

T-Von's Boss MT-2 Sustainiac Metal Zone Mod

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Boss MT-2 Metal Zone Sustainiac Mod - This is my second Mod for the MT-2. I've gotten a lot of requests asking if there are any mods that will clean up the pedal when the gain is turned down and also reduce noise. My MT-2 Sustainiac Mod has accomplished both of these requests. I have also flattened out the EQ. Now with the tone controls at 12 O'clock the EQ is almost totally flat with a mild fattening of the signal. The gain will now go from clean boost to crunchy overdrive to a take-no-prisoners distortion and sustain for days.

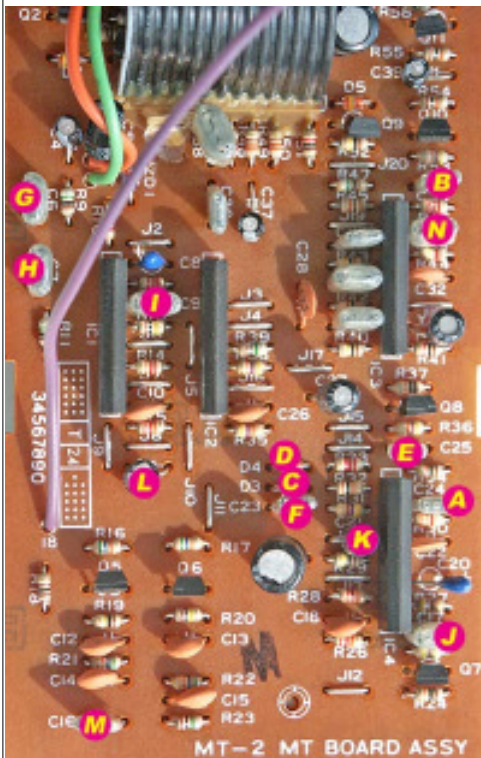
But, for those that prefer more gain with no clean boost I include instructions and two 1N34A Germanium Diodes that will give you that, along with a much smoother gain structure and enhanced sustain. So, depending on your particular tonal needs, this mod will cover both areas and it does both very well. My MT-2 Sustainiac Mod completely transforms a very harsh nasally pedal into one of the sweetest tastiest overdrive/distortion pedals available at any price. This is, without a doubt, the best mod for a MT-2 that's available anywhere at any price!

T-Von

IMPORTANT: You must check the pedal after each component you change. You do not have to reassemble the pedal, just plug the power and the input and output jacks in. Plug up a guitar and amp and make sure the pedal is functioning properly. **Do not call or e-mail me if you perform all the component changes without checking after each component change, I will not be able to help you.** If you check the pedal after each component change and there is a problem, you'll know exactly which component is causing the problem. If you perform component changes without checking the pedal after each component change, and you discover a problem, there is no way you or I can tell which component is causing the problem. **SO, PLEASE CHECK THE PEDAL AFTER EACH COMPONENT CHANGE to make sure it is functioning properly!**

Click on Images to Enlarge

NOTE - The MT-2 PC Board is labeled with a letter followed by two or three numbers. The Letter stands for either (C) Capacitor, (R) Resistor or (D) Diode. Use the pic below along with the chart to the right to locate and identify the item to Mod. All items to be Modded are identified by a red circle with a yellow letter. Locate the circle with the letter on the PC Board and install the Mod in the chart to the right that is associated with that letter. Click on the Pic to enlarge it.



Mod/Location/Original

- (A) C24 - .015uF Capacitor
- (B) C35 - .01uF Capacitor
- (C) D3 -1SS133 Diode
- (D) D4 -1SS133 Diode
- (E) C25 - .0015uF Capacitor
- (F) C23 - .015uF Capacitor
- (G) C6 - .047uF Capacitor
- (H) C7 - .047uF Capacitor
- (I) C9 - .047uF Capacitor
- (J) C17 - .047uF Capacitor
- (K) C21 - 1uF Capacitor
- (L) C11 -1uF Capacitor
- (M) C16 - .01uF Capacitor
- (N) C34 - .027uF Capacitor

