

earplug2

operating manual

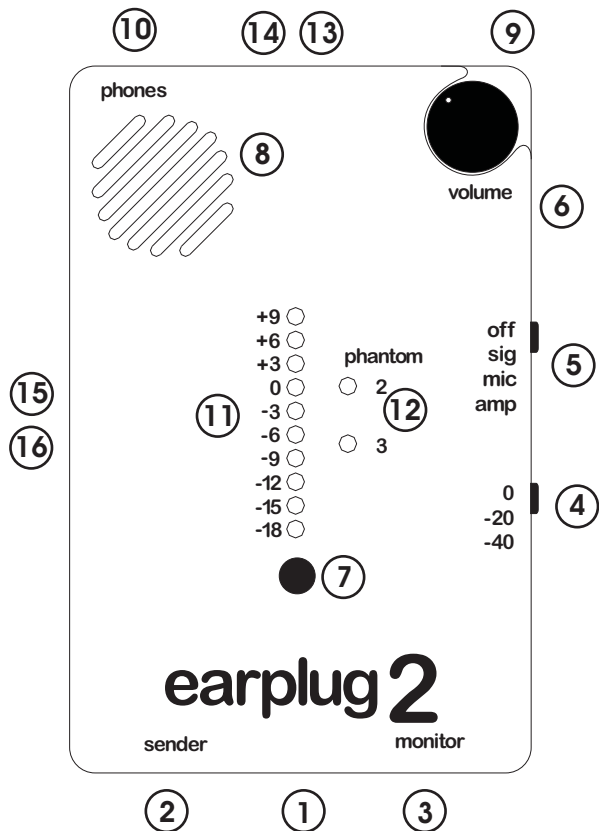


Thank you very much for purchasing an **earplug2**.
We hope it will give you many years of faithful service.

earplug2 has the following features:

(* indicates a new feature)

- 1 Khz low distortion sine wave oscillator.
- Pink Noise Generator.*
- Internal Mic.
All with selectable 0, -20, -40db balanced output
- Line level input with PPM meter and loudspeaker or headphone monitoring.
- Mic level input.(pre selectable 20* or 40 db gain)
- Onpass feature for use as "Gain Raiser".*
- Permanent 48v Phantom power (in amp mode)*
- 30000mCD White LED Torch.*
- Multipress™ with four functions:
 - Torch.*
 - Push to break signal for Ident
 - Push to Talk (Int Mic).
 - Push for 48V Phantom Power (Amp mode).
- External 10 - 20v DC input for static applications.*
- LEDs to indicate phantom power.



- | | |
|-----------------------------|--------------------|
| 1. DC In | 9. Volume Control |
| 2. Sender Socket | 10. Headphone Jack |
| 3. Monitor Socket | 11. PPM |
| 4. Level Switch | 12. Phantom Leds |
| 5. Mode Switch | 13. LBL |
| 6. Multipress tm | 14. Torch |
| 7. Internal Mic | 15. Battery Door |
| 8. Loudspeaker | 16. Dip Switches |

1. DC input A new feature in **earplug2** is the provision of an external DC input which will power the unit from ANY DC power supply or external battery from 9v to 20v. The DC input uses an industry standard 2.5mm DC connector and will accept either centre positive or centre negative supplies automatically. When using an external supply the LBL LED (13) is automatically disabled so you are not annoyed by the flashing light.

2. Sender Socket. The sender socket allows you to send a balanced test signal down a cable. This signal can be at 0db, -20 or -40db, set using the level switch (4). This signal is floating with respect to the ground of the system. If you connect the sender socket to a cable that has Phantom Power present, then the Phantom power LEDs(12) will illuminate.

3. Monitor Socket. The Monitor Socket allows you to listen to a signal from a cable. With the Mode Switch (5) in SIG or MIC position, the gain on the input is unity and will work with Line Level signals, and when it is in AMP position, then the gain is either 20 or 40db. you can select the gain level using DIP 2 (see DIP Switches) The monitor socket is connected to the PPM display (11) and the Loudspeaker (8) or Headphone socket(10).

4. Level Switch - See Sender Socket (2)

5. Mode Switch. This switch sets the operating mode of **earplug2**. The first position is OFF and would seem to be self explanatory but in fact if you press the Multipresstm (6) you will activate the 3000mCd torch.

Next is SIG which allows you to send a signal out of the Sender Socket. This can be either Tone (1Khz) or Pink Noise depending on the position of DIP 3 (see 16). The level can be set using the level switch (4). In this mode the Multipresstm operates to momentarily interrupt the signal for ident purposes. The monitor socket operates at "0" level in this mode.

N.B.

