Project Showcase:

Summer Cooling and Fresh Air in a Waterloo New Build



LOWER HUTT



RESIDENTIAL

This newly built four-bedroom home in Lower Hutt, Wellington, pairs thoughtful family living with energy-efficient design, including double glazing and fully insulated floors, walls and ceilings.

For the family of five and their dog, the aim was simple: a healthy home that felt good to live in, whatever the season.

EQUIPMENT BREAKDOWN

- VL-350CZPVU-R-E Vertical Lossnay Ventilation
- PEA-M140GAA PAR-40 Ducted Air Conditioning
- PEAD-M50JAA PAR-40 Ducted Air Conditioning

The Goal

As a builder, the homeowner understood the importance of investing in quality. Choosing a reliable, energy-efficient whole-home comfort solution was part of their plan to futureproof the home and support the property's long-term value.

With an Ecodan Hot Water Heat Pump and underfloor heating system already planned to meet their space heating and hot water needs, the focus turned to energy efficient cooling during warmer months and mechanical ventilation to keep the home feeling fresh and comfortable.



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The Solution – The Power of 2

Meeting the family's needs called for an integrated approach to air conditioning and ventilation. The Power of 2 pairs Mitsubishi Electric Ducted Air Conditioning with Lossnay Fresh Air Energy Recovery Ventilation to deliver discreet whole-home heating and cooling*, improved indoor air quality, and exceptional energy efficiency all year round.





Quiet and Unobtrusive Ducted Air Conditioning

A Mitsubishi Electric PEA-M140GAA Ducted Air Conditioning System serves the rooms towards the back of the home. Concealed within the ceiling space, it delivers cool air through subtle grilles, keeping the family comfortable during warmer months. With the outdoor unit positioned near bedroom windows, quiet operation was also an important consideration.

To accommodate the roof design, a separate PEAD-M50JAA Ducted Air Conditioning System was installed to serve one bedroom and the second lounge. This extends comfort to both areas, with a dedicated controller allowing the family to operate both ducted systems independently.



Fresh Air Ventilation with Heat Recovery

With airtight construction limiting natural airflow, the home needed a way to stay fresh without the family having to rely on opening windows.

A VL-350CZPVU-R-E Vertical Lossnay Heat Recovery Ventilation System was installed to replace stale, moisture-laden air with fresh, filtered outdoor air, helping manage humidity and reduce winter condensation.

Its compact, upright design suited installation in the garage, keeping filters easily accessible for maintenance.



* Does not heat and cool simultaneously.

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Working Together for More Efficient Cooling

Lossnay was integrated with the PEA-M140GAA Ducted Air Conditioning System to create The Power of 2 solution.

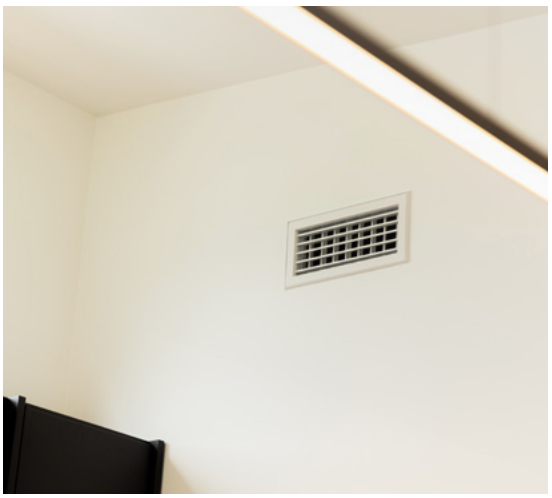
With efficient cooling a priority for the homeowner, Lossnay's ability to pre-cool incoming fresh air using energy recovered from the outgoing stale air was a key benefit. This reduces the load on the ducted system, supporting energy-efficient cooling while helping manage summer overheating.

Automatic Free* Cooling Helps Combat Overheating

When outdoor temperatures fall below the desired indoor temperature, the Lossnay system can automatically bypass the heat recovery core.

This allows cooler filtered outdoor air to be introduced while stale, overheated indoor air is extracted, helping remove built-up heat during cooler evenings and overnight so the family can enjoy a more comfortable home after a hot day.







* Compared to a dedicated cooling device. The unit will continue to use a small amount of power to bring colder, fresh air from outside. Lossnay is designed to provide ventilation and is not intended to replace a dedicated cooling device or independently cool a home to a specified temperature.

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The Result: A Home That Feels as Good as It Looks

More than a year on, the family is enjoying what they set out to create: a healthy home that feels good to live in, whatever the season.

With air conditioning and fresh air ventilation working quietly in the background, The Power of 2 has become part of everyday family life. Lossnay's energy recovery helps reduce the load on the ducted system, delivering everyday comfort while supporting the homeowner's goal of a more energy-efficient home.

For the homeowner, the investment in quality has lived up to expectations:

"We have enjoyed living in our home with the new high quality system for a year now and can easily say how beneficial it has been to have chosen both heating, cooling and ventilation. We would highly recommend it to others."





Click here to learn more about the Power of 2: Ducted Air Conditioning with Lossnay Heat Recovery Ventilation Combined.

Full Equipment Breakdown

Vertical Lossnay Ventilation

1x VL-350CZPVU-R-E

Ducted Air Conditioning

1x PEA-M140GAA PAR-40

1x PEAD-M50JAA PAR-40

Installer:

WASABI GROUP