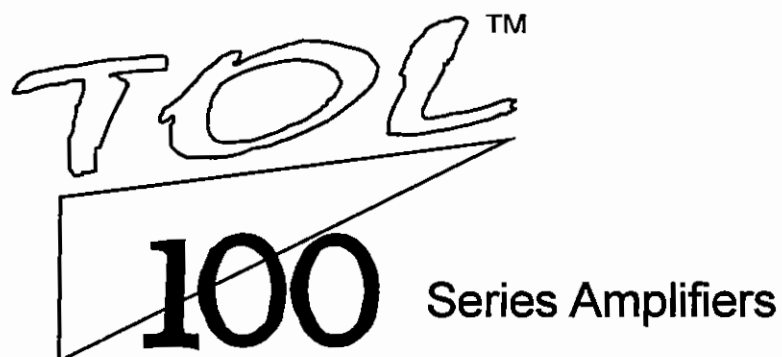




U S E R ' S M A N U A L



ROCKTRON
C O R P O R A T I O N



Your Rocktron EGNATER TOL-series amplifier has been tested and complies with the following Standards and Directives as set forth by the European Union:

Council Directive(s): 89/336/EEC, 73/23/EEC

Standard(s): EN55013, EN50082-1, EN60065

This means that this product has been designed to meet stringent guidelines on how much RF energy it can emit, and that it should be immune from other sources of interference when properly used. Improper use of this equipment could result in increased RF emissions, which may or may not interfere with other electronic products.

To insure against this possibility, always use good shielded cables for all audio input connections. This will help insure compliance with the Directive(s).

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Forward

Congratulations on your purchase of the EGNATER TOL100 by Rocktron.

This is a very exciting time for both myself and Rocktron. Rocktron has gained a reputation for more than 15 years for being on the cutting edge of guitar processor technology and producing some of the most innovative products in the industry. I'm flattered to say that Egnater Amplification has been producing what have been reputed to be some of the finest sounding tube guitar amplifiers in the world.

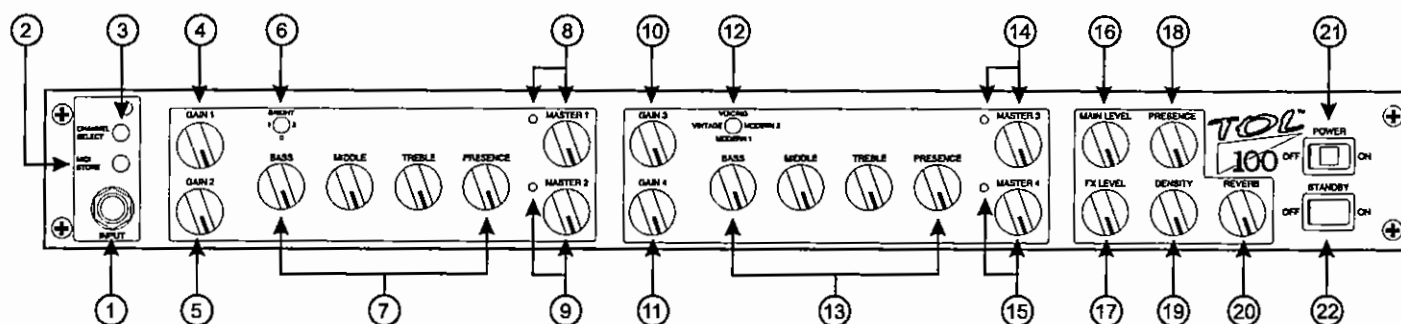
This collaboration between Rocktron and Egnater will open doors for new ideas, new technologies and new products that I hope will earn their place in the "Guitar Amp Hall of Fame" (if it existed). The TOL100 is the first Egnater by Rocktron product to be designed and produced at the Rocktron factory, and I, for one, am very pleased with the results. I trust you are also. Thanks for putting your trust in us—I promise we won't let you down!

Sincerely,

A handwritten signature in black ink, appearing to read 'Bruce Egnater', with a long horizontal flourish extending to the right.

Bruce Egnater

Top Panel



- ① **INPUT jack**
This 1/4" jack accepts the output from the guitar.
- ② **MIDI STORE switch**
This pushbutton switch is used to store a selected preset. See the MIDI section on page 8 for additional details.
- ③ **CHANNEL SELECT switch**
Selects one of the four channels as desired.

