

Updated standard IEC 62489-1 pertaining monitoring of hearing loops

Introduction

A hearing loop, sometimes referred to as an induction loop, audio frequency induction loop system (AFILS) or T-Loop, is an assistive listening system that provides access to facilities for those who experience hearing loss. Also, other user groups benefit from the technology such as those with concentration difficulties. Speech-to-text services based on artificial intelligence can also utilize the technology to perform more accurate translations. Hearing aids, cochlear implants and other telecoil equipped hearing equipment, such as loop listeners and speech amplifiers, can be connected to hearing loops based on the international standards IEC 60118-4 and IEC 62489-1.

Amendment in IEC 62489-1

On the 21st of January 2018, amendment no. 1 within IEC 62489-1 came into effect where paragraph 10 state that a hearing loop shall be monitored with the purpose of achieving greater reliability.

Continuous monitoring should be performed with installed stationary equipment that gives real time information about the status of the hearing loop. The information should not be presented in a way that can be considered annoying or intrusive for persons within the room. It must also be portable measuring equipment available enabling checks of all parts of the room whenever any adjustments have been made to the configuration or any new electrical equipment or wiring has been installed that may result in interference.

Regulatory compliance

T-sign is an electronic hearing loop sign that comply with the new requirements in IEC 62489-1. T-sign receive, calculate and monitor the hearing loop field strength and quality over time. A steady green lighted sign indicate that the hearing loop is functional within the standards. T-sign can be installed during or after the initial loop installation. T-sign requires a 110V – 220V power outlet and field strength meter for calibration.



<https://transistor.se/en/accessibility/active-loop-sign-t-sign-set.html>

FAQ – frequently asked questions about monitoring of hearing loops

Q1. Isn't it enough that those who use hearing aids inform me any time there is a problem with the loop?

- No. Besides the ability to confirm if the loop works or not, just by listening through a hearing aid can't further confirm if the hearing loop meets the standards or not. Another problem is that the hearing aid user realize the problem after the intended use of the loop has commenced.

Q2. Isn't it enough with a listening device for checking the loop?

- No. A listening device has the same limitations as a hearing aid where it can't confirm how well it meets the standard and it will only show if the loop works at that precise moment it's checked, where the standard stipulates that monitoring should be over time.

Q3. What is the purpose of T-sign?

- In an intuitive and continuous way displays the sound when transmitted through the hearing loop and in accordance with IEC 60118-4.

Q4. What does the T-sign indicate?

- Steady green means that the system is turned on, working and that the field strength is within accepted levels according to IEC-60118-4.
- A slow pulsating green light means that the sign is sensing an electromagnetic field, but the field strength is below IEC-60118-4 standard.
- A steady red light means that the field strength has been too high over a period, in accordance to IEC 60118-4.
- No light means that there is a loop system installed but it is either turned off or not working.

Q5. Who can fix the hearing loop?

- Necessary adjustments are sometimes a matter of usage of the system. For example, it can be that the person using the microphone holds it too close or too far from the mouth or simply talking too quiet or much too loudly.
- Sometimes there is a matter of faulty power supply or adjustment of the loop amplifier or sound equipment. Persistent low or lack of performance may need expert assistance.

Q6. Do I also need a hearing loop placard if I got a T-sign?

- Yes. A placard will inform that there is a hearing loop installed and T-sign informs about how it's actually working. Place the placard adjacent to the entrance so it can be clearly seen when entering. T-sign should be placed so it can be viewed in the room.

Q7. Does the T-sign work with all types of loop installations?

- Yes. T-sign can pick up a signal regardless if it is from a perimeter, phase-shift or multiloop configuration. T-sign works with hearing loops installed at any height in the room and regardless of the manufacturer of the loop amplifier.

Q8. How is T-sign installed?

- Step 1. Make sure the loop meets the IEC 60118-4 standard by measuring the field strength at relevant height from the floor at relevant spots in the room.
- Step 2. Select a location to mount the T-sign where both speakers and audience can see it. If it is a location where there are technicians during operation, they must have the sign in view.
- Step 3. Mount the sign to the selected location. Connect the sign with the power supply. Turn the loop system on and calibrate the sign following the manual. If the field strength turns out to be too weak at the spot selected, the external sensor can be used. (Transistor part number 3000111)

Q9. How many T-signs are needed?

- The number of T-signs is dependent on the size and the shape of the room. T-sign should be possible to see from all locations in the room, so a smaller room usually requires one T-sign whereas a larger room can require several T-signs.

Q10. Can the brightness of T-sign be altered?

- Yes. There is an adjusting knob on the side where a suitable brightness level can be selected during installation. The sign itself will also dim down when the room light is dimmed.

Q11. May the T-sign risk to be conceived annoying if it is blinking and changing?

- Usually not. If the loop is OK, the sign is steady green. After initial installation there is seldom any change besides from when the loop is turned on or off. If during usage it starts to weaken and pulsate, it means that sound is weakening for some reason that need attention.
- Standard program 2 in T-sign (set with the dip-switches which can be accessed in the back of the sign) is intended for public premises where the sign will react slower to changes in field-strength (for example when a speaker momentarily gets quiet during a speech). This will counteract that the sign turns pulsating unnecessary.

Q12. I have more questions – who should I contact?

- Transistor, founded in 1953, works with solutions serving people who are in need to protect and facilitate hearing. We also have a network of distribution and resale partners. If you have any questions, feel free to email info@transistor.se or call + 46 8 545 536 30.