Mod

- A - Remove (No Jumper)
- B - Remove (No Jumper)
- C - 1N34A Germanium
- D - 1N34A Germanium
- E - .01uF Capacitor
- F - .01uF Capacitor
- G - .047uF Capacitor
- H - .1uF Capacitor
- I - .047uF Capacitor
- J - .047uF Capacitor
- K - 1uF Capacitor
- L - 1uF Capacitor
- M - .01uF Capacitor
- N - .047uF Capacitor

Affect

- A - Better Mids
- B - Smoother Mids
- C - More Tube-Like Tone
- D - Smoother Gain
- E - Better Upper Mids
- F - Sweeter Highs, Hi-Fi
- G - Note Clarity & Dynamics
- H - Tighter Bass
- I - Hi-Fi Mod, More Clarity
- J - Hi-Fi Mod, More Clarity
- K - Hi-Fi Mod, More Clarity
- L - Hi-Fi Mod, More Clarity
- M - Better Bypass Tone
- N - Punchier Bass & Mids

Instructions - Use the supplied De-soldering Braid to absorb the existing solder from the components being modded. I like to mark the bottom of the PC Board with a marker before starting so there's no confusion as to which contact to de-solder. Perform one Mod at a time. After each Mod hook the pedal up and test it. This way if there's a problem you'll know exactly where it is. Each solder contact should be smooth and shiny. Make sure the solder is contained and doesn't spread into an adjacent contact or else you will short out the signal. If you do spread solder into another connection by accident don't sweat it, simply use the de-solder braid and suck it up and start over.

Tools Needed or Recommended - 15 or 30

Watt Fine Pencil Tip Soldering Iron, Small Wire Cutters, Multi Meter, Desoldering Braid (supplied), Resin Core Solder (supplied), Magnifying Glass, Phillips Head Screwdriver, Needle Nose Pliers, a Dash of Patience, Good Music to Groove to, Felt-tip Marker, if you're over 40 (like me) a good pair of +1.25 or +1.50 Reading Glasses.

IMPORTANT - This kit includes both .1uF and .01uF Capacitors that look exactly the same. The .1uF has the number 104 written on it and the .01uF Capacitor has 103 written on it. Make sure the correct Capacitor is installed in the correct place.

A & B - Simply remove these capacitors. That's it, no jumper necessary. Removing these caps will smooth out the mids and remove the nasal mids.

C & D - For clean boost and less gain with more crunch, simply remove these 1SS133 diodes. That's it, no jumper is necessary.

C & D - (Tube-Like Tone Mod) For more Tube-Like tone retaining all the original gain, replace these stock 1SS133 diodes with two 1N34A Germanium Diodes. These Diodes have a positive and negative side. Make sure the side with the stripe is pointed in the same direction as the Triangle arrow on PCB. You will not see the triangle until the old diode is removed.

E - (Better Upper Mids Mod) Replacing this .0015uF polyester capacitor with a .01uF Metal Film Capacitor improves the upper mids and gives a tighter, punchier bass. **IMPORTANT** - Make sure this capacitor has the number 103 written on it.

F - (Sweeter Highs Mod) Replacing this .015uF polyester capacitor with a .01uF Metal Film Capacitor removes harshness and sweetens out the highs. **IMPORTANT** - Make sure this capacitor has the number 103 written on it.

G - (Note Clarity & Dynamics Mod) Replacing this .047uF polyester capacitor with a .047uF Metal Boxed Film Capacitor improves note clarity and dynamics.

H - (Tighter Bass Mod) - Replacing this lower quality .047uF polyester capacitor with a much higher quality .1uF Metal Film Capacitor will tighten up the bass and give the pedal more punchy mids. **IMPORTANT** - Make sure this capacitor has the number 104 written on it.

I & J (Hi-Fi Mod) - Replacing these lower quality .047uF polyester capacitors with much higher quality Metal Boxed Film .047uF Capacitors will help clean up the circuit and add a more focused Hi-Fi tone to the pedal.

K & L (Hi-Fi Mod) - Replacing these lower quality 1uF electrolytic capacitors with much higher quality 1uF Tantalum Capacitors will help clean up the circuit and add a more focused Hi-Fi tone to the pedal. These Tantalum Capacitors have a positive and negative side. Install them with the writing on the Capacitor facing toward the bottom of the PC board as pictured above.

