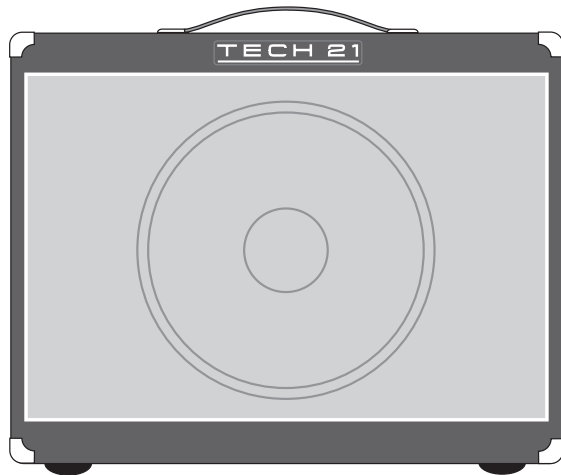
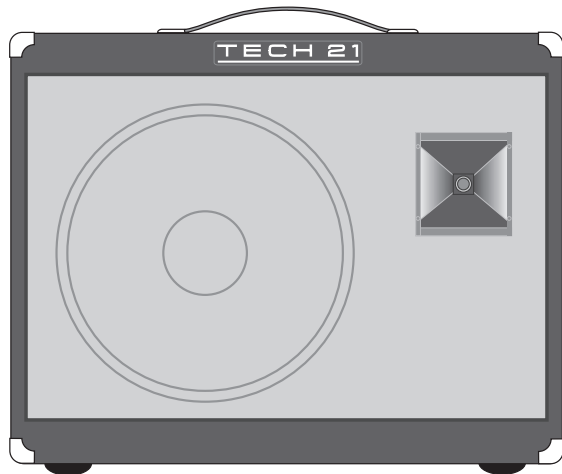


# **POWER ENGINE 60™**

## **TECH 21·NYC**



**POWER ENGINE 60**



**POWER ENGINE 60T**

**Owner's Manual**

### **WARNINGS**

- Attempting to repair this unit is not recommended and may void its warranty.
- Missing or altered serial numbers automatically void the warranty. For your own protection, be sure the serial number labels on the unit and exterior box are intact.

### **ONE-YEAR LIMITED WARRANTY**

Manufacturer warrants unit to be free from defects in materials and workmanship for a period of one (1) year from the date of purchase. This warranty does not include damage resulting from accident, misuse, abuse, alteration, or incorrect current or voltage. If unit becomes defective within warranty period, Tech 21, Inc. will elect to repair or replace it free of charge. After warranty period expires, manufacturer will repair defective unit for a fee.

### **PROOF OF PURCHASE IS REQUIRED FOR ANY REPAIR**

For residents of the U.S. and Canada, please call Tech 21's main headquarters for shipping instructions and a Return Authorization Number. Tech 21 will not accept packages without prior authorization, pre-paid freight (UPS preferred), and proper insurance.

### **FOR PERSONAL ASSISTANCE & INQUIRIES**

Contact Tech 21, Inc., weekdays from 10:00 AM to 5:00 PM, Eastern Standard Time.

### **DESIGNED AND MANUFACTURED IN THE U.S.A.**



Fill in the following information for future reference:

Model Number \_\_\_\_\_

Serial Number \_\_\_\_\_

Dealer's Name \_\_\_\_\_

Dealer's Address \_\_\_\_\_

Date of Purchase \_\_\_\_\_

## **TECH 21**

**NEW YORK CITY**

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## TECH 21, THE COMPANY

Tech 21, Inc., was formed by a guitarist possessing the unusual combination of a trained ear and electronics expertise. In 1989, B. Andrew Barta incorporated Tech 21 and made his invention commercially available to players and studios around the world. His highly-acclaimed **SansAmp™** pioneered Tube Amplifier Emulation in professional applications for recording direct and performing live, and created an entirely new category of signal processing. While there have since been many entries into this niche, SansAmp continues to maintain its reputation as the industry standard.

After developing a variety of SansAmp models, Tech 21 expanded its offerings to include effect pedals; a compact, battery operable MIDI footcontroller, the *MIDI Mouse*; as well as “traditional” style amplifiers for guitar and bass. Each product is thoughtfully and respectfully designed by B. Andrew Barta himself with the player in mind. Our goal is to provide you with flexible, versatile tools to cultivate, control, refine and redefine your own individual sound. Tech 21 takes great pride in delivering consistent professional quality sound, studio to studio, club to club, arena to arena.

## POWER ENGINE 60, AN OVERVIEW

Available in two versions, the Power Engine 60 series can easily be mistaken for basic, powered extension cabinets. At first glance, the Power Engine 60 complements our popular Trademark 60 combo amp, and the Power Engine 60T includes a high-frequency horn to go with our dual-channel Bronzewood 60 acoustic combo. Each are 1x12 open-back cabinets with 60 watts of transparent power, XLR input, 1/4" input, XLR output, and individual level control.