Channels 1 and 2

- ④ **GAIN 1 control**
Adjusts the amount of drive for Channel 1. Higher settings increase distortion and sustain. This is the clean, big-headroom American channel.
- ⑤ **GAIN 2 control**
Adjusts the amount of drive for Channel 2. Higher settings increase distortion and sustain. Texas blues - Fullerton heaven.
- ⑥ **BRIGHT switch**
This 3-position toggle switch is off in the center position, bright to the left and brighter to the right.
- ⑦ **BASS, MID, TREBLE and PRESENCE controls**
This is where *you* decide the personality. The BASS, MID and TREBLE controls are your classic bridge-T configuration (found in most of the popular guitar amps throughout history). The PRESENCE control allows you to tailor the high frequency response to suit your taste. Experiment...try new things. There are many great tones at your fingertips!
- ⑧ **MASTER 1 control and channel on LED**
Adjusts the overall volume of Channel 1 only.
- ⑨ **MASTER 2 control and channel on LED**
Adjusts the overall volume of Channel 2 only.

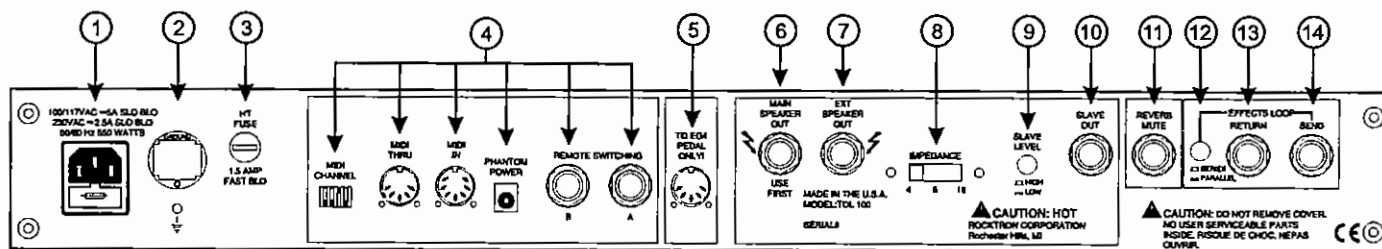
Channels 3 and 4

- ⑩ **GAIN 3 control**
Adjusts the amount of drive for Channel 3. Higher settings increase distortion and sustain. British grind to EVH one.
- ⑪ **GAIN 4 control**
Adjusts the amount of drive for Channel 4. Higher settings increase distortion and sustain. The "hot rod" version of Channel 3.
- ⑫ **VOICING switch**
Select VINTAGE, MODERN 1 or MODERN 2 voicings. This switch affects both Channel 3 and Channel 4.
- ⑬ **BASS, MID, TREBLE and PRESENCE controls**
The BASS, MID and TREBLE controls are your classic British bridge-T configuration (found in most of the popular guitar amps throughout history). The PRESENCE control allows you to tailor the high frequency response to suit your taste. Experiment...try new things. There are many great tones at your fingertips!
- ⑭ **MASTER 3 control and channel on LED**
Adjusts the overall volume of Channel 3 only.
- ⑮ **MASTER 4 control and channel on LED**
Adjusts the overall volume of Channel 4 only.

Master Section

- ⑯ **MAIN LEVEL control**
This is a master level control which determines the overall output level of the TOL100.
- ⑰ **FX LEVEL control**
This is a dual-purpose control. With the loop in SERIES mode, this control becomes an overall master volume. When the effects loop is in PARALLEL mode, this control becomes an "effects only" return (or mix).
- ⑱ **PRESENCE control**
This is a master PRESENCE control which tailors the overall high frequency at the outputs of the TOL100.
- ⑲ **DENSITY control**
This is a master DENSITY control which determines the overall fatness at the outputs of the TOL100.
- ⑳ **REVERB control**
Adjusts the amount of spring reverb.
- ㉑ **POWER switch**
This is the MAINS AC power switch. When powering up the TOL100, verify that the STANDBY switch (19) is in the OFF position.
- ㉒ **STANDBY switch**
After powering up the TOL100, allow one minute to allow the circuits to stabilize then switch to the ON position.

