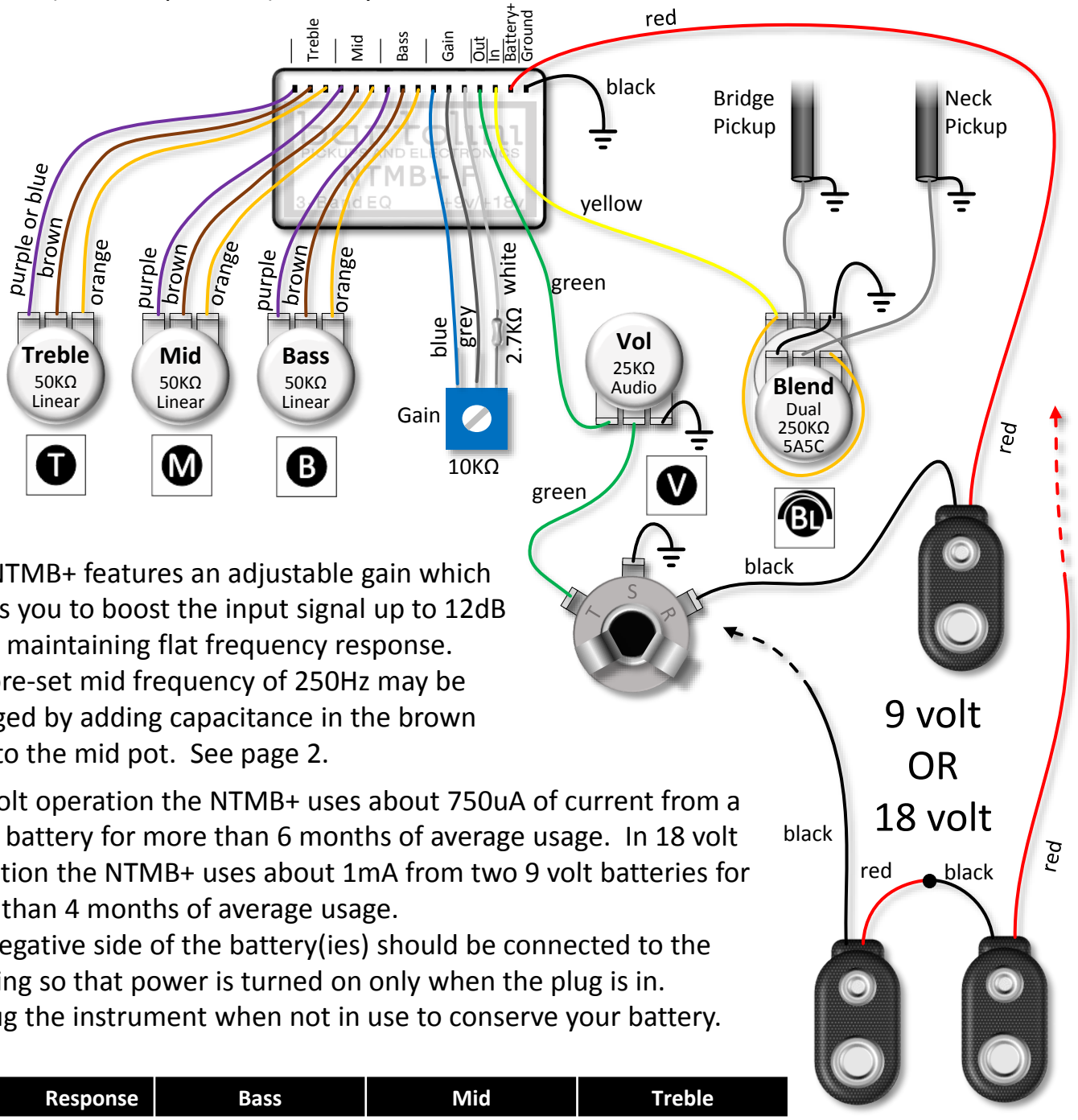
3-Band 9 volt or 18 volt Preamp/Tone control with switchable Mid frequency

The NTMB+ is a tone control preamp with fully independent Bass, Mid and Treble controls with very low noise and wide boost/cut range. The sound is extremely clear and transparent. Distortion is well below 0.001%.
This preamp can be used with either a single 9 volt battery (9 volt operation) or two 9 volt batteries (18 volt operation) which yields 6dB extra headroom.



