

'Sound Field' Classroom Voice Reinforcement Systems

Young people spend at least 45% of their school day engaged in active listening activities, with today's classroom serving as a primarily auditory verbal environment.

However, a recent study in the journal of the American Medical Association showed that 14.9% of children aged 6-19 suffer from some degree of hearing impairment, either permanently or temporarily due to illness, infection or allergies.

Studies estimate that 80% of school children will have some form of hearing loss during an academic year and, with the importance of auditory learning in the classroom, the use of technology to enhance listening performance ultimately allows children to learn more efficiently.

One of the simplest and most effective solutions is an i-ceilings 'Sound Field Voice Reinforcement System'. Functioning as a mini public address system, the system features an infrared wireless microphone, receiver, amplifier and either one or two i-ceilings Sound Panels (dependent upon the size of classroom).

All children benefit from the improved speech clarity of a Sound Field Voice Reinforcement system.

Academic improvements are noted in:

- Task behaviour
- Attentiveness
- Understanding of instructions
- Less repetition required
- Better attendance
- Improved measures of verbal recognition

Building Bulletin '93

Section 1 of Building Bulletin 93, the Government's Specification of Acoustic Performance, sets the standards for the acoustics of new buildings and explains the requirements and solutions to "...provide acoustic conditions in schools that facilitate clear communications of speech between teacher and students...".

"... The key aim of a (speech reinforcement) system is to increase the loudness of the direct sound, particularly for more distant listeners, whilst keeping sound as natural as possible".



• Thorn Grove Primary School



www.soundfield.uk.com

With a range of highly effective, low cost solutions we have already supplied many successful i-ceilings Sound Field systems throughout the country, whilst our specially-developed website - www.soundfield.uk.com - has become the industry recognised site for information and advice on classroom voice reinforcement and the recommendations of Building Bulletin '93.



Client:
Parkfields Middle School

Product:
i-ceilings Pro-Panels,
Bespoke Painted

Application:

Parkfields Middle School has recently opened its newly built science laboratories, supported by significant public and private funding. Embracing many new technologies to provide the best possible facilities for students, both labs now feature interactive whiteboards linked to laptops, overhead pan/tilt/zoom cameras for projecting text books and students work and remote control blackout blinds.

Communication with students is further enhanced with the addition of i-ceilings sound field voice reinforcement, allowing the teacher to 'roam' throughout the labs whilst still benefiting from enhanced voice levels, yet remaining 'wirefree'. The use of infrared wireless microphones also allows the systems to be used simultaneously without multiple signal interference.

Client: **Thorn Grove Primary School** 

Product: i-ceilings CS-1000 & Pro-Panels,
Ultima Microlook

Application:

The social (and legal) requirements to end discrimination faced by many disabled people in the UK has ensured much greater emphasis on integration of disabled children in standard schools and classes. Thorn Grove Primary School includes 10 hard of hearing students who are fully integrated with all classes with the assistance of i-ceilings 'Sound Field' Voice Reinforcement Systems in all its classrooms.

Teachers have reported significant improvements in the response from hard of hearing students. Furthermore, students with no hearing difficulties have also shown clear advancement in concentration levels and understanding of instructions during class.



[Between us, ideas become reality.™]



'Sound Field' voice reinforcement - whole class specification

Sound Field Voice Reinforcement Whole Class System Specification

i-ceilings Sound Field Voice Reinforcement Systems provide flexibility for all types and sizes of classroom and learning environment, to enhance both the teacher's voice and other audio signals.

Simple control via the Input Control Plate allows adjustment of main volume control and the ability to plug in external audio sources such as CD, DVD, minidisk or PC for playback of music, presentations, movies, etc... (Further input/control plates are also available - see page 21 for details).

i-ceilings Sound Field Systems also feature infrared wireless microphones, allowing the teacher to roam freely around the classroom without the impediment of trailing wires or cables. Unlike similar radio-based systems, our infrared system does not require a license and will not radiate the signal to adjoining classroom areas (allowing for simple, cost effective multi-room systems and ensuring secure voice signals where required).

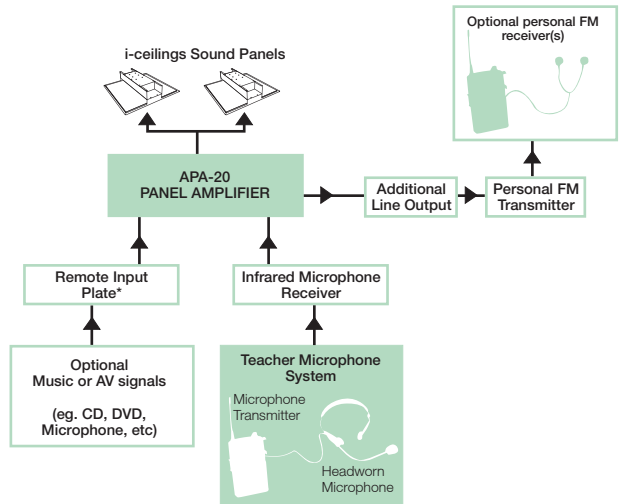
Typical i-ceilings Sound Field Classroom System features:

- i-ceilings Sound Panel (1 panel for classrooms up to 60m² / 2 panels for classrooms up to 120m²*)
CS-1000 Panels are ideal for voice and low level music. Use i-ceilings Pro Panels for higher level music and multimedia applications.
- APA-20 Panel Amplifier
- Volume/Input Control Plate
- Infrared Wireless Microphone Receiver
- Infrared Wireless Microphone Transmitter (handheld, headset or lapel options available)
- Infrared Extension Receiver (only required in large or difficult spaces)
- Batteries and charging unit

This system meets and can easily exceed the requirements of Building Bulletin '93, Appendix 8

*(based on standard 2.7m floor to ceiling height)

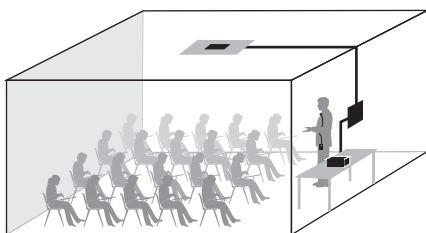
Typical System Schematic:



*Up to 6 Remote Input Plates can be cascaded together for additional music/AV inputs.

Typical Classroom Layouts:

Classroom area: up to 60m²



Classroom area: up to 120m²

