digitech FREQOUT Owner's Manual

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digitech FREQOUT

WARRANTY

We at DigiTech® are very proud of our products and back-up each one we sell with the following warranty:

1. Please register online at digitech.com within ten days of purchase to validate this warranty. This warranty is valid only in the United States.
2. DigiTech warrants this product, when purchased new from an authorized U.S. DigiTech dealer and used solely within the U.S., to be free from defects in materials and workmanship under normal use and service. This warranty is valid to the original purchaser only and is non-transferable.
3. DigiTech liability under this warranty is limited to repairing or replacing defective materials that show evidence of defect, provided the product is returned to DigiTech WITH RETURN AUTHORIZATION, where all parts and labor will be covered up to a period of one year. A Return Authorization number may be obtained by contacting DigiTech. The company shall not be liable for any consequential damage as a result of the product's use in any circuit or assembly.
4. Proof-of-purchase is considered to be the responsibility of the consumer. A copy of the original purchase receipt must be provided for any warranty service.
   5. DigiTech reserves the right to make changes in design, or make additions to, or improvements upon this product without incurring any obligation to install the same on products previously manufactured.
5. The consumer forfeits the benefits of this warranty if the product's main assembly is opened and tampered with by anyone other than a certified DigiTech technician or, if the product is used with AC voltages outside of the range suggested by the manufacturer.
6. The foregoing is in lieu of all other warranties, expressed or implied, and DigiTech neither assumes nor authorizes any person to assume any obligation or liability in connection with the sale of this product. In no event shall DigiTech or its dealers be liable for special or consequential damages or from any delay in the performance of this warranty due to causes beyond their control.

NOTE: The information contained in this manual is subject to change at any time without notification. Some

information contained in this manual may also be inaccurate due to undocumented changes in the product since this version of the manual was completed. The information contained in this version of the owner's manual supersedes all previous versions.

TECHNICAL SUPPORT & SERVICE

If you require technical support, contact DigiTech Technical Support. Be prepared to accurately describe the problem. Know the serial number of your device – this is printed on a sticker attached to the chassis. If you have not already taken the time to register your product, please do so now at **digitech.com**.
Before you return a product to the factory for service, we recommend you refer to this manual. Make sure you have correctly followed installation steps and operating procedures. For further technical assistance or service, please contact our Technical Support Department at (+82) 1800-6951 or visit digitech.com. If you need to return a product to the factory for service, you MUST first contact Technical Support to obtain a Return Authorization Number.

NO RETURNED PRODUCTS WILL BE ACCEPTED AT THE FACTORY WITHOUT A RETURN AUTHORIZATION NUMBER.
Please refer to the Warranty information, which extends to the first end-user. After expiration of the warranty, a reasonable charge will be made for parts, labor, and packing if you choose to use the factory service facility. In all cases, you are responsible for transportation charges to the factory. If the product is still under warranty, DigiTech will pay the return shipping. Use the original packing material if it is available. Mark the package with the name of the shipper and with these words in red: DELICATE INSTRUMENT, FRAGILE! Insure the package properly. Ship prepaid, not collect. Do not ship parcel post.

INTRODUCTION

Thanks for choosing the DigiTech® FreqOut Natural Feedback Creator pedal. The FreqOut is a revolutionary pedal that adds different feedback harmonics to any guitar signal without coloring the original tone. Enabling the effect boosts a user-selectable harmonic of the input note, creating controlled, natural-sounding feedback sustain through any amp or amp modeler at any volume. The FreqOut has 7 different harmonic types to choose from, as well as controls for feedback gain amount and onset time (the time it takes for feedback to grow to full strength). The LED ladder shows when the effect is on or off and provides a visual indication of the onset of feedback. The Dry switch determines whether the dry signal is audible (on) or muted (off), and the Momentary switch allows the footswitch to operate as a momentary switch (on) or latching switch (off).
Follow these steps to use the FreqOut:

