

PLM FSMP

Field Strength Meter (FSM)

USER MANUAL



Thanks for your purchase of the Williams AV Field Strength Meter. Please make sure to read the operating instructions carefully before using this equipment. They will provide you with important information on the safety, use and operation of the device. The Field Strength Meter is an ideal solution for measuring, comparing and starting up an induction loop system according to the requirements of the IEC60118-4 Norm.

The ergonomically designed, hand-held meter has two calibrated measuring functions and two settings for the evaluation of background noise and the magnetic strength. You can use the Field Strength Meter headphone jack to listen to and test the loop signal. The Field Strength Meter comes complete with the batteries required.

Safety Instructions

Use “AA/LR6” batteries only. Do not expose the meter to water in any way. Should any water penetrate into the enclosure, it may destroy the electronics. Do not store the de-vice outside. To clean the meter, wipe it carefully with a dry cloth – never use any type of chemicals or water.

1. Overview of the connection jacks and operating elements

- (1) Color-coded display of the field strength

(2) On/off indicator

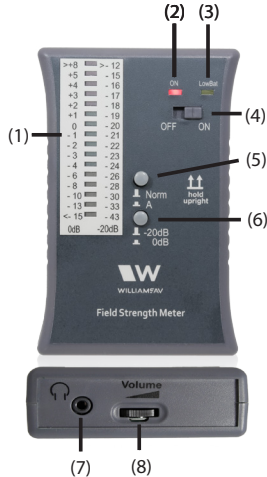
(3) Battery-low indicator

(4) On/off switch

(5) Filter selection switch
- (6) Measurement range selection switch

(7) Headphone jack

(8) Volume control for the headphones.



Switch setting for the measurement range selection switch

0 dB	-20 dB
>+8	>-12
+5	-15
+4	-16
+3	-17
+2	-18
+1	-19
0	-20
-1	-21
-2	-22
-3	-23
-4	-24
-6	-26
-8	-28
-10	-30
-13	-33
<-15	<-43

2. Measurement functions

(-20dB) measurement range for back-ground noise

Increases the sensitivity of the device and is used to detect magnetic interference fields.

Field Strength Meter

This function can be used to determine the crosstalk of the loops. Measurement range from -43 to -12 dB.

(0dB) measurement range for magnetic field strength

A broadband measurement range used to check the field strength that the induction loop emits.

Filter A

Evaluates the values measured on the basis of the listening curve of the human ear.

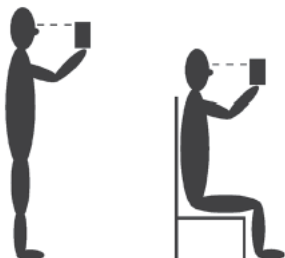
Filter Norm

Evaluates all the values measured in the same way on the basis of their physical values.

3. Using the meter

Before you begin with the calibration, look for a reference point within your loop (usually in the middle of the installed loop). Hold the Field Strength Meter perfectly perpendicular to the floor. Be sure to also make a note of the height at which you hold the device. This depends on the application.

Typical values are e.g. 1.20 m (sitting) or 1.70 m (standing).



4. Commissioning a Loop Amplifier

Please refer to the loop amplifier installation manual for instructions on how to use this meter to calibrate and commission a loop amplifier.

5. Maintenance and care

The Field Strength Meter does not require any maintenance. If the unit does become dirty, simply wipe it clean with a soft, damp cloth. Never use spirits, thinners or other organic solvents. Do not set up the Field Strength Meter where it will be exposed to full sunlight for long periods. In addition, it must be protected against excessive heat, moisture and severe mechanical shocks.

Note: This product is **not** protected against splash water. Do not place any containers filled with water, such as flower vases, or anything with an open flame, such as a lit candle, on or near the product.

6. Warranty

Should a malfunction occur despite the unit having been set up and operated correctly, please contact your dealer or the manufacturer directly.

This warranty covers the repair of the product and returning it to you free of charge. It is essential that you send in the product in its original packaging, so do not throw the packaging away. The warranty does not apply to damage caused by incorrect handling or attempts to repair the unit by people not authorised to do so (destruction of the seal on the unit). Repairs will only be carried out under warranty if the completed warranty card is returned accompanied by a copy of the dealer's invoice/till receipt. **Always specify the product number in any event.**

7. Disposal

Disposal of used electric and electronic units (applicable in the countries of the European Union and other European countries with a separate collection system). The symbol on the product or the packaging indicates that this product is not to be handled as ordinary household waste but has to be returned to a collecting point for the recycling of electric and electronic units.

You protect the environment and health of your fellow men by the correct

disposal of this products. Environment and health are endangered by a faulty disposal. Material recycling helps to reduce the consumption of raw material. You will receive further information on the recycling of this product from your local community, your communal disposal company or your local dealer.



8. Specifications

Scale calibration:	
Operating mode	-20 dB -20 dB = 0.043 A/m 0 dB 0 dB = 0.4 A/m
Type of measurement	True RMS 125 ms
Frequency response:	
Filter	A / Flat
30 Hz...500 Hz	-3 dB...-4 dB
500 Hz...2500 Hz	+/-0.25 dB
2500 Hz...10kHz	+/-3 dB
Outputs:	
Display	Color-coded LED dot display
Headphones	3.5mm cinch
Power supply:	Batteries 2x AA
Indicator lights	LED
Service life	100 hours
Dimensions	83W x 126H x 35D mm
Weight approx.	300 g



This device satisfies the following EU directives:

- 2002/95/EG RoHS directive - 2004/108/EG EMC directive
 - 2002/96/EG WEEE directive - 2006/95/EG Low voltage directive
- Compliance with the directives listed above is confirmed by the CE seal on the device.

Technical specifications subject to change without notice.