

## TRACKER 2700

The next generation of Huntron troubleshooting tools



### Trusted technology, new applications

The Huntron® Tracker® 2700 extends the capabilities of power-off testing to troubleshoot low voltage logic circuitry. Its low voltage ranges also make it ideal for testing passive devices such as high value capacitors while still in-circuit. Source voltage, source resistance and test frequency are clearly defined on the front panel overlay. A variable 5 volt DC Voltage Generator allows the user to switch gate-fired devices such as SCRs and optical couplers so they can be tested in on and off states. The Huntron Tracker 2700 is an ideal addition to the service engineer's bench. Using a power-off test method known as Tracker Signature Analysis, it eliminates the risk of further circuit damage, which often occurs when power is applied.

The Tracker 2700 also incorporates Huntron's SigAssist™ feature which displays real-time numeric information relating directly to the displayed signature. Information such as breakdown voltage, resistance, capacitance, and power are displayed on the LCD to assist in signature interpretation.

### Troubleshooting challenges

Modern complex switching power supplies with fail-safe protection circuits contain many passive components that are difficult to test in circuit due to parallel solid state devices. The 200mV range of the Tracker 2700 allows resistors, capacitors and inductors to be analyzed without turning on the parallel solid state devices. The passive devices are essentially tested "out of circuit".

Today's electronic devices use 3 volt or lower logic circuits. The low test voltage ranges of the Tracker 2700 make it an ideal tool to troubleshoot these products. The Tracker 2700 has 21 selectable voltage/resistance ranges available in 5 frequencies resulting in a total 105 combinations of voltage, source resistance and test frequency.

### Tracker Signature Analysis

The Tracker works by applying a current-limited AC signal across two points of a component. The current flow causes a vertical deflection of the trace, while the applied voltage causes a horizontal deflection. Together they form a unique V/I signature that represents the overall health of the device under test. Analyzing the signature can quickly determine whether the component is good, bad, or marginal.

### Ordering Information

The Huntron Tracker 2700 (part number 99-0369) comes complete with Huntron MP20 Microprobes (one pair), common test leads, one blue clip lead, power cord and instruction CDROM.

- Color LCD for display of signatures and menus
- Uses Huntron's proven Tracker Signature Analysis technology
- Huntron SigAssist™ is incorporated into the display
- Troubleshoot low voltage logic circuitry without the possibility of exceeding manufacturers voltage specifications
- Perfect for benchtop or field repairs

## SPECIFICATIONS

Waveform	Sine wave
Test Frequencies	5 selections of frequency: 20Hz, 50Hz, 60Hz, 200Hz, 2000Hz
Open circuit Voltage (V <sub>s</sub> ):	6 selections of peak voltage: 200mV, 3V, 5V, 10V, 15V, 20V
Source Resistance (R <sub>s</sub> ):	5 selections of resistance: 10Ω, 100Ω, 1kΩ, 10kΩ, 100kΩ
Channels	2
Display modes	A, B, Alt
DC Voltage Generator	Level 0 to +5VDC Source Resistance 25Ω Maximum Current 200mA
Display	Color LCD 320x240 pixels
Power Requirements	Line Voltage 115VAC/230VAC Frequency 50/60Hz Power 40 Watts
Dimensions	11.5in W x 4.5in H x 10.8in D (29cm W x 11.4cm H x 27.4cm D)
Weight	6lbs (2.8kg)
Operating Temp	32°F to +104°F (0°C to +40°C)
Storage Temp	-4°F to +140°F (-20°C to +60°C)
Warranty	1 year, limited
Safety approvals	CE certified, ETL listed

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## TRACKER 2700S

*Huntron's next generation troubleshooting tool with multi-pin scanning capabilities*



### Trusted technology, new applications

The Huntron® Tracker® 2700S extends the capabilities of power-off testing to troubleshoot low voltage logic circuitry. Its low voltage ranges also make it ideal for testing passive devices such as high value capacitors while still in-circuit. Source voltage, source resistance and test frequency are clearly defined on the front panel overlay. The Tracker 2700S can scan and compare up to 40 pins per channel using standard IC clips and cables. Comparison can take place manually or automatically allowing you to pick out the signature differences quickly. A variable 5 volt DC Voltage Generator allows the user to switch gate-fired devices such as SCRs and optical couplers so they can be tested in on and off states. The Huntron Tracker 2700S is an ideal addition to the service engineer's bench. Using a power-off test method known as Tracker Signature Analysis, it eliminates the risk of further circuit damage, which often occurs when power is applied.

