



# The MiniMod

The battery-operated MiniMod uses the headphone output from any portable audio player to generate an amplitude-modulated signal for reception on a nearby medium-wave radio.

## Instructions

Set the volume of your MP3, CD or Walkman-type audio player to just under halfway and connect the MiniMod lead to the player's headphone socket.

Switch on the MiniMod (switch down to red dot), unwrap the wire antenna and place it a few inches from the radio. If the radio has an external antenna socket, place the wire close to this.

Switch on the radio and tune it to the medium wave frequency/wavelength written on the MiniMod case. Bear in mind that the radio dial may not be accurate so tune around slightly until you can hear the signal.

Adjust the audio level from your player until the signal is clear and undistorted. You may have to adjust the distance between the MiniMod wire antenna and the radio to get the best-sounding signal.

## Notes

To maximise the battery life of the MiniMod, there is no LED 'on' indicator.

Keep your audio player away from the radio as these devices can radiate interference from their electronic circuits through their unshielded plastic cases.

Do not set the player headphone volume too high as this will over-modulate the MiniMod and distort the signal. It should be just high enough to give a clear sound on the radio.

Medium-wave/AM radios often pick up interference radiated from computers, telephone cables, TV equipment (even when on "standby"), low-energy lighting, etc. so keep your radio away from these items.

The signal from the MiniMod should be strong enough to overcome the interference from these devices, but don't place its wire antenna closer to the radio than necessary as some radios may be overloaded by too strong a signal which could induce modulation hum and distortion.

After dusk, you may notice interference from stations that were inaudible during the day. If this happens, move the MiniMod wire antenna closer to the radio and/or adjust your player's headphone output level.

The pre-set frequency was chosen because this channel and those adjacent to it are clear over most of the UK.

However, if you need to change the frequency of the MiniMod:

- Tune the radio to a clear frequency in the range 900 to 1200 kHz or 330 to 250 metres
- Open the MiniMod and locate the metal inductor with the BLUE mark
- With a NON-METALLIC blade (a match or cocktail stick cut to a wedge will do) adjust the core in the marked inductor very slowly until the signal is heard on the radio
- Now adjust the other similar inductor to peak the signal strength on the radio
- The original frequency/wavelength figure can be removed from the case with meths/alcohol
- The MiniMod is now tuned to the new frequency

**Designed by Ian Liston-Smith. Full constructional and other information was originally published in the BVWS Bulletin volume 36 number 4, Winter 2011.**

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