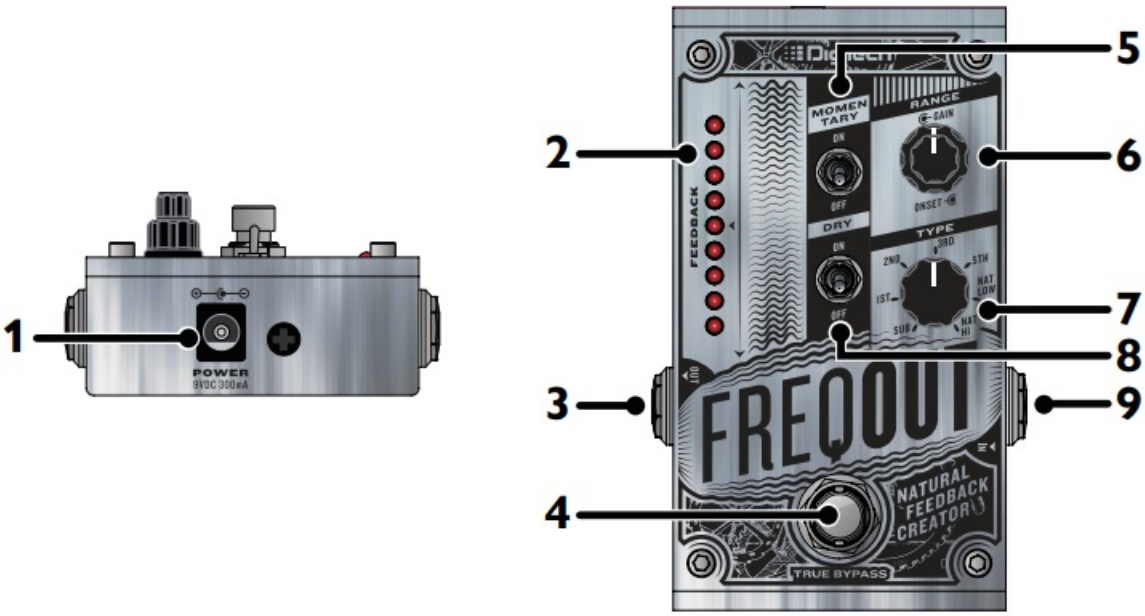
1. Start by settings the GAIN, ONSET, and TYPE knobs to 12 o'clock.
2. Set the MOMENTARY switch to "OFF" and the DRY switch to "ON".
3. Enable the effect using the EFFECT footswitch—the LED in the middle of the LED ladder will light to indicate the effect is on.
4. Play a single note on your guitar—the sustain of feedback should become audible. Repeat while setting the GAIN and ONSET knobs for the desired feedback amount and onset rate.
5. Select the desire harmonic frequency using the TYPE knob. See "Using The Harmonic Types" on page 4 for more information.
6. If you wish to create a swell-type effect (reminiscent of an *EBow™), turn the DRY switch off. Otherwise, leave it on.
7. Set the MOMENTARY switch for the desired EFFECT footswitch operation. See the "Momentary Switch" callout under "User Interface" on page 2 for more information on MOMENTARY switch operation.

FEATURES

- Controllable, Natural-Sounding Feedback for Electric Guitar
- 7 Feedback Harmonic Types
- Adjustable Feedback Gain & Onset Time Controls
- LED Ladder Provides Effect On/Off & Feedback Onset Status
- Dry On/Off Switch
- Momentary On/Off Footswitch Options
- True Bypass
- Compact Design
- Solid Construction

* EBow is a trademark of Heet Sound Products.

USER INTERFACE



1. **Power Connector**
   Connect the recommended power adapter to this jack (see “Specifications” on page 6).The FreqOut pedal requires a power adapter for operation. Battery power is not available.
2. **Feedback LEDs**
   The middle LED lights to indicate the FreqOut effect is on.When the effect is enabled,the LEDs will light from inside out to display the onset rate of the feedback effect.
3. **Output Jack**
   Connect this jack to the input of an amp or the input of the next pedal on your pedalboard.
4. **Effect Footswitch**
   Turns the FreqOut eff ect on or off.The Effect footswitch can operate as a latching or momentary switch depending on the position of the Momentary switch.
5. **Momentary Switch**
   Determines the operation of the Effect footswitch.When set to the “ON” position,the effect will only be enabled as long as the Effect footswitch is held down. Use this setting to apply feedback only to certain notes or passages during a performance. When set to the “OFF” position,the Effect footswitch will operate just like standard effect pedals, where the effect toggles between enabled and bypassed modes each time the Effect footswitch is pressed. Use this mode when you want feedback to be more prominent during a performance and

don’t want it to be applied during specification notes or phrases.