Rear Panel



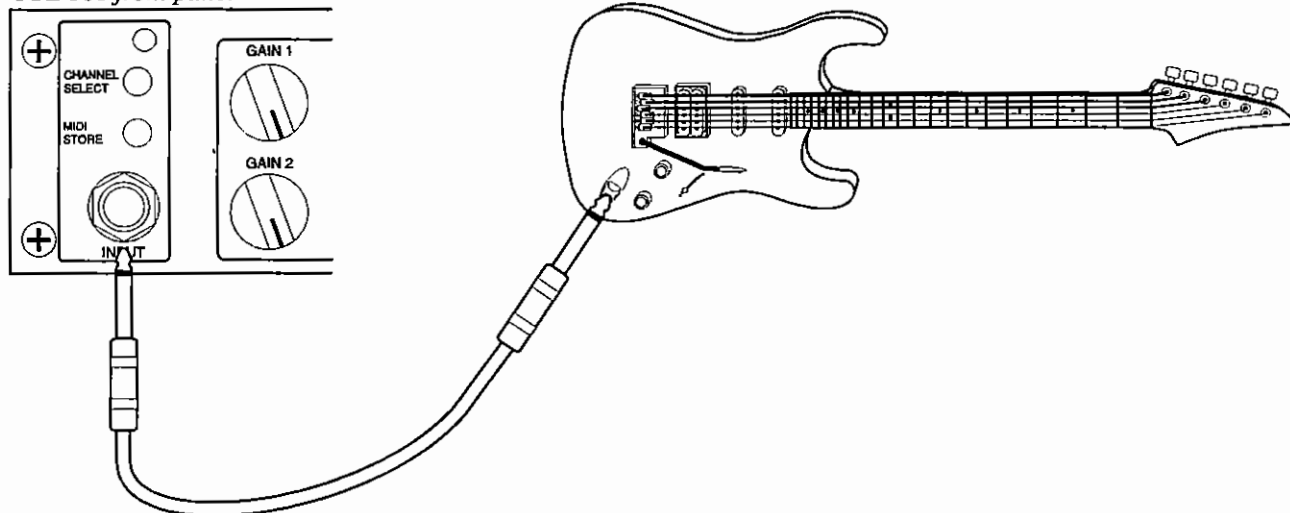
- 1 POWER INLET module**
The Power Inlet module accepts the detachable power cord included with the unit, and also houses the main power fuse. (Always replace with the Slo-Blo fuse indicated on the rear panel.)
- 2 GROUND POLARITY switch**
This 3-position rocker switch electrically references the chassis to the correct line phase in the instance where the AC wall outlet may not be properly grounded. Set the switch to the position that provides the least amount of hum.
- 3 HT FUSE**
This fuse provides internal protection in the event of a power tube failure. Always replace with the same type and rating.
- 4 MIDI/SWITCHING section**
See page 8 for a detailed operation of the MIDI and channel-switching functions.
- 5 TO EG4 PEDAL jack**
This jack is exclusively for use with the EG4 pedal, allowing instant access to any of the four channels.
- 6 MAIN SPEAKER output**
This jack connects to the internal speaker on the COMBO versions of the TOL100 or to the primary speaker in a head/cabinet setup. A speaker must always be connected to this jack.
- 7 EXTENSION SPEAKER output**
This jack is used to connect additional speakers to the combo or when multiple cabinets are used with the head version of the TOL100.
- 8 IMPEDANCE switch**
This switch selects the proper impedance to match the output of the amplifier to the load. (See the impedance chart on page 12).

-
- ⑨ **SLAVE LEVEL switch**
Determines the reference level of the SLAVE OUT jack. Set this switch out for 0dB or in for -15dB operation.
- ⑩ **SLAVE OUT jack**
This 1/4" mono jack provides a FULL RANGE direct output after the power amplifier stage. It is intended to be used as an output to feed an external effects system or to an additional powered speaker system. It is not a RECORDING output.
- ⑪ **REVERB MUTE jack**
Use this 1/4" jack for remote on/off control of the internal reverb. Any push on/push off switch with a shielded cable will work.
- ⑫ **SERIES/PARALLEL switch**
This switch selects the MODE of operation for the effects loop. Refer to the section titled "*Effects Loop Operation*" for more information.
- ⑬ **EFFECTS RETURN jack**
This 1/4" jack connects to the OUTPUT of an effects device.
- ⑭ **EFFECTS SEND jack**
This 1/4" jack connects to the INPUT of an effects device. Inserting a plug into this jack automatically activates the effects loop circuit and the front panel effects loop controls.

