



musician



owner's manual

Your new musician amplifier is the result of the most comprehensive and thorough research program ever attempted by PEAHEY ELECTRONICS. Many new circuits were developed for this unit which represent the state of the art in musical instrument amplification. The musician employs our recently developed 210 watt RMS power module, which combines the brute power of eight high energy power devices on a massive heatsink providing both power and durability. The preamplifier of the musician contains every needed control feature to produce unlimited tonal variation as well as a full complement of special effects. The new distortion feature allows the preamp to overload in the same manner as a tube type amplifier. This allows the creation of the "tube" sound in a completely controlled manner.

In addition to distortion, a conventional fuzz circuit has been included which provides an extremely long sustain and smooth response. Tremolo and reverb are standard on the Musician. The six channel equalizer is provided to give the Musician complete control over the entire tonal spectrum by allowing incremental control to duplicate the sound of any amplifier as well as create his own distinctive sound. As with any complex system, your Musician must be adjusted properly to achieve the desired sound. Please read the explanation of each control and become familiar with the effect and capability of each function.

1. The input jacks are arranged in a unique circuit that allows a wide range of input levels to be handled by the Musician. Input "1" is the high gain input and should normally be used when plugging in your instrument. Input "2" is the low gain input and should be used if the signal from your instrument tends to overload (distort) the preamp. If two instruments are used and both jacks "1" and "2" are used, the circuit automatically balances the gain of the two inputs so that the sensitivity of both are identical.

2. The volume control sets the gain of the input preamp, thereby controlling the SENSITIVITY of the preamp, not the POWER of the amp. It is entirely possible for the amp to be driven to full power output on very low volume settings if the signal from your instrument is extremely high. Please remember that the volume control does **NOT** indicate power output but the **GAIN** of the preamp.

3. The exclusive distortion control allows the Musician to duplicate the natural distortion of an overdriven tube amp at all volume levels. The distortion control blends harmonics into the signal which match the harmonic content of a tube being overdriven. By adjusting the settings of the distortion control, varying degrees of harmonic distortion can be introduced into the output. Interesting effects can be obtained by using the equalizer to tailor the response of the preamp to the harmonics generated by the distortion circuits. Additional effects are possible when the fuzz circuit is used in conjunction with distortion. The two entirely different effects produced by the two circuits blend into each other to produce fantastic harmonics that can be tailored in any imaginable combination by the equalizer circuits. Experimentation will prove the versatility of this feature. The distortion may be cut off with the remote footswitch.

4. The fuzz control enables the Musician to introduce the classic fuzz type distortion into the output. The level and sustain of the fuzz effect are variable by setting the fuzz control. Because of our new squelch, the extremely high hiss levels usually associated with fuzz units is absent from this new and exclusive circuit. We have tailored the harmonic and fundamental content of this fuzz to be full sounding with an extremely long sustain while our squelch almost completely eliminates the annoying tendency of some

fuzz circuits to feed back uncontrollably. The equalizer is able to modify the tonal emphasis of the various harmonics of the fuzz to duplicate the sound of any fuzz effect. Experimentation will be necessary to fully utilize the capability of this effect. The fuzz is controllable from the remote footswitch.

5. The reverb control determines the amount of delayed signal (reverb) blended into the output. The reverb circuit of the Musician features a full complimentary amplifier and is able to produce tremendous sustain and clarity by properly damping the driver coils of the reverb unit. The reverb effect is controllable from the remote footswitch.

6. The depth control is used to vary the amount of amplitude modulation (tremolo) of the output signal. The operation of this control is conventional and should present no problem in adjusting for the desired effect.

7. The rate control determines the speed with which the signal is modulated. This control varies the speed of the tremolo master oscillator and should provide any speed desired for modern music. The tremolo feature is controllable from the remote footswitch.

8. The six channel equalizer circuit is a new type of electronic crossover that divides the musical instrument sound spectrum into six distinct segments, with each control allowing precise control over its particular band of frequencies. Each of the six frequencies bands may be boosted or cut 12 DB for a total 24 DB range. By varying the mix of the various filters, the response characteristics of any amplifier can be duplicated as well as allowing new and different combinations to be created. Each equalizer control should be regarded as a level control for its particular frequency band. The overall loudness is a function of the setting of these controls. By using this equalization circuit with the distortion and/or fuzz effects, any desired harmonic structure can be created. With the fuzz and/or distortion in operation, it has been found that overboosting the high frequencies tend to emphasize the odd order harmonics and give a more harsh sound. Much smoother effects can be produced by using less top end and more middles and lows. The amp should never be operated with all the filters in the extreme cut position. Experimentation will illustrate the fantastic versatility and range of the equalizer circuit.

