

**NEW!**

**Find circuit problems, make alignments, and check waveform and circuit parameters faster and easier than ever before with no chance of measurement or interpretation error.**



# Why Modern Servicing Requires Complete Waveform & Circuit Analyzing!

- DC Bias Voltages
- DC Currents
- Resistance
- AC Signals Of Various Waveshapes & Amplitudes
- Continuity Of Circuit Paths & Components

If you are like most technicians, you must make these measurements literally hundreds of times each day. So, you need to be able to make these measurements quickly and accurately.

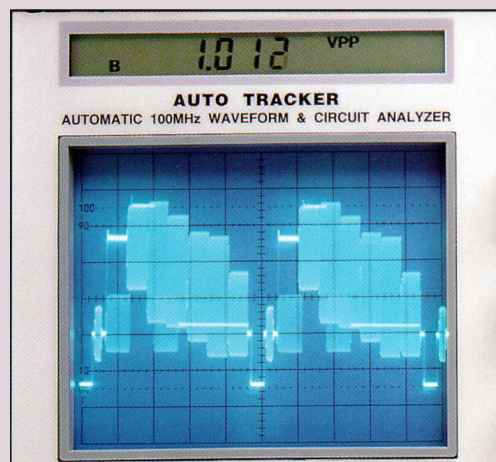
Typically, the majority of your circuit measurements involve the use of an oscilloscope. But, we all know that conventional oscilloscopes can be slow and error prone. That's why Sencore originally introduced the "Waveform Analyzer" to fill the need for fast, reliable waveform measuring. That need has not changed. In fact, it is more important today for a servicer to have the tools that allow him to properly troubleshoot.

The use of digital circuits is now wide spread and these circuits are faster. Many manufacturers are now requiring oscilloscopes with 100 MHz bandwidths to make critical timing adjustments in today's faster circuits. Also, an instantaneous voltage measurement referenced to common circuit ground is

important in determining trigger points and the proper logic levels of digital circuits.

In addition, technicians need greater sensitivity to troubleshoot and align circuits that have low level signals, such as audio and video record heads. In these applications a narrower bandwidth is required to prevent noise and high frequency interference pickup when viewing these signals. You need one high performance unit to meet these needs.

In fact, our customers have told us that: "servicers need to find circuit problems by comparing every needed measurement to schematics and service literature. This need goes beyond the waveform parameters, and includes resistance and current measurements for full circuit analyzing."



If you are involved with maintenance, repair, or calibration of any type of electronic equipment, then the New SC3100 "AUTO TRACKER"™ Automatic 100 MHz Waveform & Circuit Analyzer is what you've been waiting for!

# Now Touch And Test Any Circuit Test Point And Make Autoranged Error Free Measurements In A Fraction Of The Time!

## A Complete Waveform And Circuit Analyzing System

Measure circuit parameters and view all waveforms shown in service literature. The SC3100 is guaranteed to increase your circuit analyzing capabilities.

## AutoTracking Digital Readout Of Waveform Voltage And Frequency

Measure the key parameters of any waveform with one probe connection, at the push of a button for fast and accurate troubleshooting.

## Integrated Measurements Of All Circuit Parameters

There's no need for a separate DVM to analyze the circuit. Measure ohms and current with integrated circuit analyzing tests that provide you with troubleshooting answers from one complete instrument.

## Full Performance, 100 MHz, Dual Trace Oscilloscope

View any waveform quicker, easier, and more accurately. The "fiddle free" trigger controls provide rock solid viewing of any signal and includes special TV modes for complex video waveforms. No signal is too large or too small with our exclusive 2 mV to 2 kV input range.