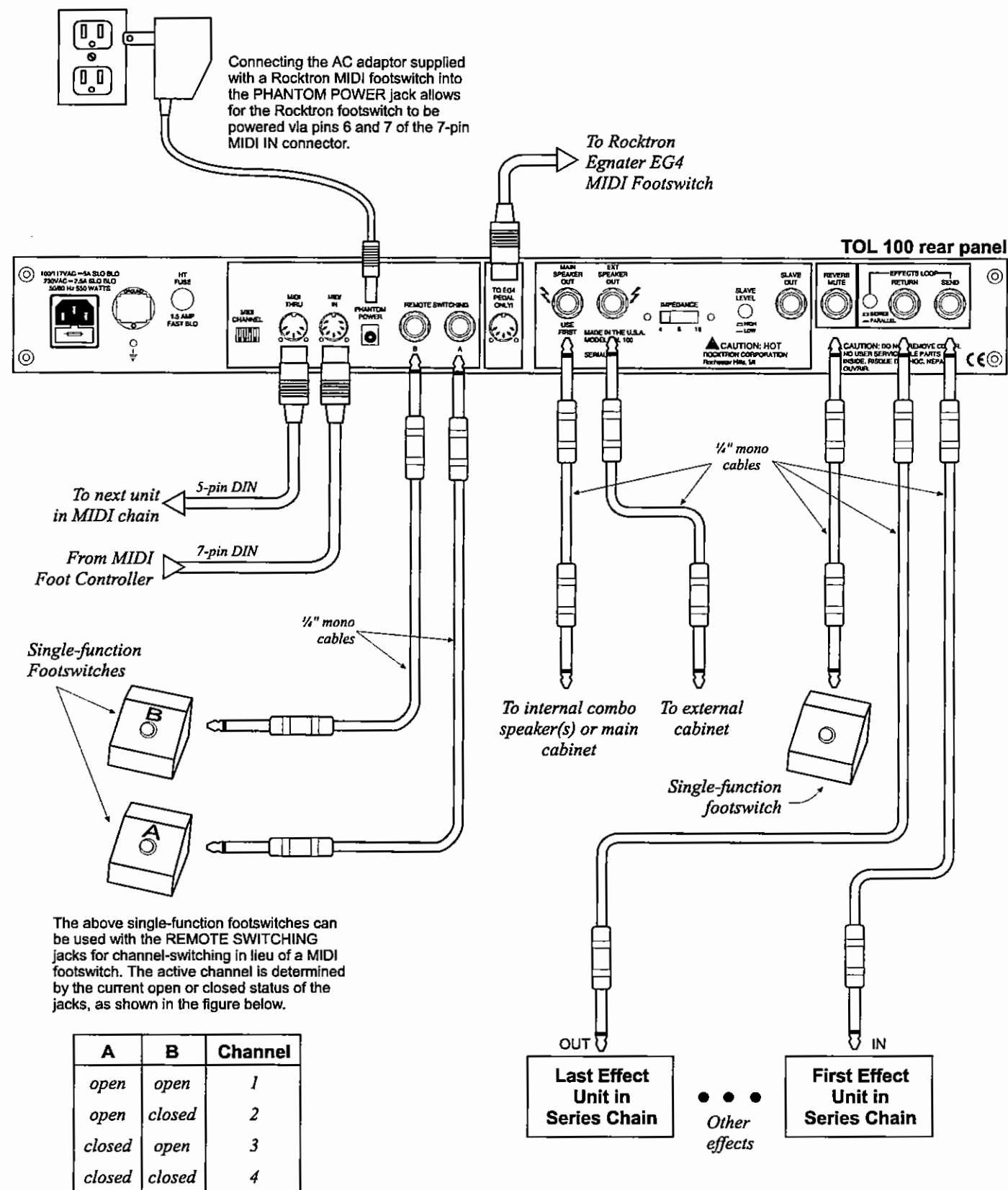
Connections

Top/Front Panel Connections...

TOL 100 front panel

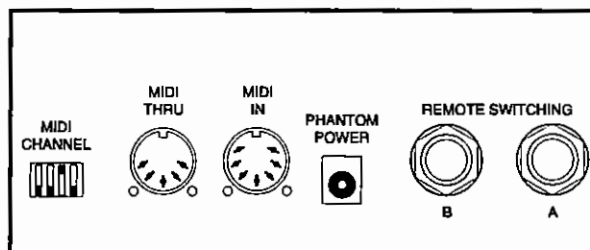


Rear Panel Connections...



