Fender®

MADE IN U.S.A.

300 WATT BASS AMPLIFIER

OWNER'S MANUAL

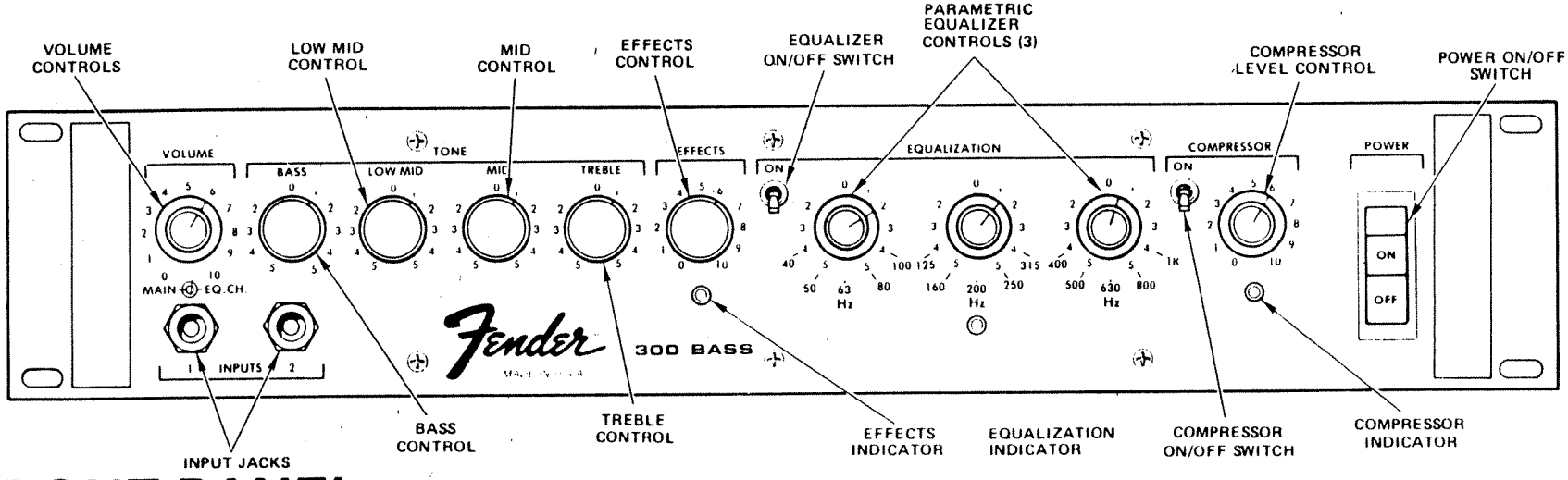
MANUAL NO. 017779

Fender®

300 WATT BASS AMPLIFIER

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

WARNING
TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE
P.N 016637



FRONT PANEL

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

FRONT PANEL FUNCTIONS

VOLUME CONTROLS

This is actually two concentric controls. The center or smaller diameter knob is the conventional volume control for the amplifier, and is functional in all modes of operation.

The outer or larger diameter knob is a volume control for the parametric equalizer section of the amplifier. With this control set at its maximum (10), the gain of the equalizer is approximately unity with each of the equalizer controls in their "flat" or center position. This control is used to balance the level of the sound when the parametric equalizer is turned ON.

TONE CONTROLS

Bass Control —A shelving type of tone control to regulate the desired level of bass response.

Low Mid Control — A peaking type of tone control operating in the low-mid frequency range (100 Hz to 300 Hz).

Mid Control — A peaking type of tone control operating in the mid frequency range (300 Hz to 600 Hz).

Treble Control — A shelving type of tone control which is effective for high frequencies (above 1 KHz).

EFFECTS CONTROL

This control regulates the relative amplitude of the effects return signal supplied to the effects input jack on the rear panel. In the full counter-clockwise position only the normal bass signal is fed to the power amplifier. In the full clockwise position only the effects return signal is fed to the power amplifier. At other positions of the control a mix of normal and effects return signal is fed to the amplifier.

