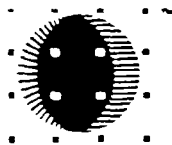


ETA THE PEOPLE WHO KNOW POWER IN CONDITIONED POWER DISTRIBUTION

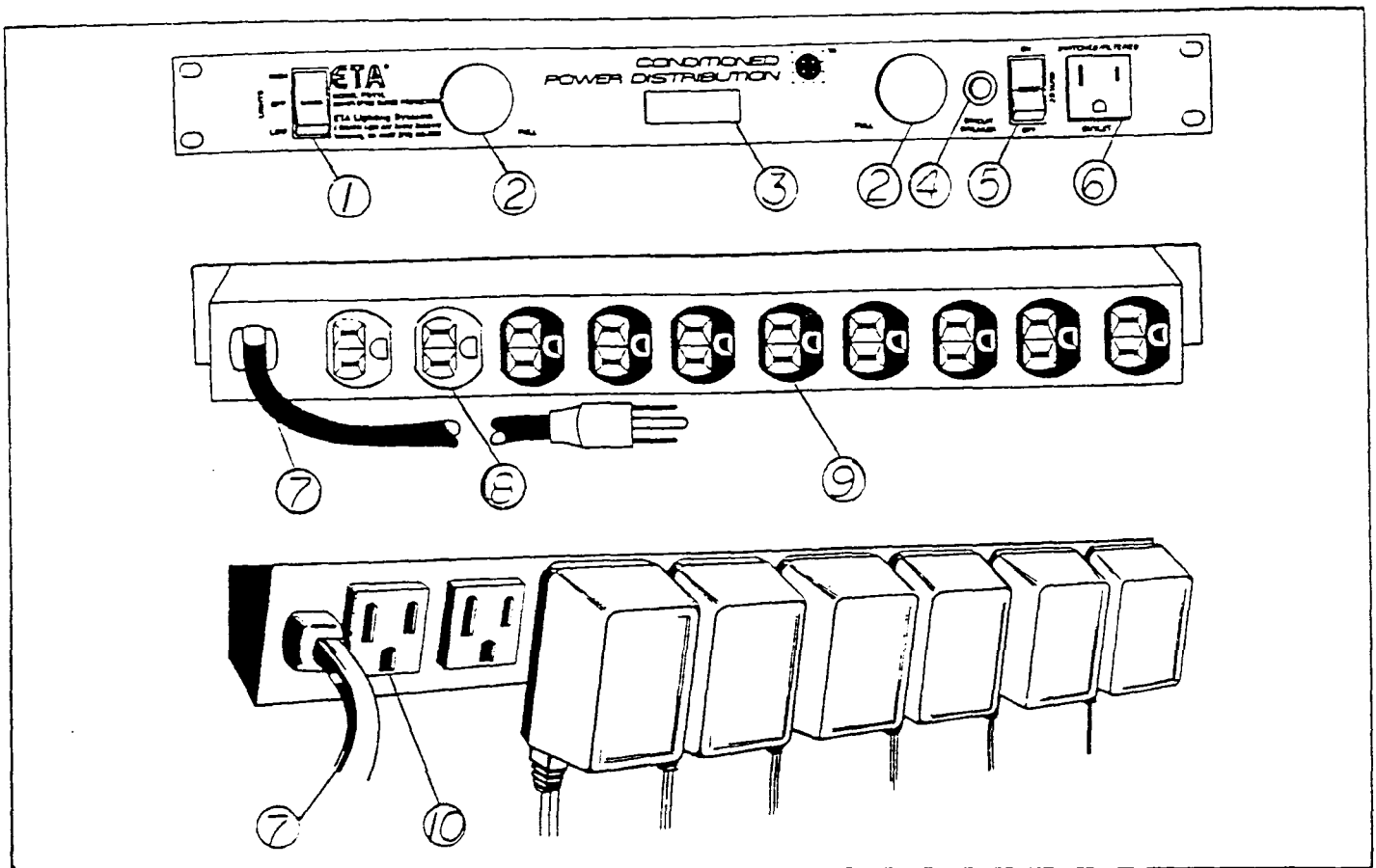
OWNERS MANUAL

**MODELS: PD9, PD10, PD10V,
PDIIL, PDIILV, PDIIS,
PDI6LVS, PD320VS,
PD6, PD430, PD460 &
Lights Only**



ETA LIGHTING SYSTEMS

Enterprise Parkway • Twinsburg, OH 44087 • 216-425-3388 • 800-321-6699



FEATURES

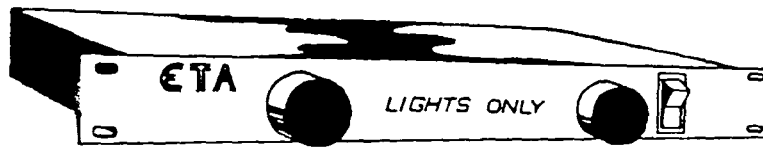
- 1) Light Switch - activates rack illumination. Choose HI or LOW intensity.
- 2) Light Tubes - illuminates up to 25 rack spaces or over 3 feet.
- 3) Digital Voltmeter Readout - displays incoming line voltage.
- 4) Circuit Breaker - resettable 15 amp thermal circuit breaker.
- 5) Outlet Switch - lighted power switch activates protection and filtration to all black outlets and front panel outlets.
- 6) Front Panel Outlet - convenient, filtered, protected and switched outlet.
- 7) Power Cord - six foot heavy duty U-grounded 14 gauge power cord.
- 8) Ivory Outlets - unswitched outlets with continuous power available. Circuit breaker protected.
- 9) Black Outlets - EMI/RFI filtered, spike/surge protected and switched outlets.
- 10) Outlets on PD9 - designed to accept low voltage power supplies maximizing the use of outlets. All filtered, protected and switched.

OPERATING INSTRUCTIONS

1. Install in a standard 19" rack or free standing position.
2. Connect Power Distribution power cord (#7) into standard 120V wall outlet.

3. Plug sensitive electrical equipment into conditioned black outlets (#9). Some models have an additional protected outlet on the front panel (#6).
4. Move power outlet switch (#5) to "ON" position to provide power and protection to electrical equipment.
5. For illumination, pull out light tubes (#2) and move light switch (#1) to "HI" or "LOW" position. **IMPORTANT!** Be sure light switch (#1) is in "OFF" position when light tubes are recessed.
6. Digital voltmeter readout (#3) is calibrated to nominal 117V at the factory. No adjustment necessary. When calibration is required for special applications, an adjustable trimpot is located on the voltmeter readout assembly. **"WARNING"** Removing top cover is necessary. Adjustment must be done by a qualified individual.
