

Xpelair Simply Silent™ LV100 SELV Fan

Installation and Maintenance Instructions

LV100R (93011AW) / LV100S (93031AW)

LV100TR (93012AW) / LV100TS (93032AW)

LV100PR (93013AW) / LV100PS (93033AW)

LV100HTR (93014AW) / LV100HTS (93034AW)

LV100HPTR (93015AW) / LV100HPTS (93035AW)

LV100PIRR (93016AW) / LV100PIRS (93036AW)

Standard

Timer

Pull Cord

Humidistat, Timer

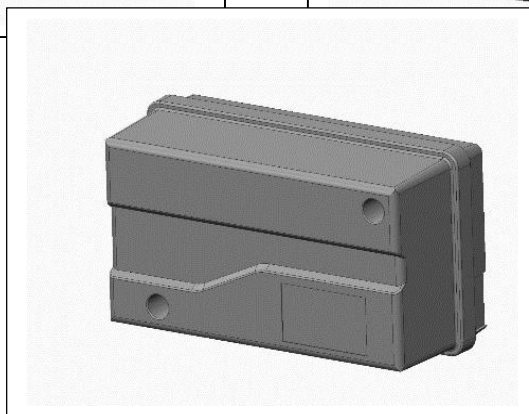
Humidistat, Pull Cord, Timer

Integral Body Movement Sensor

LV100 Range Round Fan



LV100 Range Square Fan



- Do read the entire instruction leaflet before commencing installation.
- Do install each fan with a means for disconnection in all poles in the fixed wiring.
- Do make sure the mains supply is switched off before attempting to make electrical connections or carry out any maintenance or cleaning.

Please leave this leaflet with the fan for the benefit of the user.

UK customers:

If you have any queries before or after installing this product call the Xpelair Technical Hotline +44 (0) 344 879 3588 or email customer.services@glendimplex.com Our engineers are there to help you during normal office hours. Customers outside the UK should contact your local Xpelair distributor.



This appliance is intended for connection to fixed wiring.

Check that the electrical rating shown on each fan matches the mains supply.

THE APPLIANCE IS DOUBLE INSULATED AND DOES NOT REQUIRE AN EARTH CONNECTION.

All installations must be supervised by a qualified electrician. Installations and wiring must conform to current IEE Regulations (UK), local or appropriate regulations (other countries).

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning the use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and maintenance of the appliance shall not be made by children.



All Xpelair Simply Silent™ LV100 AC fans have the following features:

- Two speed extraction (selectable at installation)
- 12V a.c. operation

LV100R/LV100S

LV100TR/LV100TS*

LV100PR/LV100PS

LV100HTR/LV100HTS*

- Operate the fan using an on/off switch (not supplied).

- Built-in timer operates fan for a pre-set delay from 30 seconds to 30 minutes.

- Operate the fan using an integral pull-cord.

- Operates when triggered automatically by the integral humidity sensor.

The built-in timer automatically operates the fan for a pre-set delay time from 30 seconds to 30 minutes once humidity drops below the pre-set Relative Humidity (RH) value.

LV100HPTR/LV100HPTS*

- Operates when triggered automatically by the integral humidity sensor, or by using the integral pull cord switch.

In automatic mode: the built-in timer automatically operates the fan for a pre-set delay time from 30 seconds to 30 minutes once humidity drops below the pre-set Relative Humidity (RH) value.

External operation: When switched off after using integral pull cord switch the fan continues to run for the pre-set delay from 30 seconds to 30 minutes.

LV100PIRR/LV100PIRS*

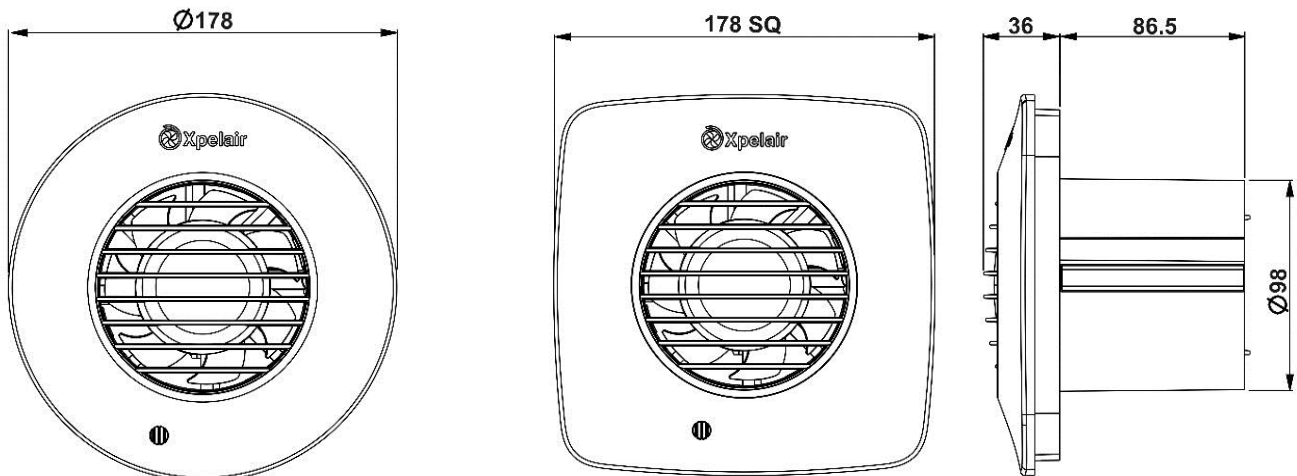
- An integral body movement sensor operates the fan as long as movement is detected. Built-in timer automatically operates fan for a pre-set delay of up to 20 minutes.