EFFECTS INDICATOR

This green LED indicates when the effects control is active. If no foot switch is plugged in, the control is always active. With the foot switch plugged in, the effects return can be turned ON or OFF. The LED indicates when the circuit is ON.

EQUALIZER ON/OFF SWITCH

This toggle switch connects the parametric equalizer into the circuit in the ON position. The equalizer LED indicator is also turned on and the equalizer volume control is active. In the OFF position the signal bypasses the equalizer circuit. However, even with the equalizer switch OFF the signal out of the equalizer is available at the line output on the rear panel if so selected by the line output selector switch. With the switch ON the equalizer can be turned OFF or ON with the footswitch.

PARAMETRIC EQUALIZER

There are three sections which function independently. The operation of each section is the same except for the frequencies of the frequency select switch.

The center knob controls the amount of cut or boost that is provided at the frequency selected by the outer knob. The outer knob provides five discrete frequency selections.

COMPRESSOR ON/OFF SWITCH

This toggle switch enables operation of the built-in compressor. The compressor will automatically reduce the amplifier voltage gain for signal levels in excess of a level defined by the compressor level control. With the switch in the OFF position the compressor will not operate. With the switch in the ON position the compressor will operate as a function of the level control and the input signal.

COMPRESSOR LEVEL CONTROL

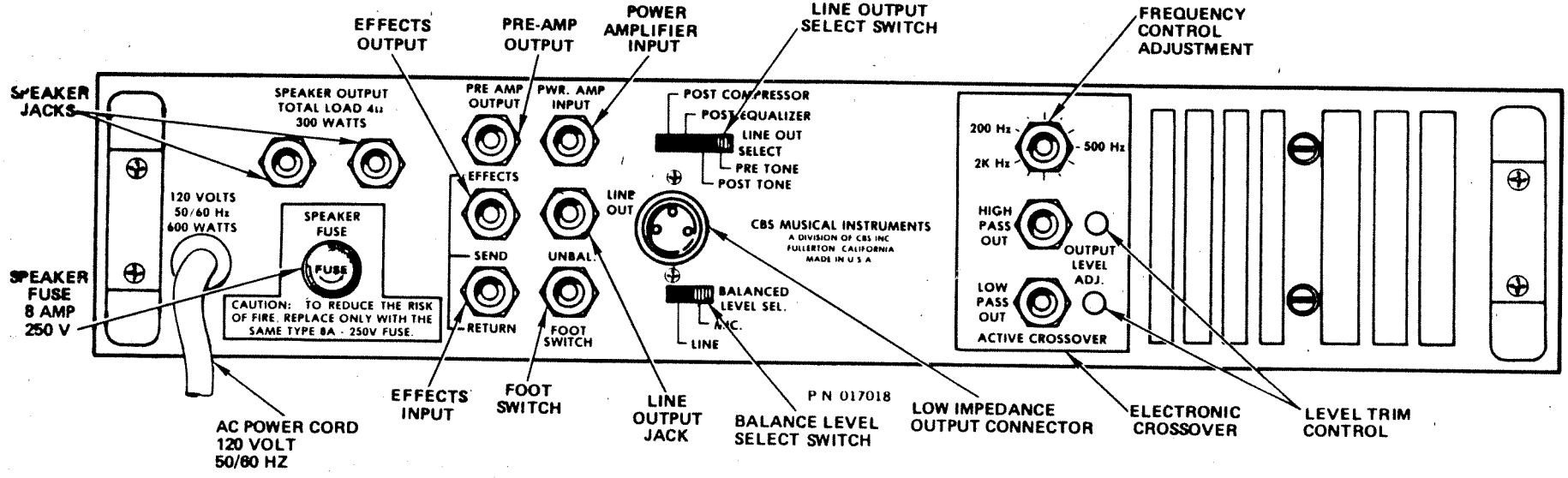
This control adjusts the threshold level at which the compressor operation will start. The full clockwise position provides the minimum level (least output). The start of compressor operation is indicated by the red LED indicator.

COMPRESSOR INDICATOR

This red LED indicates that compression (gain reduction) is taking place.