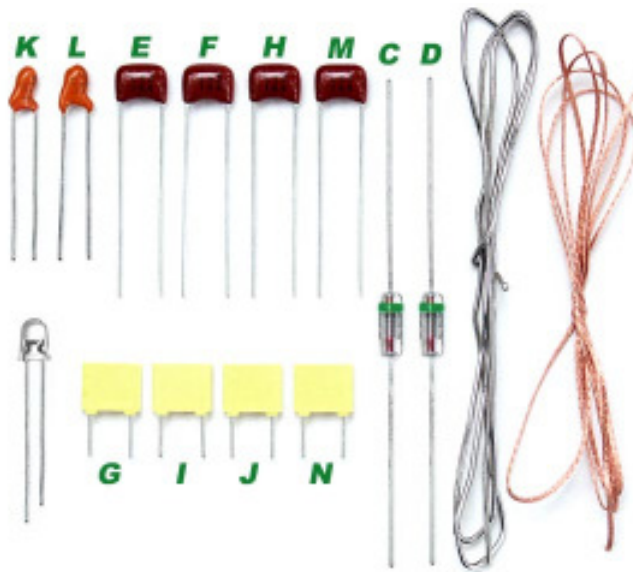
M - (Better Bypass Tone Mod) Replacing this lower quality .01uF polyester capacitor with a much higher quality .01uF Metal Film Capacitor will improve the tone when the effect is bypassed. **IMPORTANT** - Make sure this capacitor has the number 103 written on it.

N (Punchier Bass & Mids Mod) - Replacing this lower quality .027uF polyester capacitor with much higher quality .047uF Metal Boxed Film Capacitor of a different value will give the pedal punchier bass and mids.

LED Replacement - LEDs have a positive and negative side. If you look closely at the LED you will see what I like to call a Flag. When removing the old LED make a note of the Flag's orientation and install the replacement LED in the same direction as the old LED. If you install an LED and it doesn't work, simply turn the LED around and it will start working. All of the LEDs I sell are of the clear variety and it is impossible to tell what color it is. A good way to tell its color is to do this. Take a used 9-volt battery and drain its voltage until it reads 2 to 3 volts on a multi-meter (I usually just place the battery in a pedal and leave it on until it drains the voltage down to 2 or 3 volts). Once the voltage is this low you can then use it to test the LED to see what color it is. **DO NOT TEST THE LED WITH A NEW 9-VOLT BATTERY, IT WILL FRY THE LED RENDERING IT USELESS!** I test all LEDs before I ship to see if they are faulty, so I'll know if you blew it or not. So please don't e-mail me asking for a Free replacement if you fry it.

PLEASE READ! - There are two mods in this kit for C & D. On one you will simply remove the stock diodes. This will allow the gain to clean up better with the gain turned down and will lessen noise. With this mod the MT-2 will exhibit a more crunchy, overdrive type gain. The other C & D mod replaces the stock 1SS133 diodes with two 1N34A Germanium Diodes. This mod will smooth out the gain and add a more tube-like vibe to the pedal. Personally, I prefer the tone when removing the diodes, but, for those that prefer more gain I have included the optional mod that includes two 1N34A Germanium Diodes.

NOTE: VERY IMPORTANT - I recommend doing each mod and checking the pedal after each one. This way if there is a problem you will know exactly where to look. The key here is to take your time. Some of the Mods are very noticeable while others are more subtle. Some of the Mods replacing lower quality components



with higher quality ones will give the MT-2 a more Hi-Fi and focused tone. This becomes more noticeable when recording or playing live at moderate to loud levels. You will notice a tighter more defined tone than before. The Harmonics will also become more enhanced. It's almost like removing a blanket from the pedals tone. All of these Mods when performed together will transform the MT-2 into an awesome distortion pedal.

DISCLAIMER - My Mods are intended to be used by individuals that are 18 years of age or older unless accompanied by a supervising parent or guardian. Soldering Guns can cause serious injury if not used properly. Always take the proper precautions when soldering. Always unplug power from the pedal when performing these modifications.