TRANSFORMER

- Provides safety insulated supply for LV100 fan range.

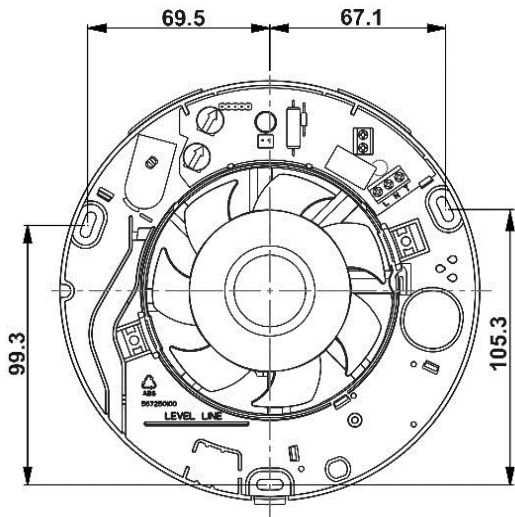
* **Factory settings:** Timer 15 minutes, RH 75%

Overall Dimensions (mm)

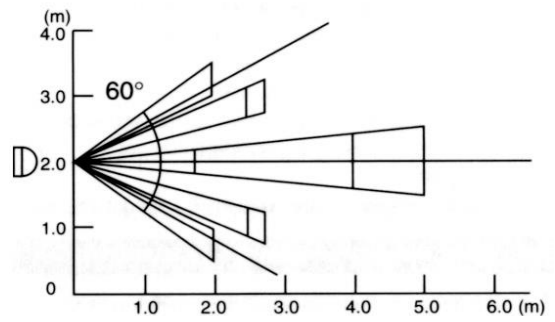
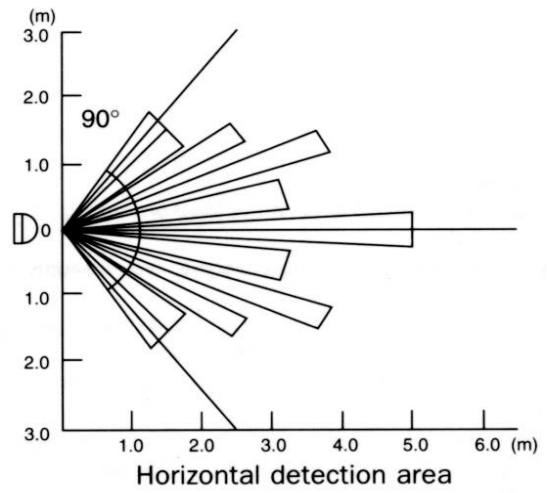