POWER

This switch turns on AC power to the unit. It is also a magnetic circuit breaker that will automatically turn OFF in the event of a major amplifier overload. The circuit breaker is reset by simply turning the switch on again.


EFFECTS OUTPUT
PRE-AMP OUTPUT
POWER AMPLIFIER INPUT
LINE OUTPUT SELECT SWITCH
FREQUENCY CONTROL ADJUSTMENT
SPEAKER JACKS
SPEAKER OUTPUT TOTAL LOAD 4Ω 300 WATTS
PRE AMP OUTPUT
PWR. AMP INPUT
POST COMPRESSOR
POST EQUALIZER
LINE OUT SELECT
PRE TONE
POST TONE
200 Hz
500 Hz
2K Hz
120 VOLTS 50/60 Hz 600 WATTS
SPEAKER FUSE
FUSE
EFFECTS
LINE OUT
SEND
UNBAL.
RETURN
FOOT SWITCH
CBS MUSICAL INSTRUMENTS
A DIVISION OF CBS INC
FULLERTON CALIFORNIA
MADE IN U.S.A.
HIGH PASS OUT
OUTPUT LEVEL ADJ.
LOW PASS OUT
ACTIVE CROSSOVER
BALANCED LEVEL SEL.
MIC.
LINE
SPEAKER FUSE 8 AMP 250 V
CAUTION: TO REDUCE THE RISK OF FIRE, REPLACE ONLY WITH THE SAME TYPE 8A - 250V FUSE.
P N 017018
AC POWER CORD 120 VOLT 50/60 HZ
EFFECTS INPUT
FOOT SWITCH
LINE OUTPUT JACK
BALANCE LEVEL SELECT SWITCH
LOW IMPEDANCE OUTPUT CONNECTOR
ELECTRONIC CROSSOVER
LEVEL TRIM CONTROL

REAR PANEL

REAR PANEL FUNCTIONS

SPEAKER JACKS

Two standard 1/4 inch phone jacks are provided for connection to a speaker (s). It is very important that the total load connected to the amplifier not be lower than 4 ohms. The amplifier will provide 300 watts average power to a 4 ohm load. The load resistance may be greater than 4 ohms and the amplifier will operate correctly, except that the total power output will be less than 300 watts. A total load impedance less than 4 ohms may cause malfunction of the amplifier. Typical use of the speaker jacks would be one 4 ohm speaker connected to one jack (the other jack not used) or, one 8 ohm speaker connected to each of the two speaker jacks (a total of two speakers being used).

SPEAKER FUSE

The speaker fuse provides protection for the connected speakers in the event of amplifier failure and also provides protection for the amplifier from improper loads. Replace only with an 8 amp 250 volt quick-acting type.

PRE-AMP OUTPUT

The signal developed at the output of the pre-amplifier section is available at this jack for connection to an additional power amplifier or other accessory device. The output is capable of driving a load impedance of 600 ohms or greater.

POWER AMPLIFIER INPUT

This jack provides a high impedance (50K ohms) input to the power amplifier section. Use of the jack disconnects the internal pre-amplified signal.

EFFECTS OUTPUT

This jack provides a signal to be used as the input to a special effects device. The effects device should be capable of handling a line level signal and should have an input impedance of at least 10K ohms.

EFFECTS INPUT

This jack is provided for connection to the output of a special effects device. The input impedance is 100K ohms.

FOOT SWITCH

This jack is used for connection of an optional foot switch, which provides for remote control (ON/OFF) of the parametric equalizer and the effects signal loop.

LINE OUTPUT

This 1/4 inch phone jack provides a single ended line level output signal as selected by the line output selector switch. The three-pin connector provides the same signal, transformer isolated, at either line or microphone level as selected by the level select switch.

LINE OUTPUT SELECT SWITCH

This four position slide switch selects the point in the amplifier at which the line output signal is derived. The four choices are as follows:

1. After the first amplifier stage and before any tone controls. (Pre-tone)
2. After the tone controls but before the equalizer controls (Post-tone)
3. After the equalizer controls but before the effects return or compressor (Post-equalizer). This output is independent of the Front Panel equalizer ON/OFF switch.
4. Following the compressor: in this position the signal is the same as at the pre-amplifier output jack (Post-compressor).

