

MRXBOX95B-LP1 (with automatic summer bypass)

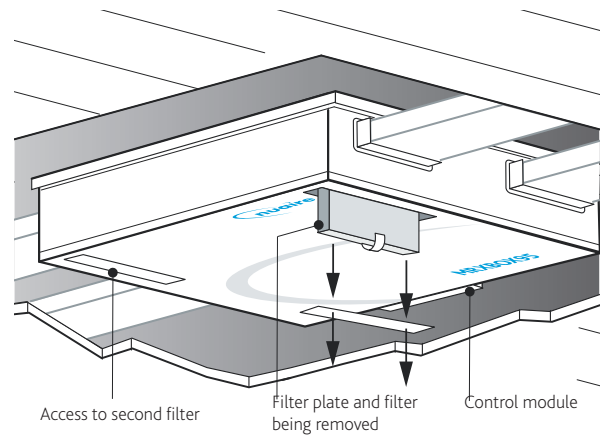
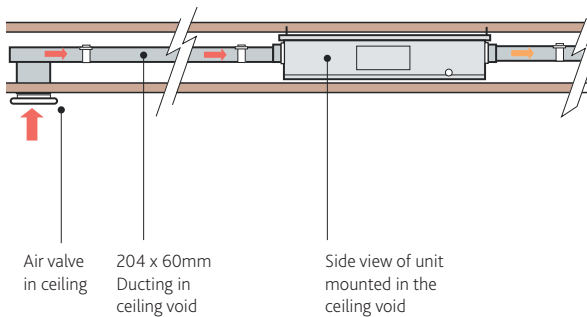
MRXBOX95B-LP1 is specifically designed for apartment applications where space is a premium.

The MVHR unit provides optimised balanced (supply & extract) mechanical ventilation with heat recovery. Tempered air is delivered into living areas whilst extracting moisture-laden air from 'wet' areas, creating comfortable well-ventilated homes. The unit has a facility to commission the supply & extract fans independently on both minimum and maximum speeds. The two independent fans have full speed control for background and boost ventilation rates, as well as a run-on timer facility. This unit is listed on the SAP Product Characteristics Database.