## Exclusive Auto-Ranged Timebase And Vertical Attenuators

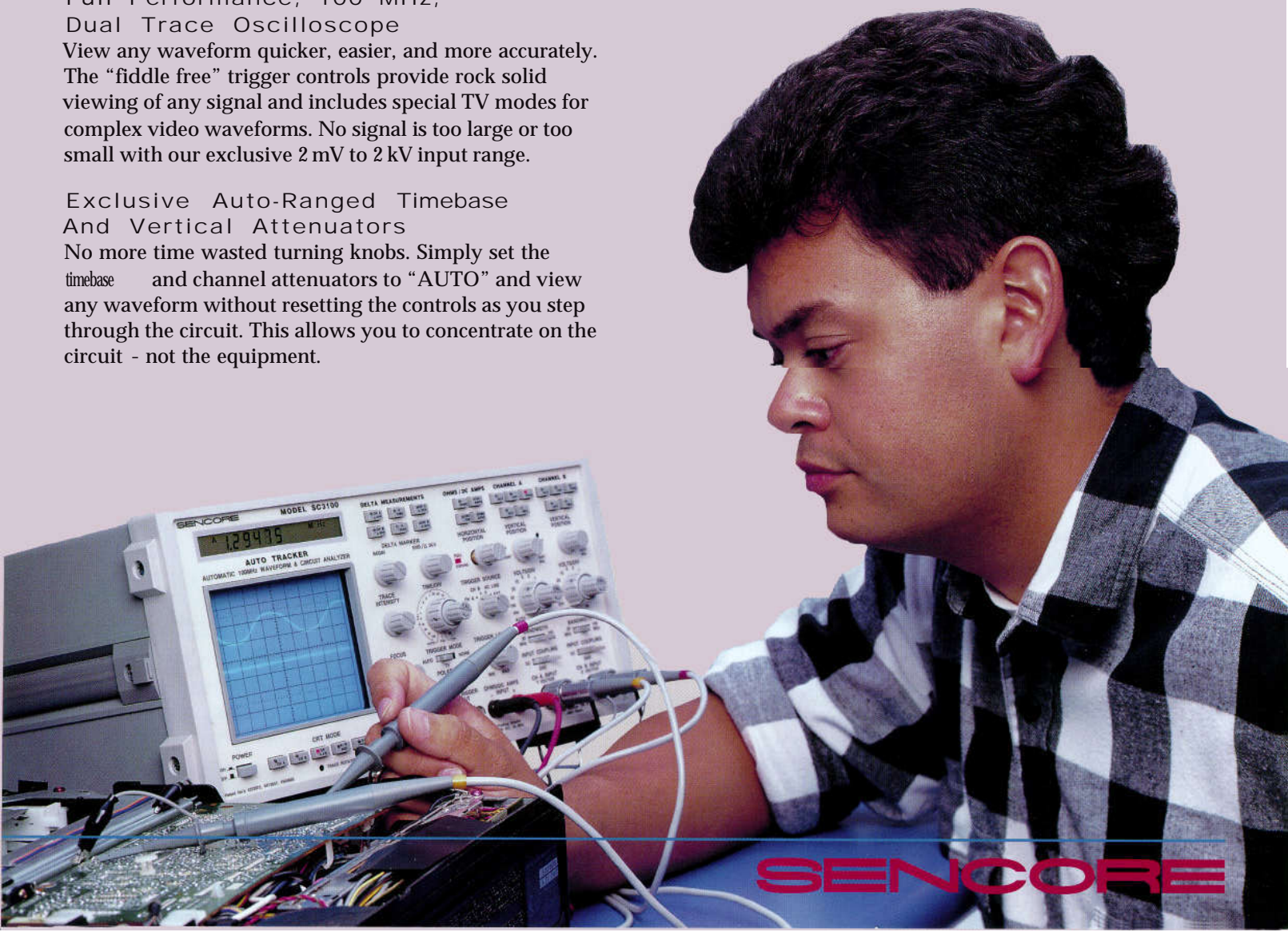
No more time wasted turning knobs. Simply set the timebase and channel attenuators to "AUTO" and view any waveform without resetting the controls as you step through the circuit. This allows you to concentrate on the circuit - not the equipment.

## Digital Delta Measurements To Analyze Every Portion Of Any Waveform

Highlight any part of a waveform with Sencore's exclusive Delta Bar and analyze the amplitude, absolute DC, time, or frequency. No more wasting time on graticule counting or setting cursors.

## All Functions Microprocessor Integrated For Ease Of Use

The SC3100's analyzing speed will increase your servicing capabilities. All measurements are based on digital circuits, not the analog CRT, for fast, easy, and accurate readings. No hidden menus, no multiple function buttons, no complicated setups, and no confusing "on screen" displays. Just push a button and read the results on the LCD display.



**SENCORE**



# SC3100 "AUTO TRACKER" Automatic 100 MHz Waveform & Circuit Analyzer

Exclusive Auto-Tracking™ Digital Readout Matches Key Schematic References - no more graticule counting or interpretations with this easy-to-read direct readout LCD display.

Delta Measurements Allow You To Completely Analyze Portions Of Any Waveform - no time wasted with manual cursor settings to position on the waveform or guess at for fast troubleshooting and accurate alignments.

