

Home Theater

Power Management



*Furman's Home Theater Series Power Conditioners,
Sequencers and Distro's feature the same robust
construction and reliability that have made our power products
preeminent within the music, broadcast, and contractor industries
for decades. Now our technology
and experience have produced a line of products specifically opti-
mized for the demands of Home Theater.*

FURMAN

Furman's Home Theater Series Power Conditioners offer many of the same features that have made our power products preeminent within the music, broadcast, and contractor industries for decades. Now, many of our standard features such as retractable rack lights and over-under voltage shutdown, are available with laboratory quality Digital True RMS Voltage/Current meters. Additionally, the HT-Series has been optimized for today's ultra sensitive digital circuitry and high speed converters. All HT series AC filters and Transient Surge Suppressors feature our zero ground contamination technology. This is critical for optimized performance and trouble free performance. Power line disturbances are real, and they are inevitable. Many areas may experience over one-hundred small transient spikes a day. Additionally, most spikes are caused by your utility and manufacturing machinery, not dramatic events such as lightning storms. Proper protection is essential for costly equipment, but there is a wide range of differences in surge suppressors and their effect on Audio/Video performance. In fact, typical Surge suppressors can cause more harm than good, by leaking the very voltage they suppress back to your signal ground! This may cause equipment failure over time, and will always compromise performance in today's Home Theater circuits.

*After years on the road,
we are finally coming home.*



PS-PRO HT

- **20 Amp (2400 Watt) rating handles even the largest amplifiers and powered subwoofers**
- **Multiple levels of protection components can safely absorb large spikes and provide highly effective RF filtering**
- **Extreme Voltage Shutdown guards against destructive wiring faults**
- **Critical functions are monitored by a "smart" microprocessor; while LED status indicators report problems**
- **Eight widely-spaced, switched rear outlets and one unswitched front outlet**
- **Precision thermal circuit breaker**
- **Heavy duty 10 foot, 12 gauge line cord**

FEATURES:

The **PS-PRO HT Power Conditioner/Sequencer** is capable of powering up a rack full of equipment in a 3-step delayed sequence. The sequence is reversed for power-down. The sequence can be initiated with either momentary or maintained switches, locally or remotely. A duplex outlet is provided for each delay step. A front panel screwdriver adjustment sets the delay time. A locking switch with a removable key is provided for maximum security. One or more PS-PRO HT's may be installed in remote locations and operated via low-voltage wiring.

The PS-PRO HT is an AC power conditioner as well. What sets the PS-PRO HT apart from other conditioners is the quality and configuration of the suppression devices used. These include MOV's, gas discharge tubes, fast-blow fuses, and high voltage capacitors. This unique combination can safely absorb and dissipate large spikes from nearby lightning strikes and other sources, as well as highly attenuate audible and visible high frequency noise. An additional feature, Extreme Voltage Shutdown, guards against wiring faults – such as an accidental open of the Neutral wiring. It senses voltages that are so high that operation would be impossible (over 140V) and shuts the power down before damage can occur. LED status indicator ("Protection OK") monitors the integrity of the protection devices, and reports if the protection is compromised. The PS-PRO HT is a 19" single space rack mount unit that comes with a ten-foot, 12 AWG power cord, and has eight widely-spaced rear outlets that can accommodate bulky plug-mounted power supplies, as well as a front-panel switched convenience AC outlet.

PS-PRO HT SPECIFICATIONS

Current rating: 20 Amps (2400 Watts at 120 VAC)

Input Voltage: 85 to 264 VAC

Meter Accuracy: Voltmeter: ± 2 VAC; Ammeter: ± 2 amps, calibrated with trimpot adjustments

Spike Protection Modes: Line to neutral

Spike Clamping Voltage: TVSS rating 400V peak, L-N (tested to UL 1449)

Response time: 1 nanosecond

Maximum surge current: 11,000 amps (8 x 20mS pulse)

Maximum spike energy: 180 joules total

Noise attenuation: Differential mode: Greater than 40 dB, 1 to 200 MHz

Mechanical: Dimensions: 1.75" H x 19" W x 10" D.
Weight: 6 lbs (2.7 kg).

Construction: Steel chassis, zinc chromate plating; .125" brushed and black anodized aluminum front panel; glass epoxy printed circuit boards.

Power Consumption: 6 watts

Safety Agency Approvals: UL, C-UL, listed.