Back plate fixing positions

A

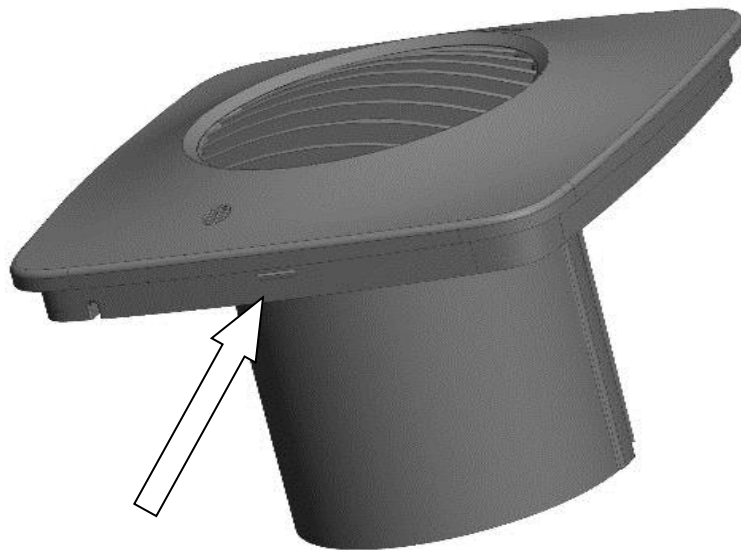


B

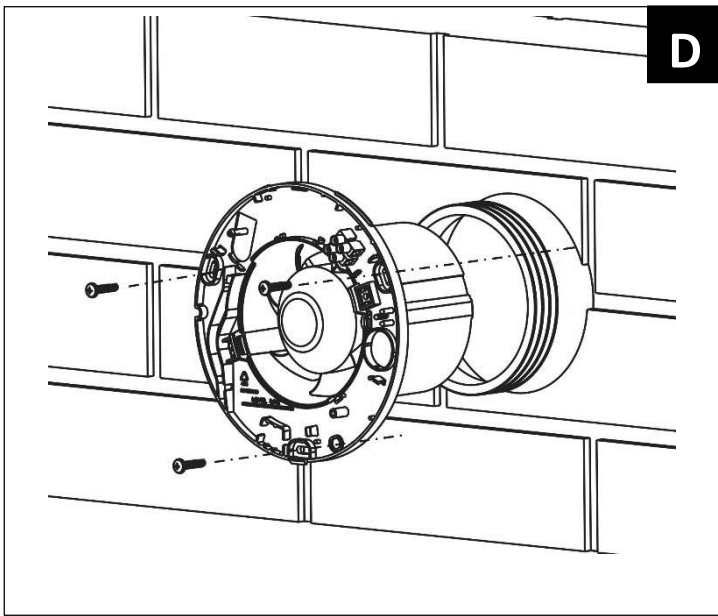


Front Cover Removal

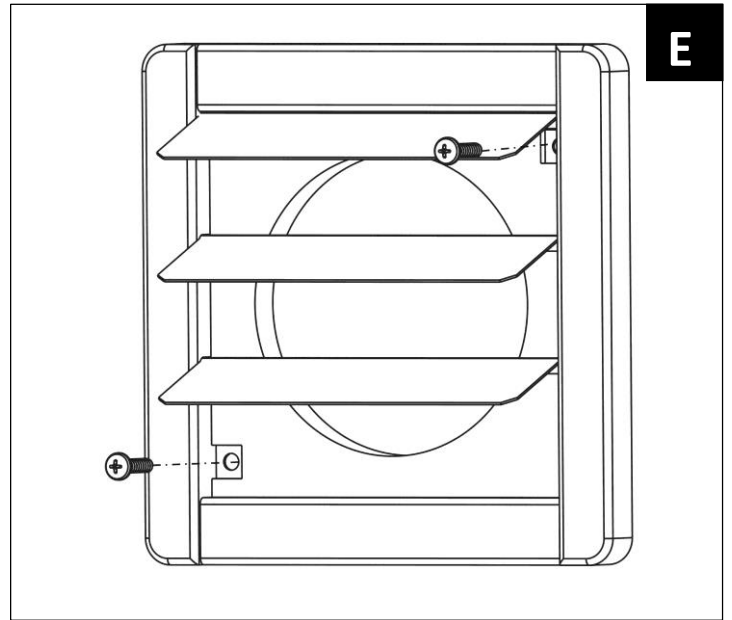
C



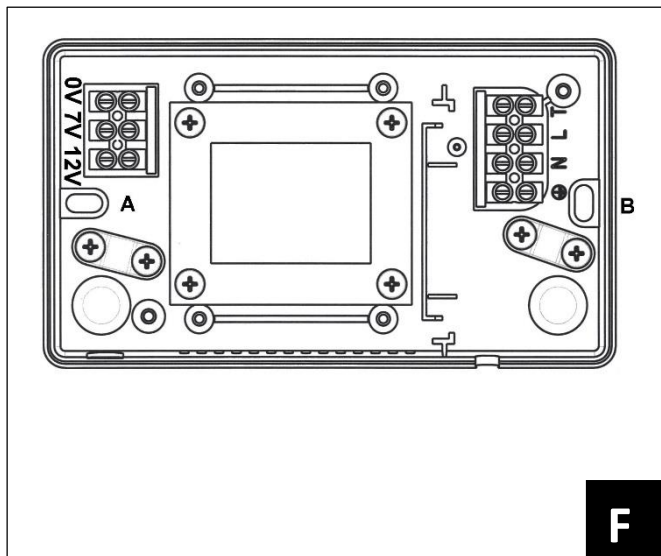
Depress Cover Latch with tool & remove Cover



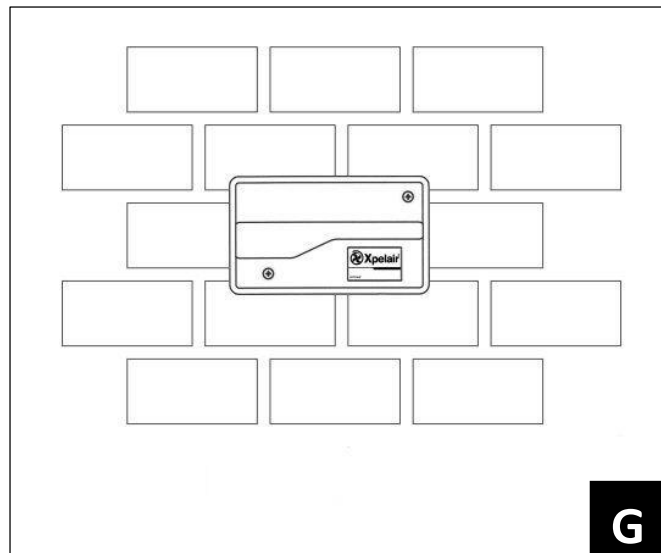
D



E



F



G

H

IMPORTANT - PLEASE READ

Adjusting the humidity setting

Fan switches on at lower level of condensation (anti-clockwise)

MORE SENSITIVE
(RH = 50%)

Fan does not switch on until higher level of condensation (clockwise)

LESS SENSITIVE
(RH = 95%)

