

School **AIR CONDITIONING** Guide

A guide to help your school choose the most efficient and reliable air conditioner.

ABOUT

LAWSON AIR CONDITIONING

Lawson Air has been a well established Air Conditioning company in the Brisbane and Sydney regions now for over 20 years. From humble family beginnings, Lawson Air has built its self as a renowned Air Conditioning and Electrical business in South East Qld, as well a wholesale supplier of air conditioning systems Australia Wide.

We offer Design, Installation, Service for Schools all over Brisbane and Sydney. Lawson Air can provide the necessary experience and the right equipment to ensure your School has the correct cooling and heating all year round.

We pride ourselves on ensuring a quality experience, from the initial quotation right through to the final fit off and commissioning of your air conditioning system, ensuring a high-end finish for each of our customers.

Our friendly team of polite experts will take you through your system design, small or large to suit the cooling or heating needs of your classrooms.

CAN AIR CONDITIONING REALLY INFLUENCE LEARNING?



When it comes to learning, environmental factors can make a big difference to students of all ages. However, while we tend to consider things like lighting, colour, furniture, audio stimulants, indoor plants and layout, there's another less visible factor that can also influence a learning environment for better or worse: air.

Recent research has verified, the temperature of an educational environment directly impacts students' capacity to concentrate, absorb and retain information.

With more and more air conditioners being installed in classrooms around Brisbane and Sydney, teachers can control air temperature to ensure it's consistently conducive to learning. It's giving teachers the flexibility to teach more mentally demanding lessons during the hottest part of the day, which was often a struggle before. What's more, students look forward to returning to the cool classroom after their lunch break.



HOW TO CHOOSE THE MOST EFFICIENT AIR CONDITIONING FOR THE CLASSROOM.

Here are the three main types of Air Conditioning solutions you can choose from.

SPLIT SYSTEM AIR CONDITIONING

Split Systems are ideal for:
Heating and cooling individual classrooms in your school.
Compact spaces.



What's a Split System?

Quite simply, a Split System Air Conditioner is designed for individual areas in your home. For instance, you may only want to air condition one classroom, or maybe the main area where you do most of your activities. With a Split System, the compressor is installed outside your building and the unit that passes air into the classroom is either discreetly wall mounted or a compact floor-standing unit.

What are the advantages of a Split System?

There are two main benefits.

The first is that a Split System is more economical than other types of Air Conditioning systems, as you're only buying and installing one unit at a time and using less energy than some other systems.

The second benefit of a Split System is that they allow you to select the classrooms you only want to air condition.

MULTI SPLIT AIR CONDITIONING SOLUTIONS

Multi Split Systems are ideal for:

Heating and cooling up to 5 classrooms.
Homes with limited space for ducted air conditioning.

When you want to control room temperatures individually.



What's a Multi Split System?

A Multi Split Air Conditioner lets you run multiple air conditioners with just one outside compressor, giving you independent temperature control over each classroom. You can choose which classrooms and the type of indoor unit for each classroom. Now that's multi choice!

What are the advantages of a Multi Split System?

There are three key benefits.

Firstly, it's a convenient, economical air solution, allowing maximum comfort, with minimum running costs, because you can heat or cool classrooms exactly as you need.

Secondly, with just one outdoor unit, you can choose up to 5 different kinds of indoor units to suit each classrooms décor. Choose from wall mounted, duct connected, floor standing ceiling suspended or a cassette type unit.

Thirdly, separate controls let you tailor and control the climate in each classroom, so everyone's happy.

CASSETTE AIR CONDITIONING SOLUTIONS

Cassette air conditioning is suitable for:

Fits with interiors where design is as important as functionality.



What's a Cassette System?

Cassette air conditioners fit all standard ceilings and have been designed for simple and easy installation and maintenance since the electrical box is located inside the unit. Compact and with the ability to fit perfectly into ceilings, cassette units will provide excellent energy efficiency and reliable functionality.

What are the advantages of a Cassette System?

There are four main advantages.

Firstly, cassette units are extremely discreet with only the grille showing in the ceiling

Secondly, air can be delivered in up to four directions, giving the room an even temperature distribution

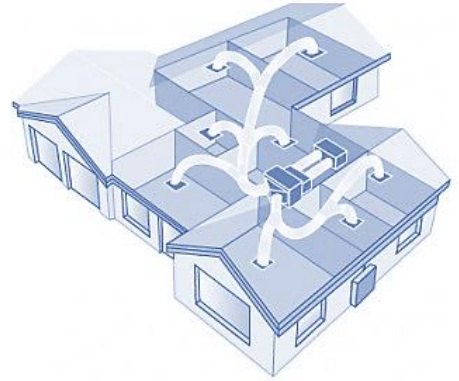
Third advantage is that these units have highly efficient fan design. Wide airflow distribution ensures even temperature distribution

And last, but not the least is that Cassette units are easy to clean and maintain.

DUCTED AIR CONDITIONING SOLUTIONS

Ducted Systems are ideal for:

Heating and cooling your entire building
When you want a discreet look along with
ultimate comfort



What's a Ducted System?

When you want your whole school to be a comfort zone, Ducted Air Conditioning systems are your all-in-one climate control solution. All it takes is a discreetly positioned outdoor unit and an indoor unit concealed in either your ceiling or under your floor, with flexible ducting distributing conditioned air via vents throughout your school.

What are the advantages of a Ducted System?

There are four main advantages.

First, you have the choice to install a Ducted System into a new school building or it can be tailored to suit your existing one.

Secondly, you'll hardly know it's there – only the controller and grilles are visible inside your building and with all its technology hidden away, it's the quietest of all air conditioning solutions.

Thirdly, you enjoy the flexibility to heat or cool every classroom and can zone control your school to maximise energy efficiency.



WHAT CAN WE DO TO GET YOUR UNIT READY FOR SUMMER?

To ensure the efficiencies and longevity of your system, we now need to set up your regular service criteria.

WHAT'S INCLUDED IN THE SERVICE

- ✓ **Filter cleaning** - Air filters need to be cleaned regularly, to maintain lower running costs and longer machine life also improving indoor air quality. Un-maintained filters can and often do result in early compressor failure and expensive power bills.
- ✓ **Drain tray and pipe work** - Checked and cleaned to prevent blockage and subsequent flooding. Some air conditioners can in summer remove a bucket of water per hour from the air.
- ✓ **Electrical controls and thermostat** - Checked, adjusted and calibrated. Record Supply and Return Air Temperatures.
- ✓ **Bearing, drive trains, belts, fans etc** - Checked, adjustment made, lubrication provided.
- ✓ **Refrigerant charge** - Check for leaks and operating conditions. Low refrigerant levels mean that the compressor has to work harder to maintain the desired temperature and this means higher power costs plus the possibility of early and expensive compressor failure.
- ✓ **Outdoor Unit / Indoor Unit (Condenser coils)** - Check and cleanout to maintain heat transfer efficiency also to improve air quality by using **approved chemicals designed to eliminate bacteria**. Debris around the compressor heat exchanger means that the unit has to work harder to maintain the desired temperature and this means higher power costs plus the possibility of early and expensive compressor failure.
- ✓ **Complete operation test** - on full heating and cooling, and subsequent recording of results.
- ✓ **Remove, Flush and Refit Condensate Traps** - To prevent the build-up of scale, grime and bacteria.
- ✓ **Check Pipe Work Condition and Insulation** - Check insulation is not worn/brittle as this can lead to water leaks. This check will also eliminate pipework vibration.