7. Digital voltmeter readout (#3) automatically displays incoming voltage when power cord (#7) is connected. If you wish to have digital display on only when power switch is "ON", move switch on voltmeter display assembly inside unit to "OFF" position. **"WARNING"** Removing top cover is necessary. Adjustment must be done by a qualified individual.

ETA SYSTEMS



"LIGHTS ONLY" is a single rack space unit which provides dual retractable swivel illuminators with an on/off switch. This model is designed specifically for rack illumination where power distribution is not required. It will illuminate to three feet deep.

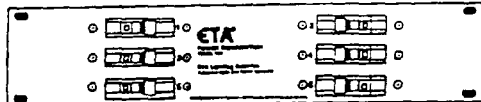
2. Connect power cord to a standard 120V wall outlet.
3. Extend light tubes and move power switch to "HI" or "LOW" position.

IMPORTANT! Be sure power switch is in the "OFF" position when light tubes are retracted.

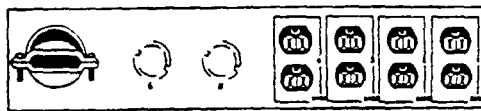
OPERATING INSTRUCTIONS

1. Install in a standard 19" rack.

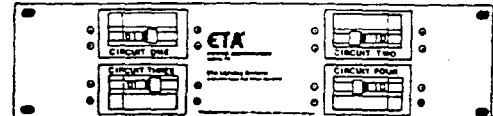
(See page 7 for lamp replacement.)



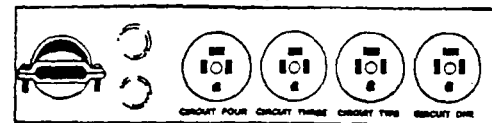
PD6



PD6 BACK



PD460



PD460 BACK

ETA's High Amp Power Distribution is the professional system designed for power hook ups of sound and lighting equipment which require high voltage and high amperage. Three models are available: Models PD6, PD430, and PD460.

PD6 Features:

- six circuits, four 20 amp and two 30 amp Square D magnetic breakers
- four 20 amp edison duplex receptacles
- two 30 amp terminal block hardwire hook ups
- 140 amp maximum
- see Diagram #1 for hook up instructions

PD430 and PD460 Features:

- four circuits, 30 or 60 amp Square D magnetic breakers
- four 30 or 60 amp NEMA style outlets
- 120 amp or 240 amp maximum
- see Diagram #1 for hook up instructions

Diagram 1

DO NOT REMOVE COVER. No user serviceable parts inside. Refer servicing and hook-up to qualified individuals only.

