GuitarPCB Present

NostalgiTone Sunn King Single

Model T tone, built to rock.

The Sunn Model T is a 150-watt legend. Huge, loud, and rare. Sunn King puts that sound in a stompbox.

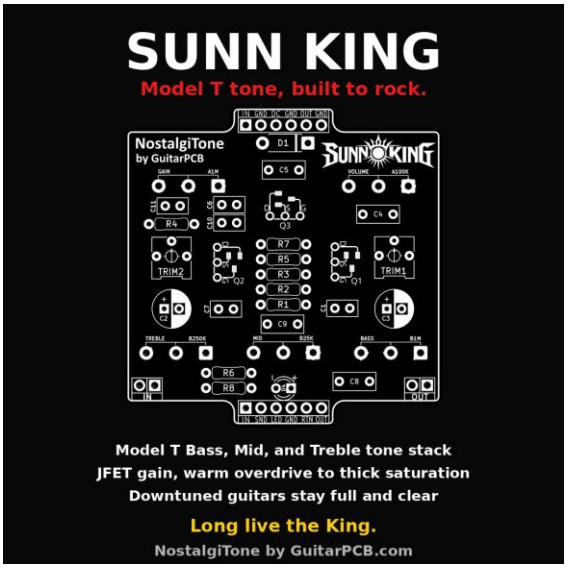
Two JFET gain stages drive the Model T Bass, Mid, and Treble tone stack.

The gain is a voice all its own, warm and light at the low end, thick and saturated at the top, with an edge through the whole range that sets it apart from any other typical overdrive, with Volume to set the level.

It also works amazing in front of a dirty amp, much in the same way you would use a Tube Screamer. Drop-tuned guitars stay full and clear; the low strings do not thin out. Amazing for Slide guitar as well.

Set it for medium Gain and place a Rat style circuit in front of it and you'll have a Doom machine with control.

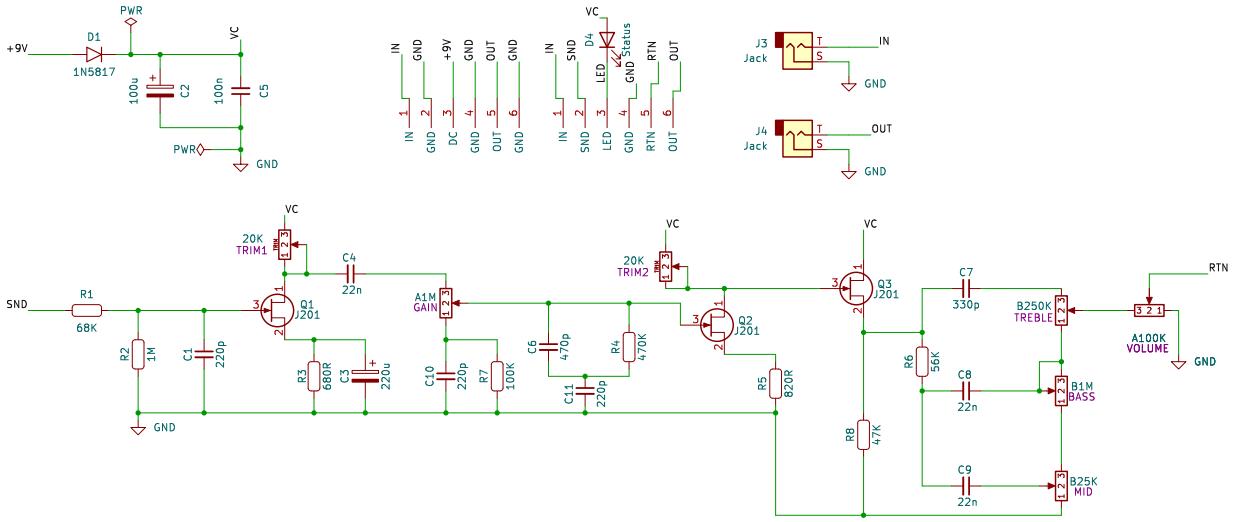
Long live the King.