9. The middle control gives the musician control over the all-important middle frequency range.

10. The treble control is part of an electronic crossover and may be considered as a level control for treble frequencies. These variable feedback type tone controls are capable of providing a cut as well as a boost. Because the treble control is a volume control for treble frequencies, it is good practice to operate it close to fully clockwise for maximum benefit and volume. Experimentation will allow the musician to find the level that works best for his preference in tone.

11. The bass control is also part of an electronic crossover that forms the tone circuit and works as a level for the bass frequencies. The bass control provides for both a boost and a cut in bass response. Like the treble control, the bass should be run near its full clockwise position for maximum volume from the amp.

12. Pilot light indicates when power is applied to the unit.

13. The booster jack provides an output signal for driving additional booster power amplifiers. This is **NOT A SPEAKER OUTPUT**. This output is a low level signal of approximately one volt. Any booster amplifier can be used as long as its input will accept a one volt RMS signal and has input impedance of at least 10,000 ohms.

14. The remote switch should be plugged into the three connector "DIN" plug located on the front panel. Care should be taken to properly mate the connectors of the foot switch plug with the respective socket holes.

15. The fuse is located within the cap of the fuse holder and should be replaced with one of the proper value if it should fail. It is necessary that the proper value fuse be used to avoid damage to the equipment and to avoid voiding the warranty. Models that have circuit breakers can be reset by depressing the red button. If the breaker trips repeatedly, take the unit to a qualified service center for inspection.

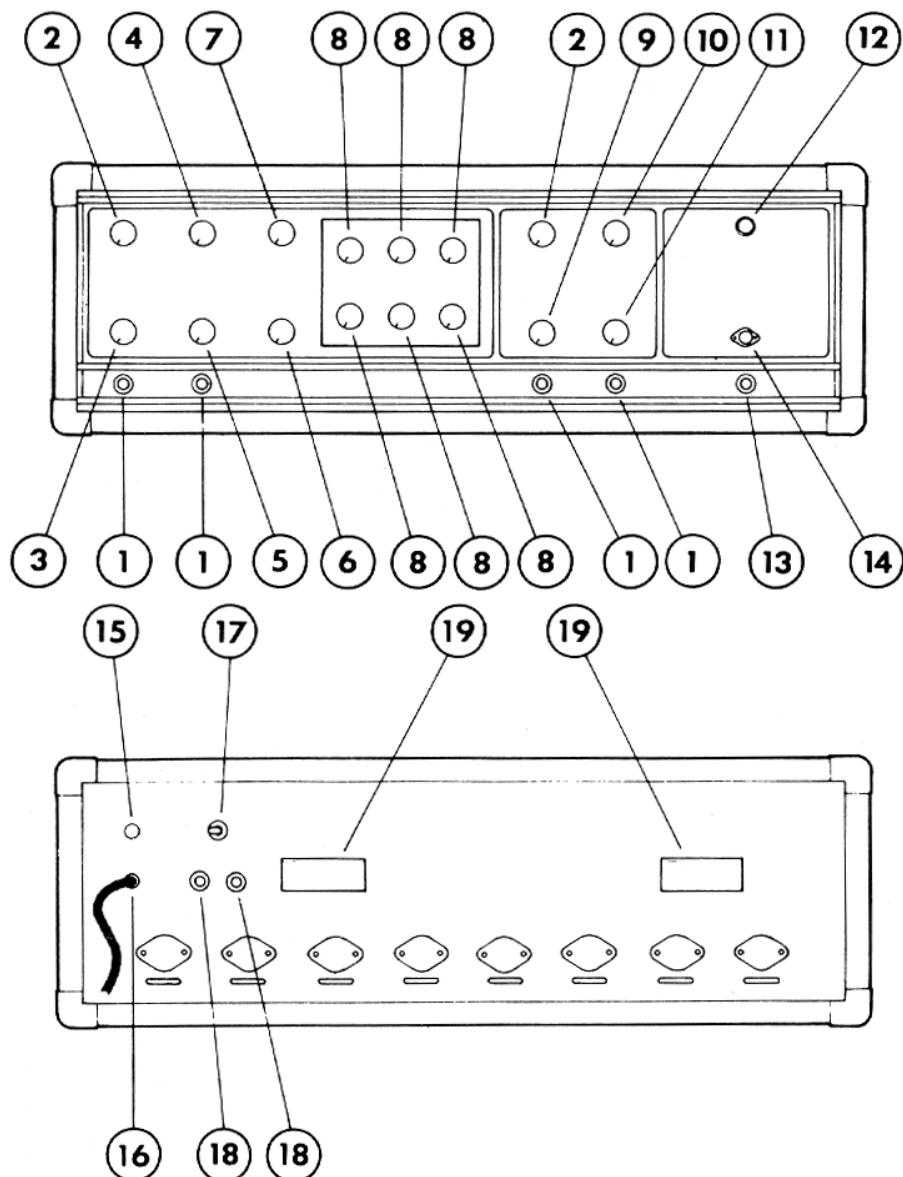
16. The three wire line cord has been provided for your protection and should be connected to the proper line voltage as indicated on the back panel. **DO NO REMOVE GROUND PIN ON PLUG.**