ELECTRONIC CROSSOVER

The electronic crossover consists of a frequency control, a high pass output jack, and a low pass output jack. Also provided are level trim controls for both the high and low pass outputs. These controls must be adjusted using a screwdriver.

The frequency control provides simultaneous adjustment of the cutoff frequency of the high pass and low pass filters from approximately 200 Hz (full counter-clockwise) to approximately 2 KHz (full clockwise). Both the high pass and low pass outputs are at line level and will operate into a load impedance of 2K ohms or greater. While it is beyond the scope of this manual to discuss the merits of bi-amplification, Figure 1, shows one possible system connection. The internal power amplifier is used to amplify the low pass output

ELECTRONIC CROSSOVER (CONT)

(low frequency portion of the signal) and an auxiliary amplifier is used to amplify the high pass output (high frequency portion of the signal). The low frequency amplifier should be connected to a speaker system designed to reproduce the bass frequencies. The high frequency amplifier should be connected to a speaker system designed to reproduce the mid and high frequencies. (SEE FIGURE 1).

NOTE: The frequency control on the 300 watt Bass Amplifier must be adjusted to the proper crossover frequency determined by the speaker combination that is to be used.

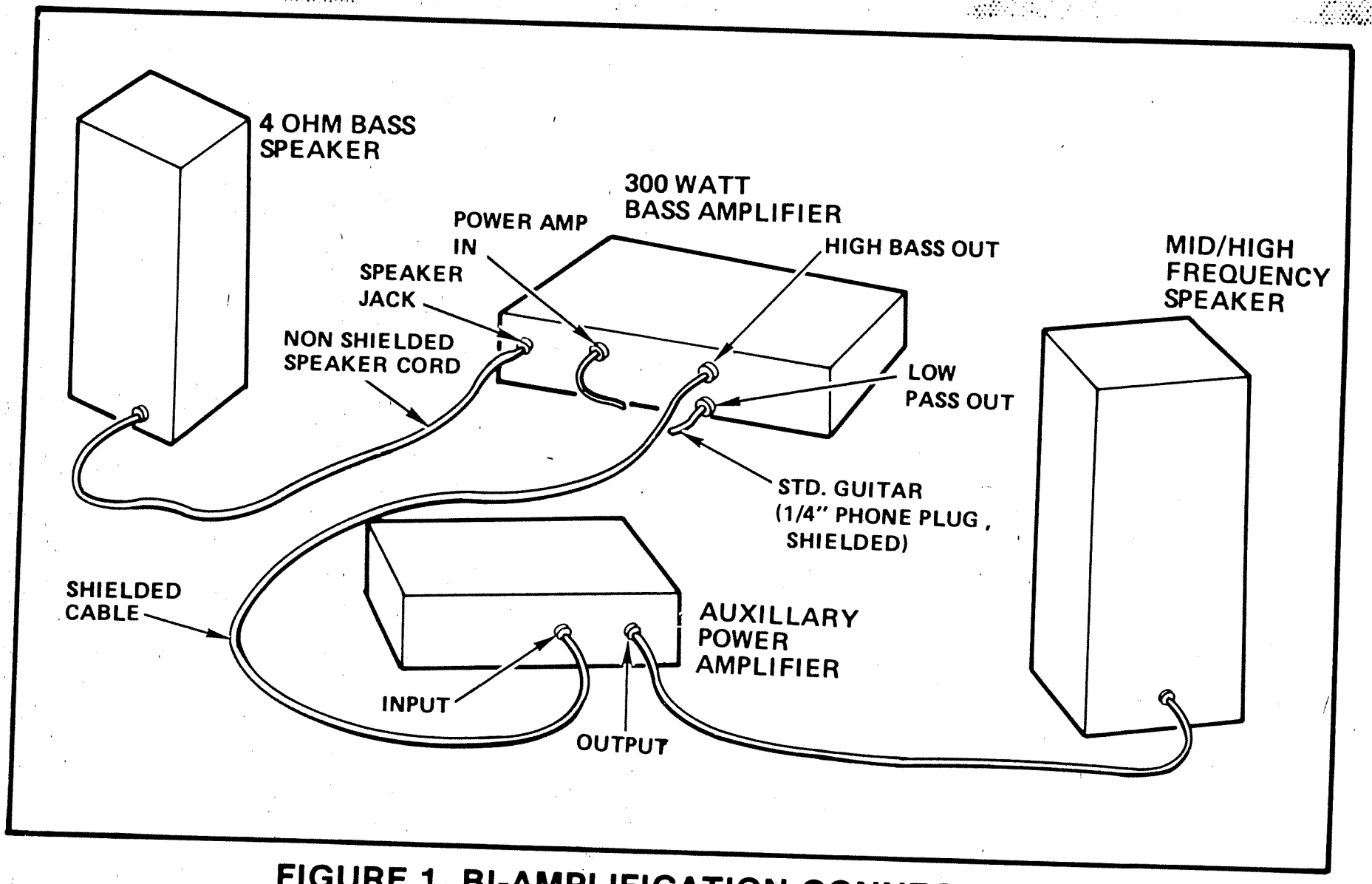


FIGURE 1 BI-AMPLIFICATION CONNECTIONS

AMPLIFIER PROTECTION DEVICES

The 300 watt Bass Amplifier has been provided with a number of automatic protective devices. The speaker fuse and electromagnetic line circuit breaker have already been described. In addition there are two internal temperature controlled switches. One switch increases the speed of the cooling fan if the heatsink temperature exceeds 60° C (140° F). The second switch will disconnect the amplifier load (speaker) and therefore prevent use of the power amplifier if the heatsink temperature exceeds 85° C (185° F). When the heatsink temperature returns to a safe level the speaker is reconnected.

RACK MOUNTING

