

SPECIFICATIONS

AC WITHSTAND VOLTAGE			
	Range	Resolution	Accuracy
Output Voltage, ACV	0 - 5000	1	±(2% of setting + 5 volts)
Output Frequency	60 or 50 Hz, ±0.1%, user selectable		
Output Waveform	Sine Wave, Crest Factor = 1.3 - 1.5		
SETTINGS			
HI and LO-Limit(Total), current, mA	0.000 - 9.999	0.001	±(2% of setting + 2 counts)
	10.00 - 40.00	0.01	
Dwell Timer, second	0, 0.4 - 999.9	0.1	±(0.1% + 0.05 sec.)
Ramp-Up Timer, second	0.1 - 999.9		
Ramp-Down Timer, second	0.0 - 999.9		
Arc Detection	9 ranges		
DC WITHSTAND VOLTAGE			
Output Voltage, DCV	0 - 5000	1	±(2% of setting + 5 volts)
DC Output Ripple	±4% Ripple RMS at 5 KV DC @ 20 mA, Resistive Load		
SETTINGS			
HI and LO-Limit, current, µA	0.0 - 999.9	0.1	±(2% of setting + 2 counts)
	1000 - 20000	1	
Dwell Timer, second	0, 0.3 - 999.9	0.1	±(0.1% + 0.05 sec.)
Ramp-Up Timer, second	0.4 - 999.9		
Ramp-Down Timer, second	0.0, 1.0 - 999.9		
Ramp-HI, current	>20 mA peak maximum, ON/OFF selectable		
Charge-LO, current	0.0 - 350.0µA DC or Auto set		
Discharge Time	≤200 ms		
INSULATION RESISTANCE			
Output Voltage, DCV	50 - 1000	1	±(2% of reading + 2 counts)
Charging Current	Maximum >20mA peak		
SETTINGS			
HI and LO-Limit, resistance, MΩ	0.05 - 99.99 (HI - Limit: 0 = OFF)	0.01	Same as Resistance Display Accuracy
	100.0 - 999.9	0.1	
	1000 - 50000	1	
Ramp-Up Timer, second	0.1 - 999.9	0.1	±(0.1% + 0.05 sec.)
Ramp-Down Timer, second	0.1, 0 - 999.9		
Delay Timer, second	0, 1.0 - 999.9		
Charge-LO, current, µA	0.000 - 3.500 or Auto Set		
GROUND BOND			
Output Current, Aac	1.00 - 40.00	0.01	±(2% of reading + 0.02 A)
Output Voltage, Vac	3.00 - 8.00	0.01	±(2% of reading + 0.03 V)
Output Frequency, Hz	60 or 50, ±0.1%, user selectable		
Maximum Loading	1.00 - 9.99A, 0 - 600mΩ / 10.00 - 30.00A, 0 - 20 0mΩ , 30.01 - 40.00A / , 0 - 150mΩ		
SETTINGS			
Lead Resistance Offset, mΩ	0 - 200	1	1-2.99A, ±(3% of reading + 3 mΩ)
HI and LO-Limit, resistance, mΩ	0 - 600	1	Same as Resistance Measurement Accuracy
Dwell Timer, second	0, 0.5 - 999.9	0.1	±(0.1% + 0.05 sec.)
CONTINUITY TEST			
Output Current, DC	0.1A ± 0.01A, fixed		
SETTINGS			
Lead Resistance Offset, Ω	0.00 - 2.00	0.01	±(3% of setting + 0.02 Ω)
HI and LO-Limit, resistance, Ω	0.0 - 10.00 (0=OFF)	0.01	±(3% of setting + 0.02 Ω)
Dwell Timer, second	0, 0.3 - 999.9	0.1	±(0.1% + 0.05 sec.)
MEASUREMENT			
Voltage, KV (AC/DC)	0.00 - 5.00	0.01	±(2% of reading + 10V)
Voltage, Vdc (IR only)	0 - 1000	1	±(2% of reading + 2 counts)
AC Current (Total), mA	0.000 - 3.500	0.001	±(2% of reading + 2 counts)
AC Current, A (Ground Bond)	3.00 - 40.00	0.01	±(3% of setting + 0.03 A)
DC Current, µA	0.0 - 350.0	0.1	±(2% of reading + 2 counts)
DC Current, mA	0.300 - 3.500	0.001	±(2% of reading + 2 counts)
	3.00 - 20.00	0.01	
Resistance, MΩ	500 - 499 V	500 - 1000 V	50-499V 0.05-999.9, ±(7% of reading + 2 counts) 500-1000V 0.05-999.9, ±(2% of reading + 2 counts)
	0.050 - 1.999	0.050 - 9.999	
	2.00 - 19.99	10.00 - 99.99	
	20.0 - 199.9	100.0 - 999.9	
	200 - 50000	1000 - 50000	
Resistance, mΩ	0 - 600	1	1 - 2.99 A, ±(3% of reading + 3 mΩ)
Resistance, Ω	0.00 - 10.00	0.01	3 - 30 A, ±(2% of reading + 2 mΩ) ±(3% of reading + 0.02 Ω)
GENERAL			
PLC Remote Control	Input : Test, Reset, Interlock, Recall File 1 through 10 Output: Pass, Fail, Test-in-Process		
Safety	Built-in Smart GFI circuit		
Memory	50 memories, 30 step/memory		
Interface	Standard RS232, Optional Printer Port with Date and Time Stamp or GPIB (IEEE-488.2).		
Graphic Display	320 x 240 Monographic LCD, 9 ranges contrast setting		
Calibration	Software and adjustments are made through the front panel. Automatic Calibration alert function to signal operator when re-calibration is due.		
Dimension / Net Weight	430(W) x 133(H) x 500(D) mm / 30Kg.		
Input Voltage, AC	115/230V ± 15%, 50/60Hz ± 5%		

