



Simple Commercial PA Systems

APPLICATION – SMALL BUSINESS

Let's start by working out how many and what type of speakers you need. We have various type of speaker for all sorts of applications. Here are the most common types for basic systems.

Type	Application
Ceiling mounted	Offices and rooms with false (suspended) ceilings
Wall mounted cabinets	Offices and rooms without false ceilings
Suspension spheres	Warehouses and workshops with high ceilings/roof clearances (good for music)
Projection speakers	Warehouses and workshops without high ceilings/roof clearances (good for music)
Horn speakers	Very noisy production areas, external areas

It is quite common to select say, ceiling speakers for office areas and projection speakers for a warehouse in a typical business environment. It is also fine to mix wall and ceiling speakers in different offices and rooms. The important thing to consider is the total wattage your speakers will present to an amplifier which is selected in the next step.

Here is a typical small business system:

Qty	Type	Wattage setting	Total wattage
2	Wall cabinet 6w max	6w	12w
12	Ceiling speaker 6w max	3w	36w
4	Projection speaker 15w max	7.5w	30w
	Total wattage		78w

It is useful to recognise that speakers do not need to be set to their maximum setting and may in fact be too loud even when tapped down to a lower setting. All speakers usually have a minimum of three volume tappings, some have more to enable you to adjust a particular speaker level to suit the location.

Most amplifiers are rated at 30, 60 or 120 watts for small systems, so from the calculations above we can see that we need to use an amplifier larger than 60 watts, the ideal choice being a 120 watt unit. This leaves us some power in reserve for future expansion and in any event, it is good practice to keep an amplifier loaded between 80-90% for greater reliability.

Presumably you will need at least one microphone for making an announcement, maybe more, most amplifiers have multiple inputs available for up to three microphones and one or more music inputs (radio or CD).

The A-2000 series amplifiers offer these inputs with the ability to mute any music automatically when microphone input 1 is used. This will restore within a few seconds when the microphone switch is released.

PAS Sound Engineering Ltd

Audio, Communications, Security



Typical products for small business applications



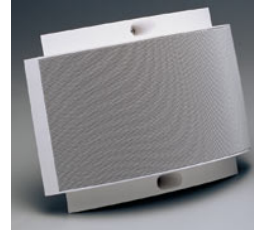
Model PM-660

Single zone paging microphone



Model A-2030 (30 watts)
Model A-2060 (60 watts)
Model A-2120 (120 watts)
Model A-2240 (240 watts)

Single zone commercial mixer amplifier



Model PBC6T

6 watt wall mounting cabinet speaker



Model PC-1869S

6 watt flush mounting ceiling speaker

Speakers suitable for warehouses and production areas



Model Falcon 30

30 watt Suspension pendant speaker



Model GB20T

20 watt Suspension pendant speaker



Model CS-64

6 watt bracket mounting projection speaker



Model CS-154

15 watt bracket mounting projection speaker

Outdoor weatherproof horn speakers



Model SC-610M

10 watt weatherproof horn speaker



Model SC-615M

15 watt weatherproof horn speaker



Model TC-615M

15 watt weatherproof horn speaker



Model CS-304M

30 watt weatherproof horn speaker