

Fender[®]

**DUAL SHOWMAN
OWNER'S MANUAL**

P/N 026618

DUAL SHOWMAN OWNER'S MANUAL:

The Fender DUAL SHOWMAN AMPLIFIER is the next step up in the evolution of *High Performance* instrument amplification. The DUAL SHOWMAN is a direct descendent of such classic tube amps as the Fender Twin Reverb, and 410 Bassman which have shaped today's world of guitar amps.

The features of the Fender DUAL SHOWMAN AMP provide flexibility rarely found in a tube amp. Channel One is the traditional Fender design and offers the vintage sounds as well as contemporary with the use of the TREBLE & MID CUT switches. Channel Two is like owning a second, fully loaded, custom amplifier which is unmatched in sonic flexibility. *"The Mods are Built In."* All the latest sounds, and then some, are there at your fingertips. MORE GAIN for singing sustain, a triple threat of Boost Functions stacked onto the three band EQ. section. A New PRESENCE control that tailors the sound in much the same way as a recording console, and can also operate as a NOTCH filter that will take you from a deep in the heart of Texas *HONK* to U.K. *CRUNCH* with just a flick of the wrist. These two channels are tied together by four inputs which provide standard independent *Dual-Channel* operation, *Switching-Channel* operation with a remote footswitch, or *Parallel-Channel* operation.

Special effects will interface to the DUAL SHOWMAN Effects Loop easily and with no guesswork on levels. Simply set the three position LEVEL SELECT switch to match up to the latest digital reverb or your old favorite battery powered effect pedals. The unique POWER AMP THRU jack can be used as a preamp line output or in conjunction with the POWER AMP IN jack of another DUAL SHOWMAN allowing you to instantly chain a wall of slaves together strong enough to fill any stadium and look incredible while doing it.

The power amplifier section of the DUAL SHOWMAN is a 100 Watt Fender design which has become the industry standard as a result of its reputation for reliability and good sound. This amplifier goes further than its clones. In addition to a HIGH/LOW POWER switch, that you can hear, the DAMPING switch provides three levels of output damping which will allow the speakers to produce a looser, more live sound. Try it with distortion and you'll get more crunch and bite to your sound. The DUAL SHOWMAN also features external bias and balance adjustment capability. The four 6L6-GC output tubes can be set up by anyone with a digital voltmeter without removing the chassis. This means that you can re-bias every time you re-tube and can check bias and balance over the life of the tubes. With the price of tubes today you can't afford not to have them set up right every time. In addition to being able to drive a wide range of speaker combinations from the three speaker output jacks, switch selectable to 4, 8, or 16 ohms, the BALANCED LINE OUTPUT will drive any 600 ohm line input. This is a transformer coupled, truly balanced, floating ground output which is particularly useful for driving slave power amps or can be used with the proper equalization as a send to a mixing console for recording or sound reinforcement.

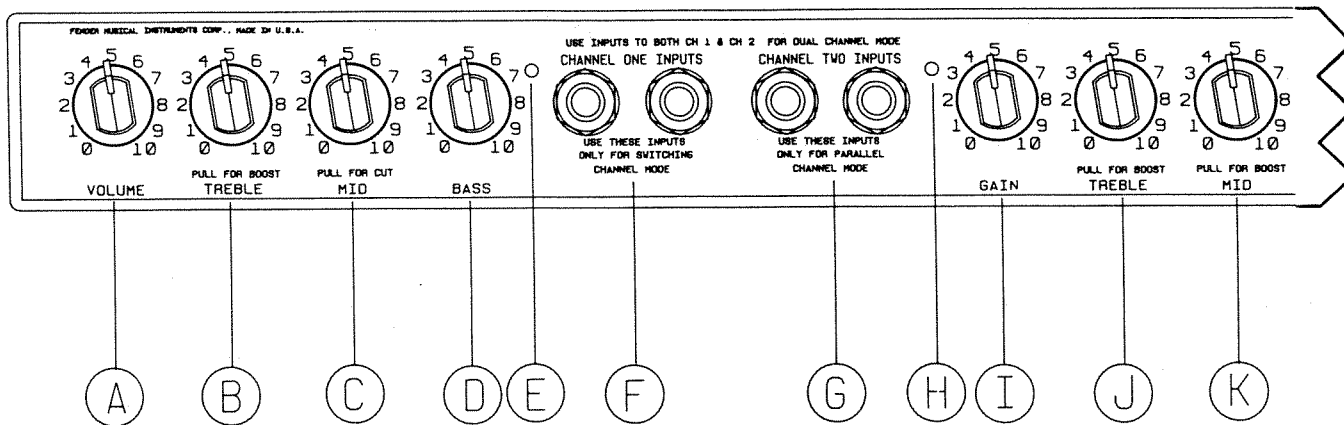
The Fender DUAL SHOWMAN AMPLIFIER is designed to be used with one or two Fender 412 "The Wedge" speaker enclosures to obtain optimum performance and to achieve the "Stack" look.

