ESI 22 – QUICK START GUIDE

Electro-Smog (EMF) Detector — Radio Frequencies detection with enhanced sensitivity — 50 MHz to 6 GHz frequency range — excellent Wi-Fi detection

- ### What is Electro-Smog?

We refer to Electro-Smog as Electro-Magnetic Fields (EMF) produced by technology. EMF are "generated in the radiofrequency bands (RF/EMF) by popular wireless devices like cell phones, cordless phones, baby monitors, tablets, Wi-Fi enabled computer equipment, cell phone towers/antenna arrays, radio/television broadcast facilities, and wireless smart meters, among others. EMFs are also emitted in the extremely low frequency band (ELF/EMF) by electrical appliances, electrical wiring, and power lines". (source: https://emfscientist.org)

- ### Operate your detector: the battery

Insert / changing: **when putting the battery in place, please make sure that the battery cable is not sited underneath the battery, but is placed instead at the side of the battery, between the battery and the compartment wall**. *Failure to comply with instructions can cause damage to cable and / or cause battery compartment lid to not close properly.*
Battery check: upon start up, one of the two upper LEDs will light up briefly, either the green one (battery power between 25% and 100%) or the red one (battery power below 25%). If the red LED is steadily flashing, power is too low and the battery needs to be replaced.
Battery saving: the device will switch off automatically after 10 minutes in order to save battery.

- ### Detect ambient electro-smog **(i.e. electric fields from electric cables and appliances (such as computers, fuse boards, lamps and power supplies), magnetic fields from high voltage lines, transformers and inverters)**

1. Press once the "on-off" button to **switch on the device** in standard mode.
2. Hold the device **at arm length** away from your body.
3. **Move slowly** around to detect ambient electro-smog (the device performs a new detection every two seconds).

NB: to **switch the sound** on or off, press and hold the "on-off" button.

- ### Check electrical appliances for avoidable electric fields **(originating from appliances such as lamps)**

A **switched off** electrical appliance lacking a grounding cable will often generate an electric field, if the socket is plugged the wrong way around. Your device allows to check for plug direction.

1. Press the "on-off" button to **switch on the device** in standard mode.
2. Press the "select" button twice to **enter plug checking mode**. The upper green LED (next to the plug symbol) will light up.
3. Hold the device **at arm length** away from your body, and **near the switched off appliance** you want to test (e.g. lamp). The upper red LED (next to the plug symbol) will light up if an electric field is present.

