

Service Note		
Products	Description:	Service note no.
<b>BM15A</b>	<b>High frequency oscillation - Low rumble</b>	<b>SNo-T0166</b>

### Reason for note:

We have observed that the Dynaudio BM15A sometimes have an undesirable low rumble tone. This rumble is actually caused by a high frequency oscillation, which is above what the human ear can hear, but it causes a distortion on low frequencies, which is audible.

### Actions:

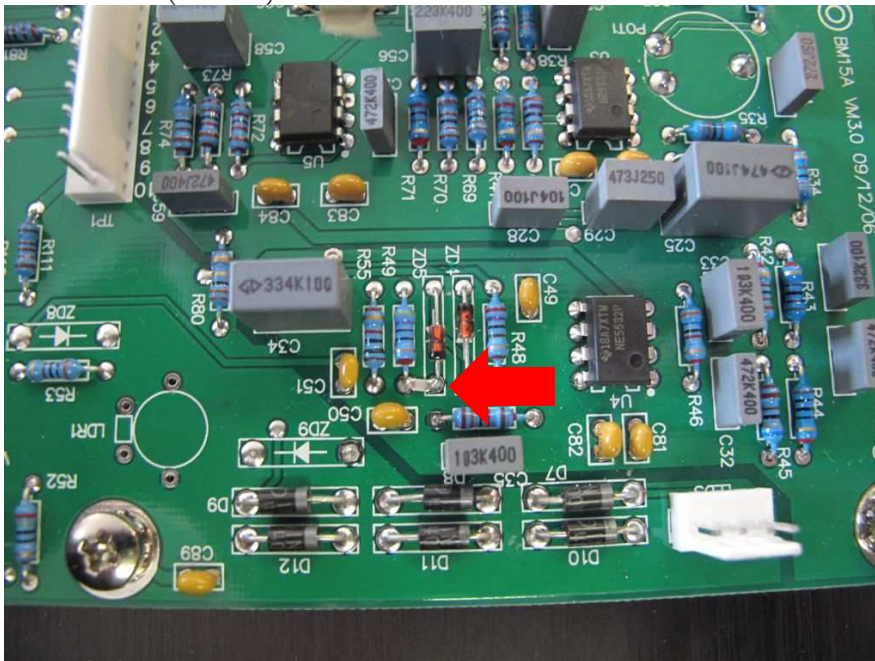
To fix this we have to reduce bandwidth in the amp, ensuring that no oscillation is possible. The fix is soldering in 2 capacitors and adjust the current consumption afterwards as described here (BM15A with serial 3697936 or newer have all had this modification):

### Updating the PCB:

Two capacitors has to be mounted at the arrows shown in the below pictures.

1. Mount a 330 pF/50V capacitor in parallel to C50. The specific type of capacitor is not critical for this update. Here used a 0805 SMD capacitor. See the picture below.

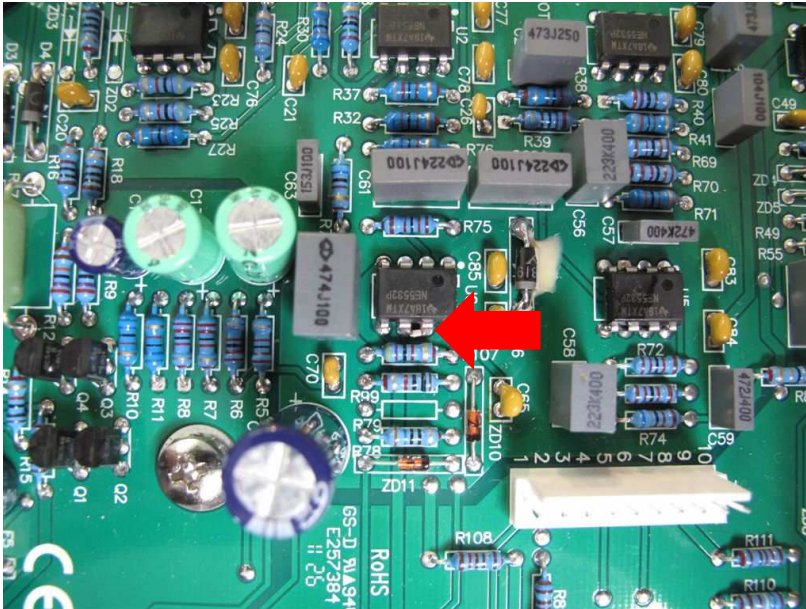
Please note: For convenience the capacitor in the below picture has been mounted between R46 and ZD5 (cathode) and not on C50.



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- Mount a 2,7 nF/50V capacitor in parallel to C65. The specific type of capacitor is not critical for this update. Here used a 0805 SMD capacitor. See below picture:

Please note: For convenience the capacitor in the below picture has been mounted directly on U6, 6 and 7 and not on C65



### Adjusting idle power consumption

Turn on the amplifier module with no input signal. Amplifier must be left on for 10 minutes before adjusting the idle power consumption.

The below schematic shows how the voltages can be measured using test point 1 thru 8 and adjusted:

Black	Red	Voltage	Adjust
TP5	TP2	+10mV (-1mV to +4mV)	VR2
TP6	TP2	+10mV (-1mV to +4mV)	VR2
TP1	TP3	+10mV (-1mV to +4mV)	VR2
TP1	TP4	+10mV (-1mV to +4mV)	VR2
TP7	TP8	+20mV (-1mV to +4mV)	VR1

If ok, then the BM15A amplifier module is ready to be re-mounted in the cabinet.

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**Listening test**

A sine wave signal of 150Hz@50mV is connected to the input.

Adjust level to +4dB

LF trim set to MAX

HF trim set to MAX

Test:

1. There is light in the green LED
2. The sound is clean

Test finished.

**IMPORTANT:**

Please handle this repair as a standard repair.

This repair should only be carried out by skilled technicians.