What is yet another new multi-functional concept from Tech 21, these handsome cabinets can also be used with **any** direct recording device or acoustic pre-amp, analog or digital, tube or solid state, in stomp box or rackmount formats, from **any** manufacturer. (We happen to be partial to SansAmp, of course, but that's just us.) So now you can take all those great direct sounds you've spent so much time creating out to a gig and simply plug into a Power Engine 60. You can amplify all your personal settings without getting any additional coloration. Just volume, no tone. Should you need to compensate for unforgiving rooms, however, we have included convenient, 3-band, active EQ controls to compensate for difficult venues.

Whether you need a powered extension cabinet for your Tech 21 amp, SansAmp or pre-amp gizmo du jour, there's no limit to how much power you can have. With its ground-independent inputs and output, Power Engine 60s can be daisy-chained from New York to Tokyo (and back!).

## IMPORTANT SAFETY INSTRUCTIONS

The Power Engine 60 is powered by potentially hazardous voltage. Therefore, observe the following safety precautions:

**WARNING:** To avoid the risk of fire, electric shock or injury, do not expose this unit to moisture. Do not remove the chassis from its cabinet, or remove metal covering from chassis parts. Removing the chassis from its cabinet exposes extremely dangerous high voltages. There are no user-serviceable parts inside. Hazardous voltages are present inside the chassis. Refer all servicing to qualified personnel.

**CAUTION:** Never modify the power cord. If the original power cord becomes damaged, refer your unit for servicing.

**WARNING:** Attempting to repair this unit is not recommended and may void its warranty. **NOTE:** In the U.S. and Canada, servicing is performed at factory only. In other countries, please refer repairs to the local Tech 21 authorized distributor.

### ADDITIONAL PRECAUTIONS:

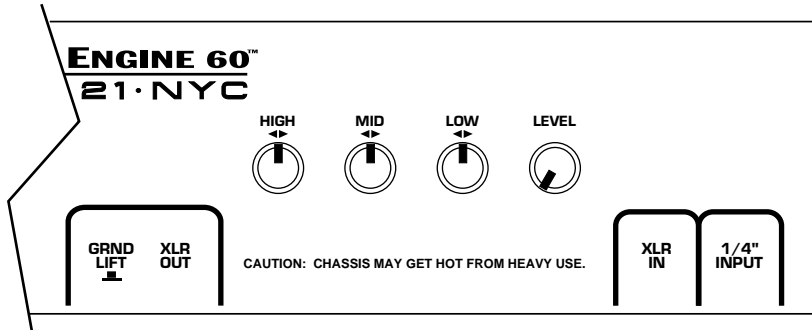
1. Do not allow liquids or objects to penetrate unit.
2. When in use, provide proper ventilation at top and back of unit.
3. During heavy use, chassis may get hot to the touch. Handle with care.
4. Protect unit from strong impact.
5. Do not locate near heat.
6. This unit must be earth grounded.

## QUICK START INSTRUCTIONS

Here's how you can get your Power Engine 60 up and running before you read the entire manual. **Note:** By not reading the manual, you'll miss out on how to get the most out of your new investment!

1. Plug your amp or pre-amp/processor output into the XLR input (preferably) or 1/4" input of the Power Engine 60.
2. Be sure your amp or pre-amp/processor is already turned on. (See "Noteworthy Notes" #1: Powering Up and Powering Down.)
3. Be sure the volume of the Power Engine 60 is turned down and then plug the AC cord of the Power Engine 60 into a wall socket and turn it on.
4. Play your guitar and you should hear a sound coming through the Power Engine 60. If not, check that all volume controls are turned up, recheck your connections, and be sure your cable isn't faulty. If there is still no sound, refer to factory or qualified technician.

## THE INS AND OUTS



### 1/4" INPUT

Accepts 1/4" output of your pre-amp/processor or amplifier. This specialized input features an isolation transformer to eliminate ground loops when using the Power Engine 60 in conjunction with an amplifier. Be aware that this transformer loads down passive guitar inputs. If you would like to plug your guitar directly into the Power Engine 60, either use an active guitar or any buffered type of effect pedal (Boss®, Ibanez®, Tech 21, etc.) in bypass mode in order to drive the low input impedance of the cabinet.

### XLR IN

Balanced XLR input accepts XLR output of your pre-amp/processor or amplifier. This specialized input is also linked to the isolation transformer to eliminate ground loops when using the Power Engine 60 in conjunction with an amplifier or chaining with additional Power Engine 60s.

