185 SERIES OWNER'S MANUAL

Your Fender 185 SERIES amplifier is the culmination of an ambitious project undertaken by Fender R&D, Manufacturing and Marketing personnel in which the goal was to bring to the working musician a straight-ahead amplifier with inherent reliability, tonal flexibility, and portability. The 185 SERIES offers the dependability of total Solid State circuitry and more tonality than most tube amplifiers, at half the cost. The extremely versatile yet simple to operate preamp features innovations such as TEM DISTORTION, THREE FOOT-SWITCHABLE PRESET SOUNDS, TRI-MODE INPUTS, PRE AND POST DISTORTION EQ WITH THE EXCLUSIVE FENDER CONTOUR CONTROL, A FULLY ADAPTIVE EFFECTS LOOP, coupled with FENDER'S CURRENT IMPULSE-POWER amplifier technology. Altogether this will "Let Your Fingers Do The Talkin'" once you plug in and turn on your 185.

Channel 1 is the traditional clean channel with the addition of a MID-CUT switch which is useful in obtaining vintage and jazz tones. The second channel is set up with GAIN & VOLUME controls for obtaining distortion textures and includes an additional footswitchable BOOST control providing a second gain preset primarily used for lead work. Fender's TEM (TUBE EMULATION) distortion processor gives you the warm harmonic overtones and sustain of vacuum tubes without the microphonics, reliability and cost hassles. Channel Two not only features the traditional Fender Treble, Mid, Bass, Mid-Boost PRE-EQUALIZER but uses a CONTOUR control in conjunction with the TILT switch will allow you to fine tune the distortion characteristics of your 185 from a bone-crushing stack-amp to a miked up Super Champ. Check it out!

Special effects will interface to the 185 SERIES Effects Loop easily and with no guesswork on levels. Simply set the three position LEVEL SELECT switch to match up to the latest digital delay or your old favorite battery powered effect pedals. The unique GAIN OFFSET control can be used to fine tune the effects loop level allowing optimum signal to noise performance with any effect. The effects loop can also be used as a direct send to recording and sound reinforcement mixers or to additional amps as slaves for increased power.

The 185 SERIES features a detachable footswitch for selecting the Overdrive and Boost Modes and switching the three-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 185 SERIES also features exclusive Fender Tri-Mode inputs which provide standard independent Dual-Channel operation, Switching-Channel operation, or Parallel-Channel operation. A new twist has been added to the Dual-Channel & Parallel-Channel modes in that the front panel select switches and footswitch remain active allowing you to switch in Channel Two (and its Boost function) in addition to the Channel One setting.

Last, but definitely not least, the Fender 185 SERIES packs a new power amp utilizing Fender CURRENT IMPULSE POWER (CIP) technology and 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 speakers can reliably put it out, time after time.

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.
185 SERIES FRONT PANEL FUNCTIONS

A. VOLUME: Adjusts the overall loudness of Channel One.

B. TREBLE: Adjusts the amount of boost (accentuation) or cut (attenuation) in the high frequency range of Channel One.

C. MID-CUT: Reduces upper midrange response of Channel One.

D. MID: Adjusts the amount of boost or cut in the mid frequency range of Channel One.

E. BASS: Adjusts the amount of boost or cut in the low frequency range of Channel One.

F. CHANNEL 1 INPUT: Plug-in connection for instruments. When this input is used alone with nothing plugged into the Channel 2 input, the amplifier is in the Channel-Switching mode. The remote footswitch or front panel SELECT switch will route the input signal to either Channel 1 or Channel 2 as indicated by the Red and Green channel indicator LEDs under “STATUS”. When this input is used in addition to an instrument plugged into the Channel 2 input, the amplifier is in the Dual-Channel mode, i.e. Channel 1 instruments go through Channel 1 and Channel 2 instruments go through Channel 2 (See G. CHANNEL 2 INPUT.)

