

## Minuteman<sup>®</sup> Endeavor<sup>™</sup> Series On-line Uninterruptible Power Supply

ED1000RM(T)2U - 1000VA/800W | ED2000RM(T)2U - 2000VA/1600W ED1500RM(T)2U - 1500VA/1200W | ED3000RM(T)2U - 3000VA/2100W

Endeavor UPS Model ED2000RM2U with standard 19-inch rack mount kit

The Minuteman<sup>®</sup> Endeavor<sup>™</sup> Series on-line uninterruptible power supply combines doubleconversion technology with industry-leading features in a versatile case design that allows the units to be installed in many different formats and operating environments.

In developing one of the best-valued, highest quality UPS products on the market, the Endeavor Series has these standard features:



Endeavor UPS Model ED2000RM2U with tower mount stand provided (standard)

#### Features

- Floor-standing tower, 19-inch rack and cabinet installation kits included
- 23-inch rack or cabinet installation kit optional
- Wallmount installation kit optional
- 3.5-inch (2U) rack/tower case style
- Up to a 0.8 power factor (in watts) for larger capacities
- Output receptacle control for non-critical load shedding capability
- Extended runtime using external battery packs
- Independent battery pack chargers to reduce battery recharge times
- Simultaneous RS-232, USB and SNMP communications
- Minuteman<sup>®</sup> SentryPlus<sup>™</sup> UPS monitoring and control software
- Front panel display with load/battery meter and status indicators
- Three-year non-prorated warranty (including batteries)
- Dedicated remote Emergency Power Off (EPO) port
- 120V and 208V models
- Hot-swappable batteries
- RoHS compliant
- \$200,000 Minuteman Platinum Protection Plan<sup>®</sup> (U.S. and Canada only)

The Endeavor Series is rich in standard features and optional accessories allowing users to order "off the shelf" products and yet retain the flexibility previously only available as a special order product.

Standard features ONLY offered on the Endeavor Series:

- Three-year non-prorated warranty (including batteries)
- RoHS compliancy for all models
- Rack/Tower/Wallmount installation formats
- Free SentryPlus software included
- Independent battery pack chargers
- Concurrent communications via RS-232, USB and optional Ethernet/SNMP card

## **ELECTRICAL CHARACTERISTICS**

**Output Power Factor:** All Endeavor models up to 2000VA come with a 0.8 output power factor that increases the watt capacity of the units. Offering larger capacities in smaller UPS VA sizes reduces the overall cost of the UPS solution for a specific load requirement. The 3000VA model comes with a 0.7 power factor that provides 2,100 watts capacity in a 3.5 inch (2U) rack space.

**Output Voltage:** All units in the Endeavor Series produce an electrical signal that does not vary from nominal voltage by more than 2%. Tightly regulating the output voltage increases the quality of power to connected equipment adding to its life expectancy, which lowers the total cost of ownership to users.

**Total Harmonic Distortion (THD):** THD is the distortion of a normal AC electrical signal when connected loads near their capacity. This distortion can create internal heat buildup on sensitive equipment not designed to allow for these altered AC signals. The Endeavor Series maintains an output AC signal, at all times and with all loads, within 2% of a true sine wave. of critical devices during an extended blackout is handled through the Endeavor's load shedding function. Each model in the Endeavor Series comes with two independentlycircuited receptacle segments. Through the use of Minuteman's SentryPlus<sup>™</sup> software by communicating with the UPS through an Ethernet/SNMP connection, users can either turn on, off, or reset each segment independently of the other. By reducing the load amount on the UPS, the runtime of critical devices connected to the UPS battery can be extended.

## **COMMUNICATION FEATURES**

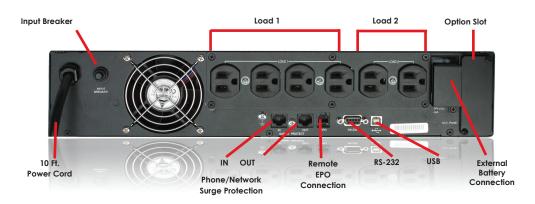
**Simultaneous RS-232, USB and Ethernet/SNMP Communications:** The Endeavor Series provides users with the ability to communicate with the UPS simultaneously through three separate protocols: RS-232, USB and Ethernet/ SNMP. Users can now directly connect, and manage, the UPS from multiple stand-alone or networked computers. By including concurrent Ethernet communications (SNMP or direct IP address), the Endeavor UPS Series provides detailed monitoring and management for many various environments.

## **OTHER FEATURES**

**RoHS Compliancy:** Recognizing the benefit of being environmentally conscious, Para Systems developed the Endeavor Series to be compliant with the European Economic Unions directive on the reduction of hazardous substances (RoHS) in electronic equipment.

**Manual Self-Testing:** The Endeavor Series is designed to proactively notify users of any impending faults or failures with the UPS. This allows for preemptive repair or replacement of components or batteries preventing unexpected downtime caused by the UPS.

**Dedicated EPO Port:** This direct access port allows users to perform an immediate remote shutdown of the UPS in case of emergency or when access to the UPS is restricted or inconvenient.