The NTMB+ features an adjustable gain which allows you to boost the input signal up to 12dB while maintaining flat frequency response.
The pre-set mid frequency of 250Hz may be changed by adding capacitance in the brown wire to the mid pot. See page 2.

In 9 volt operation the NTMB+ uses about 750uA of current from a 9 volt battery for more than 6 months of average usage. In 18 volt operation the NTMB+ uses about 1mA from two 9 volt batteries for more than 4 months of average usage.
The negative side of the battery(ies) should be connected to the jack ring so that power is turned on only when the plug is in. Unplug the instrument when not in use to conserve your battery.

Response	Bass	Mid	Treble
NTMB+F Version	+/-15dB@30Hz	+/-13dB@250Hz	+/-18dB@10KHz
NTMB+FL Version	+/-12dB@30Hz	+/-12dB@250Hz	+/-15dB@6.5KHz

DO NOT USE MORE THAN 18 VOLT SUPPLY VOLTAGE OR EXTERNAL POWER SUPPLIES

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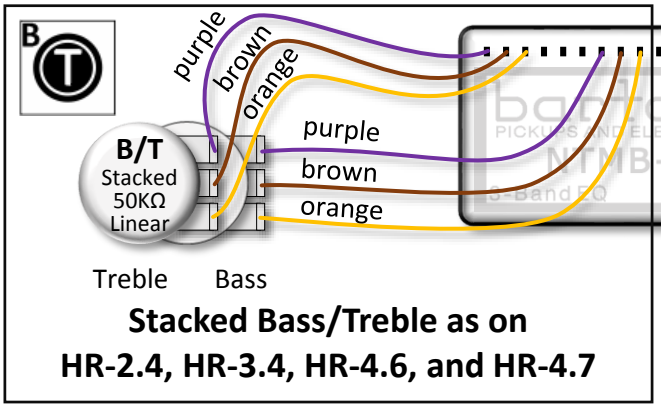
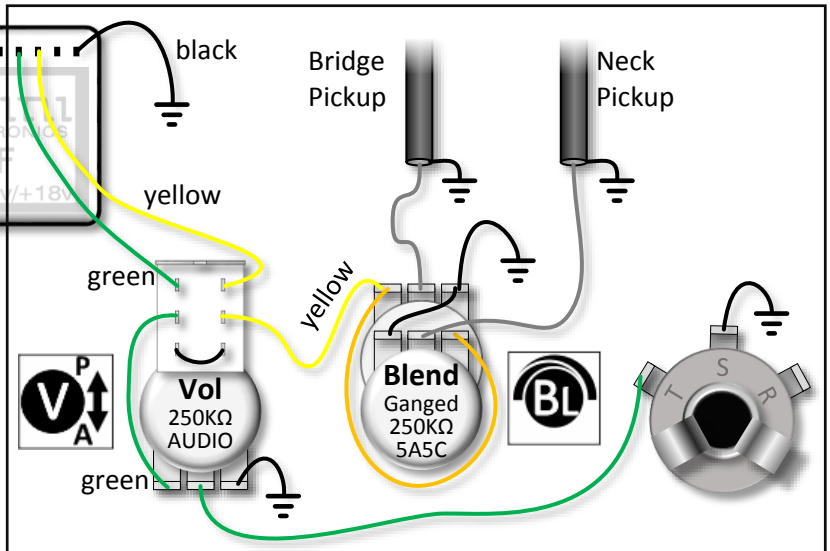
NTMB+

