The P.A. People

Hearing Augmentation Solutions










Balancing social obligation & compliance

Hearing Augmentation Solutions - a vital public service

Hearing Loop
Switch hearing aid to T-coil

Australian Standards: AS60118.4 and AS1428.5
We will design a system that is appropriate to your venue or precinct needs and meets the required Standards.

The P.A. People has been delivering hearing augmentation solutions for well over twenty years. The company has been and continues to be a leader in the design and delivery of these systems. Prior to Sydney's iconic Olympic Games in the year 2000, we installed hearing augmentation systems in many of the new venues that were constructed - including the Olympic Stadium. While not as 'visible' or well known, we also provided coverage of Yulang - a 5,000sqm outdoor paved space around the Sydney Olympic Park railway station. Since that time, we have installed solutions in The Sydney Opera House, the Sydney Town Hall and Sydney Airport - just a few venues that have benefited from our understanding of and expertise in Hearing Augmentation.

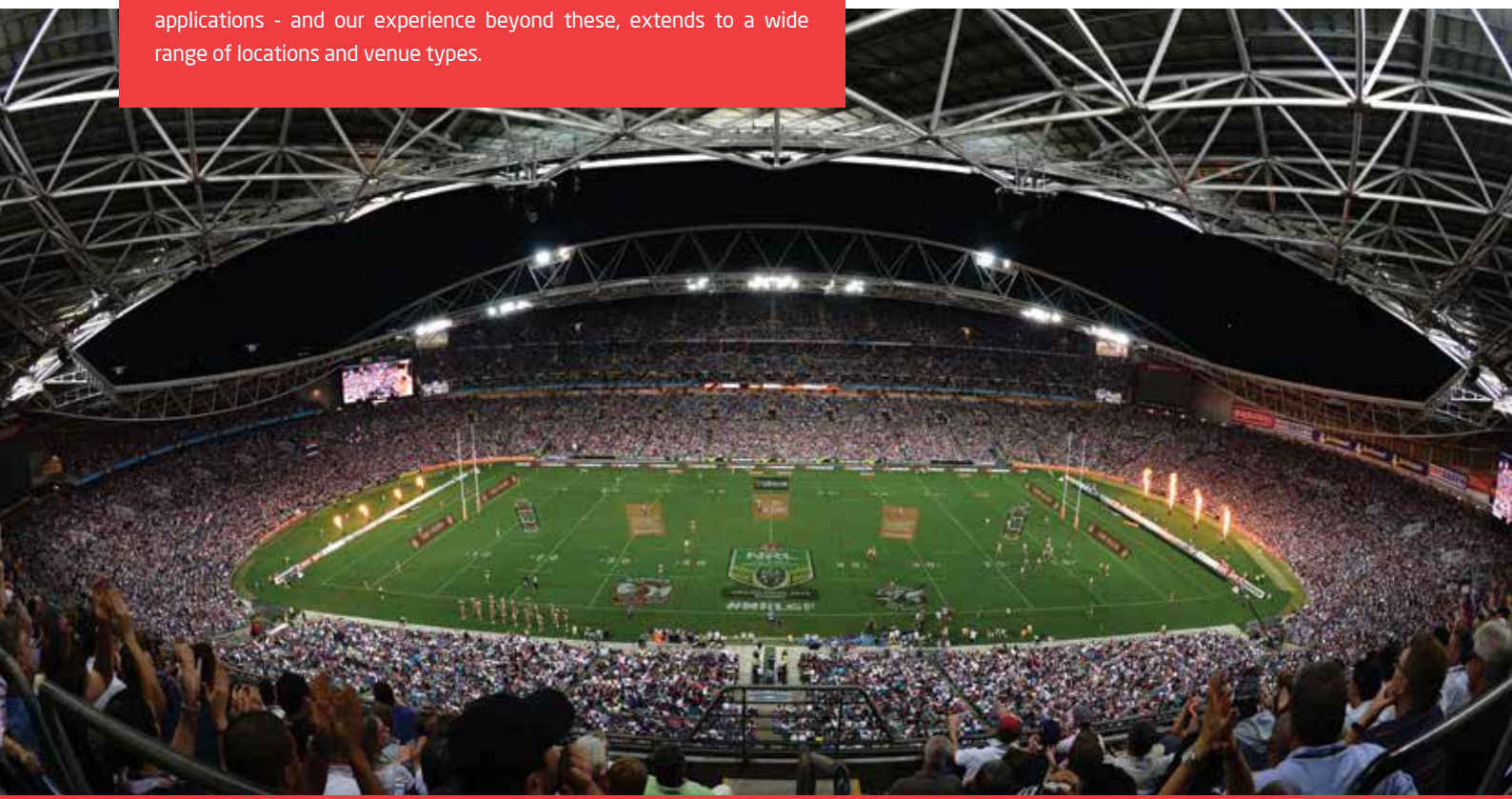
Hearing Augmentation Systems are a legal requirement in many public spaces as defined in the Building Code of Australia. They are also a vital public service.