MIDI/Switching Section

This section describes the rear panel components (shown below) which relate to MIDI and channel switching options.



TOL100 rear panel MIDI/Channel switching section

MIDI Primer

Program Changes

The TOL100 provides numerous options for switching channels. One of the ways that you can switch channels on the TOL100 is via *MIDI program changes*. A MIDI Program Change is a message sent by a MIDI controller or sequencer which tells your TOL100 to switch to a specific channel.

MIDI Channels

















When a program change is sent from a MIDI footpedal, it can be sent on any one of 16 *MIDI channels*. MIDI channels are like television channels. The TOL100 can be set to receive MIDI messages on any one specific MIDI channel, ignoring messages sent on any other channels. In addition, a special mode called *OMNI* allows for the TOL100 to respond to all incoming MIDI information, regardless of the MIDI channel that it is sent on.

In order for your preamp to switch via MIDI, you must be sure that your MIDI pedal and the TOL100 are communicating on the same MIDI channel.

Setting the TOL100's MIDI Receive Channel



- 1 Decide which MIDI channel you want (or choose OMNI for all channels).
- 2 Refer to the chart on the following page for proper rear panel DIP switch setting.
- 3 After setting the proper DIP switch combination, turn the power off and then on again.
- 4 The MIDI channel is now stored.

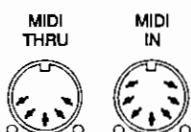
 MIDI CHANNEL 1	 MIDI CHANNEL 2	 MIDI CHANNEL 3	 MIDI CHANNEL 4
 MIDI CHANNEL 5	 MIDI CHANNEL 6	 MIDI CHANNEL 7	 MIDI CHANNEL 8
 MIDI CHANNEL 9	 MIDI CHANNEL 10	 MIDI CHANNEL 11	 MIDI CHANNEL 12
 MIDI CHANNEL 13	 MIDI CHANNEL 14	 MIDI CHANNEL 15	 ALL MIDI CHANNELS OMNI

MIDI channel chart for rear panel MIDI channel selector

Making a Preset

- 1 Select the patch number on your MIDI controller.
- 2 Using the CHANNEL SELECT button, select which channel on the TOL100 is to be recalled each time the above patch number is received.
- 3 Press and hold the MIDI STORE button until all the lights flash.

Your selection is now stored. Repeat the procedure for other presets.



MIDI In and MIDI Thru Jacks

MIDI IN

This 7-pin DIN connector receives MIDI information from the device which is transmitting the MIDI commands for the TOL100 to execute.

MIDI THRU

This standard 5-pin DIN connector passes on the MIDI information that is received at the MIDI IN jack to other MIDI-compatible devices via a MIDI cable.

Note: Inherently in MIDI there is a limit to the number of devices which can be chained together (i.e. connected in series). With more than three devices connected, a slight distortion of the MIDI signal can occur (due to signal degradation) which can cause an error in MIDI signal transmission. Should this problem arise, a MIDI box can be used which connects directly to the MIDI device which transmits MIDI information and has multiple connectors for the multiple devices receiving MIDI. MIDI cables should not exceed 50 feet (15 meters) in length.

PHANTOM
POWER

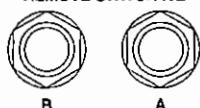


Phantom Power Jack

This jack provides the ability to power the Rocktron MIDI Mate™ foot controller from a seven pin MIDI cable which connects from the MIDI Mate to the MIDI IN jack on the rear panel of the TOL 100, thus eliminating the need to find an AC outlet near where the footpedal would be placed during a performance—or the need to run an extension cord out to the MIDI Mate.

Instead of inserting the adaptor into the MIDI Mate POWER jack, plug it into the PHANTOM POWER jack on the TOL 100. This will power the MIDI Mate through pins 6 and 7 of the MIDI cable connecting the two units. A 7-pin MIDI cable must be used for this feature and is available through your Rocktron dealer.

REMOTE SWITCHING



Remote Switching Jacks

These jacks can be used independently or in conjunction with MIDI and the EG4 pedal for instant access to any channel.






- 1 Insert cables into the A & B jacks. Shielded cable is not required.
- 2 Connect the cables to an external latching switching device (i.e. switching system).
- 3 You will now be able to access all channels with the combination of open and closed

A	B	Channel
<i>open</i>	<i>open</i>	<i>1</i>
<i>open</i>	<i>closed</i>	<i>2</i>
<i>closed</i>	<i>open</i>	<i>3</i>
<i>closed</i>	<i>closed</i>	<i>4</i>




The active channel is determined by the current open or closed status of the jacks, as shown in the figure above.

