

PM2000 Power Quality Meter Socket Logger

NEW

FEATURES

Patented Single Cycle Adaptive Storage

One Meg memory provides single cycle event resolution over recording periods of 30 days with all 16 channels recording - **Standard**

Twelve pre-stored configurations are set for split phase hook ups with several math channels pre-configured for power, harmonic, and **+ Flicker measurements**

FIVE externally visible status LEDs (4-bi-color)

Infrared Optically Isolated Noncontacting RS232, with MODBUS ASCII

Rogowski coil technology ensures the most accurate current readings in a low current measurement situation

Accurate current readings to zero amps

Records and displays up to **16 channels** of voltage, current, power, power factor, VAR's, phase angle, frequency, THD Harmonic Readouts on all voltage and current channels - **Standard**

+FLICKER: Instantaneous—Flicker Sensation (Synergy Exclusive) as well as programmable time periods for long & short term flicker

PM Meter software to show digital display of all 16 channels—**Standard**
PM Wave software shows waveform of all input channels—**Standard**

Data storage includes an additional internal flash memory for field programmable upgrades

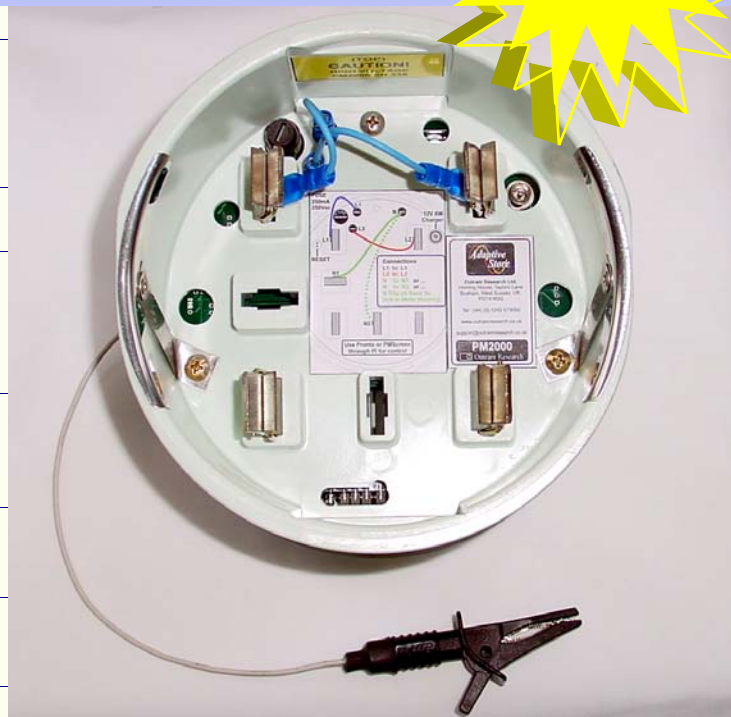
PM Screen software for virtual screen display, configuration, and operation (launched through Pronto for Windows)

Battery back up provides 10 minutes resettable timed ride-through in case of power outage

Measures voltage L1 to neutral, L2 to neutral, and L1 to L2 - **Standard**
Measures current in L1 and in L2

Works with 1S, 2S, & 12S Meter Sockets

Compact size Marwell socket case



SPECIFICATIONS

MODEL	PM2000 & +PM2000F
Input Voltage	Three 0-300 Vac True RMS
Input Current	Two 0-220 Amp Rogowski Type Rigid Coil Sensors Industry Exclusive feature: Allows extremely low level accurate current sensing
Channels	16
Accuracy	Voltage < 0.25% True RMS of Reading Current < 0.5% True RMS of Reading
Resolution	Fixed to 0.1 Vac and 0.1 Aac
Math Channels	AC 1 Phase: RMS, Real Power, VARS (fund), Apparent Power, Power Factor, Phase angle, Frequency AC Split Phase: Real Power, VARS (fund), Apparent Power, Power Factor + FLICKER: Instantaneous—Flicker Sensation (Synergy Exclusive) as well as programmable time periods for long & short term flicker Harmonics: Total Harmonic Value, % Total Harmonic Distortion Other Math Option: Channel X * Constant, Channel X / Channel Y, Filtered Channel X, Internal Temperature, On Charge, Battery Volts
Recording	3840 samples per second; Single Cycle True RMS response time; 16 bit simultaneously sampling all channels
Memory	1MB Ram - Standard / Approximately 4MB uncompressed
Recording Mode and Rate	Adaptive Store: Unique store management enables extended recording & Single Cycle resolution on significant signal changes
Data Retention	Back-up battery provides 2 month's retention @ 77°F (25°C)
Power	Requires 100-300 Vac from L1 to L2 voltage measurement or separate power supply Battery: 4 AA Ni-Cad rechargeable battery pack Customer Replaceable
Communications	Serial Ports: Infrared Optically Isolated, non-contacting RS232, (up to 115.2K baud) Protocol: MODBUS ASCII Computer Requirements for Pronto Software: Windows 9x, ME, NT, XP: 486DX66 or higher; 250MB hard drive; 16MB RAM
Case	Marwell Socket
Weight	2.6 lbs.
Operating Temp	-22° F (-30° C) to 149° F (65° C)