Factory settings: Timer 15 minutes, RH 75%

Adjusting the run on timer setting

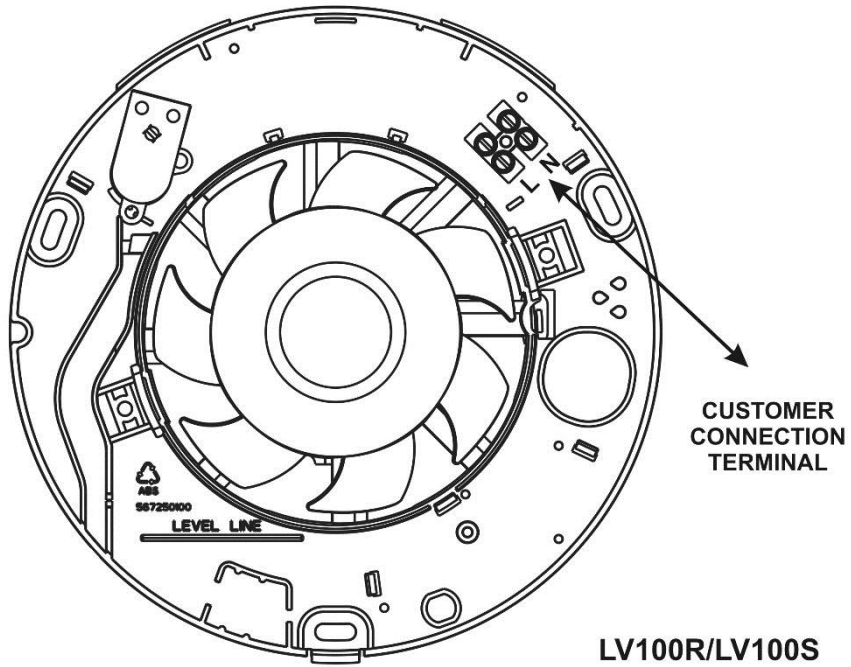
Fan runs on for a shorter time when the external switch is turned off

Fan runs on for a longer time when the external switch is turned off

Minimum 30 seconds

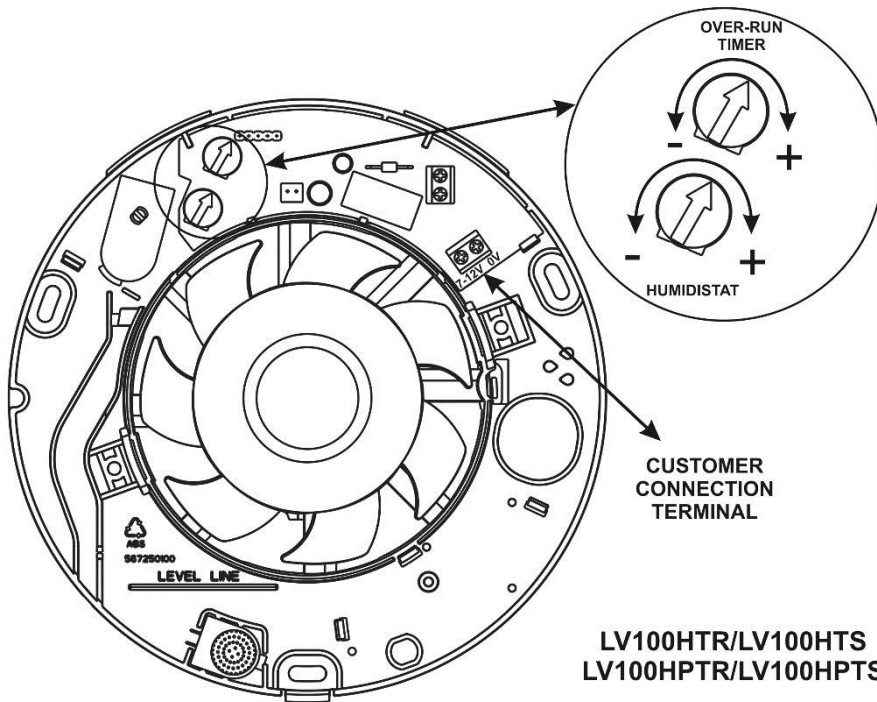
Maximum 30 minutes

Wiring and setting up



CUSTOMER CONNECTION TERMINAL

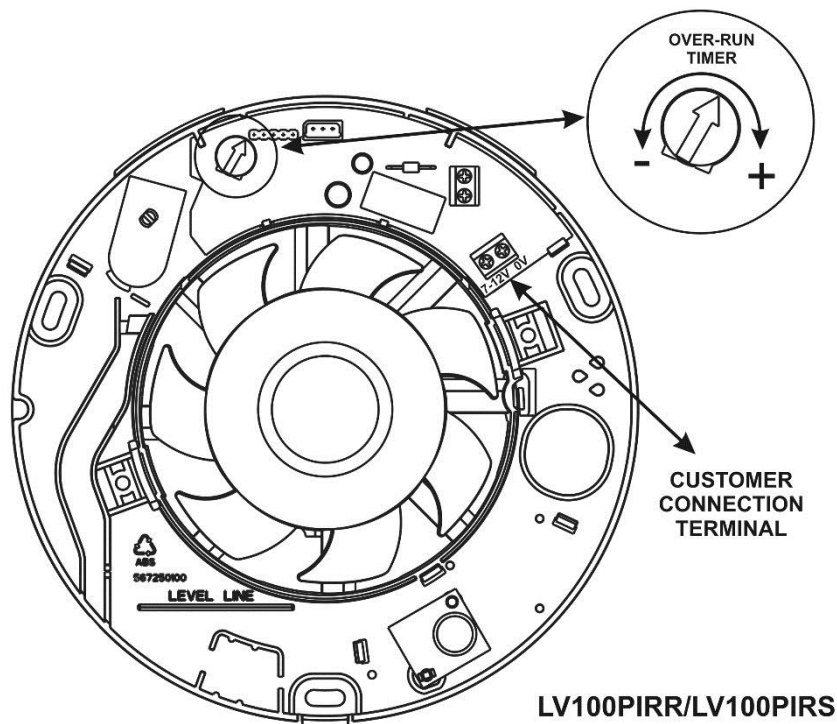
LV100R/LV100S
LV100PR/LV100PS
LV100TR/LV100TS



