

Congratulations on the purchase of your *Fulltone*<sup>®</sup>



## FULL-DRIVE 3<sup>®</sup>

The FD2 has been a tremendous hit for me since it came out in 1993, but I've always wanted to expand on it and create the ultimate overdrive/boost pedal, which I've accomplished with the **Full-Drive3**. Although it may look similar to the FD2, the FD3 is a much more evolved and natural-sounding design offering a vast array of both clean and distorted tones. Unlike its cousin, the FD3 uses both a JFET input and a JFET opamp, which helps give it the most tube-like sound you can get out of a tubeless pedal. Along with great sound, these JFET's give the FD3 an ultra-high Input impedance which allows the pedal to mate with any type/gain of pickup and react extremely well to changes in your guitar's volume control.

Plug into the FD3, set the pedal's 3-way **CLIPPING** toggle switch to **90's** and you'll get the familiar 1990's FD2 smooth, symmetrical clipping with ample midrange. Set the switch to **WIDE ASYM** (wide asymmetrical) and more sweet highs and lows come through, along with chimey, Class-A style even harmonic overtones. Lastly, there is **COMP-CUT** mode, which is a popular Fulltone invention offering a not-so-clean Boost that's pure opamp-overdrive, with no diode clipping assistance. Aggressive, cutting, and (be careful) capable of a huge volume boost to slam the input of your amp.

While the FD2's **BOOST** mode merely offers an increase in distortion, the FD3 has completely independent **OVERDRIVE** and **BOOST** channels, with an **ORDER** toggle switch placing the **BOOST** channel *before* or *after* the **OVERDRIVE** channel. The range of tones offered by this **ORDER** switch will effectively knock 2-3 pedals off your 'board. The **BOOST** channel is also an extremely transparent, high-headroom 100% JFET-powered circuit, and (serial# 2548 and higher) is now **Buffered-Bypass** (instead of True-Bypass) so the FD3 will always drive long cables, be isolated from other effects, and always retain the highs and "feel" of your amplifier *whether the pedal is turned ON or OFF!*

Turning up the **BOOST** channel's **DYNAMICS** knob (a Fulltone-exclusive Germanium diode Limiter circuit) alters the *feel* of the notes being played as well as subdues transient spikes which can overload your amp's input. Those spikes can be fatiguing and damaging to the ears, the amp, and its speakers! Similar to using a limiter on the mixdown of a song in the studio, the **DYNAMICS** knob helps you keep your place in the live mix...like a very smart compressor. This feature can make even a stiff amp feel responsive and juicy, and sweeten the treble frequencies. **Tip:** Try the FD3 with a great quality (regulated) 18 volt DC power supply like the Fulltone FPS-3 for an even bigger sound with more headroom. Do not use "switching type" adapters that automatically adjust from 100-240 volts, they are noisy.

I hope you get a lot of use out of your new FD3, I sure had fun designing and enjoy making it, and I believe it truly pays homage to the Fulldrive legacy while raising the bar for overdrive pedals in the process!

Play on!

Michael Fuller



**IN Jack (#16 on above diagrams):** Connect a shielded (1/4" mono plugs) cable from your instrument into this jack. Always use good quality shielded cables (e.g. Fulltone Gold Standards) for audio signals, speaker cables are un-shielded and should not ever be used to connect your instrument to other effects or your amp.

**OUT Jack (#14):** Connect a cable (shielded with 1/4" mono plugs) going to your amplifier and/or the IN of other pedals.

**ON/OFF footswitch (#1)** Press to turn the OVERDRIVE (OD) side of the pedal ON or OFF. This is the LEFT side of the pedal, and utilizes every feature except for 9, 10, 12, and 13. When the LED (#2) is lit, the OD side of the pedal is ON.

**VOLUME knob (#4):** This knob only affects the OD side of the pedal, when the LED (#2) is lit. Turn this Clockwise (CW) and the volume will increase...turn it Counter Clockwise (CCW) and the volume will decrease.

**TONE knob (#5):** This knob only affects the OD side of the pedal. It reduces the Treble frequencies as you turn it CCW, and increases Treble as you turn CW. Neutral tends to be around 12 O'clock with most amps.

**CLIPPING switch (#6):** This toggle switch only affects the OD side of the pedal, and allows you to change the Distortion clipping characteristics. Set to **90's**, the pedal is Symmetrical in its clipping, with more midrange like an old TS or 1990's FD2. Set this switch to **WIDE ASYM** (wide asymmetrical) and the Bass & Treble frequencies are more pronounced and offering more even-ordered Harmonics. Net sonic result is a more chimey, Class-A tube-type sound. The middle switch position marked "CC" enacts the **COMP-CUT** feature. This mode removes all diode clipping from the JFET opamp, giving it a somewhat clean-boost feature or an aggressive opamp clipping sound on higher OD settings.

