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Product information and support on the web at
http://www.etasys.com

You may register your ownership of ETA Systems products on our web-site at http://www.etasys.com. This will enable us to communicate with you if product issues, which might affect your satisfaction or safety, should arise.

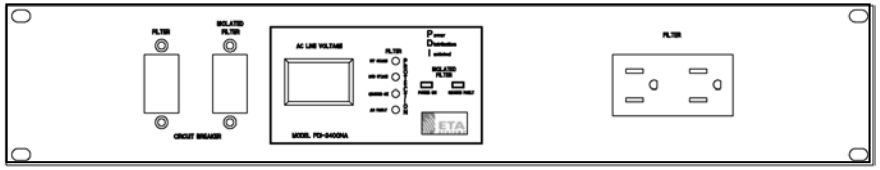
SM5507

ETA Systems

Preliminary

Hybrid Power Station

Combination Analog/Digital Power Conditioner



Models

PDI-1800NA (15 amp)
PDI-2400NA (20 amp)

Thank You

Thank you for your purchase of the Hybrid Power Station. Our broad family of products is designed to protect sensitive audio and video systems from the destruction, degradation, and disruption caused by electrical power disturbances.

General

The Hybrid Power Station is designed specifically for use with AV systems that have both analog and digital components. It provides two separate power protected sections and is ideal for simultaneously protecting highly sensitive digital audio or digital video workstations and less sensitive, power hungry analog peripherals.

The product is available in two models - a 15 amp model providing 10 amps of filtered and 5 amps of isolated power or a 20 amp model providing 15 amps of filtered and 5 amps of isolated power. Both models are designed for mounting in a standard 19" rack and use 2U of rack space.

Construction is sheet steel with an aluminum front panel. All models have a black anodized chassis with a black brushed finished front panel.

Section 1 - Filtered Power Distribution

The power distribution section of this product provides either 10 or 15 amps (depending on model) of filtered and surge protected AC power for use in powering analog electronic systems.

Output connections for the filtered power distribution section are made by way of six (6) standard NEMA 5-15R (Edison) duplex receptacles on the rear panel and one (1) standard NEMA 5-15R (Edison) duplex receptacle on the front panel.

Section 2 - Isolated Power Conditioner

The isolated, power conditioned section of this product provides 5 amps of transformer isolated, surge protected and noise filtered AC power for use in protecting microprocessor based component parts of the system.

Computer based audio and video workstations are much more sensitive to AC power disturbances than their analog predecessors. They not only need surge and noise protection, they need protection from common mode voltage, too. The isolated, power conditioned section of this product provides complete protection for digital electronic loads by way of a low impedance isolation transformer. The transformer's output neutral is bonded to safety ground for complete mitigation of common mode voltages. The low impedance design ensures ability to provide for high crest factor and short duration peak power requirements of switched mode power supplies.

Output connections for the isolated, power conditioned section are made by way of one (1) NEMA 5-15R (Edison) duplex receptacle on the rear panel.

Input Connections

The input connection for both models is a six (6) foot long power cord equipped with either a standard NEMA 5-15P plug (for the 15 amp model) or a standard NEMA 5-20P plug (for the 20 amp model). Your wall receptacle must match the appropriate input plug configuration for the model you have purchased. The two NEMA plug types are shown at the right

5-15P

5-20P

Inspection

Remove the power conditioner from the shipping container and inspect it for shipping damage. Do not install or operate the product if it appears to be damaged in any way. If damaged, notify the carrier and the company that sold it to you immediately.

Front Panel Controls

Please reference the front panel of the product along with the illustration labeled Figure 1 in this manual to help identify the operating controls and features on the front panel.

The front panel has two input circuit breakers, two sets of indicator LEDs and one NEMA 5-15R (Edison) duplex receptacle. As mentioned earlier, the front panel receptacle is powered from the filtered power distribution section. The power distribution section is activated by turning the filter circuit breaker (far left position) to the ON position. Doing so will energize the six rear panel NEMA duplex receptacles and the front panel NEMA duplex receptacle. ETA's first set of ***Watchdog Circuit*** LEDs will illuminate to indicate the protection status of the surge protection/noise filtration circuit.

The isolated, power conditioned section is activated by turning the isolated filter circuit breaker (second from left) to the ON position. Doing so will energize the NEMA 5-15R duplex receptacle for the isolated/conditioned section on the rear panel. ETA's second set of ***Watchdog Circuit*** LEDs will illuminate to indicate that the isolation transformer is receiving power and that a good safety ground connection exists.

