



Description	Order Code
Standard Models	
Axial	FAN2303
Centrifugal - 190mm Scroll Diameter	FAN2301
Centrifugal - 220mm Scroll Diameter	FAN2302
3 Speed Models	
Centrifugal - 190mm Scroll Diameter	FAN2316
Centrifugal - 220mm Scroll Diameter	FAN2317

Wall fans are designed to move air efficiently over long distances in residential and light commercial applications where high performance and low noise is required.

Thank you for purchasing this quality external wall fan.

To ensure correct function and safety, please read all instructions before using the product and keep all instructions for future reference.



When using electrical appliances, basic safety precautions should always be followed to reduce the risk of fire, electrical shock and personal injury.



SPECIFICATIONS

Duct (mm)	Fan Type	Fan Speed	Max. Fan Watts (W)	Max. Fan Pressure (Pa)	Free Air Fan Performance		Specific Fan Power (W/l/s)	Sound dB(A)
					(l/s)	(m³/hr)		
150	Axial	High*	18	91	105	380	0.17	38
			65	280	113	408	0.58	60
	Centrifugal 190	Medium	57	250	94	340	0.61	56
		Low	55	200	77	277	0.71	46
	Centrifugal 220	High**	96	380	136	493	0.71	61
		Medium	69	340	113	408	0.61	56
		Low	60	280	94	340	0.64	50

* Use Centrifugal 190 HIGH fan speed data provided for fan FAN2301

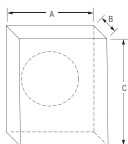
** Use Centrifugal 220 HIGH fan speed data provided for fan FAN2302



5468 Compliance: AS/NZS60335-2.80:2016

DIMENSIONS

A	B	C
305	110	369



TECHNICAL

Supply	Max. Operating Temp	IP Rating
220-240V AC, 50Hz	40°C	IPX3

FAN TIMER SELECTION

Please use the FAN2444 fan timer model shown

Do not use old model FAN2444 (with resistor) or FAN0372 fan timers



External Wall Fans

REGULATIONS AND STANDARDS

New Zealand Building Code and Healthy Homes

The following two category requirements have been established for mandatory extraction ventilation in New Zealand.

The New Zealand Building Code for New Building Consents

The building regulatory system sets out a framework to promote good quality decisions being made during the Building Consent process. The legislation and regulations work together, as the building regulatory system. The functional clauses of the NZ Building Code are grouped and described by a letter and number. Clause G of the NZ Building Code covers services, with G4 setting out the performance requirements for ventilation. The Building Code is enshrined in law. The New Zealand Building Code, G4, has been changed. This is supported by Acceptable Solution G4/AS1 Fourth Edition that specifies mechanical ventilation in accommodation units that contain cooktops, showers and baths.

Residential Tenancy Regulations to the Healthy Homes Standards

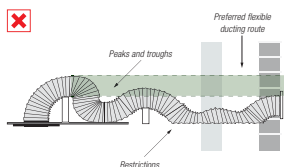
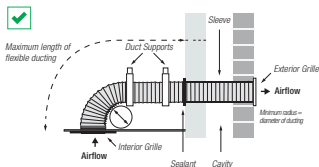
Residential Tenancy Regulations for rental properties only is changing to the Healthy Homes Standards, sub part 4 - Ventilation Standards.

Complying with the Acceptable Solution G4/AS1

To comply, the mandatory mechanical extract system must deliver minimum airflow rates for the complete installed ventilation system. This means that airflow rates must deliver the airflow after resistance of the ducting, internal and external grilles, as well as all other accessories, such as backdraught shutters, are included.

Fan selection is important as some types are far better at overcoming ducting system pressure drops.

Additionally, the quality of the ducting system installation can be all important. Rigid duct systems (see page 102) are best as they are the most efficient. Good installation practice is vital for flexible duct systems.



Choosing the Right Fan to Comply

Fans cannot be selected on the basis of free-air performance only. Fans must now be selected on the basis of the complete installed system performance for a designated room as per the table below.