Specifications subject to change without notice.



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7742 ELECTRICAL SAFETY COMPLIANCE ANALYZER



ELECTRICAL SAFETY COMPLIANCE ANALYZER

3rd Generation Safety Tester
ACW, DCW, IR, GB / GC



Model 7742 is the industry's first multi-function electrical compliance safety analyzer with a unique graphic LCD that provides the user with an enhanced interface and easier to read set-up and test parameters. Model 7742 features plug-in PCB cards for expanded test capability. This provides the ultimate in flexibility so a customer can purchase only the tests required now and easily add test capability in the future. The base model contains the 4 most commonly required electrical safety tests including AC Withstand Voltage, DC Withstand Voltage, Ground Bond/Continuity and Insulation Resistance. Plug-in cards add Functional Run test and Line Leakage test capability to the base model. An internal High Voltage/High Current Scanning Matrix for multi-product or multi-point testing is also available. This instrument is an ideal choice for automated production line environments for compliance testing to UL, CSA, IEC, VDE, TÜV and other safety agency specifications. The enhanced graphic LCD provides more useful information to the user than the older generation tester. With this powerful user interface, safety testing is made safer, easier and more reliable than ever before.

Up to 6 test functions in one 3U rack mount cabinet

With a single DUT connection, Model 7742 automatically tests all of the most common electrical safety tests required by safety agencies. It also takes up less space as compared to conventional testers.

The first safety testing instrument with an enhanced graphic LCD

This eliminates the need to decipher cryptic abbreviations. Model 7742 provides the operator with more useful information. The graphic LCD makes testing safer, easier and more reliable than ever before.