NOTE: When the Momentary switch is set to the “ON” position, the FreqOut will use a buffered bypass signal path. When the Momentary switch is set to the “OFF” position, the FreqOut provides a true bypass signal path.

6. **Gain & Onset Knobs**

   Gain Knob – Adjusts the amount of feedback gain. Use lower settings for a subtle effect. Use higher settings to increase the feedback/sustain effect.

   Onset Knob – Determines how long it takes before the feedback grows to full strength. Lower knob settings decrease the time, while higher knob settings increase the time.

7. **Type Knob**

   Selects one of seven feedback types:

   - **SUB** – Produces feedback an octave below the note.
   - **1ST** – Produces first-harmonic (unison) feedback of the note.
   - **2ND –** Produces second-harmonic feedback of the note.
   - **3RD** – Produces third-harmonic feedback of the note.
   - **5TH** – Produces fifth-harmonic feedback of the note.
   - **NAT LOW** – Produces various feedback frequencies in lower harmonic range.
   - **NAT HIGH** – Produces various feedback frequencies in higher harmonic range.

     See “Using The Harmonic Types” on page 4 for more detailed information on using the different harmonic types.

8. **Dry Switch**

   Turns the dry signal on or off while the effect is enabled.

   NOTE: When the Momentary switch is set to “ON” and Dry switch is set to “OFF”, there will be no dry signal passed through the FreqOut.

9. **Input Jack**

   Connect your instrument to this jack.

USING THE HARMONIC TYPES

The Harmonic Feedback Types
The first five Harmonic Feedback types let you get feedback at a predictable, repeatable frequency. Feedback is selectable at a sub-octave, 1st, 2nd, 3rd, or 5th harmonic, where harmonic is defined as a multiple of your note¸s frequency. For example, the 5th harmonic is 5x your note¸s frequency (which is actually 2 octaves above a major third interval of the original note).

The Natural Feedback Types
The two Natural Feedback types (NAT LOW and NAT HI) act more like natural feedback does. Using these feedback types, you might get di°erent feedback every time you play the same note.
Here are some tips to steer the feedback to what you want when using the Natural Feedback types:

- **Getting Lower-Frequency Feedback**

  Try playing more softly, rolling o° your tone, and using the neck pickup.
- **Getting Higher-Frequency Feedback**

  Try picking your notes harder, opening up the tone control, and using the bridge pickup.
- **Getting Transitioning Feedback**

  In general, high-frequency feedback is more likely to transition to lower frequencies as the note decays. Follow the instructions above for getting higher-frequency feedback to get more feedback transitions.

