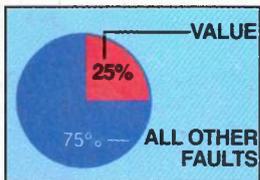
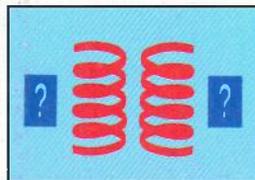


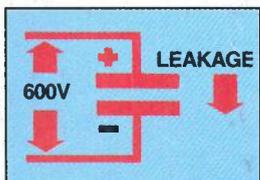
# ARE YOU STILL STRUGGLING WITH ONE OR MORE OF THESE TEN TIME-CONSUMING PROFIT KILLING CAPACITOR OR INDUCTOR TROUBLESHOOTING METHODS?



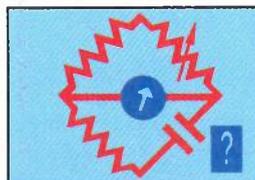
**1.** Are you missing 75 percent of all capacitor defects by testing for "static value only" with an inadequate "value only" tester?



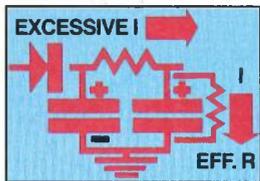
**6.** Are you still avoiding coil or transformer testing, and painstakingly testing all other circuit parameters first because you don't have a direct substitute, or a way to measure inductance or a shorted turn?



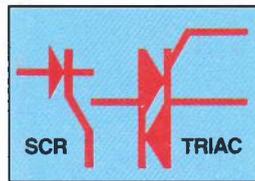
**2.** Are you still not able to measure true capacitor leakage because your testing method doesn't provide up to 600 volts DC?



**7.** Are you still struggling with an old fashioned, difficult to operate, LC bridge and find that you get different readings at different frequencies because you are measuring reactance instead of direct capacity or inductance?



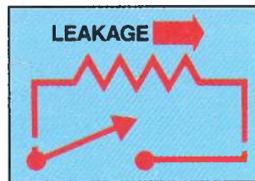
**3.** Do you unknowingly install defective electrolytic capacitors that went bad sitting on your shelf and sometimes damage the circuit which you install the electrolytic in?



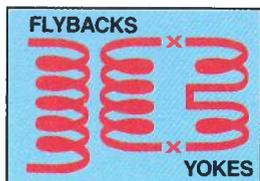
**8.** Are you still not equipped to dynamically test all popular SCRs, Triacs, and high voltage diodes for turn on-off capabilities?



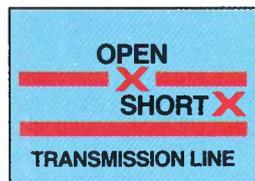
**4.** Are you still using old fashioned parts substitution "shotgun" methods to locate defective capacitors, investing in extra stock to even come close to the value; and still aren't sure because you seldom have an exact replacement?



**9.** Do you find it next to impossible to find high resistance leakage in printed circuit boards, switches, connector terminals, etc., without investing in an expensive hi-pot tester?



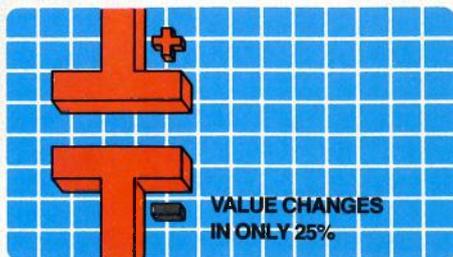
**5.** Are you tying up valuable dollars in deflection yoke and flyback transformer inventory, for substitution testing only, and still don't have an exact replacement when you need it?



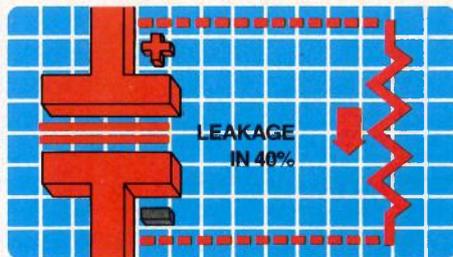
**10.** Are you looking for an easier, sure-fire way to find the distance to an open or short, to within a few feet in a transmission line?

**If you said YES** to any of the above, you have just determined your need for the all new Sencore Z Meter 2 Dynamic Capacitor Inductor Analyzer, as explained in this brochure . . . treat yourself . . . read on.

# Here are the many things that happen to capacitors and inductors to change their values . . .

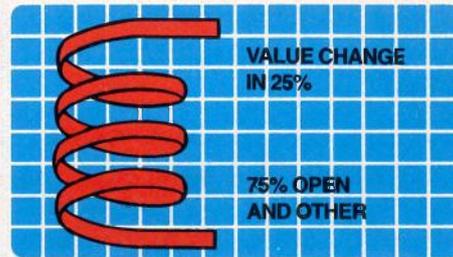


**CAPACITOR STATIC VALUE CHANGE** All capacitors can change value over time, but some are more prone to change than others. Ceramic capacitors often change value 10 to 15 percent the first year as the ceramic material relaxes. Electrolytics change value from simply sitting because the electrolytic solution dries out. Others are labeled wrong or the wrong value installed because the technician couldn't identify the value color code. Only about 25 percent of all defective capacitors have a static value change, but value should be checked first, when troubleshooting, to quickly eliminate this as a source of trouble.