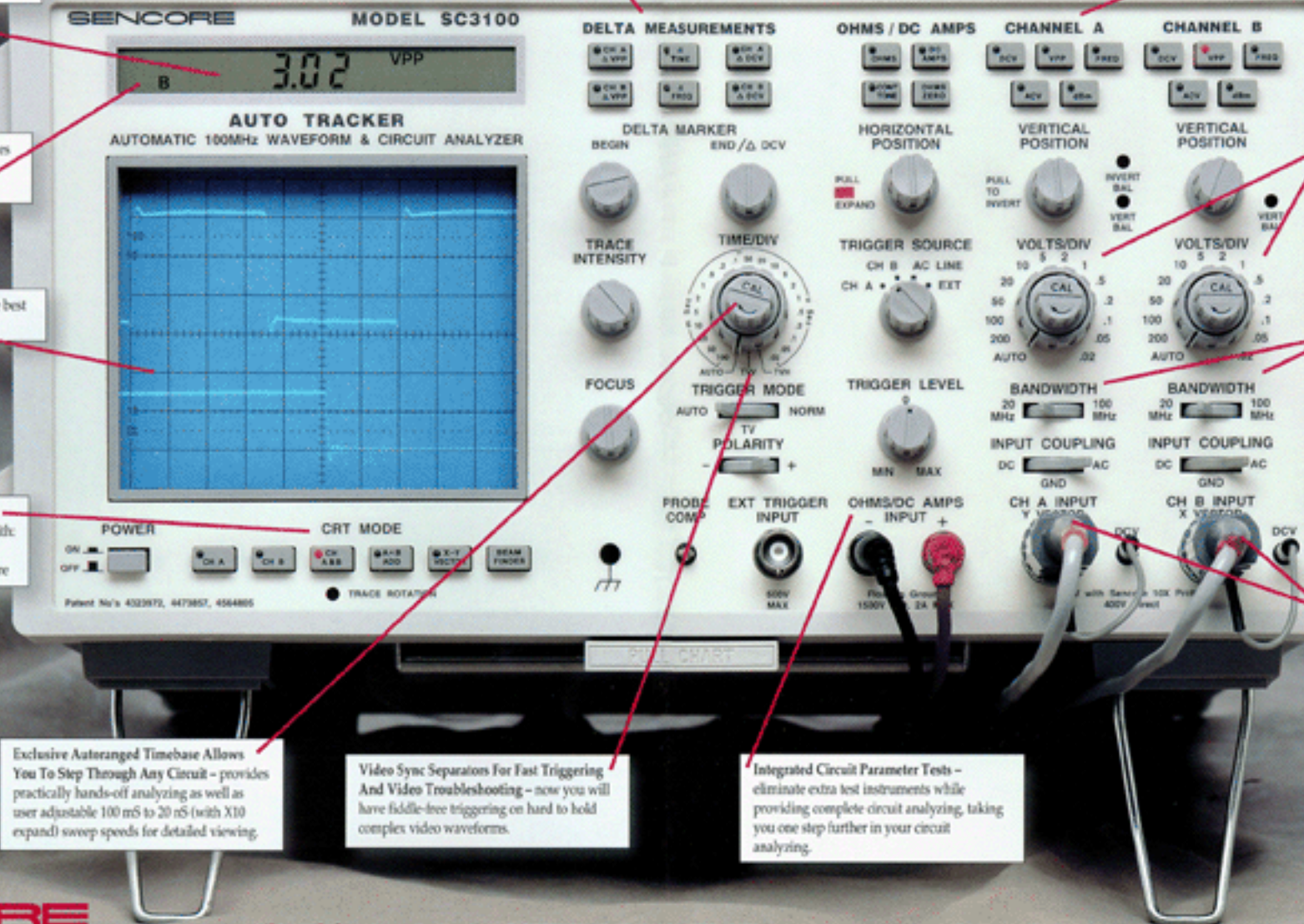
Analyze Key Parameters Of Any Waveform - single function push buttons allow you to quickly compare all your test point measurements to the service literature.

Exclusive Backlit LCD Display - eliminates CRT clutter and holes in the waveform caused by on-screen readouts.

Clear Crisp Waveforms - providing the best viewing detail possible.