The basic line-up level of the Oscillator and the Pink Noise generator can be adjusted by removing the bottom cover and applying a tweaker to O (Osc) or P (Pink) whilst measuring the output level.

The next position is MIC. This activates the internal electret mic. The mic output is muted until you press the Multipress™ (6) to allow a “Press To Talk” function. The Monitor Socket operates at “0” level in this mode.

The final position of the Mode Switch is AMP and allows to **earplug2** function as a Microphone Amp. There are a number of options in this mode

Phantom Power: This can be either applied temporarily through the Multipress™ (for use in testing microphones and cables) or permanently (for use as an Inline Mic Amp) DIP2 selects between these options.
use in testing microphones and cables) or permanently (for use as an Inline Mic Amp) DIP2 selects between these options.

The Gain of the amp can be set between 20db and 40db using DIP 1. (Gain)

The signal from the Mic Amp can be send out of the Sender Socket using DIP 4. (Onpass) This allows use as a “Gain Raiser”
Cable testing can be performed by connecting the cable between Sender and Monitor Sockets in AMP Mode. Send Phantom Power and check the Phantom LEDs. (Please note that the system will Feedback if Onpass is selected.)

6. Multipress™ The Mutiswitch™ functions differently in every mode of operation.

OFF - Enables the Torch

SIG - Interrupts the Signal for Ident Purposes

MIC - Enables the Internal Mic

AMP - Enables Phantom Power

7. Location of the Internal Mic Speak Here!

8. Speaker. (Quantity Monitor!) Listen Here!

9. Volume Control. Controls the volume!

10. Headphone Jack. (Quality Monitor!) Connect headphones (Mono or Stereo). Disables the internal speaker.

Disclaimer:

Please note that earplug2 can generate High Levels in a pair of headphones or earpiece. These levels can damage your hearing. The manufacturers can accept no responsibility for damage caused in this way.

11. PPM. This is a PPM style level meter. Its response is similar to the BBC standard. The meter can be calibrated by removing the bottom cover and inserting a tweaker through the hole marked “M” feed a known level signal into the monitor in and adjust to suit. Normal calibration is to BBC Specs: 0 = 0dbm (.775V into 600R)

12. Phantom Leds. These will illuminate when phantom power is applied to the sender socket, even when **earplug2** is switched off.

2 LEDs = Good Cable

1 LED = Broken Signal Conductor

0 LEDs = No Phantom or Broken Ground.

13. LBL. (Little Blinking Light) **earplug2** is powered by a standard 9V Battery (Mn1604 etc.). Complete redesign of the power supplies in **earplug2** means that battery life has been considerably enhanced.

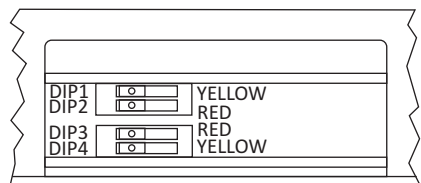
The LBL LED (13) will flash when **earplug2** is switched on and the rate of flashing indicates battery condition. If the LBL stops flashing when used with battery power, this means the battery is nearly flat, however it will still function until the battery is nearly inside out! If you use **earplug2** on an external supply of more than 10V the LBL will turn off automatically.

14. Torch LED. This is a 30000mCd white LED that is operated when the Multipresstm is pressed while the Mode Switch is OFF.

15. Battery Door. Turn the latch with a screwdriver to access the battery and DIP Switches.

16. DIP Switches:

These switches allow you to modify the operating modes of **earplug2**. They are accessed by removing the battery cover and battery. holding **earplug2** with the front panel up you will see this:



		L	R	
DIP1	Mic Amp Gain	40db-----20db		See 3.
DIP2	Phantom Power	Perm-----Switched		See 5.
DIP3	Sig Output	Pink -----Tone		See 5.
DIP4	On-Pass	On-----Off		See 5.

Guarantee:

earplug2 is guaranteed against faulty materials or workmanship for a period of 1 year from the date of Purchase. It is the responsibility of the purchaser to return a faulty unit to the manufacturers for repair. Bilko Enterprises reserves the right to repair or replace a faulty unit.

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Specification:

Output Impedance75R
 Input Impedance..... <1MR
 Distortion(Tone)..... Nominally 0.1%
 Pink Noise.....20Hz - 20Khz
 (rolling off at-3db per Octave)
 Headphone Output..... 325mW into 32 R
 Battery:..... 9Volt PP3
 (Alkaline type recommended)
 Nominal Battery Life:

Continuous Use

(1 Khz tone into Monitor Socket).....Approx 10 Hrs
 (Phantom Powering a Microphone)..... Approx 2 Hrs

(Typical Intermittent Use MUCH longer!)