

Fender[®]

**EIGHTY-FIVE
OWNER'S MANUAL**

P/N 028519

EIGHTY-FIVE OWNER'S MANUAL

The Fender EIGHTY-FIVE amplifier represents the best value of any amplifier in its price class. The EIGHTY-FIVE is much more than a portable Gain Switching Amplifier. In addition to its basic complement of VOLUME, TREBLE, MID, BASS & REVERB this amplifier offers a selectable *Overdrive* channel with features that make it virtually, a Two Channel amplifier! The *Overdrive* channel features Exclusive Fender Pre & De-Emphasis Distortion circuitry plus a unique *distortion-activated* Limiter which provides dynamic interactive control over the distortion characteristic making the Fender EIGHTY-FIVE one of the most *expressive* amplifiers ever made.

Fender Pre & De-Emphasis Distortion is based on unique Pre and Post clipper voicing filters designed to simulate the preamp tone settings and speaker output of an overdriven tube amplifier. You get the *searing smooth* highs backed by *deep* punch that stack amps are known for. The MID BOOST switch provides a second pre-emphasis voice and the PRESENCE control provides continuous variation of the high frequency content in the de-emphasis voicing.

The LIMITER is a new feature which will provide gain compression at the onset of distortion and can be used to dial in the exact degree of distortion *without* sacrificing sustain. This effect is particularly dramatic at *high GAIN settings*. At high LIMITER and GAIN settings a very dynamic effect can be achieved by varying pick attack. (i.e.: The harder you pick, the cleaner the note. Also harmonic content will increase as notes are allowed to sustain. High output pickups with the instrument tone control turned down can achieve reverse envelope, backwards tape effects and many other sounds.)

The *extended range* three band equalization circuitry is post overdrive and can be used to further modify the overall sound of the amp.

In addition to convenience features like *All Front Panel Mounted Controls and Jacks*, the EIGHTY-FIVE features a detachable footswitch for selecting the Overdrive Mode and switching the 3 spring Reverb On and Off. These functions are multiplexed over a standard 1/4 inch phone plug for ease of connection or extension of the footswitch to remote pedal boards. The PREAMP-OUT & POWER AMP-IN jacks can be used as an EFFECTS LOOP or as Send and Return points while slaving multiple amps together or for direct connection to recording and sound reinforcement mixers. The possibilities are endless. (i.e.: By inserting a Chorus pedal between the PREAMP-OUT of one amp and the POWER AMP-IN of another, a true stereo image effect can be achieved.) The HEADPHONE jack automatically mutes the speaker in addition to driving Stereo or Mono headphones and can also be used as a line out.

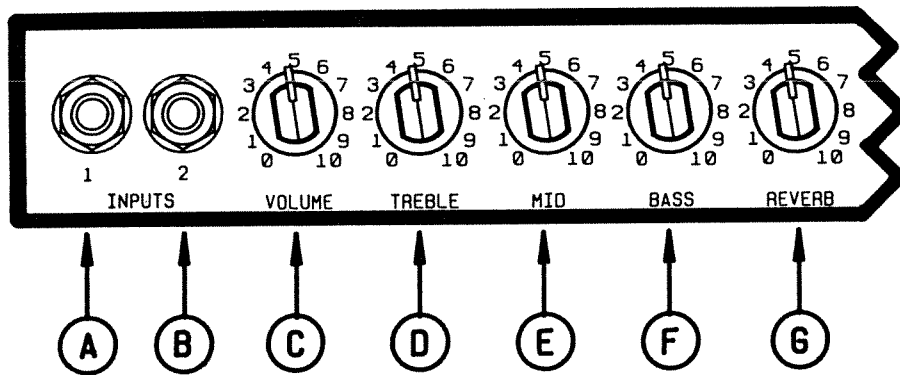
Last, but definitely not least, the Fender EIGHTY-FIVE packs a new power amp that is based on a radically underdamped design that interacts with the speaker in much the same way as a tube amplifier does, producing sparkle and punch with an increase in apparent loudness and power that defies comparison to other similarly rated units. These amps are LOUD, and the Fender Special Design 12 inch speaker can reliably put it out, night after night.