Full CRT Mode Capability - view waveforms as your testing needs require with:

- alternate
- chopped
- vector
- exclusive ADD feature



Exclusive Full Ranged/Autotanged Attenuators - set to the "AUTO" position for hands-free analyzing or manually set the attenuator for measuring from 2mV to 2kV.

Choice Of Bandwidths - 20 MHz: minimizes noise and high frequency interference on low level signal measurements. 100 MHz: for full waveform analyzing.

New Probe Design - the SC3100 automatically adjusts the digital display for X10 and direct probes. Plus, the new probe accessory kit adds flexibility and versatility - matching your troubleshooting requirements.

RS232  
COMPATIBLE

IEEE 488  
BUS-COMPATIBLE

Exclusive Autotanged Timebase Allows You To Step Through Any Circuit - provides practically hands-off analyzing as well as user adjustable 100 mS to 20 nS (with X10 expand) sweep speeds for detailed viewing.

Video Sync Separators For Fast Triggering And Video Troubleshooting - now you will have fiddle-free triggering on hard to hold complex video waveforms.

Integrated Circuit Parameter Tests - eliminate extra test instruments while providing complete circuit analyzing, taking you one step further in your circuit analyzing.

**SENCORE**

**Call 1-800-SENCORE (736-2673) Today!**

**THE CHOICE  
SYSTEM**



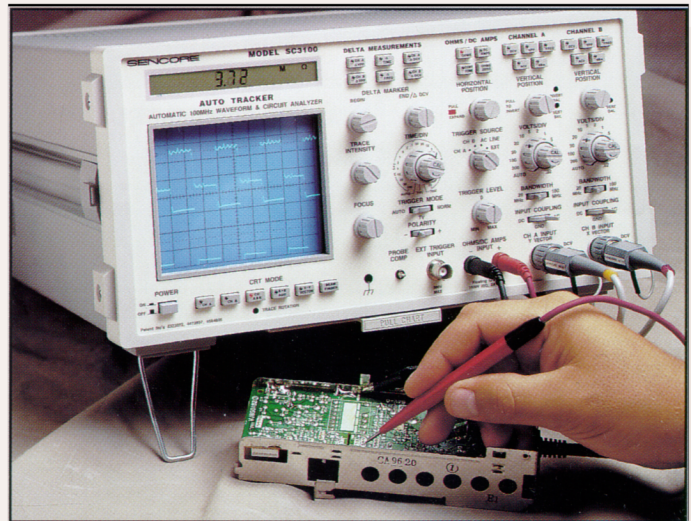
# Here's How The "AUTO TRACKER" Can Help YOU!

The SC3100 is the most convenient, accurate, and easy-to-use waveform analyzer on the market. At Sencore, we've taken pains-taking steps to ensure that the "AUTO TRACKER" is the test instrument you depend on day in and day out. It's more than a scope . . . it's a complete waveform and circuit analyzer. It's the one instrument every bench must have!

**Let's take a quick look at how the SC3100 can help you analyze both waveforms and circuits.**

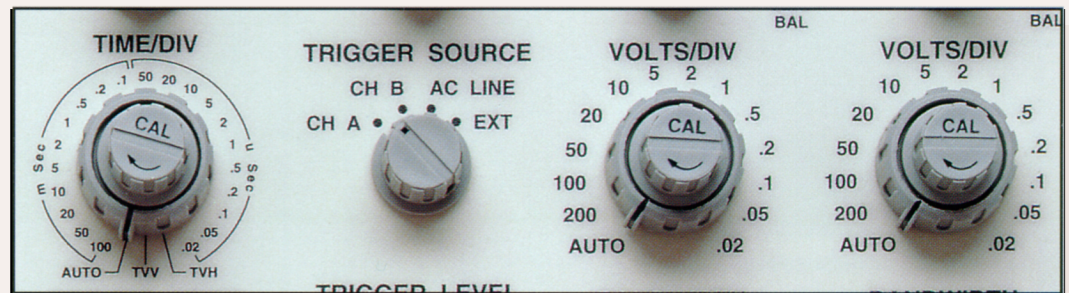
## 1 Set the timebase and attenuators to either "AUTO" for hands-free use or manual for normal operation.

With the "AUTO TRACKER" you have the option of how you want to analyze waveforms and circuits. The auto-ranging timebase and attenuators have been specially designed to display 2-5 cycles and 4 vertical divisions on the CRT. This closely duplicates the waveforms shown in service literature and provides fast analysis of the waveforms. Or, if you know the timebase and attenuator settings (such as when matching alignment procedures), the SC3100 provides a full range timebase and channel attenuators.