## Back of Endeavor UPS Model ED1000RM2U

Output Receptacle Control: The ability to extend the runtime

## MINUTEMAN ENDEAVOR SERIES UNINTERRUPTIBLE POWER SUPPLY

## **BATTERY CHARACTERISTICS**

**Extended Runtime Capability:** All models in the Endeavor Series come standard with internal batteries. To protect critical devices through extended blackouts, Endeavor UPS uses external battery packs that can be daisy-chained in unlimited quantities to provide a virtually unlimited amount of runtime.

**Fast Battery Recharge:** With independent chargers in each Endeavor battery pack offered, the maximum recharge time for depleted batteries is 8 hours, no matter how many battery packs are installed on a UPS. Without these chargers, if more than one battery pack is used recharging batteries could take more than an entire day.

**Battery Pack Models:** Because each UPS has different battery requirements to support its maximum load capacity, the Endeavor Series uses battery packs sized to match each UPS model:

- ED1000RM2U and ED1000RMT2U EDBP24XL
- ED1500RM2U and ED1500RMT2U EDBP48XL
- ED2000RM2U and ED2000RMT2U EDBP48XL
- ED3000RM2U and ED3000RMT2U EDBP72XL

**Battery Technology:** All Endeavor units and battery packs use valve-regulated lead-acid batteries (VRLA). All are safe for any type of freight transport: air, sea or ground. For added protection, all Endeavor UPS models ship with these batteries disconnected. A "Quick Installation Guide" is included in each Endeavor box to detail how to connect the batteries before turning the units on.

**Hot-Swappable Batteries:** All models in the Endeavor line offer battery replacement, through the front panel of the UPS, without having to remove the UPS from service. Connected loads are protected from voltage anomalies and spikes and surges while the batteries are being replaced.

## LED FRONT PANEL DISPLAY

The LED indicators on the Endeavor Series provide many diagnostic details about the condition of the UPS as well as the utility input power. These indicators can provide visual confirmation of anticipated battery failures or UPS faults so that preventative maintenance can be



performed on the UPS. The Endeavor UPS also comes with a LED meter that measures both connected load capacity and battery runtime capacity. The LED panel is designed so that it can be oriented vertically or horizontally depending on the installation format of the UPS.

## PARA SYSTEMS SERVICE

Features and value are not the only assets of the Endeavor Series. Para Systems offers some unique resources to assist in the proper selection and sizing of a UPS installation:

- <u>minutemanups.com</u> Provides full product specifications, literature and support documents as well as contact information.
- <u>SizeMyUPS.com</u> Provides customized UPS sizing solutions as well as a library of common equipment loads to assist you in getting the proper UPS solution.
- <u>CompareMyUPS.com</u> Provides a competitive feature analysis of Minuteman UPS products versus other manufacturers.
- <u>SizeMyPDU.com</u> Provides a customized website for selecting a specific Minuteman PDU product for any installation.

In addition to web resources, Para Systems offers personal support of all our products through our customer support department and highly-trained sales staff.

## MINUTEMAN<sup>®</sup> SENTRYPLUS<sup>TM</sup> SOFTWARE

Minuteman's SentryPlus UPS monitoring and control software comes included with each Endeavor UPS unit at no extra charge. SentryPlus is compatible with Windows (XP, 2000, Server 2003, NT 4.0, ME and 98), Unix and Linux operating systems. With

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Configure Meters Event Log History	Protecting Your Power & Productivity
Host Selection Local=xppro 192.168.2.10 Model=ED	1000RM2U OS=Windows XP Service Pack 2 💌
UP5 Heaht:	Tet Read: No Test Performed AC Sorce: Normal Battery State: Normal Looding Level: 1996 Determine: 1996 Dogs Vislage 0 Optic Vislage 0 Optic Vislage 0 Optic Vislage 0 Optic Vislage 0 Optic Vislage 0 Optic Vislage
Rating Battery Volt: 24V Rating Input Freq: 60Hz /22/2006 17:21:54 <connect to="" upsi=""></connect>	45 135 45 135 0 121.2V 180 0 120.1V 180
cereboo in entre seconder to or pro-	
Main Tree Time Status Diag	장 🔞 📓 🚆 ram Scroll Receptacle Network

SentryPlus software users can monitor and control both new and previously installed Minuteman UPS products on a connected network from one application session. The ease of installation, ease of use, and backward compatibility makes it the best software of its kind. SentryPlus Features Include:

- Ethernet/SNMP compatibility
- Concurrent monitoring through single or multiple computers via RS-232, USB and Ethernet connections
- Monitor and control multiple UPS devices during a single session
- Perform scheduled shutdowns and restarts
- Program e-mail, pager or network broadcast of userdefined UPS events
- Full diagnostic and event reporting
- Realtime graphical displays of user-defined UPS and utility conditions
- Record and save graphical event and history logs for future analysis