Room	Airflow Rate (min.)	
	Intermittent	Continuous
Toilet ¹⁾	25 l/s	10 l/s
Bathroom/shower	25 l/s	10 l/s
Laundry ²⁾	40 l/s	-
Kitchen	50 l/s	12 l/s

1) Toilets only require ventilation if they have no operable windows

2) Simx recommends 40 l/s for laundries with unvented non-condensing tumble dryers as covered in AS 1668: Part 2 2012

Recent unregulated extract fan practices in New Zealand has trended to basic, low pressure axial fan products, as installed system performance has not been defined for independent inspection testing and compliance signed off by local authorities.

Bathroom

25 l/s

		Metres of Ducting									
No. of Bends		1	2	3	4	5	6	7	8	9	10
	1										
	2										
	3										
	4										

Fan Selection

Hyper150 EC

Mixflo 150

Kitchen

50 l/s

		Metres of Ducting									
No. of Bends		1	2	3	4	5	6	7	8	9	10
	1										
	2										
	3										
	4										

Blue Jet

Installation Instructions

enquiry@manrose.co.nz | www.manrose.co.nz

Specifications are subject to change without notice

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**WALL FAN INSTALLATION AND ELECTRICAL CONNECTION MUST
BE CARRIED OUT BY A REGISTERED ELECTRICIAN**



CAUTION

- Before use, please check that the supply voltage and that of the appliance are the same (see product rating label).
- All wiring and wiring connections must comply with all current national wiring rules and regulations including AS/NZS3000:2017, or latest edition thereof.
- Any changes or modifications made or attempted to this product, without the prior written approval of the manufacturer, will void any and all stated warranties.
- This fan is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they are capable of, and have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the fan.
- In case of damage to the supply cord, switch off the device and do not tamper with it. Damaged supply cords must only be repaired or replaced exclusively by the manufacturer or by an appointed representative. Failure to comply with the above may endanger the safety of people and cause possible damage to the whole system.
- The fan is to be installed so that the blades are more than 2.1m above the floor.
- Precautions must be taken to avoid the back-flow of gases into the room from the open flue of gas or other fuel-burning appliances.



**BEFORE INSTALLING THE WALL FAN, MAKE SURE YOU HAVE TURNED OFF THE MAIN ELECTRICITY SUPPLY.
DO NOT TURN IT BACK ON UNTIL THE WALL IS FULLY INSTALLED AND READY TO USE.**



**ALL ELECTRICAL WORK MUST BE CARRIED OUT BY A REGISTERED ELECTRICIAN IN ACCORDANCE
WITH THE LATEST WIRING RULES AS/NZS3000.**

WARNING

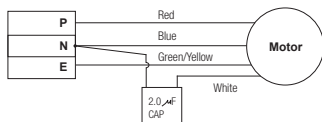
- This wall fan is hot when in use. To avoid burns, do not let bare skin touch hot surfaces. Keep combustible materials away from the fan and keep them away from the sides and rear.
- Do not use near or in the immediate vicinity of a bath or swimming pool or any wet areas.
- To protect against electric shock, do not immerse cord or plug in water or any other liquids.
- Do not insert or allow foreign objects to enter any ventilation openings, as this may cause an electric shock, fire or damage to the fan.
- Do not put fingers or foreign objects into the grille while in operation.
- Any changes or modifications made or attempted to this product, without the prior written approval of the manufacturer, will void any and all stated warranties.
- To prevent overheating of this fan, keep the air inlets and outlets clean and free of anything that may cause blockage. Check all inlets and outlets from time to time to ensure it is clear of any dirt or dust accumulation. DO NOT COVER.
- Do not use it in areas where gasoline, paint, or flammable liquids are used or stored.
- This product contains recyclable materials. Do not dispose of this product as unsorted council waste. Please contact your local council for the nearest collection point.