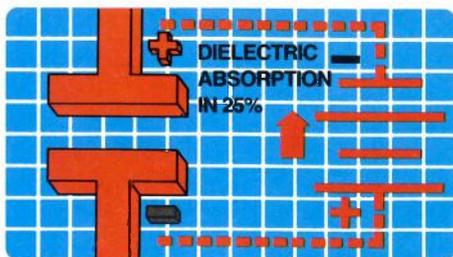


**CAPACITOR LEAKAGE CHANGES AFFECT CAPACITOR VALUE** Capacitor leakage is represented in the circuit by a resistance directly in parallel with the capacity. This parallel resistance effectively changes the value in circuit and will cause the circuit to malfunction. Therefore, the second capacitor test should be a leakage test with operating potential applied, up to 600 volts, to simulate true dielectric leakage under dynamic circuit conditions.

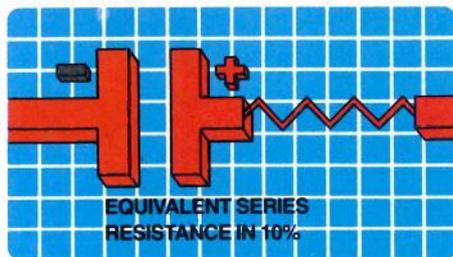
*Note: Over 40 percent of all defective capacitors have leakage, yet only the Z meters make this all important test.*



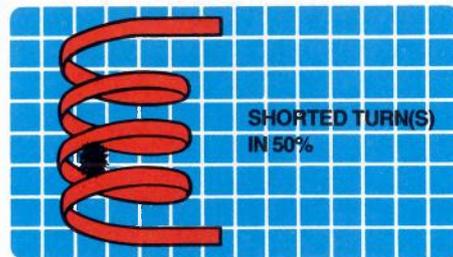
**INDUCTANCE VALUE CHANGE** Inductor static values are known to change from core breakage, windings relaxing, complete or section shorts, or someone simply installing the wrong value in the first place. Therefore, it is important, in troubleshooting inductors, to detect static value changes first to eliminate this component as a cause of circuit malfunctioning. Static value changes account for less than 25 percent of all defects in coils and transformers, but can be difficult to locate without proper test equipment, as direct substitutions are seldom available.



**CAPACITOR DIELECTRIC ABSORPTION CHANGES ELECTROLYTIC EFFECTIVE VALUE** Dielectric absorption happens mostly in electrolytics when they take on a charge but do not fully discharge when the applied voltage is reduced to zero. The capacitor measures full static value until it is placed in the circuit and is charged and discharged with an AC or pulsating DC signal. A residual charge often stays on the capacitor, much like a small DC battery placed internally and changes the capacitor's effective value after the first few cycles of operation. This value change, after charge, can be measured by checking the electrolytic value first, charging it to full DC potential, and then measuring the value again. If the value changes more than 15 percent, dielectric absorption is altering the effective dynamic value and the electrolytic should be rejected. This is the third test recommended on capacitors, especially electrolytics, because approximately 25 percent of all defective capacitors have excessive dielectric absorption.



**EQUIVALENT SERIES RESISTANCE CHANGE CAPACITOR VALUE (ESR)** If resistance is placed in series with a theoretically pure capacitance, it is called ESR and will change the effective circuit capacitance value. A portion of the AC voltage is dropped across the resistance and thus reduces the amount of capacity in the circuit. ESR can be made up of many series resistances found in cathode lead, cathode lead to plate, cathode plate, electrolyte, anode plate, lead to plate, and in the anode lead. These resistances are in series and are very difficult-to-measure because it is impossible to connect an ohmmeter across them inside the capacitor. Although ESR comprises less than 10 percent of all capacitor defects, and is almost always in electrolytics only, the value change causes real problems in today's high current, high filter, low ripple requirements or in high frequency circuits, such as switching power supplies, TV AGC circuits, DC correction or sample and hold circuits, and flyback derived TV power supplies.