G. CHANNEL 2 INPUT: Plug-in connection for instruments. When this input is used alone with nothing plugged into the Channel 1 input, the amplifier is in the Parallel-Channel mode. The input signal is routed to both Channel 1 and Channel 2 simultaneously, allowing a mix of the two channels to be achieved. When this input is used in addition to an instrument plugged into the Channel 1 input, the amplifier is in the Dual-Channel mode, i.e. Channel 1 instruments go through Channel 1 and Channel 2 instruments go through Channel 2. (NOTE: The remote footswitch or front panel SELECT switch will still switch Channel 2 and its BOOST function On and Off as indicated by the front panel LED’S under “STATUS”)

H. GAIN: Adjusts the amount of amplification in the Channel 2 preamp. Cleaner sound is achieved at lower gain settings. High gain settings will produce more sustain and distortion. This control works in conjunction with the Channel 2 VOLUME control to set the overall loudness at the output.

I. BOOST: Adjusts the amount of amplification in the Channel 2 preamp. When activated by the remote footswitch or front panel switch this control will provide additional gain to that which is already preset by the GAIN control. If the GAIN control is set to maximum, the BOOST control will have less effect. Normally set the BOOST control to a higher setting than the GAIN for maximum effect.

(Note: Controls J, K, L, & M all occur pre-distortion and are useful in voicing the instrument. They behave much like traditional Fender tone controls.)

J. TREBLE: Adjusts the amount of boost or cut in the high frequency range of Channel Two.

K. MID-BOOST: Increases upper midrange response of Channel Two.

L. MID: Adjusts the amount of boost or cut in the mid frequency range of Channel Two.
M. BASS: Adjusts the amount of boost or cut in the low frequency range of Channel Two.

(Note: Controls N, O, & P all occur post-distortion and are useful as a means of equalizing the distortion characteristic of the amplifier.)

N. CONTOUR: Adjusts the tone without affecting the signal level. Used in conjunction with the TILT switch and PRESENCE control to set the overall tone of Channel Two. (See O. and TILT & CONTOUR PICTORIAL.)

O. TILT: Selects the operating mode of the CONTOUR control. With the button out (Off), the CONTOUR on +5 will boost mids and cut lows and highs and on -5 will cut mids and boost lows and highs. With the button in (On), the CONTOUR on +5 will boost lows and cut highs and on -5 will cut lows and boost highs.

P. PRESENCE: Adjusts the amount of boost or cut in the upper high frequency range of Channel Two.

Q. VOLUME: Adjusts the overall loudness of Channel Two.

R. REVERB: Adjusts the 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.

S. CHANNEL 1 INDICATOR: This Red LED is illuminated when Channel One is on.

T. SELECT: Activates the Channel 2 preamp. NOTE: This switch overrides the SELECT footswitch.

U. CHANNEL 2 INDICATOR: This Green LED is illuminated when Channel 2 is on.

V. BOOST SELECT SWITCH: Activates the Boost function and simultaneously activates Channel 2 if it has been off. (See T. SELECT.) NOTE: This switch overrides the front panel SELECT switch and the SELECT & BOOST footswitches.

W. BOOST INDICATOR: This Yellow LED is illuminated when the BOOST control is enabled.

X. FOOTSWITCH: Plug-in connection for the remote three-way footswitch. The CHANNEL SELECT switch will toggle Channel 2 On and Off. The REVERB switch will toggle the reverb On and Off. The BOOST switch will toggle the boost function On and Off and also activate Channel 2 if it has been off. The footswitch CHANNEL SELECT LED indicator will illuminate when Channel 2 is selected by the footswitch. This is useful while in the boost mode to let you know whether Channel 2 will stay on when you exit the boost mode, i.e.: This allows you to switch between Channel 1 and Channel 2, Channel 1 and Boost, or Channel 2 and Boost with one switch actuation. NOTE: The front panel BOOST and SELECT switches override the footswitch. THEY SHOULD BE OFF FOR PROPER FOOTSWITCH OPERATION. 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.

