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## **FosMeter-Pro**

C-TEC has launched a new AFILS test kit specifically designed to simplify the setup of an induction loop system and ensure its compliance with EN 60118-4 (the updated European Standard for Magnetic field strength in audio-frequency induction loops for hearing aid purposes).

The kit includes an FPRO Fosmeter Pro induction loop tester c/w intuitive display and simple to follow test menus, a calibrated FPROSG signal generator c/w pre-loaded test tones and a set of headphones.

As well as checking the magnetic field strength of an induction loop system, it also measures background noise, frequency response, metal compensation AND allows you to listen to the loop signal.

The tester and signal generator are each powered by a 9V PP3 battery and both are supplied in protective canvas carrying cases.

### **FPROK1 KIT CONTENTS:**

- 1 x Fosmeter Pro (FPRO)
- 1 x Audio Signal Generator (FPROSG)
- 2 x Protective pouch
- 1 x 32 ohm headphones (HEAD1) for FPRO
- 2 x 9 V battery
- 1 x User Instruction
- 1 x FPRO Calibration Certificate
- 1 x AFILS Test Certificate

Connection leads (not supplied)

AL3 3.5 mm jack to bare ended lead (use to connect to all PDA102 variants / MLK1K / PDA200E amplifier)

AL14 3.5 mm jack to XLRM lead (use to connect to a Pro-Range Amplifier)

## **OPERATION**

Testing an induction loop system with the FPROK is simplicity itself:-

First, connect the FPROSG signal generator to a suitable balanced line input at the AFILS amplifier using an AL3 or AL14 test lead.

Next, switch on the amplifier and adjust the input signal control and loop drive current in accordance with the amplifier's manual.

Finally, carry out the appropriate test (explanations are below) using the Fosmeter Pro tester, log the results on the certificate provided and proceed to the next test until all tests are completed. All of the tests should be carried out with the Fosmeter Pro in a horizontal (flat) position.

### **Background noise test**

- Designed to ensure the background noise level of the site/system does not affect the intelligibility of the system in the covered area
- Detects the level of background noise and indicates if it is acceptable, tolerable or too high in accordance with BS EN 60118-4
- Measurements should be taken before and after the system is installed (the 'after' reading should be taken with the amplifier on and all inputs off)

### **Field strength test**

- Designed to ensure the loop signal provides sufficient volume without distortion in the covered area
- Detects a pulsed 1kHz signal in accordance with BS EN 60118-4, calibrated at 400mA/m (0 dB L)
- Requires MP3 track 1 (1kHz sine wave)
- Use the amplifier's gain/drive control to achieve a 'good' result

### **Frequency response test**

- Designed to ensure good speech intelligibility in the covered area
- Detects 100 Hz, 1 kHz and 5 kHz in accordance with BS EN 60118-4
- Requires MP3 track 2 (frequency response sine wave)
- Presents all 3 results in an easy-to-read bar graph
- Acceptable results are +/- 3dB L from the central 1 kHz reference bar. If this cannot be achieved, use the amplifier's 'Metal Compensation' control(if fitted) until an acceptable range is displayed

## Metal compensation test

- Designed to ensure losses due to building structure and furnishings do not cause poor signal quality at high audio frequencies in the covered area
- Goes above and beyond the scope of BS EN 60118-4 but adheres to the recommended 3rd octave frequency spectrum advised in the standard
- Requires MP3 track 3 (metal compensation sine wave)
- An acceptable result is all the bars levelled out (if this isn't the case, adjust the 'metal compensation' control on the amplifier - if fitted - until you are happy with the results).

## Subjective listening test

- Designed to ensure hearing aid users receive an undistorted and clear signal in the covered area from the system's actual inputs (music sources, microphones, etc)
- Requires a set of HEAD1 headphones plugged into the Fosmeter Pro's headphone socket (ideally a hearing aid user should also test the signal using his or her own hearing aid but this is not always possible)
- Music and speech tracks are provided on the FPROSG signal generator if needed

## Clearly graphed and easy-to-understand test results

The Fosmeter Pro's test results are typically shown on the unit's LCD, as per the examples below.



One FPROK1 kit is all it takes to ensure your loop installations comply with current British Standards. Can you afford not to carry one in your tool box?

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