

# PDA RANGE INDUCTION LOOP SYSTEMS

Demand for induction loop systems is increasing as a result of new legislation aimed at preventing discrimination against disabled people and changes to existing laws. Sensotec's range of induction loop systems are ideal for a host of applications including hotels, sports centres, churches, factories, theatres, banks, etc.



- The widest range of audio-frequency induction loop equipment in the UK
- Fully compliant with BS7594 and BS-EN60118-4
- Available in a variety of cost-effective kit formats suitable for use in ticket offices, meeting rooms, lecture theatres, nursing homes, GP surgeries, churches and shops
- Allows hearing aid users to participate fully in general conversation and other social/work related activities
- No audio experience required - Sensotec's loop systems can be fitted by any competent electrician
- Extensive range of induction loop testing equipment now available including pink noise generators, magnetic field strength meters and loop listening devices

## WHAT IS AN INDUCTION LOOP SYSTEM?

Induction loop systems are used to help hearing impaired people obtain maximum involvement in communications. The concept behind them is simple. All NHS hearing aids have a 'T' position which allows them to pick up the electromagnetic field generated by a telephone's earpiece and convert it into a sound suited to an individual's specific hearing requirements. A loop system uses this same principle but generates a much larger field than that created by a telephone earpiece and radiates it around a room via a 'loop' for the benefit of any hearing impaired person(s) located within it. An induction loop system therefore comprises four main elements:- the audio source (microphone and/or music inputs), the amplifier (specially designed for the job), the loop (usually a single turn of wire) and the receiver(s) (hearing aids in the 'T' position of specially made listening devices).



## WHY FIT AN INDUCTION LOOP SYSTEM?

The Disability Discrimination Act (DDA), current Building Regulations, BS8300 and the new Care Standards Act all recommend the installation of an induction loop system (or similar) as summarised below:-

### THE DISABILITY DISCRIMINATION ACT 1995

The DDA states that any service provider offering goods, facilities and services to the general public must make 'reasonable' adjustments to ensure that they do not unlawfully discriminate against disabled people. From October 2004, service providers who fail to make adequate provision for people with hearing difficulties face prosecution. Examples of service providers covered under the DDA include hotels, post offices, banks, building societies, sports stadiums, theatres, shops, nursing homes, petrol stations, places of worship, courts, hospitals and leisure centres.

### BUILDING REGULATIONS (1992)

The Building Regulations of 1992 state that newly erected or substantially reconstructed non-domestic buildings must provide aids for the hearing impaired. Areas requiring cover include booking and ticket offices where the customer is separated from the vendor by a glazed screen, reception areas, auditoria and meeting rooms in excess of 100m<sup>2</sup>.

### BS8300

Introduced in 2002, BS8300 (the code of practice for the design of new buildings and their approaches to meet the needs of disabled people) pinpoints the following areas for consideration: seated waiting areas; ticket sales and information points; fitness suites and exercise studios; churches; crematoria and cemetery chapels and educational, cultural and scientific buildings.

### THE CARE STANDARDS ACT (2002)

The Government's new Care Standards Act (2002) demands that care homes provide certain adaptations and equipment for residents, specifically: 'facilities, including communication aids (e.g. an induction loop system), and signs to assist the needs of all service users, taking account of the needs, for example, of those with hearing impairment, visual impairment, dual sensory impairments, learning disabilities or dementia or other cognitive impairment, where necessary.' (standard 22.6). These are 'core requirements which will apply to all care homes providing accommodation and nursing or personal care for older people' in England.

### TESTING AN INDUCTION LOOP SYSTEM

Induction loop systems require careful testing prior to operation. BS7594 recommends the minimum magnetic field strength of an AFILS system over a covered area should be 100mA RMS per metre. The most efficient way of ensuring this requirement is met is to measure the magnetic field strength of a steady output from the AFILS amplifier and adjust its drive control accordingly. This can be done using a PNGN pink noise generator (connected to the loop amplifier's line level input) and a FoSmeter magnetic field strength meter from Sensotec.





# PDA RANGE INDUCTION LOOP SYSTEMS

Loop cable is included in all ML1/K, DL50/K, PDA101C, PDA101L and PDA101S induction loop kits. For the PDA200E we recommend 1mm<sup>2</sup> cable (i.e one core of 1mm<sup>2</sup> 6242Y T&E) or 1.5mm<sup>2</sup>62491X mains rated single cable. For other loop amplifiers contact our sales desk for advice.

## 1m<sup>2</sup> PORTABLE INDUCTION LOOP SYSTEM

PL1/K1	PL1 amplifier c/w battery, & mic, PSU 1 (sleeved)
PL1/K2	PL1 amplifier c/w battery & mic, PSU1, tester and headset (sleeved)
PL1/K3	PL1 amplifier c/w battery & mic, PSU1, (in plastic carry case)
PL1/K4	PL1 amplifier c/w battery & mic, PSU1, tester and headset (in plastic carry case)
PL1	PL1 amplifier includes battery & microphone
PL1/PSU1	PL1 power supply unit
PL1/PSU2	PL1 power supply unit (European in line)
AMT	Desk top microphone
AHHM/H	FoSmeter combined field strength meter and loop listener
HEAD1	Headphones for use with AHHM/H
CASE1	Plastic hard carry case

## 1.2m<sup>2</sup> COUNTER INDUCTION LOOP AMPLIFIER KITS

ML1/K	Wall-mounting double gang counter induction loop kit, c/w ML1 amp., AMT mic. and TX2 loop
PDA101C	Free-standing counter induction loop kit, c/w PDA101 amp., AMT mic. and TX121 loop