HOOK-UP DIAGRAM
DANGER

Due to life threatening shock hazard, hook-up of this power distribution pack must be made by qualified electricians only. This unit will operate on any two legs of 208/120 Volt AC three phase power or 240/120 Volt single phase power.

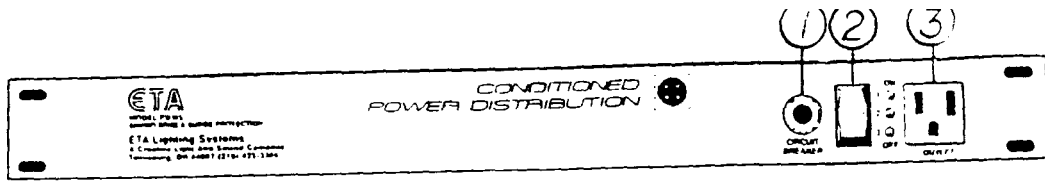
| | | | |
|-------------------|------------------------------|------------------|--------------------|
| G GREEN | C WHITE neutral | L2 RED | L1 BLACK |
|-------------------|------------------------------|------------------|--------------------|

DANGER - SHOCK HAZARD
Disconnect power before removing this lid.

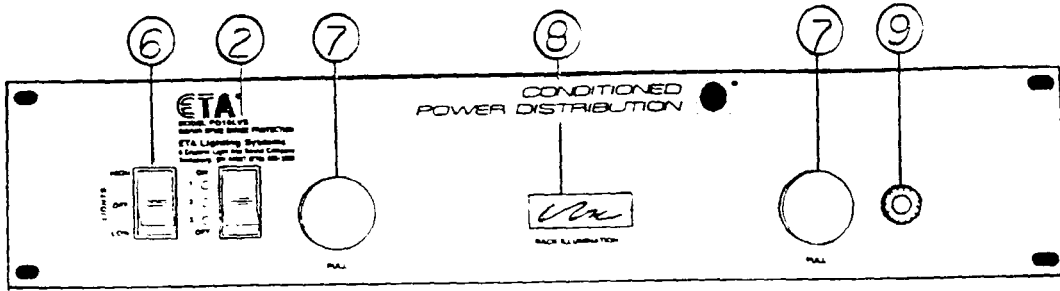
930058

FRONT PANELS

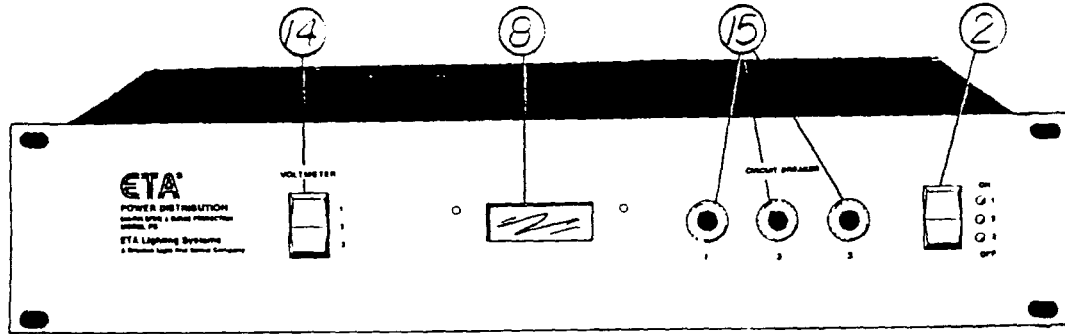
PD11S



PD16LVS

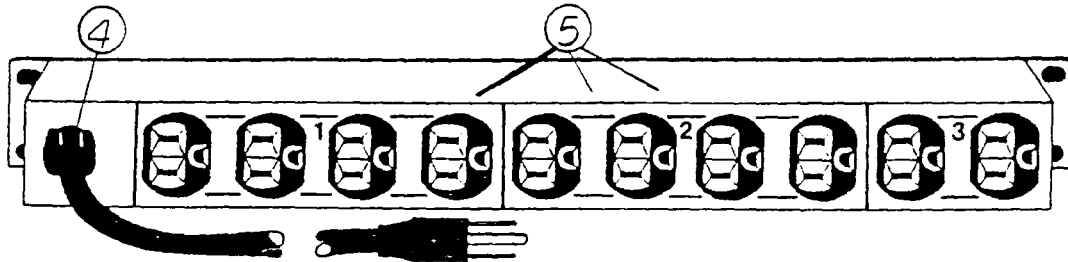


PD320VS

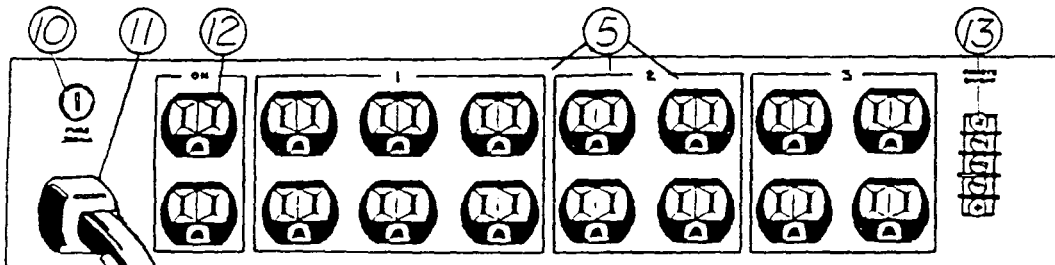


BACK PANELS

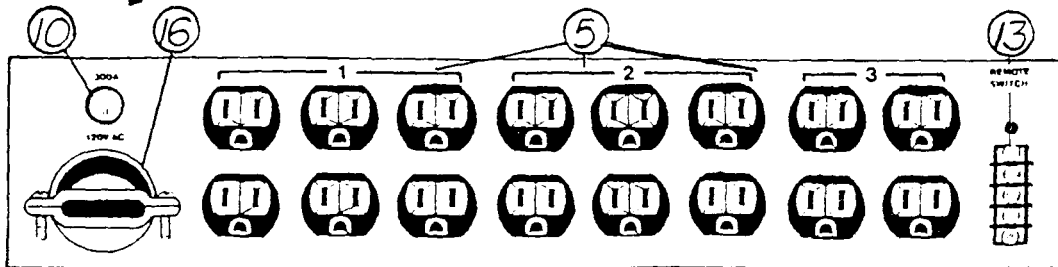
PD11S



PD16LVS



PD320VS



FEATURES FOR MODELS PD11S, PD16LVS, AND PD320VS

- 1) Circuit Breaker - reset 15 amp thermal circuit breaker.
- 2) Power Switch - begins the sequential power up/down for three separate L.E.D. monitored circuit. Also activates protection and filtration to all outlets.
- 3) Front Panel Outlet - convenient, EMI/RFI filtered, spike/surge protected, and switched outlet.
- 4) Power Cord - six foot heavy duty U-grounded 14 gauge power cord.
- 5) Outlets - edison outlets, EMI/RFI filtered, spike/surge protected and switched.
- 6) Light Switch - activates rack illumination. Choose HI or LOW intensity.
- 7) Light Tubes - illuminates up to 25 rack spaces or over three feet.
- 8) Digital Voltmeter Readout - displays incoming line voltage.
- 9) Circuit Breaker - reset 20 amp thermal circuit breaker.