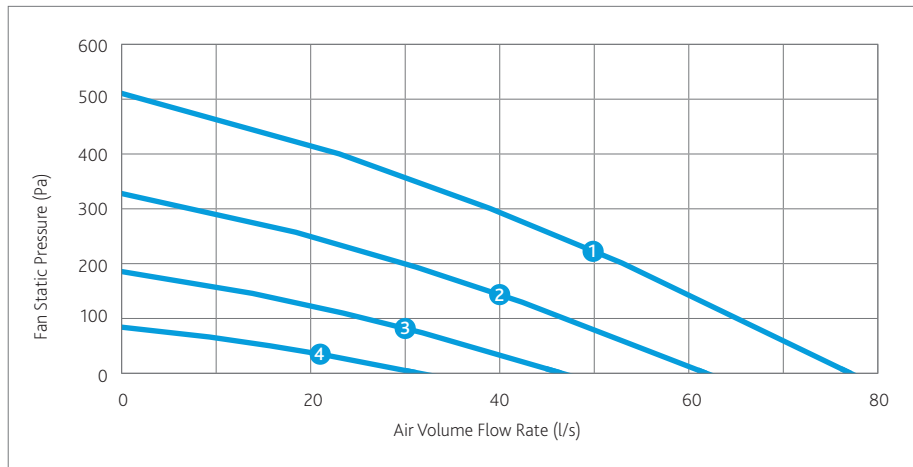


Typical Installation

INSTALLATION FEATURES



Performance - MRXBOX95B-LP1



CODE DESCRIPTION

MRXBOX95B-LP1

1 2 3 4 5

1. Multi-room supply and extract heat recovery
2. Product range
3. Efficiency
4. Automatic Bypass
5. Low profile

Electrical & Sound

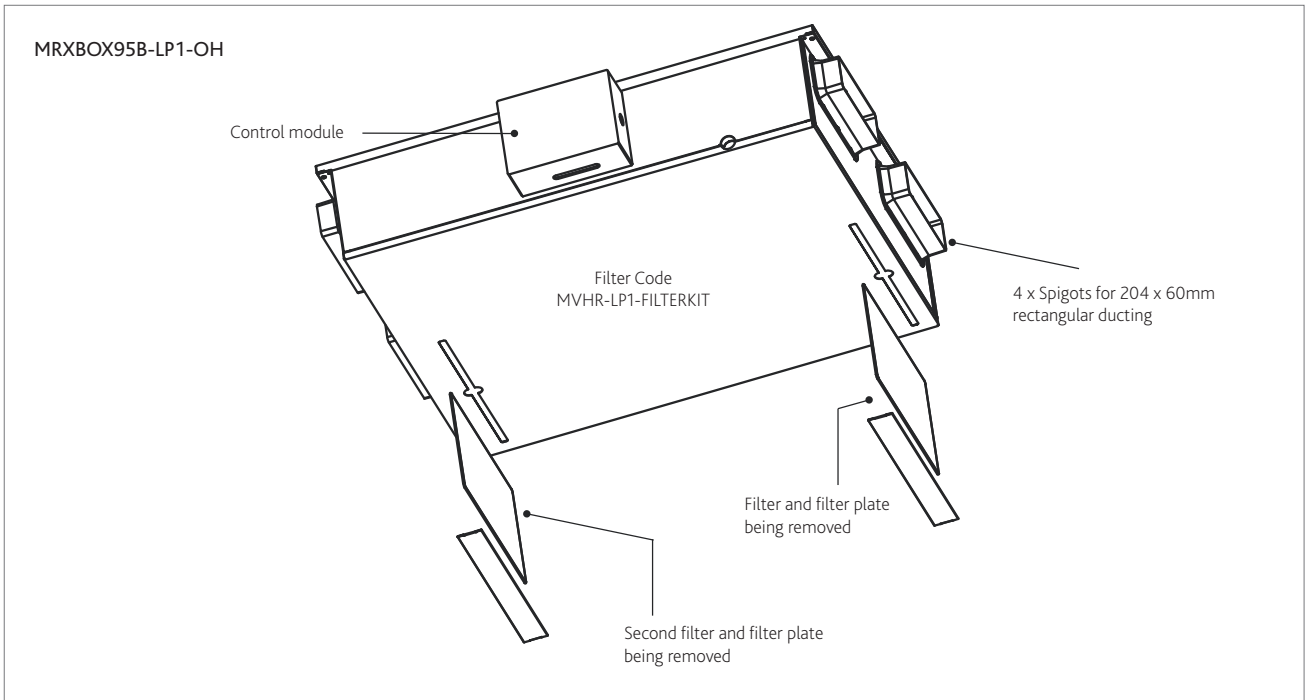
| | Maximum power consumption (Watts) | Frequency/Hz | 63 | 125 | 250 | 500 | 1K | 2K | 4K | 8K | dBA @3m |
|-------|-----------------------------------|--------------|------------------------------|-----|-----|-----|----|-----|-----|-----|---------|
| Curve | | | Sound Power Levels dB re 1pW | | | | | | | | |
| 1 | 147 | Open inlet | 50 | 56 | 55 | 55 | 46 | 42 | 32 | 23 | |
| | | Open Outlet | 57 | 66 | 67 | 68 | 66 | 65 | 55 | 48 | |
| | | Breakout | 65 | 64 | 63 | 62 | 52 | 47 | 38 | 30 | 52 |
| 2 | 75 | Open inlet | 49 | 51 | 54 | 49 | 41 | 37 | 25 | <16 | |
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| 4 | 9 | Open inlet | 38 | 40 | 34 | 32 | 23 | 17 | <16 | <16 | |
| | | Open Outlet | 45 | 48 | 45 | 46 | 43 | 41 | 26 | <16 | |
| | | Breakout | 48 | 47 | 41 | 36 | 26 | <16 | <16 | <16 | 16 |

The maximum power consumption shown above (Watts) is consumed on units running continuously, not taking into account any heat recovery saving based on SAP Appendix Q testing. The breakout case-radiated dBA values are given for Hemispherical free field radiation at 3m - to obtain the Spherical radiated data, subtract 3 dBA.

