

TUBE WORKS

6150 & 6190

12AX7 Tube Hybrid Guitar Combo



OPERATION MANUAL

FEATURES:

- FET/12AX7 Tube channels
- Tube Drive & Attack Circuitry
- Alesis® Digital Effects with 15 Presets
- 12" Celestion® Loudspeakers
- 3 Band Active EQ
- Bottom tilt-back handle design
- Effects Loop
- XLR Direct Out

The New 6150/6190 DFX Tube Hybrid Guitar Combo combines some of the modern hard-edged transistor grind with the classic rounded tone of a real 12AX7 Tube! Additionally, the new generation Alesis® 24-Bit DSP provides a variety of pleasing studio quality digital effects.

This combination along with the characteristics of the Celestion® 12" loudspeaker offers unique versatility in tone and gain structure for the discerning player.

After all ...

LIFE IS TOO SHORT FOR BAD TONE!

The 6100-DFX series of guitar amplifiers with on-board Alesis™ 24 bit digital effects was designed to fill the needs of the serious musician. Based on many years of guitar amplifier design, this family of tube hybrid amplifiers is great for both the performance stage and rehearsal studio.

INPUT – The amplifier is equipped with a standard $\frac{1}{4}$ " **input**. The input impedance is approximately 500k ohms, which provides the most musical response from most guitar pickups. This is the basis for the smoothness of the tonal response, consistency of sustain and an overall reduction of noise. Additionally, the precision input scaling preamp contains a 40 Hz, 12 dB/octave high pass filter (more effective and less intrusive than the more common 6 dB filters) and an "RFI" filter (radio frequency interference) to eliminate high frequency noise.

CLEAN CHANNEL – The 6100's clean channel is constructed using a monolithic FET amplifier for a clean, sweet non-distorted sound. The tone is natural and open, lending itself readily to any musical style. The **CLEAN GAIN** control uses "loop feedback" style circuitry for wide dynamic range and an exceptionally low noise floor. Whether playing soft or hard, the responsiveness of the clean preamp is punchy and articulate. The bottom end is solid, not muddy or overpowering.

TUBE DRIVE CHANNEL – Using a real 12AX7 dual triode preamp tube in our classic TUBE-DRIVER™ topology, we make this tube's 2 discrete gain stages do things previously considered impossible. The **TUBE GAIN** control uses "loop feedback" to control the drive level to the tube over a very wide range. This allows for settings that include clean, overdrive and over-the-top distortion that are responsive to your individual playing style. Set for clean or over-the-top, this preamp is warm, rich and full of natural harmonics. The **TUBE VOLUME** control sets the overall volume of this channel. The noise floor and microphonics of this tube circuit is exceptionally low, even at super-high gain settings.

CHANNEL SWITCH – switches between the **CLEAN** and **TUBE** channels. This function uses noiseless dual FET switches for studio quality operation. Pushing the switch "in" switches the preamp from the **CLEAN** channel to the **TUBE** channel. This function is foot-switchable from the jack located on the back panel.

BOOST SWITCH – switches additional gain into the tube channel allowing a more saturated overdrive sound. Pushing the switch "in" adds gain to the tube channel. This function is foot-switchable from the jack located on the back panel.

ATTACK SWITCH AND CONTROL – switches the attack circuit into the signal path, providing additional post-tube gain. The **ATTACK CONTROL** varies the amount of attack gain switched into the circuit. This function is foot-switchable from the jack located on the back panel.

CHANNEL DRIVE and CHANNEL SWITCH FOOTSWITCH – This tip-ring-sleeve jack will accept any 2-button push-on, push-off style footswitch (footswitch not included) which duplicates the front panel "BOOST" and "CHANNEL SWITCH" switching functions via a standard $\frac{1}{4}$ " (tip-ring-sleeve) jack. Any switch providing a sustained contact closure may be used. TIP=BOOST, RING=CHANNEL SWITCH.

EFFECTS CANCEL and ATTACK FOOTSWITCH – This tip-ring-sleeve jack will accept any 2-button push-on, push-off style footswitch (footswitch not included) which duplicates the front panel "EFFECTS CANCEL" and "ATTACK" switching functions via a standard $\frac{1}{4}$ " (tip-ring-sleeve) jack. Any switch providing a sustained contact closure may be used. TIP=EFFECTS CANCEL, RING=ATTACK.

MASTER 3 BAND EQUALIZATION – The EQ section is a wide range 3-band active equalization network. A "flat" setting is obtained with the controls at the 12 o'clock positions. Using classic Baxandall circuitry and an amplifier gain stage, this equalization network yields much tighter control over tonal character.

ALESIS™ 24 BIT DIGITAL EFFECTS – All 6100 series amplifiers are equipped with a genuine 24 bit Alesis™ 15 program digital effects processor. Unlike other manufacturer's built-in digital effects units, we chose to use an industry leader in processing with an undisputed reputation for realistic, high quality effects algorithms. Level differences are normal when switching between different effects, adjust the "effects master" level accordingly. A $\frac{1}{4}$ " effects cancel jack (see above) is provided on the back panel to mute internal effects via footswitch. Signal is muted when the switch is closed. The effect program labeled "bypass" is reserved for use on amplifier modes with programmable preset switching and stereo processing and does not produce an effect on the 6150 and 6190 models in the 6100 series. Effects include: 3– Plate Reverbs, 3– Room Reverbs, 2– Hall Reverbs, 1– Rotary Speaker, 1– Chorus/Room, 1– Chorus/Plate, 1– Chorus, 1– Flange, 2– Delays and 1– Bypass.