- 10) Fuse - external 0.300 mA protective fuse.
- 11) Power Cord - 24" heavy duty U-grounded 12 gauge power cord.
- 12) "Always On" Outlets - unswitched outlets with continuous power available. Circuit breaker protected.
- 13) Remote Switch Access - access for remote power up/down available. (Parts and assembly required.)
- 14) Digital Voltmeter Dial - change the dial to display the incoming line voltage of each circuit either single or three phase operation.
- 15) Circuit Breakers - three reset 20 amp thermal circuit breakers, each protecting a separate circuit.
- 16) Romex Connector - access to the terminal block for the incoming power's hard wire hook up.

OPERATING INSTRUCTIONS FOR SEQUENCER MODELS

1. Provide power to the unit.

PD11S

- Install in a standard 19" rack or free standing position.
- Connect Power Distribution power cord (#4) to a minimum 15 amp 120 volt wall outlet.

PD16LVS

- Install in a standard 19" rack or free standing position.
- The PD16LVS is a full 20 amp output unit requiring a minimum of 20 amp 120 volt service or 20 amp wall outlet. Connect Power Distribution power cord (#11) to a 20 amp 120 volt service.

PD320VS

- "WARNING" Removing cover is necessary. Hook up must be done by a qualified individual. The PD320VS will operate on 120VAC single phase power (diagram #2) or on 208VAC three phase power (diagram #3). See appropriate hook up diagram for wiring instructions.
- Install in a standard 19" rack.

2. Plug sensitive electrical equipment into conditioned outlets (#3) and/or (#5).

3. Move power switch to "ON" position to begin sequential power up, and to provide protection to outlets (#3 and/or #5). To power down, move power switch to "OFF" position to begin sequential power down.