**NOTE:** If you have the choice, we recommend utilizing the XLR input of the Power Engine 60. Additionally, we advise against using both inputs at the same time.

### XLR OUT

Balanced low impedance XLR parallel output is connected directly to the input, so that the signal bypasses the tone controls. For live gigs, you can use this output directly into the P.A. system so you won't need to mic the Power Engine 60.

### GROUND LIFT

Connects or disconnects the ground between the XLR output of the Power Engine 60 and the mixer. We recommend starting with the ground lifted. If necessary, connect the ground by pushing the button in.

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## TONE SECTION

The Power Engine 60 includes convenient, on-board, 3-band **active** EQ controls, which cut and boost, rather than traditional passive controls which only cut. This gives you greater control over a larger range of adjustability to compensate for virtually any situation.

**NOTE:** These tone controls only affect the power amp and speaker, not the XLR output. The signal going into the 1/4" input or XLR input passes straight through. So you can tailor your stage sound to the room without affecting the sound out of the P.A.

Additionally, be aware that you need not set everything at max to obtain maximum results. (See "Noteworthy Notes" #2: EQ.)

### LOW, MID, HIGH

Boost or cut  $\pm 12$ dB from the center point (12 o'clock).

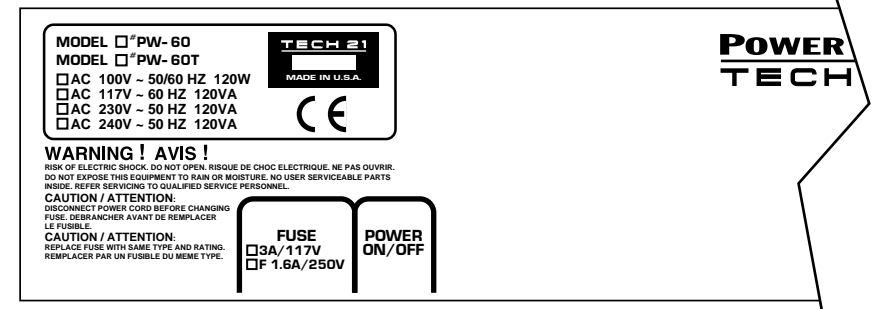
## ODDS AND ENDS

### LEVEL

Adjusts the volume level of the Power Engine 60. (Refer to "Noteworthy Notes" #3: Volume.)

### SPEAKER

Our 100-watt, 8" special design 12" speaker gives you full range response. The Power Engine 60's speaker is the same as the one in our Trademark 60 combo amp, and the Power Engine 60T's speaker and high-frequency horn are the same as those in our Bronzewood 60 acoustic combo.



### FUSE

Replace with similar type and same value: 3A/110-120V; 1.6A/220-250V.

**IMPORTANT REMINDER:** Disconnect power cord before changing fuse.

## NOTEWORTHY NOTES & CONSIDERATIONS

**1) Powering Up and Powering Down.** To avoid the typical loud pop and potential harm to the speaker and/or horn, power up in this order:

**For mono applications:**

- 1st:** Trademark 60, Bronzewood 60, or Pre-amp/processor  
**2nd:** Power Engine 60

**For stereo applications:**

- 1st:** Stereo processor  
**2nd:** Trademark 60, Bronzewood 60, or Pre-amp/processor  
**3rd:** Power Engine 60

**2) EQ.** We recommend starting with all controls flat. Then use each sparingly as needed for whatever room you're in. Remember, you need not set everything at max to obtain maximum results. It would be rare that turning all the tone controls up would accomplish a favorable sound. In most instances, a slight cut of the Mid control should be adequate.

**3) Volume.** When chaining the Power Engine 60/60T with a Trademark 60/ Bronzewood 60, be sure to set the Level control to match (approx.) the output volume of the amp. If the Power Engine 60/60T is set higher than the amp, it may cause undesirable distortion. Note: Rely on your ears. The position of the level knobs of the amp and Power Engine 60 may not necessarily be the same.

**4) Enjoy !**

## POWER ENGINE 60/60T SPECIFICATIONS

Note: With on-going product development and improvements, specifications and/or the cosmetic appearance of these units may change without prior notice.

Model Numbers:	PW60 and PW60T
Input Impedance:	10k
Nominal Input Level:	-20dBm to +4dBm
Optimal Output Load:	8
Power Output:	60W
Maximum Power Consumption:	120W
AC Input Power (factory set):	100V, 117V, 220V, 230V, 240V
Cycles:	50/60 Hz

NOTE: AC power cannot be switched.