WIRING CONNECTIONS

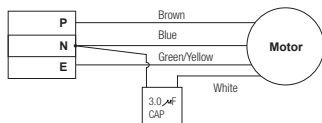
For axial fan models (no capacitor):
FAN2303



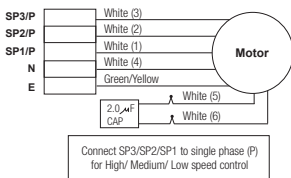
For centrifugal 190 fan models:
FAN2301



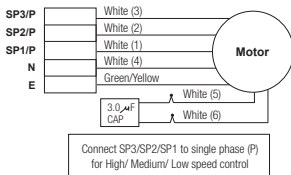
For centrifugal 220 fan models:
FAN2302



For centrifugal 190 (3 speed) fan models:
FAN2316



For centrifugal (3 speed) inline fan models:
FAN2317



INSTALLATION

1. Junction box (outside the building)

A suitable weather proof, UV resistant enclosure must be used and all fittings and terminations must comply with the relevant electrical wiring regulations. Note that for models incorporating a centrifugal fan, (FAN2301, FAN2302, FAN2316 and FAN2317) capacitor start motor, the enclosure will need to house the capacitor as well as the terminal connections. The minimum available space required will be 70mm x 50mm x 50mm. Ensure that all cable entries are properly sealed. Make permanent connections per the relevant wiring information on page 3.

NOTE: Junction box supplied is not suitable for external use (outside the building).

2. Junction box (inside the building)

For inside the building the motor lead gland hole is between the top fixing and the middle of the unit – allow enough lead to protrude from the duct as is required for termination. The motor lead has been terminated using a grommet to the outside of the base unit. The base unit assembly can now be placed in position in the wall penetration.

Once the assembly has been fastened to the wall, the electrical connections can be made. The junction box must be fastened to the inside of the building.

NOTE: Junction box supplied is suitable for internal use (inside the building).

3. The wall fan is suitable for external wall mount installations only.
4. Open the contents of the box and confirm it is all present.
5. To open the unit up carefully unscrew the two M4 screws and remove the star washers these will be required later in the installation, remove the front cover and carefully put to one side.
6. The duct is 150mm in diameter, if required use a 125mm -150mm reducer (not supplied) to fit other sizes of duct.
7. Ensure that there is sufficient space for the product to be installed and that the front cover can be removed for maintenance.
8. Confirm that the screws supplied are sufficient for the wall type (see Wall Dog performance data).
9. Using the template provided, mark the duct, electrical cable position and fixing holes centres on the wall.
10. Cut a 160mm diameter hole through the wall for the duct.
11. Drill the wall for relevant screw fixing and the cable location.
12. Locate the unit on the wall, feed the electrical cable through the wall and secure the semi rigid duct from the inside of the building to the inlet.
13. Ensure there are no sharp bends or too much slack in the duct, trim any excess.
14. Fit the foam sealing tape supplied to rear of the Back Plate. Run tape around the outside of the mounting holes, joint located at the bottom.
15. Apply tape on all duct joins and secure the duct to the inside of any cabinets or roof with a suitable strap; Secure the back plate into position using the screws provided (or alternative ones).
16. Ensure that the fan rotates ok and does not catch on any of the metal work.
17. Wire up the unit; use the white box provided and following the relevant wiring diagram below. Confirm that the fan operating correctly.
18. Before fixing the front cover on, seal any of the edges/joints or holes to ensure that the installation is watertight.
19. Fix the front cover on to the back plate, ensure that the open mesh is facing towards the bottom; the front cover clips over at the top and is secured at the bottom sides with the two screws and star washers from above.
(These are needed to earth the outside cover and it is important that when testing the unit you check for this).
20. Make the installation watertight using suitable sealants.
21. Switch the mains power supply on and check that the fan is operating correctly.

IMPORTANT: The unit must be checked for earth continuity at the two screw locations.

WALL DOG PERFORMANCE DATA

Ultimate and Allowable Load Capacities for Wall Dog in Normal Weight Concrete¹⁾

Anchor Diameter (mm)	Minimum Embedded Depth (mm)	Minimum Concrete Compressive Concrete Strength (27.6 MPa)			
		Ultimate Load		Allowable Load	
		Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)
6.4	19.1	1.6	4.6	0.4	1.2
	25.4	3.2	4.8	0.8	1.2

Ultimate and Allowable Load Capacities for Wall Dog in Normal Weight Concrete²⁾

Anchor Diameter (mm)	1/2" Wallboard		5/8" Wallboard		3/4" Wallboard	
	Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)
6.4	0.4	1.1	0.6	1.6	1.1	2.7