The purpose of these systems is to assist those with hearing difficulties to both comprehend and enjoy material that is being amplified through an installed PA system, and their provision is mandatory in many public spaces, including educational institutions, places of business, auditoria, rooms used for legal proceedings and some reception areas.

All systems designed and installed by The P.A. People are custom engineered solutions that draw on our extensive experience working with builders, engineering consultants, suppliers, clients and end-users.

Case Studies

The P.A. People deployments have included fit-for-purpose solutions in airports, train stations, ferry terminals, theatres, churches, civic buildings and corporate offices. The following represent seven diverse applications - and our experience beyond these, extends to a wide range of locations and venue types.



Phone: +61 2 8755 8700 | Email: installedsystems@papeople.com.au

Yulang, Olympic Park

Well before the crowds arrived for the Sydney 2000 Olympics, The P.A. People were installing hearing augmentation systems throughout the new venues built for the Games, including the Olympic Stadium itself.

Not as obvious though is the vast 70 metre by 70 metre induction loop system The P.A. People installed under Yulang, the 5,000 square metre outdoor paved space around the Sydney Olympic Park Railway Station. Working with the paving crew, The P.A. People laid kilometres of copper wiring under the pavers to complement the PA system, ensuring all visitors to the existing precinct could clearly hear paging and announcements throughout the vast space.

Centennial Hall, Sydney Town Hall

Sydney's heritage-listed Town Hall was the largest municipal hall in the world when it opened in 1889. Its red cedar galleries, marble columns, stained glass windows and massive pipe organ are national treasures. Sensitive to the aesthetic and historical importance of the building, The P.A. People installed an induction loop under the Centennial Hall floorboards. A challenge for the installation was the presence one story down of the Lower Town Hall, a multipurpose space often used for concerts and community events. This meant that the Centennial Hall induction loop needed to be considered within the design, to minimise audibility of the loop in the lower hall.

Hearing Augmentation Technologies

Three differing technologies can be used to provide hearing augmentation and each have their own advantages and drawbacks that need to be taken into account in the design stage. The most common is the Audio Frequency Induction Loop (AFIL), where wiring is laid into the floor or ceiling that broadcasts a feed of the PA directly to hearing aids fitted with a 'T' switch. AFILs are commonly found in train stations, theatres, lecture halls, meeting rooms and any other public space where it's possible to lay the cable during new construction, or during a retrofit.

From the venue's point of view, AFILs are ideal as they require little ongoing maintenance or staff attention. The patron experience is also excellent, as they are already carrying the device they need to access the broadcast and it can be heard in the loop area in the venue's floorplan. In fact, the Building Code of Australia specifies that any AFIL must cover 80% of the space that it is installed in. However, AFILs are not ideal in every application - they aren't suitable in some spaces built with large amounts of metal, don't provide security from unauthorised access and can be uneconomical to install in extremely large venues such as stadia.

Where an AFIL isn't practicable, a broadcast system is commonly installed. Two technologies currently dominate in this space; infra-red (IR) and FM radio, however recent developments have started to see new products using WiFi and DECT (the bandwidth used by cordless phones) come onto the market. Time will tell if these new products are appropriate in practical applications.

Infra-red is suitable for small spaces such as meeting rooms and requires the user to wear a receiving device and be in line-of-sight of the transmitter. Unlike an AFIL, an infra-red system offers excellent privacy in confidential applications, as it can't bleed through a wall or floor into another space. In larger spaces, like a sports ground, a low-powered FM transmitter can broadcast cheaply and efficiently to a crowd, however the venue must provide and maintain a minimum number of receiving devices for the patrons, which can be costly. Both infra-red and FM solutions can be a burden to both the venue and patron; the patron must physically collect and return the receiving device and must be comfortable with wearing it. The venue must keep batteries charged and the receivers in service, as well as staffing the collection points.

Barangaroo Ferry Wharf

Sydney's new transport hub, the Barangaroo Ferry Wharf, opened in June 2017. The two wharves are 48 metres long and 23 metres wide and can berth eight ferries at full capacity. The P.A. People worked closely with builder McConnell Dowell to install a technically innovative, large-scale induction loop system that covers 25 metres by 18 metres of the structure, as well as individual loops that cover Help and Information points.