Operating Precautions

Please note the following precautions before operating your TOL100:

-  Always use the MAIN SPKR jack first for the speaker connection.
-  Do not operate below 4 ohms.
-  Never operate the TOL100 without a load on the output.
-  Always be certain to use speakers or speaker cabinets capable of withstanding the power that the TOL100 is capable of providing. Rocktron is not responsible for speaker failure resulting from the use of this equipment.
-  Always plug and unplug speaker outputs with the power amplifier OFF.


Temperature Considerations:

-  Note that the power tubes at the rear of the TOL100 generate considerable heat when operating the amplifier. **DO NOT TOUCH THESE TUBES DURING (OR SOON AFTER) OPERATION! Failure to heed this warning may result in severe burns!**
-  Always keep well ventilated. Do not block the top vent.
-  Do not let cables rest on power tubes.

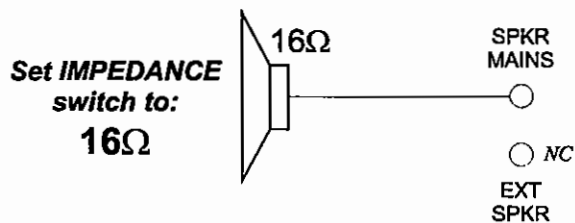
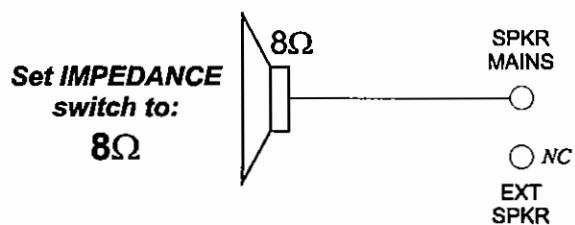
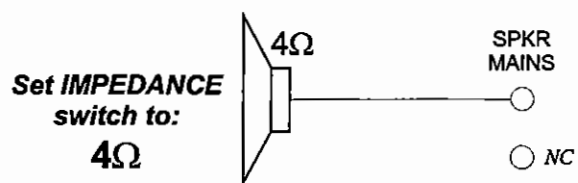
Impedance Settings

The IMPEDANCE switch on the output must be set to match the speaker load that is connected. The speaker jacks are wired internally in parallel. Use the chart on the following page to determine the proper setting of the IMPEDANCE switch for your particular speaker configuration.

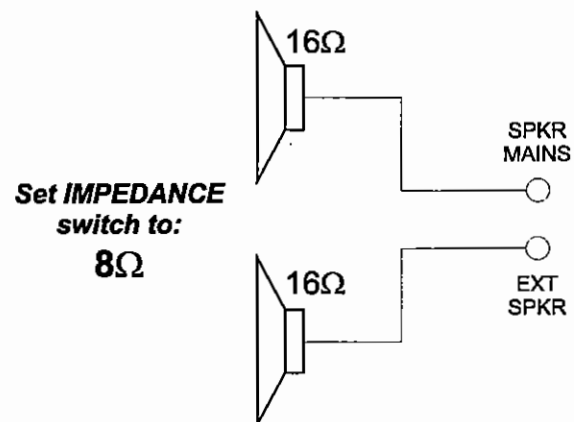
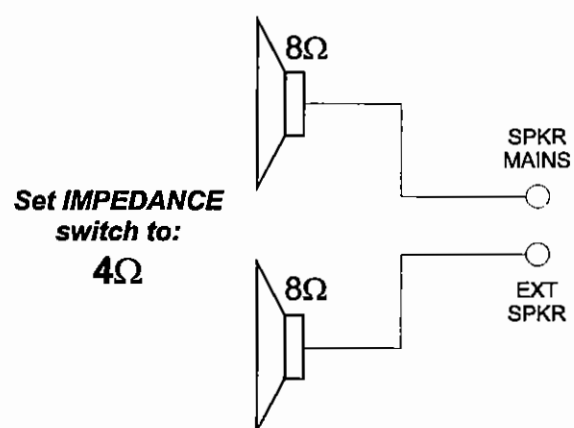
Important Notes:

- | | |
|---|--|
| 2x12 | <i>The proper setting for the TOL100 2x12 combo is 16 ohms when using only the internal speakers. When connecting an external speaker, use the chart on the following page to determine the proper setting.</i> |
|  | <i>If only one speaker (internal) or cabinet is used, as with the head model, the MAIN SPEAKER output must be used FIRST. If the MAIN SPEAKER output is not used, no signal will be present and possible damage to the amplifier may result!</i> |

**IMPEDANCE settings
when using 1 cabinet**



**IMPEDANCE settings
when using 2 cabinets**



Proper IMPEDANCE switch settings

Effects Loop Operation

The effects loop on the TOL100 offers two modes of operation, as described below.

