

Treblemaker

INSTRUCTIONS

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1. MAKING CONNECTIONS

The diagrams show three of the ways to connect the Treblemaker. The provided crocodile clips are a convenient way to connect for initial set up of your Treblemaker (fig. 1). The leads are long enough to position the Treblemaker outside of the control cavity to make quick adjustments (fig. 4). To avoid damage to the terminals it is strongly recommended that the Wago terminal tool is used. Gently pushing down on the top lever as shown (fig. 5 & 6), opens the terminal allowing the wires and capacitor to be safely and easily connected. Once you are happy with your settings, choose one of the other two configurations (fig. 2 & 3) to make a solid connection.

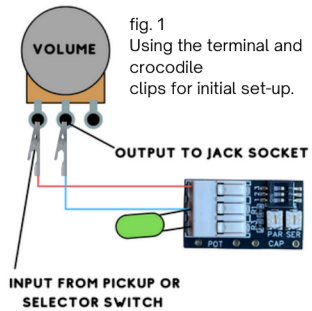


fig. 1
Using the terminal and crocodile clips for initial set-up.

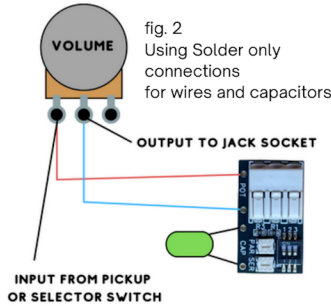


fig. 2
Using Solder only connections for wires and capacitors

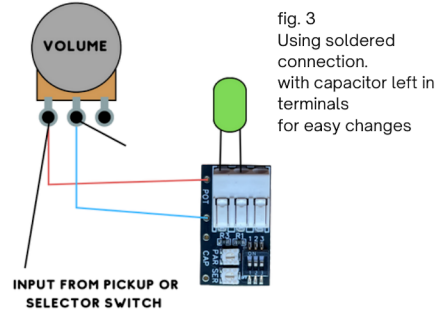


fig. 3
Using soldered connection with capacitor left in terminals for easy changes

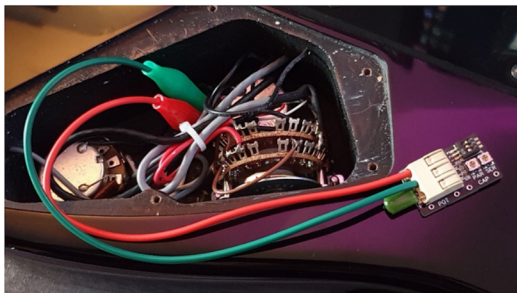


fig. 4

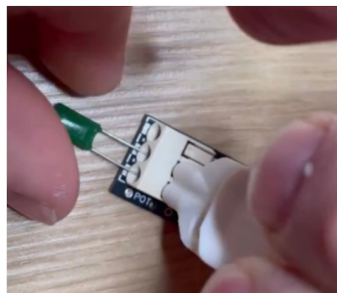


fig. 5

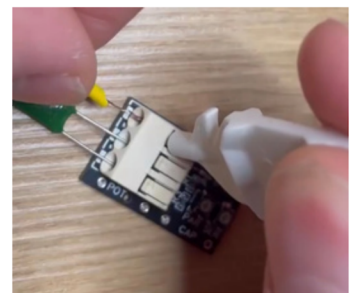


fig. 6

2. CHOOSE A CAPACITOR

Your guitar cable length affects the brightness and clarity of your tone. Especially as you lower the volume. This is because it acts as a capacitor. The capacitor we pick is essentially adding weight to the other end of the seesaw to counterbalance what we have lost. So the longer the cable run we have and the more patch leads we have, the larger the capacitor we will need to “balance the scale” and preserve our tone. The following are our recommended starting points.

- 1) Shorter cables (10ft/ 3m) and wireless systems: 470pF, 560pF and 680pF values.
- 2) Longer cables (30ft/9m): 1nF, 1.2F and 1.5F values.

Remember there is no right or wrong capacitor to choose. Everything in your signal chain, including; choice of cable, number of pedals and patch leads, the number of windings and gauge of wire on your pickups, can have an effect. What matters is how it sounds to your own ear. There is no one size fits all. Take your time and experiment!

IDENTIFY THE CAPACITOR



Each capacitor is labelled as follows for easy identification:

- 470pF capacitor - 2A471J
- 560pF capacitor - 561J
- 680pF capacitor - 2A681J
- 1nF capacitor - 2A102J
- 1.2F capacitor - 2A122J
- 1.5F capacitor 2A152J

Use the double end of the tool when connecting into the terminal (fig.5).

3. SETTING UP THE RESISTANCE

Choosing a setting

Your Treblemaker has two variable resistor trim pots. One in series and the other in parallel. Each of the three switches (all OFF by default) must be configured to one of the three settings to switch these trim pots in and out of the circuit (fig. 7). Each setting has its own advantages. Both of the trim pots can be varied between 10kΩ and 500kΩ using the included mini screwdriver (fig. 8).