CUSTOMER CONNECTION TERMINAL

LV100HTR/LV100HTS
LV100HPTR/LV100HPTS

Wiring and setting up



LV100PIRR/LV100PIRS



Where to locate the fan.

- Locate it as high as possible.
- At least 110mm from the edges of the mounting surface to the centre of the hole.
- As far away as possible from and opposite to the main source of air replacement to ensure airflow across the room (e.g. opposite the internal doorway).
- Near the source of steam or odours.



- **Not where ambient temperatures are likely to exceed 50°C.**
- **If installed in a kitchen fans must not be mounted immediately above a cooker hob, or eye level grill.**
- **If installing in a room containing a fuel burning device which has a non-balanced flue, it is the installer's responsibility to ensure that there is enough replacement air to prevent fumes being drawn down the flue when the fan is operating up to maximum extract. Refer to Building Regulations for specific requirements.**

Exhaust air must not be discharged into a flue used for exhausting of fumes from appliances supplied with energy other than electric. Requirements of all authorities concerned must be observed for exhaust air discharge and intake flow rates.

- **Not suitable for use in possible chemical corrosive atmospheres.**
- **LV100PIRR / LV100PIRS Only – Siting must ensure detection of movement. Care should be taken to avoid obstruction that may affect detection beams – See Figure B.**

Transformer.

- In a loft or any convenient position on a wall (not suitable for ceiling mounting). **The transformer must not be covered by loft insulation.**
- **When wall mounting, the transformer must be oriented as shown in diagram G to fulfil ingress protection requirements**
- Not within 0.6m of a bath or shower cubicle, up to a height of 2.25m
- **Not where ambient temperatures are likely to exceed 40°C**



What the installer will need.

- 3mm electrician's screwdriver and No.1 or 2 Pozidrive screwdrivers.

Installation

If wall mounting the fan, you will also need:

- A 100mm diameter prepared hole.
- An appropriate external Wall Grille and Ø100mm wall sleeve duct (supplied). Cut ducting to correct length if required. The wall tube supplied is telescopic and can be extended to 300mm maximum.

If ceiling mounting the fan, you will also need:

- A 100mm diameter prepared hole.
- A 100mm diameter prepared hole for the external grille, ideally positioned to allow condensation to run away from the first bend in the duct towards the external grille.
- Appropriate ancillaries for termination. These items are available from Xpelair:
 1. 3m flexible ducting Ref: 89663AA. If the duct passes through a cold space use insulated duct ref: 89847AA.
 2. Soffit Grille Ref: 89742AW.

Installing the isolating switch and cables.



A means for disconnection in all poles must be incorporated in the fixed wiring in accordance with wiring regulations

- **If metal switch boxes are used, earthing regulations must be followed.**
- Suitably rated 2-core cable (wiring from transformer to fan)

Guidelines for maximum cable run between the transformer and fan.

1. Limited to 0.3 volts drop, corresponding to 1.5% reduction in fan performance.

Conductor size (mm ²)	Flexible		Fixed	
	0.75	1.00	1.50	2.50
Recommended max cable run (m)	4.50	6.00	9.00	15.00

2. Limited to 0.5 volts drop, corresponding to 3% reduction in fan performance.

Conductor size (mm ²)	Flexible		Fixed	
	0.75	1.00	1.50	2.50
Recommended max cable run (m)	7.50	10.00	15.00	25.00

- Suitably rated 2 core cable (supply to transformer) LV100R, LV100S, LV100PR, LV100PS, LV100HTR, LV100HTS, LV100HPTR, LV100HPTS, LV100PIRR, LV100PIRS
- Suitably rated 3 core cable (supply to transformer) LV100TR, LV100TS

1. **Check that the electrical rating shown inside the back-plate matches your mains supply.**
2. **Check there are no buried pipes or cables e.g. electricity, gas, water behind the switch location (in the wall or above the ceiling). If in doubt, seek professional advice.**
3. **Isolate the mains supply.**
4. Lay in the cable from the isolating switch to the transformer location via the on/off switch (if required).
5. Lay in the cable from the transformer to the fan location.
6. Lay in the cable from the isolating switch to the point of connection to the mains supply.



Warning: Do not make any connections to the electrical supply at this stage.

7. Install the isolating switch and on/off switch (if required).
8. Make all connections within the isolating switch and the on/off switch (if required).



Wet Rooms: On/Off switch must be situated so that it cannot be touched by persons making use of the bath or shower.