The selection of a Fender amplifier will reward you with years of quality music in a wide range of controlled sounds. This manual is designed to familiarize you with the equipment and to acquaint you with its many fine features. Read it carefully so that you will benefit from all the features as soon as you start using the amplifier.

The built-in quality of a Fender amplifier is the result of over three and a half decades of dedication in the combined skills of research and development by our engineers and musicians.

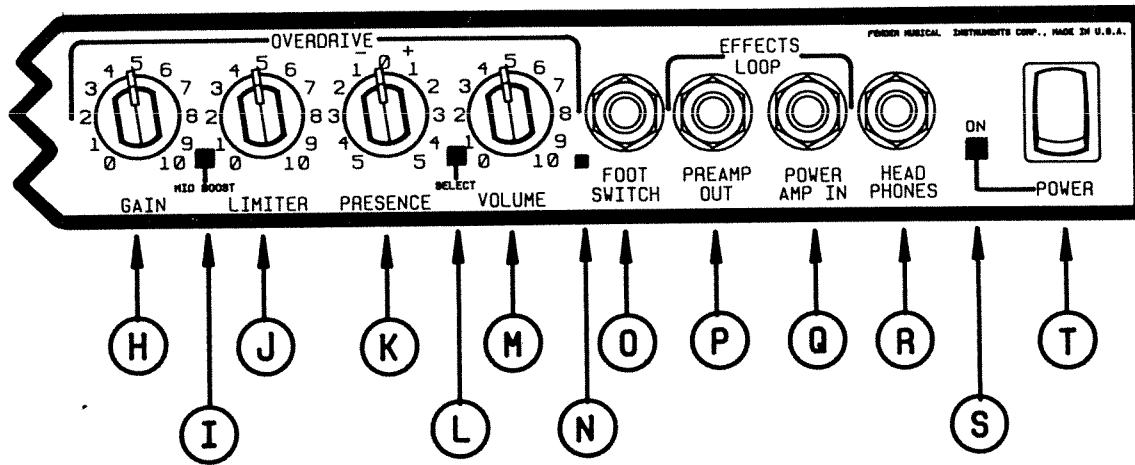
That is why we say, proudly...FENDER, The Sound That Creates Legends.

WARNING: TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE AMPLIFIER TO RAIN OR MOISTURE.



EIGHTY-FIVE FRONT PANEL FUNCTIONS:

- A. **INPUT 1** — A high impedance, high sensitivity plug-in connection for instruments.
- B. **INPUT 2** — Plug-in connection for instruments. This input exhibits a lower input impedance and sensitivity than **INPUT ONE** and is useful with active preamp guitars, and will provide a darker tone with passive guitars. Both inputs are identical when used simultaneously.
- C. **VOLUME**—Adjusts the overall loudness when not in the *OVERDRIVE* mode. (SEE: **L. Select** and **O. Footswitch**).
- D. **TREBLE**—Adjusts the amount of boost (accentuation) or cut (attenuation) in the high frequency range.
- E. **MID**—Adjusts the amount of boost or cut in the mid frequency range.
- F. **BASS**—Adjusts the amount of boost or cut in the low frequency range.
- G. **REVERB**—Adjusts the overall amount of reverberated signal mixed with the original dry signal. **NOTE: This control is disabled by the Reverb On/Off footswitch in the OFF POSITION.**