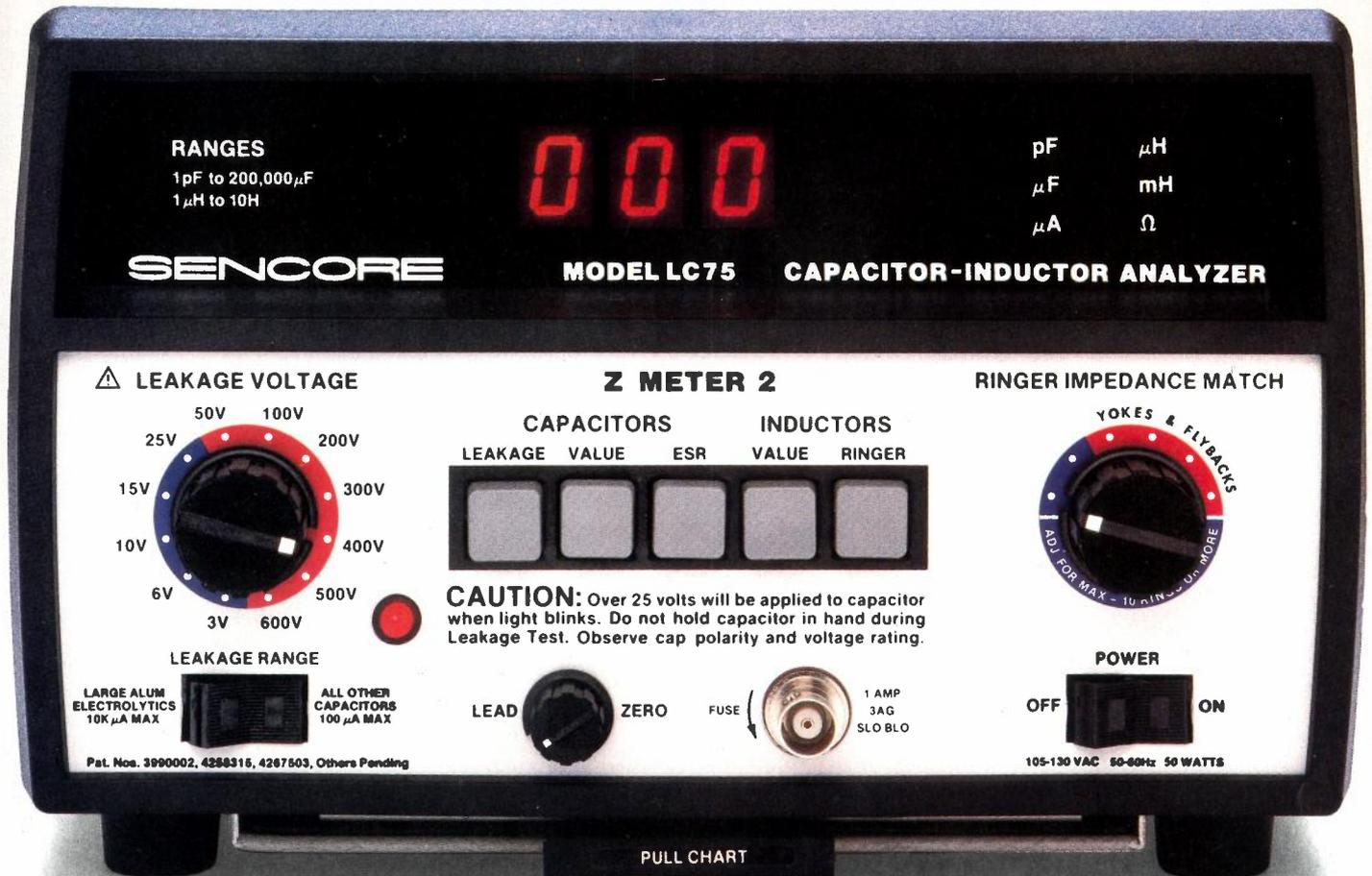


**SHORTED TURNS CAUSE BIG VALUE CHANGES** Oddly enough, a coil, with one shorted turn, can be checked with an ohmmeter and found to be perfectly good, from a resistance standpoint, or checked with a "static value only" checker and found to be within tolerance. But, place this shorted turn coil into the circuit that it is to operate in and it will change dynamic value drastically and will not function as an inductor at all. Single, shorted turns are the most common type of coil or transformer failure because the turns are adjacent to each other and can easily short across from poor insulation, voltage breakdown, or simple wear, if something is rubbing on them. The only good way to check a coil or transformer, under dynamic operating conditions, is to strike the coil with a steep wavefront and measure its ringing ability before it dampens to the 25 percent level.

*Note: Checks for completely open or shorted capacitors or coils, too.*

Here's Your Answer...

# THE ALL NEW IMPROVED LC75 Z METER 2; DYNAMIC, TRIPLE PATENTED, INDUCTOR-CAPACITOR ANALYZER.



## Automatically and dynamically checks:

- Capacitor Value
- Capacitor Leakage
- Electrolytic Dielectric Absorption
- Electrolytic Equivalent Series Resistance (ESR)
- Inductor Value
- Inductor Ringing Ability
- Transmission Line Distance too open or short
- SCR, Triacs and Hi Voltage Diodes
- Leakage in Switches, PC Board, Connector, Etc.

**EXCLUSIVE TRIPLE-PATENTED**  
NO. 3,990,002  
NO. 4,258,315  
NO. 4,267,503  
PLUS ESR TEST APPLIED FOR

LC75 ZMETER 2 **\$995**

# HERE'S HOW THE TESTS ARE MADE . . .

*GUARANTEED 100 PERCENT RELIABLE CAPACITOR TESTING WITH THE Z METER 2.*

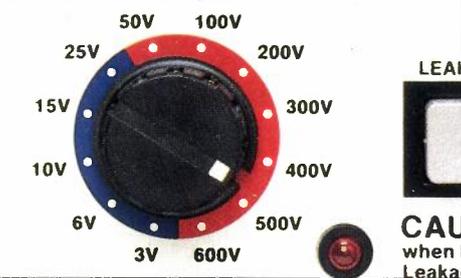
## RANGES

1 pF to 200,000  $\mu$ F

1  $\mu$ H to 10H

**Check Capacitor Value** automatically and readout directly with no interpretation or decimal moving, from 1 picofarad to 200,000 microfarads: Simply connect the capacitor and push the value pushbutton and read the capacitor value directly in microfarads or picofarads to one percent accuracy. Now twice as fast as earlier model LC53, to save operator time.