- All sequential units are set at the factory for a 5 second delay between each circuit. The powering up sequence provides power to circuit 1, 2, then 3 and powers down circuit 3, 2, then 1.

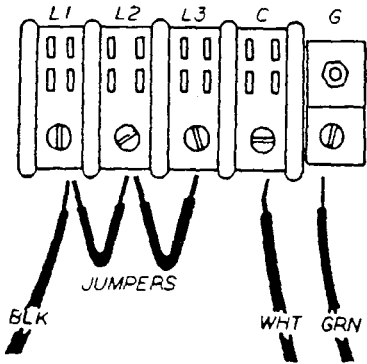
- To adjust sequencing rate, remove cover and locate rotary trimpot on the large pc board. (See diagram #4) "WARNING" Removing top cover is necessary. Adjustment must be done by a qualified individual.
4. For illumination, pull out light tubes (#7) and move light switch (#6) to "HI" or "LOW" position. IMPORTANT! Be sure light switch (#6) is in "OFF" position when light tubes are recessed.
 5. Digital voltmeter readout (#8) is calibrated to nominal 117V at the factory. No adjustments are necessary. When calibration is required for special applications, an adjustable trimpot is located on the voltmeter readout assembly. "WARNING" Removing top cover is necessary. Adjustment must be done by a qualified individual.
 6. Digital voltmeter readout (#8) automatically displays incoming voltage when power is provided from power source. To have the digital readout displayed only when the power switch (#2) is activated, move the switch to the "OFF" position located on the voltmeter display assembly inside the unit. "WARNING" Removing the cover is necessary. Adjustment must be done by a qualified individual.
 7. By turning the voltmeter dial (#14) on the PD320VS only, each circuit's incoming voltage can be monitored, single or three phase.
 8. Remote switch access #13 on PD16LVS and PD320VS, and interior access on the PD11S allows access to hook up a remote switch to power up/down. (Parts and assembly required. See diagram #5.)

Diagram 2

HOOK UP DIAGRAM

Due to life threatening shock hazard,
hook up must be made by qualified
Individuals ONLY!

This unit will operate on 120V Single
phase power.



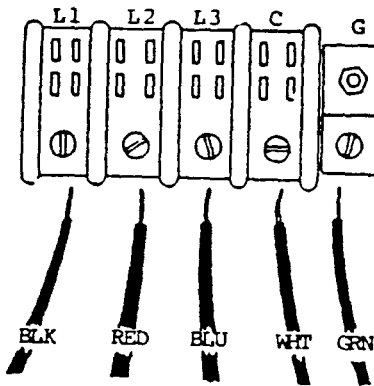
Power input
wiring must
be 6 gauge.

Diagram 3

HOOK UP DIAGRAM

Due to life threatening shock hazard,
hook up must be made by qualified
Individuals ONLY!

This unit will operate on 208V Three Phase
power.



Power input
wiring must
be 12 gauge.

