

Model 940A Timing System Analyzer

- IRIG-B
- Dual Inputs
- Adjustable Source
- Graphical Touch Screen
- Verify and Compare Signals
- Intuitive
- Affordable



Built by Power Professionals, For Power Professionals

The Arbiter Systems®, Inc. Model 940A Timing System Analyzer is a comprehensive instrument for power substation timing. Intuitive, stand-alone and easy to use, the Model 940A is designed to simplify timing system installation and maintenance. Capable of measuring and sourcing IRIG-B, DCF77, and 1 PPS timing signals, the Model 940A is a must have tool for substation timing systems.

Input/Output

The Model 940A uses two identical input channels capable of measuring IRIG-B (unmodulated, modulated and modified manchester), DCF77 and 1 PPS timing signals. The timing signals are decoded and displayed as text and/or graphically showing the complete timing signal down to the IRIG-B bit level. The dual inputs allow for comparison to a calibrated signal or between different signal generators. The Model 940A Timing System Analyzer is also equipped with an output that can source modulated IRIG-B, unmodulated IRIG-B, 1PPS and DCF77. Output levels, modulation ratios, and the timing reference are configurable. The flexibility to synchronize the timing reference to Input 1, Input 2, the internal Real Time Clock, or a user customized setting makes the 940A suitable to test any timing scenario.

Features

An 800 x 480 color TFT capacitive touchscreen produces easy to read displays and provides a convenient user interface. The industrialized display glass protects the Timing System Analyzer from the rigors of substation use. The automatic backlight feature extends battery life and keeps the display easy to read. Internal lithium-ion batteries typically provide more than a day's use under normal conditions and charges overnight via a standard USB port. The built in LED flashlight provides illumination in hard to see areas and a convenient bail assembly allows for hands free operation.

Accessories

The Model 940A comes with the necessary accessories to get you started making timing measurements. Included is a carrying case with extra space to store accessories needed to test your timing system. A USB wall charger and charging cable are provided along with an eight foot BNC (M-M) cable in addition to assorted adapters to make standard connections.

Specifications subject to change without notice.

Model 940A Specifications

Inputs

Measurements

Connectors	Two, BNC
Signals	IRIG-B (modulated, unmodulated, modified manchester), DCF77, 1 PPS
Levels	25 Vpk maximum
Impedance	Selectable: high impedance, 50 ohms or 100 ohms

Output

Source

Connector	One, BNC
Signals	IRIG-B (modulated, unmodulated), DCF77, 1PPS
Levels	1-15 Vdc, 1-10 Vpk
Drive	125 mA @ 5 V
Time Ref.	Input 1, Input 2, Real Time Clock or User

System

Interface

Display	800 x 480 color TFT capacitive touchscreen, backlit
	Single or Dual Timing Signals
	Data and/or Waveform

Real Time Clock

Reference	Input 1, Input 2 or User
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Features

Flashlight	Built in LED
Audio	Indicator tone (enable/disable)

Power Requirements

Internal Battery

Type	Li-ion (9000 mAh capacity)
Operation	24 hours typical
Charge	8-12 hours with unit off

External Power

Voltage	+5 Vdc
Current	1 A
Connector	USB micro-B

General

Physical

Size	205 mm x 167 mm x 49 mm (8.1 in x 6.6 in x 1.9 in) 381 mm x 305 mm x 229 mm, shipping (15 in x 12 in x 9 in)
Weight	0.6 kg (1.4 lbs), maximum 2.5 kg (5.5 lbs), shipping

Environmental

Temperature	Operating: - 10 °C to + 50 °C Charging: 0 °C to + 45 °C Nonoperating: - 40 °C to + 75 °C
Humidity	Noncondensing

Accessories

Included

Description	Order No.
Soft Carrying Case	HD0086000
Micro USB Cable, 6 ft	CA0033700
External power supply, + 5 Vdc	AP0015300
BNC (Female) Breakout to Screw Terminal	AP0014900
BNC (Female) Breakout to 2 Wires	AP0008900
BNC T-Connector (F-M-F)	CN0003500
BNC Patch Cable (8 ft)	CA0033808
Pluggable Terminal Block (2 pos)	CN0019202

Available

Description	Order No.
BNC (Male) Breakout to 2 Wires	AP0003400
BNC Barrel Connector (F-F)	CN0003400
BNC (Male) Breakout to Screw Terminal	AP0015000
Operation Manual	AS0106800