## LEAKAGE VOLTAGE



**Check capacitors for dielectric leakage** current, under full load, with up to 600 volts applied. The Z meter is the only dynamic LC tester on the market because it is the only tester that applies operating voltage to the capacitor to determine true dynamic leakage . . . just like it functions in the circuit. Simply push the leakage pushbutton and read capacitor leakage current as low as one-tenth of a microamp to catch electrolytics just starting to go bad. Handy graph, in built in pull chart, converts current readings to ohms when needed. Now, twice as fast as early model Z meter with full autoranging to speed tests and prevent operator error. Capacitor is automatically discharged when leakage pushbutton is released, protecting the next capacitor connected and the operator from shock hazard.

**Check Dielectric Absorption** with a unique patented test: Dielectric absorption, the charge left on a capacitor after it has been charged and then discharged, will cause serious trouble in most modern circuits. Dielectric absorption is easily tested with the Z Meter 2 by testing for the change in capacitor value before and after charging it to its operating level. To check dielectric absorption, simply make the value test, then make the leakage test, and then make the value test again. If there is a difference of more than 15 percent in the value readings, the capacitor has excessive dielectric absorption and should be rejected as it is affecting circuit operation by at least 15 percent.

**Check for Equivalent Series Resistance (ESR)** with the push of a button. If value, leakage and dielectric absorption are OK, push the ESR pushbutton and simply read the amount of internal resistance in series with the capacity of the capacitor you are measuring. This is called ESR and will cause real trouble in new high frequency, high current or low ripple requirement circuits, such as in switching power supplies, TV sweep derived voltages, any AGC, sample and hold circuits, etc. This unique "waveform analyzing" test simply uses a trapezoid waveshape, which is composed of a square wave and a sawtooth waveshape as a ratio test of resistance and capacitance. A square wave going into a capacitor will produce a saw tooth waveshape but the same square wave going into a resistance will result in no change to the square wave. Therefore, the ratio of square portion to the trapezoid waveshape is calculated as the ESR ratio. This new, unique invention, which measures ESR to 1000 ohms and reads directly in ohms, has a patent applied for.

## Z METER 2

RIN

CAPACITORS

INDUCTORS

LEAKAGE VALUE

ESR

VALUE RINGER



**CAUTION** when light not to capacitor voltage rating.

1 AMP  
3AG  
SLO BLO

## ONLY THE Z METER CHECKS FOR ALL COIL AND TRANSFORMER DEFECTS IN OR OUT OF CIRCUIT WITH THE PUSH OF A BUTTON.

Automatically test coil and transformer values from 1 microhenry to 10 henrys with a patented inductance test, in or out of circuit. The Z meter circuit is truly unique in that it tests for inductance, not inductive reactance, which is often frequency dependent, for direct and reliable readings every single time. Just push the inductance VALUE pushbutton and automatically read any inductance value from 1 microhenry to 10 henrys directly, with 2 percent accuracy. Full autoranging speeds up tests and greatly reduces operator error. New circuitry gives greater accuracy on small coils with very fine, highly resistive wire.



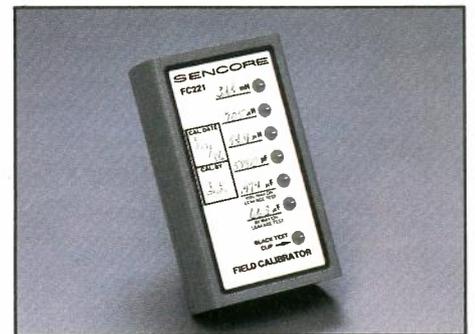
Automatic ringing test finds even one shorted turn, in or out of circuit. This effective Q test strikes the coil under test with a sharp wavefront periodically. The coil is then tested to see how many rings it will produce before it dampens to the 25 percent level. Sencore engineers have empirically determined that any coil will ring at least 10 times before decaying to less than 25 percent, if it is not shorted or open, or has a shorted turn. The coil is impedance-matched first by rotating the Ringer Impedance Match switch for maximum number of rings, as shown on the LED meter. If the readout is 10 or higher, the coil or transformer is always good. This Sencore exclusive, patented, ringing test has been used on nearly 60,000 Sencore instruments and works every time.



**Convenient Pull Chart** shows maximum leakage current allowed for capacitor size at the applied voltage and other guiding data. A convenient pull chart takes the guesswork out of determining allowable leakage currents, at applied voltage levels, capacitor identification and other important data to operate your Z meter with confidence. Chart also shows equivalent resistance value for leakage currents being read and voltage being applied, to save calculation error and time.