Series Mode

When an effect is inserted into the loop send and return jacks, the direct signal path is interrupted and 100% of the signal is routed through the effects unit. The FX LEVEL/MIX control acts as an overall master volume in this configuration. This is the most common style of effects loop in most guitar amplifiers.

This configuration allows the use of most special effects such as reverb, echo, chorus, pitch shift, equalizers, noise reduction, etc. The only disadvantage to this loop is that your TONE may be affected by the effects processor because your signal passes through it at all times.

Parallel Mode

This is the more specialized mode that is limited in its use, but offers the advantage of leaving your direct signal intact even when an effects unit is inserted in the loop. Your TONE is not hindered by the effects processor. Think of this mode as similar to the effects buss on a mixing console. Your DIRECT signal is always present, and the processed signal is MIXED in using the FX LEVEL/MIX control.

"Time-based" effects are ideally suited for this application. Echo, reverb, delay, flanging and phasing are all examples of time-based effects.

Processors that WILL NOT function properly in a PARALLEL loop include noise reduction, equalizers, compressors and limiters. The reason for this is because, for these devices to work, they MUST PROCESS 100% of the signal. For example, you cannot equalize the signal if you have the "unequalized" signal along with it. Makes sense, doesn't it?

** When using this mode, you must program the effects unit for 100% wet. You do not want any dry (unaffected) signal to be allowed to pass through the effects processor.*

Tube/Fuse Replacement

Tube Replacement

The TOL100 is shipped with two EL34 power tubes and four 12AX7 preamp tubes. **Replacing any of these with alternative tube types will void the warranty.** If you suspect a problem with the tubes, please contact our Customer Service department.

Fuse Replacement

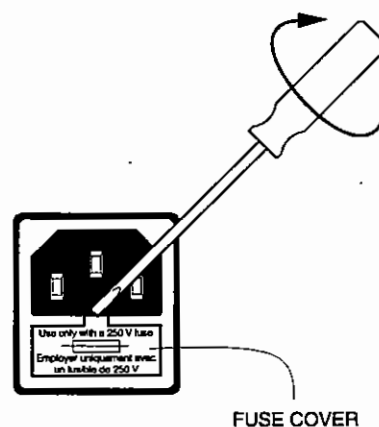
Always replace the main fuse with an identically rated replacement. Your TOL100 amplifier uses a 5x20mm, 5A amp, 250V slow-blow fuse (2.5A, 250V slow-blow for 230VAC). The fuse is located immediately below the line cord inlet on the rear panel and can be accessed by removing the fuse cover module as shown below.

REPLACING THE FUSE

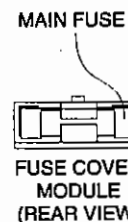
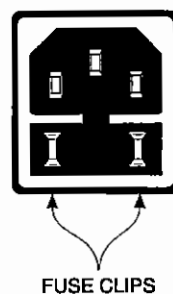
- ① Use a small flat screwdriver as shown to slide the fuse cover out from the power inlet module. The fuse can be found inside the fuse cover module after it is pulled out.



Note: A small compartment is also provided within the fuse cover module for storing a spare fuse.



- ② After replacing the fuse with another of identical specifications, push the fuse cover module fully back into place, ensuring that the fuse has snapped onto the fuse holder inside the power inlet module.



Specifications

Input Impedance	1M
Output Power	100 watts RMS
Load Impedance	4 Ω , 8 Ω or 16 Ω (switch selectable)
Maximum Gain	over 80dB
Operating Voltages	100 VAC, 117 VAC, 230 VAC
Spring Reverb	Accutronics 3-spring
Dimensions	TOL100 (2x12) 27 x 20½ x 10½ TOL100 (Head) 23½ x 9½ x 9
Speaker	12" (custom designed)
Equalization	3-band bridged-T — treble, middle, bass * plus presence and density



CE Approved



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