SAP 2012 Test Results

| Product Code | MRXBOX95B-LP1 | |
|--------------------------------|----------------------------|--------------------------|
| Exhaust terminal Configuration | Specific Fan Power (W/l/s) | Heat Exchange Efficiency |
| Kitchen + 1 Wet Room | 0.59 | 76% |
| Kitchen + 2 Wet Room | 0.71 | 76% |
| Kitchen + 3 Wet Room | 0.91 | 78% |
| Kitchen + 4 Wet Room | 1.15 | 79% |
| Kitchen + 5 Wet Room | 1.40 | 79% |

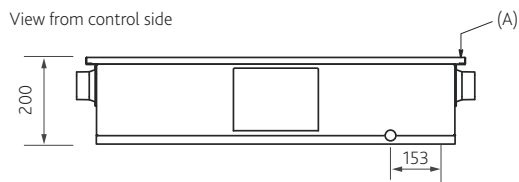
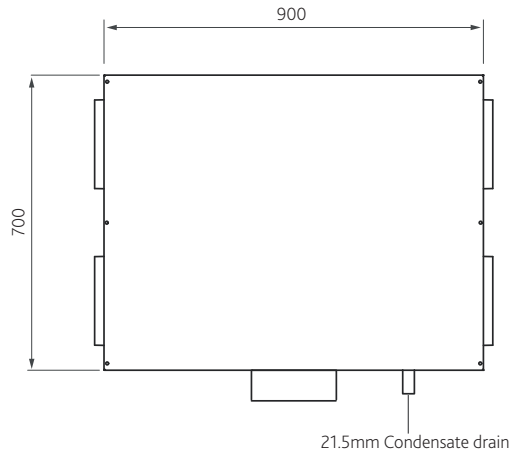
General Arrangement



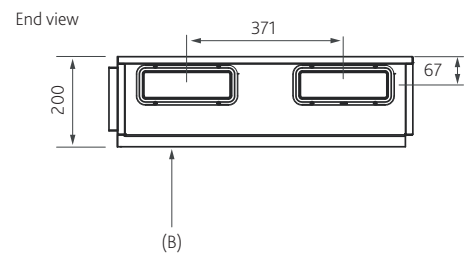
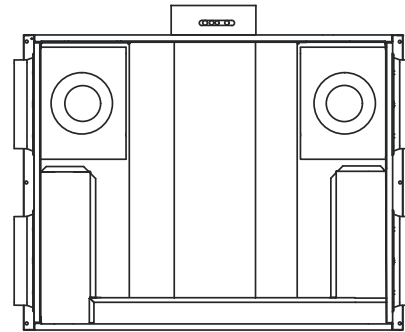
Technical - MRXBOX95B-LP1

DIMENSIONS (mm)

Weight - 37kg



View from underside with lid removed (B)



Electrical Details

Please note: the electrical connection of the unit must be carried out by a qualified electrician.

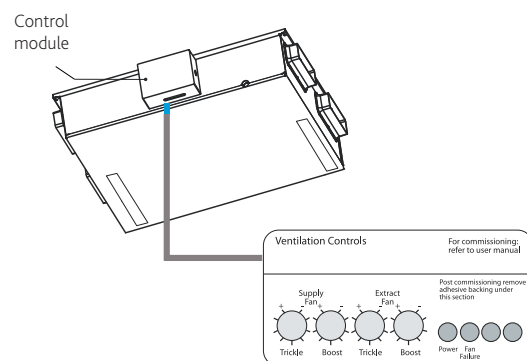
The unit is supplied with a flexible cord for connection to the mains supply.

