DOD

RUBBERNECK
ANALOG DELAY

RUBBERNECK ANALOG DELAY

INTRODUCTION

Thanks for choosing the DOD® Rubberneck Analog Delay pedal. The Rubberneck is an extensively featured delay pedal which uses BBDs for up to 1.5 seconds of classic analog delay.

Rubberneck operates like a standard delay pedal but also includes some performance features not found in other analog delay pedals. This includes 'Rubbernecking', a feature which allows the delay repeats to be stretched or compressed in time; Repeats Oscillation, a feature that provides a secondary delay feedback setting for creating momentary run away oscillation effects; and a Loop Send/Return jack for adding effects to the delay feedback signal path.

The FOOTSWITCH input jack allows a DigiTech® FS3X Footswitch to be connected for hands-free control of Rubbernecking, Modulation on/off, and Tap Tempo/Regen.

The Rubberneck Analog Delay pedal is all you need for that truly classic analog delay sound, with modern feature enhancements to transport your delay effects into the future.

FEATURES

- Up to 1.5 Seconds of Delay Time
- Unique Rubberneck Time Stretching Feature
- Controls for Time, Repeats, Level, Mod Rate, Mod Depth, Gain, Tone, Rubberneck Rate, & Regen Adjust
- Tap Ratio Toggle Switch for Selecting Delay Feel
- Tails Switch
- Effect On/Off Footswitch (Also Enables the Rubbernecking Feature)
- Tempo/Regen Footswitch for Tap Tempo & Momentary Delay Feedback Changes
- 1/4" Mono Input & Output Jacks
- Footswitch Input Jack for Additional Hands-Free Control
- Loop Send/Return Jack for Adding Effects to the Feedback Path
- True Bypass
- 9VDC Operation (Optional Power Supply Required)

QUICK START

1. Enable the effect with the EFFECT ON footswitch (the LED to the right of the footswitch will light solid green when the effect is enabled).

2. Use the TIME, REPEATS, and LEVEL knobs to set the delay interval, amount of repeats, and delay output level. Use the TAP RATIO switch to set the 'feel' of the delay.

3. Use the modulation RATE and DEPTH knobs to subtly vary the delay time. This provides slight chorusing to the delay repeats.

4. Use the GAIN knob to control the amount of distortion added to the delay signal. Use the TONE knob to alter the delay signal's tone.

5. Set the TAILS switch to the desired position:

    -   **On+NoDry** – The dry signal will be muted when the effect is on.

    -   **On** – Delay repeats will continue once the effect is bypassed.

    -   **Off** – Delay repeats are cut off immediately once the effect is bypassed. If you wish to use true bypass, use this setting.

Use these additional features to take your delay effects to the next level:
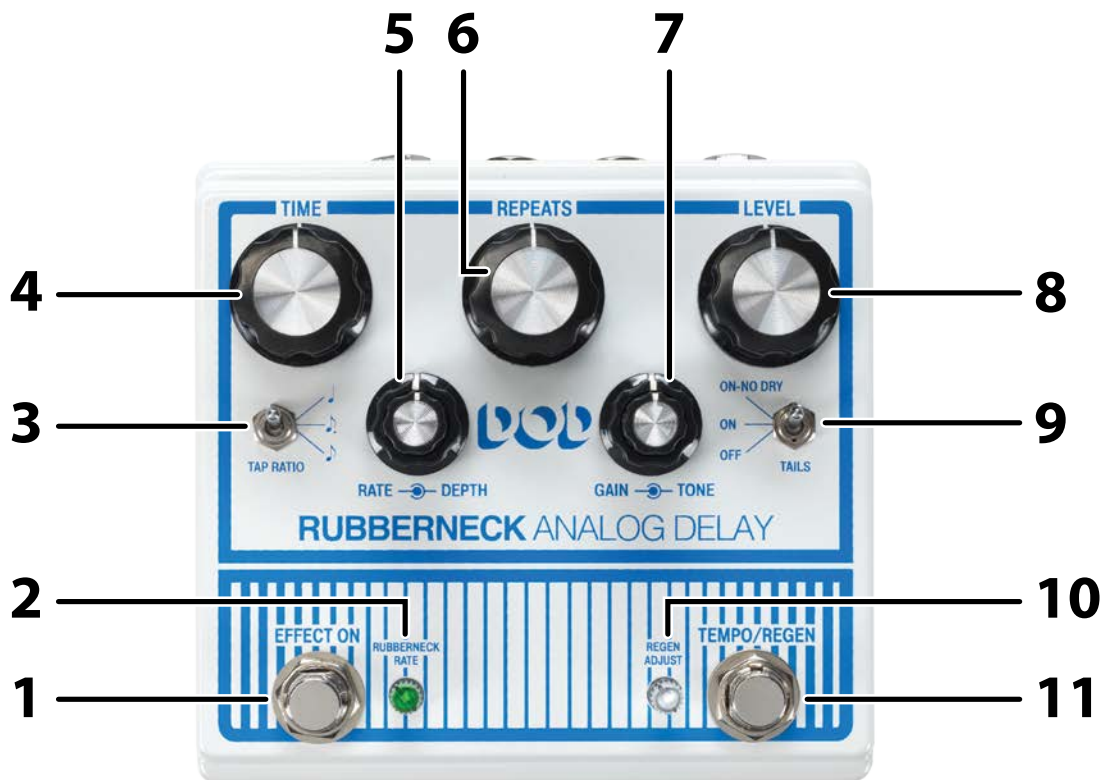
-   **Tap Tempo**
    Tap the TEMPO/REGEN footswitch to adjust delay time hands free. Each tap interval will modify the delay (indicated by the LED to the left of the footswitch) to match the tapped intervals. Used in conjunction with the TAP RATIO switch, you can get triplet or double-time delays based on the tap interval.

