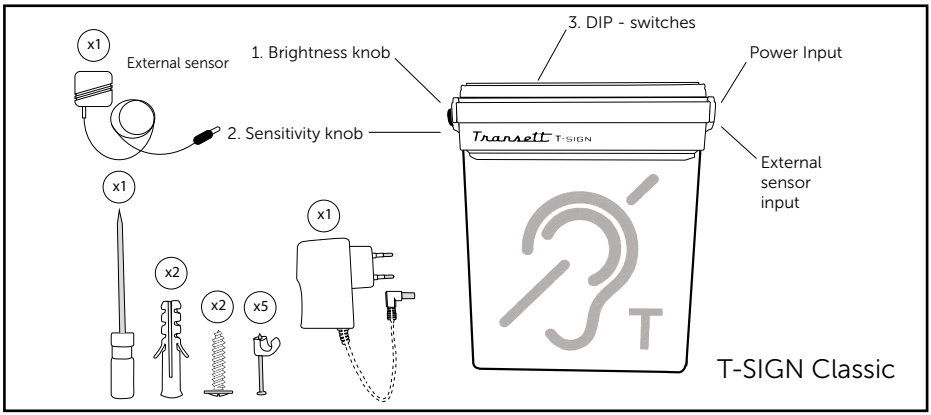
Transett T-SIGN v2

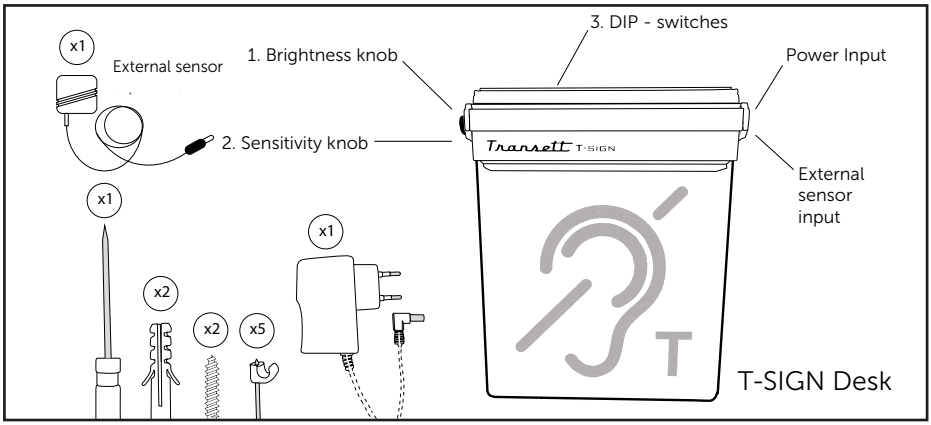
T-SIGN Classic - article no 3000115
T-SIGN Desk - article no 3000954
T-SIGN Desk Mini - article no 3001000