NOTE: This unit must be earthed.

The three core cable from the mains power supply should be connected to a fixed wiring installation, via a fused isolator, in accordance with current IEE wiring regulations.

| ELECTRICAL DETAILS: MRXBOX95B - LP1 | |
|-------------------------------------|---------------|
| Voltage: | 230V 1ph 50Hz |
| Consumption: | LP1 - 1.3 Amp |
| Fuse rating: | 1.3 Amp |

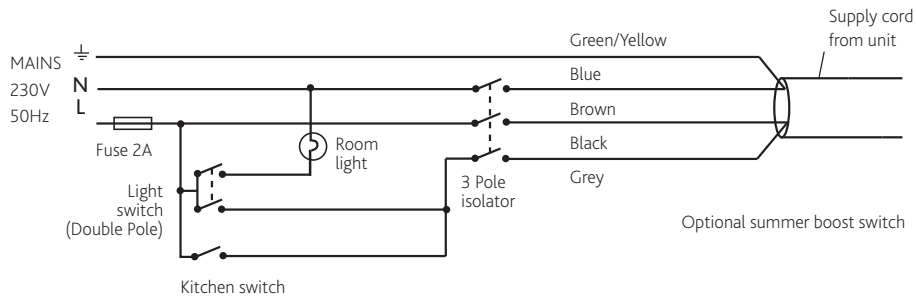
Detail of unit control on control panel.



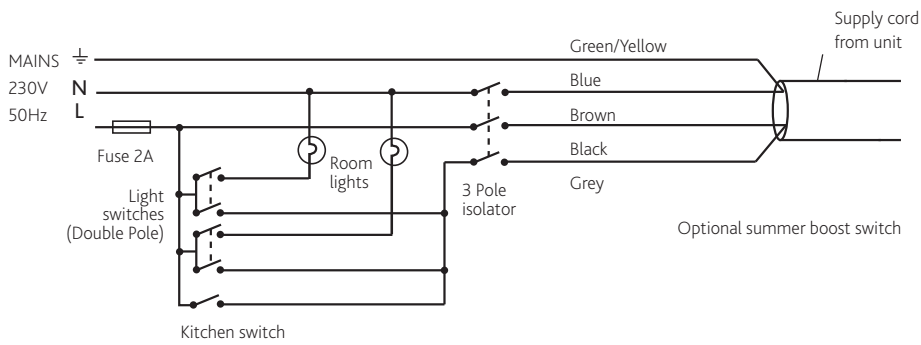
Tamper proof label following commissioning, includes system status indication.

Wiring MRXBOX95B-LP1

UNIT SERVING KITCHEN & BATHROOM



UNIT SERVING KITCHEN & TWO BATHROOMS



OPTIONAL SENSORS AND DETECTORS

Customise MRXBOX95B-LP1 for enhanced performance. All supplied with pre-plugged 10m data cable and incorporates status LED.

MRXBOX95-PIR (Passive Infrared)

A low voltage sensor, detects movement and activates system. Incorporates overrun timer and timer adjustments.



MRXBOX95-HUM (Relative Humidity)

A low voltage sensor, activates the system when the RH level is above set point. Incorporates overrun timer and RH setpoint level adjustment.



MRXBOX95-RFI (Remote Fail Indicator)

If fan failure occurs the audio visual indicator will flash a warning.



MRXBOX-VSC CONTROL SCREEN COMPATIBLE WITH THIS UNIT

Consultants Specification

SPECIFICATION

The unit shall be manufactured from galvanised sheet steel with a white, pre-painted removable access panel. The unit shall be fully insulated providing excellent thermal and acoustic characteristics and shall be complete with a multi plate, aluminium, counter flow high efficiency heat exchanger block, with a thermal efficiency of up to 80%. The heat exchanger shall be protected by G3 grade filters on fresh air inlet and system extract. The heat exchanger and filters shall be accessible via the underside access panels, enabling quick and easy maintenance.