The Tracker 2700S also incorporates Huntron's SigAssist™ feature which displays real-time numeric information relating directly to the displayed signature. Information such as breakdown voltage, resistance, capacitance, and power are displayed on the LCD to assist in signature interpretation.

### Troubleshooting challenges

Modern complex switching power supplies with fail-safe protection circuits contain many passive components that are difficult to test in circuit due to parallel solid state devices. The 200mV range of the Tracker 2700S allows resistors, capacitors and inductors to be analyzed without turning on the parallel solid state devices. The passive devices are essentially tested "out of circuit".

Today's electronic devices use 3 volt or lower logic circuits. The low test voltage ranges of the Tracker 2700S make it an ideal tool to troubleshoot these products. The Tracker 2700S has 21 selectable voltage/resistance ranges available in 5 frequencies resulting in a total 105 combinations of voltage, source resistance and test frequency.

### Tracker Signature Analysis

The Tracker works by applying a current-limited AC signal across two points of a component. The current flow causes a vertical deflection of the trace, while the applied voltage causes a horizontal deflection. Together they form a unique V/I signature that represents the overall health of the device under test. Analyzing the signature can quickly determine whether the component is good, bad, or marginal.

### Ordering Information

The Huntron Tracker 2700S (part number 99-0375) comes complete with Huntron MP20 Microprobes (one pair), common test leads, 20 and 40 pin DIP clips and cables, one blue clip lead, power cord and instruction CDROM.

- **Color LCD for display of signatures and menus**
- **Uses Huntron's proven Tracker Signature Analysis technology**
- **Huntron SigAssist™ is incorporated into the display**
- **Speed up troubleshooting by scanning and comparing up to 40 pins per channel**
- **Perfect for benchtop or field repairs**

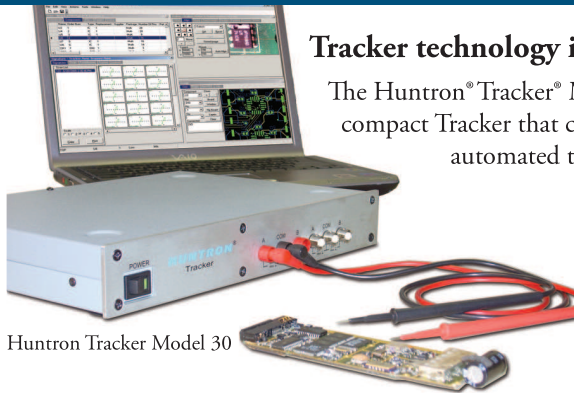
## SPECIFICATIONS

Waveform	Sine wave
Test Frequencies	
5 selections of frequency:	20Hz, 50Hz, 60Hz, 200Hz, 2000Hz
Open circuit Voltage (V <sub>s</sub> ):	
6 selections of peak voltage:	200mV, 3V, 5V, 10V, 15V, 20V
Source Resistance (R <sub>s</sub> ):	
5 selections of resistance:	10Ω, 100Ω, 1kΩ, 10kΩ, 100kΩ
Channels	
Number	2
Display modes	A, B, Alt
No. of scan pins/chan.	40
Scan modes	manual or automatic
DC Voltage Generator	
Level	0 to +5VDC
Source Resistance	25Ω
Maximum Current	200mA
Display	
Color LCD	320x240 pixels
Power Requirements	
Line Voltage	115VAC/230VAC
Frequency	50/60Hz
Power	40 Watts
Dimensions	11.5in W x 4.5in H x 10.8in D (29cm W x 11.4cm H x 27.4cm D)
Weight	6lbs (2.8kg)
Operating Temp	32°F to +104°F (0°C to +40°C)
Storage Temp	-4°F to +140°F (-20°C to +60°C)
Warranty	1 year, limited
Safety approval	ETL listed

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# Huntron® Tracker® Model 30

Compact foundation instrument for your  
Power-off Diagnostic system



Huntron Tracker Model 30

## Tracker technology in a new compact package

The Huntron® Tracker® Model 30 is designed to be the compact Tracker that can be used manually or with automated test accessories to decrease test time. Controlled through software, the Tracker Model 30 is used to supply the test signal for power-off diagnostic test on printed circuit board assemblies. Signatures are displayed on the PC screen for analysis.