**Reform Electrolytics:** How many times have you wished that you had a power supply up to 600 volts to connect to dried out electrolytics to reform them? Simply select the appropriate voltage and insert the provided protective pushbutton holder between the Z meter handle and the pushbutton. Connect the electrolytic and watch it reform as the leakage current decreases. A built in protective Z meter internal circuit protects the Z meter and the electrolytic. An external, mechanical device is used to make it very difficult to defeat the power supply protection and thus do damage to the Z meter or yourself.



**KEEP YOUR LC 75 "Z METER" in CALIBRATION WITH THIS LOW COST FIELD CALIBRATOR.** Contains three low drift inductors and capacitors to compare to readings obtained on LC75. Each component is checked against lab standards and the reading logged in the space by the component connection on top of unit. Save downtime and service calibration expense. Pays for itself the first time you use it.

*Note: Also designed for earlier model LC53.  
Model FC221 Only \$65.00*

# SPECIAL Z METER 2 BONUS TESTS

IT'S ALSO A TRANSMISSION LINE TESTER, HI POT INSULATION TESTER AND AN SCR, TRIAC AND HIGH VOLTAGE TESTER. IT'S LIKE GETTING THREE EXTRA TESTERS FREE WHEN YOU INVEST IN A Z METER 2.



**It's easy to find the distance to an open or short in any transmission line.** To find the distance to an open, simply check the capacity of the transmission line, as you would in a capacitor, and divide the capacity read by the published capacity per foot of the transmission line you have under test. You'll be amazed when you dig down to the transmission line to find that you are usually within feet, if not within inches on shorter runs, saving an unbelievable amount of time and expense in digging up large sections of the transmission line for test purposes only. Find the distance to transmission line shorts, too, by measuring the inductance and dividing by the amount of inductance per foot of that particular transmission line. If you do not know capacity or inductance per foot, or aren't sure that the capacitance or inductance hasn't changed with age, measure a known length of a piece of the transmission line being used and divide the readings by the length in feet. The Z meter will detect a break in either the shield or the center conductor of coaxial transmission line. *Note: Also used to determine transmission line leakage, with up to 600 volts applied, or good or bad transmission lines by any or all of these tests.*



**It's easy to test for insulation leakage like a hi pot tester.** One of the most difficult faults to detect is leakage between sections of a wafer, slide or push switch. Connector leakage, too, is nearly impossible to find when solder flux, or the like, causes current flow between conductor sections. PC boards leakage can also be a "dog" to find when a very high resistance leakage is present between ribbons. Present state of the art ohmmeters don't work very well for checking leakage in these and other insulators, because ohmmeters don't generally read high enough resistance to detect a few microamps of leakage; plus ohmmeter voltages do not simulate operating conditions to force the leakage. The Z meter 2 comes to the rescue as up to 600 volts DC are applied, while as little as 1 microamp of current is measured . . . for an equivalent of 600 megohms measurement capability. Simply connect the Z2 meter test leads across the insulation in question, push the leakage button and read the leakage current; refer to the pull chart for equivalent resistance, if desired. No need to invest in an expensive and hard to move hi pot tester which often introduces error when the insulator capacity affects the readings. The Z meter pulsating DC charges up the capacity and leaves it charged, so it doesn't affect the Z meter 2 readings.



**It's easy to test SCRs, Triacs and hi voltage diodes with the Z Meter 2.** Invest in a new, improved Z meter 2 and you can test all SCRs and Triacs under full operating conditions for turn off-on capability and interelement leakage. Simply connect the new SCR250 SCR and Triac accessory to the Z meter test leads and push the Leakage push button to apply selected voltage up to 600 volts DC. Check SCRs with either sensitive or normal gates with the push of an SCR250 pushbutton. Check Triacs, with either positive or negative gate bias. Z meter 2 flashing 8s means that the device is turned on; zeros means that it is turned off and any other current reading indicates a defect. Reverse junction leakage, such as between anode and cathode, is checked directly in microamps on the meter. The SCR 250 is custom designed to mount on top of any "Z" meter and is mounted with supplied velcro® strips, to save bench space and to make it readily available when you need it.

The 600 volt supply, in the Z meter 2, can also be used to test high voltage stacked diodes that are very difficult to check with any other method. The 600 volt potential will overcome the multi-diode aggregate threshold potentials so the front to back ratio can be tested. See specification page for more details. *Note: SCR 250 is priced at \$148.*

## IN A NUTSHELL HERE IS WHAT THE Z METER 2 IS:

- ✓ It's the only dynamic, patented, capacitor tester on the market that makes all four tests required to clearly detect a defective capacitor: value, leakage under load, dielectric absorption, and equivalent series resistance (ESR).
- ✓ It's a double patented Inductor Analyzer, with static tests for value and a dynamic, in or out of circuit, ringing test which is guaranteed to find even one shorted turn.
- ✓ It's an SCR, Triac and Hi voltage diode tester when the SCR 250 accessory is used.
- ✓ It's a transmission line tester that quickly tells you, within feet, the distance to opens or shorts. Checks leakage too.
- ✓ It's a hi potential leakage tester for insulation leakage testing in switches, PC boards, connector contacts, etc.
- ✓ It's fully autoranged with direct reading to speed all tests and prevent calculation errors.
- ✓ Has handy pull chart to guide you on every test.
- ✓ Twice as fast, more accurate, and more thorough than the earlier model LC53 Z meter.