-   **Rubbernecking**
    Press and hold the EFFECT ON footswitch to enable 'Rubbernecking', a feature where the delay time is stretched or compressed in time. This can create 'dive bomb' or 'chipmunk'-like delay stabs during a performance. Use the RUBBERNECK RATE control to adjust the attack/release of the delay stretching.

-   **Repeats Oscillation**
    Press and hold the TEMPO/REGEN footswitch to momentarily enable the REGEN ADJUST control. This is essentailly a secondary feedback control that overrides the REPEATS knob setting with the REGEN ADJUST pot setting whenever the TEMPO/REGEN footswitch is pressed and held. By setting different REPEATS and REGEN ADJUST settings, you can go from single repeats into oscillation oblivion and back by holding and releasing the TEMPO/REGEN footswitch.

-   **Loop Send/Return**
    The Loop Send/Return jack lets you insert other effects (e.g., distortion, ring modulator, phaser, flanger) into the feedback path of the delay signal. This lets you create wild delay effects that can dynamically change in sound with every repeat.

USER INTERFACE – TOP PANEL

1. **EFFECT ON / RUBBERNECK Footswitch**
   Turns the delay effect on or off. When this footswitch is pressed and held, the 'Rubberneck' delay stretching feature is enabled until the footswitch is released.

2. **RUBBERNECK RATE Pot & LED**
   The Rubbernecking feature creates a 'rubber band'-like stretched audio effect when the EFFECT ON footswitch is held. This is accomplished by shortening or lengthening the delay time at a variable rate. Adjusting the RUBBERNECK RATE pot will increase or decrease the time it takes to reach the full range of the stretched sound. The first (left) half of the control sets the time to stretch (divebomb) the delay signal and the second (right) half of the control sets the rate to compress the delay time.

   The RUBBERNECK RATE pot is a clear backlit potentiometer with a bi-color LED underneath that serves a dual purpose:

   - **LED Off**
     The delay effect is bypassed.

   - **LED On**
     The LED will light solid green when the effect is enabled. The LED will pulse between green and yellow to indicate the modulation speed set by the RATE knob—the faster the modulation speed, the faster it will pulse between green and yellow. If the DEPTH knob is set to the minimum position, the LED will stay solid green to indicate no modulation is active. When Rubbernecking is active, the LED will light solid red.

3. **TAP RATIO Switch**

Selects the ratio of tapped-in tempos to the delay time that is produced. There are three settings:

- ♩ **Quarter Note** – Tap interval selects the delay time in a 1:1 ratio.

- ♪. **Dotted Eighth Note** – Provides a triplet feel when quarter notes are played.

- ♪ **Eighth Note** – Delay time is halved based on tap interval.

4. **TIME Knob**

Controls the delay time. This is variable from 30 ms to 1.0 second. Using the Tap Tempo feature, delay time can be extended up to 1.5 seconds.