The unit shall have a maximum depth of 200mm to fit within ceiling void restrictions. The unit shall have low energy, high efficiency EC fan/motor assemblies with sealed life bearings, the impellers shall be backward curved centrifugal type.

The motors shall be suitable of an ambient temperature of 40°C.

Motor assemblies shall be removable from the underside of the unit and will not require the unit to be removed from situ.

The unit shall be supplied complete with a condensate drip tray and 21.5mm drain connection.

The unit shall be suitable for 204x60mm rectangular ducting.

Note: The unit is also available in opposite handed format, refer to spigot configuration for set up.

The breakout noise level and power requirements shall be as detailed by the unit manufacturer and in accordance with the ventilation equipment schedule.

Units shall be MRXBOX95B-LP1 as manufactured by Nuaire and shall be listed on the Sap Appendix Q database.

OPERATION

The supply and extract ventilation unit shall be positioned as indicated on the drawings and shall be in accordance with the particular fan schedule in the specification.

The combined supply and extract with heat recovery unit shall supply filtered fresh air to each of the habitable rooms and moisture-laden air shall be extracted from the wet areas e.g. bathroom, en-suite, w.c, kitchen, utility rooms, etc. The supply air shall be pre-heated by the warm extract air via the integrated counter-flow heat exchanger element.

The extracted air shall also be filtered before it reaches the heat exchanger block. The ventilation unit shall vary its speed and therefore the ventilation rate, as it receives signals from one of the following:

- Switched live signal from light/remote switches.

When signals are received, the fan shall alter its speed to adjustable, normal and boost rates.

The unit shall have the facility to commission the supply and extract fans independently on minimum speed (continuous background ventilation), and boost speed, via inbuilt minimum and maximum speed adjustment. The fans shall have infinitely variable speed control.

INTEGRAL AUTOMATIC SUMMER BYPASS

(MRXBOX95B-LP1)

The bypass damper shall open automatically via a wax actuator, allowing the air to bypass the heat exchanger to deliver fresh filtered air during the warmer months.

CONTROL OPTIONS

All versions shall have the following functions integrally mounted within the fan unit on a purpose made PCB, all such components pre-wired and factory fitted by the manufacturer:

- Independent control of background supply and extract flow rates.
- Independent control of boost speed supply and extract flow rates.
- Integral heat exchanger frost protection.
- Fan failure indication.
- Integral S/L terminal for boost from remote switch, e.g. light switch.
- Additional S/L terminal for 100% boost speed from remote switch, e.g. plate switch.
- Discreet daily run monitor.
- Remote fail indicator (part number MRXBOX95-RFI).
- Indication and controls – The unit shall have clear LED visual indication for maintenance, servicing and operation mode, i.e. summer bypass, frost protection.

MRXBOX-VSC (VISUAL SYSTEM CONTROLLER)

The MRXBOX-VSC is compatible with the Nuaire MRXBOX95(AB)-WH1 heat recovery units and can be purchased separately. The controller comes complete with commissioning and end user functions.

The display will be a 3.5" LCD display and will remain on standby until such time the screen is touched.

The initial display will show the MVHR system status as listed below:

- Current Fan Speed.
- Current indoor/outside temperature.
- Indicate when the summer bypass is activated.
- Indicate when frost protection is activated.
- Indicate when the filters require cleaning/changing.

MRXBOX95B-LP1-OH (with automatic summer bypass)

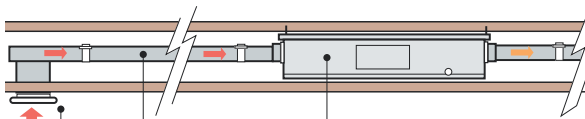
MRXBOX95B-LP1-OH is specifically designed for apartment applications where space is a premium.