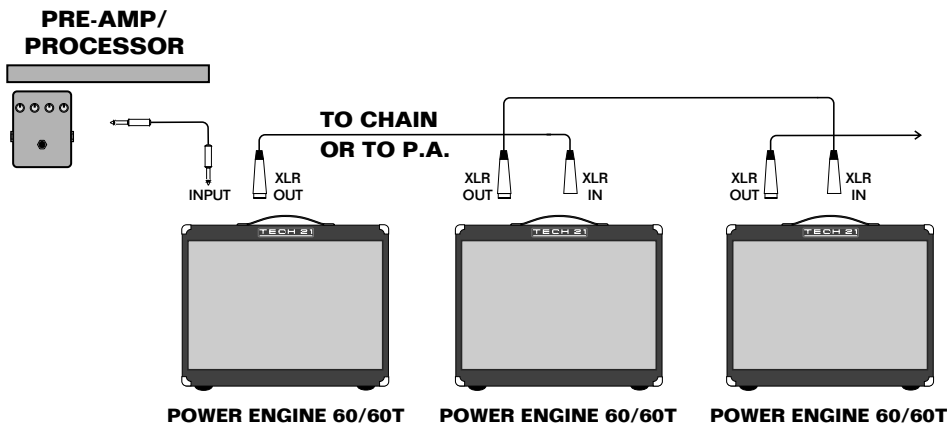
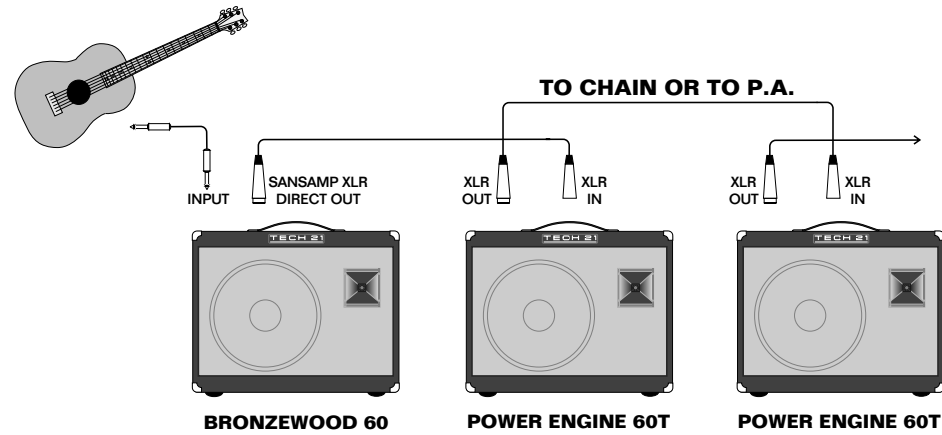
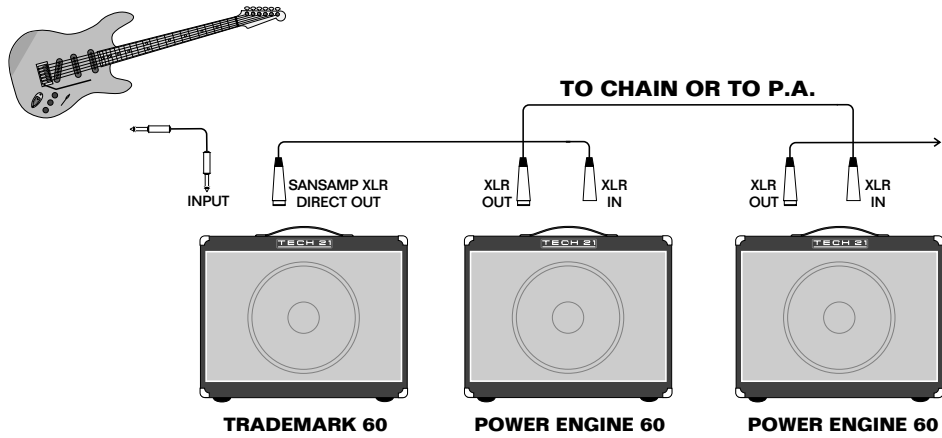
See authorized dealer/distributor for voltage modification information.

PW60 Speaker:	Model #2112-A, Special design 12" / 100W - 8
PW60T Speaker:	Model #2112-W, Special design 12" / 100W - 8
PW60T Horn:	Model #2125-H, Special design / 60W - 8
Dimensions:	20"w x 17"h x 11"d
PW 60 Weight:	33 lbs.
PW60T Weight:	35 lbs.

Optional Accessories:	•Black vinyl cover with white logo •Flight case with hammered aluminum finish, lock and casters
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Accessories and replacement parts (i.e., knobs, grill panel, speaker, horn, logo plate, handle, etc.) are available through your authorized dealer, distributor or directly from Tech 21, Inc.

## Power Engine 60 Hook-Up Diagrams (MONO)



## Power Engine 60 Hook-Up Diagrams (STEREO)