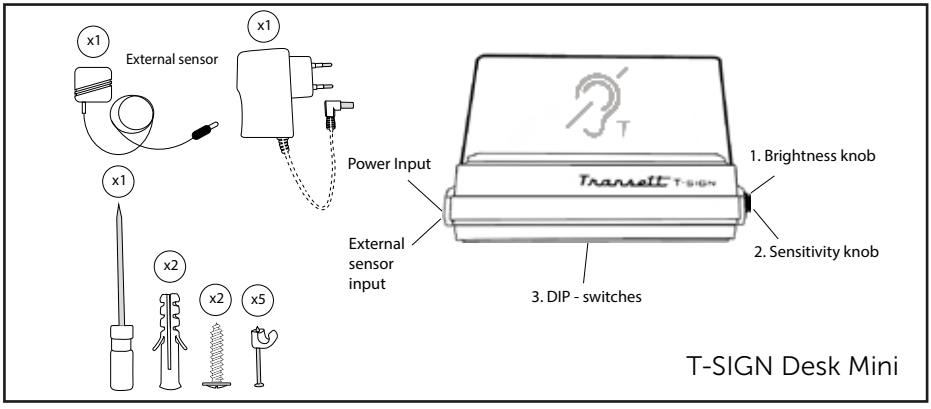
Content

User Manual for Transett T-SIGN

What's in the box







About Transett T-SIGN

T-SIGN is an active hearing loop monitoring device that complies with IEC 62489-1 i to make it easy for non technical staff and audience to easily verify function of the hearing loop system continously. T-SIGN is compatible with all types of hearing loop systems such as perimeter loops and different variants of low spill hearing loop systems. Also T-SIGN can also be used with portable hearing loops, IR systems, FM-systems and Auracast systems (see further below section alternative use of T-SIGN). There are different variants of T-SIGN to comply with different use case scenarios.

T-SIGN (Classic)

Mounted vertically on a wall or in the ceiling of any room with a hearing loop system such as a meeting room, classroom, lecture hall, court room, theater or cinema.

T-SIGN Desk Mount

Mounted on horizontal surfaces such as desks and podiums.

T-SIGN Desk Mini

A smaller version for use in reception desks, but also as a smaller unit that can be put on any horizontal surfaces (observe it needs to be in a fixed position as the hearing loop field signal varies with position). This unit is also possible to bring along and use for checking neck-loops on portable receivers of hearing loop systems.

Set up and installation instruction (all variants)

Normal operation mode

In order to run T-SIGN in normal operation mode, start it up by plugging in the power and let it run its startup sequence for approx. ten seconds. During the startup sequence it indicates which program it runs by the number of green flashes it does.

One flash - program 1 - Advanced mode with feedback on field strength in the hearing loop system (with faster changes in indication)

Two flashes - program 2 - Advanced mode with feedback on field strength in the hearing loop system (with slower changes in indication)

Three flashes - program 3 - Simple mode with feedback when hearing loop is in correct field strength level (with faster changes in indication)

Four flashes - program 4 - Simple mode with feedback when hearing loop is in correct field strength level (with slower changes in indication)

Very weak or no signal: T-SIGN is dark

Too weak signal: Flashes green in a soft manner (only used in program 1 and 2)

Normal signal: Steady green light

Too strong signal: Flashing red light Installation (only used in program 1 and 2)

Installation (Refer to the enclosed Quick Guide)

1. Preparations before the setup: A functioning hearing loop setup in accordance with the IEC 60118-4 standard and a device providing sound source to the hearing loop, e.g. a microphone, TV or a computer.

2. Choose an appropriate place for T-SIGN. It is not recommended to mount T-SIGN close to electronic devices due to signal interference.

3. Position T-SIGN at or nearby the chosen mounting place and connect power to it. Make sure the hearing loop is not in use. Verify that there is no signal interference that affects T-SIGN when the hearing loop is not in use. This is shown by that T-SIGN remains dark when it has been turned on. If T-SIGN is flashing or is indicating steady green with the hearing loop turned off then consider a different mounting location with less signal interference from the

5. Drill two screws onto the wall according to the enclosed drilling template (page 9) and mount T-SIGN in place. T-SIGN Desk Mini can also be placed without fixed monitoring but be sure to only use program 3 and 4 in that case and be sure to not move the product around after calibration.

Calibration

Calibration is done in order for T-SIGN to show correct display mode in relation to magnetic field strength. It means T-SIGN indicates the correct levels in accordance with IEC 60118-4 standard. When in calibration mode, sensitivity is adjusted so that T-SIGN changes color from green to red when the magnetic field strength at the listening position is 400 mA/m (measured with a separate field strenght measuring device).

How to calibrate T-SIGN:

1. Turn off T-SIGN by unplugging the DC connector or unplug the power supply. Wait a few seconds until it has shut down.

2. Turn the light intensity knob to minimum (fully counter clockwise).

3. Turn on T-SIGN by plugging in the DC connector or by plugging in the power supply.

4. After that T-SIGN has made green flashes (depending on program selection) turn the light intensity knob to maximum (fully clockwise). This must be done within four seconds after the green flash(es).