Each Unit Includes

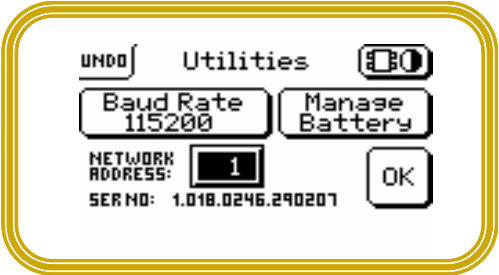
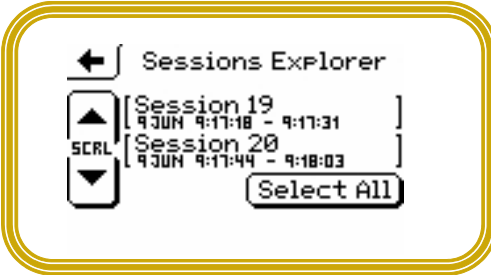
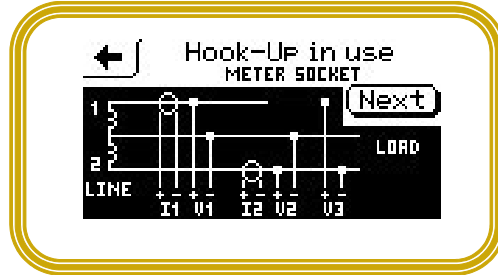
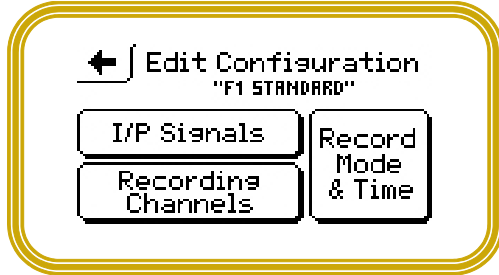
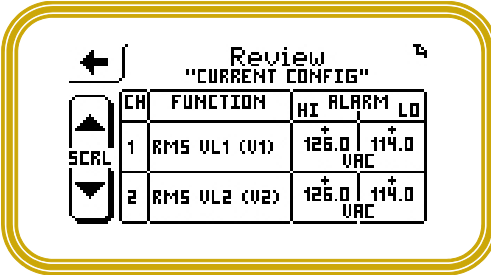
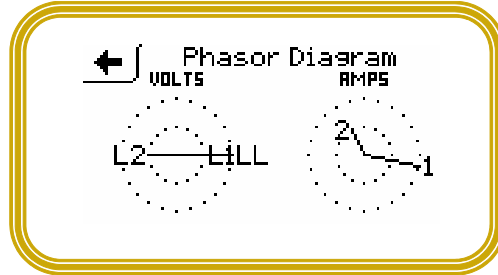
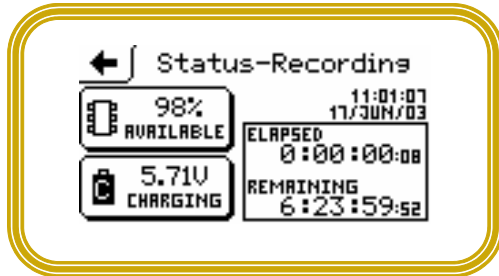
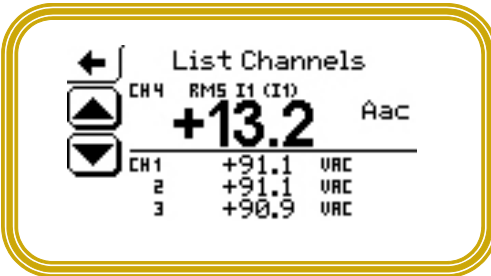
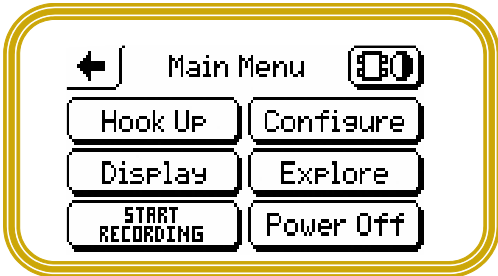
- √ PM2000 Power Quality Meter Socket Logger
- √ Pronto for Windows Analysis Software
- √ Infrared Serial Download Cable
- √ Neutral Blade & Neutral Clip Lead
- √ LED Legend Card
- √ 12 Volt Charger
- √ Operation Manual on CD
- √ Carrying Case
- + MODEL PM2000F**



