

The Custom Shop Queen Bee is powered by 3 x New Old Stock Military "Flying Saucer" germanium transistors in an original design that behaves in an amp-like manner, meaning it responds dynamically to the input from your hands and guitar. Great clean-up by lowering the guitar's volume knob, sweet mids, clarity, sustain, harmonics...it's all in there.

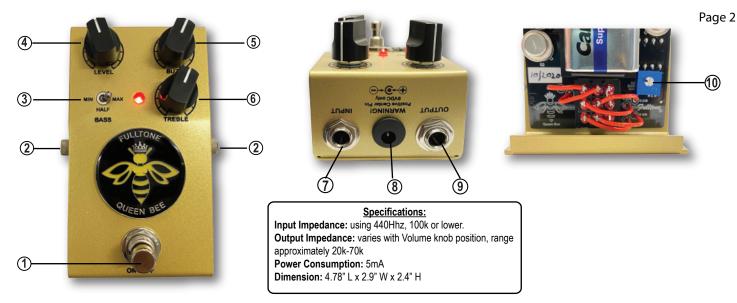
The #1 and #2 transistors are configured to achieve maximum gain in order to hit transistor #3 extremely hard, creating more sustain and distortion than is possible with the 2-transistor Fuzzes while making the pedal rather low-noise for such a high-gained design. Another thing the Bee has, something no other fuzzes have, is ample MIDRANGE! Fender amp owners will appreciate the Passive Hi-Cut Tone control for taming the treble, and further sonic sculpting is accomplished via a smart, loss-less 3-position Bass switch (placed before transistor #3) tailoring the low frequencies and keeping the bottom-end tight. Looking at this pedal's signal on an oscilloscope reveals what your ears already knew...a wildly asymmetrical waveform high in second-order Harmonics, culminating in a sweet, rich, commanding voice with tons of sustain. Translation: This pedal will not get lost in the mix.

Inside the pedal is a trimmer for adjusting the bias of transistor #3 by a range between 2 and 6 volts DC. My favorite tending to be somewhere between 3 and 4 volts. The trimmer should be adjusted by ear as there are no wrong settings, a slight turn results in a drastic change in sound, in volume, and in compression characteristics. Suddenly firm becomes soft, bright becomes warm, grainy becomes smooth...it's astonishing what this little trimmer does.

As with most Fulltone pedals, the Queen Bee has True-Bypass switching via the Fulltone 3PDT footswitch for maximum signal integrity while the pedal is bypassed. Because the Bee utilizes Germanium transistors it should only be powered with the (included) battery or a "Center Positive," well-regulated power supply. Do not "daisy-chain" multiple pedals on a single wall wart adapter as this may damage the pedal. Instead the Queen Bee should be connected to its own outlet on a professional-grade power supply that has regulated, isolated/discrete outputs, in addition a reversed power cable must be used. Fulltone Queen Bees are 100% Hand-Built in the USA.

Enjoy it for years to come! Michael Fuller/President

Manual version 1.0 covers serial #0001 and higher



ON/OFF FOOTSWITCH (see #1 on above diagrams) The Queen Bee uses the Fulltone 3PDT footswitch wired for True-Bypass.

**REMOVING THUMBSCREWS TO OPEN PEDAL:** (#2) unscrew these by hand rotating them counterclockwise (CCW) and pull the housing apart to reach the battery. To remove the battery, grasp the battery on the end closest to the footswitch, and pull the battery straight UP, not sideways. To reassemble the pedal, put housing back together and tighten the thumbscrews clockwise (CW) hand-tight only, DO NOT use pliers or you may strip the threads!

**BASS SWITCH:** (#3) This 3-position switch is a "loss-less" Bass control offering 3 distinct levels of Bass content. I placed this control pre- transistor #3, which allows you to tailor the amount of bass that hits transistor #3. MAX position (switch right) allows all bass frequencies to pass, HALF position (switch middle) rolling off frequencies177hz and lower, and MIN (switch left) yields the minimum available bass, rolling off frequencies 347hz and lower.

LEVEL KNOB: (#4) This knob sets the volume when the pedal is ON.

**BUZZ KNOB:** (#5) This knob sets the distortion level by dictating how much signal from the #1 & #2 transistors get through to transistor #3. **Tip:** Leave the Buzz control FULL CW and use your guitar's volume knob to go from acoustic clean to snarling full-on Fuzz! This is the secret to access the magic of the Queen Bee! For a video demonstration of this technique go to https://youtu.be/YalsnAK8Ue4

TREBLE KNOB: (#6) This knob is a passive Treble roll-off, full CW rotation being most treble, full CCW position being least treble. Turn until happy.

**INPUT JACK:** (#7) Connect a (shielded with ¼" mono plugs) cable coming from your guitar, bass, or other instrument into this jack. Always use good quality shielded cables for audio signals, speaker cables are *un-shielded* and should not ever be used to connect your instrument. **Tip:** This pedal has a low input impedance therefore should always be placed BEFORE any buffered pedals, loops, or tuners.

**POWER:** (#8) Warning! You may only power this pedal with the supplied 9 volt battery or a "Center Positive," well-regulated power supply such as the Fulltone FPS-2 (US & Canada only). Do not "daisy-chain" multiple pedals on a single wall wart adapter as this may damage the pedal. Instead the Queen Bee should be connected to its own outlet on a professional-grade power supply that has regulated, isolated/discrete outputs, in addition a reversed power cable must be used. The connector must be a NON-standard 2.1mm x 5.5mm barrel plug "Positive to Center Pin," as shown on the following diagram:  $\bigcirc$   $\bigcirc$ 

OUTPUT JACK: (#9) Connect a cable (shielded with 1/4" mono plugs) going to your amplifier or other pedals in your chain.

INTERNAL BIAS TRIMMER: (#10) This trimmer sets the bias of Transistor #3, offering a range of between 2 volts and 6.5 volts when powering with 9 volts. Tip: There is no wrong setting here! Turning the trimmer CW increases the bias voltage, which will increase volume, treble, and be less compressed sounding and feeling. Turning the trimmer CCW reduces the voltage and will soften the sound and add more compression and apparent distortion. Be sure to notice that these settings will affect the pedal's ability to clean up well when turning the Guitar's volume knob down, so be sure to check that when adjusting.

WARRANTY: Fulltone products carry a Limited 5 year Warranty to the original owner with proof of purchase that the product was bought direct or from an Authorized Fulltone Dealer. The Warranty covers failure due to manufacturing errors only and is void if any mod or repair is performed by anyone other than Fulltone AND/OR if we deem that any operator-caused abuse or damage has occurred, for example; the use of an incorrect power supply, a dropped pedal, water damage, etc. Customer is always responsible for all shipping costs both to and from Fulltone. Do not call, instead all repair issues are handled via email to troubleshoot the possible problem and (after troubleshooting) for the scheduling of Warranty Repair. After we have deemed that a repair is necessary, we will email you an Acrobat PDF copy of our Return Authorization Form (RA Form) and print it out, fill out all information, and include it with the device you are sending. Fulltone Musical Products Inc. is not responsible for and injuries and/or damages related to the use of our products.

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