5. T-SIGN now indicates that it is in Calibration mode by doing two short green double flashes.

6. Calibration is done in two different ways (A or B):

A) Supply the hearing loop with a 1 kHz steady or pulsating sinus tone.
B) Supply the hearing loop with continuous speech, e.g. via a microphone/TV/computer.

7. In the above cases (6A and 6B), make sure the hearing loop am-

plifier reaches its compression regime. Many loop amplifiers have a compression indicator indicating this. If not, use a relatively strong signal input for the amplifier. If the hearing loop is adjusted correctly, it will now generate a magnetic field strength of 400 mA/m at the listening position. If a field strength meter is available, verify the magnetic field strength at the typical listening position.

8. Adjust T-SIGN sensitivity knob with the supplied screwdriver so that T-SIGN just turns red (or just showing red in peaks if using a pulsating sinus tone, or red in peaks if using a speech signal).

9. If it's not possible to reach the red color shift in the previous step, then T-SIGN won't be able to indicate correct for all scenarios that can be illustrated with program 1 and 2 (dark/soft flashing green/ steady green/red). In that case use the external sensor by plugging it into the external sensor input and position the external sensor closer to the hearing loop (normally downwards if the hearing loop is floor-mounted). Repeat step 8. Another option is to mount T-SIGN in a different location closer to the hearing loop and repeat step 8.

10. To end Calibration mode pull out the DC adapter, wait approximately five seconds and then reconnect the DC adapter again.

Indications for program 1 and 2 (referencing green to red color shift during calibration):

- No signal (< -16 dB) : Dark display
- Weak signal (<-10 dB to -16 dB) : Soft flashing green display
- Normal signal (0 dB to -10 dB): Steady green display
- Strong signal (> 0 dB): Flashing red display

Indications for program 3 and 4 (referencing green to red color shift during calibration):

- No signal (< -10 dB) : Dark display
- Normal signal (> -10 dB): Steady green display

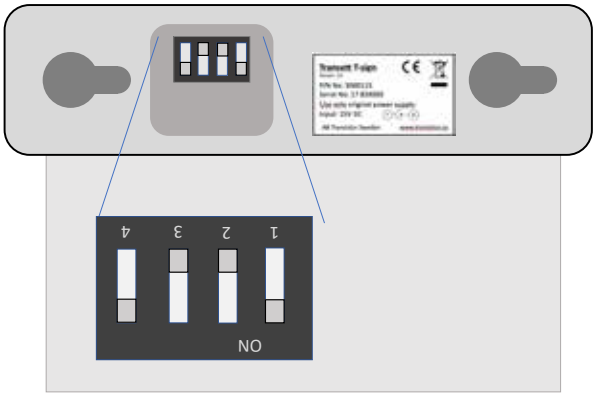
Other configurations

There are some additional configurations that can be made via DIP-switches. The switches are accessible via the backside of the T-SIGN housing and are located on the circuit board. The following configurations can be made (default settings shown in Bold):

• DIP-sw 1: Automatic control of light intensity related to surrounding light (off/on).

• DIP-sw 2: Reduce sensitivity for weak signal display with 3 dB (off/on) (used in program 1 and 2). This can be a good feature when high sensitivity is needed in combination with some surrounding interference.

	DIP-s w 3	DIP-s w 4	Characteristics of program	Example of use case
Program 1	OFF	OFF	Adv mode / fast mode	Special schools
Program 2	OFF	ON	Adv mode/ slow mode	Meeting rooms with experienced users
Program 3	ON	OFF	Simple mode / fast mode	Reception desks
Program 4	ON	ON	Simple mode / slow	Theater halls, cinemas, court rooms etc.



Program characteristics

Program 1 is a program where T-SIGN reacts relatively fast to changes in magnetic field strength and gives more information about the field strenght level of the hearing loop system. It can be e.g. in a teaching situation where the speaker is interested in knowing that the correct microphone technique is used.

- From dark to some indication: 2 sec
- From weak to normal signal indication: 2 sec
- From normal to strong signal indication: 4 sec
- From strong to normal signal indication: 3 sec
- From normal to weak signal indication: 12-15 sec
- Time to dark T-SIGN when no signal detected: 3 sec

Program 2 is the program where T-SIGN reacts slower to changes in magnetic field strength and gives more information about the field strenght level. This is useful in public venues where a sound technician can adjust sound levels. A normal indication shows that the hearing loop is functional and within correct limits.