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Typical Installation

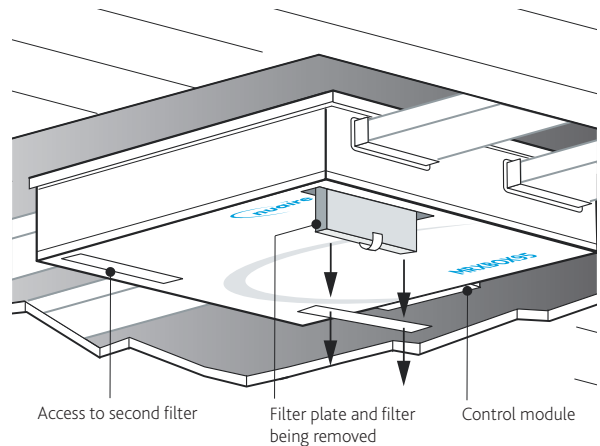
INSTALLATION FEATURES



Air valve
in ceiling

204 x 60mm
Ducting in
ceiling void

Side view of unit
mounted in the
ceiling void

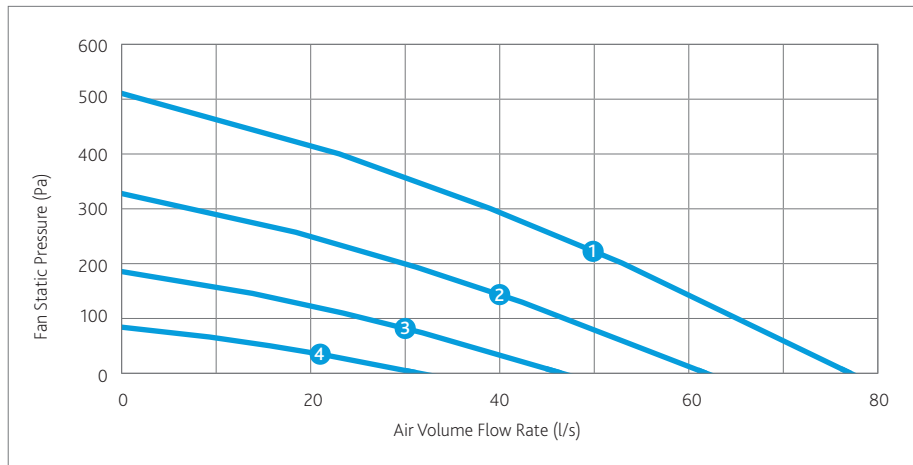


Access to second filter

Filter plate and filter
being removed

Control module

Performance - MRXBOX95B-LP1-OH



CODE DESCRIPTION

MRXBOX95B-LP1-OH

1 2 3 4 5 6

1. Multi-room supply and extract heat recovery
2. Product range
3. Efficiency
4. Automatic Bypass
5. Low profile
6. Opposite hand