## 20m<sup>2</sup> MINI INDUCTION LOOP AMPLIFIER

ML1	Mini 20m <sup>2</sup> wall-mounting double gang induction loop amplifier
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## 50m<sup>2</sup> INDUCTION LOOP AMPLIFIERS & KITS

DL50	50m <sup>2</sup> free-standing domestic induction loop amplifier
DL50/K	50m <sup>2</sup> domestic induction loop kit c/w DL50 amp., AMT mic., APS scart lead & loop cable
PDA101L	50m <sup>2</sup> Small room induction loop kit c/w PDA101 amp., AMT mic. and loop cable
PDA101S	50m <sup>2</sup> TV lounge induction loop kit c/w PDA101 amp., scart lead and loop cable

## 120m<sup>2</sup> INDUCTION LOOP AMPLIFIERS & KITS

PDA200E	120m <sup>2</sup> wall-mounting induction loop amplifier
AKM1	120m <sup>2</sup> Meeting/seminar room kit c/w PDA200E amp. and APM plated mic. outreach plate
AKL1	120m <sup>2</sup> Lecture room kit c/w PDA200E amp., AMT mic, AML mic, 2 x APJ outreach plates
AKT1	120m <sup>2</sup> TV / music lounge kit c/w PDA200E amp., AMH mic, APS scart lead, APJ & APL outreach plates
AKW1	120m <sup>2</sup> Place of worship kit 1 c/w PDA200E amp., AML mic., APJ & APL outreach plates
AKW2	120m <sup>2</sup> Place of worship kit 2 c/w PDA200E amp., AMR radio mic, APQ & 2 x APXM outreach plates
AKR1	120m <sup>2</sup> Waiting room kit c/w PDA200E amp., APL outreach plate
AKH1	120m <sup>2</sup> Health and fitness club kit c/w PDA200E amp., AMR radio mic., APQ & APL outreach plates
AKU1	120m <sup>2</sup> Retail unit kit c/w PDA200E amp., AML mic, APJ outreach plate

## PROFESSIONAL (120m<sup>2</sup> TO 550m<sup>2</sup>) INDUCTION LOOP AMPLIFIERS

PDA200	120m <sup>2</sup> free standing induction loop amplifier
PDA800	400m <sup>2</sup> free standing induction loop amplifier
PDA500	220m <sup>2</sup> rack mount induction loop amplifier
PDA1000	550m <sup>2</sup> rack mount induction loop amplifier

## PDA RANGE OUTREACH PLATE AUDIO INPUT EXTENSION SYSTEM

Can be used to increase the number of audio inputs on an induction loop system (please note, a separate 12V PSU may be required when connecting outreach plates to amplifiers other than the PDA200E or ML1).

APJ	3.5mm mono jack plate, for connection of AMT, AMH, AML or AMD microphones
APL	Line level audio plate, for connection of APS SCART lead/other line level audio feeds
APQ	6.35mm stereo jack plate, for connection of AMR radio microphone kit
APXM	XLR mic level plate, for connection of AMP microphone
APXL	XLR line level plate, for connection of line level feeds from mixing desks
APM	Omni-directional plated microphone, for wall/ceiling/desk mounting
API	AFILS active indicator light
APS	SCART to double phono lead (for use with APL plate)
APCB/100	100m reel of standard two-pair audio cable for outreach plate network

## PDA RANGE MICROPHONES

APM	Omni-directional plated microphone, for direct connection to ML1, PDA200E or an outreach chain
AMT	Tie/desk microphone, for direct connection to ML1, PDA101, PDA200E or APJ outreach plate
AMH	Handheld microphone, for direct connection to ML1, PDA101, PDA200E or APJ outreach plate
AML	Lectern microphone, for direct connection to ML1, PDA101, PDA200E or APJ outreach plate
AMD	Desktop microphone, for direct connection to ML1, PDA101, PDA200E or APJ outreach plate
AMP	Professional handheld micr., for direct connection to PDA200E or APXM outreach plate (requires AXLR lead)
AMR	Levalier radio mic. c/w mic, receiver, transmitter, psu, for direct connection to PDA200E or APQ plate

## INDUCTION LOOP TEST EQUIPMENT

RXT12	Induction loop test receiver, requires 2 x AAA batteries & walkman type headphones
PNGN	P-Ngen pink noise generator, requires 1 x PP3 battery and AL1, AL2 or AL3 connection lead
AHHM	FoSmeter magnetic field strength meter, requires 1 x PP3 battery
AMPN	FoSmeter + combined pink noise generator & magnetic field strength meter requires 1 x PP3 battery & lead
AL1	3.5mm jack to 3.5mm jack lead (connects pink noise generator to APJ outreach plate)
AL2	3.5mm jack to double phono lead (connects pink noise generator to APL outreach plate)
AL3	3.5mm jack to pre-cut end lead (for customer's own connection of PNGN to a line level input)
FLAT100S	100m x 0.5mm <sup>2</sup> insulated copper tape (flat loop cable for under carpets)
FLAT200S	100m x 1.0 mm <sup>2</sup> insulated copper tape (flat loop cable for under carpets)
FLAT300S	100m x 1.5mm <sup>2</sup> insulated copper tape (flat loop cable for under carpets)
TAPE	50m white synthetic fibre tape (used to protect flat loop cable)
APT	Loop connector plate (for the termination of induction loop cable)
AXLR	XLR to XLR lead (used to connect AMP mic to APXM outreach plate)
TEAR10	Pack of 10 self-adhesive 'induction loop fitted' stickers