Configuration Options on Standard Pre-Wired Harnesses

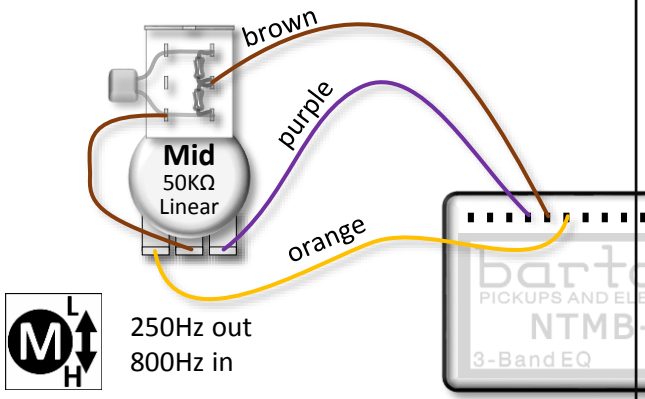


Stacked Bass/Treble as on HR-2.4, HR-3.4, HR-4.6, and HR-4.7

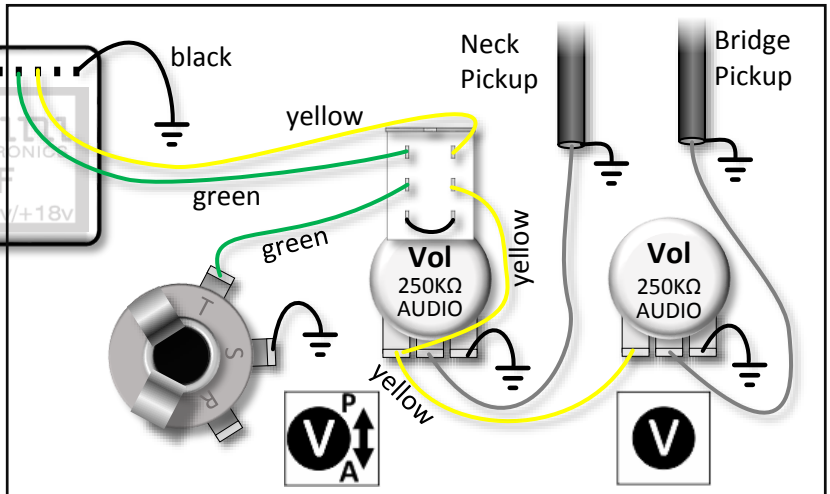


Active/Passive Wiring as on all "AP" Harnesses except HR-5.3AP

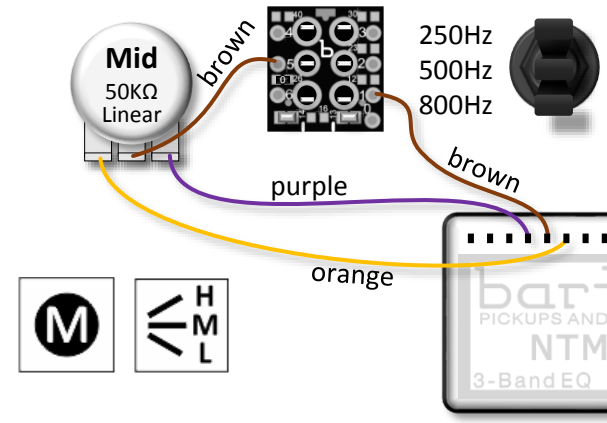
Mid Switch wiring as on HR-2.4, HR-2.5, HR-3.4, HR-4.6, HR-4.7, and HR-5.2



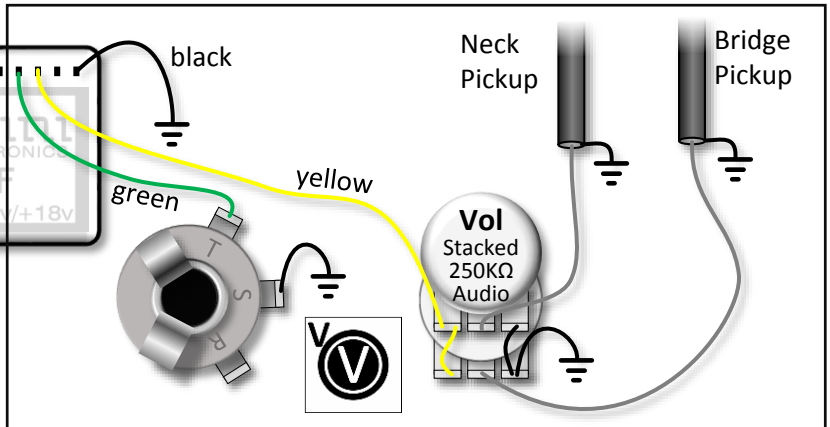
For more info on changing mid frequency, see: http://www.bartolini.net/product/ntmb



Active/Passive Wiring as on HR-5.3AP Harness



Mid Switch wiring as on HR-4.7, HR-5.3, and HR-5.4



Stacked Volume/Volume as on HR-3.4 Harness

Ground – Connected to preinstalled bare wire. Connect to cavity shield if available. Also ensure bridge is connected to ground.