Electrical & Sound

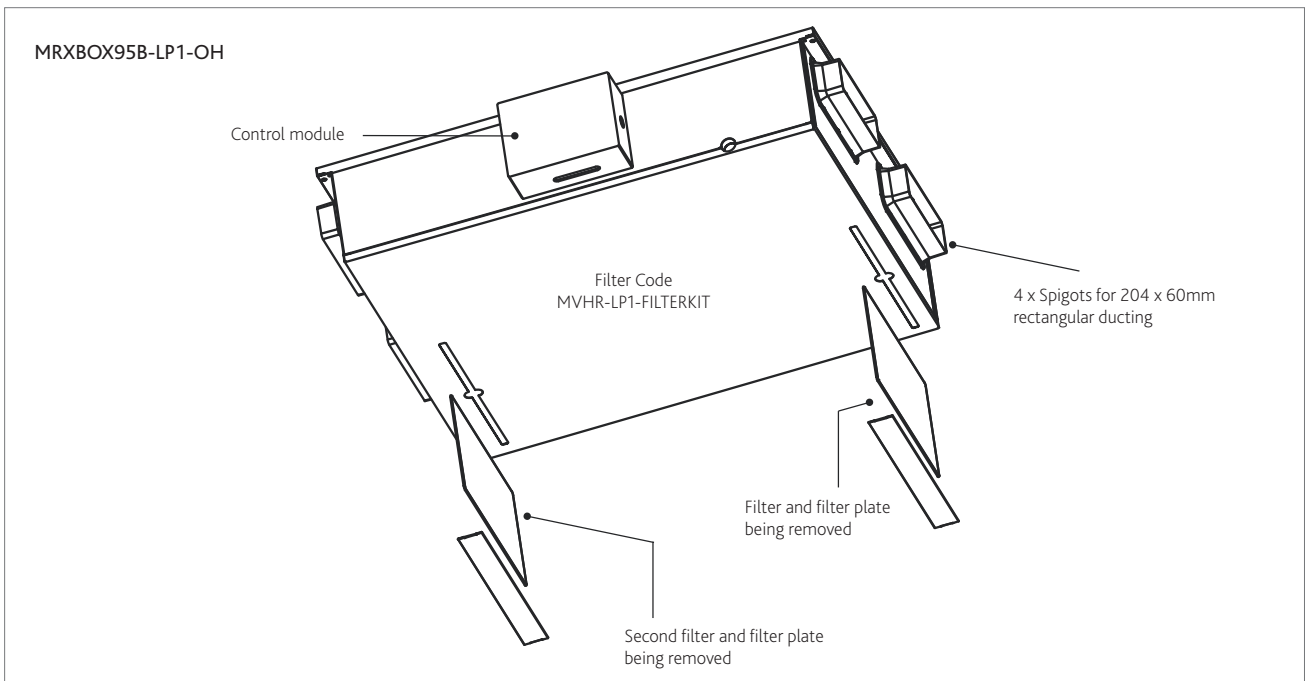
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SAP 2012 Test Results

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|--------------------------------|----------------------------|--------------------------|
| SAP Identifier | MRXBOX95B-LP1 | |
| Exhaust terminal Configuration | Specific Fan Power (W/l/s) | Heat Exchange Efficiency |
| Kitchen + 1 Wet Room | 0.59 | 76% |
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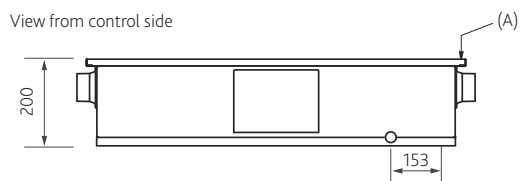
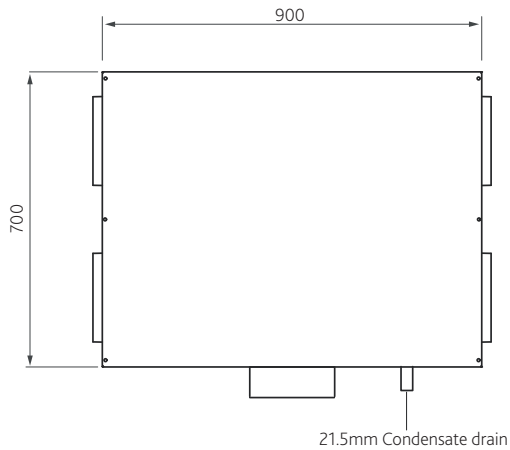
General Arrangement