"The P.A. People actually installed two induction loops that overlap to cover dead spots," explained David Duong, Project Engineer at McConnell Dowell. *"It was a complex installation on top of metal pontoons, fabricated from steel, which usually causes problems with induction loops."*

"It's an elaborate induction loop," confirmed Ross Ford, Project Manager for The P.A. People. *"Installing an AFIL (Audio Frequency Induction Loop) on steel has been considered to be detrimental to performance, but we have found that if you properly install, paying attention to correct insulation, it is working extremely well."*

"The P.A. People were very accommodating," commented David Duong. *"They provided lots of information and were happy to share their knowledge. The practical nature of their understanding was beneficial to us as a builder, as they knew the issues that can arise in the building phase. That allowed us to fix those issues before they occurred, meaning that the installation went very smoothly."*

Sydney International Airport T1

T1 at Sydney Airport services all inbound and outbound international flights. Like any modern airport, it's a complex space incorporating shopping, dining and airline lounges, along with the boarding and arrivals gates. As such, The P.A. People is currently working to install well over 100 induction loops through all of its public spaces.

"T1 is a good example of challenges you face when retrofitting an induction loop," observed Manager, Installed Systems, Brett Steele. *"There's a lot that can't be seen until you take up the existing floor coverings. This means you think on your feet and modify the installation process to suit situations that may be revealed by construction works. For example, you can't install an induction loop cable over an expansion joint, as it will either stretch or crush the cable as it expands and contracts. T1 is a large sequenced project that we're working on with the builders, electricians and floor tilers. We're typically working on each area in halves, as we can't block an entire public area at once. We'll do one side of a terminal gate one day, then swap and do the other side the next, before we test and commission."*

Uniting Churches, Strathfield and West Ryde

Both Strathfield and West Ryde Uniting Churches have been fitted with underfloor AFILs to complement their sound systems. With a significant proportion of both congregations needing hearing augmentation, an induction loop was the best solution for church congregations and the ministry. David Logan, Project Manager at The P.A. People states *"the focus has to be on the congregation. In both Strathfield and West Ryde, a raised wooden floor meant we could easily run a loop around the congregation, exceeding the minimum coverage requirements as set down by the Building Code of Australia."*

"We had a defunct audio system and an old induction loop that wasn't effective," related Geoff Boyce from Strathfield Uniting Church. *"We wanted a replacement that was easy-to-use and yet state-of-the-art. The total project with The P.A. People encompassed a new vision system, audio, and a hearing loop. We've now got a very good system that works well and meets our needs. I would recommend The P.A. People to other churches with similar needs."*

Centenary Theatre, Taronga Zoo

Taronga Zoo's 160 capacity Centenary Theatre was designed to screen conservation and wildlife films on a huge 5-metre high by 25-metre wide, 270 degree screen. Completed in June 2017, the theatre is currently showing a 12-minute film every 15 minutes. With the architect-designed theatre featuring polished concrete floors, it was not possible to install an induction loop. The P.A. People addressed this challenge with an infra-red assisted listening system that provides coverage to patrons. Prompted by venue signage, attendees ask a staff member for either a set of infra-red headphones, or neck-worn loops that interface with a hearing aid 'T' switch.

Drama Theatre, Sydney Opera House

The Drama Theatre is the smaller of two proscenium arch theatres at the Opera House and seats up to 544 in a raked auditorium. Like many Australian venues, it was built long before the Building Code of Australia mandated the use of assisted listening systems. While the introduction of the Standard and its expanded requirements in 2011 is not retroactively enforceable, many venues are seeking to bring their facilities up-to-par with community expectations.

"Working in an iconic venue like the Sydney Opera House is complicated because of the mechanics of the building," said Chris Dodds, Managing Director, The P.A. People. "*The Opera House necessarily has rules and regulations to ensure that work carried out in each venue stays within their guidelines. The Drama Theatre needed a phased array induction loop which had to be installed in the corners of the steps down the aisles. At every second row, we crossed the cable across the aisle, came down three rows, then ran the cable back across the aisle. We needed to do this underneath the existing carpeting which needed to go back in place as if nothing had happened. That's the type of issue you have to take into consideration when dealing with these kinds of buildings. You need to approach them with the right attitude to get a good result. The reports back indicate that the new loop works extremely well.*"

An appropriate Hearing Augmentation System will improve the experience and engagement of your patrons and audiences.

Contact us to find out how we can assist your venue or precinct!

The P.A. People

Installed Systems

Experience | Independence | Assurance

Sales Hire Service | Installed Systems | Event Communications

P: 02.8755 8700 / F: 02.8755 8599 / E: installedsystems@papeople.com.au / The P.A. People Pty Ltd - 9-11 Leeds St, Rhodes NSW 2138