# SIMPLE ENOUGH TO BE OPERATED BY A BEGINNER

YET FULLY BACKED WITH LAB CALIBER SPECIFICATIONS. THERE'S NO COMPARISON AT ANY PRICE.  
EXCLUSIVE TRIPLE PATENTED PLUS ONE PATENT APPLIED FOR. Price: \$995

TEST AND SPECIFICATIONS	COMMENT
<p><b>Capacitor Value:</b> Dynamic test determined by measuring one RC time constant when capacitor is charged to plus 5 volts through . . . . . 10 megohms for 0 to 9000 pf • 10 kilohms for 9000 pf to 90 ufd • 60 ma constant current for 90 ufd to 200,000 ufd ACCURACY: <math>\pm 1\%</math> of reading + resolution error <math>\pm 1\text{pf}</math> • Over 1000 ufd <math>\pm 5\%</math> of reading + resolution error Range: 1.0 pf to 199,900 ufd auto ranged</p>	<p>Reads capacity directly, not capacitive reactance which can be frequency selective. Measures from the very smallest ceramic capacitor used in RF circuits to the very largest electrolytic used in computer power supplies. You just push the value button and read.</p>
<p><b>Capacitor Leakage:</b> ACCURACY: <math>\pm 5\%</math> + resolution error. RANGES: 0 to 99.9 ua and 0 to 9.99K ua in two selectable ranges from .1 ua to 9.99K ua. 3 to 600 volts in 12 steps, present on tips of test lead when leakage button pushed only. Warning light flashes when switched to 25 volts or higher. Capacitor discharges automatically when leakage button released.</p>	<p>Only "Z" meters tests capacitor leakage voltage to 600 volts to force capacitor to show true leakage as it appears to the circuit in operation. Yet, this is the major cause of capacitor failure. Protects next capacitor being connected or shock hazard to operator.</p>
<p><b>Capacitor Dielectric Absorption:</b> Determined by the difference in capacitor value reading, before and after capacitor rated voltage is applied, by making the leakage test between value tests. U.S. patent number 4,267,503.</p>	<p>A changed capacitor value, after the leakage test, indicates dielectric absorption. If the value changes more than 15 percent, the electrolytic is considered bad.</p>
<p><b>Equivalent Series Resistance (ESR):</b> Determined by charging capacitor with square wave. Read in ohms on Z meter 2. Accuracy <math>\pm 5\%</math> + resolution error. RANGES: .10 ohms to 999 ohms, autoranged. MINIMUM VALUE: 1 ufd to maintain accuracy. Patent applied for.</p>	<p>Method is simple but truly effective. A must test in new, solid state switching power supplies, sweep derived supplies, AGC circuits, sample and hold circuits and other high frequency, high current, low ripple circuits.</p>
<p><b>Inductance Value (in or out of circuit):</b> Dynamic test of inductance value determined by measuring the EMF generated by a constantly varying current through the coil under test. US patent 4,258,315. Inductance: Current ranges are • 10mA/usec - 0 to 90 uH • 1 mA/usec - 90 to 900 uH • .1 mA/usec - 900 uH to 9 mH • .01 mA/usec - 9 to 90 mH • .1 uA/usec - 90 to 900 mH • .1 uA/usec - 900 to 9.990mH. ACCURACY: <math>\pm 2\%</math> of reading + resolution error RANGES: 1 uH to 9.990 mH (10H) autoranged.</p>	<p>Checks inductor values directly with new patented exclusive circuit. Makes coil and transformer testing a snap. You just push the button and read. In or out of circuit with 100 percent reliability. Improved for very small coils with high resistance winding.</p>
<p><b>Ring Test:</b> Dynamic test of inductor quality determined by counting the number of cycles the inductor rings before reaching the 25 percent decay point after being excited by a sharp pulse. U.S. patent number 3,990,002.</p>	<p>A tried and proven test that will tell you whether the coil or transformer will function as an inductor in circuit. Relative check on Q. Finds opens, complete shorts, and even one shorted turn.</p>
<p><b>Digital Readout:</b> Type: .5", 7 segment LED. ACCURACY: Function <math>\pm</math> resolution error. RESOLUTION: 3 significant digits <math>\pm 2</math> counts on 3rd digit. 3½ digits on capacitors of 100,000 ufd to 200,000 ufd AUTORANGING: Fully automatic decimal placement. One or two place holding zeros added as needed, without affecting accuracy, to provide standard value readouts of ufd, uh, or mh. RANGE INDICATORS: LED operation, controlled by the autoranging circuits.</p>	<p>Easy to use. Now faster than ever before to save your time. Fully automatic to prevent you from making a measurement mistake. There is nothing else like the "Z" meter on the market and now it's improved. No errors in shifting decimals, calculating or getting readings in uncommon terms, such as millifarads or nanofarads, as you do on other testers. What you read is what you "get" every time.</p>
<p><b>General:</b> TYPICAL TEMPERATURE RANGES: Calibrated at 70 degrees F. RATED ACCURACY RANGE: 50-90 degrees F. OPERATING RANGE: 32-120 degrees F. POWER: 105-130 VAC, 60 Hz, 50 watts. PROTECTION: Fuse protected with test lead in-line 1 amp, 3AG, Slo-Blo fuse. Size: 6" x 9" x 11.5" (15.24 cm x 22.86 x 29.1cm) Weight: 7.75 lbs (3.56 kilograms). Gray case and light gray panel with black lettering and bezel.</p>	<p>Primarily a bench unit but small enough, and light weight enough to carry with you in the field. All operating claims, specifications, and benefits explained are 100% guaranteed or your money back. Further protected by Sencore's exclusive made right lifetime guarantee and 30 day satisfaction guarantee or your money cheerfully refunded.</p>