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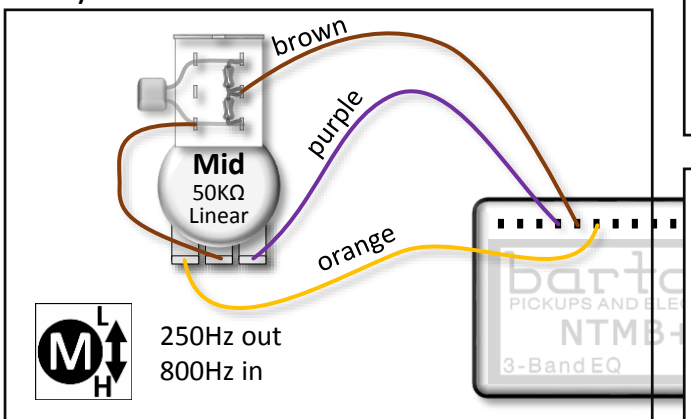
NTMB+ Mid Switch Configuration

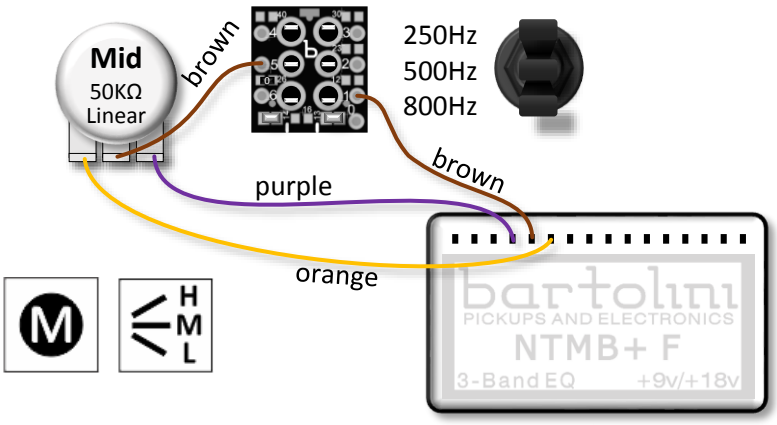
The NTMB+ mid frequency can be changed by adding capacitance in series with the brown wire from the module to the center lug of the Mid control. The frequency is the same for boost and cut. If the brown wire is connected without additional capacitance, the frequency is set to 250Hz. The following table lists the capacitance and the resulting mid frequency.

Capacitance (uF)	Frequency (Hz)
None	250
0.47	450
0.33	500
0.22	550
0.19	620
0.16	670
0.13	750
0.11	800
0.10	840
0.082	930
0.068	1020

The pre-set Mid frequencies on the HR-2.4, HR-2.5, HR-3.4, HR-4.6, and HR-5.2 are 250Hz and 800Hz. If you want to change these values, you will need to remove the pre-loaded capacitor and add your own.



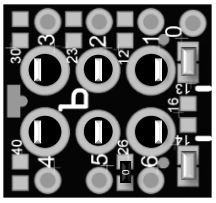
Pre-Set Mid Switch wiring as on HR-2.4, HR-2.5, HR-3.4, HR-4.6, and HR-5.2



Pre-Set Mid Switch wiring as on HR-4.7, HR-5.3, and HR-5.4

The pre-set Mid frequencies on the HR-4.7, HR-5.3, and HR-5.4 are 250Hz, 500Hz and 800Hz. The appropriate capacitors are loaded on the printed circuit board (PCB). If you want to change these values, you will need to remove or disconnect the pre-loaded capacitors and add your own.

To disconnect the preloaded capacitors, cut through the PCB at the white line where shown.

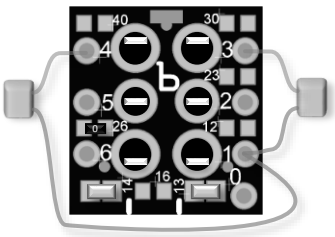


Cut here to disconnect the 500Hz capacitor

Cut here to disconnect the 800Hz capacitor

To add your own capacitors, solder where shown.

Add upper switch position capacitor between holes 1 & 4



Add center switch position capacitor between holes 1 & 3