5. **RATE / DEPTH Knobs**

These concentric knobs are used to control the modulation speed (rate) and depth of the delay signal. Using modulation creates a chorusing effect on the repeats. Turning these knobs clockwise increases speed and intensity, and turning the knobs counter-clockwise decreases speed and intensity. Turning the DEPTH knob to the minimum position will disable the modulation effect.

6. **REPEATS Knob**

Controls the number of delay repeats heard. When used in conjunction with the GAIN and TONE controls, repeats can run away into oscillation at higher settings, for some truly wild effects.

7. **GAIN / TONE Knobs**

The GAIN knob is used to increase the gain of the signal fed into the delay, making the repeats more or less distorted. The TONE knob is used to make the delay signal brighter or darker in tone.

8. **LEVEL Knob**

Controls the delay signal level fed to the output.

9. **TAILS Switch**

Determines if delay repeats will continue being heard after the effect is bypassed, or if the dry signal will be heard. There are three settings available:

- **On+No Dry** – The dry signal path will be muted when the effect is on. Note that the signal will travel through a buffered signal path when the effect is bypassed, rather than being true bypass. Delay repeats will still be heard after the effect is bypassed.

- **On** – Delay repeats will still be heard when the effect is bypassed. Note that the signal will travel through a buffered signal path when the effect is bypassed, rather than being true bypass.

- **Off** – Delay repeats are cut off immediately when the effect is bypassed. If you wish to use true bypass, use this setting.

10. **REGEN ADJUST Pot & LED**

This miniature potentiometer functions as a secondary REPEATS setting and becomes active when the TEMPO / REGEN footswitch is pressed and held. Adjusting this pot to a high setting along with a high TONE and GAIN setting will cause the delay effect to go into run away oscillation for as long as the

TEMPO / REGEN footswitch is held.

The REGEN ADJUST pot is a clear backlit potentiometer with a white LED underneath. The LED under the pot will blink at the delay time set by the TIME knob or by tapping in the tempo using the TEMPO/ REGEN footswitch. The LED will blink even when the effect is bypassed, allowing you to tap in a time before turning on the delay. The LED will light solid when the TEMPO/REGEN footswitch is pressed and held to enable the secondary REPEATS state.

11. **TEMPO / REGEN footswitch**
Tap this footswitch to tap in the delay time. The time is set based on the interval between taps in conjunction with the TAP RATIO switch position. Tapping in the tempo can be done while the effect is enabled or bypassed. Pressing and holding this footswitch will enable the REGEN feature, toggling the REGEN ADJUST pot into the audio path and the REPEATS pot out of the audio path to create a secondary momentary delay regeneration setting using the REGEN ADJUST pot. Releasing the TEMPO / REGEN footswitch will toggle back to normal operation, with the REPEATS pot again in the audio path.

USER INTERFACE – REAR PANEL

1. **Input Jack**

   Connect your guitar or the output of another pedal to this jack.

2. **Send / Return Jack**

   This TRS jack provides a loop send/return path for inserting effects into the feedback path of the delay circuit. Tip is send and Ring is return. The Loop Send/Return jack operates at instrument level, so it is designed for use with most effect pedals.

3. **Output Jack**

   Connect this output to the input of your guitar amplifier or the next effect in line.