# SCR 250 SCR/TRIAC TEST ACCESSORY Price: \$148

SPECIFICATION	REASON FOR SPECIFICATION
<p><b>SCR test:</b> SENSITIVE GATE: 1.9 to 2.6 ma with positive gate shorted to negative cathode. NORMAL GATE: 38 to 62ma with positive gate shorted to negative cathode</p>	<p>We test sensitive gate SCRs without damaging them and see if SCRs properly turn on with lower gate currents. To supply sufficient gate current to turn on protected, higher current gate SCRs and ITRs.</p>
<p><b>TRIAC test.</b> POSITIVE GATE BIAS: 38 to 62ma with positive gate shorted to MT1 NEGATIVE GATE BIAS: 30 to 62ma with negative gate shorted to MT1</p>	<p>Determines if a TRIAC will turn on with a positive voltage applied to the gate. Determines if the TRIAC will turn on with a negative gate voltage.</p>
<p><b>Batteries:</b> Three conventional AA batteries. BATTERY OK LIGHT: On at 3.5 volts, off at 3.3 volts.</p>	<p>This will supply the gate current needed to turn on SCRs and TRIACs.</p>
<p><b>Environment:</b> 0-55 deg c (32-130 deg F)</p>	<p>Same spec as Z-Meters.</p>
<p><b>General:</b> WEIGHT: 1.2 pounds SIZE: 1.8" x 6.2" x 6.5" HWD COLOR: Grey case and light grey panel with black lettering and bezel.</p>	<p>Designed to match Z-Meter as it is installed with included Velcro strips on top of Z-meter.</p>



SCR250 mounted with velcro straps.

# FREE \$148 SCR 250

**An Effective 15%  
Introductory Discount**

**HAVE QUESTIONS?  
READY TO ORDER?**

**800-843-3338**

Call toll free and talk with one of our  
qualified Phone Sales Engineers.

Dear Sencore Customer:  
I've always said that "Z"ING IS BELIEVING!

What I mean is, reading about the Z meter 2 is one thing, but actually "Z"ing it in action on your bench is something else. The minute you place your hands on the Z meter 2, you'll know it was meant for you. Your trouble shooting and analyzing confidence will rise to a new level as you pinpoint faulty capacitors and inductors. You'll begin to appreciate the Z meter 2 space age technology as you use this exclusive, automatic, triple patented, super popular LC Analyzer. Your pride will expand when you show your technical friends that you can now find defective capacitors faster than they but in addition, you can now accurately measure value changes, leakage with up to 600 volts applied, dielectric absorption and even equivalent series resistance (ESR); all with 100% reliability. And, you'll be the local expert too, when it comes to pinpointing troublesome coils, transformers, yokes and flybacks, as you are now equipped to detect even one shorted turn.

And you certainly want to "Z" for yourself how amazingly close you can come to locating an open or short in any transmission line, or use the Z meter 2 as a hi-pot tester to check insulation leakage in switches, PC boards, terminals, connectors, etc. And to top it off, you'll want to "Z" just how quickly you can eliminate troublesome SCRs, Triacs, and hi voltage diodes, as potential sources of problems, with the new SCR250 accessory.

OK, how do you add all this value up and cost-justify the Z meter 2 the E "Z" way? Simply pick up the phone and dial, Wats free, 1-800-843-3338, discuss your particular applications, then, while you are at it, order your LC75 Z Meter 2 for \$995. Or, if you prefer, you can own an LC-75 for as little as \$85.00 per month with our extended terms payment plan. Either way, as a very special introductory offer, we'll give you the \$148.00 SCR250 SCR and Triac tester absolutely free to mount piggyback to your Z meter 2. Imagine . . . nearly a 15 percent discount on a new, improved, but proven product!

Are you ready to say yes? OK, pick up the phone and let us pay for the call; dial Wats Free 1-800-843-3338 and tell the Sencore operator your phone area code. She will say "Thank you for calling Sencore" and will immediately connect you to your designated, friendly area sales engineer. We are waiting for your call.