Diagram 4

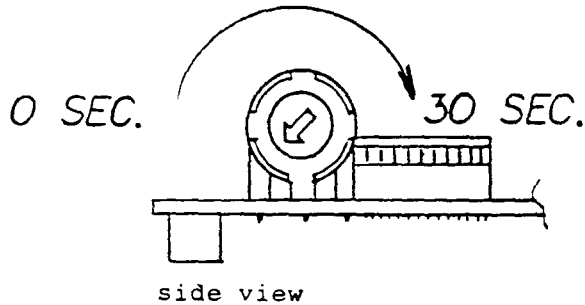
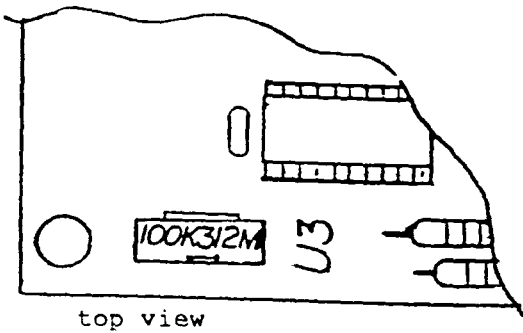
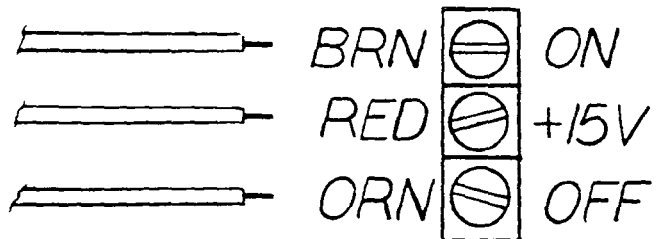
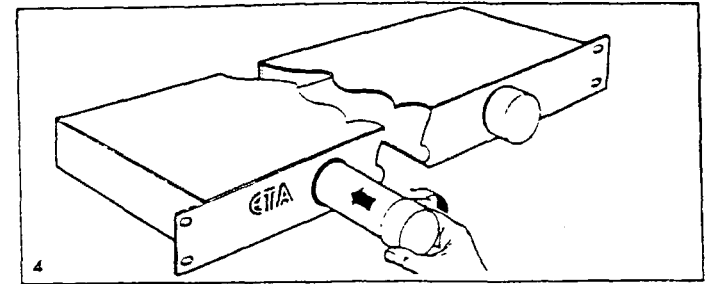
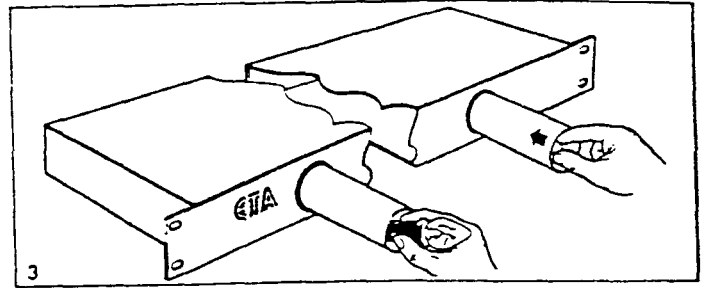
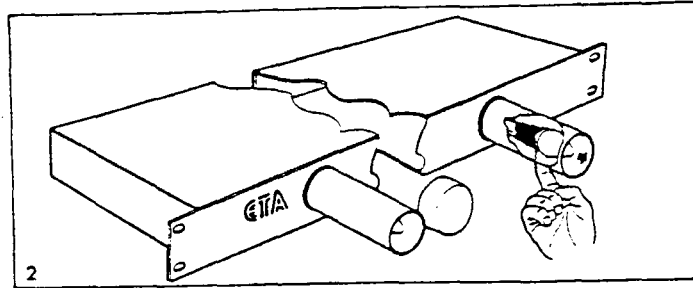
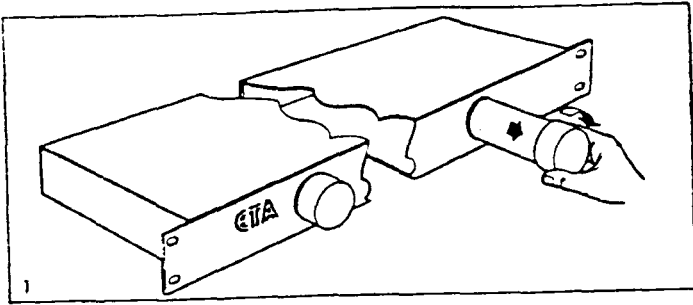


Diagram 5





INSTRUCTIONS TO REPLACE LIGHT TUBE LAMP (reference diagrams)

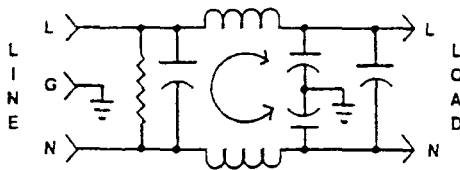
1. Extend and hold light tubes, turn cap clockwise and pull to remove cap.
2. With light tube three quarters of full extension, insert index finger in light source hole at base of lamp, gently push bulb and socket through the cap's hole and replace lamp.
3. Reset socket with white mark on top, opposite light source hole, gently force lamp and socket back into light

tube to a firm fit. (It may be necessary to joggle socket with one hand and guide with finger in light source hole to get proper placement.)

4. Hold light tube and snap cap back into place. Twist cap counter-clockwise firmly.

NOTE: Replacement lamp is a standard 120 volt, 7 watt incandescent lamp. (Christmas tree lamp)

FILTER SCHEMATIC



| SPECIFICATIONS: | |
|--|--|
| Input Voltage | 120V AC |
| Voltmeter accuracy | ± 2V AC |
| Spike protected | Line to neutral, neutral to ground, line to ground |
| Clamping voltage, line to neutral, neutral to ground, line to ground | 395V peak |
| Response time | 1NS |
| Maximum avg. power dissipation | 0.15 - 1.0W |
| Temp. coefficient of V | 0.05% / deg. C |
| Operating temp. range | - 20 to +110° C |
| Response time in typical application | Less than 50NS |
| VAC volts RMS | 150V |
| VDC volts | 200V |
| Varistor peak voltage | 212 - 259V |
| Energy | 80J |
| Peak current (8x20 US) | 6500A |
| Typical capacitance | 2000 pF |
| Noise attenuation | Transverse greater than 20 dB 1.5 to 200 MHz |

Thank you for choosing ETA SYSTEMS POWER DISTRIBUTION.