Optional True RMS Voltmeter

An optional true RMS voltmeter is available. True RMS meters provide more accurate readings than less expensive averaging meters since they are unaffected by the harmonic distortion often found in electrical systems. The Hybrid Power Station is designed for operation in a 120 volt, 60 Hz. North American electrical system. The volt meter will illuminate immediately upon plugging in the Hybrid Power Station. Please ensure that the voltmeter indicates proper nominal voltage before turning on either power switch.

CUSTOMER SERVICE

For service, obtain the model number, part number, and serial number from the rear panel data plate. Then contact ETA Systems via phone or web to obtain a Return Material Authorization (RMA) number. This number must be marked on the shipping container and packing slip of the unit being returned. The original shipping container should be used if available. Additional charges will apply for repair of damages caused by improper packing of the returned unit. Unauthorized return shipments will be refused. Units for repair must be shipped prepaid to ETA Systems.

TECHNICAL AND SERVICE ASSISTANCE

Technical and service assistance is available in North America between the hours of 8:00 a.m. and 5:00 p.m. Central time by calling 800-321-6699.

Technical and/or service problems and/or questions may also be placed with ETA Systems at our website at www.etasys.com. Click on "CUSTOMER SUPPORT" tab and follow the appropriate link.

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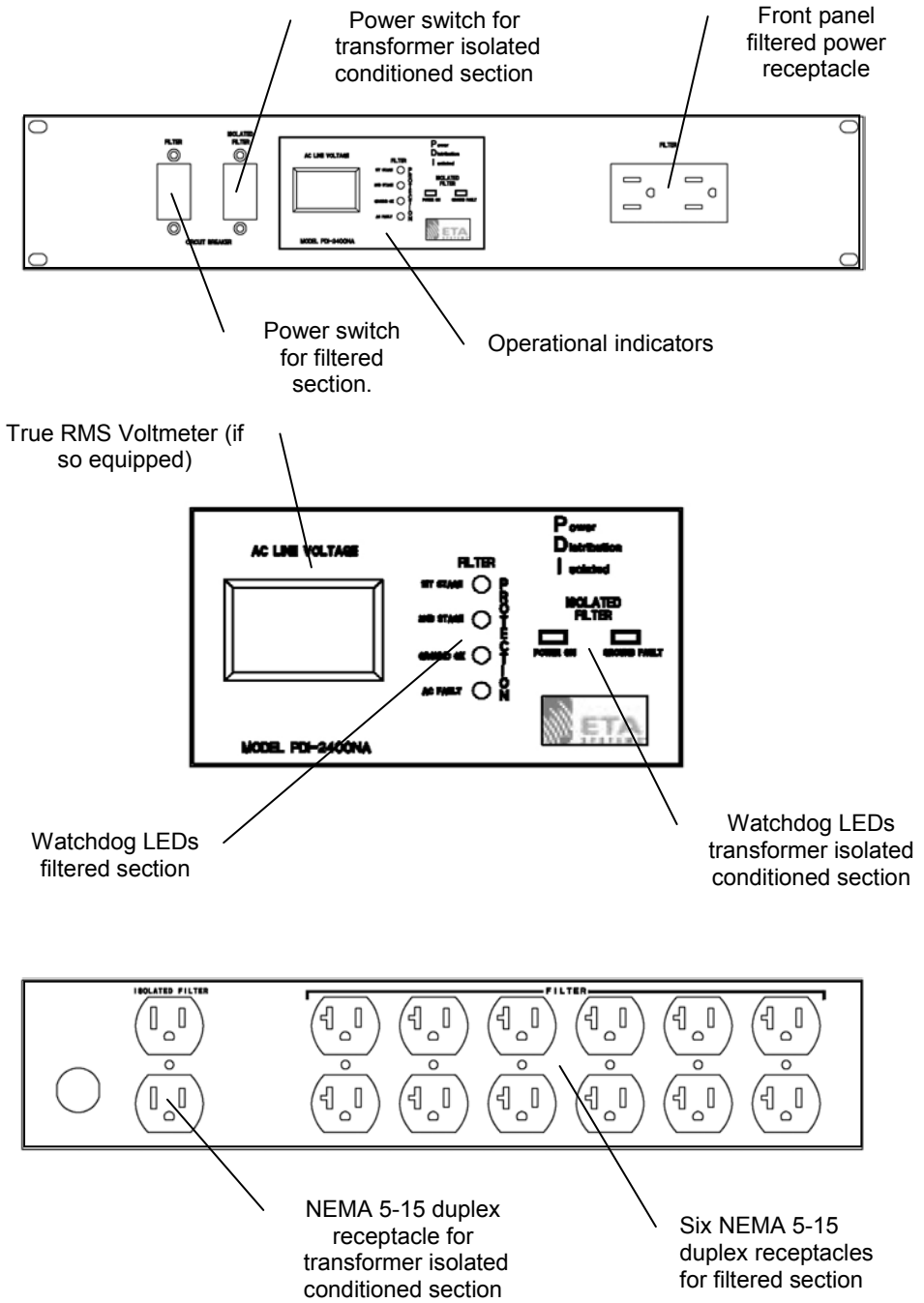
WARRANTY