4. **Footswitch Jack**

   Connect an optional DigiTech FS3X Footswitch to this jack to remotely control functions such as Rubbernecking, Modulation on/off, and Tap Tempo/Regen. See *'Using an External Footswitch' on page 9* for more information.
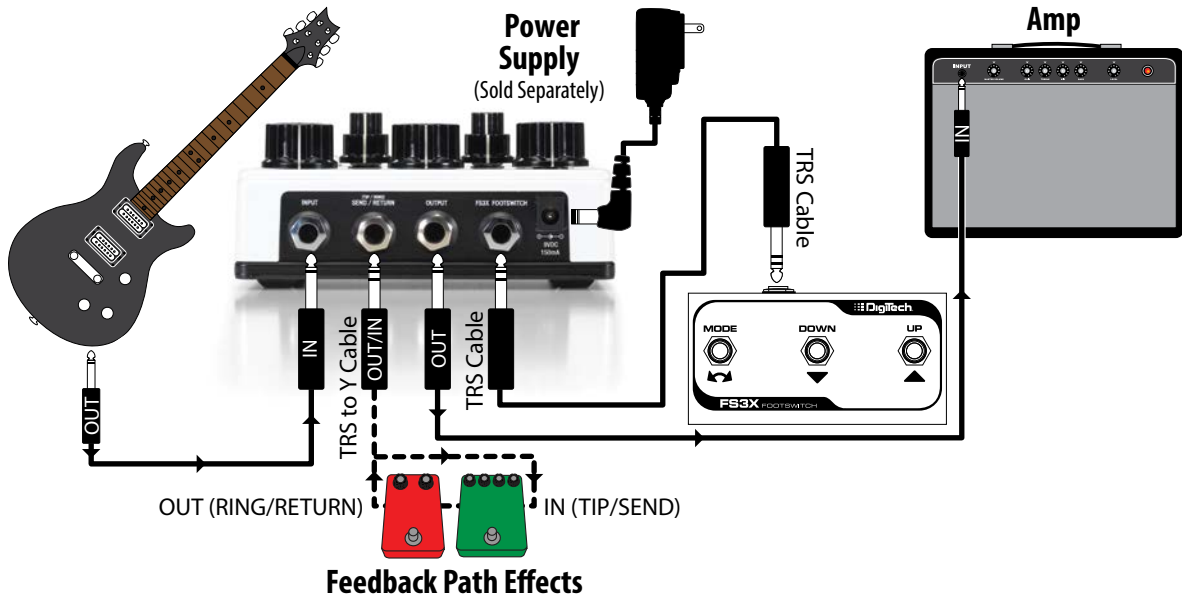
5. **Power Jack**

   Connect a PS0913DC 9VDC or equivalent power adapter here. Rubberneck does not run on a battery and requires a power adapter for operation.

MAKING CONNECTIONS / APPLYING POWER

1. Turn down the amplifier's master volume control.

2. Make all connections to the Rubberneck as shown in *'Connection Diagrams' on page 8.*

3. Connect the appropriate power supply (sold separately) to the POWER input connector and connect the other end to an available AC outlet.

4. Strum your guitar and gradually increase your amplifier's master volume control until the desired level is achieved.
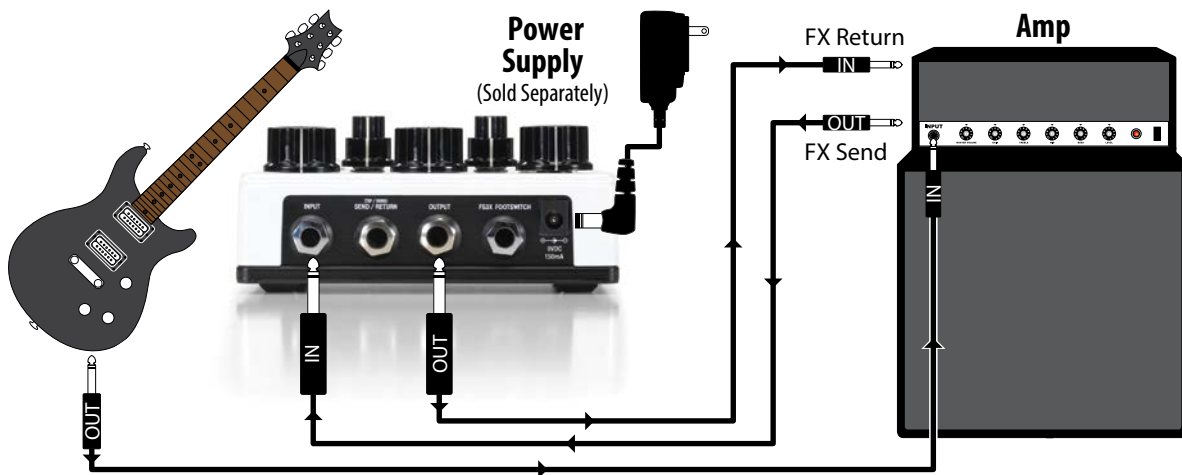
CONNECTION DIAGRAMS

Amplifier In-Line Setup

Power Supply
(Sold Separately)

Amp

TRS Cable

TRS Cable

IN

TRS to Y Cable

OUT/IN

OUT

TRS Cable

IN

OUT

MODE   DOWN   UP

DigiTech

FS3X FOOTSWITCH

OUT (RING/RETURN)   IN (TIP/SEND)

Feedback Path Effects

Use only unbalanced instrument cables for audio connections.

