

NEDSP1061 Noise Reduction Module

Yaesu FT-817 Version

Operating Instructions

Features:

- 4 Levels of noise cancellation (up to 35dB)
- Single Button operation
- Visual and audible indication of operation
- Low power consumption
- Retains the internal battery pack
- Fully integral installation
- Stores the last used filter level.
- Automatic tone reduction (upto 65dB)



1. Introduction.

The NEDSP1061 module features is a fully integral solution for noise reduction for the FT-817.

2. Operation.

All functions of the NEDSP1061 are controlled by a single button.

- Single press turns the noise cancellation on/off.
- Holding down the button changes the DSP filter level.

The mode of operation is indicated both visually and audibly. The LED is illuminated red when the noise cancellation is off.

When the noise cancellation level is changed the LED will flash green to indicate which level has been selected.

Simultaneously the DSP will beep to give audible indication of DSP level. This allows the operator to change the DSP level without having to look at the LED to see which level has been selected.

A short beep is emitted to acknowledge a button press.

The module will store the current DSP level, and will return to this level when the FT-817 is switched on.

3. Use.

Switch on the FT-817.

The LED will illuminate red to indicate the noise cancellation is off. The unit will flash/beep to indicate the DSP filter level last used.

Noise cancellation on/off.

Press and release the button and the led will extinguish, and the noise cancellation will be activated.

Changing the filter level.

Hold down the button. The led will flash the filter level, and if the button is held it will step through all the levels. When the desired level has been reached release the button. This new value will be stored in the modules' memory.

4. Demonstration mode.

The NEDSP1061 module features 2 preset demonstration modes. These demonstrate the noise cancellation abilities of the NEDSP1061 module.

Demonstration 1:

Hold down the button and switch on the FT-817. After a short time the unit will emit a 2 tone beep. Release the button. The unit is now in demonstration mode 1.

The module will switch the noise cancellation on for 1.5 seconds, then off for 1.5 seconds. It will then move onto the next level and repeat this continuously through all 4 levels.

This mode is particularly effective when the FT-817 is just receiving static, as it demonstrates the attenuation of white noise at all the levels.

Alternatively tune the FT-817 into a good quality FM speech broadcast. This demonstration shows how little the DSP alters the speech, at any of the levels.

Demonstration 2:

Follow the procedure as above. Wait for the second 2 tone beep, then release the key.

In this mode the filter level is set to level 3.

The noise cancellation is switched on for 3 seconds, then off for 3 seconds. This loops until the user aborts this mode.

This is a good demonstration for listening noisy SSB conversations showing the before and after.

Exiting the demonstration mode.

Hold down the button until the 2 tone beep is heard. Release the button.

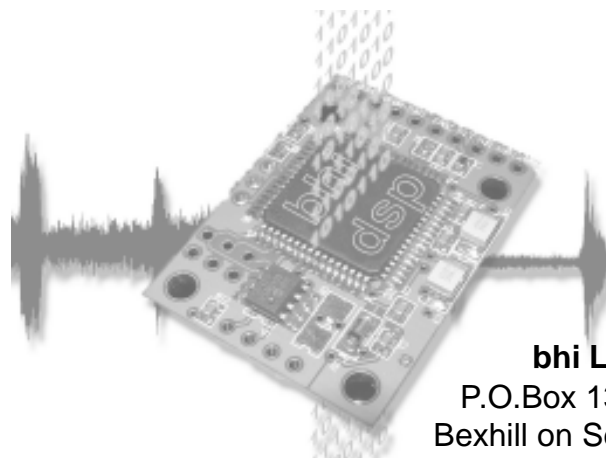
After a short delay the LED will flash indicating the stored level, as during the normal switch on.

5. Notes about the noise reduction.

When using the module on level 4 strange “watery sounds” may be heard. This is quite normal when listening to high levels of noise at level 4.

6. Specifications.

Description	
White Noise Attenuation	Level 1 11dB Level 2 13dB Level 3 19dB Level 4 35dB
Tone reduction	Level 1 5dB Level 2 8dB Level 3 21dB Level 4 65dB
Voltage	5 - 15 Vdc
Current consumption	45mA
PCB size	26 x 37mm



bhi Ltd
P.O.Box 136
Bexhill on Sea
East Sussex
TN39 3WD