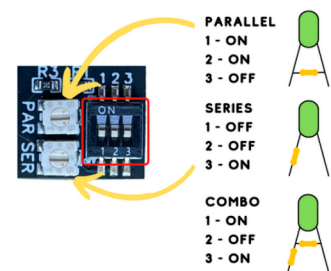


fig. 7. The 3 settings for the variable trim pots

Setting up the resistance continued....

Parallel. The first treble bleeds were just a capacitor without any resistor. This could sound very brash. So to try and tame this, a parallel resistor was added. The result was a more even sound, and a different taper and useable sweep on the volume pot. A different resistance gives a different resonant peak. What does this mean in practice?

By varying the parallel trim-pot, a different range of trebles can be bled back into your sound and different part of the tone is brought into focus. Just bear in mind that if it is set too high (the PAR trim-pot too far counter-clockwise) you may lose some of the bass end of the sound when the volume is at its minimum.

Series. This setting can create a more subtle tone. Think of it like a tap that can be turned to change the flow of water coming from the faucet. The series trim pot can be adjusted to control the amount of treble let back through into the sound. A higher resistance (turned counter-clockwise) means that less treble is let back in. The result is tight control of the trebles bled back into the sound by the capacitor. Unlike the parallel set-up, the taper of the pot is less affected.

Combo. This setting gives you the best of both worlds. The ability to bring forward a certain aspect of your tone, and total control of the amount of this fine tuned sound bled back into your signal. This gives you a tight reign on your trebles so they are neither too harsh nor too weak when you roll back the volume control to near minimum.

Compare both your full volume clean tone to your tone at minimum volume. The most useable range for both trim pots will be between 10 o'clock and 3 o'clock. Remember though, there are no hard and fast rules when it comes to tone and treble bleeds. The most important thing when shaping **your tone**, is how it sounds to **your ear**.

4. FINAL WIRING

Choosing a wiring method

When you're happy with your treble bleed tone, it is recommended that you choose one of the wiring methods (fig. 1, 2 & 3) and hard solder in the Treblemaker. This ensures a more robust connection that won't come unclipped when you're doing your stage acrobatics. If you aren't comfortable doing this yourself, contact a local guitar shop for assistance. Generally, they won't charge the earth to solder on a few wires.

5. FINAL MOUNTING

Some adhesive-backed velcro is provided to mount your Treblemaker inside the control cavity. It is small enough to be stuck onto either the volume or tone pot. Equally you may find another position that allows easy adjustment of the trim-pots. (fig. 9). Please make sure that the Treblemaker **does not sit in direct contact with any conductive parts**. This could cause noisy grounding issues.

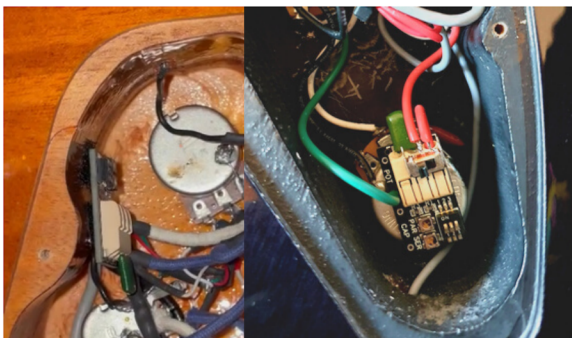


fig. 9 Showing two potential places to position the Treblemaker after final wiring

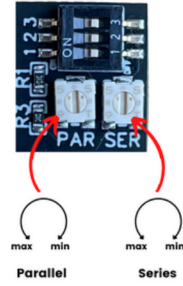


fig. 8. Showing each trim pot. Fully anti-clockwise is the maximum 500kΩ. Fully counter-clockwise is the minimum 10kΩ value.

RESISTANCE MEASUREMENT

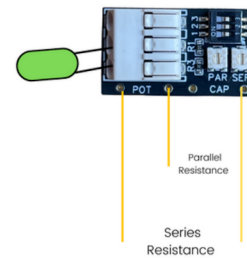


fig. 10 Showing the test points for each trim pot. You need to disconnect one of the leads from the volume pot to get an accurate measurement.

FOR THE GUITAR NERDS

You may want to start from a setting that you already like. In which case test points are shown on the diagram above (fig. 10). Use a multimeter to get an accurate kΩ measurement. The Treblemaker must have at least one lead disconnected from the volume pot in order to get an accurate resistance measurement.

Alternatively, if you don't have a multimeter, the table (fig.11) gives an idea on where to set the pots and capacitor choices to replicate the most common circuits, but with the added bonus of tweaking to your own ear and gear.

NAME	CAPACITOR	PARALLEL	SERIES	SWITCH SETTING
MOJO TONE	471PF	220K	N	ON OFF
DIMARZIO	560PF	300K	N	ON OFF
SUHR	680PF	150K	N	ON OFF
FENDER TONE SAVER	1.2NF	150K	20K	ON OFF
TV JONES	1NF	150K	N	ON OFF
DUNCAN	1NF	100K	N	ON OFF
KINMAN	1.2NF	N	130K	ON OFF

fig. 11 Table showing values of common treble bleed circuits and equivalent settings on the Treblemaker.