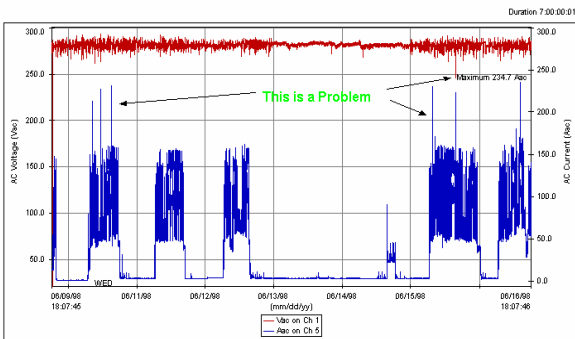
Another **Ranger** product from
Outram Research, LTD



PM2000 Virtual Display Screen Examples



Pronto for Windows Data Analysis & Reporting Software



Functions

- ⇒ File Management Tools
- ⇒ Templates for Viewing Data
- ⇒ Unlimited Traces on Screen
- ⇒ Titles, Subtitles & Legends for Text & Data
- ⇒ Text Annotation
- ⇒ Arrow Pointer for Text
- ⇒ Cut & Paste Options
- ⇒ Font Selection of Size & Type Color Selection for Text & Graphs
- ⇒ User Information Screen
- ⇒ Modem Communications
- ⇒ Local Data Logger Network Support
- ⇒ Remote Data Logger Network Support
- ⇒ Notebook
- ⇒ Access to Word Processors
- ⇒ 38.4 K Baud up to 230.4 K Baud
- ⇒ Logger Configuration
- ⇒ **Zooming Tools**
 - Frame
 - Pan
 - Exception Zooming
 - Limits (value or %)
- ⇒ **Playback Tools**
 - Manual
 - Auto
 - Scheduled
 - Multiple/Groups
- ⇒ **Reporting Tools**
 - Exceedence Reports
 - Customer Statistics Tabular Listings
 - Custom Reports
- ⇒ Network-Addressable Data Logger Access
- ⇒ Windows-Controlled Printer Support
- ⇒ Built-In Address Book
- ⇒ Context-Sensitive, On-Line Help System
- ⇒ Used with all Ranger & Adaptive Store Products

Vac on Ch 1 limits 289, 271

Exceedence Report for Vac on Ch 1 limits 289, 271 09/22/00

File Name: TRIAM3.PDB
 Directory: E:\PRONTO4\WP\PROJECTS
 Author: Frank Pem

Exception list: Vac on Ch 1 limits 289, 271
 Created by: Frank Pem
 Created on: 08/25/00 08:54
 Start time: 06/09/98 18:07:45
 End time: 06/16/98 18:07:46
 Exceptions Found: 450
 Test Mode: all data

Start Time	End Time	Duration h:m:m:ss.000	Max/Min Vac	Exceedence Type
06/09/98 18:17:29	06/09/98 18:18:06	37.098	270.1	Minimum limit
06/09/98 18:18:21	06/09/98 18:18:22	0.735	269.3	Minimum limit
06/09/98 18:19:00	06/09/98 18:19:37	37.098	269.0	Minimum limit
06/09/98 18:19:46	06/09/98 18:19:48	1.134	269.0	Minimum limit

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