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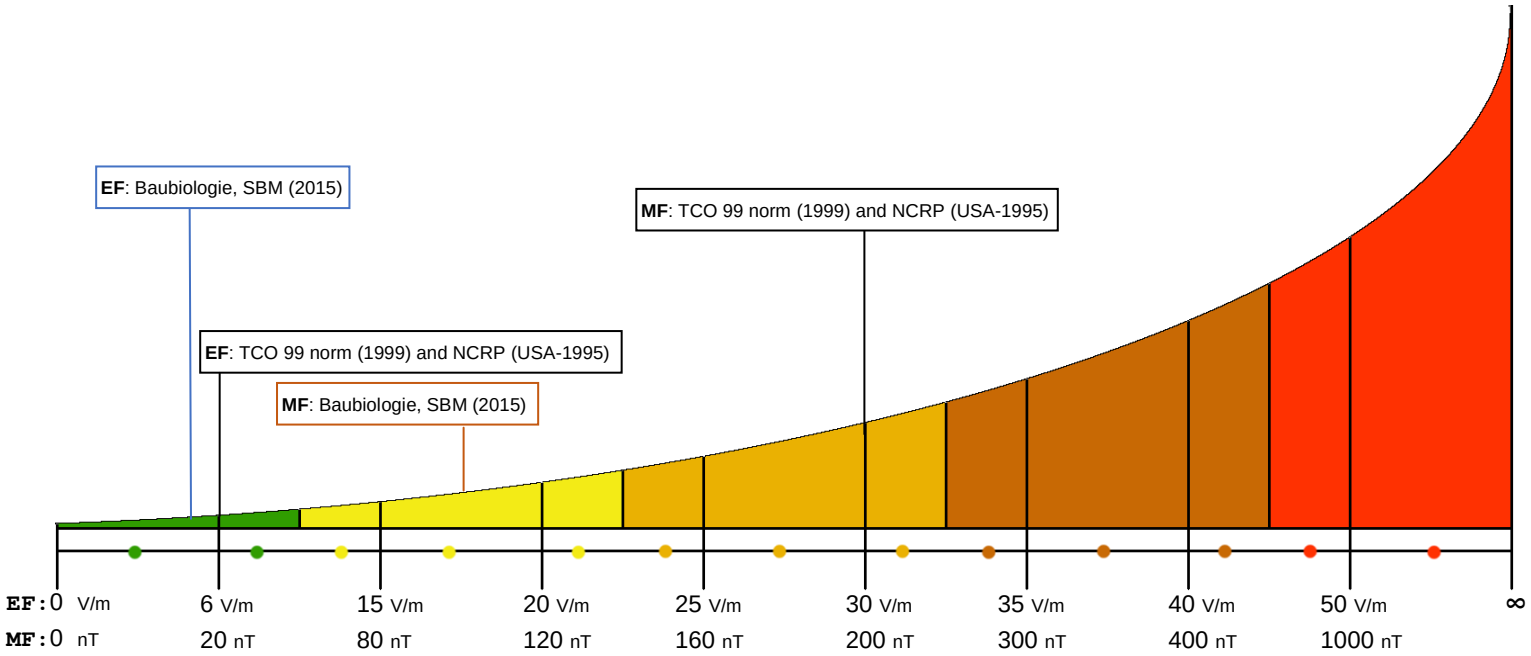
Standard mode table (indicative field strength is shown by means of each row of 6 LEDs)

Low-frequency magnetic and electric field (detection range: 16 Hz - 3 kHz; detection on all three dimensions (3D))

Values* for the ESI 22 Detector	Very weak → Very strong								
	Green	**Green / Amber 1**	**Amber 1**	**Amber 1 / Amber 2**	**Amber 2**	**Amber 2 / Red 1**	**Red 1**	**Red 1 / Red 2**	**Red 2**
Alternating magnetic field* in nT (Nanotesla)	< 20	20 to 80	80 to 120	120 to 160	160 to 200	200 to 300	300 to 400	400 to 1000	> 1000
Alternating electric field* in V/m (Volt per meter)	< 6	6 to 15	15 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 50	> 50

* All values are peak values. Actual values can slightly vary from the values specified in this table as a result of differences in individual electronic components. Exposure limits depend on individual sensitivities. The measured values are purely indicative and do not create liability of EPE Conseil.

Standard mode graph with thresholds (indicative field strength is shown by means of each row of 6 LEDs)



Indicative field strengths for **Electric Fields** (EF) in Volt per meter (V/m) and **Magnetic Fields** (MF) in Nanotesla (nT), depending on the colour of the LEDs that light up. The thresholds mentioned above are recommendations and norms from the corresponding sources (see hereunder).

- Baubiologie MAES-SBM. (2015). Valeurs indicatives en Baubiologie pour les zones de repos. In *Complément au standard de la technique de mesure en baubiologie SBM-2015.* Retrieved December 2, 2015, from http://baubiologie.fr/IMG/pdf/valeurs_sbm-2015_fr.pdf. (**recommendation**)
- NCRP, (1995) "Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields", NCRP Report No.86, Bethesda, Maryland, USA. (**norm**)
- TCO Development. (2012). TCO-Certified-Displays-6.0. In *TCO Development*. Retrieved November 16, 2015, from http://tcodevelopment.com/files/2013/04/TCO-Certified-Displays-6.0.pdf#page=28. (**norm**)