There is no way that you can go wrong in your investment. Sencore, a well financed, 35 year old American company, backs you 100 percent with a 30 day, proof of performance guarantee. This means that: If you find even one claim or specification stated incorrectly, or should you find that the Z Meter 2 doesn't answer your every need, simply return it for a full, no questions asked, refund within 30 days after delivery to you. If you need a 15 day trial before buying, just give us a call and we will be happy to work with you. Plus, you are backed by Sencore's exclusive 100 percent lifetime made-right guarantee and 72 hour turnaround service. Really, probably the only mistake that you could make today is by not picking up your phone now and discussing how easily you can be the first in your area to own this excitingly new, automatic tester. You'll own the latest, exclusive, patented technology and get a super deal too, if you pick up your phone and make that no obligation call today.

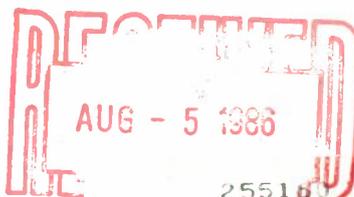
"Z" you soon,

*Your Sencore  
Sales Engineer*

**SENCORE**

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STOCKTON CA 95202

Dear Sencore Customer,

Since you're reading this letter, it's a safe bet to assume that you have been struggling with one or more of the ten time-consuming, profit-killing capacitor or inductor troubleshooting methods we described on the front cover of the "Z METER 2" color brochure. It's also a safe bet that you would probably like to never again worry about being stumped by an intermittent or faulty cap, coil, flyback, SCR or TRIAC — right?

Well, that's why I want to extend to you this absolutely RISK FREE offer to try an LC75 on your bench for 15 full days and prove to yourself just how 100% reliable cap and coil analyzing can eliminate your troubleshooting frustrations. Or if you've made the decision to invest, I'd like to help you save \$148.00 by saying YES and ordering today.

Either way, you'll be "Z"ing for yourself just how this triple patented component testing miracle can eliminate the aggravating troubleshooting headaches that faulty caps and coils can cause.

You'll also be interested to know that you have a great chance of winning an All New LC75 "Z METER 2" absolutely FREE by simply filling out the attached "Z"weepstakes Entry Form (inside on the opposite page). But don't delay, because the quicker you return the form, the better your chances of winning. You see, we'll be giving away one "Z METER 2" each week for the next 50 weeks — the sooner you enter, the more drawings you'll be eligible for. So, return your form (or call us **WATS Free, 1-800-843-3338**) today and good luck in the "Z"weepstakes!

Sincerely,



John Perry  
National Sales Manager

**P.S. As an Early Bird Bonus, if you try or buy your "Z METER 2" before September 30 and you win any one of our 50 weekly drawings, we'll give you your choice of a DVM37 Voltmeter or a TF46 Super Cricket Transistor Tester as a FREE added bonus — that's a total prize package worth \$1,390 — SO ACT TODAY!**

# Enter The All New \$50,000 "Z"weepstakes!

**You Could Win An All New  
Triple Patented "Z METER 2"  
Cap/Coil Analyzer Worth \$995 —  
— Absolutely FREE!**



**Hurry . . . Enter Now!**

Win a \$995 Triple Patented LC75 "Z METER 2" Cap/Coil Analyzer. We'll be giving away one each week for the next 50 weeks, plus Early Bird Prizes — a grand total of over \$50,000 in FREE test instrument prizes to be given away! So the sooner you enter, the better your chances of winning one will be. Flip to the front cover of this insert for more details.

## **Win An LC75 "Z METER 2"!**

We'll be giving away one "Z METER 2" every week for the next 50 weeks beginning August 29. To enter, simply fill in your name and answer the two marketing questions on the Sweepstakes Entry Form to the right. Then detach it, insert it into the postage-paid envelope supplied, and mail it today. In return, your name will be automatically entered for each weekly "Z"weepstakes giveaway — the sooner you act, the better your chances, **SO ACT TODAY!**

**BE AN EARLY BIRD AND WIN EVEN BIGGER:** Try or buy your "Z METER 2" before September 30, and if you're the winner of one of our weekly drawings, we'll give you your choice of a DVM37 Voltmeter or a TF46 Super Cricket Transistor Tester as a **FREE ADDED BONUS EARLY BIRD PRIZE**. Plus, we'll pay off your account and/or refund what you've paid if you've bought the "Z METER 2" — So remember to act before September 30.

## **Take The LC75 For A Risk Free Self Demo!**

If what you've read about the LC75 "Z METER 2" sounds good so far and you want to take a closer look, you'll want to **SAY YES** to a **RISK FREE 15 Day Self Demo**. Just check the appropriate "Self Demo" section on your "Z"weepstakes Form to the right to "Z" for yourself just what the LC75 "Z METER 2" can do to simplify your cap and coil testing.

## **Order Your LC75 Before September 30 And Save \$148.00!**

If you're ready to buy instead of try, and you order your LC75 before September 30, you'll receive the All New \$148.00 SCR250 SCR and TRIAC Accessory as a **FREE gift** — as our way of saying thanks for your order. That's a \$148.00 savings just for acting before September 30. And of course your decision to invest is covered by our no nonsense 30 Day Money Back Guarantee. Simply stated, if you're not 100% satisfied with your investment, you may return it for a full refund including freight both ways. So **SAY YES** by calling or checking off the appropriate section on your "Z"weepstakes Form today and save.



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