Built-in calibration alert

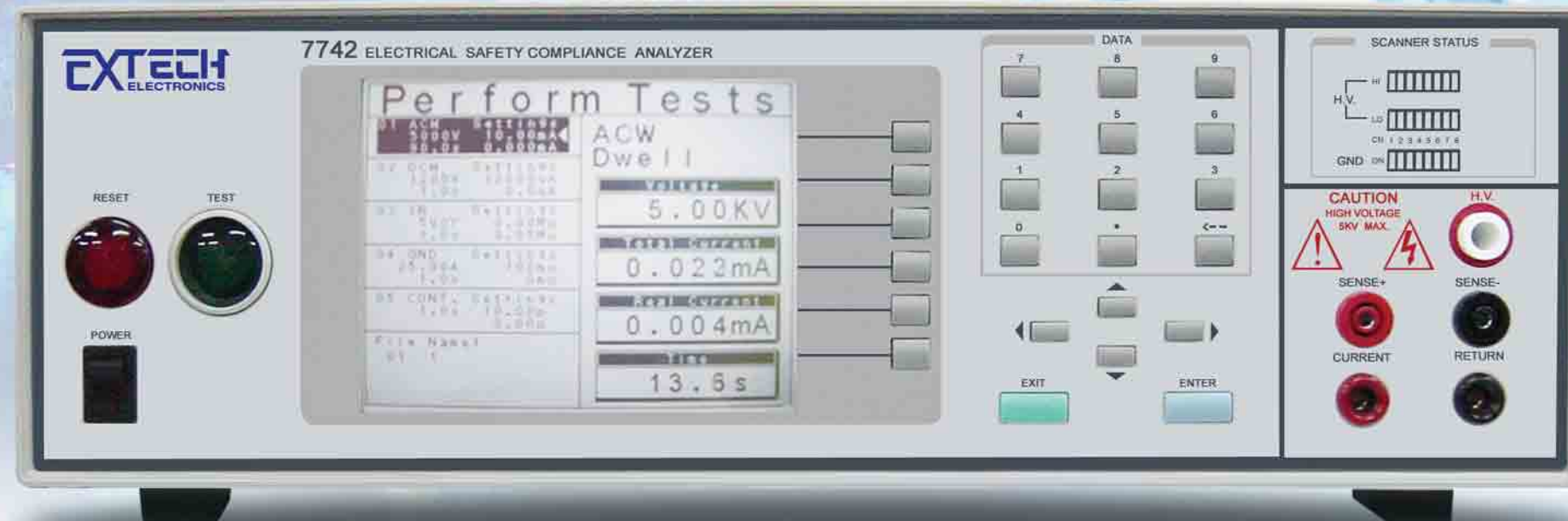
This feature automatically alerts the user when the instrument is due for re-calibration. This eliminates the need for manual tracking of calibration dates.

Ground Bond and Ground Continuity functions

The user selects whether to perform a high current ground bond test or a low current continuity test. The ground continuity test can be run as an independent test or it can be performed simultaneously with the hipot test.

Optional printer port

This option allows direct connection of Model 7742 to a printer. The user can have hard copies of test results after the test. All printouts are date stamped.



Exclusive RAMP HI

In DCW test, this feature allows the user to set a higher trip current during the voltage ramp up for charging of the DUT without nuisance tripping and increases the throughput.

Line and Load regulation

Maintains the output voltage to within 1% of setting even if the load or the line voltage varies. This ensures that the DUTs are tested with correct voltage regardless of input voltage fluctuation or load condition.

Exclusive Smart GFI function

The patented Smart GFI function, No. 169000, provides maximum protection to the user. The circuit monitors the ground configuration of the DUT and automatically sets up the GFI circuit. The operator does not need to make the decision whether to activate the GFI circuit.

Password settings

To limit unauthorized access into instruments setup program, Model 7742 can be setup to allow for different levels of access. Users can setup up passwords for restricted access to certain parts of the menu.

Storage of up to 50 setups of 30 steps each

Each setup can store up to 30 safety test steps. User can name and store each setup for easy recall in the future.

Real Current measurement

In AC Hipot test, Model 7742 monitors Real and Total current simultaneously. User can read both current on a single screen.

Exclusive Prompt and Hold function

Model 7742 allows users to insert Prompt and Hold in the test cycle so that the test can be paused at certain step. During the pause, a user-configured instruction is displayed. The test operator follows the action they need to perform before continuing with the test. This is a very convenient feature for applications where test leads need to be moved or when DUT switches need to be activated as part of the test cycle.

Exclusive CHARGE LO

IN DCW test, this feature monitors the connection of the DUT. The CHARGE LO provides the user with the capability to ensure that the device under test is connected correctly.

PLC remote inputs & outputs

This allows the instrument to be integrated into factory automation through simple PLC control. Up to 10 different setups can be recalled by PLC control.

Four wire measurement (Kelvin Method) and milliohm offset capability in the Ground Bond mode

The four-wire measurement technique eliminates test lead resistance when using the standard test leads. The milliohm-offset function allows the use of longer test leads and test fixtures without compromising test results.

Digitally controlled arc detection system

Allows the operator to select whether low-level arcs should be detected and provides the operator with the ability to digitally select and program multiple sensitivity levels.