Y. POWER SWITCH: Turns AC power ON and OFF. When the switch is OFF the amplifier is completely shut down.
185 SERIES REAR PANEL FUNCTIONS

A. PREAMP OUT: This jack provides an unbalanced output signal from the preamp. The nominal level of this signal is set by the LOOP LEVEL switch. (See B). 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 185 SERIES 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. Effects units can also be inserted between the master and slave amplifiers to create a true stereo image.

B. LOOP LEVEL. Selects the nominal operating level of the PREAMP OUT, & POWER AMP IN jacks. When using the effects loop option this switch should be set to the highest possible level for best low noise performance. This is done by first setting the GAIN OFFSET control to NORMAL/0dB (See C) and the LOOP LEVEL switch to LOW/16dBV. Second set the front panel amplifier operating controls for normal playing levels, then patch in the desired effect units. (If the effect units have gain and/or output controls, set these for "unity gain" through the effect unit. This is verified by alternately plugging-in and unplugging the effect unit output from the POWER AMP IN jack and listening for any change in volume. When the effect unit is set for "unity gain", there will be no noticeable change in level. With some effects it may be necessary to do this in the bypass mode of the effect.) If the effect cannot be adjusted for "unity gain" adjust the GAIN OFFSET control (See C). Next set the LOOP LEVEL switch to the highest setting that will allow clean, distortion free operation of the effect unit. Now with the effect in the bypass mode once again check for "unity gain" with the procedure outlined above. If the effect unit is clipping on loud passages the switch should be set to the next lower setting. NOTE: When slaving amps the LOOP LEVEL switch & GAIN OFFSET on all amplifiers should be set to the same position.

C. GAIN OFFSET: Adjusts the sensitivity of the POWER AMP IN jack + & - 9dB to compensate for gain or loss through the effects loop. The proper control setting is determined using the procedure described above for setting the LOOP LEVEL switch for "unity gain". While alternately plugging-in and unplugging the effect unit from the POWER AMP IN jack if there is an increase in volume upon plugging in, adjust the GAIN OFFSET counterclockwise for "unity gain"; alternatively if there is a loss of volume adjust the control clockwise for "unity gain".

D. POWER AMP IN: This jack inputs signal directly to the power amp and automatically disconnects the preamp signal when used. This input is a "Balanced" Tip-Ring-Sleeve jack which can be used with stereo or mono quarter-inch phone plugs for "Balanced" or "Unbalanced" operation. Balanced operation will help reduce ground-loop noise. Its nominal sensitivity is set by the LOOP LEVEL switch and the GAIN OFFSET control (See B and C).

E. EXT. SPEAKER JACK: (On STAGE and LONDON models only.) Plug-in connection for 8 Ohm speakers only.

F. EXT. SPEAKER JACK: (On LONDON models only.) Plug-in connection for a single 4 Ohm speaker or a second 8 Ohm speaker in addition to an 8 Ohm speaker connected to the other SPEAKER JACK (E).
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.

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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.
185 SERIES SPECIFICATIONS

INPUT IMPEDANCE: Greater than 510K Ohms.

NOMINAL LEVEL: 100 mv.

POWER OUTPUT: 150 Watts R.M.S.

RATED LOAD IMPEDANCE: 4 Ohms.

EFFECTS LOOP: Nominal Level—Switch selectable to -16dBv, -7dBv, and +4dBv.
Output Impedance less than 1.2k Ohm.
Input Impedance greater than 93k Ohm.

POWER REQUIREMENTS: 120 Volts AC 60 Hz. 3.75 Amps Max., 450 Watts Max.

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<th>MODEL</th>
<th>PART NUMBER</th>
<th>HEIGHT</th>
<th>WIDTH</th>
<th>DEPTH</th>
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SPEAKER COMPLEMENT: STAGE: One 8 Ohm Fender Special Design 12 inch (P.N. 026428) speaker.
PRO: Two 8 Ohm Fender Special Design 12 inch (P.N. 026428) speakers wired in parallel.

SOUND: "Like...Totally-Tubular, For-Sure Dude!!!"