Mainboard Dimensions – 2.10" x 2.12"

Included with each PCB purchase. – (1) Mainboard, (1) wiring board, and (1) ribbon cable.

Schematic:



Bill of Materials:

PART	VALUE
R1	68K
R2	1M
R3	680R
R4	470K
R5	820R
R6	56K
R7	100K
R8	47K

PART	VALUE
C1	220p
C2	100u
C3	220u
C4	22n
C5	100n
C6	470p
C7	330p
C8	22n

PART	VALUE
C9	22n
C10	220p
C11	220p
D1	1N5817
D4	Status LED
Q1 - Q3	J201

PART	VALUE
VOLUME	A100K
GAIN	A1M
BASS	B1M
MID	B25K
TREBLE	B250K
TRIM 1	20K
TRIM 2	20K
* CLR	1k8 - 4k7

Bill of Materials represents Kit values.

Build Notes:

Bias the Q1 and Q2 J201 JFETs to roughly 4.7 – 5.0v. Use your D.M.M. and place the Red probe on the D lead (see silkscreen) and Black probe on any ground. Turn the associated trimmer till you get the proper voltage reading.

Sunn King uses a passive Bass / Mid / Treble tone stack in the Sunn Model T family; the same type used in the Model T amp. It is not a Baxandall. A Baxandall gives you equal boost and cut around a flat center, with the controls mostly independent. This stack works differently, and that is the point of it. Bass and Mid are the big moves. Treble works as presence and pick attack. The controls are interactive by design. They share one passive network, so turning one shifts the others. That interaction is the Model T character.

GAIN: a unique gain voice, a warm, light overdrive at the low end, building to thick saturation, and finally a highly compressed, fuzzier tone at full up. Its unique voice is unlike other typical overdrives making it perfect for powerful riffs, drop tunings, and slide guitar. In front of a dirty amp, it works much like a Tube Screamer, pushing the amp harder while the Bass, Mid, and Treble stack shapes the drive.

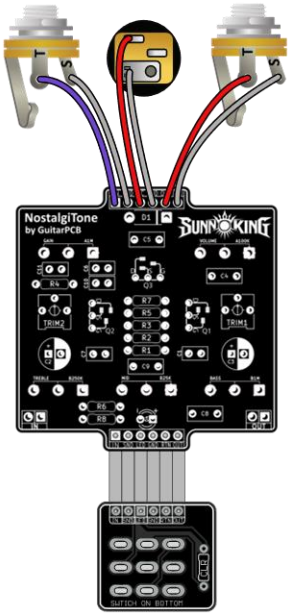
Included with the purchase of the main PCB board will be (1) standard foot switch wiring board (6 pins), and (1) 6 pin ribbon cable. This simplifies the wiring process while keeping troubleshooting and noise to a minimum.

Note the extra IN / Out pads located at the bottom of the PCB which are conveniently placed if you wish to use side jacks.

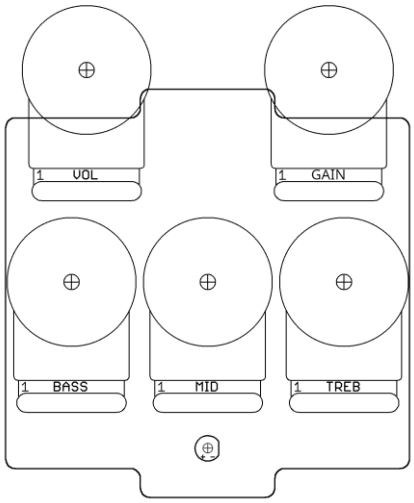
Use a standard 6-pin ribbon cable to connect the foot switch wiring board with the main board. The 3PDT wiring board contains an onboard (CLR) current limiting resistor. This is to protect and adjust the brightness of their corresponding main board status LEDs. A value of 1k8 to 4k7 may be used.

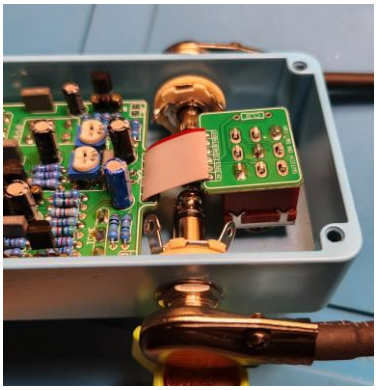
* LED mounting: A main Status LED is to show the active status. You must use a 1k8 (Bright) to 4k7 (Dim) CLR mounted on the wiring board.