- H. **GAIN**—Adjusts the amount of preamp amplification while in the *OVERDRIVE* mode. Cleaner sound is achieved at lower gain settings, high gain settings will produce more sustain and distortion. This control works in conjunction with the **OVERDRIVE-VOLUME** control to set the overall loudness at the output.
- I. **MID-BOOST**—Activates a special pre-emphasis filter which accentuates mid-range frequencies.
- J. **LIMITER**—Adjusts the amount of compression at **high GAIN** settings. **The compression is activated by distortion in the preamp, therefore it is not as noticeable at low gain settings.**
- K. **PRESENCE**—Adjusts the amount of boost or cut in the upper high frequency range while in the *OVERDRIVE* mode. This control occurs post preamp distortion and is useful in adjusting the distortion characteristic from brash, to smooth.
- L. **SELECT**—Activates the *OVERDRIVE* mode. **NOTE: This switch disables the Channel Select Footswitch and the C. VOLUME control.**
- M. **VOLUME**—Adjusts the overall loudness while in the *OVERDRIVE* mode.
- N. **OVERDRIVE INDICATOR**—This LED is illuminated when in the *OVERDRIVE* mode.
- O. **FOOTSWITCH**—Plug-in connection for remote footswitch to activate the *OVERDRIVE* mode and to switch the Reverb on and off. **NOTE: Any good quality patch cord will work with the remote footswitch, however a speaker grade cord is preferable to a coax guitar cord when it's available.**
- P. **PREAMP OUT**—This jack provides an unbalanced output signal from the preamp. This output can be used in conjunction with the **POWER AMP IN** jack as a patch point for effect units. This signal can also be used to feed recording and sound reinforcement mixers or to drive other EIGHTY-FIVE amplifiers as slaves. This is done by connecting a standard guitar cord from the **PREAMP OUT** jack of the master amplifier to the **POWER AMP IN** jack of the slave.
- Q. **POWER AMP IN**—This unbalanced jack inputs signal directly to the power amp. It automatically disconnects the preamp signal when used. This is useful when using the effects loop option or using the EIGHTY-FIVE as a slave amp.
- R. **HEADPHONES**—This jack provides an output to standard stereo or mono headphones for private listening. **NOTE: Use of this jack automatically disables the main speaker. CAUTION: Prolonged listening at high levels may be hazardous to your hearing!** This jack can also be used as an unbalanced line output, which is post effects-loop, by using either a stereo or mono 1/4 inch phone plug connection.
- S. **POWER INDICATOR**—When this indicator is illuminated the EIGHTY-FIVE is receiving power.
- T. **POWER SWITCH**—Turns AC power ON and OFF. When the switch is OFF the amplifier is completely shut down.

LINE CORD

This amplifier is equipped with a grounding type supply cord to reduce the possibility of leakage current. Be sure to connect it to a grounded receptacle. Operation from an ungrounded (two pronged) AC receptacle requires a three to two contact grounding type adaptor. Be sure to connect the adaptor's grounding lead to a good earth ground. **DO NOT ALTER THE AC PLUG.**

VINYL CARE

The exclusive Fender vinyl covering on your cabinet has been especially designed for years of lasting beauty. A very light soapy solution on a sponge may be used to remove dirt and residue that may accumulate in the grain. Be careful not to let any liquid come in contact with operating surfaces. **DO NOT** have the amplifier plugged into the power outlet when cleaning.

Troubleshooter's Checklist:

If the amp is set up but does not function, check the following items:

- Is the amp power cord properly plugged into an electrical outlet?
- Is there power at the outlet?
- Is the speaker properly connected to the amplifier?
- Are all the control knobs turned up above four?
- Is the volume control on the instrument turned up?
- Is your instrument properly plugged into the amplifier?
(Eliminate any effect pedals and try another guitar cord.)

If, after checking all of the above, the system is still not performing correctly, consult your Fender Service Dealer.

EIGHTY-FIVE SPECIFICATIONS:

PART NUMBER: 22-5000

DIMENSIONS: Height: 16½" (41.9cm)
Width: 18⅝" (47.3cm)
Depth: 9" (22.9cm)

Weight: 29½ lbs. (13.4kg)

IMPEDANCE: INPUT 1 only—1 meg Ohm. INPUT 2—131k Ohm.

NOMINAL LEVEL: INPUT 1 only—100 mv., INPUT 2—200 mv.

POWER OUTPUT: 65 Watts R.M.S.

RATED LOAD IMPEDANCE: 8 Ohms.

EFFECTS LOOP: Nominal Level -10dBv.
Output Impedance—1k Ohm.
Input Impedance—110k Ohm.

POWER REQUIREMENTS: 120 Volts AC 60 Hz. 1.67 Amps Max., 200 Watts Max.

SPEAKER COMPLEMENT: One 8 Ohm Fender Special Design 12 inch (P.N. 025923) speaker.

SOUND: "Look Ma, NO TUBES!"