Optional - - -

Amplifier Effects Loop Setup

Power Supply
(Sold Separately)

FX Return   **Amp**

IN
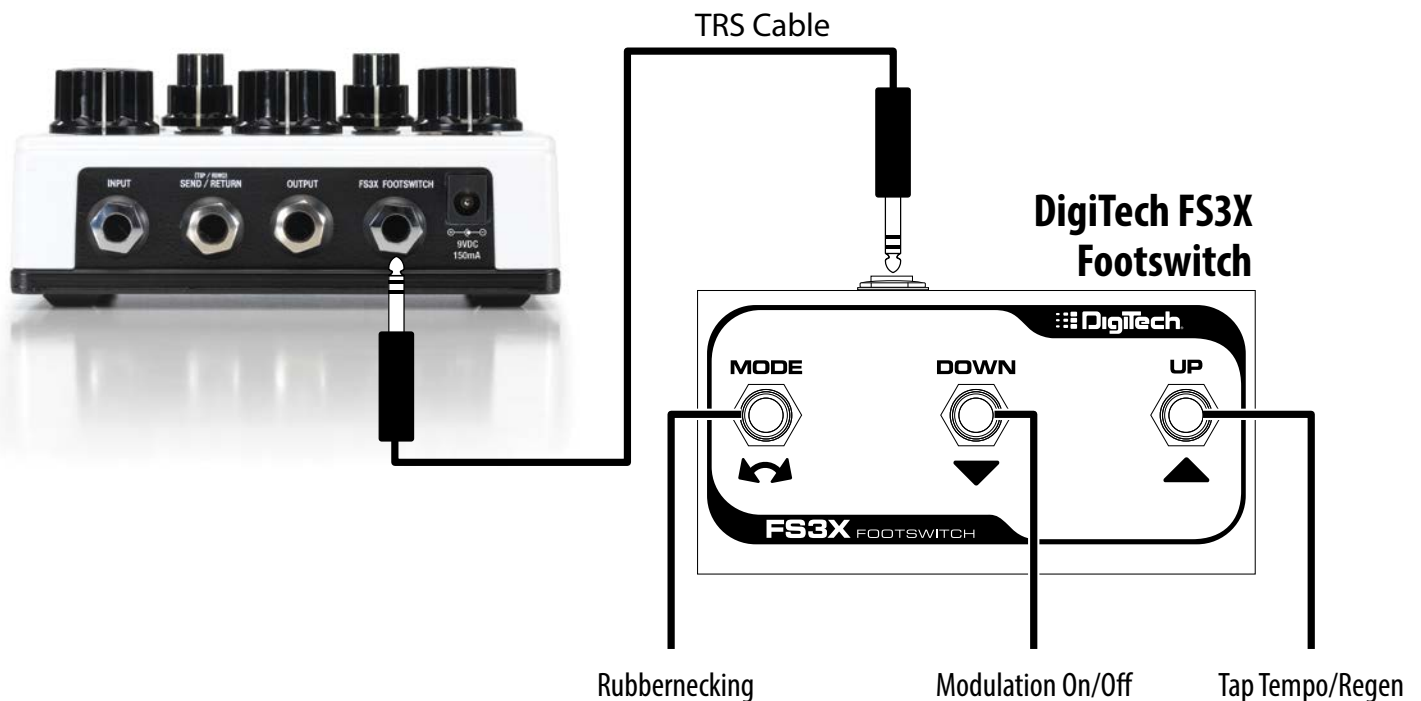
OUT

FX Send

IN

OUT

IN

OUT

Use only unbalanced instrument cables for audio connections.

NOTE: If the amp effects loop has a mix control, set the mix to 100% full wet.

USING AN EXTERNAL FOOTSWITCH

The FOOTSWITCH input jack accommodates an optional DigiTech FS3X Footswitch for remotely controlling Rubbernecking, Modulation on/off, and Tap Tempo/Regen functions. Other third party momentary footswitches may be used as well, but may not provide full functionality.
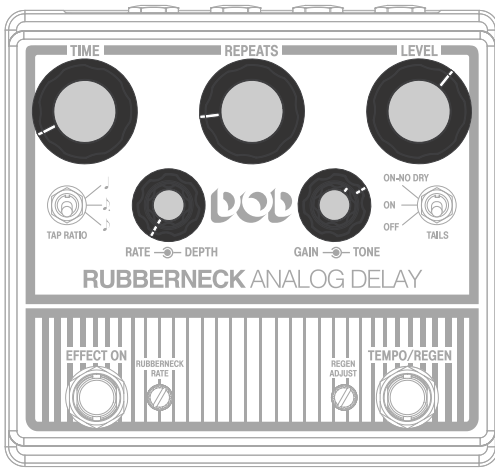
TRS Cable