Drawing upon our 15 years of solving high amperage lighting needs and listening to customers' concerns, we have developed a most extensive line of AUDIO CONDITIONED POWER DISTRIBUTION. As the problems inherent with AC power increase, you will find ETA providing solutions.

ETA now offers Audio Conditioned Power Distribution with UL approval, conditioned sequential distribution, high amp audio and lighting distribution models, "Lights Only" rack illuminator, and AC voltage regulators to assist in the management of your power.

POWER PROBLEMS

Standard AC outlets often supply raw and unprocessed power that not only can diminish the clarity of audio signals and cause premature failure of parts, it can completely destroy your valuable equipment.

Power problems such as spikes, line surges and noise interference transmit through all standard electrical lines and affect power quality; therefore, affecting you.

SOLUTIONS

Conditioned Power Distribution can eliminate such problems from affecting you. As it filters the line voltage from your AC outlets, eliminating noise and interference, such as radio frequency interference (RFI) and electromagnetic interference (EMI), it will reduce the residual noise in the system, which will enhance audio clarity.

Audio Conditioned Power Distribution is also designed to protect electronic equipment from potentially damaging high-voltage spikes and surges.

Sequencing Audio Conditioned Power Distribution is designed to initiate a turn-on cycle, energizing one circuit immediately with remaining circuits energizing in a delayed fashion. This allows circuits to stabilize when powering up and down eliminating that on-rush of power and potential damage to equipment or output.

TYPICAL USES

All Professional Permanent Installations: Recording Studios, Theatres, Schools, Clubs, Churches, any Entertainment Venue, Business Board Rooms, and Audio/Visual Multi-use Presentation Rooms. Portable Applications: On-the-Road Concert Tours, Bands, and D.J. Services. Other Important Applications: A/V Racks, Computer Networks, and Home Entertainment Centers.

SPECIFICATIONS

| MODEL | AC OUTLETS | TOTAL AMP/UNIT | VOLTS | LIGHTS | VOLTAGE READOUT | SPIKE SURGE | FILTER | DIMENSIONS | ON/OFF SEQUENCING | SHIPPING WEIGHT | UL APPVL |
|---------|---------------|-------------------|---------|--------|--------------------|----------------|---------|---------------|----------------------|--------------------|-------------|
| PD9 | 9 | 15 | 120 | - | - | X | EMI/RFI | 1 3/4 x 7 3/4 | - | 8 | X |
| PD10 | 10 | 15 | 120 | - | - | X | EMI/RFI | 1 3/4 x 7 3/4 | - | 8 | X |
| PD10V | 10 | 15 | 120 | - | - | X | EMI/RFI | 1 3/4 x 7 3/4 | - | 8 | X |
| PD11L | 11 | 15 | 120 | HI/LOW | - | X | EMI/RFI | 1 3/4 x 7 3/4 | - | 8 | X |
| PD11LV | 11 | 15 | 120 | HI/LOW | DIGITAL | X | EMI/RFI | 1 3/4 x 7 3/4 | - | 8 | X |
| PD11S | 11 | 15 | 120 | - | - | X | EMI/RFI | 1 3/4 x 7 3/4 | 5-30 Sec. | 9 | - |
| PD15LVS | 16 | 20 | 120 | HI/LOW | DIGITAL | X | EMI/RFI | 3 1/2 x 12 | 5-30 Sec. | 21 | - |
| PD320VS | 16 | 60 | 120/208 | - | DIGITAL | X | EMI/RFI | 3 1/2 x 12 | 5-30 Sec. | 21 | - |
| PD6 | 6 | 140 | 120/208 | - | - | - | - | 3 1/2 x 12 | - | 20 | - |
| PD430 | 4 | 180 | 120/208 | - | - | - | - | 3 1/2 x 12 | - | 23 | - |
| PD460 | 4 | 240 | 120/208 | - | - | - | - | 3 1/2 x 12 | - | 24 | - |
| L'O | - | - | - | HI/LOW | - | - | - | 1 3/4 x 7 3/4 | - | 7 | - |
| PD10VR | 10 | 15 | 120 | - | DIGITAL | X | EMI/RFI | 1 3/4 x 12 | - | | - |
| PD10VRS | 10 | 15 | 120 | - | DIGITAL | X | EMI/RFI | 1 3/4 x 12 | 1,5-30 Sec. | | - |

