



# Induction loop systems

The induction loop is the only effective assistive listening solution specially tailored for the hard-of-hearing.

## Audio Frequency Induction Loop Systems

**(AFILS)** transmit high quality speech and sound via a magnetic field that couples directly to hearing-aid devices, therefore greatly improving the clarity of communications to the hearing-impaired in noisy environments such as tube and train stations, banks, conference halls, airport terminals and ticket offices.

An induction loop consists of a wire loop that, when energised by electric current, produces a magnetic field spreading over a suitably-sized listening area. Strength and other parameters of the magnetic field are specified by standards to ensure that communications to the hearing aid wearer are clear in all circumstances.

## Current legislation

Following European legislation the UK's Disability Discrimination Act (DDA) (1995) makes it unlawful for service providers to discriminate against disabled people – including the hard of hearing - in the provision of goods, services and facilities. The DDA was further extended in September 2002 and finally came into force in October 2004 as the Disability Rights Commission's (DRC) Statutory Code of Practice, which was then further revised in December 2006.

Under the Act all UK service providers have the legal duty to make 'reasonable adjustments' to their auxiliary aids, physical features, and their practices, policies and procedures to ensure disabled people's civil rights are met. Failure to observe any provision could result in court prosecution.

Building access and approaches adopted to meet the need of disabled people are dictated in the Building Regulations 1998 Part M and further detailed in the British Standard BS 8300:2001, these standards apply to a large variety of building types including transport, industrial, administrative, commercial, health and welfare.

BS 8300:2001 recommends that "a hearing enhancement system, using induction loop, infra-red or radio transmission, should be installed in rooms and spaces used for meetings, lectures, classes, performances, spectator sports or films, and used at service and reception counters where the background noise level is high or where glazed screens are used".

Loop performance is specified by the EN 60118-4 standard also known as IEC 118-4. This standard defines magnetic field strength and frequency response AFILS are required to achieve in the listening area.

### Our core engineering values

Delivering system solutions to large organisations operating in the metro, rail and road sectors, we provide an unrivalled level of service based on quality, innovation, and experience. Values that ensure excellence in all that we do, from consultancy, design and final system delivery.

We combine our many years of experience with a commitment to provide comprehensive solutions that satisfy all engineering requirements and provide real benefits to our customers.

### Market leading induction loop expertise

Through the implementation of a large project for London Underground's upgrade of station PA systems, we have gained considerable experience in designing, installing and testing induction loops. This experience, coupled with the bespoke solutions that we've developed for our customers, allow us to offer you a market leading induction loop offering.

We've installed over 500 Public Help Point and approximately 200 'Journey Planner' induction loops as part of our contract with Tube Lines. Already in operation, these provide assistive listening facilities at a large number of stations including Euston, Leicester Square, Green Park and Camden Town. Our AFILS are fully integrated with PA systems, supporting the hard of hearing in ticket halls, platforms, passageways, lifts and at all help points distributed throughout a station.



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### Unique solutions for challenging environments

We have developed a range of innovative loop designs that overcome the shortcomings of traditional 'floor loops', namely high installation costs in existing buildings, connectivity issues and power requirements.

Our bespoke solutions consist of the following:

#### 1) Panel Loop

- Suitable for installation on wall or on ceiling
- Can be installed, connected and fully tested in one hour
- Multiple panels can be driven by a single PA audio amplifier
- Panels can be grouped together or distributed over an area
- Require minimal amplifier power
- Produce adequate performance in a listening area of 6-10 sqm size.

#### 2) Integrated Public Help Point (PHP) Loop

- Fitted within the PHP enclosure
- Can be fitted and tested in less than one hour
- Are driven by a standard PHP amplifier
- Produce same performance of 'floor loop'
- Fully EMC-compatible with PHP electronics

#### 3) Lift Loop

- Fitted on the ceiling perimeter of the loop car
- Loop wire concealed beneath metal strip
- Associated electronics mounted above lift car ceiling
- Coverage of entire lift area

### Service excellence guaranteed

Design, installation and testing of induction loops is a very specialised field, where we offer a range of high quality services including:

- Consultancy
- Installation design
- Pre-installation site survey
- Post-installation performance verification