PL-PRO HT

20 AMP

- 20 amp / 2400 watt rating precision magnetic high in-rush circuit breaker handles even the largest power amplifiers and powered sub-woofers
- Laboratory precision grade digital volt meter and true RMS volt / current meter (+/- 1 VAC, +/- 0.1 amp)
- Multiple levels of protection components can safely absorb large spikes and provide highly effective RFI/EMI filtering, incorporating Furman's HT series zero ground contamination technology
- Extreme Voltage Shutdown guards against destructive wiring faults
- Two slide-out, swiveling light fixtures for rack illumination with dimmer control for lamp brightness (this feature is not present in the PL-HT)
- (9) accessory outlets, (4) for analog components, (4) with additional filtering for digital components, (1) 15 A front panel mounted convenience outlet



FEATURES:

What sets the PL-PRO HT apart from other conditioners is the quality, and configuration of the suppression devices used. These include MOV's, gas discharge tubes, fast-blow fuses, and high voltage capacitors. This unique combination can safely absorb and dissipate large spikes from nearby lightning strikes and other sources, as well as highly attenuate audible and visible high frequency noise. Precise high-inrush magnetic circuit breakers avoid the false tripping often encountered with large reactive loads like power amplifiers and powered sub-woofers. An additional feature, Extreme Voltage Shutdown, guards against wiring faults – such as an accidental open of the Neutral wiring. It senses voltages that are so high that operation would be impossible (over 140V) and shuts the power down before damage can occur. LED status indicator ("Protection OK") monitors the integrity of the protection devices, and reports if the protection is compromised.

The PL-PRO HT is a 19" single space rack mount unit, featuring the familiar slide-out rack lights pioneered by Furman. These light modules utilize micro switches to turn each light tube off or on automatically when pushed in or pulled out. The PL-PRO HT is also supplied with True R.M.S. digital volt and current metering, which supply a highly accurate, reliable indication of voltage or current draw even for highly nonlinear loads like amplifiers, switching power supplies, or when the incoming AC line is distorted. The PL-PRO HT comes with a ten-foot, 12 AWG power cord, and has eight widely-spaced rear outlets that can accommodate bulky plug-mounted power supplies, as well as a front-panel switched convenience AC outlet.

PL-PRO HT SPECIFICATIONS:

Current rating: 20 amps, 2400 watts at 120 VAC

Input Voltage Range: 0 to 250 VAC without damage

Meter Accuracy: Voltmeter: +/- 1 VAC; Ammeter: +/- 0.1 amps

Spike Protection Modes: Line to Neutral

Clamping Voltage, all modes: Initial turn-on at 200 volts; TVSS rating 400V peak at 500 amps, L-N (tested to UL1449) (TVSS rating 400V peak)

Response time: 1 nanosecond

Maximum surge current: 11,000 amps (8 x 20 mS pulse)

Maximum spike energy: 180 joules total

Noise attenuation: Differential mode: Greater than 40 dB, 1 to 200 MHz

Dimensions: 1.75" (4.45 cm) H x 19" (48.25 cm) W x 10" (25 cm) D

Weight: 6 lbs (2.7 kg)

Construction: Steel chassis, zinc chromate plating; brushed and black; Anodized aluminum front panel; glass epoxy printed circuit boards.

Power consumption: 12 watts

Safety Information: The PL-PRO HT is N.R.T.L.-C listed.

PL-HT

15 AMP

- 15 amp / 1800 watt rating, with thermal circuit breaker
- Laboratory precision grade digital true RMS volt / current meter (+/- 1 VAC, +/- 0.1 amp)
- Two slide-out, swiveling light fixtures for rack illumination with dimmer control for lamp brightness
- (8) accessory outlets, (4) for analog components and (4) with additional filtering for digital components
- Ground Contamination free surge protection and RFI/EMI filtering
- Ten foot heavy duty AC cord



FEATURES:

The PL-HT Power Conditioner/Light Module is the perfect accessory to any equipment rack, providing the basic power protection essential to every audio or video system. Install a PL-HT in the top slot of your rack, and the eight switched AC outlets on the rear panel will power all your equipment while its two slide-out light fixtures provide discreet, illumination of their controls in any dark place. A dimmer control lets you adjust the lamp brightness to just the right level.

The Metered Six 15 Amp Series protects your delicate electronic equipment by combining a high voltage surge and transient suppressor with an RFI/EMI interference filter. The fast-acting suppression circuit responds in nanoseconds, clamping spikes and surges to safe levels. The filter works to prevent noise from fluorescent lights, electric motors, radio transmitters, and similar sources of "electronic pollution" from leaking from the AC line into sensitive analog or digital circuits.

The PL-HT lamp comes supplied with 5-watt night-light bulbs. Replacements are readily available in 4-watt sizes at most supermarkets and hardware stores. Colored Christmas tree bulbs may also be used. Bulbs are easily replaced without removing the unit from the rack by unscrewing the cap on the end of each light tube. The PL-HT features a master switch for the rear outlets. This switch glows red when the power is on. There is also a separate switch for the lamps, allowing you to check your equipment settings before applying power to it. The front-panel circuit breaker can be easily and quickly reset should any of these units be overloaded.

PL-HT SPECIFICATIONS

Current rating: 15 amps, 1800 watts at 120 VAC

Input Voltage: 0 to 135 VAC without damage

Meter Accuracy: Voltmeter: +/- 1 VAC; Ammeter: +/- 0.1 amps

Spike Protection Modes: Line to Neutral

Clamping Voltage, all modes: Initial turn-on at 200 volts; TVSS rating of 400 volts peak at 500 amps, L-N (tested to UL-1449)

Response time: 1 nanosecond

Maximum surge current: 6,500 amps

Maximum spike energy: 80 joules

Noise attenuation: Differential mode: Greater than 40 dB, 1 to 200 MHz

Dimensions: 1.75" H x 19" W x 8" D.