ETA LIGHTING SYSTEMS

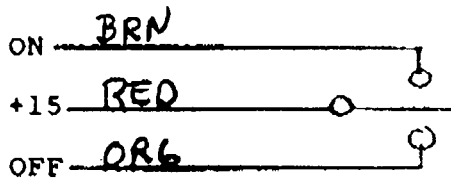
1716 Enterprise Parkway • Twinsburg, Ohio 44087
216-425-3388 • FAX 216-425-9700
A Creative Light and Sound Company



REMOTE HOOKUP

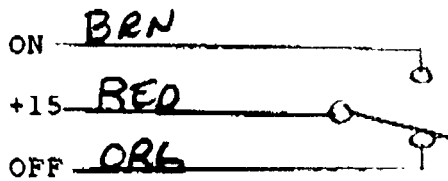
Remote control can be accomplished by three methods:

1) Momentary SPDT Switch



MOMENTARILY FLIPPING SWITCH UP OR DOWN, CAUSES UNIT TO SWITCH ON OR OFF.

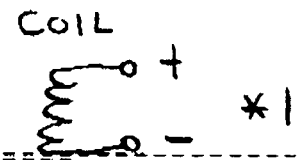
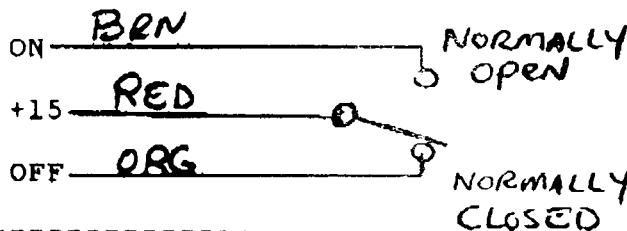
2) SPDT Switch



FLIPPING SWITCH UP SWITCHES UNIT ON.

LEAVING SWITCH AS SHOWN SWITCHES UNIT OFF.

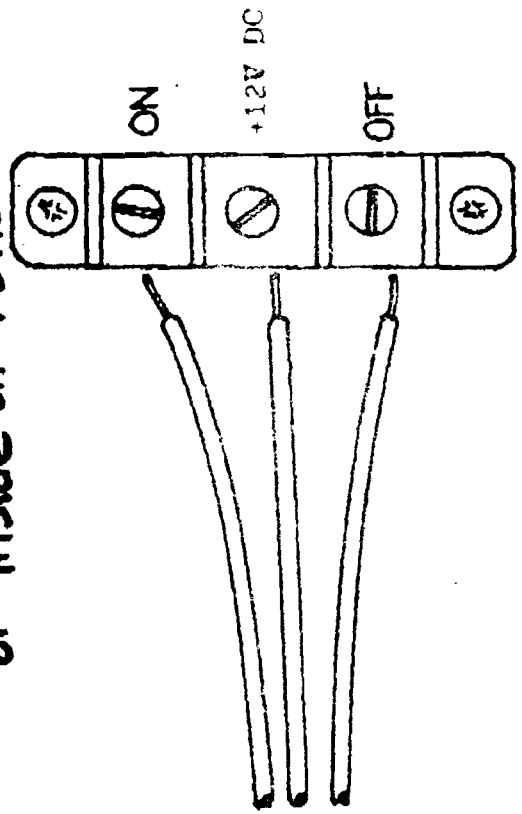
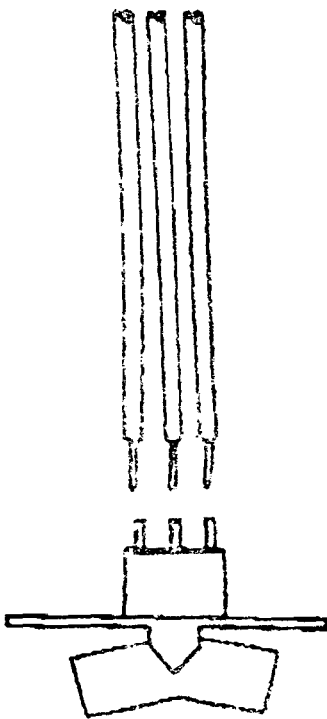
3) Relay



*1 POWER TO RELAY COIL SWITCHES UNIT ON, REMOVING POWER FROM COIL SWITCHES UNIT OFF.

TERM BLOCK ON BACK OF UNIT
or inside on - PD11s

MOMENTARY SWITCH.
ETA #. 1SW-020
NKK # M-2018-Y
SPDT 6A 125V



HOOK-UP OF REMOTE SWITCH

18 Gauge Wire would work for this remote