MODEL	ED1000RM2U (ED1000RMT2U)	ED1500RM2U (ED1500RMT2U)	ED2000RM2U (ED2000RM12U)	ED3000RM2U (ED3000RMT2U)	
		GENERAL			
Naximum Power Capacity (VA/Watts)	1000/800	1500/1200	2000/1600	3000/2100	
opology ower Factor	On-line Uninterruptible Power Supply		Supply	0.7	
attery and Surge Protected	[6]5-	0.8	[6] 5-15/20R & [1] L5-20R	0.7 [6] 5-15/20R & [1] L5-30	
eceptacles	[0] <i>3-</i> ([4] 6-	15R)	([4] 6-15/20R & [1] L6-20R )	([4] 6-15/20R & [1] L5-30	
put Connection (with 10 ft power cord)	5-15P (6		5-20P (L6-20P)	L5-30P (L6-30P)	
Nounting/Installation	1		wer and wallmount		
		Input			
ominal Voltage	120VAC (208VAC)				
′oltage Range	80-138VAC (160-280VAC) 90-138VAC (160-280VAC)				
requency Range	(160-280VAC) 50/60Hz +/-6Hz Auto-sensing				
ower Factor Correction			at full load		
	Output N	ON-BATTERY OPERATION			
oltage /Frequency Range	117.6 - 122.4VAC (204 - 212VAC) / 50/60Hz ±6Hz				
/ave Form	True sine wave				
fficiency (Line Mode)		>87%	(full load)		
		BATTERY OPERATION			
ominal Voltage	120VAC (208VAC), User selectable: 110VAC (240VAC)				
oltage Regulation	Nominal ±2% until low battery warning				
requency	50/60Hz ±0.1Hz unless synchronized to line				
oltage Total Harmonic Distortion T.H.D.	≤3% at full rated linear load				
rynamic Response ransfer Time	±5% at 100% load change in 30ms Oms				
untime: Half Load/Full Load (minutes)		13/4	01113	15/5	
	B	ATTERY SYSTEM		10/0	
attery Type			ince free, value regulated	lead acid	
pical Recharge Time			n total discharge		
ypical Battery Life	3-5 vegr			mperature	
ystem Voltage	3-5 years, depending on discharge cycles and ambient temperature   24VDC 48VDC 72VDC				
Iternal Battery Quantity-Type	2-12V8.5AH	4-12V7.2AH	4-12V8.5AH	6-12V8.5AH	
		DIECTION AND FILTERING			
urge Energy Rating (Joules)		800.	J (600J)		
urge Current Capability		65004	Amps total		
urge Response time	Ons (instantaneous) normal mode; 5ns common mode				
loise Filter			mode EMI/RFI suppression		
udible Noise at 1 m (3 ft.)	<45dBA <60dE				
		NVIRONMENTAL			
perating (max)/Storage Temperature	-	+32 to +104°F (0 to 40°C)	) / +5 to +113°F (-15 to +45°	°C)	
perating/Storage Humidity	95% non-condensing				
perating/Storage Elevation	0 to		) / 0 to 50,000 ft (0 to 15,0	)00 m)	
		Physical			
ze - Net (H x W x D) in	3.5 x 17.3 x 13.1 in		.3 x 17.0 in	3.5 x 17.3 x 24 in	
ze - Net (H x W x D) mm ze - Shipping (H x W x D) in	89 x 440 x 335 mm	89 x 440 x 432 mm 9.0 x 20.0 x 23.6 in		89 x 440 x 610 mm 9.0 x 23.6 x 39.4 in	
ze - Shipping (H x W x D) m ze - Shipping (H x W x D) mm		230 x 508 x 600 mm		230 x 600 x 1000 mm	
	29.0/39.4 lb (13.2/17.9 kg)	43.1/51.3 lb (19.6/23.3 kg)	46.2/54.3 lb (21.1/24.7 kg)	67.7/79.2 lb (30.7/35.9 kg	
	27.7/38.1 lb (12.6/17.3 kg)	41.8/49.9 lb (19.0/22.7 kg)	44.9/53.0 lb (20.4/24.1 kg)	67.7/79.2 lb (30.7/35.9 kg	
attery Pack	EDBP24XL	BATTERY PACKS	P/8XI	EDBP72XL	
ypical Recharge Time	EDBP24XL EDBP48XL EDBP72XL   8 hours maximum 8 hours maximum 8 hours maximum				
ze - Net (H x W x D) in	3.5 x 17.3 x 13.1 in 3.5 x 17.3 x 17.0 in				
ze - Net (H x W x D) mm	89 x 440 x 335 mm 89 x 440 x 432 mm				
ze - Shipping (H x W x D) in (mm)		9.0 x 20.0 x 23.6 ir	n (230 x 508 x 600 mm)		
Veight - Net Ib (kg)	39.6 lb (18.0 kg)		(30.0 kg)	55.0 lb (25.0 kg)	
/eight - Shipping Ib (kg)	48.4 lb (22.0 kg)		(34.0 kg)	63.8 lb (29.0 kg)	
	REGUL	ATORY COMPLIANCE			
1				01/1/4	
afety and Approvals		S Compliant, UL 1778, c Class A for <u>1500, 20</u> 00, 1	UL, CE, FCC Class B for 100 3000KVA and Battery Pack	0KVA, (s	

# Power Technologies From Para Systems, Inc.

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