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.

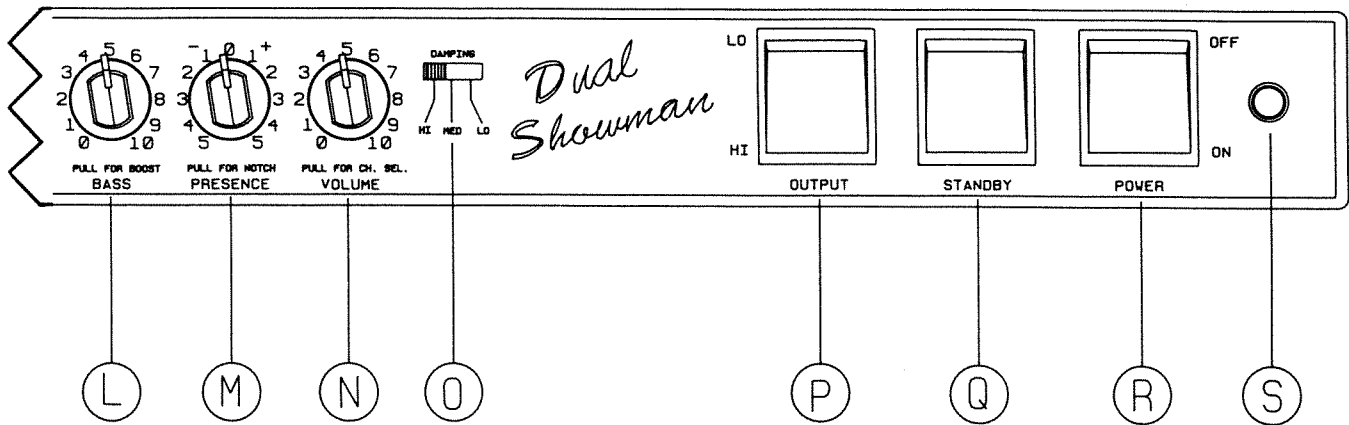
That is why we say, proudly...FENDER, The Sound That Creates Legends.

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

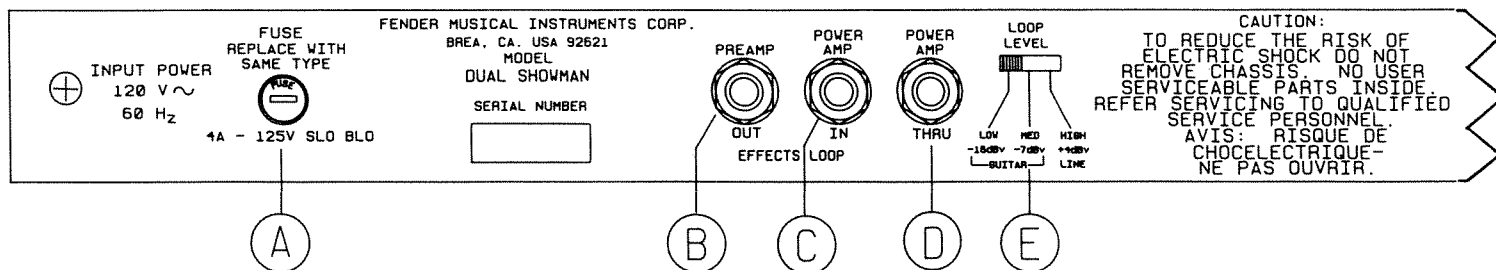


DUAL SHOWMAN FRONT PANEL FUNCTIONS:

- 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. This knob can be pulled out for additional treble boost.
- C. **MID**—Adjusts the amount of boost or cut in the mid frequency range of Channel One. This knob can be pulled out to reduce midrange boost.
- D. **BASS**—Adjusts the amount of boost or cut in the low frequency range of Channel One.
- E. **CH. 1 INDICATOR**—This LED is illuminated when Channel One is on.
- F. **CH. 1 INPUTS**—Plug-in connection for instruments. Both jacks have the same sensitivity. When these inputs are used **alone with nothing plugged into the Ch. 2 inputs**, the amplifier is in the *Channel-Switching* mode. The remote footswitch or PULL FOR SELECT switch will route the input signals to either Ch. 1 or Ch. 2 as indicated by the two channel indicator LEDs on either side of the input jacks. When these inputs are used **in addition to instruments plugged into the Ch. 2 inputs**, the amplifier is in the *Dual Channel* mode, i.e. Ch. 1 inputs go through Ch. 1 and Ch. 2 inputs go through Ch. 2.
- G. **CH. 2 INPUTS**—Plug-in connection for instruments. Both jacks have the same sensitivity. When these inputs are used **alone with nothing plugged into the Ch. 1 inputs**, the amplifier is in the *Parallel-Channel* mode. The input signals are routed to both Ch. 1 and Ch. 2 simultaneously, allowing a mix of the two channels to be achieved. When these inputs are used **in addition to instruments plugged into the Ch. 1 inputs**, the amplifier is in the *Dual-Channel* mode, i.e. Ch. 1 inputs go through Ch. 1 and Ch. 2 inputs go through Ch. 2.
(NOTE: The channel select footswitch and PULL FOR SELECT switch are disabled when in the *Parallel-Channel* or *Dual-Channel* modes.)
- H. **CH. 2 INDICATOR**—This LED is illuminated when Ch. 2 is on.
- I. **GAIN**—Adjusts the amount of amplification in the Ch. 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 Ch. 2 VOLUME control to set the overall loudness at the output.
- J. **TREBLE**—Adjusts the amount of boost or cut in the high frequency range of Channel Two. This knob can be pulled out for additional treble boost.
- K. **MID**—Adjusts the amount of boost or cut in the middle frequency range of Channel Two. This knob can be pulled out for additional midrange boost.



- L. BASS**—Adjusts the amount of boost or cut in the low frequency range of Channel Two. This knob can be pulled out for additional bass boost.
- M. PRESENCE**—Adjusts the amount of boost or cut in the upper high frequency range. This control occurs post preamp distortion and is useful in adjusting the distortion characteristic from brash, to smooth. This knob can be pulled out to activate the *NOTCH* mode which transforms the Presence control from a shelving type filter to a bandpass type, further adding to the sonic possibilities.
- N. VOLUME**—Adjusts the overall loudness of Channel Two. This knob can be pulled out to select Ch. 2 when in the *Channel-Switching* mode. **This pull switch disables the remote footswitch.**
- O. DAMPING SWITCH**—This three position switch sets the damping factor of the output amplifier. HI—is the normal, clean and tight Fender sound; MED—produces a livelier crisp top end; and LO—produces a big open sound particularly noticeable with high level playing.
- P. OUTPUT SWITCH**—Sets the maximum output of the amplifier to either HI—100 Watts R.M.S., or LO—25 Watts R.M.S. The HI setting is normally used for most applications and the LO position is useful in simulating a smaller amp especially with overdrive playing.
- Q. STANDBY SWITCH**—Turns the amplifier on and off, however while in the off position power is applied to the tube filaments so as to eliminate warm-up time when switched on. Use of this feature during periodic breaks vs. using the POWER ON/OFF SWITCH will increase tube life.
- R. POWER SWITCH**—Turns AC power ON and OFF. When the switch is OFF the amplifier is completely shut down.
- S. POWER INDICATOR**—When this indicator is illuminated the DUAL SHOWMAN is receiving power.



DUAL SHOWMAN REAR PANEL FUNCTIONS:

- A. **FUSE**—This fuse is in the AC supply of the amplifier and will help to protect the amplifier and operator in the event of an electrical fault. If a fuse blows, it should only be replaced with a fuse in accordance with the listing at the fuse holder. If the amplifier repeatedly blows fuses, it should be checked out by a qualified technician. **Under no circumstances** should a fuse with a higher current rating or a fuse bypass be used as this could cause equipment damage and present a serious safety hazard.
- B. **PREAMP OUT**—This jack provides an unbalanced output signal from the preamp. Its nominal level is set by the LOOP LEVEL SWITCH. (See E). This output can be used in conjunction with the POWER AMP IN jack as a patch point for effect units.
- C. **POWER AMP IN**—This 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 DUAL SHOWMAN as a slave amp. Its nominal sensitivity is set by the LOOP LEVEL SWITCH. (See E).
- D. **POWER AMP THRU**—This jack provides an unbalanced output signal from the preamp and is post EFFECTS LOOP (POWER AMP IN). This signal can be used to feed recording and sound reinforcement mixers or more often to drive other DUAL SHOWMAN amplifiers as slaves. This is done by connecting a standard guitar cord from the POWER AMP THRU jack of the master amplifier to the POWER AMP IN jack of the slave, then from the POWER AMP THRU jack of the slave to the POWER AMP IN jack of the next slave, etc. Its nominal level is set by the LOOP LEVEL SWITCH and **this switch should be set to the same level on all the amplifiers in the chain.** (See E). (NOTE: This output works best with tube type slave amps, see J. BALANCED LINE OUT for slaving solid-state slave amps.)
- E. **LOOP LEVEL SWITCH**—Selects the nominal operating level of the PREAMP OUT, POWER AMP IN, and POWER AMP THRU 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 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.) 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 on all amplifiers should be set to the same position.**
- F. **OUTPUT BIAS ADJUST**—This trim adjustment is used to set the bias on the output tubes in conjunction with the two bias test points. This adjustment is made by connecting a digital voltmeter to the two test points labeled BIAS. Use the most sensitive DC Volts scale and adjust the voltage between the two test points to .04 VDC. This calibration should be made after the amplifier has been allowed to warm up for at least two minutes and prior to the balance calibration. (NOTE: If tubes won't bias, replace 6L6-GC's.)
- G. **TEST POINTS**—Used to measure tube bias and balance with a digital voltmeter. (See F & H).
- H. **OUTPUT BALANCE ADJUST**—This trim adjustment is used to set the balance between the push/pull sections of the amplifier in conjunction with the two BALANCE test points. This adjustment is made by connecting a digital voltmeter to the two test points labeled BALANCE. Use the most sensitive DC Volts scale and adjust the voltage between the BALANCE test points to 0 VDC. This calibration should be made after the amplifier has been allowed to warm up for at least two minutes and after the BIAS calibration is performed. (NOTE: If tubes won't balance, check bias and/or replace 6L6-GC's.) Only make adjustments to bias and balance when necessary. If you are not sure about this feature leave it alone!!!
- I. **FOOTSWITCH JACK**—Plug-in connection for remote footswitch to activate Channel Two when in the *Channel-Switching* mode.

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.**

TUBES

The DUAL SHOWMAN tube complement consists of four Fender Special Design 6L6-GC's (PN 023556), four Fender Special Design 7025's (PN 013341), and one Fender Special Design 12AT7 (PN 023531). Fender's Special Design electronic tubes provide optimum performance in this amplifier. For best results, replace with Fender original equipment tubes only.

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 primary fuse blown?
- Is the speaker properly connected to the amplifier?
- Is the amp on standby?
- 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.

DUAL SHOWMAN SPECIFICATIONS:

PART NUMBER: 21-6100

DIMENSIONS: Height: 10" (25.4 cm)
Width: 27-7/16" (69.7 cm)
Depth: 10-15/16" (27.8 cm)

Weight: 54 lbs. (24.5 kg)

POWER OUTPUT: HI SETTING — 100 Watts R.M.S.
into 4, 8, or 16 ohms. LO SETTING — 25 Watts R.M.S.

INPUT IMPEDANCE: CH. 1 and CH. 2 Inputs — greater than 1 megohm.
Nominal level — 100 mv.

OUTPUT IMPEDANCE: Switch selectable to 4, 8, or 16 ohms.

EFFECTS LOOP: Nominal Level — switch selectable to -16dBv, -7dBv, and +4dBv.
Output Impedance less than 12k ohm.
Input Impedance greater than 180k ohm.

BALANCED LINE OUTPUT: Nominal Level — 0dBv into 600 ohms or greater.

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

FUSE TYPE: 4 Amp 125 Volt minimum, SLO-BLO

RECOMMENDED SPEAKER ENCLOSURE: One or Two Fender 412 "The Wedge" Speaker Enclosures (PN 21-6102). (Speaker complement — four Fender Special Design 12 inch (PN 026428), 8 ohm speakers wired series-parallel. (Celestion G12T-75's optional.))

SOUND: Really Loud.

NOTES

FENDER MUSICAL INSTRUMENTS
1130 Columbia Street, Brea, California 92621