For Australia Only – LV100R / LV100S / LV100PR / LV100PS / LV100PIRR / LV100PIRS

Connection to the supply can be made by a flexible 2-core cable complete with 3 pin plug for insertion into an approved 10A GPO or directly wired through an approved 10A wall mounted surface switch with at least 3mm clearance between contacts.

For Australia Only –LV100TR / LV100TS / LV100HTR / LV100HTS / LV100HPTR / LV100HPTS

These models are permanently connected to the supply and operation is controlled by a remote switch. They should be directly wired to the supply through an approved 10A wall mounted surface switch with at least 3mm clearance between contacts.

Preparing the Fan for installation.

1. Remove the front cover by depressing the latch on the underside of the cover and pulling off the front cover from the bottom (See Figure C).



If working above ground floor level, safety precautions must be observed.

Mark the position of the back-plate

2. Hold the back-plate so that the level line marked on it is orientated horizontally.
3. Carefully insert the fan tube into the wall duct.
4. Mark on the wall the positions of the fixing holes in the back-plate.
5. Remove the back plate from the ducting.
6. Drill screw holes in these positions if necessary, and fit wall plugs and screws as required.



If installing in a ceiling, appropriate termination ancillaries are required. Follow instructions provided.

Mount the back-plate.

7. Push the ribbed gasket onto the duct section of the back plate (see Figure D).
8. Push the larger diameter piece of the telescopic wall tube onto the ribbed gasket. Cut the tube to the required size first if necessary.
9. Feed the mains cable through the cable entry hole in the back plate to the terminals.
10. Insert the fan tube into the wall duct/ceiling as before.
11. Fasten the back-plate to the wall/ceiling using appropriate fasteners supplied. See figure A.
12. If using screws, do not over tighten.

Mount the back draft shutter

13. Peel the backing from the foam strip supplied and attach it around the outside lip on the backdraft shutter.
14. Go outside. Holding open the top and bottom vanes insert the lip into the wall duct.
15. Making sure that the back draft shutter is level, mark the positions of the two fixing holes in the top right hand and bottom left hand corners.
16. Remove the back draft shutters from the wall duct.
17. Drill screw holes in marked positions and fit the remaining wall plugs.
18. Holding open the top and bottom vanes, refit the back draft shutter and fasten it to the wall using the screws. Do not overtighten screws.
19. Make sure that the vanes open and shut fully.

Mounting the transformer (Figure F)

The transformer can be fixed directly to the wall.

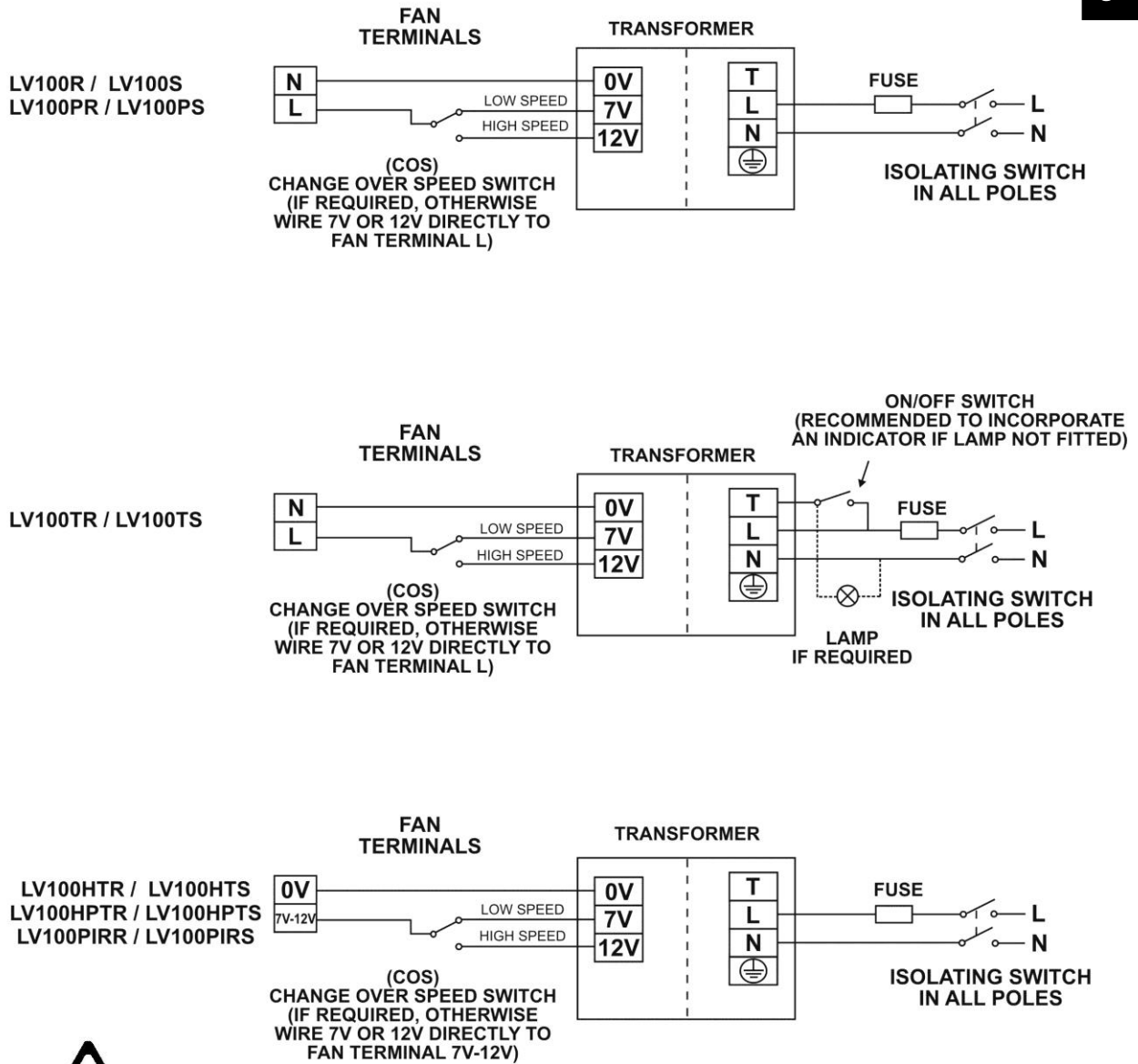
When wall mounting, the transformer must be orientated as shown in Figure G to fulfil ingress protection requirements.