**OVERDRIVE knob (#7):** Only affects the OD side of the pedal. Turn it CW and the level of distortion will increase, turn it CCW and the opposite occurs.

**BOOST footswitch (#13):** This switch turns on or off the BOOST, which is the right side of the pedal.

**BOOST knob (#9):** This knob controls the amount of volume increase the BOOST channel will deliver. CW gets louder, CCW gets quieter.

**ORDER switch (#8):** This switch is relevant only when both sides of the pedals are turned ON, and allows you to select whether the BOOST circuit comes BEFORE or AFTER the OD side of the pedal. A Cool feature, because an overdrive sounds completely different with a Clean Booster *before* it then it does with a clean booster *after* it.

**OD-->BOOST:** (with the OD side of the pedal is turned ON) Turn on the BOOST and it will take the sound you have and simply make it louder without increasing the distortion! Great for live work, and takes the power away from the soundman, letting you control your place in the mix. Net result is potential for serious volume increase when set this way without much change to the distortion sound you have chosen.

**BOOST-->OD:** (with the OD side of the pedal turned ON) Turn on the BOOST and its now routed to the OD side's INPUT, increasing the distortion the more CW you turn the BOOST. The net result is more distortion and a little bit of volume increase.

**DYNAMICS knob (#10):** This knob is part of the BOOST circuit, and only is functional when the BOOST is turned ON. Turning this CW will start to bring in a subtle Germanium diode limiter circuit, there is no right or wrong way to use this, choose your setting based on how it makes the notes feel when you pick the strings.

**WARNING!** If you turn this knob too far CW it will actually start *reducing your volume*, just like a studio Limiter/Compressor can do, so use restraint when setting this function. I find that the ideal way to set this is to first set the DYNAMIC knob to the desired feel, and then adjust the BOOST knob to desired volume.

**BUFFERED-BYPASS:** All FD3's (#2548 and higher) have high quality JFET "Buffered-Bypass" so the pedal will always drive long cable lengths, always be isolated from other effects, and always retain the highs and feel of your amplifier...whether the pedal is turned ON or OFF. The FD3's JFET opamp is a far superior Buffer than the single transistor buffer used in other pedals, so don't be put off by the mere fact that it is buffered...there are good and bad buffers.

**BATTERY:** To access the battery, remove the thumbscrews (3 & 11) by turning them CCW, separate the top & bottom sections of the pedal, replace battery, and reassemble the pedal.

**DC POWER PORT: (#15)** You may run this device on a 9 volt battery (included), a high-quality, regulated Class2 type 9 to 18VDC wallwart (not included), or 9-18VDC regulated pedalboard powersupply. Its cable's center must be configured to the standard 2.1mm x 5.5mm barrel plug with *Negative to Center Pin* configuration, as per following diagram: . The Fulltone FPS-1 is a great 9VDC regulated wall wart adapter, and our FPS-3 is the only Class2, regulated, quiet 18 volt wallwart on the market. Both adapters are available for purchase direct from Fulltone at <http://www.fulltone.com/pedals/accessories>. For multi-output power supplies we have always recommended the various Voodoo Lab products, particularly the PP2. Avoid "non-discrete" (daisy-chained) power supplies because they allow one pedal's noise to be transmitted to all the other pedals in the chain, and also avoid "switching type" adapters as they produce high frequency noise that bleeds into audio circuits. You can tell if it's a switching adapter if the power supply automatically operates at all voltages between 100-240VAC.

#### SPECIFICATIONS:

Input impedance: 1.1 megaohms.

Output Impedance: 180 ohms.

Dimensions: 5.17"W x 4.26"D x 2.36" H.

Weight: 1lb 7oz.

Power Consumption: maximum 13 milliamps with both channels on.

**WARRANTY:** Fulltone products carry a Limited 5 year Warranty to the original owner with proof of purchase that the product was bought from an Authorized Fulltone Dealer. There is no need to register your product, simply keep a copy of your original sales receipt. The Warranty covers failure due to manufacturing errors only and is void if any mod or repair is performed by anyone other than us or if we deem that any operator-caused abuse or damage has occurred. Non-warranty examples include: the use of an incorrect power supply, a dropped pedal, water damage, etc. Customer is responsible for all shipping costs both to and from Fulltone. Repair issues are handled via email, and we always ask you to help us troubleshoot the pedal by isolating it from all other devices, powered with a fresh battery, with 2 different cables prior to your sending in the pedal. After we have determined that a repair is necessary, we will email you a PDF copy of our Return Merchandise Authorization (RMA) form and schedule a time for you to send it to us. Fill out the RMA and include it with the pedal you are sending. Fulltone Musical Products Inc. is not responsible for and injuries and/or damages related to the use of its products.

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