Wiring Diagram



Generic Drill Template



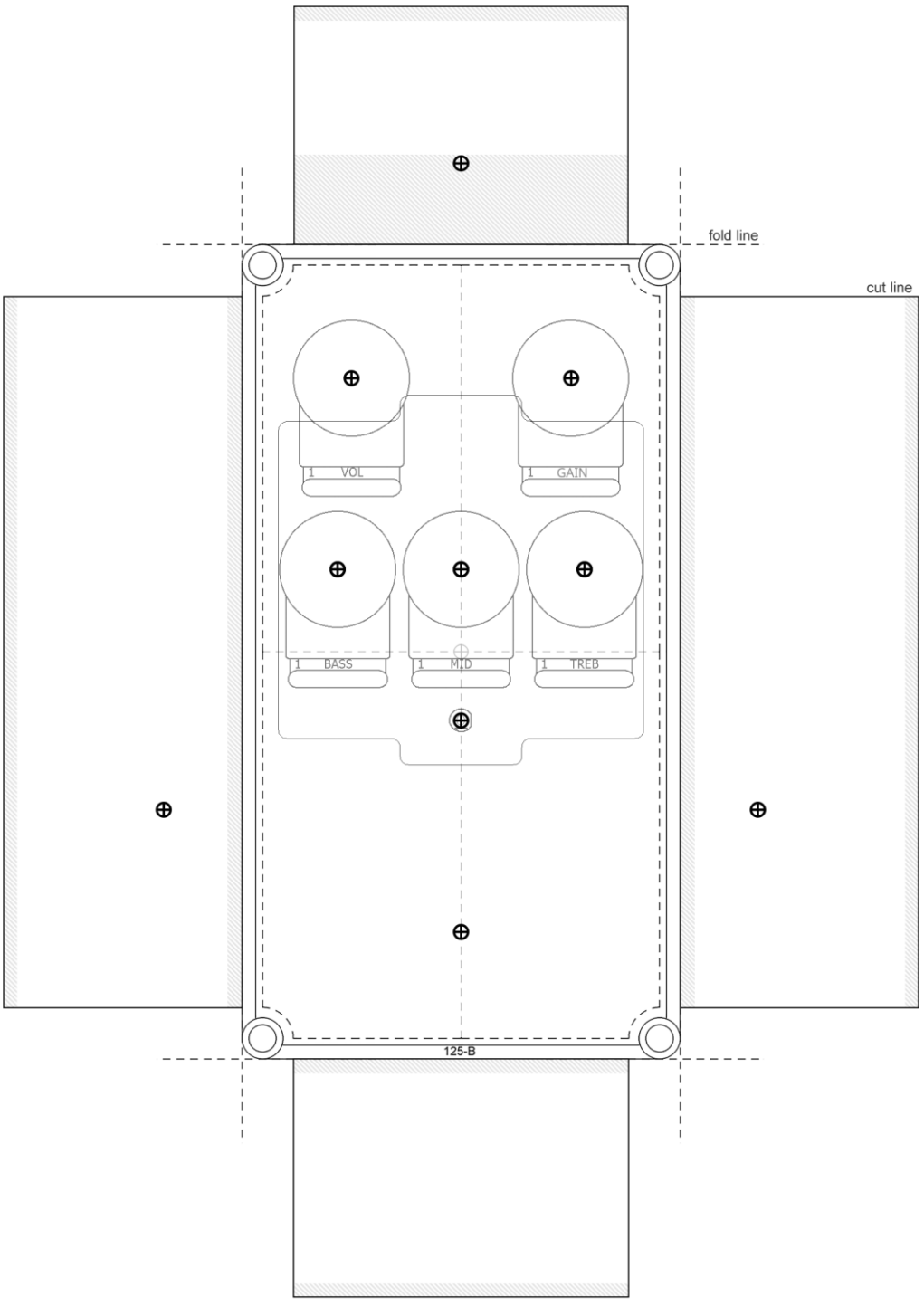


When using 1590B enclosures, it is best to mount the ribbon cable on top of the main board/3PDT wiring board instead of underneath. This is because the enclosure's compact size restricts space for the side jack Input and Output plugs.