20. Remove the screws securing the cover, remove the cover.
21. Position the transformer on the wall and mark the two fixing holes 'A' and 'B'.
22. Drill and plug the two holes and fix the transformer to the wall.

THE TRANSFORMER MUST NOT BE COVERED BY LOFT INSULATION

Wire the electrical connections.

23. Make sure the mains supply is isolated. Switch off the mains electrical supply and remove fuses.
24. Feed the cable to the terminal block. Wire the fan as shown in Figure J using the diagram appropriate to the fan model.
25. Connect the cable from the isolating switch to the electrical supply wiring.



For fixed wiring circuits the protective fuse for the appliance must not exceed 5A

Fan Settings.

SPEED SETTING

Fan speed is determined by the wiring on the Low Volt side of the transformer. Wire the 7-12V fan connection to the 7V terminal on the transformer for low speed, or the 12V transformer terminal for high speed. Alternately the fan can be wired with a change-over switch (as shown above – Fig. J) to allow speed to be changed after installation.

LV100TR / LV100TS / LV100PIRR / LV100PIRS only.

- To adjust the over-run period turn the control (T) clockwise to increase and anti-clockwise to decrease – see Figure H.

LV100HTR / LV100HTS / LV100HPTR / LV100HPTS only – see figures H and I.

- The pre-set humidity operation is factory set at approximately 75% Relative Humidity (RH), but can be adjusted between 65% and 85% RH by control H.
- The over-run timer is factory set at 15 minutes but can be adjusted from 30 seconds to 30 minutes by control T.
- Turn the controls clockwise to increase RH or time and anti-clockwise to decrease.

Wire the Transformer

MAKE SURE THE MAINS SUPPLY IS ISOLATED

26. If surface mounting, route Low Volt (7V/12V ac) and mains supply cables through the appropriate knockouts into their respective compartments. When using the side entries a hole suitable for the cable size should be made centrally in the rectangular section.
27. Locate the cables in the cable clamps and make connections as shown in J. Ensure all connections are tight.
- 28. For fixed wiring circuits the protective fuse for the appliance must not exceed 5A.**
29. Re-fit fuses and switch on supply.

Using the fan.

LV100R / LV100S Only

- Operate the fan using the on/off switch (not supplied). Repeat to switch off.

LV100TR / LV100TS Only

- Operate the fan using an on/off switch (not supplied). Note – the fan may take up to 10 seconds to turn on once the switch has been operated. When the switch is turned off, the fan continues to operate for the set time delay. To adjust the over-run period, turn the transformer control “T” clockwise to increase and anti-clockwise to decrease – see Figure H.

LV100PR / LV100PS Only

- Operate the fan by pulling and releasing the cord. Repeat to switch off.

LV100HTR / LV100HTS Only.

- The fan automatically adjusts to slow changes in natural humidity levels without operating the fan. If the humidity levels increase at a rate slower than 5% RH in 5 minutes, up to the pre-set humidity level, the fan will not be triggered by humidity. This is to prevent nuisance triggering of the fan. If humidity levels increase quicker than 5% RH in 5 minutes the fan will operate. When relative humidity drops the fan continues to operate for the adjustable time delay.

LV100HPTR / LV100HPTS Only.

- **Automatic mode** - The fan automatically adjusts to slow changes in natural humidity levels without operating the fan. If the humidity levels increase at a rate slower than 5% RH in 5 minutes, up to the pre-set humidity level, the fan will not be triggered by humidity. This is to prevent nuisance triggering of the fan. If humidity levels increase quicker than 5% RH in 5 minutes the fan will operate. When relative humidity drops the fan continues to operate for the adjustable time delay.
- **Pull Cord operation** – Use the integral pull cord switch. When the fan is switched off, the fan continues to operate for the adjustable time delay then goes into automatic mode.

LV100PIRR / LV100PIRS Only.

- The sensor detects movement in the room and activates the fan. When movement is sensed, the fan will run for a pre-set overrun period and any further movement sensed will re-start the sequence. This ensures that the room is only ventilated during and immediately after use. When the fan is first installed it will run for the time set by the over-run timer. After this time, if no movement is sensed the fan will go into stand-by mode.

