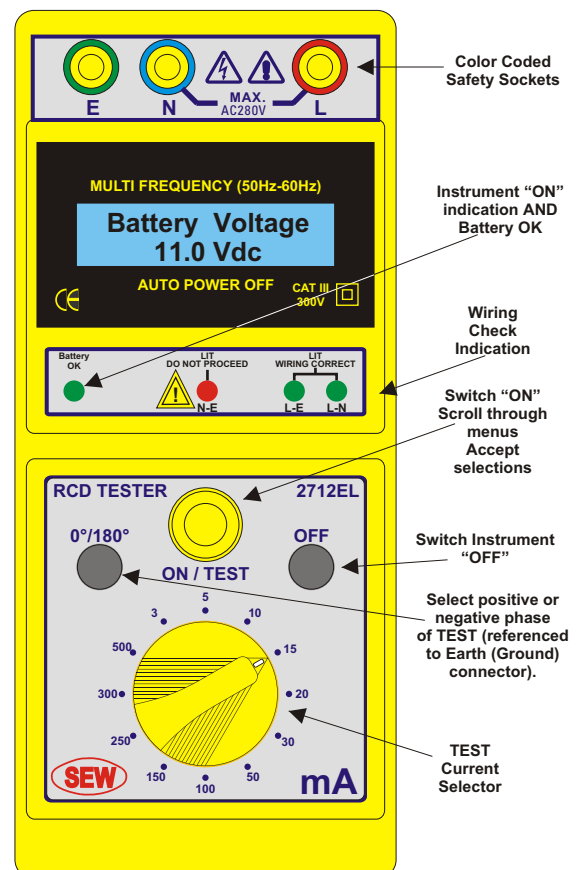
The **AC voltage** measurement between Line to Earth before testing is measured and displayed.

The display is being refreshed as testing proceeds and the results are on "HOLD" at the end of the test, indicating the phase at which the trip ocured, the time (S) and the status if tripped or not (OVER) as well as the percentage of error due to voltage fluctuation.

Designed to strict IEC1010-1 safety standards, the 2712EL is a **Tough, Rugged** meter, designed and manufactured to read **Accurate** measurements in **Harsh Environments**. It is ideally suited for more arduous environment.

This meter utilizes a microprocessor for accurate and rapid display of readings. It features a **high quality set of test leads**.

Our exclusive **"Dynamic Battery Checking"** technology feature, is also incorporated into the 2712EL. The battery is monitored all the time and is ok while the Batt. OK led lit (Instrument ON). At startup, the battery voltage is measured and displayed on the LCD. The



# SEW 2712EL - Designed for Professionals

2712EL works from 9V batteries (6 x 1.5V). This instrument does not need high power battery and normal, low cost cells can be utilized.

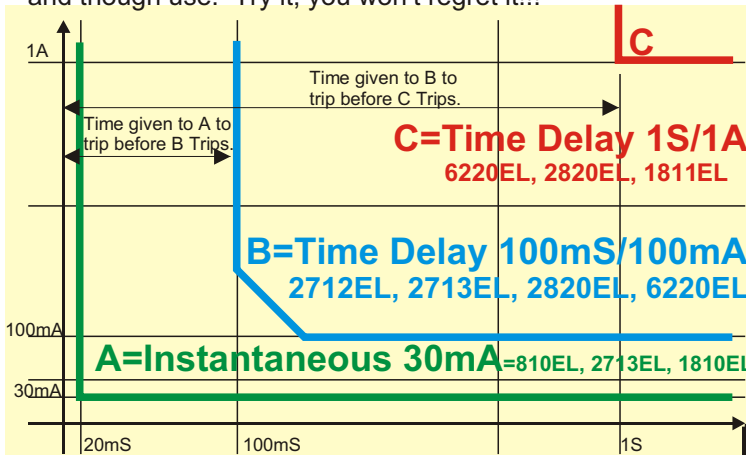
This model is supplied "standard" in a **professional case**, with appropriate, Quality **Color Coded "Flexible" Test Leads** and Accessories (Pouch, user's manual, batteries and QC certificate).

This instrument, uses the latest technologies. It is **ideally suited** for Domestic Electrical Maintenance, Certification and Servicing of installations. This instrument is fused and protected against over-voltage and over-temperature. It is designed for **Very Low Power Consumption**. The 6 x 1.5v "AA" universal cell batteries type permit very **long hours of testing** without the need to be replaced. Because of the memory, you have enough time to write down the results for comparison or record keeping and analysis.

This instrument is **"Factory Calibrated"** to the highest International Standards for Performance, Reliability and Accuracy.

**We guarantee each Product and they are tested individually** on all ranges, features and specifications before leaving the factory.

To the Test Engineers, it means **the Meter Comply** with Modern Standard Design specifications and acceptance procedures. **This Instrument is a good Investment** in Instrumentation than ever before. **2712EL Excels** in intensive and though use. Try it, you won't regret it!!!



It has now become necessary, not only to ensure that disconnection takes place, but that ELCBs disconnects at the exact sensitivity and within the correct time, when a fault occurs.

The 2712EL test the disconnection time.  
The 2713EL test both, sensitivity and time.

Please read our application note #31

TECHNICAL SPECIFICATIONS		2712EL
System Voltage (50Hz or 60Hz) to be specified at ordering	Version A	240V
	Version B	230V
	Version C	220V
	Version D	110V
Sensitivity Test Range (mA) (selector)		3-500
Disconnection Time Range (S)		0-2.999
Voltage Line(Hot) to Earth (Ground) (Vac)		±10%
Phase Start Selection Referenced to Earth		0°-180°
Timer Resolution		1mS
Timer Accuracy		±2%±1mS
Current Resolution		N/A
Current is proportional to Voltage		±5%
Voltmeter Resolution		1V
Voltmeter Accuracy $V_{Nominal} \pm 10\%$ (50/60Hz)		±2%±1V
Voltmeter Accuracy Outside $V_{Nominal} \pm 10\%$		±5%±3V
Operating Temperature		-5°C +45°C
Storage Temperature		-10°C +85°C
AA Batteries		6
Battery OK Led lit if Vbat above		7V
Current Specified at Voltage		Nominal
Operating Frequency		50/60Hz
Temperature Sensing		3 x NTC

PERFORMANCE SELECTOR	2712EL
Measure Disconnection Time (mS)	•
Percentage Deviation From $V_{Nominal}$	•
Measure Voltage Line(Hot) to Ground (E)	•
50Hz and 60Hz operation	•
Over Temperature Protection	•
Over Voltage Protection	•
Fuse Protection	•
Switched Fixed Resistors (Rotary Switch)	•
Menu Driven Selection	•
Wiring Check	•
Automatic Discharge of Circuits	•
Battery operated	•
Long Calibration Interval	•
Microprocessor Controlled	•
"Industrial " grade case	•
Test leads compartment in the case	•
Re-programmable Flash (can update)	•
Color Coded Test Leads	•
Long Calibration Interval	•
CMOS Controlled (low consumption)	•
Dynamic Battery Indicator	•
Knob Selection of Current	•

Specifications subject to change without notice.

Authorized Distributor of SEW in China

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