The 300 watt Bass Amplifier can be mounted in a standard 19 inch rack enclosure. The enclosure must have sufficient depth to accommodate the unit and must be provided with adequate ventilation. Before mounting,the decorative wood side panels must be removed by unscrewing the two phillips head screws holding each wood side panel on. (One side panel holds the handle). When the unit is rack mounted, rigid mechanical support MUST be provided for the rear of the chassis. The exact configuration of the rear support will depend upon the rack cabinet being used. Be sure not to block any of the ventilation openings in the chassis.

CORRECTIVE CHECK LIST

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

- Is the amp power supply cable plugged into an electric outlet?
- Is there power at the outlet where the amp is plugged in?
- Is the speaker plugged in the amp speaker jack?
- Are all the control knobs turned up above 4?
- Is the volume control on your instrument turned up?
- Is the fuse good?

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

REPLACEMENT PARTS

Under the terms of the limited warranty, defective parts will be replaced by your authorized Fender Dealer.

Fender Original Equipment is designed and built to provide optimum performance in musical instrument amplifiers.

Fender Musical instruments furnishes warranty service through authorized Fender dealers.

300 BASS AMPLIFIER SPECIFICATIONS

Input Power:	120V, 50/60 Hz, 600 watts
Maximum Output power:	300 Watts average at less than 1% THD. 20 Hz to 20KHz into 4Ω
Tone Control Range:	±15 dB, typical
Equalizer Frequency Selection:	1/3 Octave from 40Hz to 1KHz in three bands
Equalizer Amplitude Response:	±15 dB, typical
Maximum Voltage Gain:	65 dB, typical
Input Impedance:	1 Meg Ω, typical
Maximum Equivalent Input Noise:	-100 dBv

PHYSICAL DIMENSIONS (APPROXIMATE, FOR SHIPPING PURPOSES)

Width:	19 inches (48.3cm)
Depth:	18.5 inches (47cm)
Height:	3.5 inches (8.9cm)
Weight:	33 pounds (15kg)

NOTE:
SEE ACCOMPANYING LIMITED WARRANTY
REGISTRATION SHEET

Fender®

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