All Fans

Re-fit the front cover by hooking in the top first, and then swing the cover down to clip into place.

Cleaning (recommended once a month).

1. Before cleaning, isolate the fan completely from the mains supply.
2. The fan should be periodically wiped clean in position with a damp, lint free cloth and mild detergent.
3. Do not immerse the fan in water or other liquids to clean any other parts of the fan.
4. Do not use strong detergents, solvents or chemical cleaners
5. Allow fan to dry thoroughly before use.
6. Apart from cleaning, no other maintenance is required.



Disposal

This product should not be disposed of with household waste.
Please recycle where facilities exist.
Check with your local authority for recycling advice.

This page has been left blank for the addition of any notes you may wish to make.

UK only:

Xpelair products deliver reliable service for normal, household use in domestic settings. All Xpelair products are individually tested before leaving the factory.

If you are a consumer and you experience a problem with your Xpelair product, which is found to be defective due to faulty materials and workmanship within the warranty period, This Xpelair warranty will cover repair or at the discretion of Xpelair replacement with a functionally equivalent Xpelair Product.

The Xpelair warranty period is Two calendar years from the date of purchase of your Xpelair product, or the date of delivery of the product, if later. The Xpelair warranty is conditional upon you providing the original purchase receipt proof of purchase. Please therefore retain your receipt as proof of purchase.

If you do experience a problem with your Xpelair product please call the helpline on **+44 (0)344 879 3588** or at the address below. We will need details of your Xpelair product, and a description of the fault which has occurred. Once we receive your information and proof of purchase we will contact you to make the necessary arrangements.

Customers outside UK - See International below.

If your Xpelair product is not covered by this Xpelair warranty there may be a charge to repair your product. However, we will contact you for an agreement to any charges before any chargeable service is carried out.

What is not covered by an Xpelair warranty?

The Xpelair warranty does not cover any of the following:

Any fault or damage to your Xpelair product due to faulty materials or workmanship occurring outside the Two year warranty Period.

Any fault or damage occurring to any pre-owned Xpelair product or to any other equipment or property.

Accidental damage to your Xpelair product or damage to your Xpelair product from external sources (for example, transit, weather, electrical outages or power surges).

Fault or damage to your Xpelair product which is:

Not due to faulty materials or workmanship or which is due to circumstances outside Xpelairs control.

Caused by use of your Xpelair product for anything other than normal domestic household purposes in the country where it was purchased.

Caused by any misuse, abuse or neglect use of the Xpelair product, including but not limited to any failure to use it in accordance with the Operating Instructions supplied with the product.

Caused by any failure to assemble, install, clean and maintain your Xpelair product in accordance with th Operating Instructions supplied with the product unless this was carried out by Xpelair or its authorised dealers.

Caused by repairs or alterations to your Xpelair product not carried out by Xpelair service personnel or its authorised dealer(s).

Caused by use of any consumables or spare parts for your Xpelair product which are not Xpelair specified.

Terms and Conditions

The Xpelair warranty is valid for Xpelair from the date of purchase of your Xpelair product from a recognised retailer in the country of purchase and use, or the date of delivery of the product if later, always provided the original receipt has been retained and is produced as proof of purchase.

You must provide to Xpelair or its authorised agents on request the original receipt as proof of purchase and - if required by Xpelair - proof of delivery. If you are unable to provide this documentation, you will be required to pay for any repair work required.

Any repair work under the Xpelair warranty will be carried out by Xpelair or its authorised dealer(s) and any parts that are replaced will become the property of Xpelair. Any repairs performed under the Xpelair warranty will not extend the warranty period.

Any replacement of your Xpelair product by Xpelair during the warranty period will start the Two year warranty period afresh from the date of delivery of the replacement Xpelair product to you.

The Xpelair warranty does not entitle you to recover of any indirect or consequential loss or damage including but not limited to loss or damage to any other property.

The Xpelair warranty is in addition to your statutory rights as a consumer and your statutory rights are not affected by this Xpelair warranty.

Contact Xpelair

If you have any questions about what the Xpelair warranty covers and does not cover or how to claim under Xpelair warranty, please contact us using the information below.

Contact details

Glen Dimplex UK Ltd,
Millbrook House, Grange Drive, Hedge End, Southampton, SO30 2DF
Telephone: +44 (0) 344 879 3588
Email: customer.services@glendimplex.com
Web: www.xpelair.co.uk

Glen Dimplex Europe Limited,
Airport Road, Cloghran, Co. Dublin, K67 VE08.
Telephone: +353 (0)1 8523400
Email: serviceireland@glendimplex.com

International

Warranty: Contact your local distributor or Xpelair direct for details.

Technical advice and service: Contact your local Xpelair distributor.

Xpelair: A brand of Glen Dimplex Heating and Ventilation

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For electrical products sold within the European Community. At the end of the electrical products useful life it should not be disposed of with household waste. Please recycle where facilities exist. Check with a Local Authority or retailer for recycling advice in your country. Batteries should be disposed of or recycled in accordance with WEEE Directive 2012/EU. Packaging should be recycled where possible.



FM02118 ISO 9001: 2000

GlenDimplex
HEATING & VENTILATION

Part No: 25410AA
(Revision C)