

The **Ibanez Metal Screamer MSL** is quite similar to the Tube Screamer line of products – it even has the fabled JRC4558 op-amp chip installed. For the most part, it is a TS-10 with the addition of an extra FET switch in the 'on' signal path. Unfortunately, it seems that the designers failed to give the additional FET a proper label and it is also labeled Q6. In the diagram I labeled it Q6a and the 'off' state buffer BJT is labeled as Q6b.

Below I list cumulative modifications - add them sequentially to arrive at the desired final product.

**TS-10**: To obtain a TS10 tube screamer, remove Q6a and NPC5 and replace them with jumpers to eliminate the use of the FET switch. Also, change C6 to 47nF. This is the big difference in sound and is what they call "metal".

**TS-9**: In addition to the TS-10 mods, bypass the 'off' state buffer by removing R39, Q6b and R40 and jumper from the emitter of Q1 to C15. As well, the input stage of the TS-9 (and TS-808) is biased to V/2 - whereas the MSL and TS-10 bias it slightly higher. Swapping R3 with a 9k2 will give the V/2 bias.

**TS-808**: At this point the conversion from TS-9 to TS-808 is a simple one - change R22 to just 10k, and R21 to 100 ohms. If You can add a DPDT switch and make your unit switchable between TS-9 and TS-808 via these two resistors!

There are some other minor differences in the switching area, but these should not affect the sound.

ENJOY!

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