DigiTech FS3X
Footswitch

MODE   DOWN   UP

FS3X FOOTSWITCH

Rubbernecking   Modulation On/Off   Tap Tempo/Regen

NOTE: For full functionality, connect the DigiTech FS3X Footswitch using a TRS cable. A TS cable can be used to control Tap Tempo and Regen when using a third party momentary footswitch (latching footswitches will not work). When using a third party momentary footswitch with a TS cable, it must first be connected to the Rubberneck before applying power to allow the Rubberneck to detect it and function correctly.
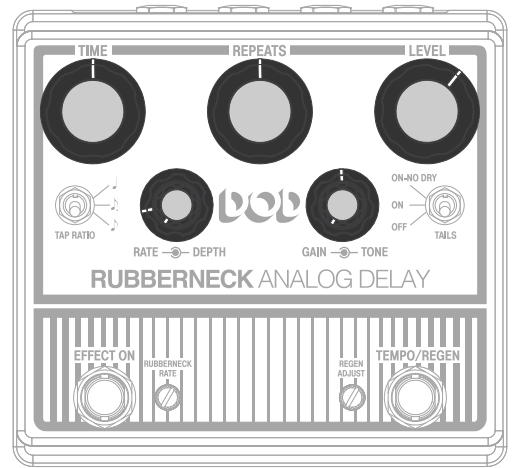
EXAMPLE SETTINGS

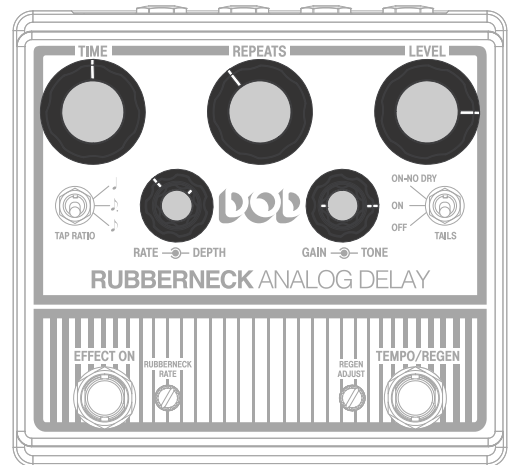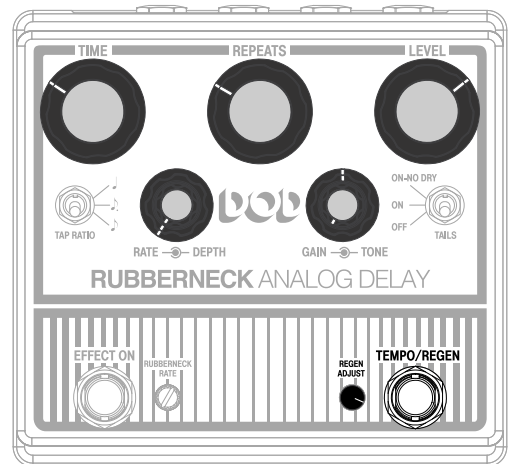Try these settings to get started.

Rockabilly

RUBBERNECK ANALOG DELAY

Mod Delay

RUBBERNECK ANALOG DELAY

Dirty Repeats

RUBBERNECK ANALOG DELAY

Vibrato Echo

RUBBERNECK ANALOG DELAY

Delay Bender
(Press and hold EFFECT ON Footswitch)

RUBBERNECK ANALOG DELAY

Runaway
(Press and hold TEMPO/REGEN Footswitch)

RUBBERNECK ANALOG DELAY

SPECIFICATIONS:

Controls	Time, Repeats, Level, Speed, Depth, Tone, Gain, Tap Ratio, Tails On/Off, Effect On/Off / Rubbernecking, Rubberneck Rate, Regen Adjust, Tempo/Regen
Input	1/4" TS Unbalanced Effect off: 500 kΩ with Tails switch on Effect off: True hardwire bypass with Tails switch off
Output	1/4" TS Unbalanced Effect off: 100 Ω with Tails switch on Effect off: True hardwire bypass with Tails switch off
Send/Return	Tip (Send) 8 kΩ Ring (Return) 500 kΩ
Footswitch	1/4" TRS and FS3X (optional)
Power	9 VDC external power supply (required) PS0913DC-04 (not included)
Current Draw	150 mA
Warranty	1 Year

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