ETA Systems warrants its power conditioners (known hereafter as the "product") to be free from defects in materials and workmanship for a period of five years from the date of shipment. The product will be repaired or (at ETA's option) replaced at no charge during this warranty period. Product must be returned prepaid.

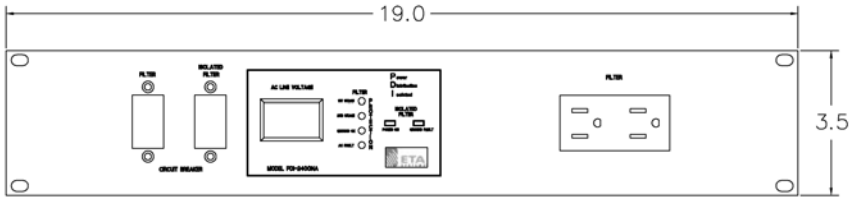
ETA Systems makes no warranties, expressed or implied, of merchantability, fitness for a particular purpose, performance, condition, capacity or otherwise. The manufacturer is not liable for incidental or consequential damages, monetary loss, loss of sales or loss of business resulting from the failure or malfunction of the product.

Warranty is void on any product that is misused, misapplied, abused, altered, repaired by unauthorized personnel, or where evidence of tampering exists. The foregoing constitutes the sole and exclusive remedy of the purchaser and is in lieu of all other warranties. No greater degree of liability is imposed on the manufacturer.

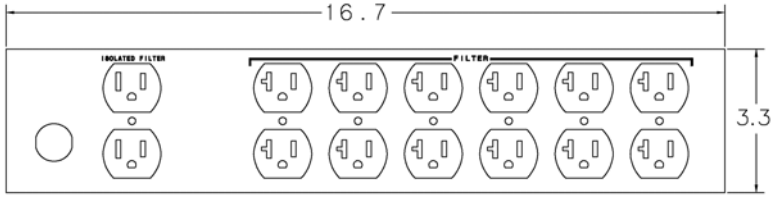
Figure 1 - Power Conditioner Front and Rear Panel Control and Connection Diagrams



MECHANICAL SPECIFICATIONS



Front Panel



Rear Panel

Shipping Weight (lbs): PDI-1800NA - 30 pounds
PDI-2400NA - 30 pounds

Electrical Data

Model	Nominal Voltage	Nominal Frequency	Maximum amperage	Maximum VA (volt-amps)
PDI-1800NA	120 volts	60 Hz.	15	1800
PDI-2400NA	120 volts	60 Hz.	20	2400

Performance Data

Test Criteria: Unit is tested under power and injected with an ANSI/IEEE C62.41Cat. A pulse applied either normal or common mode at the input.

Noise Rejection Performance of:

- **Filtered section**: Let-through voltage will be ≤ 330 volts H-N, H-G, N-G
- **Isolated/Conditioned Section**: Let-through voltage will be less than 10V normal mode and less than 0.5V common mode in all four quadrants (CM-NM, NM-NM, CM-CM, NM-CM).

SURGE VOLTAGE WITHSTAND CAPABILITY: Tested under power to ANSI/ IEEE C62.41 Cat. A & B (formerly IEEE587-1980). Cat. A - 6000V @ 200 amps, 0.5 usec risetime, 100 kHZ decay, Cat. B - 6000V @ 500 amps, 0.5 usec risetime, 100 kHZ decay.