## 2 point with the SC3100 X10 "Touch-N-test" the circuit test or direct probe and get all the answers you need automatically.

For normal troubleshooting, you won't even need to touch the "AUTO TRACKER" controls. The SC3100's fast-locking and fiddle-free triggering circuits ensure stable waveforms exceeding 100 MHz. Years of researching the needs of the servicer make the SC3100 the only waveform and circuit analyzer that allows



**TECH**  
**CHOICE**  
SYSTEM

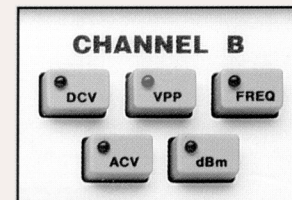
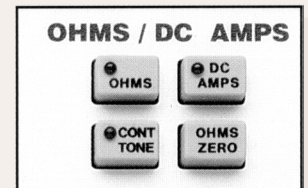
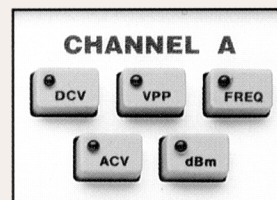
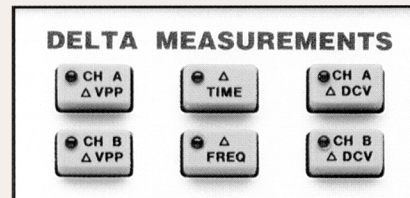
**Call 1-800-SENCORE(736-2673) Today!**

### 3 Press the Auto Tracking™ digital readout measurement you need and read the back-lit LCD display.

You can measure DCV, VPP, frequency, ACV RMS, and dBm on either channel A or B by simply pressing one button. Portions of the waveform are easily analyzed by using the digital delta measurements including Sencore's exclusive Delta DCV for analyzing instantaneous DC voltage levels. Circuit analyzing ohms (with audible continuity test) and amps tests are made through the exclusively integrated OHMS/DC AMPS INPUT with the same pushbutton ease and digital readout accuracy. Now you will have everything at your fingertips allowing you to keep your thoughts on the circuit and not the test instrument.

We guarantee that the New SC3100 "AUTO TRACKER"-Automatic 100 MHz Waveform & Circuit Analyzer is the easiest to use and the most complete waveform and circuit analyzer you'll ever find.

If you can find any waveform or circuit test that can be made faster and more accurately with any other waveform analyzer, return the "AUTO TRACKER" to Sencore for a full refund (with Sencore's exclusive 30 day money back guarantee).



## Prove It To Yourself.

**Try the SC3100 "AUTO TRACKER"  
Automatic 100 MHz Waveform & Circuit Analyzer  
on your troubleshooting bench!**

# SENCORE

## SC3100 SPECIFICATIONS:

### Vertical Amplifiers:

DISPLAY MODES: Channel A, inverted channel A (-A), channel B, dual trace (A&B), algebraic sum (A+B) or difference (B-A), vector (X-Y).  
CALIBRATION ACCURACY:  $\pm 3\%$  at 1 kHz.  
FREQUENCY RESPONSE (100 MHz): AC coupled:  $\pm 3\text{dB}$  of 1 kHz level from 10 Hz to 100 MHz, useable to 150 MHz.  
SENSITIVITY: 20 mV/div. to 200 V/div. with supplied 39G292 10X probe; 2 mV/div. to 20 V/div. with (optional) DP270 Direct Probe.  
MAXIMUM INPUT PROTECTION: Supplied 39G292 10X Probe: 2500 volts breakdown (DC + Peak AC).

### Horizontal Sweep:

SWEEP RATES: 100 milliseconds/division to 20 nanosecond/division. Autorange automatically selects sweep rate to show approximately 2-5 cycles of waveform.  
ACCURACY:  $\pm 3\%$ .

### Trigger Circuits:

TRIGGER SOURCE: CH A, CH B, AC power line, or external.  
TRIGGER MODES: NORM, AUTO, TV

### Auto-Tracking™ Digital Tests

#### DC Volts:

DCV FUNCTION: Provides direct reading of DC voltage on selected channel.  
ACCURACY:  $\pm 0.5\%$   $\pm 2$  digits.