- From dark to some indication: 5 sec
- From weak to normal signal indication: 4 sec
- From normal to strong signal indication: 30 - 45 sec
- From strong to normal signal indication: 3 sec
- From normal to weak signal indication: 1-3 minutes
- Time to dark T-SIGN when no signal detected: 60 sec

Program 3 is a the default program (T-SIGN Desk Mini) where T-SIGN reacts faster to changes in magnetic field strength and gives less information about the field strenght level. This is useful in public venues and where the speaker can't affect the level of the sound. A steady green T-SIGN shows that the hearing loop is functional and within correct limits.

- From dark to normal indication: 1-3 sec
- From normal to dark indication: 5-10 sec
- Time to dark T-SIGN when no signal detected: 3 sec

Program 4 is the default program (T-SIGN Classic and T-SIGN Desk Mount)where T-SIGN reacts slower to changes in magnetic field strength and gives less information about the field strenght level. This is useful in public venues and where the speaker can't affect the level of the sound. A steady green T-SIGN shows that the hearing loop is functional and within correct limits.

- From dark to normal indication: 2-5 sec
- From normal to dark indication: 50-90 sec
- Time to dark T-SIGN when no signal detected: 60 sec

The above program characteristics are indicative numbers for a continuous speech signal and will vary depending on speech content, amplifier AGC setting and level of magnetic field strength.

Alternative use of T-SIGN

Portable hearing loops

T-SIGN Desk Mini can be used as a portable loop checker that can be used to check portable neckloop receivers. For this purpose use program 3 of T-SIGN. Adjust the sensitivity knob to maximum sensitivity and plug in T-SIGN to a power outlet. Place the neckloop connected to the portable receiver around T-SIGN and make sure the receiver and microphone are on. Speak in the microphone to just verify that there is a signal in the portable neckloop by checking T-SIGN indicates a green or red indication.

IR-systems, FM-systems and Auracast systems

T-SIGN (all variants) can be used to indicate there is sound transmission in an IR system, FM-system or Auracast system with portable receivers by connecting a portable receiver with a 3.5 mm - 3.5 mm cable (not provided in package) between the receiver 3.5 mm sound output to T-SIGN 3.5 mm external sensor input. Use program 3 for this use case and make sure to adjust the receiver volume to maximum output and calibrate the sensitivity of T-SIGN in the same way as you calibrate T-SIGN with field strength level.

Technical data

- Input power: 15 V, 1A via external power supply 110 – 230 V AC
- External sensor input: Use external sensor for T-SIGN
- Power consumption: 1 W
- Measurements (Classic): 15 cm (W) x 18 cm (H) x 4,5 cm (D)
- Measurements (Desk Mount): 15 cm (W) x 18 cm (H) x 4,5 cm (D)
- Measurements (Desk Mini): 15 cm (W) x 10 cm (H) x 4,5 cm (D)
- Weight (Classic): 360 g
- Weight (Desk Mount): 360 g
- Weight (Desk Mini): 260 g
- Color: Aluminum

Sensitivity, transition from normal to strong indication (steady green to red color light)

- Sensitivity knob in min position: + 9 dB signal (1 kHz, ref 400 mA/m)
- Sensitivity knob in max position: - 22 dB signal (1 kHz, ref 400 mA/m)
- Frequency range: 300 Hz – 2000 Hz (rel -3 dB)

Cleaning and maintenance

Use a damp cloth to wipe it on the outside. Never use cleaning products or solvents.

Repairs

If your product malfunctions, it must be repaired by a qualified technician. Do not attempt to open the case of the device since this would invalidate the warranty. If your product requires service, please contact your hearing care professional for assistance.

Waste disposal

This product contains electrical or electronic equipment and should be disposed of carefully in the interests of your safety and the environment. Please contact your local hearing care professional concerning disposal of the product.

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