Weight: 6 lbs (2.7 kg).

Construction: Steel chassis, zinc chromate plating; .125" brushed and black anodized aluminum front panel; glass epoxy circuit boards.

Power consumption: 12 watts

Safety Information: The PL-HT is N.R.T.L.-C listed.



ASD-120

- 120 amp total load
- Six 20 amp, 120 volt circuits, each with a status indicator
- Four power input busses accommodate 120V/240V single phase, or 208V three phase voltages
- Six 20A duplex outlets on rear panel
- Outlets are powered up and down in sequence
- Three position switch allows each circuit to be part of the sequence, or to be switched on/off independently
- Sequence on/off can be initiated locally, or remotely using low voltage control wiring from simple switching systems, or Crestron – AMX touch panel controllers
- Six low level relays provide contact closure (or opening) to control and sequence other units, such as additional ASD-120's, MINIPORT's, or PS-PRO HT's
- Varistor spike and surge protection
- Front panel key switch for security
- Compact two rack space package
- High Frequency Digital RF/EMI filtering
- Most economical product of its type

FEATURES

The ASD-120 allows you to power up its six circuits in a sequenced fashion. The sequence is reversed for power down. The overall delay interval is user-adjustable internally. For system components that present a large inductive load to the AC line (such as power amplifiers), sequenced power can avoid excessive inrush currents that can cause circuit breakers to falsely trip. Sequenced power is needed whenever various kinds of equipment must be powered up or down at different times. Also, sequenced power is often necessary to allow turn-on transients from low level preamplifiers and processors to settle down before any power amps or powered speakers are turned on. This is because simultaneous powering can result in a loud, annoying, and potentially destructive "pop" reaching the speakers.

The user has complete control of each of the ASD-120's outputs. A three position front panel switch for each control output allows it to be included in the sequence, or to be overridden. Indicator LEDs show when each output is "on." While the ASD-120 is ideal for controlling MINIPORT's, it can also control Furman's PL-PRO HT, or any other devices that need to be switched when a particular time delay has elapsed. An ASD-120 can also control additional ASD-120's, providing complete power sequencing control for even the largest systems. The ASD-120 can handle up to 120 amps of incoming power, distributing it to six 20 amp, 120V circuits. Each circuit has a front panel status indicator that lights up when it is turned on, and a 20 amp duplex outlet on the rear panel.

The ASD-120's design incorporates four voltage input busses, allowing wiring for 120V/240V single phase, or 208V three phase voltages. A strain relief clamp is provided that can accommodate a cable or wire bundle up to 1.5 inches in diameter. Cable termination is a simple process of breaking out and stripping the individual conductors and connecting them with set screws, and then tightening the strain relief clamp. Complete instructions accompanying the unit detail the process of selecting and terminating the supply cable. The ASD-120 provides basic spike and surge suppression, with metal oxide varistors (MOV's) connected between the hot and neutral conductors of each circuit. The MOV's respond to line-coupled spikes in less than a nanosecond, clamping transient voltages to safe levels of 200V peak or less.

SPECIFICATIONS:

Input Current: 120 amps
 Input Voltage: 20/240V single phase, or 208V 3-phase
 Output: Six identical 20 amp, 120V circuits
 Circuit Breakers: Heavy duty Thermal, 20A
 Power Sequencing: Delay Interval: 0.2 to 10 seconds per step (adjustable with internal trimpot)
 Rem Control Inputs: Optically isolated, AC or DC drive, 12K ohm input impedance. Operates at 5 VDC or 6-130 VAC. Max 130 VAC from REM COM to chassis
 Signal Relay Outputs: Common isolated from chassis and control ground. 130 VAC max from relay common to chassis. Relay can switch 1/2 amp max @ 125 VAC, or 1/2 amp max @ 24 VDC.
 Internally configurable as normally closed or normally open.

SPIKE/SURGE PROTECTION

Spike Protection Mode: Line to neutral on each circuit. Clamping Voltage: 200V peak.
 Response Time: 1 nanosecond. Maximum Surge Current: 6,500 amps.
 Maximum Spike Energy: 80 joules per circuit.
 Mechanical: Weight: 20 lbs (9.1 kg). Dimensions: 3.5" H x 19" W x 9 5/8" D (8.9 x 48.3 x 24.4 cm)
 Construction: Steel chassis, zinc chromate plating; .125" brushed and black anodized aluminum front panel.
 Power Consumption at 130 VAC: 23 watts
 Safety Information: ETL/C-ETL listed



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Furman products are protected by a limited three year warranty, covering defects in materials and workmanship provided that the registration card is filled out and returned by the customer. Otherwise, a one year warranty applies. Products must have proof of purchase from a Furman authorized dealer.