#### Peak-to-Peak Volts:

VPP FUNCTION: Provides direct reading of peak-to-peak voltage on selected channel with either X10 or direct probes.  
ACCURACY:  $\pm 2\%$   $\pm 4$  counts.  
FREQUENCY RESPONSE:  $\pm 0.5\text{dB}$  from 20 Hz to 30 MHz  $\pm 1\text{dB}$  at 100 MHz.

#### AC Volts:

ACV FUNCTION: Calculates RMS sinewave value from PPV measurement.

#### dBm:

dBm FUNCTION: Calculates dBm measurement from PPV sinewave measurement, referencing 1 mW across 600 $\Omega$  (0 dBm = 774.6 volts RMS).

#### Frequency:

FUNCTION: Automatically displays the frequency of the signal on selected channel  
RANGES: 10.00 Hz to 150 MHz.  
ACCURACY: .001%  $\pm 1$  digit.

#### Delta Peak-to-Peak:

FUNCTION: Measures amplitude of intensified area on selected channel.

#### Delta Time:

FUNCTION: Measures time of intensified waveform portion.

### I/Delta Time:

FUNCTION: Converts Delta Time reading to equivalent frequency

### Delta DC Volts

FUNCTION: Measures DC voltage level of marked waveform point in respect to ground using the PPV and DCV functions  
MARKER: Fully adjustable over entire range of waveform

### Digital Meter Tests:

#### Ohms

FUNCTION: Provides in- or out-of-circuit ohms  
RANGES: 0.00 to 100 M $\Omega$   
ACCURACY: 0.2%  $\pm 2$  digits

#### Continuity Test

FUNCTION: Provides audible tone of continuity  
RANGE: 0 to 199 $\Omega$ . Audible tone turns on if resistance is  $< 10\Omega$  and turns off if resistance is  $> 15\Omega$ ,  $\pm 2\Omega$

#### DC Current

FUNCTION: Provides measurement of DC current  
RANGES: 001 to 199 amp  
ACCURACY: 0.3%  $\pm 2$  digits

### General:

SIZE: 7.25" x 13.75" x 15" HWD (18.4 x 34.9 x 38.1 cm)  
WEIGHT: 25 lbs (9.33 kg)

### Accessories:

#### Supplied:

2 ea: 39G292 10X Low Capacity probe with 3" ground, 12" ground and ground insulator ring, color ID bands and retractable tip  
1 ea: 39G295 DC voltage probe

#### Optional:

HP200: 50 KV High Voltage Probe  
PL207: RF Pickup Loop  
TP212: 10 KV Transient Protector Probe  
PC259: Protective Cover  
DP270: 1:1 Direct Probe  
39G293: 250 MHz Demodulator Probe  
39G303: Probe Accessory Kit

*Covered by Patents #4,473,857, #4,564,805 and 4,323,972  
Specifications subject to change without notice*

## Sencore's Exclusive After-The-Sale Support

### All Sencore Instruments Are Backed By Our Exclusive 30 Day Money Back Guarantee

"If you are not completely satisfied with any Sencore instrument, you may return it during the first 30 days, and we'll give you a full refund, including freight, no questions asked."

### Toll Free Access To The Entire Factory

Sencore does not stop providing assistance after you purchase one of our instruments. We provide free technical assistance on any instrument use questions, future purchase assistance, industry trend information, instrument service, or any question you may have on test instruments. Just call Sencore at our toll free 1-800-SENCORE number. Your Area Sales Representative, an Application Engineer, or a Service Technician will be happy to assist you.

### Made Right Guarantee

In addition to the 1 year warranty on parts and labor (less than 2% are returned for warranty service), Sencore offers you a 100% Lifetime Made Right Guarantee. We guarantee your instrument was engineered right the first time. If there's a problem, we'll make it right, for the lifetime of the instrument.

Here's How To Order Your SC3 100  
"AUTO TRACKER"™ Automatic 100 MHz  
Waveform & Circuit Analyzer

Ordering the SC3100 "AUTO TRACKER" Automatic 100 MHz Waveform & Circuit Analyzer is as simple as picking up your phone. Call 1-800-SENCORE and talk directly with your Area Sales Engineer about the many programs available to help with your instrument investment.

**New!**

### Extended Service Agreement Programs (ESA)

Sencore announces our new Extended Service Agreement Programs for your SC3100. These programs can be an extension of your warranty coverage or simply a method for you to have annual calibrations at a reduced rate. For further information regarding these programs, please contact your Area Sales Representative or the Service Department.



**SENCORE**

**Call 1-800-SENCORE**

**(736-2673)**

Form #5660