MASTER VOLUME – Adjusts the post-effects overall volume of the amplifier before the power amp. It functions pretty much as you would expect!

POWER SWITCH – Turns the AC mains power on and off, indicated by green LED above switch.

EFFECTS SEND/RECEIVE JACKS – The ¼” send jack provides a nominal –10dB output signal to drive any common effects processor with “wet/dry mix control”. This jack is configured as an “insert” jack and interrupts the signal between the preamp and the power amp. The send jack can also be used as an unbalanced line level output. The ¼” return jack is used to return the processed signal back into the amplifier. This jack contains a switch that automatically opens the return jack signal loop when processing is used. The “mix” control on the effects device is now used to set the balance between the “wet” (processed only) and the “dry” (unprocessed) signals.

HEADPHONE OUTPUT– Used to connect standard headphones (8 – 600 ohm). A speaker switch on the back panel shuts off the speaker on all models, allowing private practice or studio work with a minimum of fuss and bother, not to mention noise! This output is short circuit protected.

XLR BALANCED DIRECT OUTPUT– This frequency compensated output is used to connect the amplifier to any standard balanced PA system mixer input. The level is nominal –30dBv (hot mic level) for maximum flexibility. The ground lift switch opens pin 1 to eliminate ground loops between the amplifier and the PA system. Select the position with minimum hum. This output is protected against phantom power present on the mic input from the mixer console.

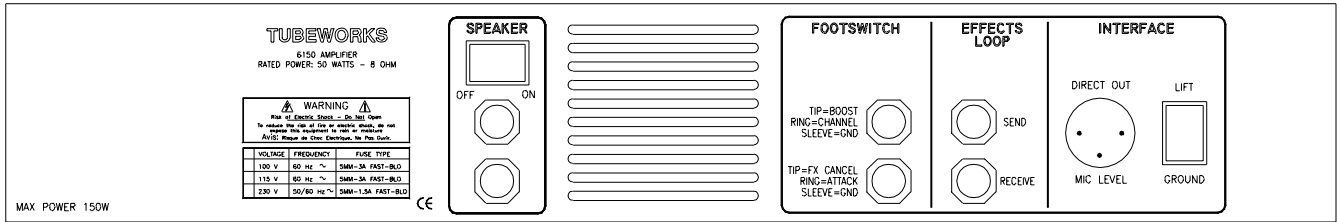
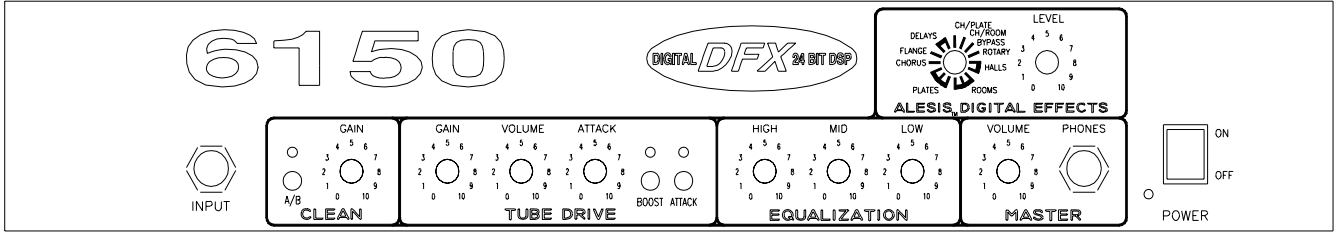
POWER AMPLIFIER – The 6100 series uses an integrated power operational amplifier to drive the load. This fully monolithic design features complete short circuit and thermal protection built right into the silicon die for high reliability under adverse conditions.

SPEAKER AND CABINET – The 6100 family uses Celestion™ speakers, perfectly matched to the closed back style cabinets. A bottom mounted tilt-back handle is provided so the amp can point up towards the performer. Finished in a textured vinyl finish, the cabinet sports a clean, no nonsense look that shows that it is a serious music-making machine.

POWER INLET – A removable IEC style power inlet cordset is used to connect the AC mains power to the amplifier. Various voltages and cordsets are available, depending on the destination country. An internal (non-user replaceable) protection fuse is provided on the main circuit board. The Mains (line) voltage is nominal 115 volts or 230 volts AC (depending on destination country), +/- 10%. The amplifier will operate on either 50 or 60 Hz.

WARRANTY:

- Genz Benz Enclosures, Inc. warrants the model 6150 & 6190 to be free from defects in materials and workmanship for a period of 3 years from the date of purchase, when purchased from an authorized Genz Benz dealer.
- This warranty does not cover normal wear and tear incurred from the normally designed use of the product.
- This warranty is effective only if a copy of the original sales receipt is presented at the time of warranty service
- This limited warranty is completely transferable to any subsequent buyer as long as the original sales receipt is also transferred to such subsequent buyer.
- All warranty service must be performed by a Genz Benz authorized service center.
- Before returning any unit for service, a returned merchandise authorization number (RMA#) must be obtained by calling 480-941-0705.



WARNING!!! THERE ARE NO USER SERVICABLE PARTS INSIDE THIS UNIT. ALWAYS CONSULT A QUALIFIED SERVICE AGENT FOR SERVICE. The use and operation of this device constitutes and agreement of full release of any and all liability connected with its use. In addition, by the use of this device, user agrees to hold both GENZ BENZ ENCLOSURES, INC. and it's designer, sales agents and all other affiliates and related parties harmless in the event of any accident, injury, damage or loss resulting from such use.

TUBEWORKS

A division of Genz Benz Enclosures

7811 E. Pierce St. Scottsdale, AZ 85257 480-941-0705 FAX 480-946-2412