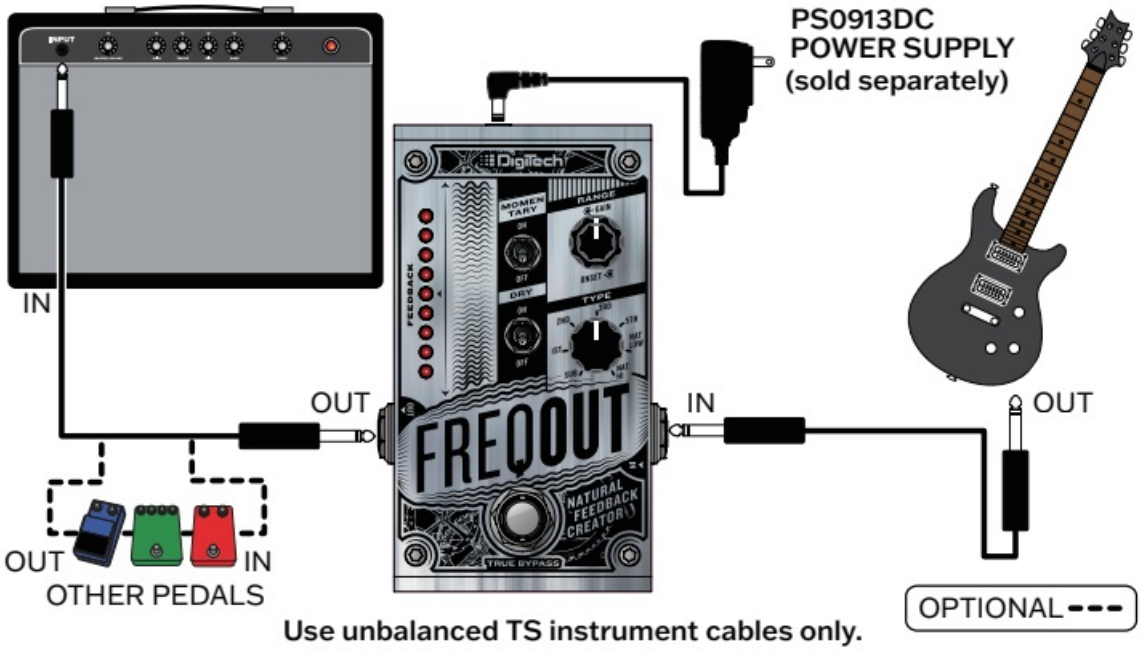
NAT LOW vs. NAT HI
Both feedback types have similar behaviors, but NAT LOW restricts the feedback frequencies to a lower range and doesn¸t allow feedback at the 5th harmonic or higher. This restriction ensures that you don¸t get feedback that sounds “major” on minor chords. NAT HI lets the feedback get a little higher-pitched, and thus slightly increases the odds of the feedback transitioning mid-note.

MAKING CONNECTIONS/APPLYING POWER

To connect the FreqOut pedal to your rig:

1. Turn down the ampliÿer’s master volume control.
2. Make all audio connections to the FreqOut as shown below.
3. Connect the optional power supply to the POWER input connector and connect the other end to an available AC outlet.
4. Strum your guitar and gradually increase your ampliÿer’s master volume control until the desired level is achieved.

CONNECTION DIAGRAM



NOTE: Since the FreqOut pedal is emulating the interaction between your guitar and an ampliÿer, it is recommended to place it at the beginning of your e°ects chain. This will provide a pure guitar signal and allow the pedal to properly create the feedback harmonics.

SPECIFICATIONS

Electronic

- **Controls:** Feedback, Momentary On/OFF, Dry On/OFF, Gain, Onset,Type, Effect On/ OFF
- **Signal to Noise Ratio:** > -106dB (A weighted);ref = max level, 22 kHz bandwidth
- **THD:** 0.004% @ 1 kHz;ref = 1 dBu w/ unity gain
- **A/D/A Conversion:** 24-bit

Input

- **InputType:** 1/4” UnbalancedTS (Tip-Sleeve)
- **Max Input Level:** +5 dBu
- **Input Impedance**: 1 MΩ (EFFect enabled or eFFect bypassed w/ Momentary switch on) True Bypass (EFFect bypassed w/ Momentary switch oFF)

Output

- **OutputType:** 1/4” UnbalancedTS (Tip-Sleeve)
- **Max Output Level:** +10 dBu
- **Output Impedance:** 1 kΩ (Effect enabled or effect bypassed w/ Momentary switch on) True Bypass (Effect bypassed w/ Momentary switch off)

Physical

- **Dimensions:** 4.75” (L) x 2.875” (W) x 1.75” (H)
- **Weight:** 0.8 lbs. (0.363 kgs.

Power

- **Power Consumption**: 2.1Watts (235 mA typical @ 9VDC)
- **Power Requirements:** 9VDC External Adapter (sold separately)

Recommended Power Adapter (Not Included)

- **Power Adapter**: PS0913DC-04 (US, JA, EU,AU, UK)
- **Power Adapter Polarity:** 
- **Power Adapter Output:** 9VDC 1.3 A

WEB: digitech.com
SUPPORT: support@digitech.com

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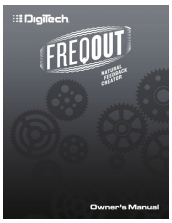
Documents / Resources

	digitech FREQOUT [pdf] Owner's Manual FREQOUT

References

- DigiTech Home - DigiTech