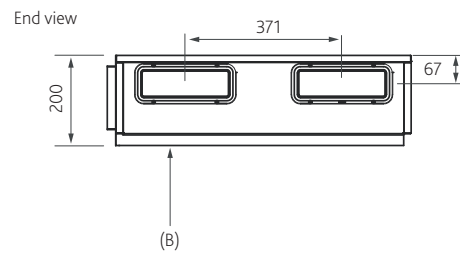
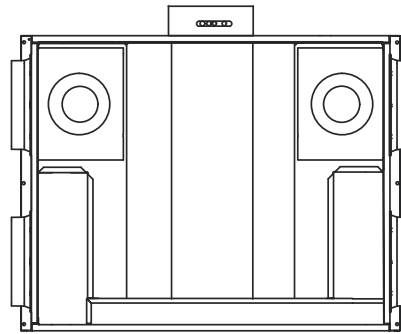
Technical - MRXBOX95B-LP1-OH

DIMENSIONS (mm)

Weight - 37kg



View from underside with lid removed (B)



Electrical Details

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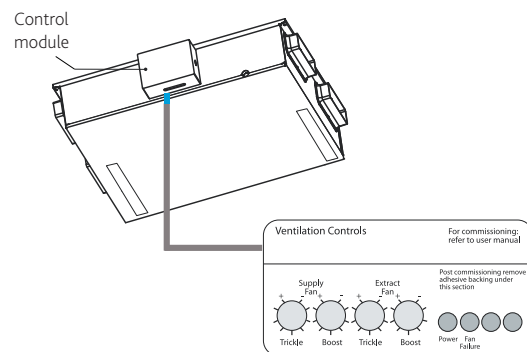
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NOTE: This unit must be earthed.

The three core cable from the mains power supply should be connected to a fixed wiring installation, via a fused isolator, in accordance with current IEE wiring regulations.

| ELECTRICAL DETAILS: MRXBOX95B - LP1-OH | |
|--|---------------|
| Voltage: | 230V 1ph 50Hz |
| Consumption: | LP1 - 2.5 Amp |
| Fuse rating: | 1.3 Amp |

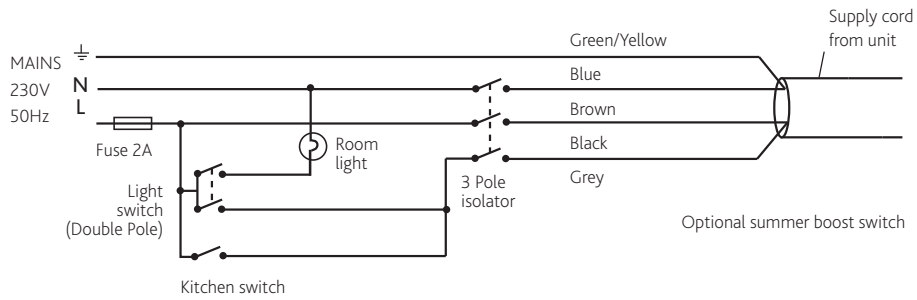
Detail of unit control on control panel.



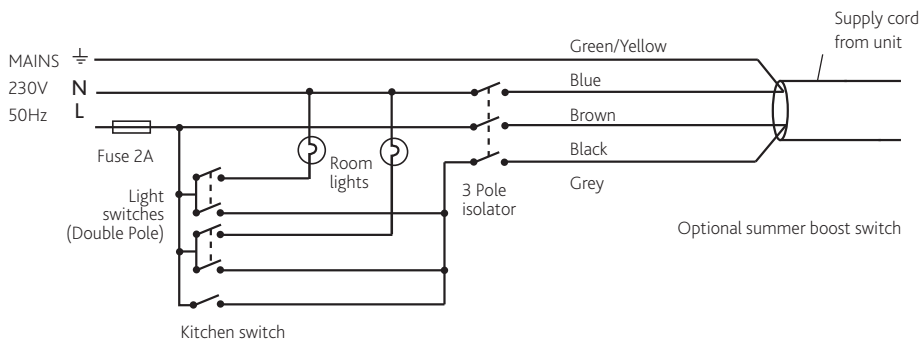
Tamper proof label following commissioning, includes system status indication.

Wiring MRXBOX95B-LP1-OH

UNIT SERVING KITCHEN & BATHROOM



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CONTROL OPTIONS

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