17. The line power switch is of the three position type with the center position being off. The three position switch has two on positions which are used to ground the amplifier properly. One of the on positions will yield the least hum or popping when the instrument is touched and this is the position that should be used.

18. The speaker output jacks are designed to be used with a total load of two ohms. Speaker systems of higher

impedance can be used with a slight loss in output power. Speaker systems with less than a total of two ohms cannot be used without overloading the power amplifier. Much less power will be delivered to lower impedances because of the unique limiting action of our integral protection system. The power amplifier is built on a large aluminum heatsink to cool the output devices. A thermostat is connected to this heatsink to shut the system down in case of overheating. Low speaker impedances tend to cause the amp to run hotter than normal, and could cause the automatic cutoff to operate if the output stage becomes hot enough to endanger the output devices. The thermostat is self re-setting and normal operation will be restored when the unit reaches safe operating temperatures. If thermal shutdown is apparent then you are overloading the system and continued use in this manner will damage the system. **Never use less than a 2 ohm total load on the 400 module.** The output voltage available from this unit is approximately 20 VRMS into 2 ohms with proper line voltage.

19. The large line cord retainers on the rear panel are provided for your convenience in storing the AC line cord during transport of the unit.



PEAVEY ELECTRONICS TECHNICAL SPECIFICATIONS
MODEL: MUSICIAN

I. POWER AMPLIFIER SECTION:

400 MODULE

A. Output Power @ 1 KHZ @ 117 VAC Line:

1. Rated Power: 200 W RMS @ Rated Load: 2 OHMS
2. Power vs. Distortion:

LOAD IMPEDANCE	8	4	2	1	OHMS
OUTPUT @ 1% THD	80	140	210	140	W
OUTPUT @ 5% THD	95	160	240	180	W

- B. Peak Output @ Rated Load: 14 AMPS & 28 VOLTS, 400 WATTS
- C. Music Power Output @ Rated Load: 290 WATTS RMS @ 1% THD
- D. Frequency Response: 3 DB Down @ 40 HZ & 15 KHZ
- E. Sensitivity @ Rated Power & Load: 700 mV
- F. Input Impedance: 10 K OHMS

II. PRE-AMPLIFIER SECTION:

A. Input Characteristics: (Tone Controls Flat, Volume @ 12:00)

1. Sensitivity: 20 mV @ 1 KHZ
2. Input Impedance: 330 K OHMS
3. Noise: 60 DB (Open Ckt.), 66 DB (50 K OHMS,) 70 DB (Short Ckt.)*
- B. Distortion @ 1 KHZ @ Rated Output: Less Than 0.2% THD**
- C. Frequency Response: 3 DB Down @ 50 HZ & 25 KHZ
- D. Tone Controls: ± 20 DB @ 50 HZ & 5 KHZ***
- E. Middle Control: 20 DB Cut***
- F. 6 Channel Equalizer: ± 14 DB Each Channel
- G. Reverb Control: Continuously Variable With Foot-switch Cut-off
- H. Distortion Control: Variable Harmonic Distortion with Foot-switch Cut-off
- I. Fuzz Control: Adjustable Fuzz Effect with Foot-switch Cut-off
- J. Tremolo Controls: Variable depth & Rate with Foot-switch Cut-off
- K. Booster Output Level: 1.0 VRMS into 10 K OHMS

*Signal-to-noise ratio in DB below rated output

**Measured with Distortion, Reverb, Fuzz & Tremolo Cut-off (Full CCW)

***Clear Channel

Specifications and schematics published in this manual are subject to change without notice



PEAVEY ELECTRONICS CORP.

611 - 10TH AVENUE / P. O. BOX 2898 / MERIDIAN, MISS. 39301 / PHONE (601) 483-5365