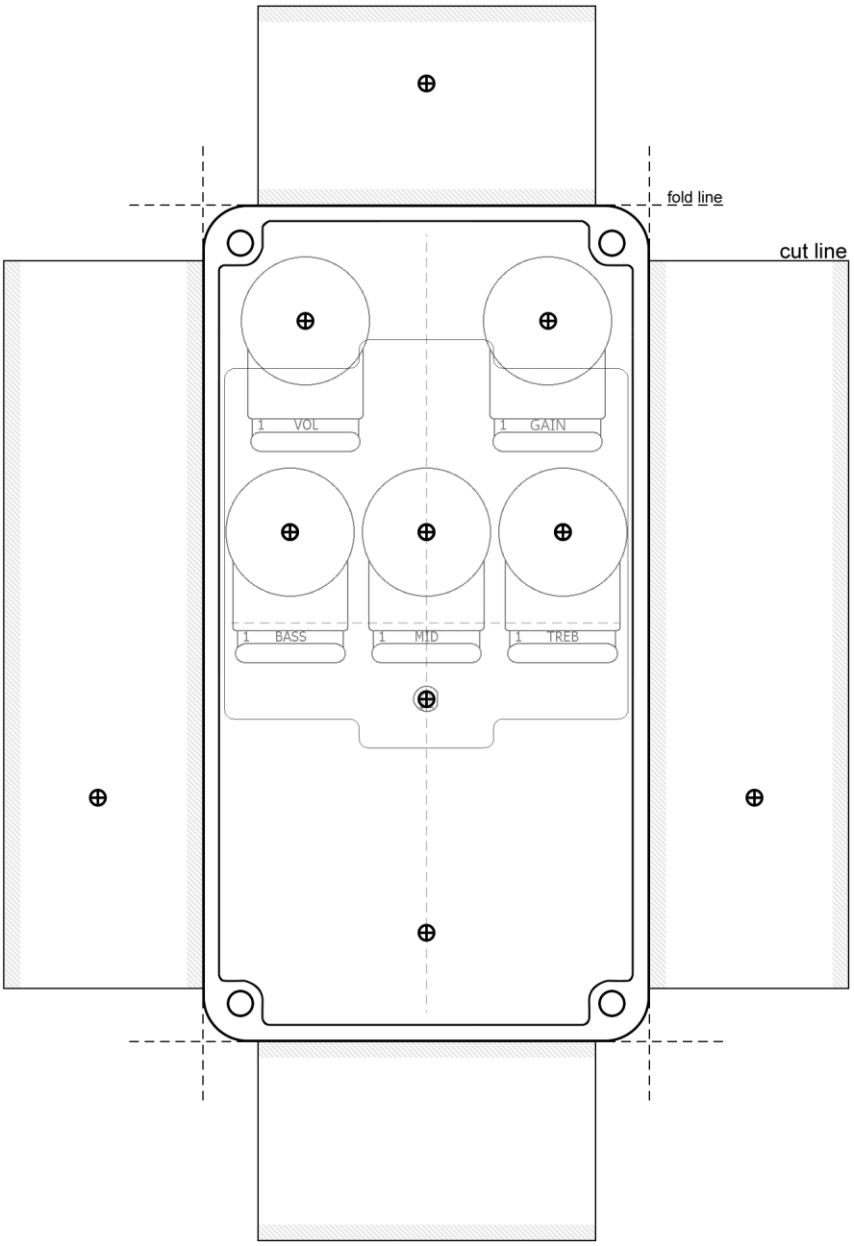


The full-size drill templates for 125B and 1590B enclosures can be found on the following two pages. Additionally, you can find a link to Tayda's pre-drilled enclosures on the shop page at GuitarPCB.com.

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125B Drill Template



1590B Drill Template