Ultimate and Allowable Load Capacities for Wall Dog in Wallboard and Plywood³⁾

Anchor Diameter (mm)	1/2" Wallboard		5/8" Wallboard		3/4" Wallboard	
	Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)
6.4	0.1	0.3	0.2	0.4	0.3	0.7

Ultimate and Allowable Load Capacities for Wall Dog in Grout-Filled, Hollow Concrete Masonry and Structural Brick Masonry⁴⁾

Anchor Diameter (mm)	Minimum Embedded Depth (mm)	Anchor Location	Grout Filled Concrete Masonry ASTM C 90		Hollow Concrete Masonry ASTM C 90		Brick Masonry	
			Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)
6.4	19.1	Centre of Masonry Unit	-	-	-	-	1.8	2.9
	19.1	T-Joint	-	-	-	-	1.6	2.7
	25.4	Centre of Masonry Unit	1.3	3.7	1.4	3.7	2.7	4.1
	25.4	T-Joint	1.3	4.1	1.3	4.1	1.7	3.7

Ultimate and Allowable Load Capacities for Wall Dog in Grout-Filled, Hollow Concrete Masonry and Structural Brick Masonry⁵⁾

Anchor Diameter (mm)	Minimum Embedded Depth (mm)	Anchor Location	Grout Filled Concrete Masonry ASTM C 90		Hollow Concrete Masonry ASTM C 90		Brick Masonry	
			Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)	Tension (kN)	Shear (kN)
6.4	19.1	Centre of Masonry Unit	-	-	-	-	0.4	0.6
	19.1	T-Joint	-	-	-	-	0.3	0.5
	25.4	Centre of Masonry Unit	0.2	0.7	0.3	0.7	0.5	0.8
	25.4	T-Joint	0.3	0.8	0.3	0.8	0.3	0.7

1) Allowable load capacities listed are calculated using an applied safety factor of 4.0.

2) The values listed above are ultimate load capacities which should be reduced by a minimum safety factor of 4.0 or greater to determine the allowable working load.

3) Allowable load capacities listed are calculated using an applied safety factor of 4.0.

4) The values listed above are ultimate load capacities which should be reduced by a minimum safety factor of 5.0 or greater to determine the allowable working load.

5) Allowable load capacities listed are calculated using an applied safety factor of 5.0.

Simx Warranty Information

In this warranty:

We means Simx;

You means the consumer of the Goods

Supplier means the authorised distributor or retailer that sold you the Goods in New Zealand or Australia; and

Goods means the Simx product accompanied by this warranty and purchased in New Zealand or Australia.

The benefits provided to you under the following warranty are in addition to any other rights and remedies available to you under the law:

1. If, during the time from the date of purchase (Warranty Period), there is a defect in the Goods due to improper workmanship or material, we will replace or repair the Goods without charge. Any replacement product is warranted only for the time remaining on the original Warranty Period.
2. We are not obliged to replace or repair the Goods under clause 1 if the Goods have been improperly stored, installed, connected, used, operated, repaired, damaged, abused, tampered with, altered (without our written approval), or not maintained in accordance with our recommended installation, connection and operating instructions.
3. We exclude liability for:
 - a) consequential loss or any other loss or damage caused to property or persons arising from any cause whatsoever;
 - b) damage to consumable items such as lamps and starters; and
 - c) damage arising from normal wear and tear.
4. In order to claim under this warranty you must, within the Warranty Period, return the Goods to the Supplier, together with the original proof of purchase including the details below:

Supplier Name _____

Date of Purchase _____

Model Number _____

Invoice/Receipt No. _____

5. This warranty does not cover the cost of claiming under the warranty or transporting the Goods to and from the Supplier.

Our Goods come with guarantees that cannot be excluded under the New Zealand and Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the Goods repaired or replaced if the Goods fail to be of acceptable quality and the failure does not amount to a major failure.

To speak to someone about your Simx product or claiming under this warranty, please contact:

Simx Ltd New Zealand

p: +64 9 259 1660 f: +64 9 259 1661

www.simx.co.nz