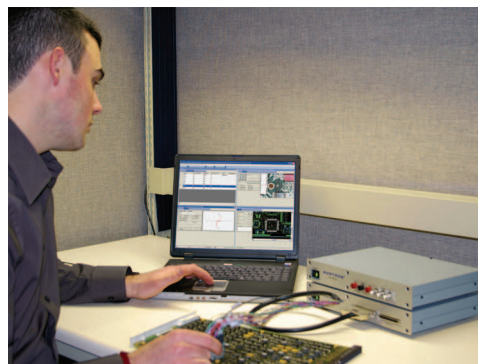
These signatures can then be used for comparison when testing suspect circuit boards. Comparison can take place manually or automatically allowing you to pick out the signature differences quickly and print the results. Source voltage, source resistance and test frequency are clearly defined and controlled through the software interface. The Huntron Tracker Model 30 is a great addition to any board repair shop offering a compact footprint and PC control. The capabilities of the Tracker Model 30 can be fully utilized using the Huntron Workstation software for test database creation, signature storage and report generation.

## Time saving accessories

The Tracker Model 30 can be connected to time saving accessories such as the Scanner II, Scanner 31S and Access Probers.

The Scanner II has two channels for a total of 128 pins and is designed to use cable-based interfaces such as IC clips to connect to the board under test. The Scanner 31S is a 64 pin, single channel scanning interface. The Tracker Model 30, Scanner II and Scanner 31S have optional 19" rack-mount front panels.

The Access Prober adds full automation to the test process by moving a guided robotic probe to test points on the PCB where the test signal is applied and signatures are captured.



Tracker Model 30 with Scanner II

## Power-off test and Signature Analysis

The Huntron Tracker works by applying a current-limited AC signal across two points of a component on an unpowered board. The current flow causes a vertical deflection of the trace, while the applied voltage causes a horizontal deflection. Together they form a unique V/I signature that represents the overall health of the device under test. Analyzing the signature can quickly determine whether the component is good, bad, or marginal. In typical application, signatures are compared to those from a known good PCA to help determine which signature differences are significant. Diagnostics can be performed without PCA schematics or documentation.

## Ordering Information

The Huntron Tracker Model 30 (part number 99-0392) comes complete with Huntron MP20 Microprobes (one pair), 2 common test leads, 1K $\Omega$  and 10K $\Omega$  jumper leads, USB cable, power cord, Huntron Workstation software and PDF instruction manual (on CD).

- Uses Huntron's proven Tracker Signature Analysis technology
- Huntron Workstation software for storing diagnostic signature databases is included
- Use with time saving accessories such as the Scanners and Access Probers

## Specifications

Waveform	Sine wave
Test Frequencies	40 selections of frequency: 20Hz to 190Hz in 10Hz steps, 200Hz to 1.9kHz in 100Hz steps, 2kHz to 5kHz in 1kHz steps
Open circuit Voltage ( $V_o$ ):	24 selections of peak voltage: 200mV, 400mV, 600mV, 800mV, 1V to 20V in 1V steps, including 10V (Low), 15V (M1), 20V (M2)
Source Resistance ( $R_s$ ):	16 selections of resistance: 10 $\Omega$ , 20 $\Omega$ , 50 $\Omega$ , 100 $\Omega$ , 200 $\Omega$ , 500 $\Omega$ , 1k $\Omega$ , 2k $\Omega$ , 5k $\Omega$ , 10k $\Omega$ , 20k $\Omega$ , 50k $\Omega$ , 100k $\Omega$ , plus 54 $\Omega$ (Low), 1.2k $\Omega$ (M1), 26.7k $\Omega$ (M2)
Channels	
Number	2 (A and B)
Connections	BNC and Banana (for Chan. A, Chan. B and Common)
Power Requirements	
Line Voltage	90VAC to 250VAC
Frequency	47 to 63Hz
Power	<30 Watts
Dimensions	11.1in W x 1.8in H x 8.6in D (28.2cm W x 4.6cm H x 21.8cm D)
Weight	6lbs (2.8kg)
Warranty	1 year, limited
Safety approval	ETL listed CE approved

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